



# **Peace Airshed Zone Association**

## **Ambient Air Monitoring Network Summary**

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

July 30<sup>th</sup>, 2014

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

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

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

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

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

<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: Eight (8) Stations including Henry Pirker (Grande Prairie), Evergreen Park, Smoky Heights, Beaverlodge, Valleyview, Falher, Portable-Reno and Portable-Clairmont.**

During the month of **June** 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 June.

**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 June.

**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 June.

**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 June with the exception of the PM<sub>2.5</sub> analyzer, which experienced equipment failure. Replacement parts delivered June 19<sup>th</sup> and analyzer returned to service June 20<sup>th</sup>. **AE Reference #286016**

**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 June.

**Reno Station:**

- ◆ The measured ambient air quality was within the AAAQO for the Reno station.
- ◆ All analyzers and sensors at the Reno station had an operational uptime greater than 90% for the month of June.
- ◆ Station ended service at this location on June 19<sup>th</sup> and was relocated to Clairmont.

**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 June.

**Clairmont Station:**

- ◆ The measured ambient air quality was within the AAAQO for the Reno station.
- ◆ All analyzers and sensors at the Reno station had an operational uptime greater than 90% for the month of June.
- ◆ Station was relocated to this site on June 19<sup>th</sup>, allowed to stabilize overnight and began service on June 20<sup>th</sup>.

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

There were five duplicate sites sampled in the month of June: Woking, Pinto Creek, Wapiti, Puskwaskau, and Girouxville 4. The passive sample analyses were performed by MAXXAM Analytics Inc.

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

- Monthly average concentrations for SO<sub>2</sub> passives ranged from 0.1 ppb to 0.3 ppb, with a mean of 0.2 ppb.
- Monthly average concentrations for NO<sub>2</sub> passives ranged from 0.2 ppb to 4.3 ppb, with a mean of 1.2 ppb.
- Monthly average concentrations for O<sub>3</sub> passives ranged from 21.2 ppb to 39.4 ppb, with a mean of 30.2 ppb.
- Monthly average concentrations for H<sub>2</sub>S ranged from 0.1 ppb to 0.2 ppb, with a mean of 0.2 ppb.

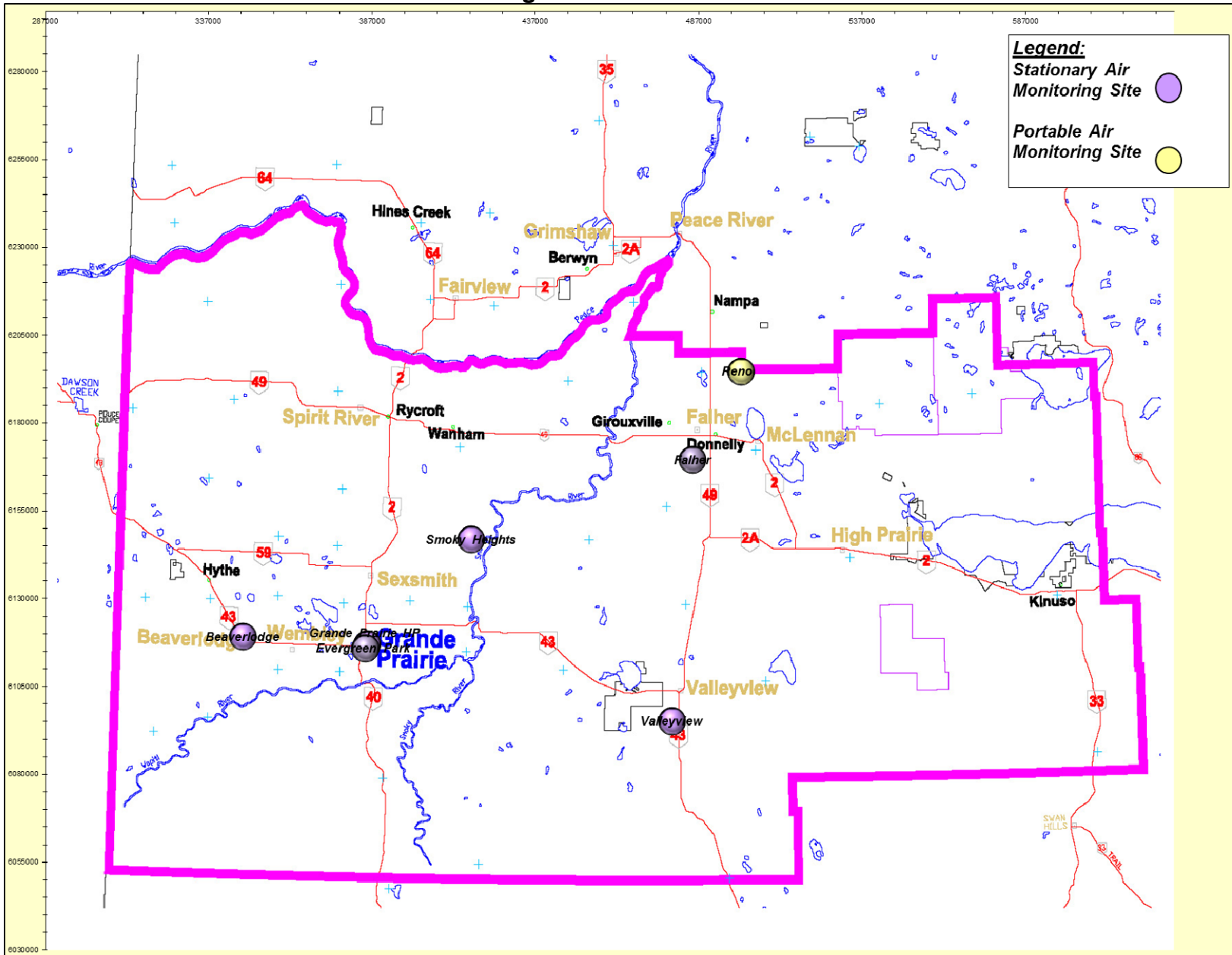
If you have any questions or concerns, please contact Patrick Andersen at 403.505.1041 or the PAZA office at 780.833.4343.

On Behalf of the  
Peace Airshed Zone Association



Patrick Andersen, B.Sc.  
Program Manager

# Location of PAZA Continuous Monitoring Stations



## PAZA Monthly Continuous Data Summary

Jun-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	0.1	0	0	4.2	Jun-05 08:00	0.6	Jun-05	100%
SO <sub>2</sub> (ppb)	172	48	Evergreen Park	0.2	0	0	12.2	Jun-04 12:00	1.4	Jun-04	100%
SO <sub>2</sub> (ppb)	172	48	Smoky Heights	0.2	0	0	4.8	Jun-21 23:00	0.5	Jun-03	100%
SO <sub>2</sub> (ppb)	172	48	Beaverlodge	0.1	0	0	2.6	Jun-26 23:00	0.3	Jun-07	100%
SO <sub>2</sub> (ppb)	172	48	Valleyview	0.6	0	0	36.8	Jun-09 09:00	3.9	Jun-09	100%
SO <sub>2</sub> (ppb)	172	48	Reno	0.1	0	0	2.0	Jun-08 02:00	0.3	Jun-13	100%
SO <sub>2</sub> (ppb)	172	48	Falher	0.1	0	0	3.1	Jun-27 10:00	0.4	Jun-12	99%
SO <sub>2</sub> (ppb)	172	48	Clairmont	0.4	0	0	6.7	Jun-24 11:00	1.1	Jun-21	100%
NO (ppb)			Henry Pirker	0.9	0	0	16.9	Jun-17 08:00	2.9	Jun-19	100%
NO <sub>2</sub> (ppb)	159	106	Henry Pirker	4.5	0	0	21.0	Jun-12 07:00	7.5	Jun-13	100%
NO <sub>x</sub> (ppb)			Henry Pirker	5.4	0	0	34.9	Jun-12 07:00	10.3	Jun-19	100%
NO (ppb)			Beaverlodge	0.4	0	0	13.1	Jun-22 07:00	1.4	Jun-22	100%
NO <sub>2</sub> (ppb)	159	106	Beaverlodge	2.0	0	0	16.7	Jun-27 14:00	4.2	Jun-27	100%
NO <sub>x</sub> (ppb)			Beaverlodge	2.4	0	0	21.7	Jun-27 14:00	5.3	Jun-27	100%
NO (ppb)			Reno	0.9	0	0	14.9	Jun-19 03:00	1.3	Jun-01	100%
NO <sub>2</sub> (ppb)	159	106	Reno	3.7	0	0	21.9	Jun-19 03:00	5.7	Jun-01	100%
NO <sub>x</sub> (ppb)			Reno	4.6	0	0	37.1	Jun-19 03:00	7.0	Jun-01	100%
NO (ppb)			Clairmont	0.9	0	0	11.3	Jun-27 07:00	1.8	Jun-22	100%
NO <sub>2</sub> (ppb)	159	106	Clairmont	3.6	0	0	18.2	Jun-21 23:00	5.0	Jun-07	100%
NO <sub>x</sub> (ppb)			Clairmont	4.6	0	0	23.1	Jun-21 23:00	6.7	Jun-22	100%
O <sub>3</sub> (ppb)	82		Henry Pirker	27.9	0	-	52.4	Jun-13 16:00	35.5	Jun-23	100%
O <sub>3</sub> (ppb) - 8-hr			Henry Pirker		0				48.5	Jun-11	
O <sub>3</sub> (ppb)	82		Beaverlodge	30.1	0	-	52.9	Jun-13 17:00	39.9	Jun-12	100%
O <sub>3</sub> (ppb) - 8-hr			Beaverlodge		0				47.0	Jun-23	
O <sub>3</sub> (ppb)	82		Reno	29.6	0	-	55.8	Jun-12 17:00	42.0	Jun-12	100%
O <sub>3</sub> (ppb) - 8-hr			Reno		0				53.3	Jun-12	
O <sub>3</sub> (ppb)	82		Clairmont	26.6	0	-	49.2	Jun-23 19:00	36.7	Jun-23	100%
O <sub>3</sub> (ppb) - 8-hr			Clairmont		0				46.3	Jun-23	
CO (ppm)	13		Henry Pirker	0.17	0	-	0.5	Jun-12 06:00	0.2	Jun-02	100%
CO (ppm) - 8-hr		5	Henry Pirker		0				0.3	Jun-08	



## PAZA Monthly Continuous Data Summary – continued

Jun-2014		Peace Airshed Zone Association					Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
THC (ppm)			Henry Pirker	1.8	-	-	2.7	Jun-18 06:00	2.1	Jun-02	99%
CH <sub>4</sub> (ppm)			Henry Pirker	1.8	-	-	2.7	Jun-18 06:00	2.1	Jun-02	99%
NMHC (ppm)			Henry Pirker	0.0	-	-	0.0	Jun-23 14:00	0.0	Jun-26	99%
THC (ppm)			Reno	2.01	-	-	2.3	Jun-02 02:00	2.1	Jun-06	100%
THC (ppm)			Clairmont	2.14	-	-	3.0	Jun-27 06:00	2.2	Jun-27	100%
TRS (ppb)			Henry Pirker	0.2	-	-	1.1	Jun-14 06:00	0.3	Jun-23	100%
TRS (ppb)			Evergreen Park	0.3	-	-	2.0	Jun-14 02:00	0.5	Jun-13	100%
TRS (ppb)			Smoky Heights	0.1	-	-	2.7	Jun-22 04:00	0.3	Jun-22	100%
TRS (ppb)			Reno	0.3	-	-	0.8	Jun-11 07:00	0.5	Jun-12	100%
TRS (ppb)			Clairmont	0.3	-	-	2.0	Jun-27 06:00	0.5	Jun-30	100%
H <sub>2</sub> S (ppb)	10	3	Valleyview	0.2	0	0	2.5	Jun-19 06:00	0.5	Jun-19	100%
H <sub>2</sub> S (ppb)	10	3	Falher	0.2	0	0	2.6	Jun-23 07:00	0.5	Jun-23	99%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Henry Pirker	5.1	0	0	50.4	Jun-01 00:00	10.2	Jun-24	100%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Evergreen Park	3.9	0	0	40.4	Jun-04 17:00	9.8	Jun-24	99%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Smoky Heights	3.4	0	0	48.2	Jun-03 22:00	10.2	Jun-03	99%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Beaverlodge	3.2	0	0	10.0	Jun-27 15:00	5.3	Jun-27	18%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Reno	2.1	0	0	12.4	Jun-03 19:00	5.2	Jun-03	100%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Clairmont	3.1	0	0	24.2	Jun-28 00:00	6.8	Jun-27	99%
RH (%)			Henry Pirker	55.9	-	-	91.2	Jun-14 07:00	74.1	Jun-10	100%
RH (%)			Evergreen Park	59.9	-	-	98.8	Jun-14 09:00	79.4	Jun-10	100%
RH (%)			Beaverlodge	62.8	-	-	100.0	Jun-11 03:00	85.9	Jun-10	100%
RH (%)			Valleyview	65.8	-	-	100.0	Jun-09 01:00	88.4	Jun-29	100%
SR (W/m <sup>2</sup> )			Henry Pirker	235.4	-	-	828.9	Jun-02 14:00	325.0	Jun-26	100%
Temp (°C)			Henry Pirker	15.2	-	-	28.0	Jun-23 15:00	21.2	Jun-23	100%
Temp (°C)			Evergreen Park	14.6	-	-	26.9	Jun-23 17:00	19.9	Jun-23	100%
Temp (°C)			Smoky Heights	14.6	-	-	27.5	Jun-24 16:00	20.1	Jun-23	100%
Temp (°C)			Beaverlodge	14.3	-	-	26.4	Jun-23 17:00	20.7	Jun-23	100%
Temp (°C)			Valleyview	14.8	-	-	28.3	Jun-24 16:00	20.1	Jun-23	100%
Temp (°C)			Reno	13.2	-	-	25.8	Jun-02 16:00	18.2	Jun-02	100%
Temp (°C)			Falher	14.9	-	-	28.3	Jun-24 16:00	19.8	Jun-24	100%
Temp (°C)			Clairmont	17.9	-	-	27.1	Jun-23 14:00	20.9	Jun-23	100%

## PAZA Monthly Continuous Data Summary – continued

Jun-2014		Peace Airshed Zone Association				Maximum Recorded Values					
						1-hr		24-hr / 8-hr			
WSPD s (km/hr)		Henry Pirker	9.0	-	-	29.0	Jun-24 17:00	18.0	Jun-09	100%	
WSPD s (km/hr)		Evergreen Park	10.7	-	-	39.0	Jun-24 17:00	23.9	Jun-09	100%	
WSPD s (km/hr)		Smoky Heights	17.9	-	-	51.0	Jun-09 14:00	33.8	Jun-09	100%	
WSPD s (km/hr)		Beaverlodge	11.0	-	-	36.0	Jun-14 16:00	17.4	Jun-09	100%	
WSPD s (km/hr)		Valleyview	4.0	-	-	18.0	Jun-09 16:00	9.7	Jun-09	100%	
WSPD s (km/hr)		Reno	12.0	-	-	40.0	Jun-09 16:00	23.5	Jun-09	100%	
WSPD s (km/hr)		Falher	12.7	-	-	36.0	Jun-06 18:00	22.0	Jun-09	100%	
WSPD s (km/hr)		Clairmont	10.1	-	-	29.0	Jun-24 17:00	12.1	Jun-21	100%	
WSPD v (km/hr)		Henry Pirker	3.9	-	-	28.0	Jun-09 08:00	16.2	Jun-09	100%	
WSPD v (km/hr)		Evergreen Park	5.4	-	-	38.0	Jun-24 17:00	20.8	Jun-09	100%	
WSPD v (km/hr)		Smoky Heights	7.0	-	-	51.0	Jun-09 14:00	31.9	Jun-09	100%	
WSPD v (km/hr)		Beaverlodge	3.3	-	-	35.0	Jun-14 16:00	14.9	Jun-09	100%	
WSPD v (km/hr)		Valleyview	1.8	-	-	18.0	Jun-09 16:00	8.5	Jun-09	100%	
WSPD v (km/hr)		Reno	3.6	-	-	39.0	Jun-09 16:00	20.1	Jun-09	100%	
WSPD v (km/hr)		Falher	3.7	-	-	35.0	Jun-06 18:00	19.5	Jun-09	100%	
WSPD v (km/hr)		Clairmont	4.0	-	-	29.0	Jun-24 17:00	11.0	Jun-21	100%	
WDIR		Henry Pirker	W	-	-	-	-	-	-	100%	
WDIR		Evergreen Park	W	-	-	-	-	-	-	100%	
WDIR		Smoky Heights	WSW	-	-	-	-	-	-	100%	
WDIR		Beaverlodge	W	-	-	-	-	-	-	100%	
WDIR		Valleyview	WNW	-	-	-	-	-	-	100%	
WDIR		Reno	SSW	-	-	-	-	-	-	100%	
WDIR		Falher	SSW	-	-	-	-	-	-	100%	
WDIR		Clairmont	WSW	-	-	-	-	-	-	100%	

# Continuous Network Equipment Summary

## PAZA – Henry Pirker Station

### General Station Issues

Routine monthly calibrations were performed on June 4<sup>th</sup> (SO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>, TRS) and 5<sup>th</sup> (CO, THC). Tubing replacement on June 23<sup>rd</sup>.

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	No operational issues observed.
O <sub>3</sub>	TEI	49C	No operational issues observed.
CO	TEI	48C	No operational issues observed.
THC/CH <sub>4</sub> /NMHC	TEI	55I	Analyzer zero-air checked June 26 <sup>th</sup> , analyzer calibrated and returned to service.
TRS	TEI	45C/43C	No operational issues observed.
PM <sub>2.5</sub>	Sharp	5030	No operational issues observed.
RH	Met One	083D	No operational issues observed.
ET	Met One	083D	No operational issues observed.
SR	Met One	096-1	No operational issues observed.
WS / WD	Met One	010C/020C	No operational issues observed.

---

---

**PAZA – Evergreen Park Station**

---

---

**General Station Issues**

Routine monthly calibration performed on June 7<sup>th</sup> (SO<sub>2</sub>, TRS).

---

<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	Three hours invalidated due to negative swings.
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 June 6<sup>th</sup> (SO<sub>2</sub>, TRS). Brief power outage June 15<sup>th</sup> caused loss of one (1) hour of data.

---

<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	Four hours flagged invalid due to negative swings. Glassware 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 June 10<sup>th</sup> (SO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>) and 25<sup>th</sup> (PM<sub>2.5</sub>)

---

<b>Parameter</b>	<b>Make</b>	<b>Model</b>	<b>Notes</b>
SO <sub>2</sub>	TEI	43CTL	No operational issues observed.
NO <sub>x</sub> /NO/NO <sub>2</sub>	TEI	42C	No operational issues observed.
O <sub>3</sub>	TEI	49C	No operational issues observed.
PM <sub>2.5</sub>	R&P	1400AB	Analyzer removed from service June 12 <sup>th</sup> due to frozen switching valve. Part ordered from ESRD. Analyzer returned to service June 25 <sup>th</sup> . Two hours flagged invalid due to negative swings. <b>Reference #286016</b>
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 June 2<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	Irregular spans in early month due to moisture trapped in lines, corrected at calibration.
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 – Portable-Reno**

---

---

**General Station Issues**

Shutdown calibrations were performed on June 18<sup>th</sup> (SO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>, TRS, THC). Station removed from service June 19<sup>th</sup> and relocated to Clairmont site.

---

<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	Span bottle ran out June 4 <sup>th</sup> , replaced June 14 <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	No operational issues observed.

---

---



---

---

**PAZA – Falher Station**

---

---

**General Station Issues**

Routine monthly calibrations were performed on June 12<sup>th</sup> (SO<sub>2</sub> & H<sub>2</sub>S). Power outage on June 24<sup>th</sup> invalidated five 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.
H <sub>2</sub> S	Thermo	450i	Irregular spans later in month investigated and repaired in during July calibration.
ET	Gill	RM Young 5103	No operational issues observed.
WS / WD	Gill	RM Young 5103	No operational issues observed.

---

---

---

---

**PAZA – Portable-Clairmont**

---

---

**General Station Issues**

Startup calibrations were performed on June 20<sup>th</sup> (SO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>, TRS, THC). Station relocated to new site on June 19<sup>th</sup> and allowed to stabilize overnight before calibration.

---

---

<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	No operational issues observed.
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	No operational issues observed.

---

---

PAZA

Henry Pirker Station

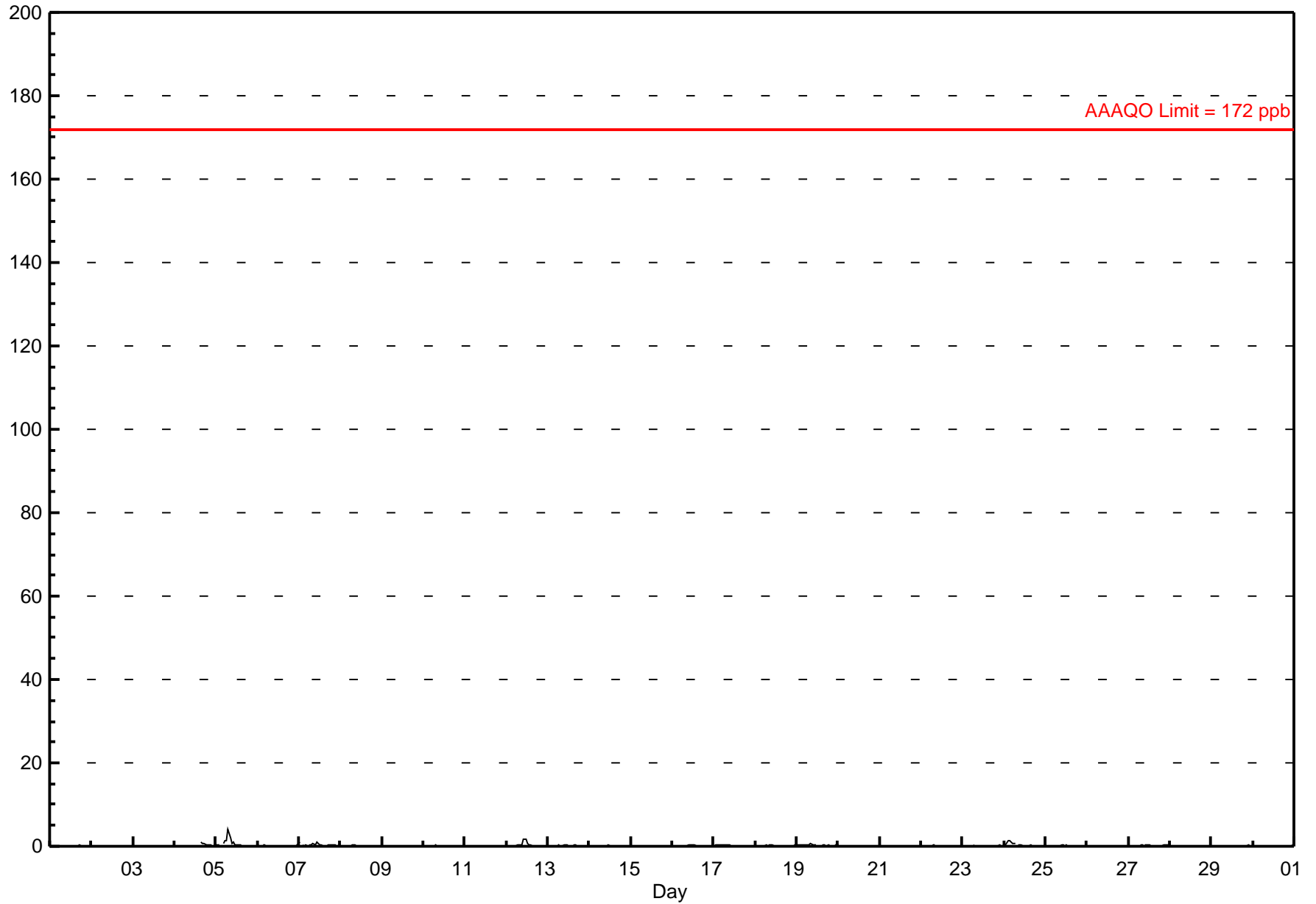
Monthly Summary Tables, Graphs and  
Roses

## Hourly Averages

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

Henry Pirker - June 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.2 ppb on Jun 5 08:00      Maximum Daily Average: 0.6 ppb on Jun 5		Hours in Service: 720 Hours of Data: 682 Hours of Missing Data: 38 Hours of Calibration: 36 Percent Operational Time: 99.7																								
Minimum Value: 0 ppb on Jun 2 13:00 Maximum Diurnal Average: 0.3 ppb at hour 8 Monthly Average: 0.12 ppb		Minimum Daily Average: 0.0 ppb on Jun 15 Minimum Diurnal Average: 0.1 ppb at hour 20 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> = 0.1 P <sub>90</sub> = 0.3 P <sub>99</sub> = 1.2																								
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-Jun	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
2-Jun	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	0.1
3-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
4-Jun	0	0	0	0	A	0	0	0	0	0	C	C	C	C	C	1	1	1	0	0	0	0	0	0.2	0.9	
5-Jun	0	0	0	A	1	1	1	4	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.6	4.2	
6-Jun	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4	
7-Jun	1	A	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1	
8-Jun	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	
9-Jun	0	0	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	
10-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0.1	0.3	
11-Jun	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	
12-Jun	0	0	0	0	0	0	0	0	0	0	2	2	1	0	0	0	0	0	0	0	A	0	0	0.3	1.8	
13-Jun	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	
14-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0.0	0.2	
15-Jun	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	
16-Jun	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	0.4	
17-Jun	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	
18-Jun	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	
19-Jun	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0.3	0.8	
20-Jun	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
21-Jun	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	0.2	
22-Jun	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
23-Jun	0	0	0	0	0	0	0	0	A	M	M	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2	
24-Jun	0	0	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3	
25-Jun	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
26-Jun	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	0.1	
27-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4	
28-Jun	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
29-Jun	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	
30-Jun	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4	
0.1   0.1   0.1   0.1   0.1   0.1   0.2   0.3   0.2   0.2   0.2   0.2   0.1   0.1   0.1   0.1   0.1   0.1   0.1   0.1   0.1   0.1   0.1   0.1   0.1																								Diurnal Average		
0.9   0.5   1.2   1.3   1.2   1.3   1.2   4.2   2.1   0.7   1.7   1.8   0.6   0.3   0.4   0.9   0.5   0.5   0.5   0.5   0.4   0.3   0.3   0.4   0.8																								Diurnal Maximum		
C - Calibration      M - Maintenance      A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb    24-hr 48 ppb    30-day 11 ppb																										



## Hourly Maximums

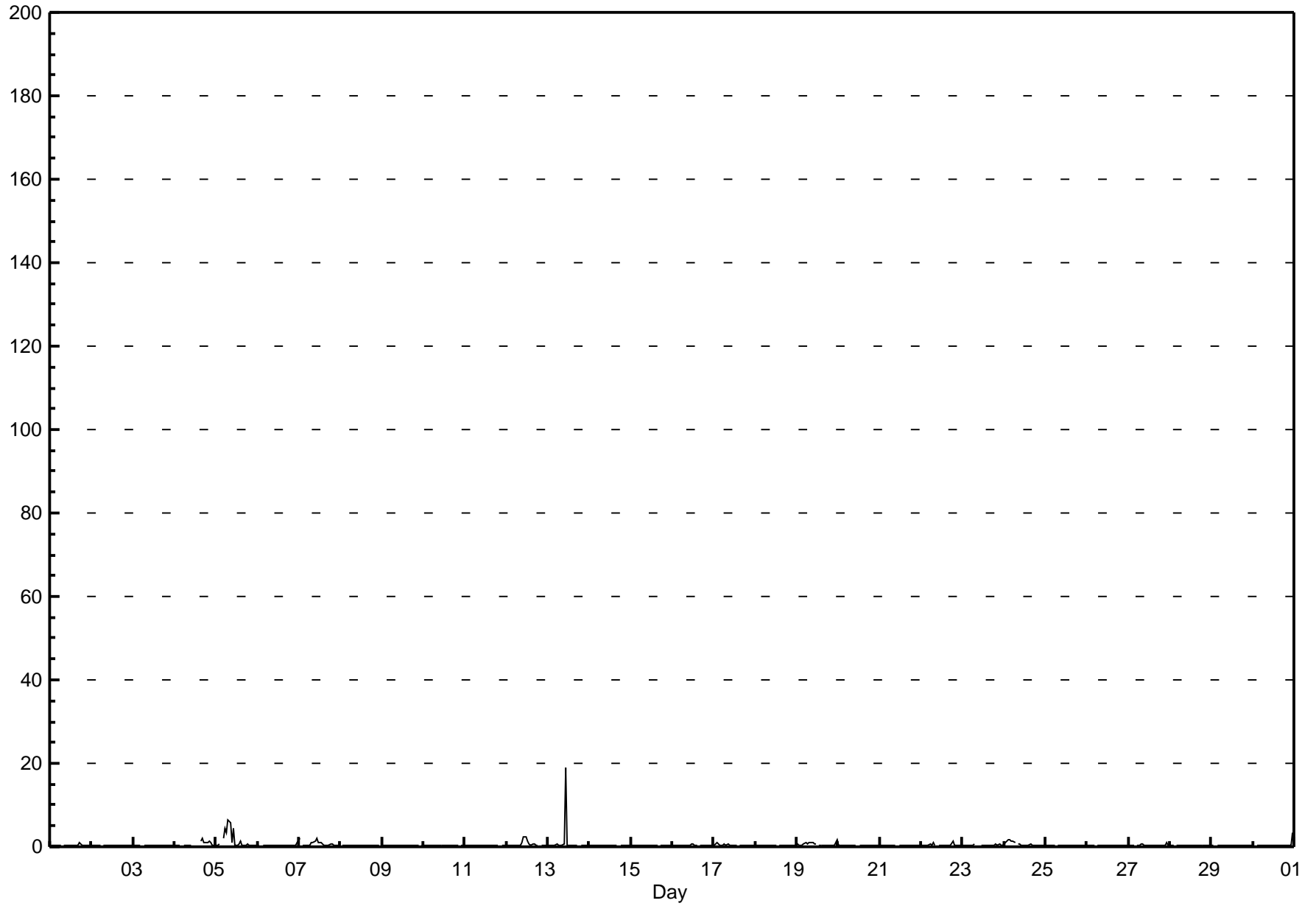
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Henry Pirker - June 2014

Maximum Value: 19.1 ppb on Jun 13 11:00		Maximum Daily Average: 1.6 ppb on Jun 5		Hours in Service: 720																						
Minimum Value: 0 ppb on Jun 24 00:00		Minimum Daily Average: 0.3 ppb on Jun 15		Hours of Data: 682																						
Maximum Diurnal Average: 1.4 ppb at hour 11		Minimum Diurnal Average: 0.4 ppb at hour 23		Hours of Missing Data: 38																						
Monthly Average: 0.54 ppb		Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 0.4 Median = 0.4 Q <sub>3</sub> = 0.4 P <sub>90</sub> = 0.6 P <sub>99</sub> = 3.3		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-Jun	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.5	0.9
2-Jun	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.4
3-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.4
4-Jun	0	0	0	0	A	0	0	0	0	0	C	C	C	C	C	1	2	1	1	1	1	1	0	0.8	2.0	
5-Jun	0	0	1	A	2	4	3	6	6	1	4	0	0	1	1	0	0	0	1	0	0	0	0	1.6	6.4	
6-Jun	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9	
7-Jun	2	A	0	0	0	0	0	1	1	1	2	1	1	1	0	0	0	0	1	1	0	0	0	0.7	1.9	
8-Jun	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.4	
9-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5	
10-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0.4	0.5	
11-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4	0.4	
12-Jun	0	0	0	0	0	0	0	0	0	1	2	2	1	1	0	1	1	0	0	A	0	0	0	0.7	2.3	
13-Jun	0	0	0	0	0	1	0	0	0	1	19	0	0	0	0	0	0	0	A	0	0	0	0	1.2	19.1	
14-Jun	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	
15-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.4	
16-Jun	0	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0.4	0.6	
17-Jun	0	1	1	0	0	0	1	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.5	1.0	
18-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.4	0.5	
19-Jun	1	0	0	0	1	1	1	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	2	0.6	1.6	
20-Jun	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5	
21-Jun	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.4	0.4	
22-Jun	0	0	0	0	0	1	0	1	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0.5	1.2	
23-Jun	0	0	0	0	0	0	0	1	A	M	M	0	0	0	0	0	0	0	0	1	0	1	0	0.4	0.7	
24-Jun	1	1	2	2	1	1	1	A	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0.7	1.7	
25-Jun	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5	
26-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.4	
27-Jun	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.5	0.9	
28-Jun	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5	
29-Jun	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5	
30-Jun	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.6	3.3	
0.5		0.4	0.5	0.5	0.5	0.6	0.5	0.7	0.7	0.5	1.4	0.5	0.5	0.4	0.4	0.5	0.5	0.4	0.5	0.4	0.4	0.4	0.4	0.6	Diurnal Average	
1.9		0.9	1.7	1.7	1.9	4.4	3.4	6.4	5.9	1.4	19.1	2.3	1.3	0.9	1.4	1.5	2.0	1.0	1.2	1.0	1.5	1.0	0.9	3.3	Diurnal Maximum	
C - Calibration		M - Maintenance					A - Automated Daily Zero Span																			

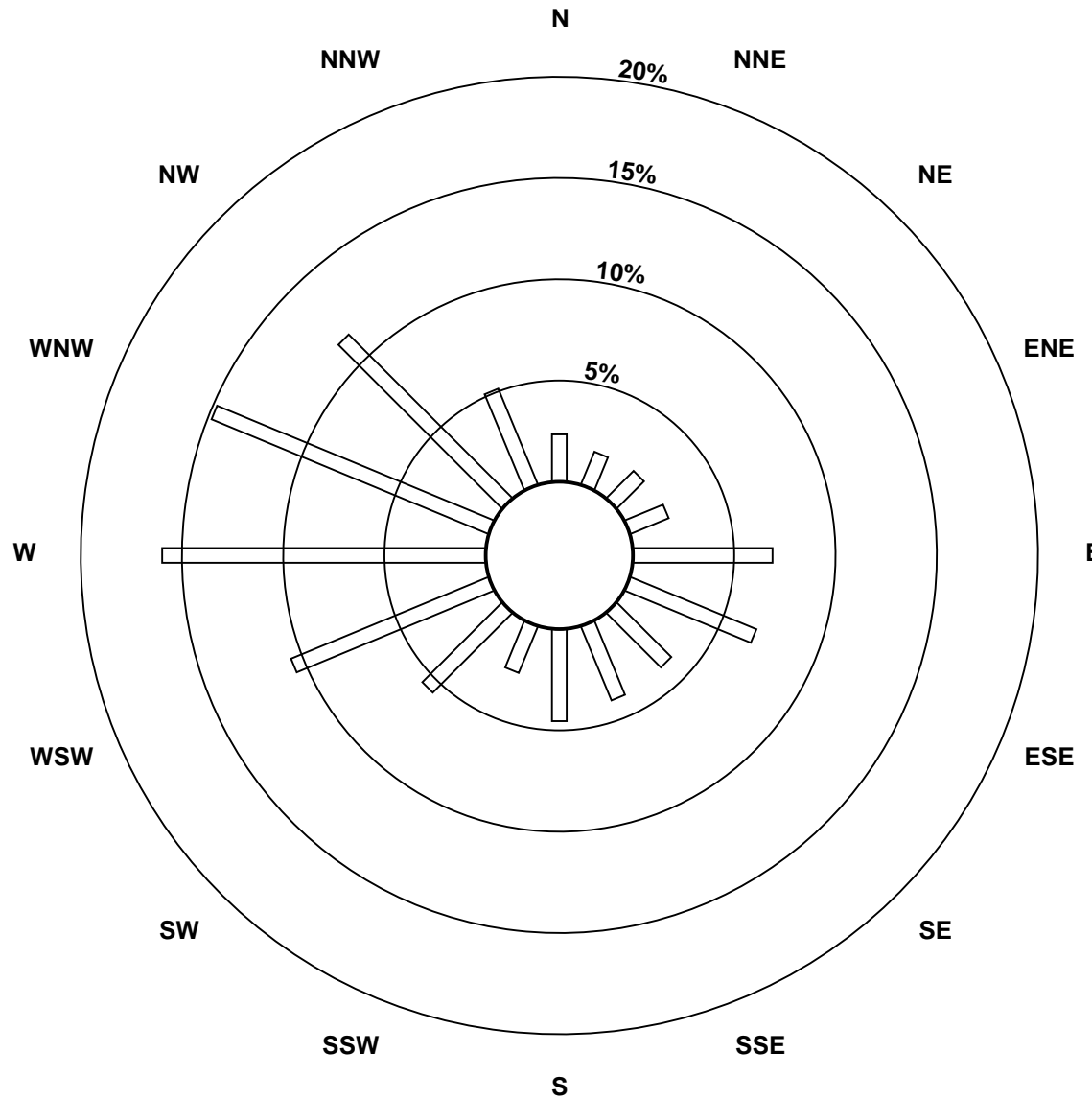
### Hourly Maximums

Sulphur Dioxide (SO<sub>2</sub>) - ppb  
Henry Pirker - June 2014

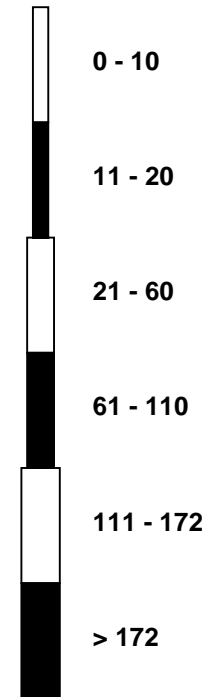


**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Henry Pirker - June 2014**



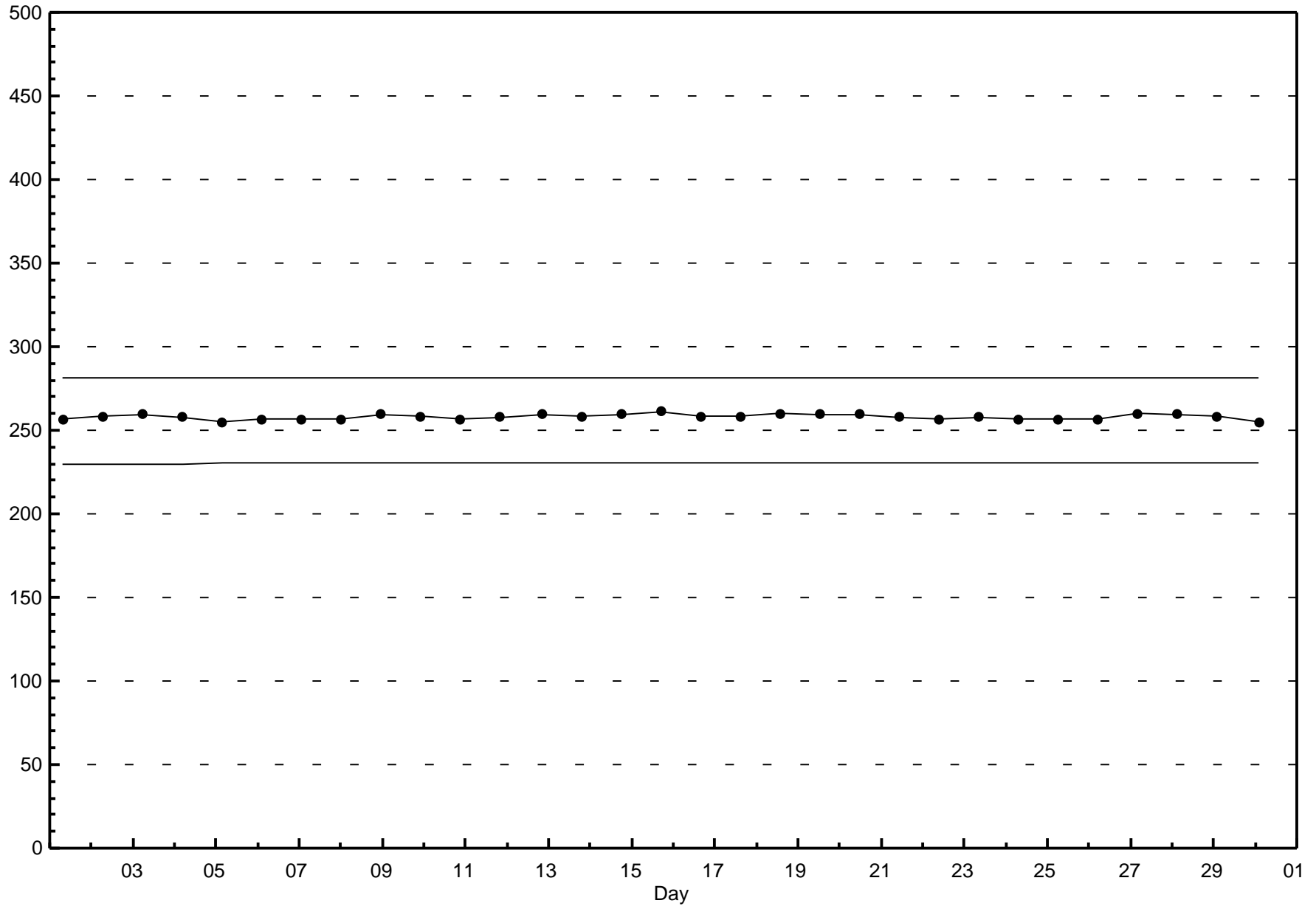
**Pollutant Classes (ppb)**





### Span Responses

Sulphur Dioxide (SO<sub>2</sub>)  
Henry Pirker - June 2014

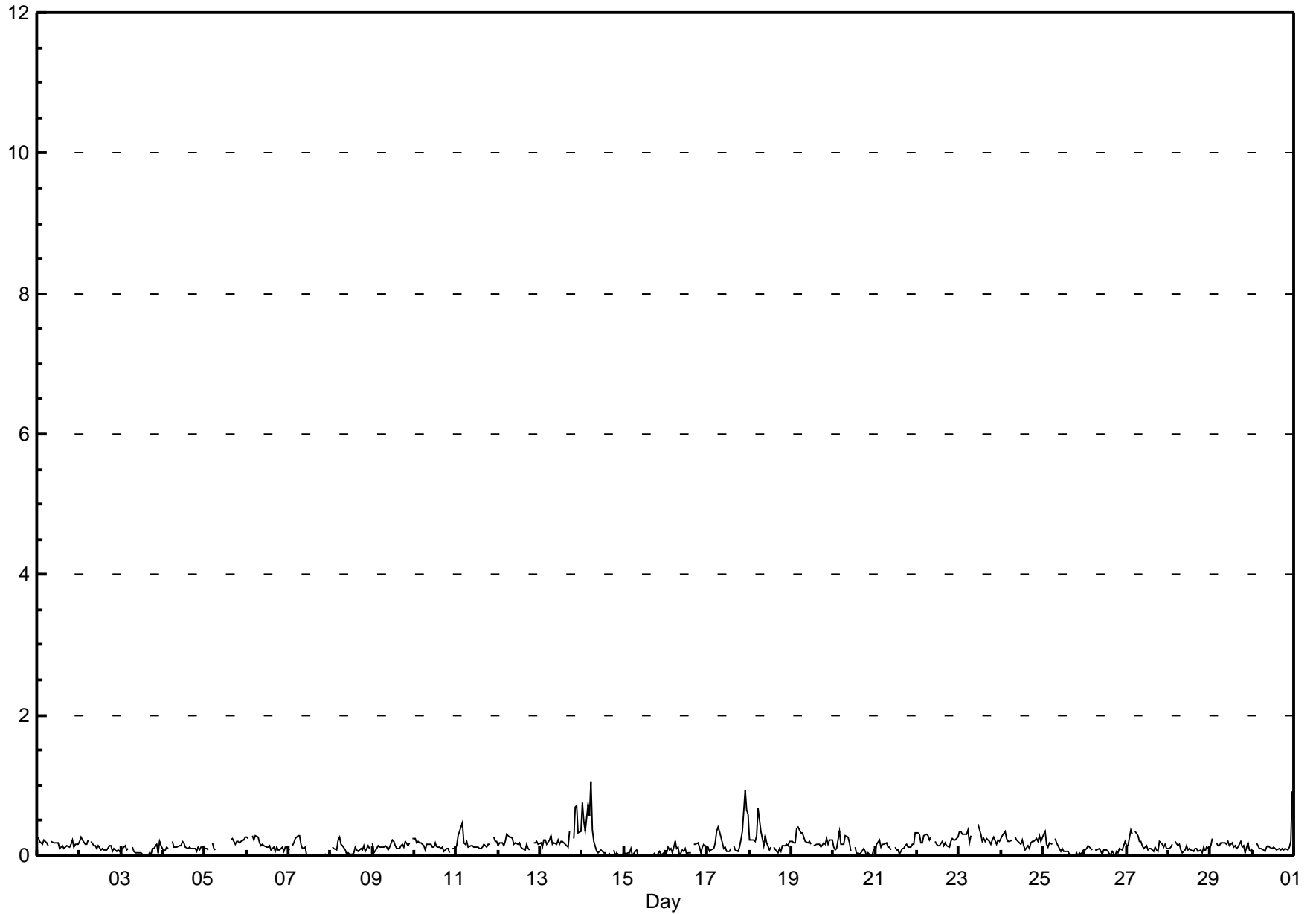


## Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - June 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.1 ppb on Jun 14 06:00      Maximum Daily Average: 0.3 ppb on Jun 23		Hours in Service: 720 Hours of Data: 679 Hours of Missing Data: 41 Hours of Calibration: 39 Percent Operational Time: 99.7																																															
Minimum Value: 0 ppb on Jun 3 14:00 Maximum Diurnal Average: 0.3 ppb at hour 6 Monthly Average: 0.15 ppb		Minimum Daily Average: 0.0 ppb on Jun 15 Minimum Diurnal Average: 0.1 ppb at hour 15 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> = 0.7																																															
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Jun	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																							
2-Jun	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3																							
3-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																							
4-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																							
5-Jun	0	0	0	A	0	0	0	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	--	0.3																							
6-Jun	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3																							
7-Jun	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																							
8-Jun	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3																							
9-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																							
10-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0.1	0.2																							
11-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.5																							
12-Jun	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																							
13-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	0	0.3	0.7																							
14-Jun	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	1.1																							
15-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.1																							
16-Jun	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																							
17-Jun	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	0.9																							
18-Jun	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7																							
19-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4																							
20-Jun	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3																							
21-Jun	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3																							
22-Jun	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3																							
23-Jun	0	0	0	0	0	0	0	0	A	0	M	M	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5																							
24-Jun	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																							
25-Jun	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3																							
26-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																							
27-Jun	0	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																							
28-Jun	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																							
29-Jun	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3																							
30-Jun	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	0.9																							
																								0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
																								0.8	0.5	0.4	0.7	0.6	1.1	0.4	0.3	0.3	0.3	0.2	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.7	0.9	0.7	0.9	0.9
C - Calibration      M - Maintenance      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

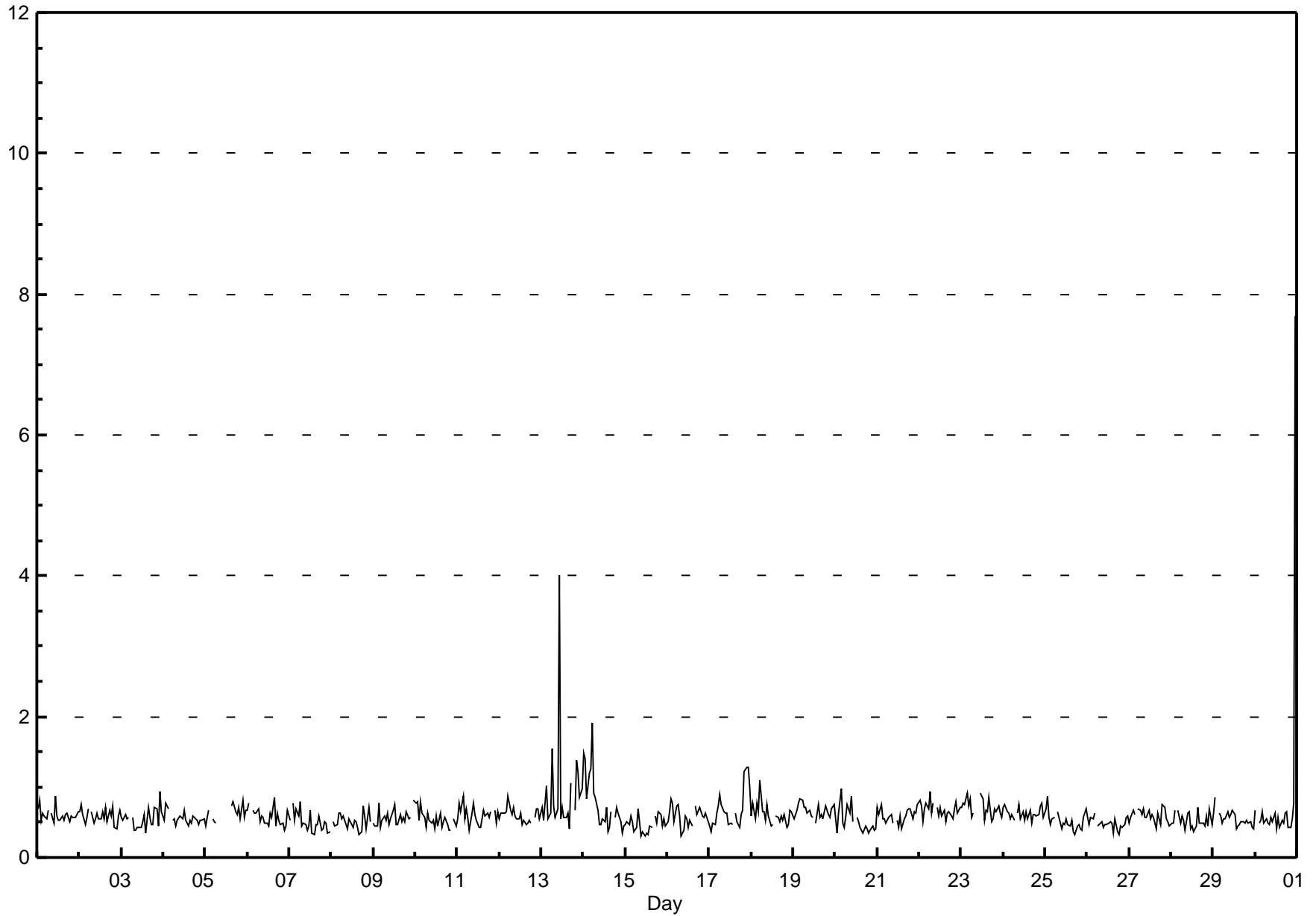
Henry Pirker - June 2014

Maximum Value: 7.7 ppb on Jul 1 00:00		Maximum Daily Average: 0.9 ppb on Jun 13		Hours in Service: 720																																													
Minimum Value: 0 ppb on Jun 15 10:00		Minimum Daily Average: 0.5 ppb on Jun 15		Hours of Data: 679																																													
Maximum Diurnal Average: 0.9 ppb at hour 24		Minimum Diurnal Average: 0.5 ppb at hour 15		Hours of Missing Data: 41																																													
Monthly Average: 0.61 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> = 0.7 P <sub>90</sub> = 0.8 P <sub>99</sub> = 1.4		Hours of Calibration: 39																																													
				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-Jun	1	1	1	1	1	1	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9																							
2-Jun	1	1	1	0	1	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0.6	0.8																							
3-Jun	1	1	1	1	1	A	1	0	0	0	0	0	1	1	0	1	1	0	0	1	1	0	1	1	0.5	0.9																							
4-Jun	1	1	1	1	A	1	1	0	1	1	1	1	1	1	0	1	0	1	1	1	0	1	1	1	0.6	0.8																							
5-Jun	0	1	1	A	1	1	0	C	C	C	C	C	C	C	C	1	1	1	1	1	1	1	1	1	--	0.8																							
6-Jun	1	1	A	1	1	1	1	1	1	1	0	0	0	1	1	1	0	1	1	0	0	0	0	1	0.6	0.8																							
7-Jun	1	A	1	1	1	1	1	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0.5	0.8																							
8-Jun	A	1	0	0	1	1	1	1	0	0	1	1	0	1	1	0	0	0	1	1	0	1	0	A	0.5	0.7																							
9-Jun	0	0	0	1	0	1	1	1	1	0	1	1	1	0	0	1	1	1	1	1	1	1	0	A	0.6	0.8																							
10-Jun	1	1	1	1	1	1	0	1	1	0	1	0	1	0	1	0	1	1	0	0	0	A	1	0	0.5	0.8																							
11-Jun	1	1	1	1	1	1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	A	1	0	0.6	0.9																							
12-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	1	0	A	1	1	1	1	0.6	0.9																							
13-Jun	1	1	1	1	1	1	2	1	1	1	4	1	1	1	1	1	0	1	A	1	1	1	1	1	0.9	4.0																							
14-Jun	1	1	1	1	1	2	1	1	1	0	0	1	1	1	0	0	1	A	1	1	1	1	0	0	0.8	1.9																							
15-Jun	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	A	1	0	1	1	0	1	0	0.5	0.7																							
16-Jun	1	1	1	1	1	1	1	1	0	0	1	1	0	1	0	A	1	1	1	1	1	1	1	1	0.6	0.8																							
17-Jun	0	0	0	0	1	1	1	1	1	1	1	0	0	0	A	1	0	0	1	1	1	1	1	1	0.7	1.3																							
18-Jun	1	1	1	1	1	1	1	1	1	1	1	0	0	A	1	1	1	1	1	1	0	0	1	1	0.6	1.1																							
19-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8																							
20-Jun	1	0	1	1	0	0	1	1	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0.5	1.0																							
21-Jun	1	1	1	1	1	0	1	1	1	0	A	1	0	1	0	1	1	1	1	1	1	1	1	1	0.6	0.8																							
22-Jun	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9																							
23-Jun	1	1	1	1	1	1	1	1	A	M	M	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9																							
24-Jun	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.6	0.8																							
25-Jun	1	1	1	0	1	1	A	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0.5	0.9																							
26-Jun	1	0	1	1	1	A	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0.5	0.6																							
27-Jun	0	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	0	0.6	0.7																							
28-Jun	0	0	1	A	1	0	1	1	0	1	1	0	0	0	1	0	0	0	0	0	1	0	1	0	0.5	0.7																							
29-Jun	1	1	A	1	1	0	1	1	1	1	1	1	0	0	0	1	1	1	0	1	0	1	0	0	0.5	0.9																							
30-Jun	1	A	0	1	1	0	1	0	0	1	1	1	0	1	0	1	0	1	1	0	0	1	1	8	0.9	7.7																							
																								0.6	0.6	0.7	0.6	0.7	0.7	0.6	0.6	0.6	0.7	0.5	0.5	0.5	0.5	0.6	0.5	0.6	0.5	0.6	0.5	0.6	0.6	0.6	0.6	0.9	Diurnal Average
																								1.5	1.4	0.8	1.2	1.3	1.9	1.5	0.9	0.8	0.9	4.0	0.9	0.8	0.7	0.8	0.8	0.9	1.0	0.7	0.7	1.4	1.3	1.3	7.7	Diurnal Maximum	
C - Calibration																								M - Maintenance						A - Automated Daily Zero Span																			

**Hourly Maximums**

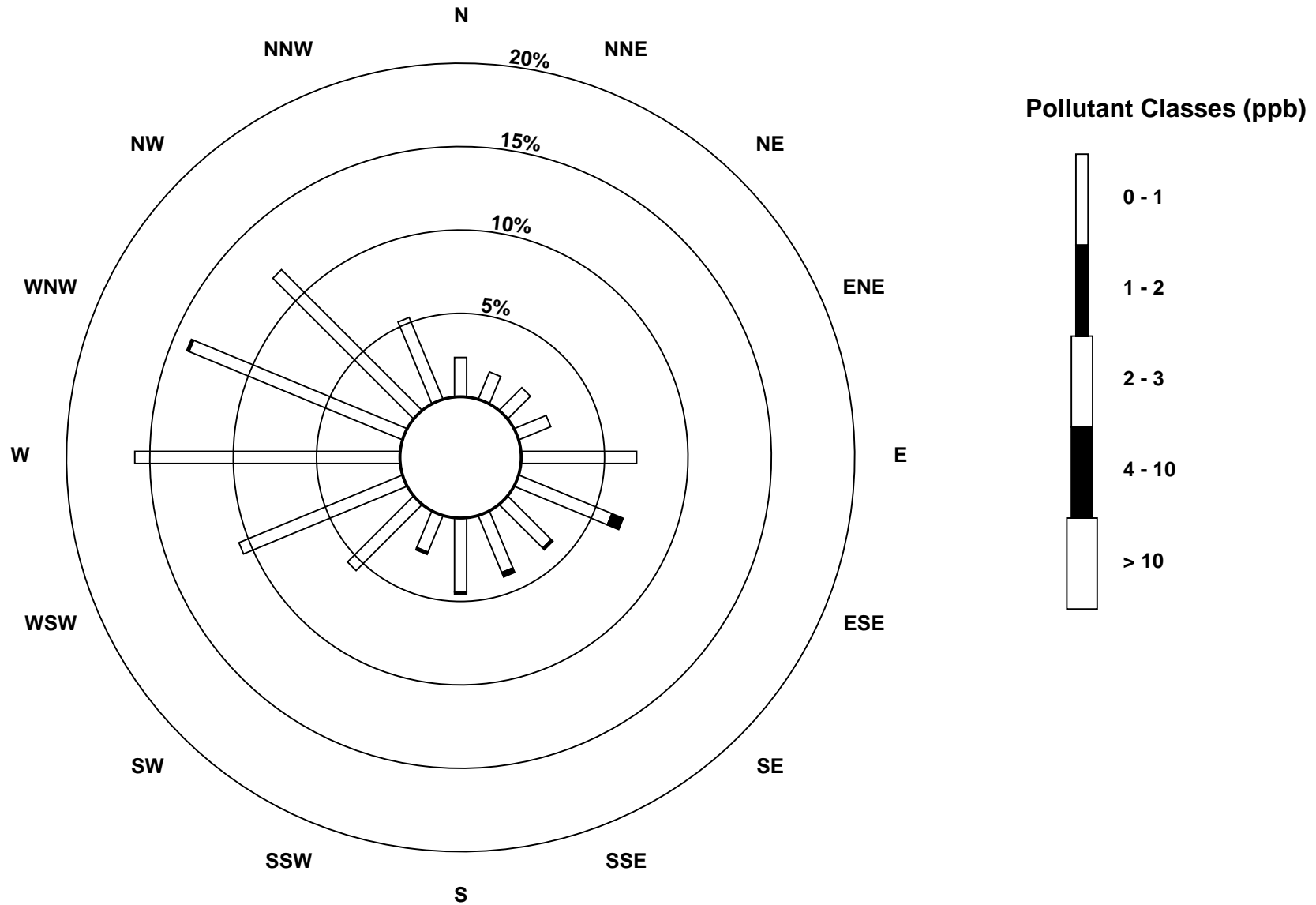
**Total Reduced Sulphur (TRS) - ppb**

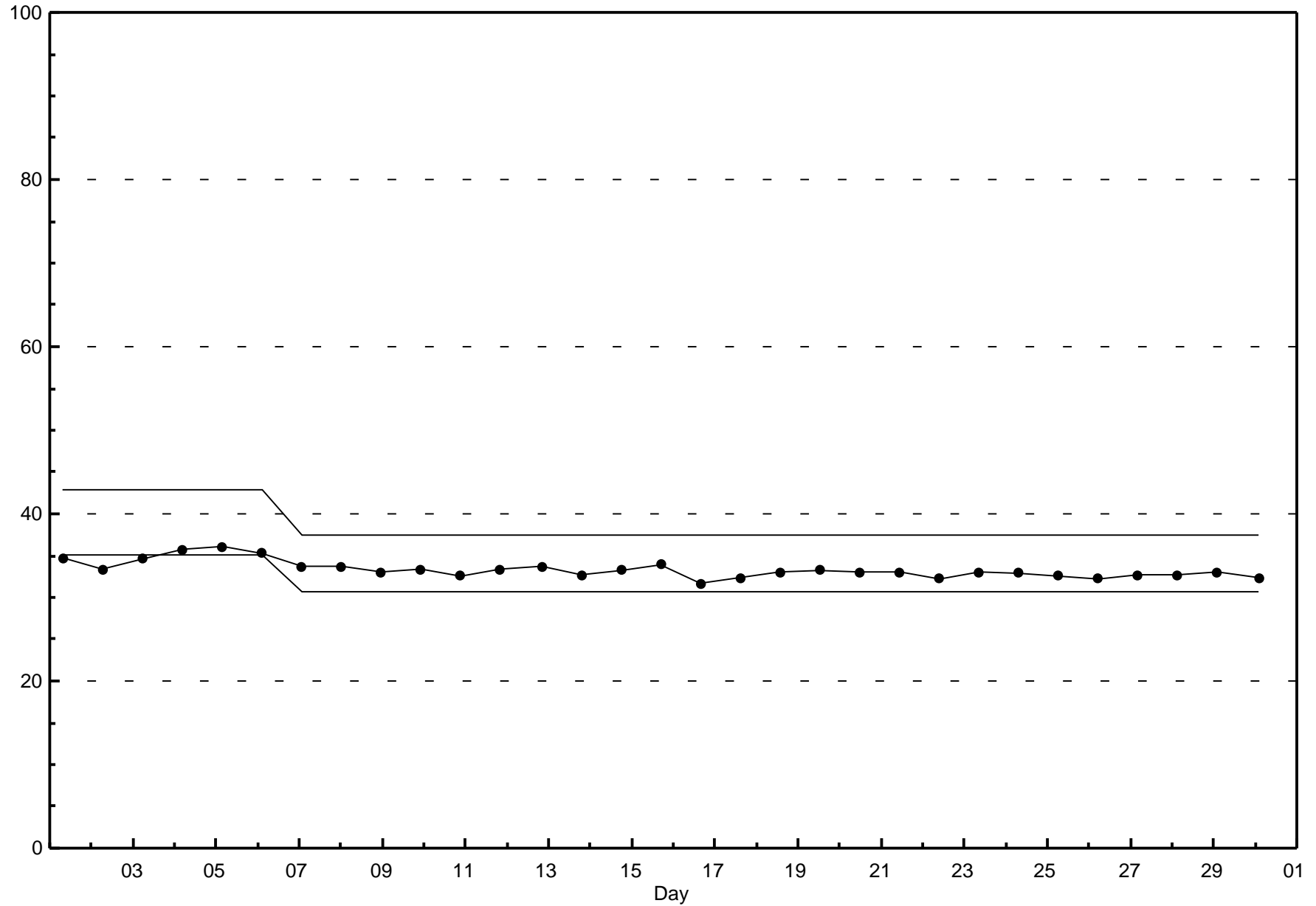
**Henry Pirker - June 2014**



**Pollutant Rose**

**Total Reduced Sulphur (TRS) - ppb**  
**Henry Pirker - June 2014**





## Hourly Averages

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

Henry Pirker - June 2014

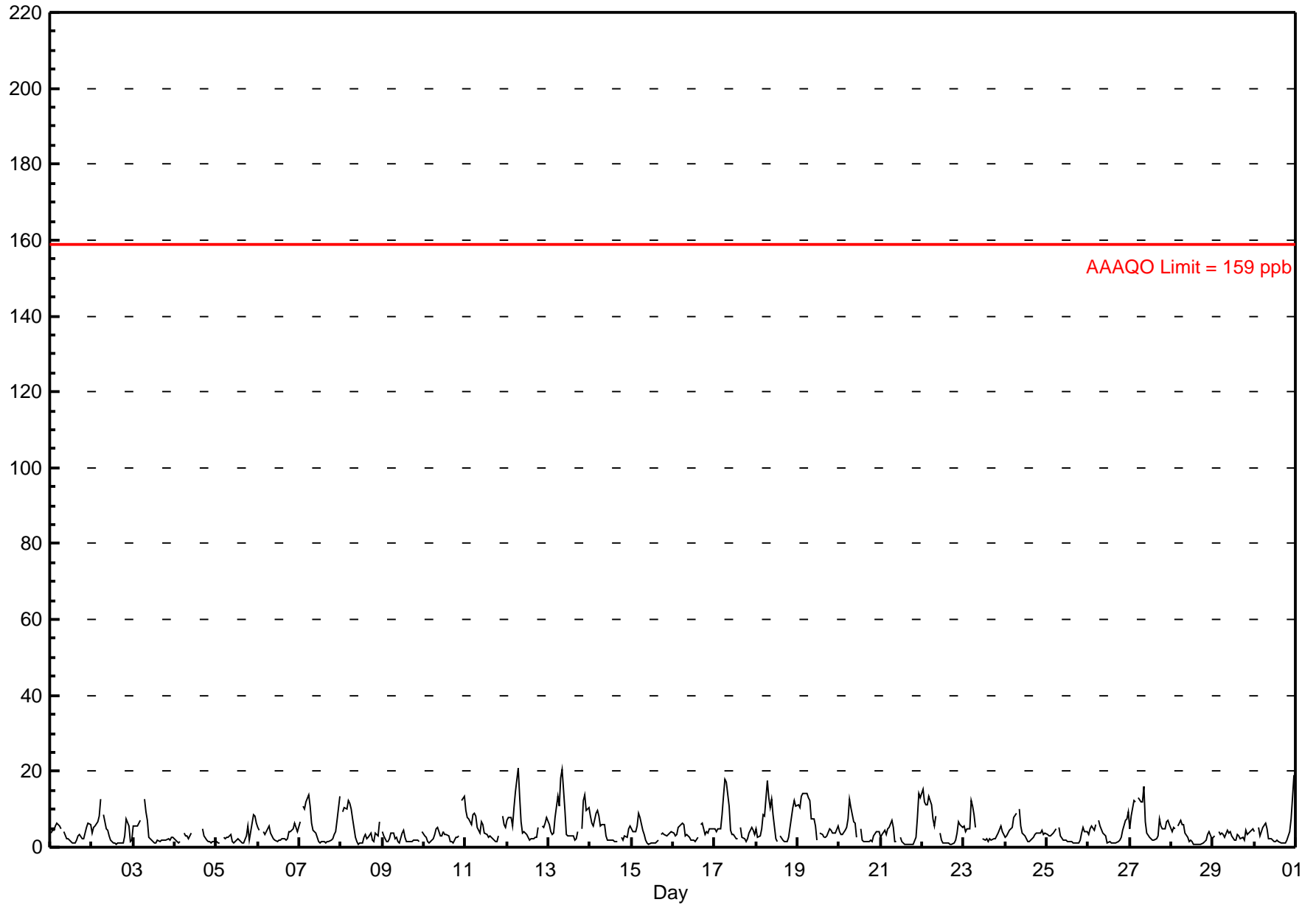
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 21.0 ppb on Jun 12 07:00	Maximum Daily Average: 7.5 ppb on Jun 13		Hours of Data:	681
Minimum Value: 1 ppb on Jun 21 18:00	Minimum Daily Average: 2.4 ppb on Jun 9		Hours of Missing Data:	39
Maximum Diurnal Average: 8.6 ppb at hour 7	Minimum Diurnal Average: 1.8 ppb at hour 16		Hours of Calibration:	37
Monthly Average: 4.46 ppb	Percentiles: P <sub>1</sub> = 0.8 P <sub>10</sub> = 1.3 Q <sub>1</sub> = 2.0 Median = 3.5 Q <sub>3</sub> = 5.5 P <sub>90</sub> = 9.7 P <sub>99</sub> = 16.8		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-Jun	4	4	5	6	6	5	5	A	4	2	2	2	1	1	1	2	3	3	2	2	4	5	6	6	3.6	6.3
2-Jun	4	5	6	7	8	13	A	9	5	4	3	2	1	1	1	1	1	1	1	3	8	6	2	2	4.0	12.6
3-Jun	6	6	6	6	7	A	13	9	7	3	2	1	1	1	2	2	2	2	2	2	2	2	3	2	3.8	12.7
4-Jun	2	1	1	1	A	4	3	3	2	4	C	C	C	C	C	C	5	3	2	2	1	1	1	1	--	4.7
5-Jun	2	1	1	A	3	2	2	3	3	2	1	1	2	2	2	1	1	3	6	2	4	9	8	7	2.9	8.7
6-Jun	5	5	A	4	3	4	5	4	3	2	2	1	2	2	2	2	2	2	4	4	5	6	5	4	3.5	6.3
7-Jun	7	A	11	10	12	14	11	6	4	4	3	2	1	1	2	1	2	1	2	2	3	4	7	13	5.3	13.8
8-Jun	A	9	11	10	12	12	10	7	3	1	1	1	1	3	3	2	3	4	2	2	4	3	7	A	5.0	12.1
9-Jun	4	3	2	1	2	4	4	2	3	2	1	4	4	2	1	2	2	1	2	2	2	2	A	A	2.4	4.3
10-Jun	3	3	1	1	1	2	3	5	5	3	3	4	3	3	3	1	2	1	2	3	3	A	12	14	3.6	13.5
11-Jun	10	8	7	6	8	9	8	5	4	7	6	4	3	3	3	3	2	2	2	3	A	8	6	5	5.3	9.8
12-Jun	7	8	8	6	10	15	21	13	7	4	4	3	3	2	2	2	3	3	5	A	6	5	6	8	6.5	21.0
13-Jun	6	4	4	4	8	13	11	18	21	10	3	3	3	3	3	2	2	4	A	5	12	14	10	10	7.5	20.6
14-Jun	8	6	6	9	10	8	6	6	6	3	2	2	2	2	1	2	2	A	3	2	3	3	5	6	4.4	9.7
15-Jun	5	4	4	5	9	8	4	3	2	1	1	1	1	1	2	A	3	4	3	3	3	3	4	4	3.4	9.0
16-Jun	4	3	3	5	6	6	6	3	3	2	2	2	1	3	A	6	6	3	4	4	5	5	5	5	3.9	6.5
17-Jun	5	4	5	5	9	14	18	17	11	5	3	3	2	2	A	5	3	2	2	2	4	5	5	3	5.8	18.0
18-Jun	5	3	3	5	8	8	18	13	11	13	9	2	2	A	3	2	2	1	1	3	8	10	12	11	6.6	17.7
19-Jun	11	11	13	14	14	14	13	12	7	7	6	2	A	4	3	3	3	3	5	5	4	4	4	5	7.3	14.2
20-Jun	4	3	3	4	5	7	13	10	7	6	3	A	5	2	1	2	1	1	2	2	3	4	4	4	4.2	12.7
21-Jun	3	4	4	3	5	5	7	5	2	1	A	3	1	1	1	1	1	1	1	1	3	8	14	13	3.8	14.1
22-Jun	15	12	11	11	13	11	8	6	8	A	4	2	1	1	1	1	1	1	1	2	4	7	6	5	5.7	15.5
23-Jun	6	4	5	5	12	11	8	5	A	M	M	2	2	2	2	2	2	2	2	3	4	5	4	3	4.4	12.2
24-Jun	3	3	4	5	5	8	9	A	10	6	4	3	2	2	2	2	2	3	4	4	4	5	3	4	4.2	9.9
25-Jun	3	3	3	3	4	5	A	5	3	2	2	2	2	1	1	1	1	1	1	2	4	5	4	4	2.7	5.3
26-Jun	4	5	5	5	6	A	7	5	4	3	3	1	1	1	1	1	1	2	2	3	4	7	8	9	3.9	9.4
27-Jun	5	8	12	12	A	13	12	12	16	7	4	2	2	2	2	2	3	7	6	5	5	7	7	6	6.8	16.0
28-Jun	4	5	5	A	6	7	6	6	4	3	2	2	1	1	1	1	1	1	1	1	2	3	4	2	3.0	7.1
29-Jun	3	3	A	4	3	4	3	3	4	4	3	2	2	3	3	2	3	2	4	3	4	4	4	5	3.3	4.7
30-Jun	4	A	5	3	4	5	6	5	2	2	2	2	2	1	1	1	1	1	1	2	4	7	13	19	4.1	19.0

5.2	4.9	5.5	5.8	7.2	8.3	8.6	7.3	5.9	4.0	3.0	2.2	2.0	1.9	1.9	1.8	2.0	2.4	2.5	2.7	4.1	5.4	6.2	6.4	Diurnal Average	
15.5	12.1	13.4	14.2	14.0	14.5	21.0	18.4	20.6	12.7	8.7	4.0	4.7	3.9	3.3	5.2	5.8	7.3	5.7	4.9	12.3	13.7	14.1	19.0	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

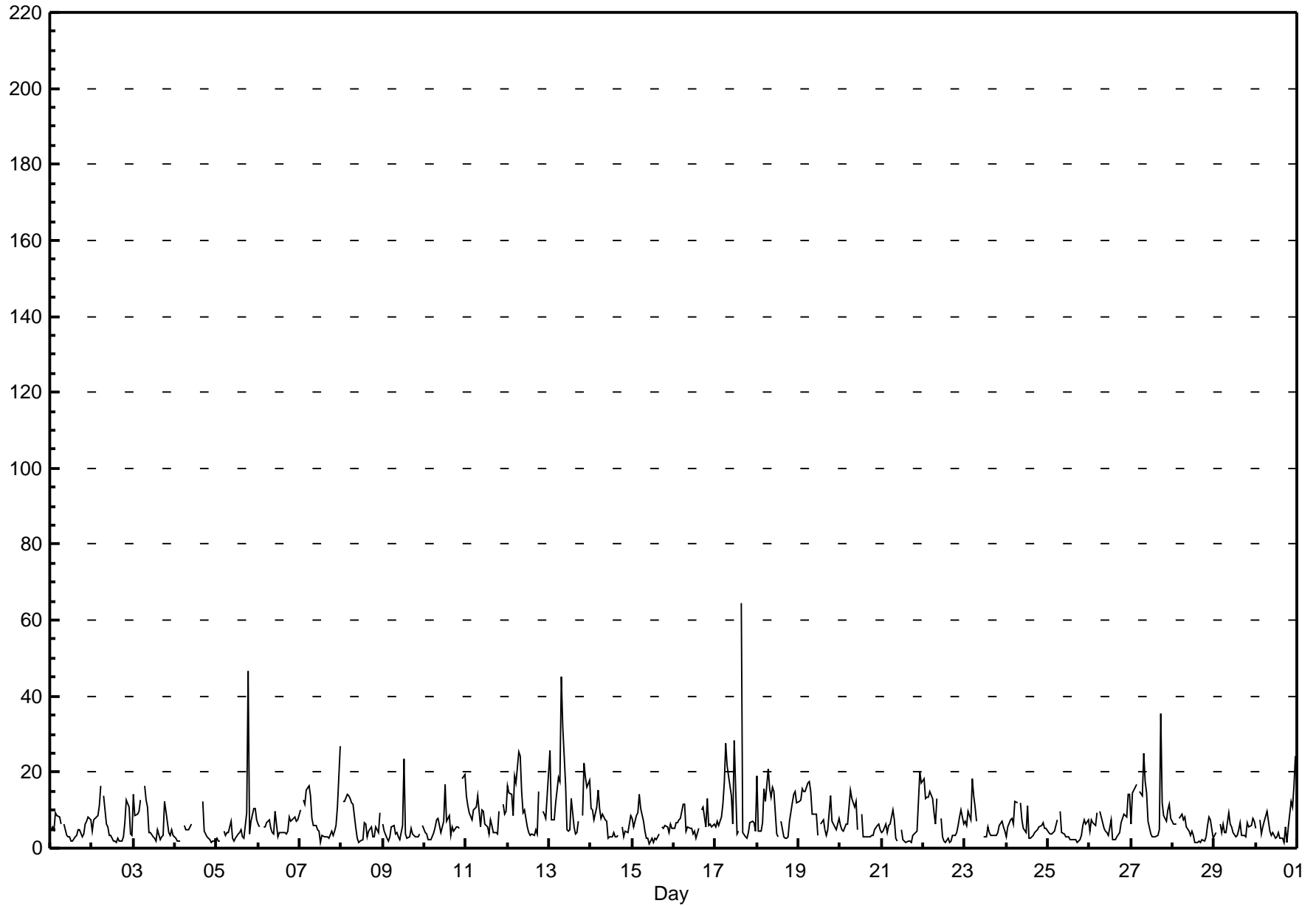
Nitrogen Dioxide (NO<sub>2</sub>) - ppb

Henry Pirker - June 2014

Maximum Value: 64.6 ppb on Jun 17 16:00		Maximum Daily Average: 14.0 ppb on Jun 13		Hours in Service: 720																						
Minimum Value: 1 ppb on Jun 15 11:00		Minimum Daily Average: 4.2 ppb on Jun 25		Hours of Data: 681																						
Maximum Diurnal Average: 11.6 ppb at hour 7		Minimum Diurnal Average: 3.8 ppb at hour 14		Hours of Missing Data: 39																						
Monthly Average: 7.24 ppb		Percentiles: P <sub>1</sub> = 1.5 P <sub>10</sub> = 2.5 Q <sub>1</sub> = 3.5 Median = 5.6 Q <sub>3</sub> = 9.0 P <sub>90</sub> = 14.1 P <sub>99</sub> = 27.2		Hours of Calibration: 37																						
				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-Jun	5	6	5	9	8	8	6	A	6	3	3	3	2	2	3	3	5	5	3	4	6	7	8	7	5.2	9.5
2-Jun	5	7	8	8	11	16	A	14	6	6	3	3	2	2	1	2	2	2	3	7	13	11	4	3	6.1	16.3
3-Jun	14	9	9	10	13	A	16	13	11	4	4	3	3	2	5	2	3	3	12	10	4	3	5	3	7.0	16.3
4-Jun	2	2	2	2	A	6	5	5	5	6	C	C	C	C	C	C	12	5	3	3	2	2	2	2	--	12.1
5-Jun	3	2	2	A	4	3	4	4	7	3	2	2	4	4	5	3	3	9	47	4	7	11	11	8	6.5	46.7
6-Jun	6	6	A	6	6	7	8	5	4	4	10	3	4	4	4	4	4	5	8	7	8	8	7	8	5.8	9.7
7-Jun	10	A	13	12	15	16	14	8	6	6	5	5	2	4	3	3	3	3	4	4	5	6	11	27	7.9	26.8
8-Jun	A	12	12	14	14	13	12	11	5	2	2	2	2	7	6	3	4	6	3	3	5	4	9	A	7.0	14.3
9-Jun	6	4	2	2	3	5	6	4	4	3	2	6	24	4	3	3	5	4	3	3	3	4	A	6	4.8	23.6
10-Jun	4	4	2	2	2	4	6	8	8	4	6	7	17	7	9	3	6	5	5	6	5	A	18	19	6.8	19.3
11-Jun	14	11	9	7	10	11	11	14	6	10	10	7	6	4	7	6	4	4	4	10	A	12	9	10	8.4	13.8
12-Jun	16	15	14	8	19	17	25	24	15	9	10	6	4	3	4	3	5	4	15	A	10	9	8	14	11.2	25.3
13-Jun	26	8	8	7	12	18	17	45	32	17	5	5	5	13	6	4	4	7	A	9	22	19	16	18	14.0	45.2
14-Jun	10	10	8	11	15	10	8	9	8	7	3	3	3	4	3	3	3	A	6	3	4	4	6	9	6.5	15.3
15-Jun	8	6	9	9	14	11	7	4	3	3	1	3	2	3	2	4	A	6	5	6	6	4	6	5	5.4	14.0
16-Jun	5	7	7	8	8	12	11	5	5	5	5	4	4	2	5	A	10	11	6	13	6	7	6	6	6.8	13.0
17-Jun	6	7	6	8	12	17	27	22	16	14	6	28	4	4	A	65	4	3	3	4	7	7	7	5	12.2	64.6
18-Jun	19	5	5	7	16	12	21	16	14	16	15	4	3	A	7	3	3	3	3	7	12	14	15	12	10.0	21.0
19-Jun	12	13	16	15	15	17	17	15	9	9	9	3	A	6	7	5	3	5	14	7	7	6	5	8	9.7	17.5
20-Jun	6	5	5	6	7	11	15	13	11	12	5	A	9	3	3	3	3	3	4	3	5	6	6	5	6.5	15.3
21-Jun	4	5	7	4	6	7	10	8	3	2	A	5	2	2	2	2	2	2	4	4	5	12	20	17	5.7	20.3
22-Jun	18	13	13	13	15	13	9	6	13	A	8	3	2	2	3	2	2	4	3	4	6	8	10	6	7.7	18.4
23-Jun	7	6	10	7	18	14	11	7	A	M	M	3	3	6	4	4	3	3	4	4	6	7	6	5	6.5	18.4
24-Jun	3	5	7	8	6	12	12	A	12	8	5	4	11	3	3	3	4	5	5	6	6	7	5	5	6.3	12.3
25-Jun	4	4	4	4	5	8	A	10	4	4	3	3	3	2	2	2	2	2	2	3	6	8	7	8	4.2	9.6
26-Jun	5	8	7	6	9	A	10	8	5	5	4	3	7	2	2	2	3	4	7	8	9	8	14	14	6.5	14.2
27-Jun	6	14	16	17	A	15	14	25	17	14	7	4	3	3	3	4	5	35	12	8	7	10	11	8	11.3	35.2
28-Jun	6	6	6	A	8	9	8	8	6	4	3	4	3	2	1	2	2	2	2	3	6	8	8	3	4.8	9.0
29-Jun	3	4	A	6	4	7	4	4	9	7	6	4	3	3	5	7	3	4	3	7	6	6	8	7	5.2	9.5
30-Jun	5	A	8	4	6	7	10	7	5	3	4	3	3	4	2	3	2	5	2	6	12	11	16	24	6.5	24.1
8.3		7.2	7.8	7.9	10.0	10.9	11.6	11.4	8.8	6.8	5.4	4.7	4.9	3.8	3.9	5.4	3.9	5.4	6.6	5.6	7.1	7.8	9.1	9.3	Diurnal Average	
25.6		14.7	16.1	16.9	18.9	18.5	27.5	45.2	31.9	16.8	14.8	28.5	23.6	13.2	8.6	64.6	12.1	35.2	46.7	13.0	22.4	18.7	20.3	26.8	Diurnal Maximum	
C - Calibration		M - Maintenance					A - Automated Daily Zero Span																			

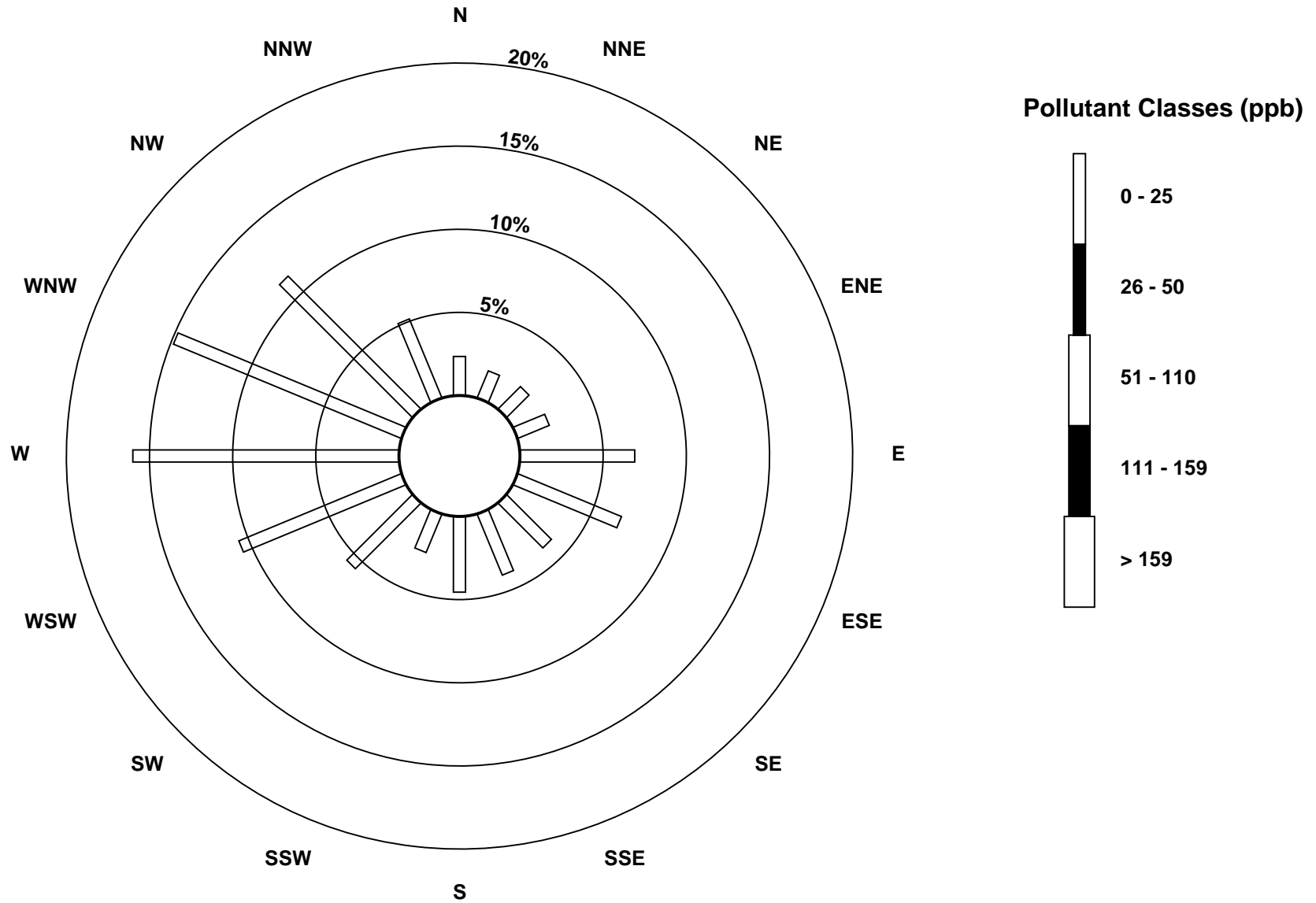
**Hourly Maximums**

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Henry Pirker - June 2014**



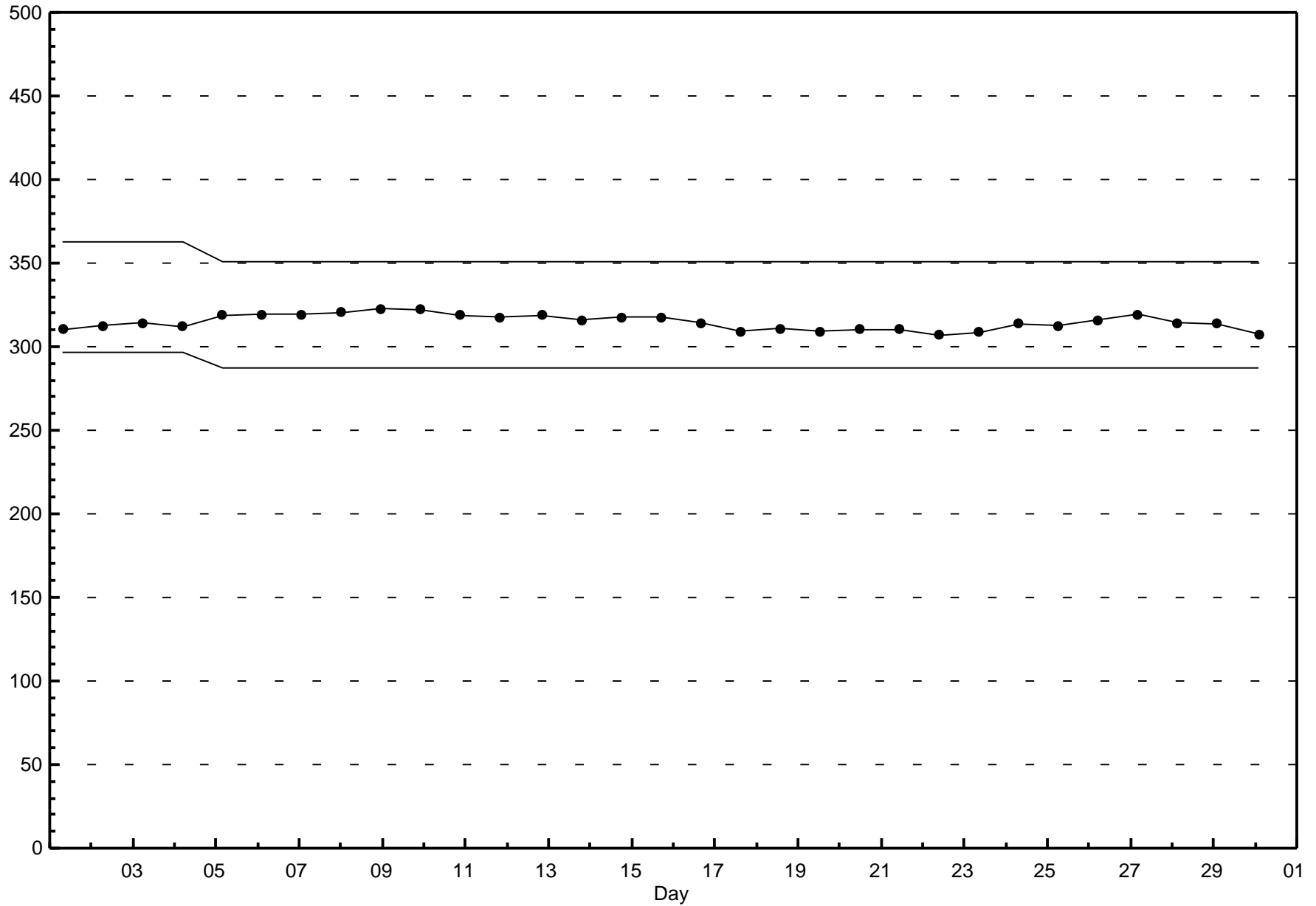
**Pollutant Rose**

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Henry Pirker - June 2014**



### Span Responses

**Nitrogen Dioxide (NO<sub>2</sub>)**  
**Henry Pirker - June 2014**



## Hourly Averages

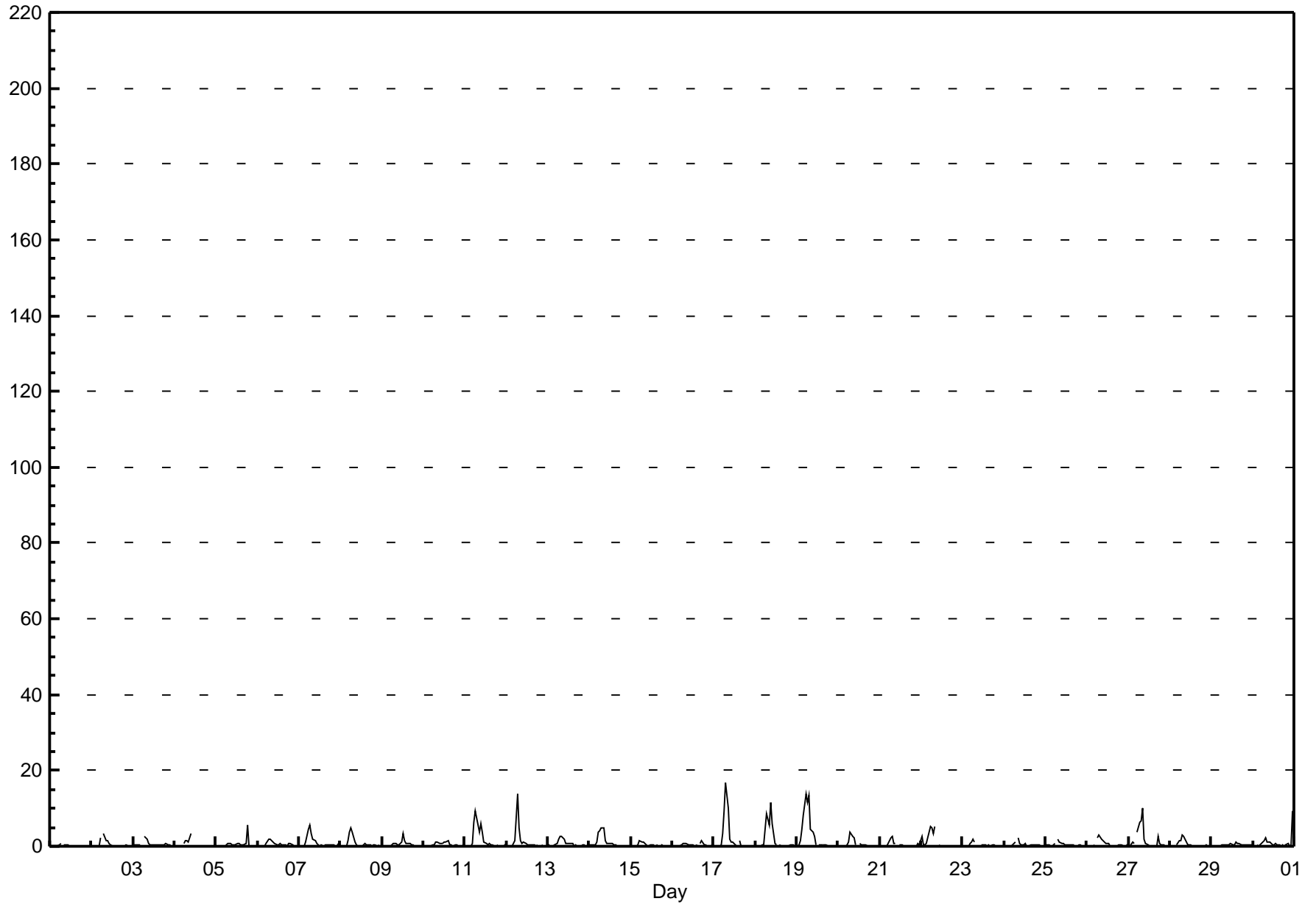
Nitrogen Oxide (NO) - ppb

Henry Pirker - June 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 16.9 ppb on Jun 17 08:00 Maximum Daily Average: 2.9 ppb on Jun 19		Hours in Service: 720 Hours of Data: 681 Hours of Missing Data: 39 Hours of Calibration: 37 Percent Operational Time: 99.7																																															
Minimum Value: 0 ppb on Jun 1 23:00 Maximum Diurnal Average: 3.8 ppb at hour 8 Monthly Average: 0.85 ppb		Minimum Daily Average: 0.2 ppb on Jun 1 Minimum Diurnal Average: 0.1 ppb at hour 2 Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 0.3 Q <sub>3</sub> = 0.7 P <sub>90</sub> = 2.0 P <sub>99</sub> = 9.8																																															
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-Jun	0	0	0	0	0	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8																							
2-Jun	0	0	0	0	0	2	A	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.2																							
3-Jun	0	0	0	0	0	A	3	2	2	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.6	2.6																							
4-Jun	0	0	0	0	A	1	1	2	1	3	C	C	C	C	C	C	0	0	0	0	0	0	0	0	--	3.2																							
5-Jun	0	0	0	A	0	0	0	1	1	0	0	0	1	1	0	0	0	1	6	0	0	0	0	0	0.5	5.6																							
6-Jun	0	0	A	0	0	1	2	2	1	1	1	0	0	1	1	0	0	0	1	1	0	0	0	0	0.5	2.0																							
7-Jun	0	A	0	0	1	4	6	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0	5.5																							
8-Jun	A	0	0	0	2	4	5	4	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.9	4.7																							
9-Jun	0	0	0	0	0	0	1	1	1	1	0	1	3	2	1	1	1	0	0	0	0	0	0	0	0.5	3.2																							
10-Jun	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	0	0	0	0	0	0	A	A	0	0.5	1.6																							
11-Jun	0	0	0	0	1	6	9	8	4	6	4	1	1	1	1	0	0	0	0	0	A	0	0	0	1.8	9.2																							
12-Jun	0	0	0	0	1	1	14	5	2	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	1.2	13.8																							
13-Jun	0	0	0	0	0	1	2	3	3	2	1	1	1	1	1	0	0	0	A	0	0	0	0	0	0.7	2.7																							
14-Jun	0	0	0	0	1	4	4	5	5	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0	1.1	5.0																							
15-Jun	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	1.3																							
16-Jun	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	A	1	1	0	1	0	0	0	0	0.4	1.4																							
17-Jun	0	0	0	0	0	3	9	17	10	2	1	1	0	0	A	1	0	0	0	0	0	0	0	0	2.0	16.9																							
18-Jun	0	0	0	0	0	0	9	7	6	11	6	1	0	A	0	0	0	0	0	0	0	0	0	0	1.9	11.5																							
19-Jun	0	0	2	5	8	14	11	13	5	4	3	0	A	0	1	0	0	0	0	0	0	0	0	0	2.9	13.6																							
20-Jun	0	0	0	0	0	0	1	4	3	2	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0.6	3.6																							
21-Jun	0	0	0	0	0	1	2	2	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.5																							
22-Jun	2	1	0	1	2	5	5	3	5	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1	5.3																							
23-Jun	0	0	0	0	1	1	2	1	A	M	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.7																							
24-Jun	0	0	0	0	0	0	1	A	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.4	2.1																							
25-Jun	0	0	0	0	0	1	A	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.8																							
26-Jun	0	0	0	0	0	A	2	3	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.6	3.0																							
27-Jun	0	0	1	1	A	4	6	7	10	2	1	0	0	0	0	0	0	2	1	1	0	0	0	1.6	10.2																								
28-Jun	0	0	0	A	0	1	2	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.2																							
29-Jun	0	0	A	0	0	0	0	0	0	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0.4	1.0																							
30-Jun	0	A	0	0	0	1	2	2	1	1	1	1	1	1	0	0	0	0	0	0	1	0	0	9	1.0	9.4																							
																								0.2	0.2	0.3	0.7	2.1	3.7	3.8	2.6	1.7	1.0	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.4	0.2	0.2	0.1	0.1	0.5	Diurnal Average		
																								2.4	0.6	1.5	4.5	8.1	13.6	13.8	16.9	10.2	11.5	6.0	1.3	3.2	1.6	1.6	1.3	0.6	2.4	5.6	0.6	0.7	0.3	0.7	9.4	Diurnal Maximum	
C - Calibration																								M - Maintenance						A - Automated Daily Zero Span																			

**Hourly Averages**

**Nitrogen Oxide (NO) - ppb**  
**Henry Pirker - June 2014**



## Hourly Maximums

Nitrogen Oxide (NO) - ppb

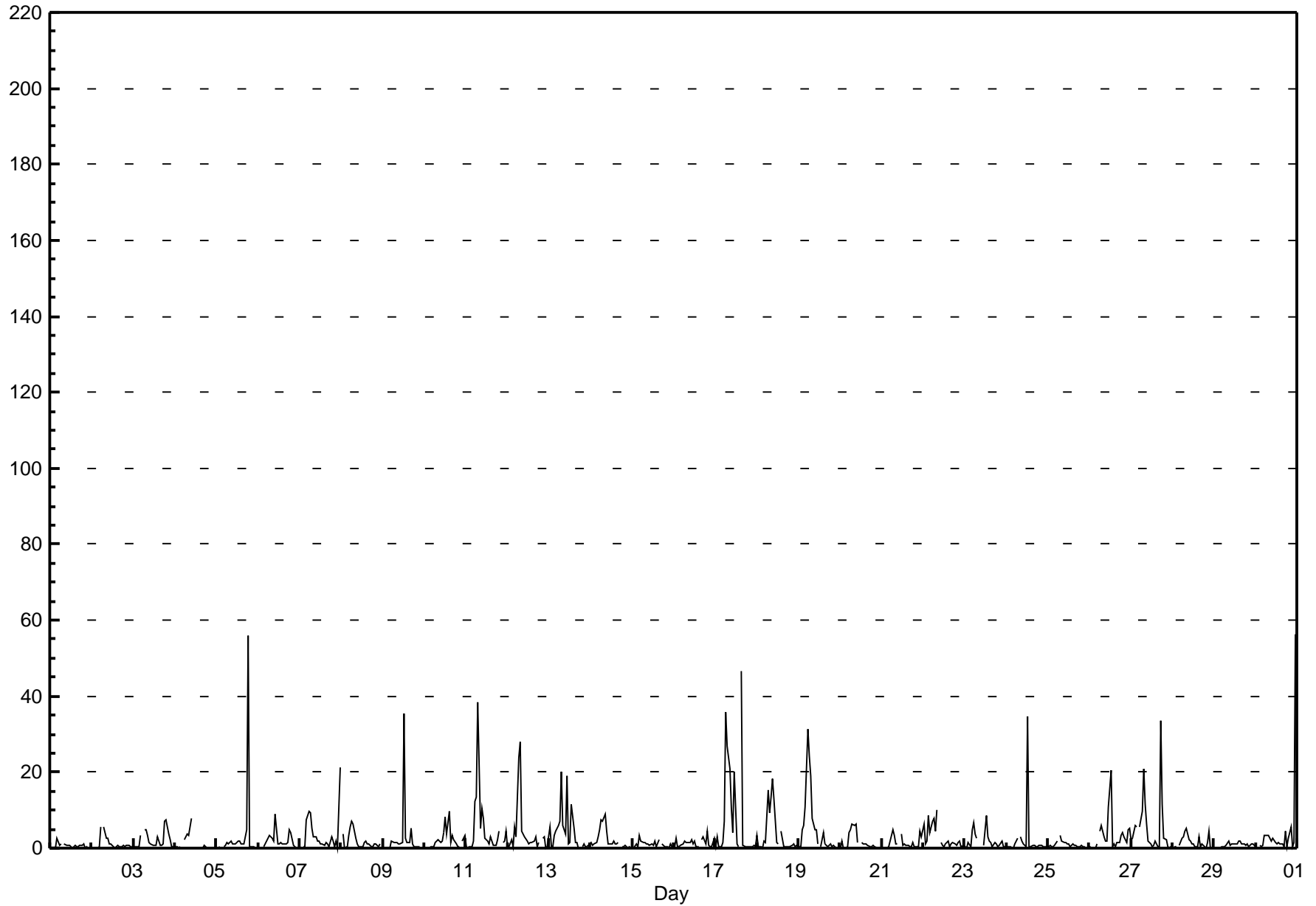
Henry Pirker - June 2014

Maximum Value: 56.4 ppb on Jul 1 00:00		Maximum Daily Average: 8.0 ppb on Jun 17		Hours in Service: 720																							
Minimum Value: 0 ppb on Jun 4 19:00		Minimum Daily Average: 0.6 ppb on Jun 1		Hours of Data: 681																							
Maximum Diurnal Average: 8.6 ppb at hour 8		Minimum Diurnal Average: 0.7 ppb at hour 2		Hours of Missing Data: 39																							
Monthly Average: 2.77 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.5 Median = 1.0 Q <sub>3</sub> = 2.5 P <sub>90</sub> = 6.0 P <sub>99</sub> = 34.3		Hours of Calibration: 37																							
				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-Jun	0	0	0	0	3	1	1	A	1	1	1	1	0	0	1	1	1	1	1	1	0	1	0	0	0.6	2.7	
2-Jun	0	0	0	0	1	5	A	5	3	3	1	1	0	0	0	1	0	0	1	0	1	1	0	0	1.0	5.5	
3-Jun	0	0	0	0	3	A	5	5	3	2	1	1	1	1	3	1	1	1	7	7	4	2	1	0	2.1	7.5	
4-Jun	0	0	0	0	A	2	3	4	3	8	C	C	C	C	C	C	0	1	0	0	0	0	0	0	--	7.7	
5-Jun	0	0	0	A	0	1	1	1	2	1	1	1	2	2	1	1	1	5	56	1	1	1	0	0	3.4	55.9	
6-Jun	0	0	A	0	1	2	3	3	2	2	9	1	1	2	1	1	1	1	5	4	1	0	0	0	1.8	8.9	
7-Jun	0	A	0	1	7	10	9	5	3	3	2	2	1	1	1	1	1	1	3	2	1	2	0	21	3.3	21.1	
8-Jun	A	4	0	1	3	5	7	6	3	1	1	1	1	1	2	1	1	1	1	1	1	0	1	A	1.9	7.2	
9-Jun	0	0	0	0	0	2	1	1	1	1	1	2	35	3	1	1	5	1	1	1	0	0	A	0	2.6	35.3	
10-Jun	0	0	0	0	1	1	1	2	2	1	2	4	8	4	10	1	3	2	1	1	1	A	2	3	2.2	9.7	
11-Jun	0	0	1	0	2	12	13	38	5	10	8	2	2	1	3	2	1	1	2	4	A	1	2	4	5.1	38.5	
12-Jun	1	1	2	0	6	3	24	28	4	4	3	2	1	1	1	2	3	1	1	A	3	3	0	0	4.1	27.8	
13-Jun	5	1	0	3	4	6	7	20	6	4	19	1	1	11	5	1	1	0	A	0	1	1	1	1	4.4	20.2	
14-Jun	1	1	1	2	3	5	7	7	9	5	1	1	1	2	1	1	1	A	1	1	1	0	0	0	2.2	8.9	
15-Jun	0	0	1	1	3	2	2	2	1	1	1	1	1	2	1	2	A	1	1	1	0	0	1	0	1.0	3.5	
16-Jun	0	3	1	1	1	1	2	1	1	1	2	1	2	1	1	A	2	3	1	5	1	1	0	3	1.4	4.6	
17-Jun	1	3	0	0	1	7	36	27	21	10	4	20	1	1	A	47	1	1	0	1	1	1	1	1	8.0	46.7	
18-Jun	3	0	1	0	2	2	15	9	14	18	13	1	1	A	5	1	1	1	1	1	1	1	1	1	3.9	18.3	
19-Jun	1	1	5	6	11	31	24	19	8	5	5	1	A	1	4	1	1	1	1	0	1	1	0	0	5.5	31.4	
20-Jun	0	2	0	0	1	4	5	6	6	6	1	A	1	1	1	1	1	1	1	1	1	0	0	0	1.7	6.5	
21-Jun	0	0	0	0	0	2	5	4	1	1	A	4	1	1	1	1	1	1	1	1	1	1	4	3	1.4	5.0	
22-Jun	6	1	2	9	4	7	8	4	10	A	1	1	1	1	2	1	1	2	1	1	1	2	1	1	2.9	9.9	
23-Jun	1	0	1	1	5	7	4	3	A	M	M	1	9	3	2	1	1	1	1	1	1	2	1	0	2.0	8.7	
24-Jun	0	1	0	0	0	1	2	A	3	2	1	1	35	1	1	1	1	1	1	1	1	1	1	1	2.3	34.6	
25-Jun	1	1	1	1	1	2	A	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.9	3.5	
26-Jun	1	0	0	0	1	A	4	6	3	2	2	11	21	1	1	1	2	2	3	4	3	1	5	5	3.4	20.6	
27-Jun	2	2	6	5	A	6	10	21	11	6	2	1	1	1	2	0	1	33	11	3	2	0	0	0	5.6	33.5	
28-Jun	0	0	0	A	1	3	3	5	5	2	2	1	1	1	1	3	0	1	0	0	1	5	0	0	1.5	5.2	
29-Jun	0	0	A	0	0	1	1	1	2	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	0.9	2.0	
30-Jun	1	A	1	1	1	3	3	4	2	2	2	2	1	2	1	1	1	5	0	3	5	1	1	56	4.2	56.4	
		0.9	0.7	0.9	1.2	2.3	4.7	7.5	8.6	4.8	3.7	3.3	2.3	4.6	1.6	1.9	2.8	1.2	2.3	3.6	1.5	1.1	1.0	0.8	3.6	Diurnal Average	
		6.4	3.8	6.0	8.7	10.9	31.4	35.9	38.5	20.8	18.3	19.2	20.0	35.3	11.4	9.7	46.7	5.3	33.5	55.9	7.5	5.4	4.5	5.0	56.4	Diurnal Maximum	
C - Calibration		M - Maintenance						A - Automated Daily Zero Span																			



### Hourly Maximums

**Nitrogen Oxide (NO) - ppb**  
**Henry Pirker - June 2014**



## Hourly Averages

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

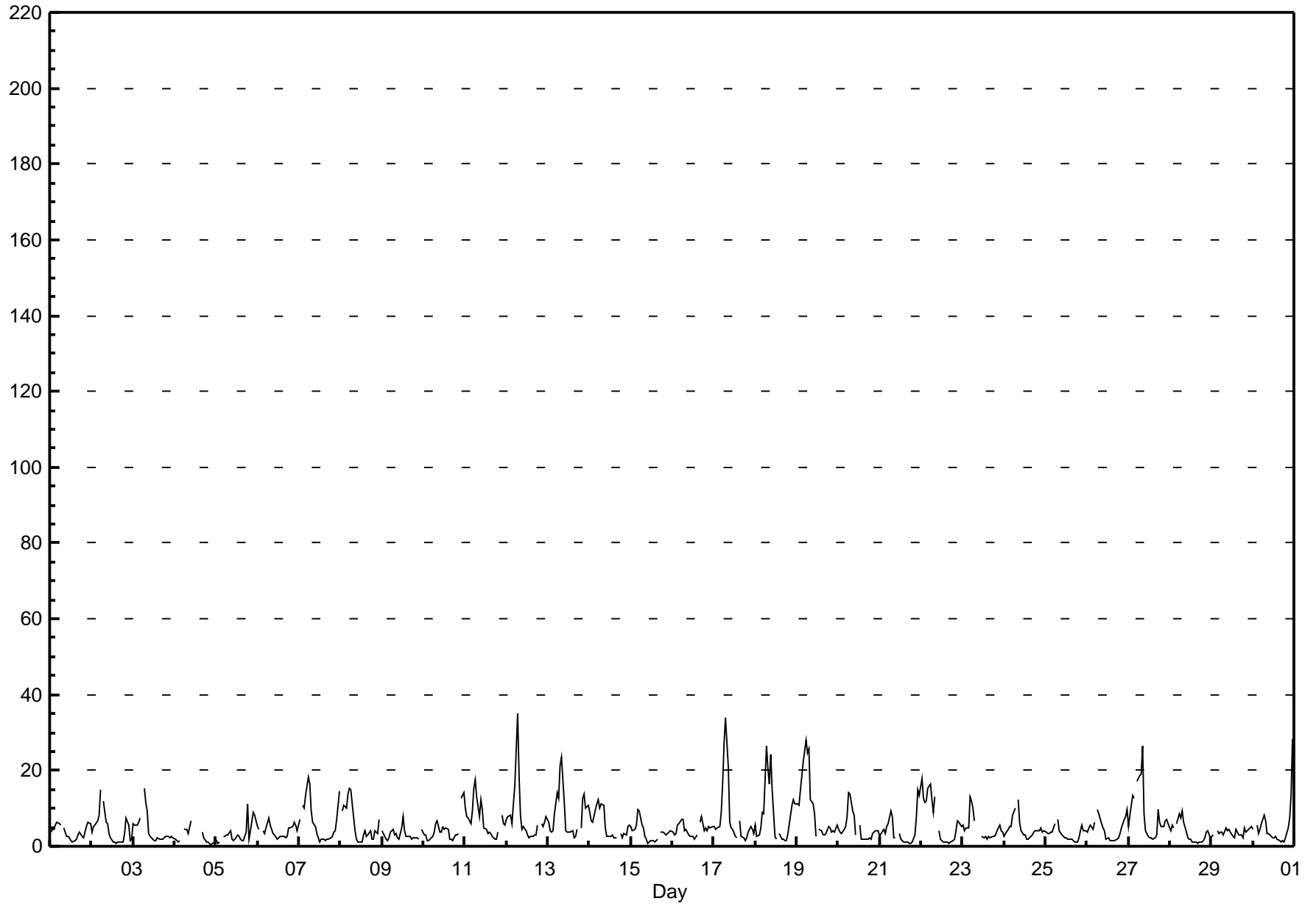
### Henry Pirker - June 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 34.9 ppb on Jun 12 07:00	Maximum Daily Average: 10.3 ppb on Jun 19		Hours of Data:	681
Minimum Value: 1 ppb on Jun 4 22:00	Minimum Daily Average: 3.1 ppb on Jun 9		Hours of Missing Data:	39
Maximum Diurnal Average: 12.3 ppb at hour 7	Minimum Diurnal Average: 2.2 ppb at hour 16		Hours of Calibration:	37
Monthly Average: 5.36 ppb	Percentiles: P <sub>1</sub> = 0.9 P <sub>10</sub> = 1.5 Q <sub>1</sub> = 2.3 Median = 3.9 Q <sub>3</sub> = 6.2 P <sub>90</sub> = 11.5 P <sub>99</sub> = 26.3		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-Jun	4	4	4	6	6	6	6	A	5	3	3	2	1	1	1	2	3	4	3	2	4	5	6	6	3.8	6.4
2-Jun	4	5	6	7	8	15	A	12	6	6	3	2	1	1	1	1	1	1	1	3	8	6	2	2	4.4	14.9
3-Jun	6	6	6	6	7	A	15	12	9	3	3	2	1	1	2	2	2	2	2	3	2	2	3	2	4.3	15.1
4-Jun	2	1	1	1	A	4	5	5	3	7	C	C	C	C	C	C	4	2	1	1	1	1	1	1	--	6.8
5-Jun	1	1	1	A	3	2	3	3	4	2	2	2	3	2	2	2	2	4	11	2	4	9	8	7	3.4	11.3
6-Jun	5	5	A	4	3	5	7	6	4	3	3	2	2	3	3	3	2	3	5	5	5	6	5	4	4.1	7.5
7-Jun	7	A	11	10	13	18	16	10	6	5	4	2	1	2	2	2	2	2	2	3	4	4	7	15	6.4	18.2
8-Jun	A	9	11	10	14	15	15	11	4	2	1	1	1	3	4	3	3	4	2	2	4	3	7	A	5.9	15.3
9-Jun	4	3	2	1	2	4	5	3	3	2	2	5	8	4	2	3	2	2	2	2	2	2	A	A	3.1	7.8
10-Jun	3	3	2	1	2	3	4	6	7	4	4	5	5	5	5	2	2	1	3	3	3	A	13	14	4.3	14.1
11-Jun	10	8	8	6	9	15	17	13	8	12	10	5	4	3	4	3	3	2	2	4	A	8	6	6	7.2	17.4
12-Jun	7	8	8	6	11	16	35	19	8	5	5	4	3	2	3	3	3	3	6	A	6	5	6	8	7.8	34.9
13-Jun	6	4	4	4	8	14	13	21	23	12	4	4	4	4	4	2	3	4	A	5	13	14	10	11	8.3	23.4
14-Jun	9	7	6	10	11	12	10	11	11	5	3	3	3	3	2	2	2	A	3	2	3	3	5	6	5.7	12.2
15-Jun	5	4	4	6	10	9	6	5	3	2	1	1	1	1	1	2	A	4	4	4	3	3	4	4	3.8	9.7
16-Jun	4	3	4	5	6	7	7	4	4	3	2	2	2	2	3	A	6	8	4	5	4	5	5	5	4.4	8.0
17-Jun	5	4	5	5	9	17	27	34	21	6	5	5	2	2	A	7	3	2	2	2	4	5	5	3	7.8	34.1
18-Jun	5	3	3	5	9	9	26	20	16	24	15	3	2	A	3	2	2	1	2	3	8	11	12	11	8.5	26.4
19-Jun	11	11	15	19	22	28	25	26	12	11	8	3	A	4	4	3	3	3	5	5	4	4	4	6	10.3	27.9
20-Jun	4	4	3	5	5	8	14	14	9	8	3	A	5	2	2	2	2	2	2	2	3	4	4	4	4.9	14.1
21-Jun	3	4	4	3	5	6	9	8	2	2	A	3	2	2	1	1	1	1	1	1	3	8	15	13	4.3	14.9
22-Jun	18	13	11	12	15	17	12	9	13	A	4	2	1	1	1	1	1	1	1	2	4	7	6	5	6.9	18.0
23-Jun	6	4	5	5	13	12	10	7	A	M	M	2	2	3	2	2	2	3	3	3	4	6	4	4	4.8	12.9
24-Jun	3	3	5	5	5	8	10	A	12	6	4	3	3	2	2	3	3	4	4	4	4	5	4	4	4.6	12.1
25-Jun	4	3	3	4	4	6	A	7	4	3	3	2	2	2	2	2	2	1	1	2	4	5	4	4	3.2	7.2
26-Jun	4	5	6	5	6	A	10	8	6	5	4	2	2	1	1	1	1	2	2	3	5	7	8	10	4.5	9.8
27-Jun	5	8	13	13	A	17	19	19	26	9	4	3	2	2	2	2	3	10	6	5	5	7	7	6	8.5	26.3
28-Jun	4	5	5	A	6	9	8	9	6	4	2	2	2	1	1	1	1	1	1	2	2	4	4	2	3.5	9.2
29-Jun	3	3	A	4	3	4	4	3	5	4	5	4	3	2	4	4	3	3	2	5	4	4	5	5	3.7	5.1
30-Jun	5	A	6	3	4	6	8	7	3	3	3	2	2	3	2	1	1	2	1	2	5	7	13	28	5.2	28.5

5.4	5.1	5.8	6.1	8.0	10.4	12.3	11.1	8.5	5.8	4.0	2.8	2.6	2.3	2.4	2.2	2.3	2.8	2.9	3.0	4.3	5.6	6.3	6.9	Diurnal Average	
18.0	12.6	15.0	18.8	22.2	27.9	34.9	34.1	26.3	24.3	14.7	5.1	7.8	4.8	4.7	6.5	6.5	9.8	11.3	5.4	12.7	14.0	14.9	28.5	Diurnal Maximum	

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



## Hourly Maximums

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

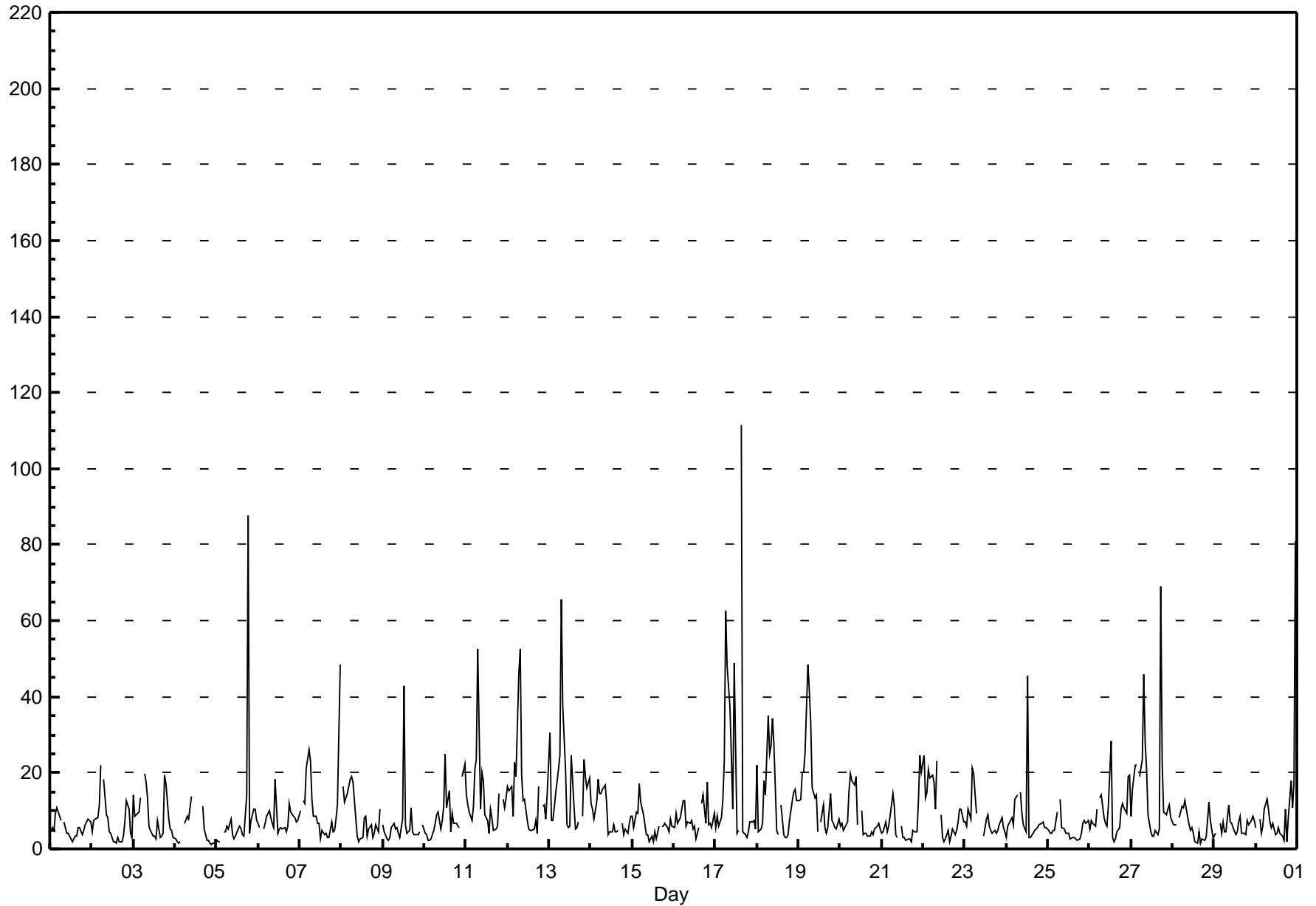
Henry Pirker - June 2014

Maximum Value: 111.6 ppb on Jun 17 16:00		Maximum Daily Average: 20.0 ppb on Jun 17		Hours in Service: 720																																													
Minimum Value: 1 ppb on Jun 4 22:00		Minimum Daily Average: 5.1 ppb on Jun 25		Hours of Data: 681																																													
Maximum Diurnal Average: 19.9 ppb at hour 8		Minimum Diurnal Average: 4.9 ppb at hour 17		Hours of Missing Data: 39																																													
Monthly Average: 9.77 ppb		Percentiles: P <sub>1</sub> = 1.5 P <sub>10</sub> = 3.1 Q <sub>1</sub> = 4.5 Median = 6.6 Q <sub>3</sub> = 11.3 P <sub>90</sub> = 19.1 P <sub>99</sub> = 49.3		Hours of Calibration: 37																																													
				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-Jun	5	5	5	9	11	9	7	A	7	4	4	3	3	2	4	4	6	5	4	5	6	7	8	7	5.7	11.0																							
2-Jun	5	8	8	8	11	22	A	18	9	8	4	4	2	2	2	3	2	2	3	7	13	11	4	3	6.9	21.9																							
3-Jun	14	9	9	10	13	A	20	17	13	6	5	4	3	2	7	3	3	4	19	17	8	5	5	3	8.8	19.9																							
4-Jun	3	2	2	2	A	7	8	9	8	14	C	C	C	C	C	C	11	5	2	2	2	1	1	2	--	13.8																							
5-Jun	2	2	2	A	4	4	6	5	8	4	3	4	5	6	5	4	4	14	88	4	7	11	11	8	9.1	87.8																							
6-Jun	7	6	A	5	7	9	10	8	7	6	18	4	5	6	5	5	5	6	12	10	9	8	7	8	7.4	18.4																							
7-Jun	10	A	13	12	21	26	23	13	9	9	7	7	3	5	4	4	3	3	7	5	5	8	11	48	11.1	48.4																							
8-Jun	A	16	12	14	16	18	19	18	8	3	2	2	3	8	9	4	5	6	3	4	6	5	10	A	8.8	18.9																							
9-Jun	7	5	3	2	3	6	7	5	6	4	3	8	43	6	4	5	11	5	4	4	4	5	A	6	6.6	42.8																							
10-Jun	4	4	2	2	3	5	7	9	10	5	8	11	25	11	15	5	9	7	7	6	6	A	19	22	8.7	24.9																							
11-Jun	14	12	10	8	11	21	24	53	11	20	18	9	8	4	10	8	5	5	6	14	A	13	11	13	13.3	52.5																							
12-Jun	16	15	17	9	23	19	46	52	19	13	13	7	5	5	5	5	7	4	16	A	11	12	8	14	14.9	52.5																							
13-Jun	30	8	8	11	14	21	24	66	38	21	6	6	6	25	11	5	6	7	A	9	23	19	16	19	17.2	65.7																							
14-Jun	12	10	8	12	18	15	15	16	17	12	4	5	4	6	4	4	5	A	7	4	5	4	7	9	8.8	18.4																							
15-Jun	9	6	10	9	17	12	9	6	4	4	2	4	2	5	3	6	A	6	6	7	6	5	8	6	6.5	17.3																							
16-Jun	6	9	7	8	8	13	13	6	7	7	7	5	6	3	6	A	12	14	7	18	6	7	6	9	8.2	17.6																							
17-Jun	6	8	6	8	13	23	63	48	37	24	10	49	4	5	A	112	5	4	3	5	7	7	7	5	20.0	111.6																							
18-Jun	22	5	5	7	18	14	35	25	27	34	28	5	4	A	12	4	3	3	4	8	13	15	16	12	13.8	35.0																							
19-Jun	13	13	20	20	25	48	42	33	16	14	14	5	A	7	12	6	4	6	15	7	7	6	5	8	15.0	48.4																							
20-Jun	6	7	5	7	7	15	20	18	17	19	6	A	10	4	4	4	3	3	4	4	5	6	7	5	8.1	19.9																							
21-Jun	4	5	7	5	6	9	15	11	4	3	A	6	3	3	2	3	3	2	5	5	5	13	25	20	7.0	24.7																							
22-Jun	24	14	15	21	19	20	17	11	23	A	9	3	2	3	5	2	3	5	4	5	7	10	10	7	10.3	24.5																							
23-Jun	7	6	11	8	21	20	14	9	A	M	M	4	8	9	6	5	4	5	4	5	6	8	6	5	8.1	21.4																							
24-Jun	3	6	8	8	6	13	14	A	15	9	6	5	45	3	3	4	5	5	6	6	7	7	6	6	8.5	45.5																							
25-Jun	5	4	4	5	5	10	A	13	6	5	4	4	4	3	3	3	3	2	3	4	7	8	7	8	5.1	13.2																							
26-Jun	5	8	7	6	10	A	14	14	8	7	6	11	28	3	2	3	4	6	10	12	11	9	19	19	9.6	28.3																							
27-Jun	9	15	22	22	A	19	23	46	28	21	9	4	4	4	5	4	5	69	23	10	9	10	11	8	16.5	69.0																							
28-Jun	6	7	7	A	8	11	11	12	10	6	5	5	4	2	2	4	2	3	2	3	7	12	8	3	6.1	12.5																							
29-Jun	4	4	A	7	4	7	5	5	11	7	7	6	4	5	7	9	4	4	4	8	6	7	9	8	6.0	11.5																							
30-Jun	6	A	8	4	6	10	13	11	7	6	7	4	4	6	4	3	2	10	2	8	18	11	18	81	10.7	80.8																							
																								9.0	7.7	8.4	8.8	11.9	15.2	18.6	19.9	13.4	10.5	8.0	6.9	8.8	5.3	5.7	8.2	4.9	7.6	9.6	7.0	8.0	8.6	9.8	12.8	Diurnal Average	
																								30.4	16.5	21.9	21.9	25.4	48.4	62.8	65.7	37.6	34.4	27.7	48.8	45.5	24.7	15.3	111.6	12.0	69.0	87.8	17.6	23.4	19.1	24.7	80.8	Diurnal Maximum	
C - Calibration																								M - Maintenance						A - Automated Daily Zero Span																			

### Hourly Maximums

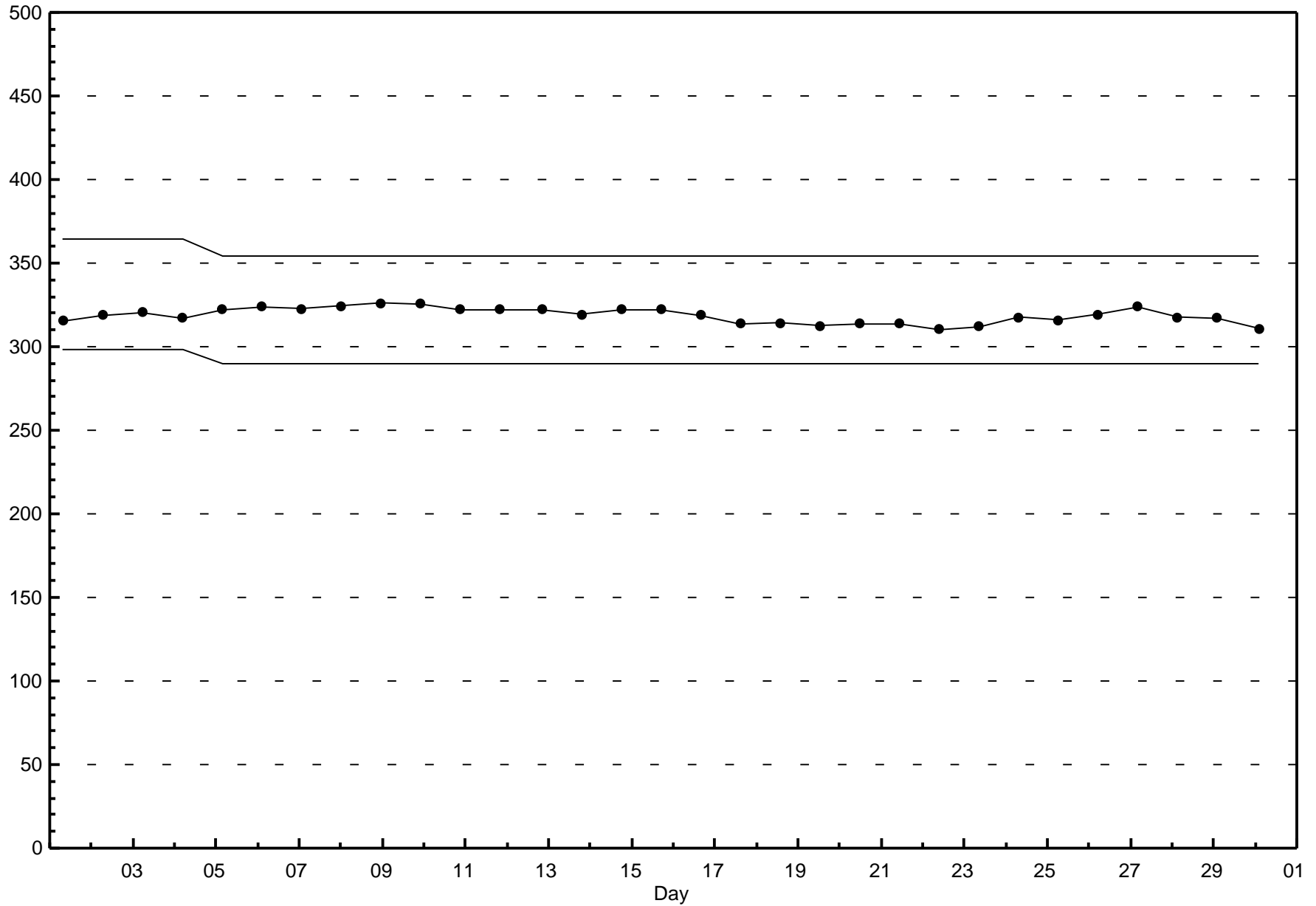
Oxides of Nitrogen (NO<sub>x</sub>) - ppb

Henry Pirker - June 2014



### Span Responses

Oxides of Nitrogen (NO<sub>x</sub>)  
Henry Pirker - June 2014



## Hourly Averages

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

Henry Pirker - June 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 52.4 ppb on Jun 13 16:00	Maximum Daily Average: 35.5 ppb on Jun 23		Hours of Data:	684
Minimum Value: 0 ppb on Jun 19 04:00	Minimum Daily Average: 16.3 ppb on Jun 4		Hours of Missing Data:	36
Maximum Diurnal Average: 38.7 ppb at hour 16	Minimum Diurnal Average: 15.1 ppb at hour 6		Hours of Calibration:	34
Monthly Average: 27.92 ppb	Percentiles: P <sub>1</sub> = 3.6 P <sub>10</sub> = 11.8 Q <sub>1</sub> = 20.3 Median = 28.7 Q <sub>3</sub> = 36.4 P <sub>90</sub> = 43.0 P <sub>99</sub> = 49.9		Percent Operational Time:	99.7

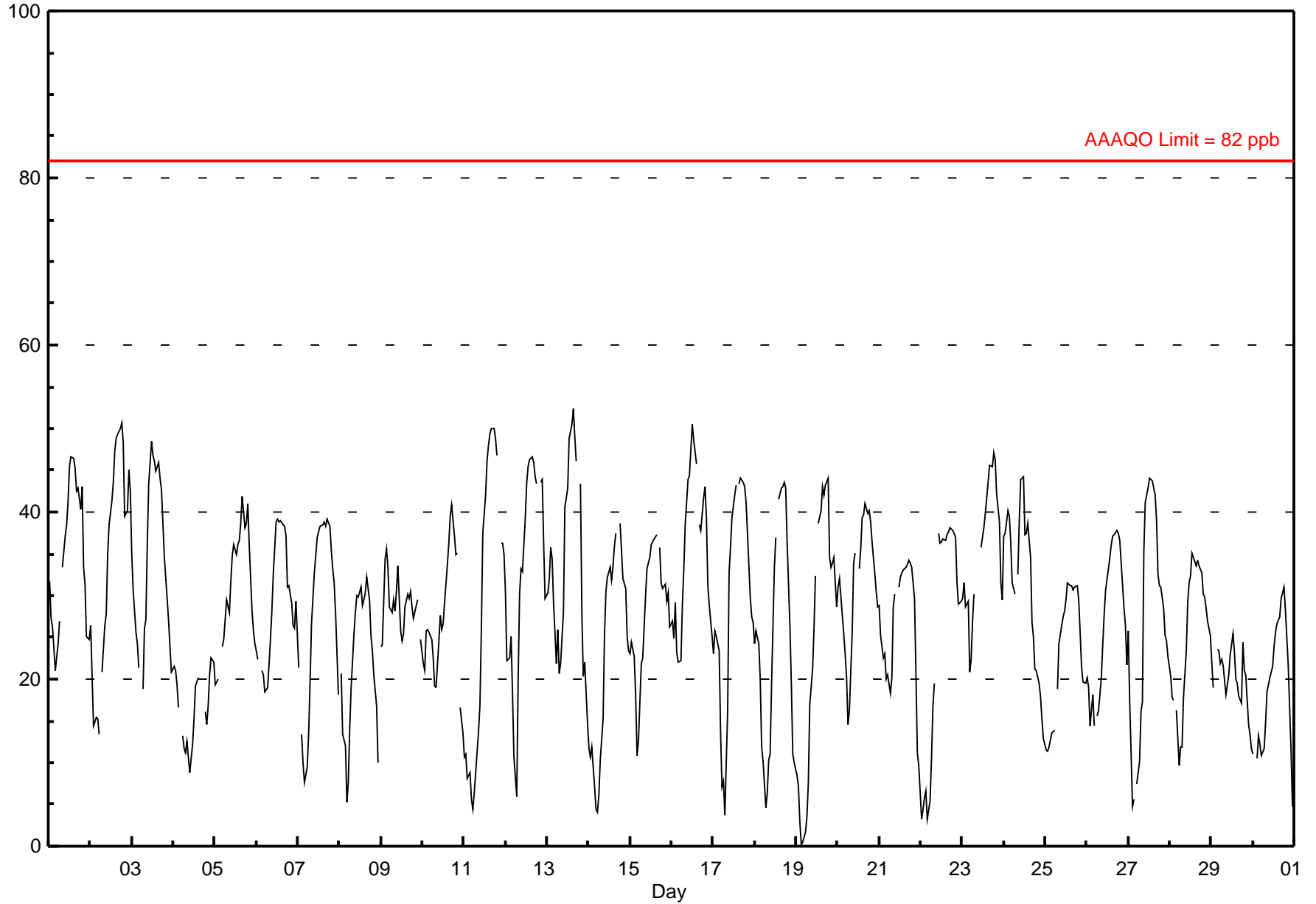
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jun	32	27	26	24	21	24	27	A	33	37	38	41	45	47	46	45	43	43	40	43	33	31	25	25	34.7	46.7	
2-Jun	26	20	14	15	15	13	A	21	27	28	35	38	41	44	47	49	49	50	51	48	39	40	45	43	34.8	50.6	
3-Jun	35	31	26	24	21	A	19	26	27	36	43	49	47	46	45	46	44	43	39	35	30	27	24	21	34.0	48.5	
4-Jun	22	21	19	17	A	13	12	11	13	9	10	12	15	19	20	C	C	C	16	15	17	21	23	22	16.3	22.6	
5-Jun	19	20	20	A	24	25	27	29	28	32	35	36	35	36	37	39	42	38	39	41	36	28	26	24	31.1	41.8	
6-Jun	23	22	A	21	21	18	19	22	25	28	32	39	39	39	39	39	38	37	31	31	29	26	26	29	29.3	39.2	
7-Jun	21	A	13	10	8	9	13	20	27	33	35	37	38	38	38	39	38	39	38	35	33	32	28	18	27.9	39.2	
8-Jun	A	21	13	12	5	8	14	19	25	28	30	30	31	29	29	30	32	29	25	23	21	17	10	A	21.9	32.1	
9-Jun	24	24	34	36	33	29	28	29	28	30	34	26	24	25	29	30	30	31	29	27	29	30	A	25	28.8	35.6	
10-Jun	22	21	26	26	26	25	23	19	19	25	28	26	27	29	34	36	39	41	37	35	35	A	17	14	27.3	40.9	
11-Jun	11	11	8	9	6	4	6	9	14	17	26	37	42	46	48	49	50	50	49	47	A	36	36	35	28.1	50.1	
12-Jun	31	22	23	25	18	11	6	20	30	33	33	39	43	46	46	47	46	44	43	A	44	44	36	30	33.0	46.7	
13-Jun	30	32	36	34	29	22	26	21	22	28	41	42	43	49	50	52	49	46	A	43	28	20	22	15	34.0	52.4	
14-Jun	12	11	12	7	4	4	6	10	15	25	31	32	33	32	34	36	37	A	39	35	32	31	25	23	22.9	38.7	
15-Jun	23	24	23	18	11	13	22	23	26	30	33	35	36	36	37	37	A	36	32	31	31	29	30	26	27.9	37.4	
16-Jun	27	25	29	23	22	22	29	33	38	44	44	48	51	49	46	A	39	38	42	43	39	31	29	25	35.4	50.5	
17-Jun	23	26	25	23	14	7	8	4	16	33	36	39	42	43	A	43	44	44	43	41	37	30	27	27	29.4	44.1	
18-Jun	24	26	24	20	12	10	5	6	10	11	19	33	37	A	42	43	43	44	43	36	26	19	11	10	24.1	43.6	
19-Jun	8	7	3	0	1	2	4	8	17	21	26	32	A	39	40	43	42	43	44	35	33	34	35	29	23.7	44.0	
20-Jun	31	32	30	25	23	20	15	16	26	34	35	A	33	36	39	40	41	40	40	39	36	33	30	29	31.4	41.0	
21-Jun	29	25	22	23	20	21	18	20	29	30	A	31	32	33	33	33	34	34	34	33	30	21	11	10	26.3	34.2	
22-Jun	3	4	6	7	3	5	11	17	19	A	37	36	36	37	37	37	38	38	38	37	37	32	29	29	24.9	38.2	
23-Jun	30	32	29	29	21	22	27	30	A	M	M	36	38	40	42	44	46	45	47	46	42	39	32	29	35.5	47.1	
24-Jun	37	37	40	40	36	32	30	A	33	39	44	44	37	38	39	34	27	25	21	21	20	18	15	13	31.3	44.2	
25-Jun	12	11	12	13	14	14	A	19	24	26	27	28	29	32	31	31	31	31	31	31	30	26	21	20	19	23.1	31.6
26-Jun	20	19	14	18	14	A	16	16	20	24	28	31	33	35	36	37	37	38	37	37	34	29	26	22	27.0	37.7	
27-Jun	26	17	5	6	A	7	10	16	17	35	41	43	44	44	44	42	39	33	31	31	28	25	25	23	27.5	44.0	
28-Jun	20	18	17	A	16	10	12	12	18	23	29	32	32	35	34	34	34	34	33	30	30	28	27	25	25.4	35.1	
29-Jun	22	19	A	24	23	22	22	22	18	19	21	23	25	23	20	19	18	17	24	21	20	15	13	12	20.2	25.4	
30-Jun	11	A	11	13	12	11	12	15	18	19	20	22	24	26	27	27	30	30	31	28	22	17	11	5	19.2	31.0	

22.6	21.7	20.0	19.4	16.9	15.1	16.6	18.3	22.9	27.8	31.8	34.3	35.7	36.8	37.5	38.7	38.6	37.9	36.1	34.4	31.0	27.7	24.6	22.6	Diurnal Average	
37.0	37.5	40.1	39.5	36.3	31.6	30.2	33.1	38.5	43.9	44.4	48.5	50.5	48.8	50.5	52.4	50.1	50.1	50.6	48.2	43.6	43.9	45.1	42.5	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  
Henry Pirker - June 2014





## Hourly Maximums

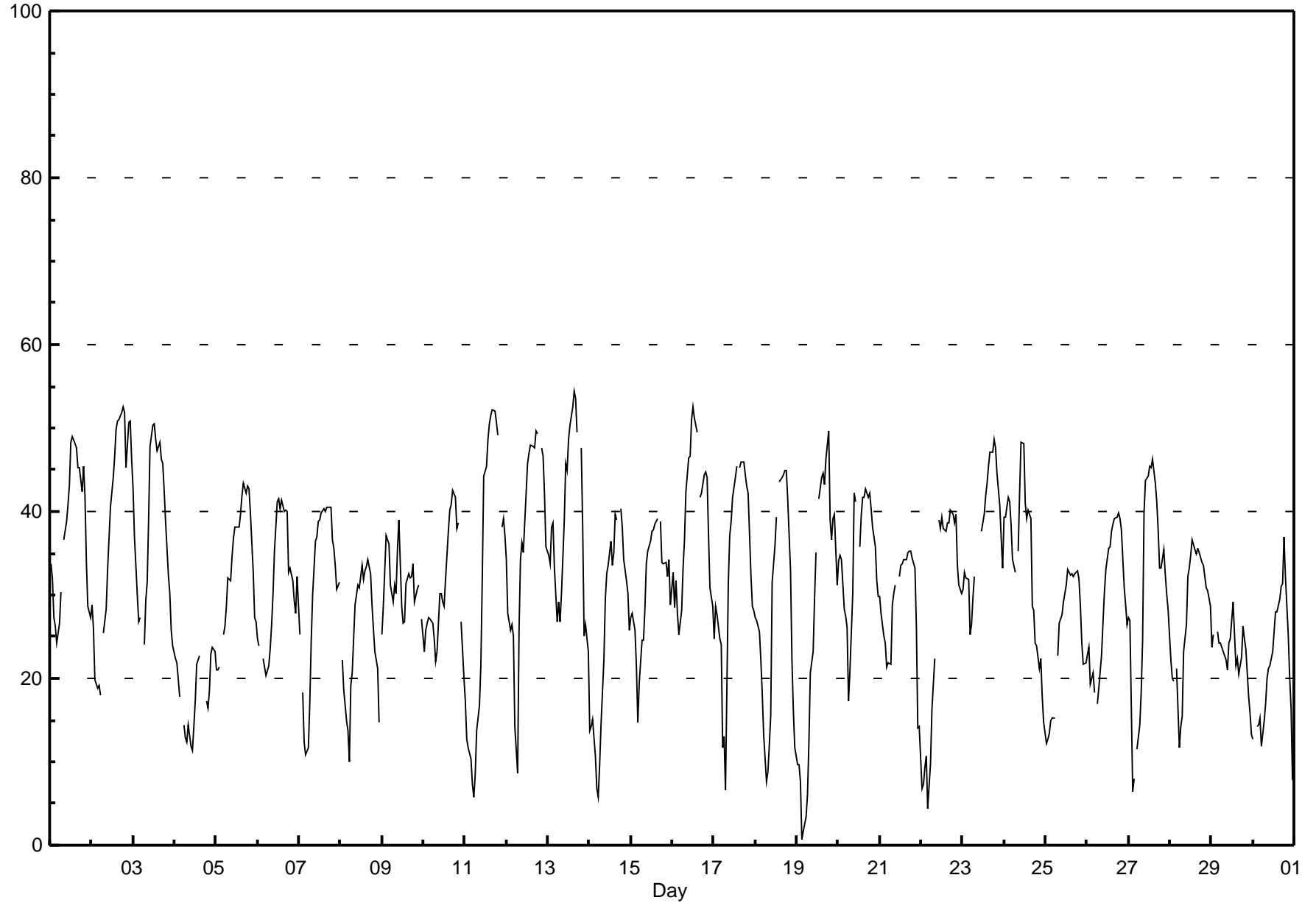
Ozone (O<sub>3</sub>) - ppb

Henry Pirker - June 2014

Maximum Value: 54.4 ppb on Jun 13 16:00		Maximum Daily Average: 39.0 ppb on Jun 16		Hours in Service: 720																																													
Minimum Value: 1 ppb on Jun 19 04:00		Minimum Daily Average: 17.9 ppb on Jun 4		Hours of Data: 684																																													
Maximum Diurnal Average: 40.8 ppb at hour 16		Minimum Diurnal Average: 18.1 ppb at hour 6		Hours of Missing Data: 36																																													
Monthly Average: 30.86 ppb		Percentiles: P <sub>1</sub> = 6.4 P <sub>10</sub> = 14.8 Q <sub>1</sub> = 23.5 Median = 31.5 Q <sub>3</sub> = 39.1 P <sub>90</sub> = 45.4 P <sub>99</sub> = 51.9		Hours of Calibration: 34																																													
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-Jun	34	32	27	26	24	27	30	A	37	39	41	43	48	49	48	48	45	45	42	45	42	34	29	27	37.5	48.9																							
2-Jun	29	26	20	19	19	18	A	25	28	33	37	40	44	47	50	51	51	52	53	52	45	51	51	46	38.5	52.5																							
3-Jun	43	37	30	27	27	A	24	29	32	39	48	50	50	49	47	48	46	46	43	39	32	30	26	24	37.6	50.4																							
4-Jun	22	22	20	18	A	14	13	12	14	12	11	14	17	22	23	C	C	C	17	16	18	23	24	23	17.9	23.8																							
5-Jun	21	21	21	A	25	26	29	32	32	35	37	38	38	38	40	42	43	42	43	43	40	33	27	27	33.6	43.4																							
6-Jun	25	24	A	22	21	20	21	23	26	30	35	41	41	40	41	40	40	40	33	33	32	29	28	32	31.4	41.5																							
7-Jun	25	A	18	12	11	12	17	24	30	36	37	39	39	40	40	40	41	40	37	36	34	31	32	32	30.9	40.5																							
8-Jun	A	22	19	15	14	10	19	21	29	30	31	31	34	32	33	33	34	33	29	26	23	21	15	A	25.1	34.3																							
9-Jun	25	29	37	37	36	31	29	31	30	35	39	29	27	27	31	33	32	32	34	29	31	31	A	27	31.4	39.0																							
10-Jun	23	26	27	27	27	27	25	22	23	30	30	29	29	32	38	40	41	43	42	38	39	A	27	20	30.6	42.6																							
11-Jun	17	13	12	10	7	6	8	14	17	22	32	44	45	49	50	51	52	52	51	49	A	38	39	37	31.2	52.3																							
12-Jun	34	28	26	26	25	14	9	26	34	36	35	42	46	47	48	48	48	50	49	A	48	47	42	36	36.7	49.7																							
13-Jun	35	34	38	39	33	27	29	27	30	39	46	45	49	50	53	54	54	50	A	48	38	25	26	23	38.7	54.4																							
14-Jun	14	14	15	11	7	6	10	15	22	29	32	34	36	34	35	40	39	A	40	38	34	32	30	26	25.8	40.4																							
15-Jun	27	28	26	21	15	20	25	25	28	34	35	36	38	38	38	39	A	39	34	34	34	34	32	34	29	30.8	39.1																						
16-Jun	33	28	32	28	25	28	33	37	42	46	47	51	53	51	50	A	42	42	44	45	44	37	31	29	39.0	52.6																							
17-Jun	25	29	28	25	24	12	13	7	32	37	39	42	44	45	A	45	46	46	44	43	42	32	29	28	32.9	46.0																							
18-Jun	27	27	26	22	18	13	8	9	12	16	32	36	39	A	43	44	44	45	45	42	33	22	16	12	27.4	45.0																							
19-Jun	10	10	8	1	2	3	6	12	21	23	30	35	A	41	44	45	43	46	50	39	37	39	40	31	26.7	49.6																							
20-Jun	34	35	34	28	27	26	17	21	30	42	41	A	36	39	42	42	43	42	42	40	38	36	32	30	34.7	42.7																							
21-Jun	30	28	25	24	21	22	22	29	30	31	A	32	34	34	34	34	35	35	35	34	33	26	14	14	28.6	35.2																							
22-Jun	7	7	9	11	4	10	16	19	22	A	39	38	39	38	38	39	39	40	40	39	40	34	31	30	27.3	40.2																							
23-Jun	31	33	32	32	25	26	30	32	A	M	M	38	40	42	43	45	47	47	49	48	45	41	37	33	37.9	48.7																							
24-Jun	39	39	42	41	38	34	33	A	35	42	48	48	41	39	40	39	29	28	24	24	21	22	18	15	34.0	48.2																							
25-Jun	12	13	13	15	15	15	A	23	27	28	29	30	31	33	32	33	32	33	33	32	29	24	22	22	25.0	33.1																							
26-Jun	23	24	19	21	18	A	17	19	23	27	30	33	36	36	38	38	39	39	40	39	38	31	29	26	29.7	39.8																							
27-Jun	27	27	6	8	A	11	14	18	24	40	44	44	45	45	46	43	41	38	33	33	35	33	30	28	31.2	46.4																							
28-Jun	22	20	20	A	21	12	14	15	23	27	32	33	35	37	35	35	36	35	34	33	32	31	31	29	27.9	36.6																							
29-Jun	24	25	A	26	24	24	24	23	22	21	24	25	29	25	22	22	20	23	26	25	24	18	16	13	22.8	29.2																							
30-Jun	13	A	14	14	15	12	15	17	20	21	22	23	26	28	28	30	31	31	37	32	25	20	17	8	21.7	37.0																							
																								25.2	24.9	23.0	21.6	20.5	18.1	19.6	21.7	26.8	31.5	35.1	36.7	38.2	38.8	39.7	40.8	40.5	40.5	38.8	37.1	34.7	31.2	28.2	26.1	Diurnal Average	
																								42.8	39.2	41.7	41.3	38.3	34.3	33.2	36.6	42.3	46.4	48.2	51.1	52.6	51.2	52.5	54.4	53.5	52.0	52.5	51.8	47.6	50.7	50.8	46.3	Diurnal Maximum	
C - Calibration																								M - Maintenance						A - Automated Daily Zero Span																			

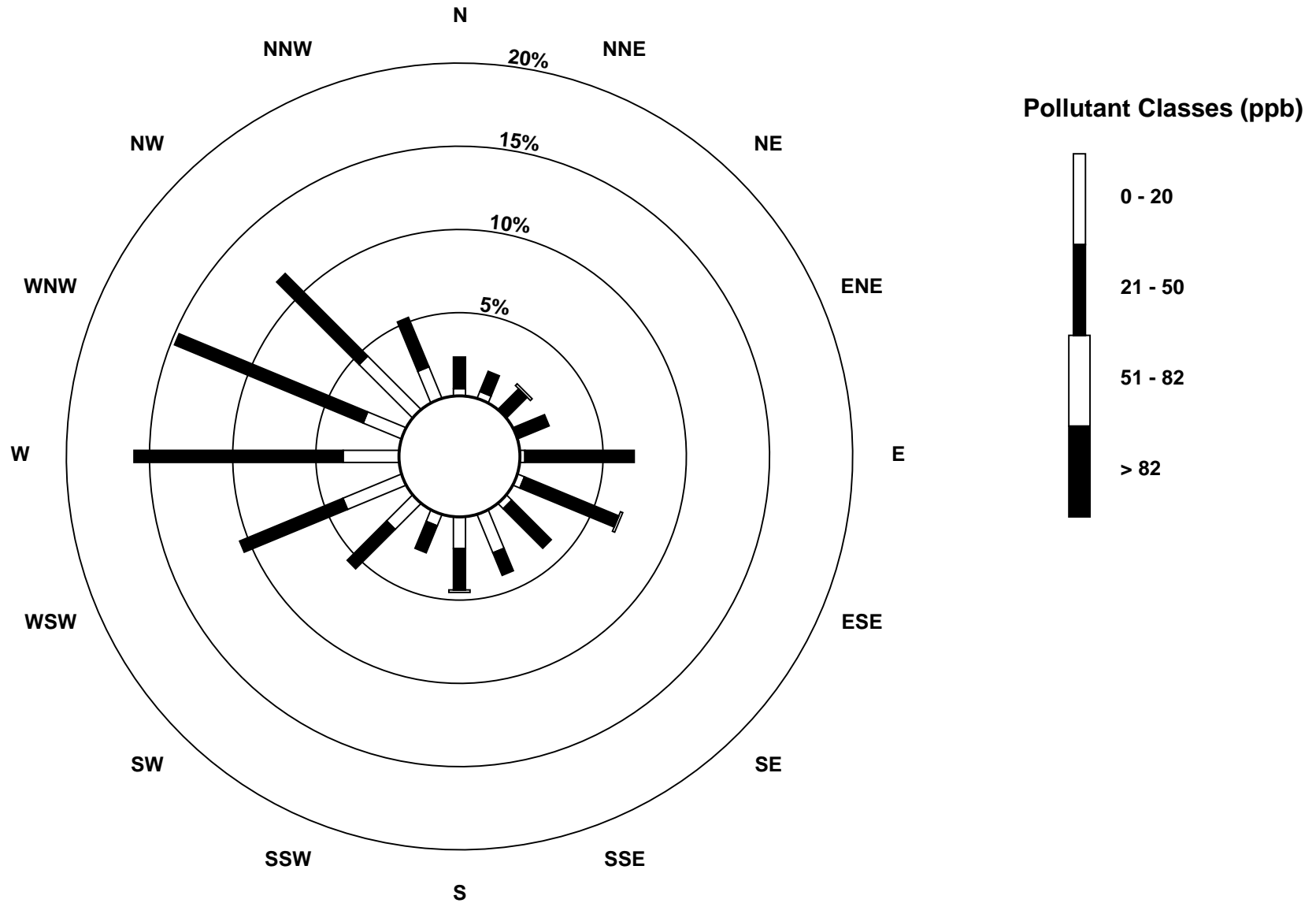
### Hourly Maximums

Ozone (O<sub>3</sub>) - ppb  
Henry Pirker - June 2014



**Pollutant Rose**

Ozone (O<sub>3</sub>) - ppb  
Henry Pirker - June 2014



## Eight Hour Running Averages

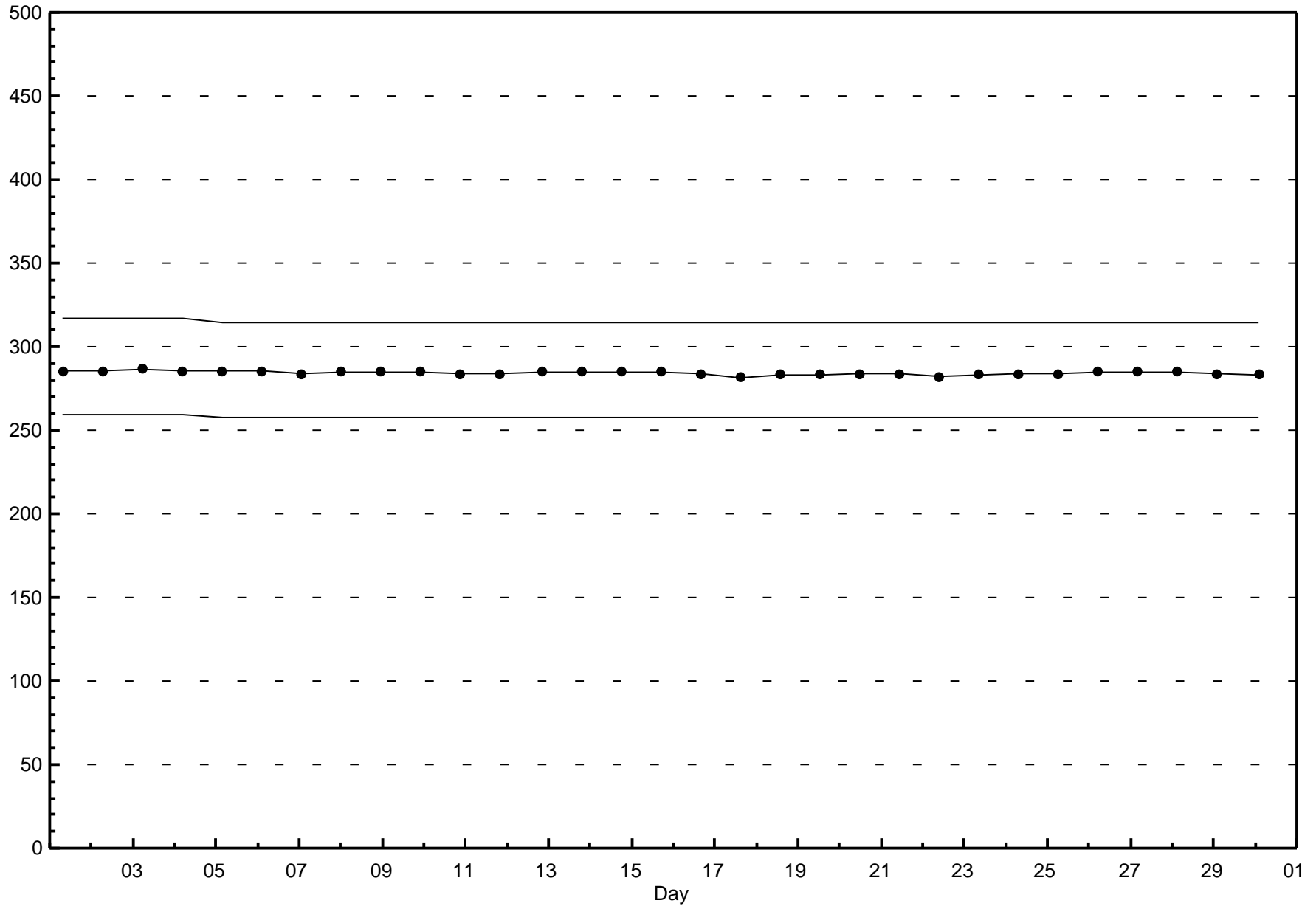
Ozone (O<sub>3</sub>) - ppb

Henry Pirker - June 2014

Maximum Value: 48.5 ppb on Jun 11 21:00																								Hours in Service:	720
Minimum Value: 4.0 ppb on Jun 19 08:00																								Hours of Data:	708
Percentiles: P <sub>1</sub> = 6.8 P <sub>10</sub> = 15.0 Q <sub>1</sub> = 21.3 Median = 28.2 Q <sub>3</sub> = 35.3 P <sub>90</sub> = 40.6 P <sub>99</sub> = 47.0																								Hours of Missing Data:	12
																								Hours of Calibration:	12
																								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-Jun	36	35	33	31	29	28	27	26	26	28	29	32	35	38	41	42	43	44	44	44	43	41	38	35	44.1
2-Jun	33	31	27	24	22	19	19	18	18	19	22	25	29	33	35	39	41	44	46	47	47	47	46	46	47.4
3-Jun	44	41	38	35	33	32	28	26	25	26	28	32	35	37	40	42	45	45	45	43	41	39	36	33	45.3
4-Jun	30	27	25	22	21	19	18	16	15	13	12	11	12	13	14	14	14	N	N	N	N	N	N	19	29.9
5-Jun	19	19	19	20	21	22	22	23	25	26	29	29	31	32	33	35	36	37	38	38	38	37	36	34	38.4
6-Jun	32	30	29	26	24	22	21	21	21	22	23	25	28	30	33	35	37	38	38	37	35	34	32	31	37.8
7-Jun	29	28	25	22	19	17	15	14	14	17	19	23	26	30	33	36	37	38	38	38	37	37	35	33	38.2
8-Jun	32	29	26	22	18	15	13	13	15	16	18	20	23	26	28	29	30	30	30	29	27	26	23	23	32.0
9-Jun	21	21	22	24	25	27	30	30	30	31	31	30	29	28	28	28	29	29	28	28	29	29	29	28	31.0
10-Jun	27	26	26	25	25	24	24	23	23	23	24	24	24	24	26	28	30	32	34	35	36	37	34	31	36.8
11-Jun	27	23	19	15	11	10	9	8	8	9	11	15	19	25	30	35	39	44	46	48	48	47	45	43	48.5
12-Jun	41	37	33	30	28	25	21	19	19	21	22	24	27	31	36	40	42	43	44	45	45	45	43	41	45.1
13-Jun	39	37	36	36	34	31	30	29	28	27	28	29	30	34	37	41	44	47	47	48	45	41	37	32	47.6
14-Jun	27	22	20	16	13	11	9	8	9	11	13	16	20	23	27	30	33	34	35	35	35	35	34	32	35.2
15-Jun	30	29	27	25	22	20	20	20	20	21	22	24	27	30	32	34	35	36	35	35	34	33	32	31	35.7
16-Jun	30	29	29	28	27	26	25	26	28	30	32	35	39	42	44	46	46	45	44	44	42	40	37	36	45.6
17-Jun	34	32	30	28	25	21	19	16	15	16	18	20	23	28	30	36	40	42	43	43	42	40	39	37	42.9
18-Jun	34	32	30	27	24	21	18	16	14	12	13	17	17	23	28	33	37	41	41	40	37	33	29	41.0	
19-Jun	25	20	15	11	7	5	4	4	5	7	10	14	16	21	26	31	35	38	41	41	40	39	39	37	40.8
20-Jun	35	34	32	31	30	28	26	24	23	24	24	24	26	28	31	35	37	38	38	38	39	38	37	36	38.9
21-Jun	34	33	30	28	26	25	23	22	22	23	23	24	26	28	30	32	32	33	33	33	33	31	29	26	34.5
22-Jun	22	18	15	11	8	6	6	7	9	10	14	18	23	28	31	34	37	37	37	37	37	37	36	35	37.3
23-Jun	34	33	32	31	29	28	27	27	27	26	N	N	N	N	N	N	41	41	42	43	44	44	43	41	43.9
24-Jun	40	39	38	37	36	35	35	36	35	36	36	37	37	38	39	38	38	36	33	30	28	26	23	20	39.7
25-Jun	18	16	15	14	13	13	13	13	15	17	20	22	24	27	27	29	30	30	31	31	30	29	28	26	30.7
26-Jun	25	23	21	20	18	18	17	17	17	18	20	21	24	25	28	30	33	34	36	36	36	36	34	32	36.3
27-Jun	31	28	24	21	19	16	13	12	11	14	19	24	27	31	36	39	41	41	40	38	36	34	32	29	41.5
28-Jun	27	25	23	22	21	18	17	15	15	15	17	19	21	24	27	30	32	33	33	33	33	32	31	30	33.4
29-Jun	29	27	26	25	24	23	22	22	21	21	21	21	22	22	21	21	21	21	21	21	20	19	19	18	28.6
30-Jun	17	17	15	14	12	12	12	12	13	14	15	16	18	19	21	23	24	26	27	28	28	26	25	22	27.9
43.9 41.5 38.4 37.0 36.3 35.4 35.2 36.0 35.4 35.6 36.2 36.8 38.6 41.9 44.0 45.6 45.6 46.5 47.3 47.7 48.5 47.1 46.5 45.7																									
Diurnal Maximums																									
N - Not Valid																									

### Span Responses

Ozone (O<sub>3</sub>)  
Henry Pirker - June 2014





Peace Airshed Zone Association

# Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - June 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 0.45 ppm on Jun 12 06:00	Maximum Daily Average: 0.22 ppm on Jun 2		Hours of Data:	684
Minimum Value: 0.0 ppm on Jun 5 19:00	Minimum Daily Average: 0.12 ppm on Jun 21		Hours of Missing Data:	36
Maximum Diurnal Average: 0.19 ppm at hour 24	Minimum Diurnal Average: 0.15 ppm at hour 20		Hours of Calibration:	34
Monthly Average: 0.167 ppm	Percentiles: P <sub>1</sub> = 0.10 P <sub>10</sub> = 0.12 Q <sub>1</sub> = 0.14 Median = 0.16 Q <sub>3</sub> = 0.19 P <sub>90</sub> = 0.22 P <sub>99</sub> = 0.28		Percent Operational Time:	99.7

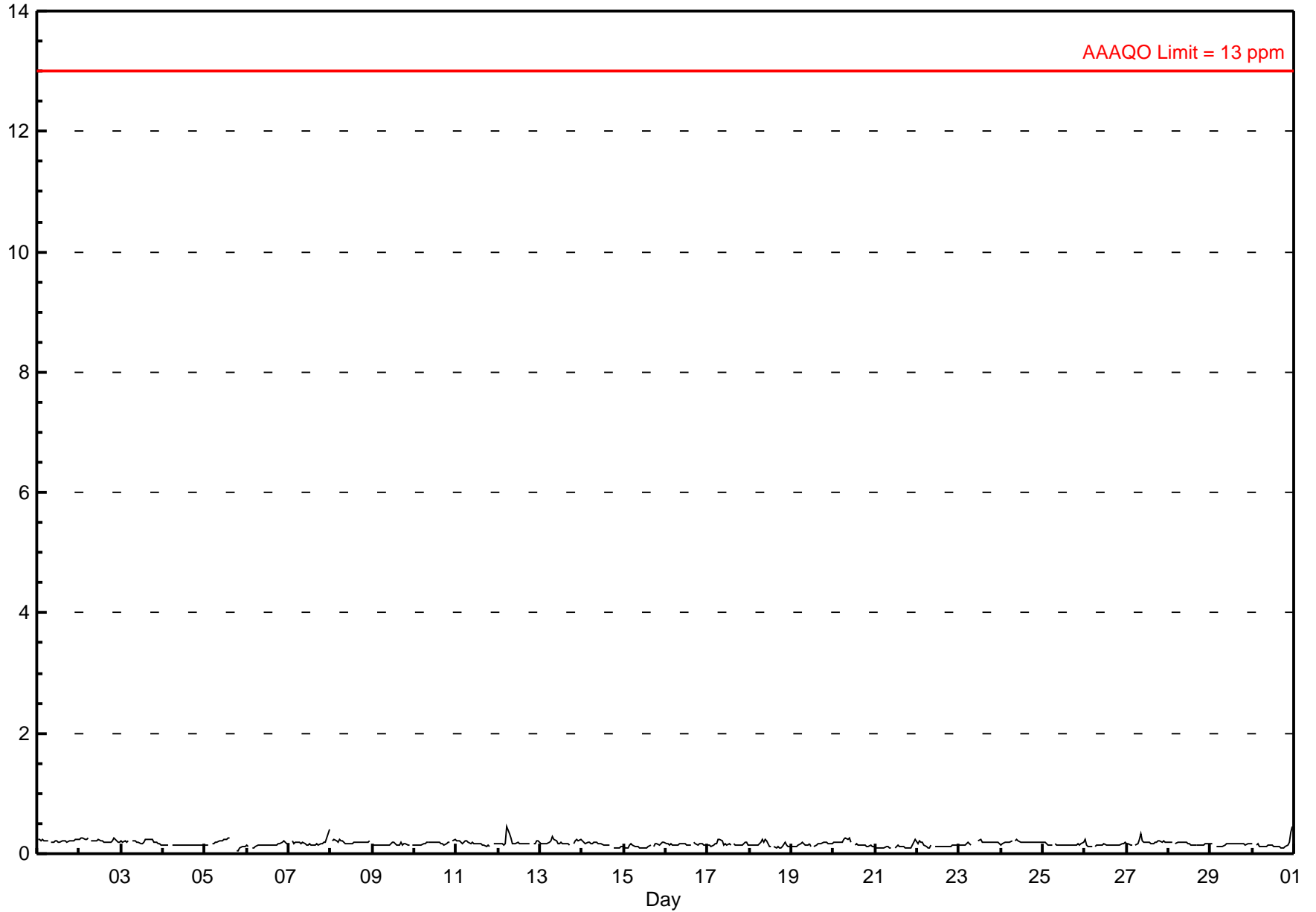
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.24
2-Jun	0.2	0.2	0.2	0.2	0.2	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.22	0.27
3-Jun	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.25
4-Jun	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15	0.15
5-Jun	0.1	0.1	0.1	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	C	C	C	0.0	0.0	0.1	0.1	0.1	0.1	0.16	0.25	
6-Jun	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.15	0.20	
7-Jun	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.18	0.40	
8-Jun	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.19	0.24	
9-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.15	0.19	
10-Jun	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	0.1	0.2	0.2	0.2	A	0.2	0.2	0.17	0.25	
11-Jun	0.2	0.2	0.2	0.2	0.2	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	A	0.2	0.2	0.2	0.17	0.22	
12-Jun	0.2	0.2	0.2	0.1	0.2	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.19	0.45	
13-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.19	0.29	
14-Jun	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	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15	0.21	
15-Jun	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	A	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.13	0.20	
16-Jun	0.2	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.16	0.18	
17-Jun	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	A	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.16	0.24	
18-Jun	0.1	0.1	0.1	0.1	0.1	0.1	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	0.1	0.2	0.1	0.1	0.1	0.15	0.23	
19-Jun	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	A	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.15	0.19	
20-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	A	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.17	0.25	
21-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.12	0.24	
22-Jun	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.21	
23-Jun	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1	A	M	M	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.24	
24-Jun	0.1	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.23	
25-Jun	0.2	0.2	0.2	0.1	0.1	0.1	A	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.15	0.19	
26-Jun	0.2	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.15	0.24	
27-Jun	0.2	0.2	0.1	0.1	A	0.1	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	0.19	0.33	
28-Jun	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.17	0.19	
29-Jun	0.2	0.2	A	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	0.2	0.15	0.17	
30-Jun	0.2	A	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.15	0.45	

0.17	0.16	0.17	0.16	0.16	0.18	0.18	0.18	0.18	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.17	0.17	0.18	0.19	Diurnal Average	
0.24	0.25	0.25	0.25	0.25	0.45	0.34	0.29	0.33	0.25	0.22	0.24	0.24	0.25	0.25	0.23	0.25	0.24	0.23	0.21	0.25	0.24	0.35	0.45	Diurnal Maximum		

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

### Hourly Averages

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



## Hourly Maximums

Carbon Monoxide (CO) - ppm

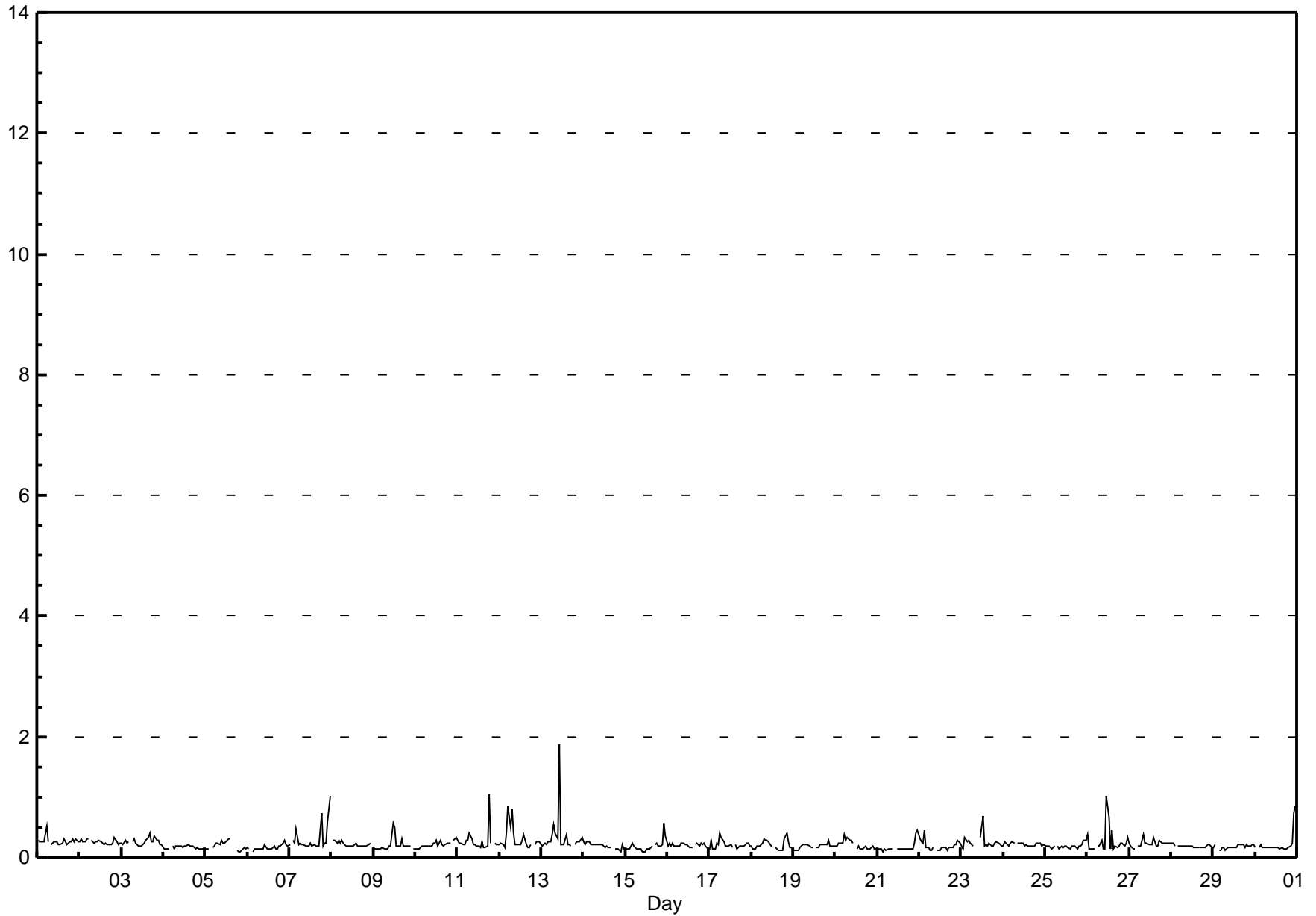
Henry Pirker - June 2014

Maximum Value: 1.88 ppm on Jun 13 11:00		Maximum Daily Average: 0.34 ppm on Jun 13		Hours in Service: 720																																													
Minimum Value: 0.1 ppm on Jun 5 20:00		Minimum Daily Average: 0.17 ppm on Jun 21		Hours of Data: 684																																													
Maximum Diurnal Average: 0.28 ppm at hour 24		Minimum Diurnal Average: 0.19 ppm at hour 14		Hours of Missing Data: 36																																													
Monthly Average: 0.223 ppm		Percentiles: P <sub>1</sub> = 0.11 P <sub>10</sub> = 0.15 Q <sub>1</sub> = 0.17 Median = 0.20 Q <sub>3</sub> = 0.24 P <sub>90</sub> = 0.29 P <sub>99</sub> = 0.81		Hours of Calibration: 34																																													
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-Jun	0.3	0.3	0.3	0.3	0.3	0.5	0.3	A	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.27	0.52																							
2-Jun	0.3	0.3	0.3	0.3	0.3	0.3	A	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.25	0.32																						
3-Jun	0.2	0.2	0.3	0.2	0.3	A	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.26	0.40																							
4-Jun	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.20																							
5-Jun	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3	C	C	C	0.1	0.1	0.1	0.2	0.2	0.1	0.20	0.30																							
6-Jun	0.2	0.1	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	0.2	0.2	0.3	0.2	0.2	0.17	0.30																							
7-Jun	0.2	A	0.3	0.2	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.2	0.2	0.2	0.6	1.0	0.30	1.03																							
8-Jun	A	0.3	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.23	0.29																							
9-Jun	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.6	0.5	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	A	0.1	0.21	0.56																							
10-Jun	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.3	0.1	0.21	0.34																							
11-Jun	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	1.1	0.2	A	0.2	0.2	0.2	0.2	0.27	1.05																							
12-Jun	0.2	0.2	0.2	0.2	0.4	0.9	0.5	0.8	0.4	0.2	0.2	0.2	0.2	0.3	0.4	0.2	0.2	0.2	0.2	A	0.2	0.3	0.3	0.3	0.31	0.85																							
13-Jun	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.4	0.3	1.9	0.2	0.2	0.2	0.4	0.2	0.2	0.2	A	0.2	0.3	0.3	0.3	0.3	0.34	1.88																							
14-Jun	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.1	0.1	0.1	0.1	0.2	0.2	0.19	0.26																							
15-Jun	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.6	0.3	0.20	0.58																							
16-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.25																							
17-Jun	0.2	0.3	0.2	0.2	0.2	0.2	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.40																							
18-Jun	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	A	0.2	0.1	0.1	0.1	0.1	0.3	0.4	0.2	0.2	0.2	0.2	0.20	0.41																							
19-Jun	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.19	0.29																							
20-Jun	0.2	0.2	0.2	0.2	0.2	0.4	0.3	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	0.1	0.2	0.21	0.37																							
21-Jun	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.4	0.5	0.17	0.46																							
22-Jun	0.3	0.3	0.2	0.5	0.2	0.2	0.1	0.1	0.2	A	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.19	0.45																							
23-Jun	0.2	0.1	0.3	0.3	0.3	0.2	0.2	0.2	A	M	M	0.3	0.7	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.25	0.68																							
24-Jun	0.2	0.3	0.2	0.2	0.2	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	0.22	0.27																							
25-Jun	0.2	0.2	0.2	0.2	0.1	0.2	A	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.19	0.28																							
26-Jun	0.4	0.1	0.1	0.1	0.1	A	0.2	0.2	0.3	0.1	0.1	1.0	0.7	0.1	0.4	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.26	1.03																							
27-Jun	0.2	0.2	0.1	0.1	A	0.2	0.2	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.23	0.39																							
28-Jun	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.24																							
29-Jun	0.2	0.2	A	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.22																							
30-Jun	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	0.1	0.2	0.2	0.2	0.2	0.2	0.7	0.8	0.22	0.84																							
																								0.20	0.20	0.20	0.22	0.24	0.23	0.25	0.23	0.21	0.26	0.24	0.24	0.19	0.22	0.20	0.19	0.19	0.24	0.21	0.22	0.22	0.27	0.28	Diurnal Average		
																								0.38	0.30	0.33	0.45	0.48	0.85	0.50	0.82	0.41	0.30	1.88	1.03	0.68	0.30	0.45	0.33	0.40	0.29	1.05	0.35	0.41	0.30	0.73	1.03	Diurnal Maximum	
C - Calibration																								M - Maintenance								A - Automated Daily Zero Span																	



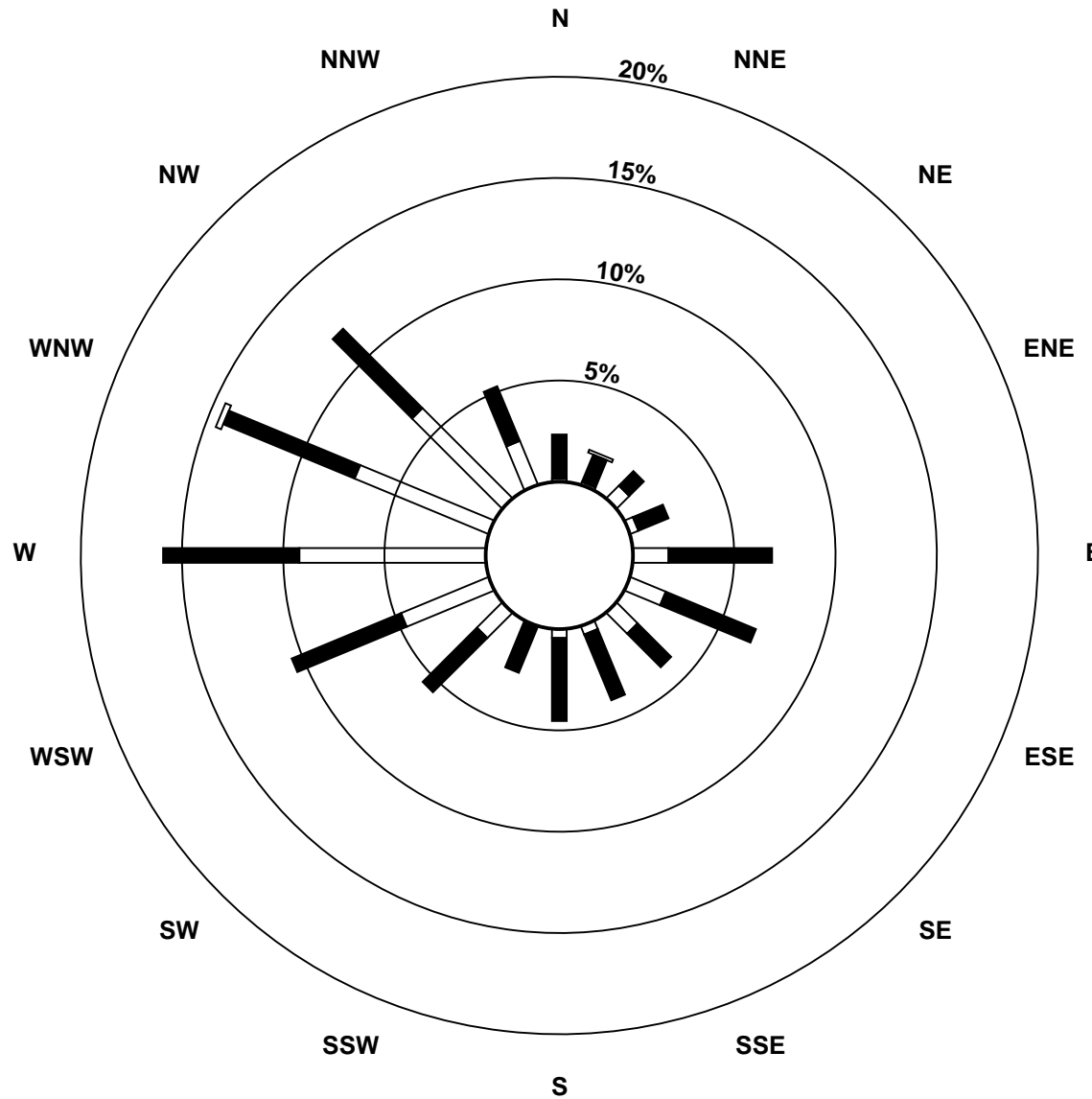
**Hourly Maximums**

**Carbon Monoxide (CO) - ppm**  
**Henry Pirker - June 2014**

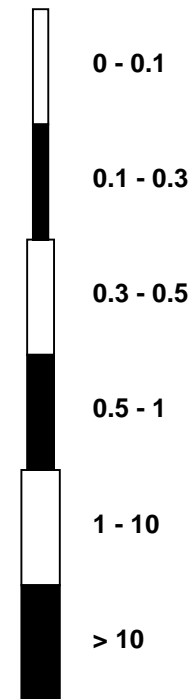


**Pollutant Rose**

**Carbon Monoxide (CO) - ppm**  
**Henry Pirker - June 2014**



**Pollutant Classes (ppm)**



## Eight Hour Running Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - June 2014

Number of Exceedences (AAAQO): 8-hr: 0	Hours in Service: 720
Maximum Value: 0.25 ppm on Jun 8 06:00	Hours of Data: 708
Minimum Value: 0.09 ppm on Jun 6 00:00	Hours of Missing Data: 12
	Hours of Calibration: 12
	Percent Operational Time: 100.0
Percentiles: P <sub>1</sub> = 0.10 P <sub>10</sub> = 0.12 Q <sub>1</sub> = 0.15 Median = 0.16 Q <sub>3</sub> = 0.19 P <sub>90</sub> = 0.21 P <sub>99</sub> = 0.24	

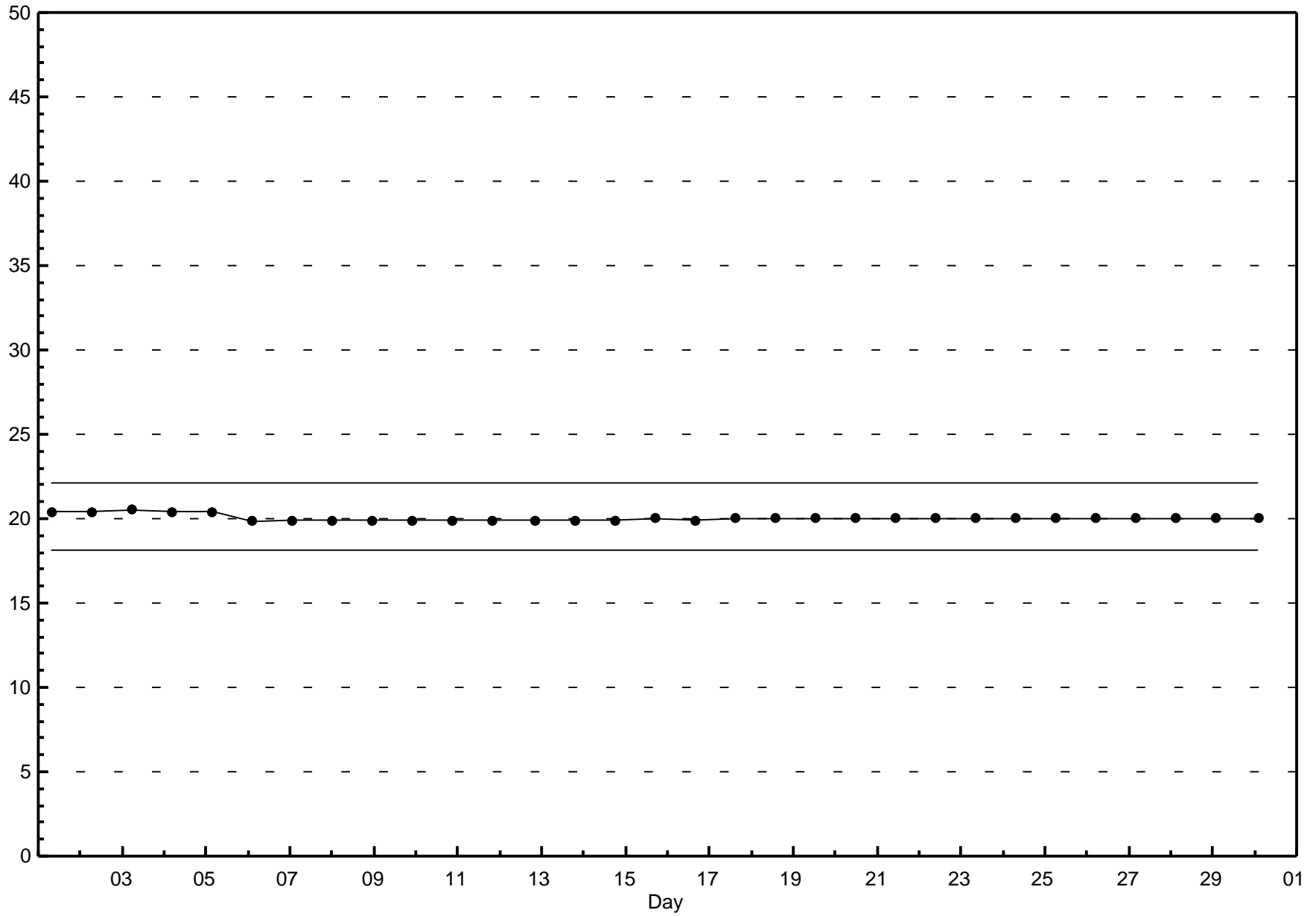
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
2-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
3-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
4-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.19
5-Jun	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	N	N	N	N	N	N	0.1	0.23
6-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.17
7-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
8-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
9-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.19
10-Jun	0.2	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	0.2	0.2	0.2	0.19
11-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.21
12-Jun	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
13-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
14-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.21
15-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.16
16-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17
17-Jun	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	0.2	0.2	0.1	0.2	0.2	0.2	0.19
18-Jun	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.19
19-Jun	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	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.17
20-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.23
21-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14
22-Jun	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.18
23-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	N	N	N	N	N	N	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
24-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
25-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.19
26-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.17
27-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
28-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.2	0.20
29-Jun	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16
30-Jun	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.19

0.23	0.23	0.23	0.24	0.24	0.25	0.25	0.24	0.24	0.24	0.24	0.23	0.24	0.24	0.22	0.23	0.23	0.23	0.21	0.21	0.22	0.22	0.22	0.21	0.22	
Diurnal Maximums																									

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

### Span Responses

**Carbon Monoxide (CO)**  
**Henry Pirker - June 2014**

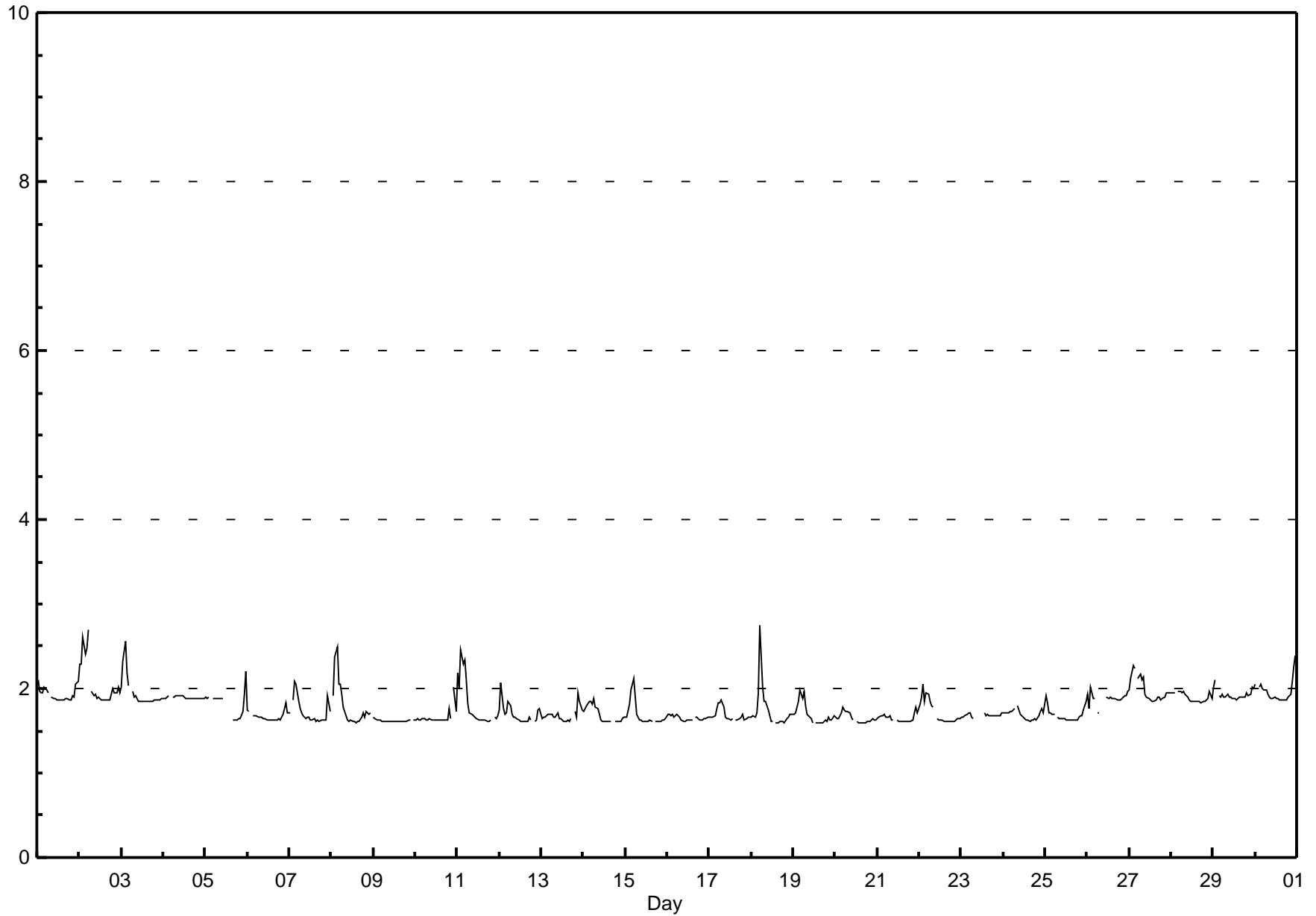


# Hourly Averages

## Total Hydrocarbons (THC) - ppm

### Henry Pirker - June 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.74 ppm on Jun 18 06:00 Maximum Daily Average: 2.06 ppm on Jun 2		Hours in Service: 720 Hours of Data: 677 Hours of Missing Data: 43 Hours of Calibration: 39 Percent Operational Time: 99.4																									
Minimum Value: 1.6 ppm on Jun 19 14:00 Maximum Diurnal Average: 1.91 ppm at hour 6 Monthly Average: 1.773 ppm		Minimum Daily Average: 1.62 ppm on Jun 9 Minimum Diurnal Average: 1.70 ppm at hour 16 Percentiles: P <sub>1</sub> = 1.60 P <sub>10</sub> = 1.61 Q <sub>1</sub> = 1.63 Median = 1.70 Q <sub>3</sub> = 1.88 P <sub>90</sub> = 1.96 P <sub>99</sub> = 2.46																									
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-Jun	2.1	2.0	2.0	1.9	2.0	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	2.1	2.1	1.93	2.10		
2-Jun	2.3	2.3	2.6	2.4	2.5	2.7	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0	2.06	2.69	
3-Jun	2.0	2.3	2.6	2.2	2.0	A	2.0	1.9	1.9	1.9	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.94	2.55	
4-Jun	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.92	
5-Jun	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	C	C	C	C	C	1.6	1.6	1.6	1.6	1.6	1.7	1.9	2.2	1.83	2.21	
6-Jun	1.8	1.7	A	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.8	1.8	1.7	1.67	1.83	
7-Jun	1.7	A	1.9	2.1	2.1	1.8	1.8	1.7	1.7	1.6	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.9	1.7	1.72	2.09	
8-Jun	A	1.9	2.4	2.5	2.1	2.0	1.9	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.7	A	1.7	1.79	2.48	
9-Jun	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	A	1.6	1.62	1.66	
10-Jun	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.8	1.6	A	2.0	1.66	2.01	
11-Jun	2.2	2.0	2.5	2.3	2.3	2.1	1.8	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	A	1.7	1.7	1.7	1.81	2.47
12-Jun	1.7	2.1	1.8	1.7	1.7	1.9	1.8	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.6	A	1.6	1.6	1.7	1.8	1.70	2.06
13-Jun	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	A	1.7	1.7	2.0	1.9	1.8	1.68	1.96
14-Jun	1.7	1.8	1.8	1.8	1.9	1.8	1.9	1.8	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	A	1.6	1.6	1.6	1.6	1.6	1.7	1.69	1.88
15-Jun	1.7	1.7	1.8	2.0	2.0	2.1	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	A	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.69	2.12
16-Jun	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	A	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.65	1.70
17-Jun	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.9	1.8	1.7	1.6	1.6	1.6	1.6	A	1.6	1.6	1.6	1.6	1.7	1.7	1.6	1.6	1.7	1.7	1.69	1.87
18-Jun	1.7	1.7	1.7	1.7	2.0	2.7	2.0	1.8	1.8	1.8	1.7	1.6	1.6	A	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.75	2.74
19-Jun	1.7	1.7	1.8	1.8	2.0	1.9	2.0	1.8	1.7	1.7	1.6	1.6	A	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.6	1.6	1.7	1.70	1.98
20-Jun	1.7	1.6	1.6	1.7	1.8	1.7	1.7	1.7	1.7	1.7	1.6	A	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.65	1.78
21-Jun	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	A	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.8	1.7	1.65	1.79
22-Jun	1.8	1.9	2.0	1.8	2.0	1.9	1.9	1.8	1.8	A	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.72	2.05
23-Jun	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	A	M	M	M	M	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.68	1.72
24-Jun	1.7	1.7	1.7	1.7	1.7	1.7	1.8	A	1.8	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.8	1.7	1.69	1.80
25-Jun	1.9	1.8	1.7	1.7	1.7	1.7	A	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.8	1.69	1.91	
26-Jun	1.9	1.8	2.0	1.9	1.9	A	1.7	1.7	C	C	C	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	1.87	2.02	
27-Jun	2.0	2.1	2.3	2.2	A	2.1	2.2	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.98	2.27	
28-Jun	1.9	2.0	2.0	A	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.0	1.9	1.90	1.97	
29-Jun	2.0	2.1	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.92	2.11	
30-Jun	2.0	A	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	1.9	1.9	1.9	1.9	2.1	2.2	2.4	1.96	2.39	
1.83 1.84 1.91 1.89 1.89 1.91 1.82 1.78 1.77 1.74 1.73 1.71 1.71 1.70 1.70 1.70 1.70 1.70 1.71 1.72 1.72 1.75 1.82 1.81																								Diurnal Average			
2.29 2.33 2.61 2.48 2.48 2.74 2.17 2.10 2.13 1.93 1.91 1.91 1.89 1.89 1.88 1.89 1.90 1.90 1.93 1.99 1.94 2.09 2.25 2.39																								Diurnal Maximum			
C - Calibration								M - Maintenance								A - Automated Daily Zero Span											



# Hourly Maximums

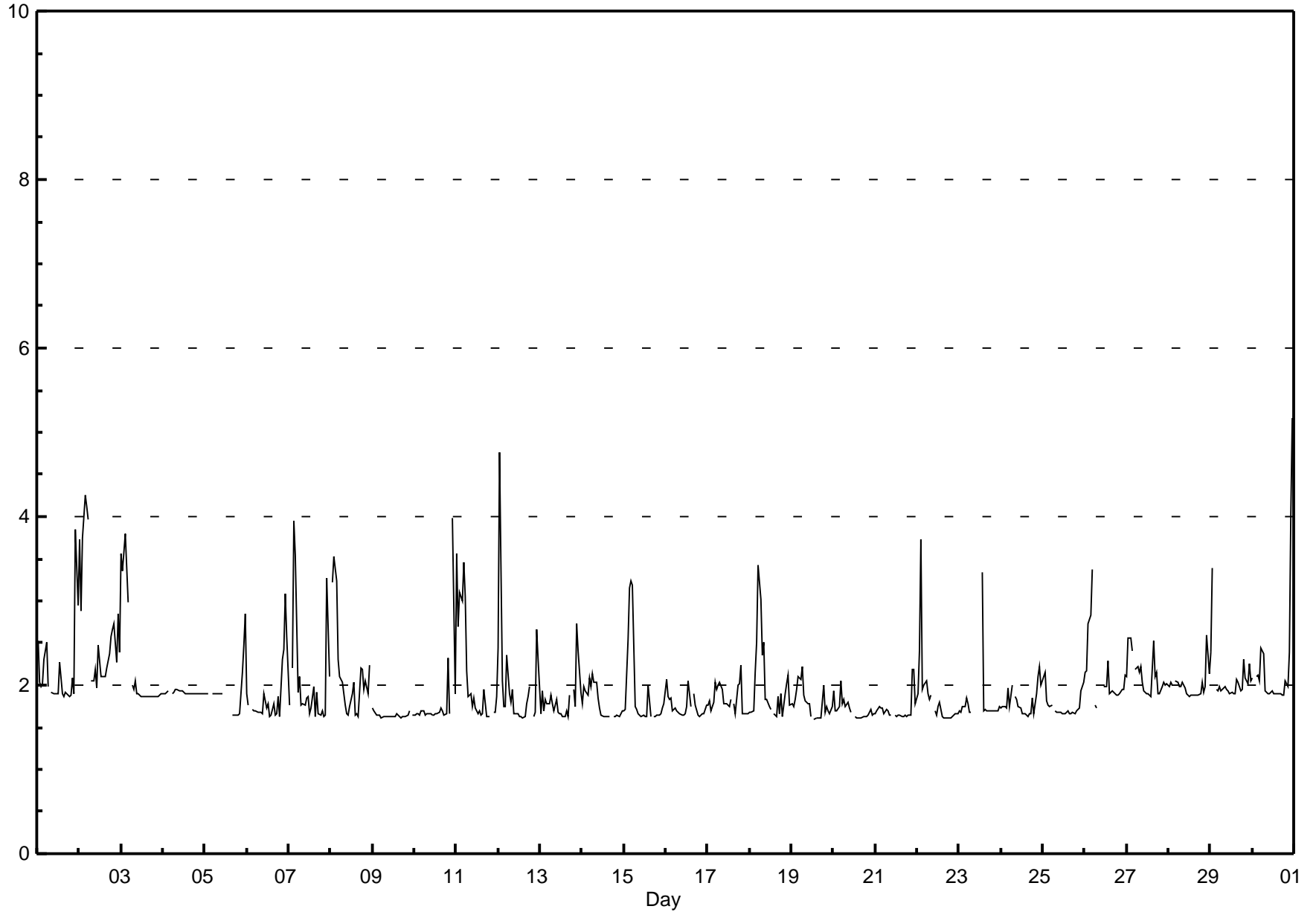
# Total Hydrocarbons (THC) - ppm

## Henry Pirker - June 2014

Maximum Value: 5.18 ppm on Jul 1 00:00		Maximum Daily Average: 2.69 ppm on Jun 2		Hours in Service: 720																																													
Minimum Value: 1.6 ppm on Jun 19 14:00		Minimum Daily Average: 1.64 ppm on Jun 9		Hours of Data: 677																																													
Maximum Diurnal Average: 2.31 ppm at hour 23		Minimum Diurnal Average: 1.76 ppm at hour 15		Hours of Missing Data: 43																																													
Monthly Average: 1.954 ppm		Percentiles: P <sub>1</sub> = 1.61 P <sub>10</sub> = 1.63 Q <sub>1</sub> = 1.67 Median = 1.86 Q <sub>3</sub> = 2.00 P <sub>90</sub> = 2.39 P <sub>99</sub> = 3.96		Hours of Calibration: 39																																													
				Percent Operational Time: 99.4																																													
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Jun	2.5	2.0	2.0	2.0	2.3	2.5	2.0	A	1.9	1.9	1.9	1.9	1.9	2.3	1.9	1.9	1.9	1.9	1.9	1.9	2.1	1.9	3.9	3.0	2.14	3.85																							
2-Jun	3.7	2.9	3.7	4.3	4.1	4.0	A	2.1	2.1	2.2	2.0	2.5	2.1	2.1	2.1	2.1	2.2	2.4	2.6	2.7	2.7	2.3	2.8	2.4	2.69	4.25																							
3-Jun	3.6	3.3	3.8	3.4	3.0	A	2.0	1.9	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.23	3.80																							
4-Jun	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.95																							
5-Jun	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	C	C	C	C	C	1.6	1.6	1.6	1.6	1.7	2.1	2.5	2.9	1.93	2.85																							
6-Jun	1.9	1.8	A	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.9	1.7	1.8	1.6	1.6	1.8	1.6	1.7	1.9	1.6	2.3	2.4	3.1	2.6	1.87	3.09																							
7-Jun	1.8	A	2.2	3.9	3.5	1.9	2.1	1.8	1.8	1.8	1.8	1.9	1.7	1.7	2.0	1.6	1.9	1.7	1.6	1.7	1.6	1.6	3.3	2.1	2.05	3.94																							
8-Jun	A	3.2	3.5	3.2	2.3	2.1	2.1	2.0	1.8	1.7	1.6	1.7	1.9	2.0	1.6	1.7	1.6	2.2	2.2	2.0	2.1	1.9	2.2	A	2.12	3.52																							
9-Jun	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	A	1.6	1.64	1.73																							
10-Jun	1.6	1.7	1.7	1.6	1.7	1.7	1.6	1.7	1.7	1.7	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.6	1.7	2.3	1.7	A	4.0	1.9	1.80	3.99																							
11-Jun	3.6	2.7	3.1	3.0	3.5	3.0	2.2	1.9	1.9	1.7	1.8	1.7	1.7	1.7	1.6	1.7	1.9	1.6	1.6	1.6	A	1.7	1.7	1.9	2.12	3.56																							
12-Jun	2.4	4.8	2.1	1.7	1.8	2.4	1.9	1.8	1.9	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.8	1.9	2.0	A	1.6	1.7	2.7	2.3	2.01	4.76																							
13-Jun	1.7	1.9	1.7	1.8	1.8	1.8	1.9	1.8	1.7	1.8	1.7	1.7	1.7	1.6	1.6	1.7	1.6	1.9	A	1.9	1.7	2.7	2.4	1.9	1.83	2.73																							
14-Jun	1.8	2.0	1.9	1.9	2.1	2.0	2.1	2.0	2.0	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.6	A	1.6	1.6	1.6	1.6	1.7	1.7	1.79	2.13																							
15-Jun	1.7	1.7	2.5	3.1	3.2	3.2	1.8	1.7	1.7	1.6	1.6	1.6	1.6	1.6	2.0	1.6	A	1.6	1.6	1.6	1.6	1.7	1.7	1.8	1.92	3.24																							
16-Jun	2.1	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.7	1.8	2.1	1.7	A	1.9	1.8	1.6	1.6	1.6	1.7	1.7	1.8	1.75	2.07																							
17-Jun	1.8	1.8	1.7	1.8	2.0	1.9	2.0	2.0	2.0	1.8	1.8	1.8	1.8	1.8	A	1.8	1.7	2.0	2.0	2.2	1.7	1.7	1.7	1.7	1.84	2.24																							
18-Jun	1.7	1.7	1.7	2.1	2.5	3.4	3.0	2.4	2.5	1.8	1.8	1.7	1.7	A	1.7	1.6	1.9	1.7	1.9	1.6	1.9	2.0	2.1	1.8	2.01	3.43																							
19-Jun	1.8	1.8	1.8	1.9	2.1	2.1	2.2	1.9	1.8	1.8	1.8	1.6	A	1.6	1.6	1.6	1.6	2.0	1.7	1.7	1.7	1.7	1.7	1.7	1.79	2.23																							
20-Jun	1.9	1.7	1.7	1.8	2.0	1.8	1.8	1.8	1.8	1.7	1.7	A	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.6	1.7	1.71	2.05																							
21-Jun	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	A	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.2	2.2	1.8	1.71	2.19																							
22-Jun	1.9	2.4	3.7	1.9	2.0	2.1	1.9	1.8	1.9	A	1.7	1.6	1.7	1.8	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.86	3.72																							
23-Jun	1.7	1.7	1.7	1.7	1.8	1.8	1.7	1.7	A	M	M	M	M	3.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.80	3.33																							
24-Jun	1.7	1.7	1.7	1.7	2.0	1.7	2.0	A	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.7	1.7	1.8	1.7	1.9	2.1	2.2	2.0	1.80	2.22																						
25-Jun	2.1	2.1	1.8	1.8	1.7	1.8	A	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.9	2.0	1.76	2.14																							
26-Jun	2.1	2.2	2.7	2.8	3.4	A	1.8	1.7	C	C	C	2.0	2.0	2.3	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.1	2.12	3.37																							
27-Jun	2.1	2.6	2.6	2.4	A	2.2	2.2	2.2	2.2	2.0	1.9	1.9	1.9	1.9	1.9	2.5	2.1	2.2	1.9	1.9	2.0	2.0	2.0	2.0	2.11	2.56																							
28-Jun	2.0	2.0	2.0	A	2.0	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	2.0	1.9	2.0	2.6	2.1	1.99	2.59																							
29-Jun	2.4	3.4	A	1.9	1.9	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.1	2.0	1.9	2.0	2.3	2.1	2.0	2.3	2.0	2.07	3.40																							
30-Jun	2.1	A	2.1	2.1	2.1	2.4	2.4	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	2.4	4.0	5.2	2.25	5.18																							
																								2.10	2.22	2.23	2.25	2.27	2.15	1.97	1.86	1.88	1.80	1.79	1.79	1.77	1.86	1.76	1.77	1.78	1.80	1.82	1.84	1.84	1.92	2.31	2.11	Diurnal Average	
																								3.73	4.76	3.80	4.25	4.12	3.97	3.02	2.36	2.51	2.19	1.96	2.48	2.11	3.33	2.10	2.53	2.20	2.38	2.58	2.65	2.73	2.73	4.01	5.18	Diurnal Maximum	
C - Calibration																								M - Maintenance						A - Automated Daily Zero Span																			

**Hourly Maximums**

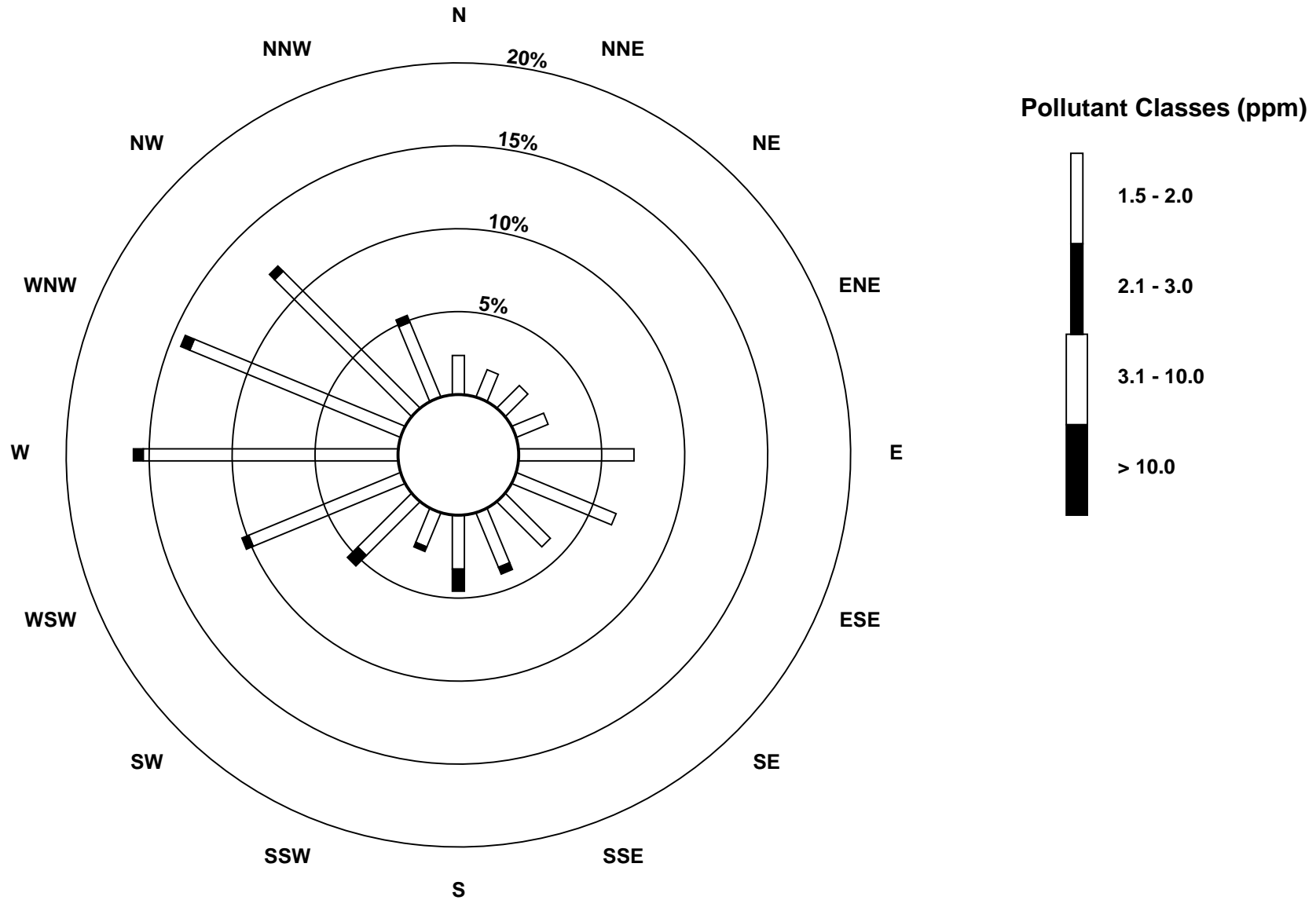
**Total Hydrocarbons (THC) - ppm**  
**Henry Pirker - June 2014**





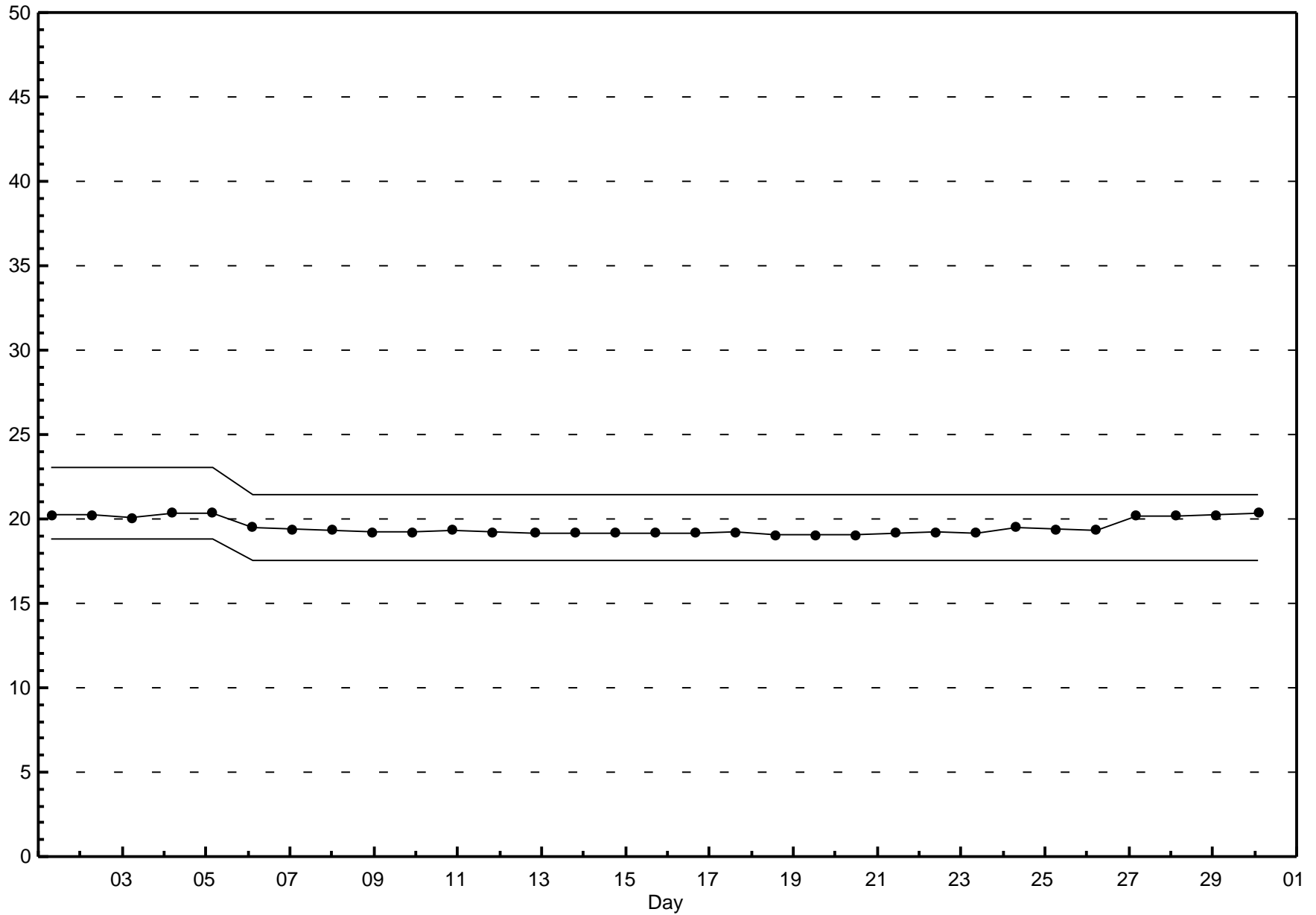
**Pollutant Rose**

**Total Hydrocarbons (THC) - ppm**  
**Henry Pirker - June 2014**



### Span Responses

**Total Hydrocarbons (THC)**  
**Henry Pirker - June 2014**



# Hourly Averages

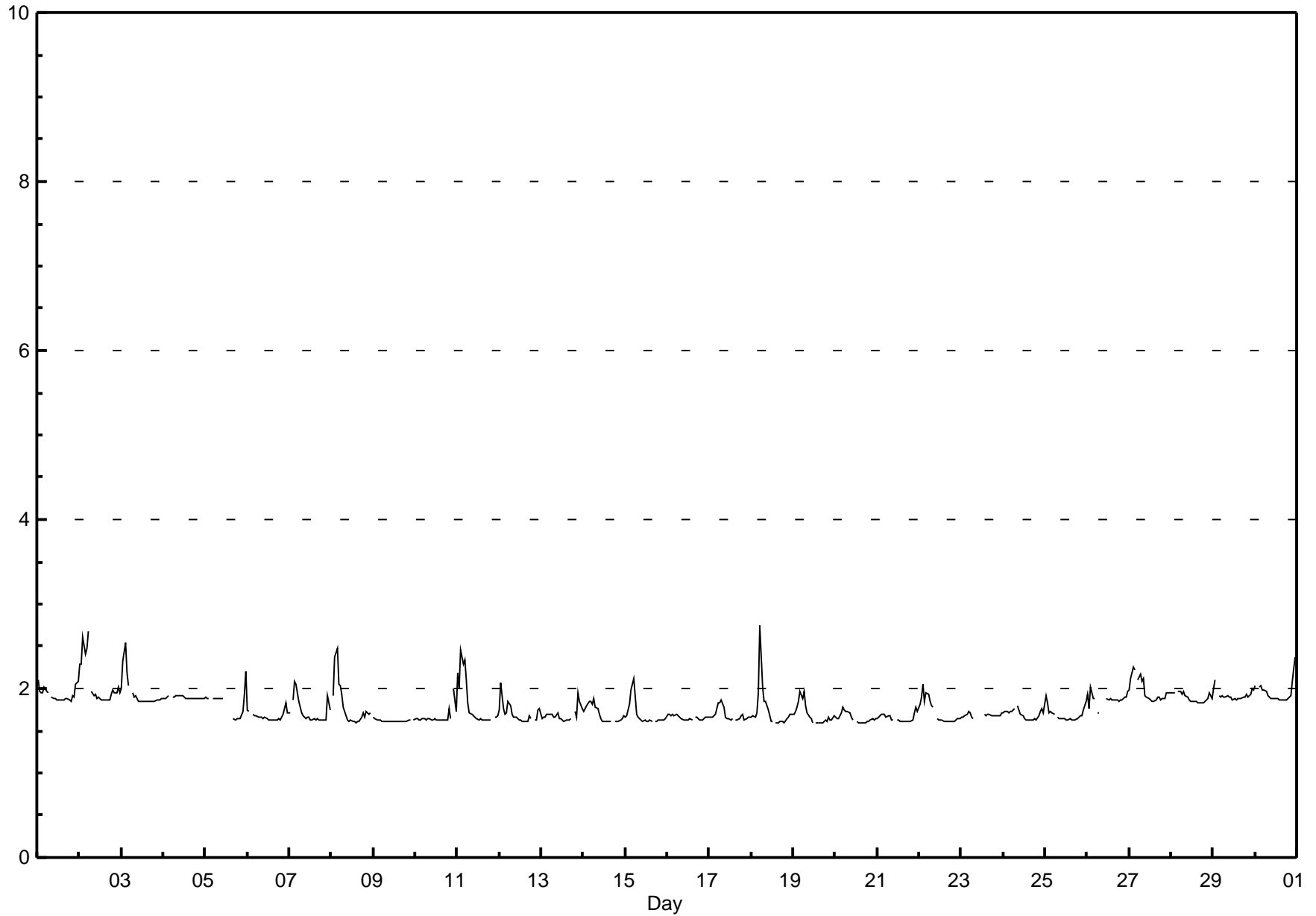
Methane (CH<sub>4</sub>) - ppm

Henry Pirker - June 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.74 ppm on Jun 18 06:00 Maximum Daily Average: 2.06 ppm on Jun 2		Hours in Service: 720 Hours of Data: 677 Hours of Missing Data: 43 Hours of Calibration: 39 Percent Operational Time: 99.4																									
Minimum Value: 1.6 ppm on Jun 19 14:00 Maximum Diurnal Average: 1.91 ppm at hour 6 Monthly Average: 1.773 ppm		Minimum Daily Average: 1.62 ppm on Jun 9 Minimum Diurnal Average: 1.70 ppm at hour 16 Percentiles: P <sub>1</sub> = 1.60 P <sub>10</sub> = 1.62 Q <sub>1</sub> = 1.63 Median = 1.70 Q <sub>3</sub> = 1.88 P <sub>90</sub> = 1.96 P <sub>99</sub> = 2.46																									
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-Jun	2.1	2.0	2.0	1.9	2.0	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	2.1	2.1	1.93	2.10		
2-Jun	2.3	2.3	2.6	2.4	2.5	2.7	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0	2.06	2.69	
3-Jun	2.0	2.3	2.5	2.2	2.0	A	2.0	1.9	1.9	1.9	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.94	2.55	
4-Jun	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.92	
5-Jun	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	C	C	C	C	C	1.6	1.6	1.6	1.6	1.6	1.7	1.9	2.2	1.83	2.21	
6-Jun	1.8	1.7	A	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.8	1.8	1.7	1.67	1.83	
7-Jun	1.7	A	1.9	2.1	2.1	1.8	1.8	1.7	1.7	1.6	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.9	1.7	1.72	2.09	
8-Jun	A	1.9	2.4	2.5	2.1	2.0	1.9	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.7	A	A	1.79	2.48	
9-Jun	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	A	A	1.62	1.66	
10-Jun	1.6	1.6	1.6	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.8	1.6	A	2.0	1.7	1.66	2.01	
11-Jun	2.2	2.0	2.5	2.3	2.3	2.1	1.8	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	A	1.7	1.7	1.7	1.81	2.46	
12-Jun	1.7	2.1	1.8	1.7	1.7	1.9	1.8	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.6	A	1.6	1.6	1.7	1.8	1.70	2.06
13-Jun	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	A	1.7	1.7	2.0	1.9	1.8	1.69	1.96
14-Jun	1.7	1.8	1.8	1.8	1.9	1.8	1.9	1.8	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	A	1.6	1.6	1.6	1.6	1.6	1.7	1.70	1.88
15-Jun	1.7	1.7	1.8	2.0	2.0	2.1	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	A	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.70	2.12
16-Jun	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	A	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.65	1.70
17-Jun	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.9	1.8	1.7	1.7	1.6	1.6	1.6	A	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.6	1.6	1.7	1.69	1.87
18-Jun	1.7	1.7	1.7	1.7	2.0	2.7	2.0	1.8	1.8	1.8	1.7	1.6	1.6	A	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.75	2.74
19-Jun	1.7	1.7	1.8	1.8	2.0	1.9	2.0	1.8	1.7	1.7	1.7	1.6	A	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.6	1.6	1.7	1.70	1.97
20-Jun	1.7	1.6	1.7	1.7	1.8	1.7	1.7	1.7	1.7	1.7	1.6	A	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.65	1.78
21-Jun	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	A	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.8	1.7	1.65	1.79
22-Jun	1.8	1.9	2.0	1.8	2.0	1.9	1.9	1.8	1.8	A	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.72	2.05
23-Jun	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	A	M	M	M	M	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.68	1.72
24-Jun	1.7	1.7	1.7	1.7	1.7	1.7	1.8	A	1.8	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.8	1.7	1.69	1.81
25-Jun	1.9	1.8	1.7	1.7	1.7	1.7	A	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.8	1.69	1.91	
26-Jun	1.9	1.8	2.0	1.9	1.9	A	1.7	1.7	C	C	C	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	1.87	2.02	
27-Jun	2.0	2.1	2.3	2.2	A	2.1	2.2	2.1	2.1	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.98	2.26	
28-Jun	1.9	1.9	1.9	A	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.0	1.9	1.89	1.97	
29-Jun	2.0	2.1	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.92	2.10	
30-Jun	2.0	A	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	1.9	1.9	1.9	1.9	2.1	2.2	2.4	1.96	2.38	
1.83 1.84 1.91 1.89 1.89 1.91 1.82 1.78 1.77 1.74 1.73 1.71 1.71 1.70 1.70 1.70 1.70 1.70 1.71 1.72 1.72 1.76 1.82 1.81																								Diurnal Average			
2.29 2.32 2.61 2.48 2.47 2.74 2.16 2.09 2.13 1.93 1.91 1.91 1.89 1.88 1.88 1.89 1.89 1.90 1.93 1.99 1.94 2.08 2.24 2.38																								Diurnal Maximum			
C - Calibration								M - Maintenance								A - Automated Daily Zero Span											

**Hourly Averages**

**Methane (CH<sub>4</sub>) - ppm**  
**Henry Pirker - June 2014**



# Hourly Maximums

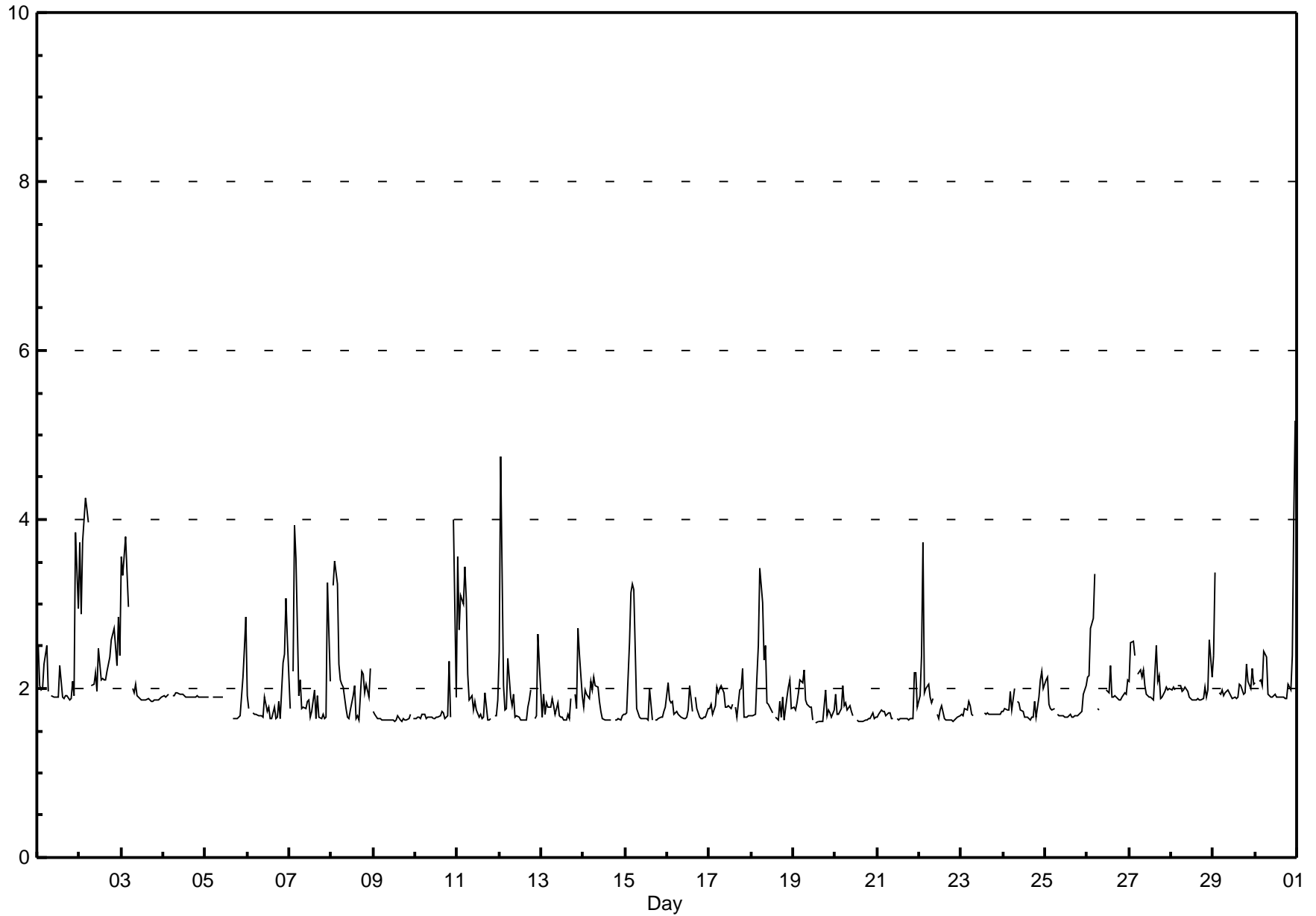
Methane (CH<sub>4</sub>) - ppm

Henry Pirker - June 2014

Maximum Value: 5.17 ppm on Jul 1 00:00		Maximum Daily Average: 2.69 ppm on Jun 2		Hours in Service: 720																							
Minimum Value: 1.6 ppm on Jun 19 14:00		Minimum Daily Average: 1.64 ppm on Jun 9		Hours of Data: 677																							
Maximum Diurnal Average: 2.30 ppm at hour 23		Minimum Diurnal Average: 1.76 ppm at hour 15		Hours of Missing Data: 43																							
Monthly Average: 1.950 ppm		Percentiles: P <sub>1</sub> = 1.61 P <sub>10</sub> = 1.64 Q <sub>1</sub> = 1.67 Median = 1.86 Q <sub>3</sub> = 1.99 P <sub>90</sub> = 2.38 P <sub>99</sub> = 3.96		Hours of Calibration: 39																							
				Percent Operational Time: 99.4																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jun	2.5	2.0	2.0	2.0	2.3	2.5	2.0	A	1.9	1.9	1.9	1.9	1.9	2.3	1.9	1.9	1.9	1.9	1.9	1.9	2.1	1.9	3.8	3.0	2.14	3.84	
2-Jun	3.7	2.9	3.7	4.3	4.1	4.0	A	2.0	2.0	2.2	2.0	2.5	2.1	2.1	2.1	2.1	2.2	2.4	2.6	2.6	2.7	2.3	2.8	2.4	2.69	4.25	
3-Jun	3.6	3.3	3.8	3.4	3.0	A	2.0	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	2.22	3.80	
4-Jun	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.95	
5-Jun	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	C	C	C	C	C	1.6	1.6	1.6	1.7	1.7	2.1	2.5	2.9	1.93	2.85	
6-Jun	1.9	1.8	A	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.9	1.7	1.8	1.6	1.6	1.8	1.6	1.7	1.9	1.6	2.3	2.4	3.1	2.6	1.87	3.08	
7-Jun	1.8	A	2.2	3.9	3.5	1.9	2.1	1.8	1.8	1.8	1.8	1.9	1.7	1.7	2.0	1.6	1.9	1.7	1.6	1.7	1.6	1.7	3.3	2.1	2.05	3.94	
8-Jun	A	3.2	3.5	3.2	2.3	2.1	2.1	2.0	1.8	1.7	1.6	1.7	1.9	2.0	1.6	1.7	1.6	2.2	2.2	2.0	2.1	1.9	2.2	A	2.12	3.51	
9-Jun	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	A	1.6	1.64	1.73	
10-Jun	1.6	1.7	1.7	1.6	1.7	1.7	1.6	1.7	1.7	1.7	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.3	1.7	A	4.0	1.9	1.80	3.99
11-Jun	3.6	2.7	3.1	3.0	3.4	3.0	2.2	1.9	1.9	1.7	1.8	1.7	1.7	1.7	1.6	1.7	1.9	1.6	1.6	1.6	A	1.7	1.7	1.9	2.12	3.56	
12-Jun	2.4	4.8	2.0	1.7	1.8	2.4	1.9	1.8	1.9	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.8	1.9	2.0	A	1.6	1.7	2.6	2.3	2.00	4.75	
13-Jun	1.7	1.9	1.7	1.8	1.8	1.8	1.9	1.8	1.7	1.8	1.7	1.7	1.7	1.6	1.6	1.7	1.6	1.9	A	1.9	1.8	2.7	2.4	1.9	1.83	2.72	
14-Jun	1.8	2.0	1.9	1.9	2.1	2.0	2.1	2.0	2.0	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.6	A	1.6	1.6	1.6	1.6	1.7	1.7	1.79	2.13	
15-Jun	1.7	1.7	2.5	3.1	3.2	3.2	1.8	1.7	1.7	1.6	1.6	1.6	1.6	1.6	2.0	1.6	A	1.6	1.6	1.6	1.7	1.7	1.7	1.8	1.92	3.24	
16-Jun	2.1	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.7	1.7	2.0	1.7	A	1.9	1.8	1.7	1.6	1.6	1.7	1.7	1.8	1.75	2.07	
17-Jun	1.8	1.8	1.7	1.8	2.0	1.9	2.0	2.0	2.0	1.8	1.8	1.8	1.8	1.8	A	1.8	1.7	2.0	2.0	2.2	1.7	1.7	1.7	1.7	1.84	2.23	
18-Jun	1.7	1.7	1.7	2.1	2.5	3.4	3.0	2.3	2.5	1.8	1.8	1.7	1.7	A	1.7	1.6	1.9	1.7	1.9	1.6	1.9	2.0	2.1	1.8	2.01	3.42	
19-Jun	1.8	1.8	1.8	1.9	2.1	2.1	2.2	1.9	1.8	1.8	1.8	1.6	A	1.6	1.6	1.6	1.6	1.6	2.0	1.7	1.7	1.7	1.7	1.7	1.79	2.23	
20-Jun	1.9	1.7	1.7	1.8	2.0	1.8	1.8	1.7	1.8	1.7	1.7	A	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.6	1.7	1.71	2.04	
21-Jun	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	A	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.2	2.2	1.8	1.72	2.19	
22-Jun	1.9	2.4	3.7	1.9	2.0	2.0	1.9	1.8	1.9	A	1.7	1.6	1.7	1.8	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.86	3.72	
23-Jun	1.7	1.7	1.8	1.7	1.8	1.8	1.7	1.7	A	M	M	M	M	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.72	1.85	
24-Jun	1.7	1.8	1.7	1.7	2.0	1.7	2.0	A	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.7	1.7	1.8	1.7	1.9	2.1	2.2	2.0	1.80	2.21
25-Jun	2.1	2.1	1.8	1.8	1.7	1.8	A	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.9	2.0	1.76	2.14	
26-Jun	2.1	2.2	2.7	2.8	3.4	A	1.8	1.7	C	C	C	2.0	2.0	2.3	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.11	3.36	
27-Jun	2.1	2.5	2.6	2.4	A	2.2	2.2	2.1	2.2	2.0	1.9	1.9	1.9	1.9	1.9	2.5	2.1	2.1	1.9	1.9	2.0	2.0	2.0	2.0	2.10	2.55	
28-Jun	2.0	2.0	2.0	A	2.0	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	2.0	1.9	2.0	2.6	2.1	1.98	2.58	
29-Jun	2.4	3.4	A	1.9	1.9	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.0	1.9	1.9	2.3	2.1	2.0	2.2	2.0	2.07	3.38	
30-Jun	2.1	A	2.1	2.1	2.0	2.4	2.4	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	2.4	4.0	5.2	2.24	5.17	
		2.10	2.22	2.23	2.25	2.27	2.15	1.97	1.86	1.88	1.80	1.79	1.79	1.77	1.80	1.76	1.77	1.78	1.80	1.82	1.84	1.84	1.92	2.30	2.10	Diurnal Average	
		3.73	4.75	3.80	4.25	4.13	3.97	3.02	2.35	2.51	2.19	1.96	2.47	2.11	2.27	2.09	2.51	2.20	2.38	2.57	2.65	2.71	2.72	4.01	5.17	Diurnal Maximum	
C - Calibration		M - Maintenance						A - Automated Daily Zero Span																			

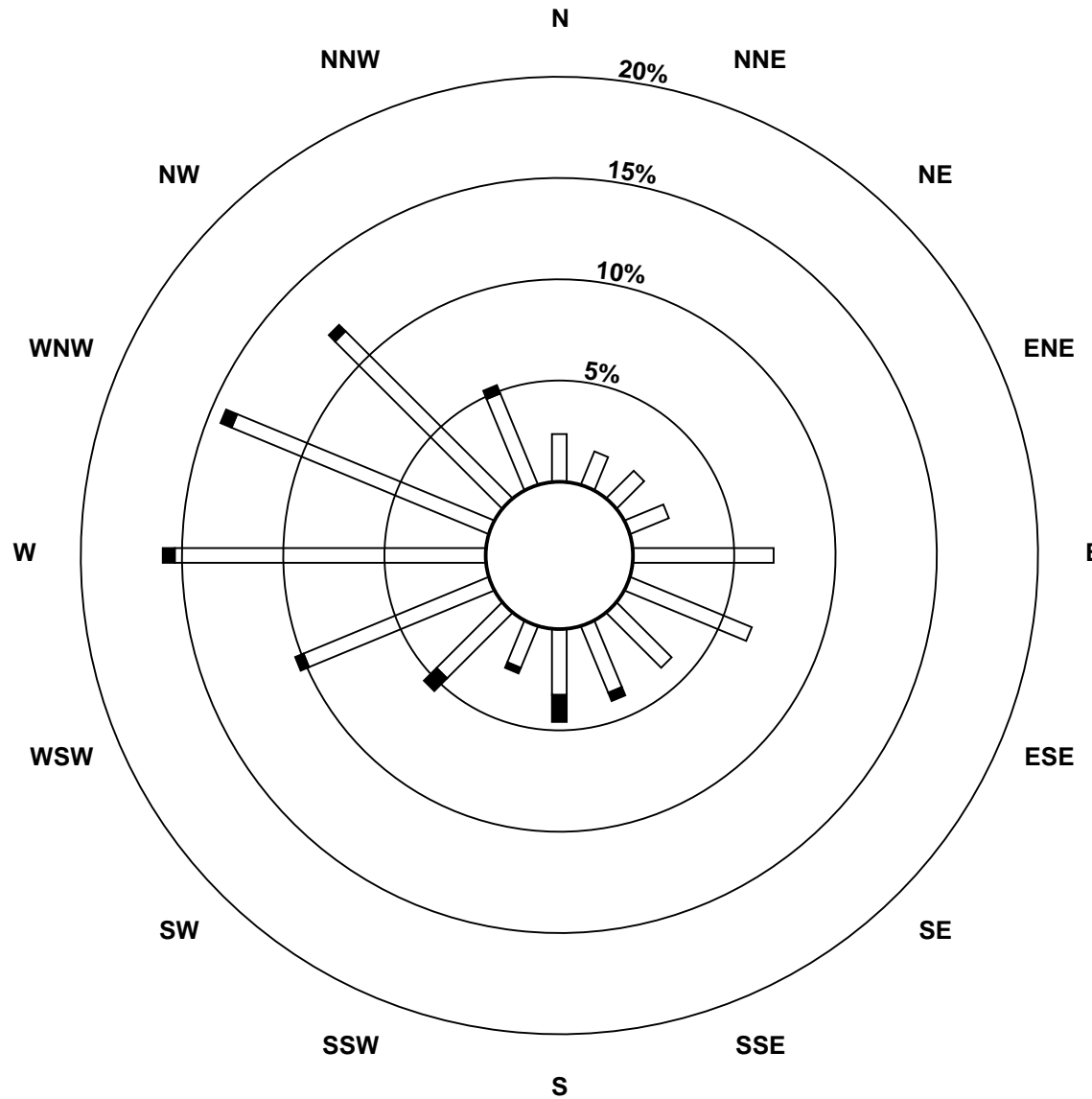
### Hourly Maximums

Methane (CH<sub>4</sub>) - ppm  
Henry Pirker - June 2014

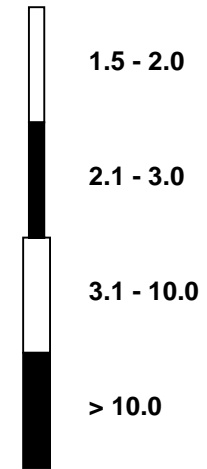


**Pollutant Rose**

**Methane (CH<sub>4</sub>) - ppm**  
**Henry Pirker - June 2014**

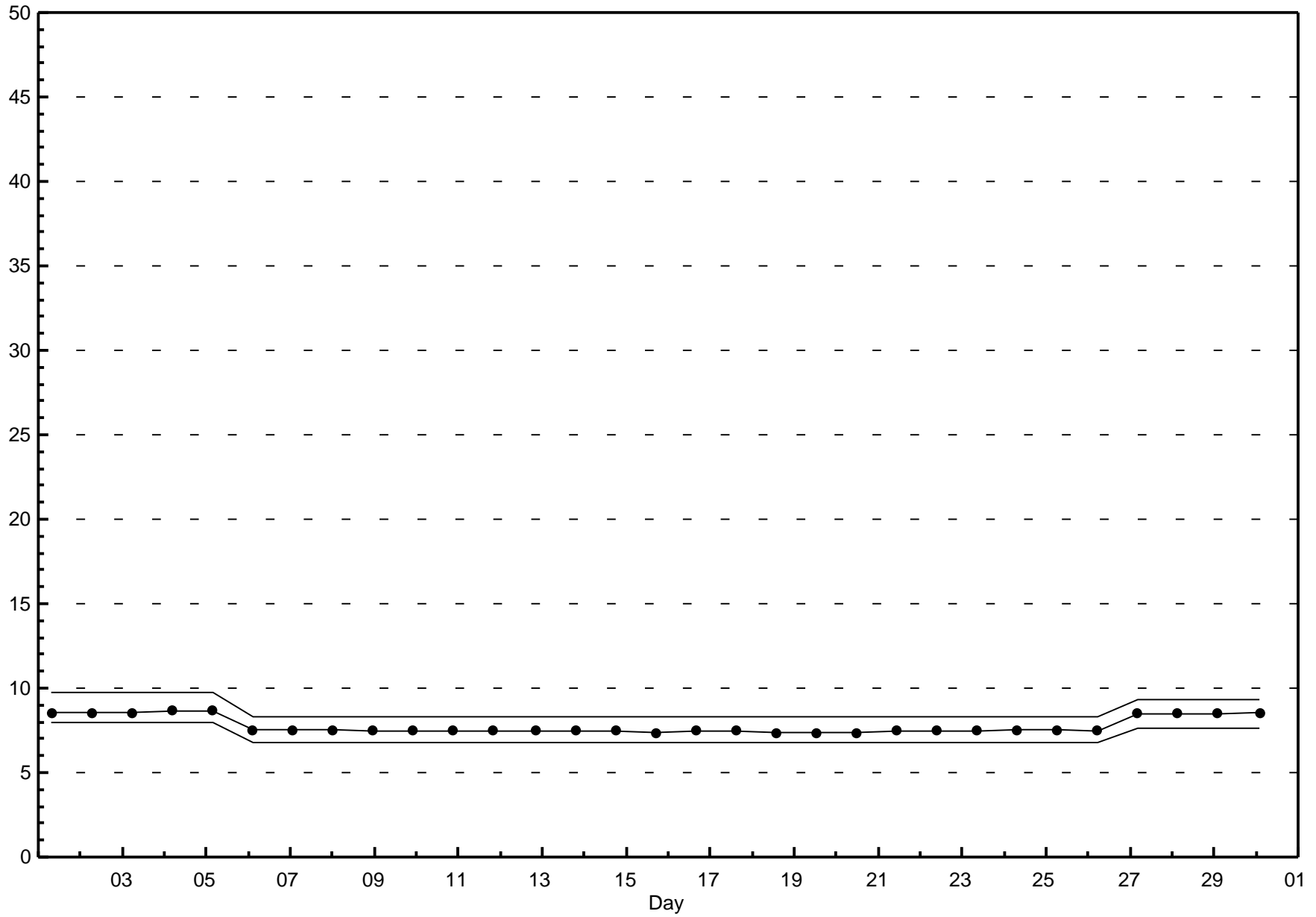


**Pollutant Classes (ppm)**



### Span Responses

Methane (CH<sub>4</sub>)  
Henry Pirker - June 2014





## Hourly Averages

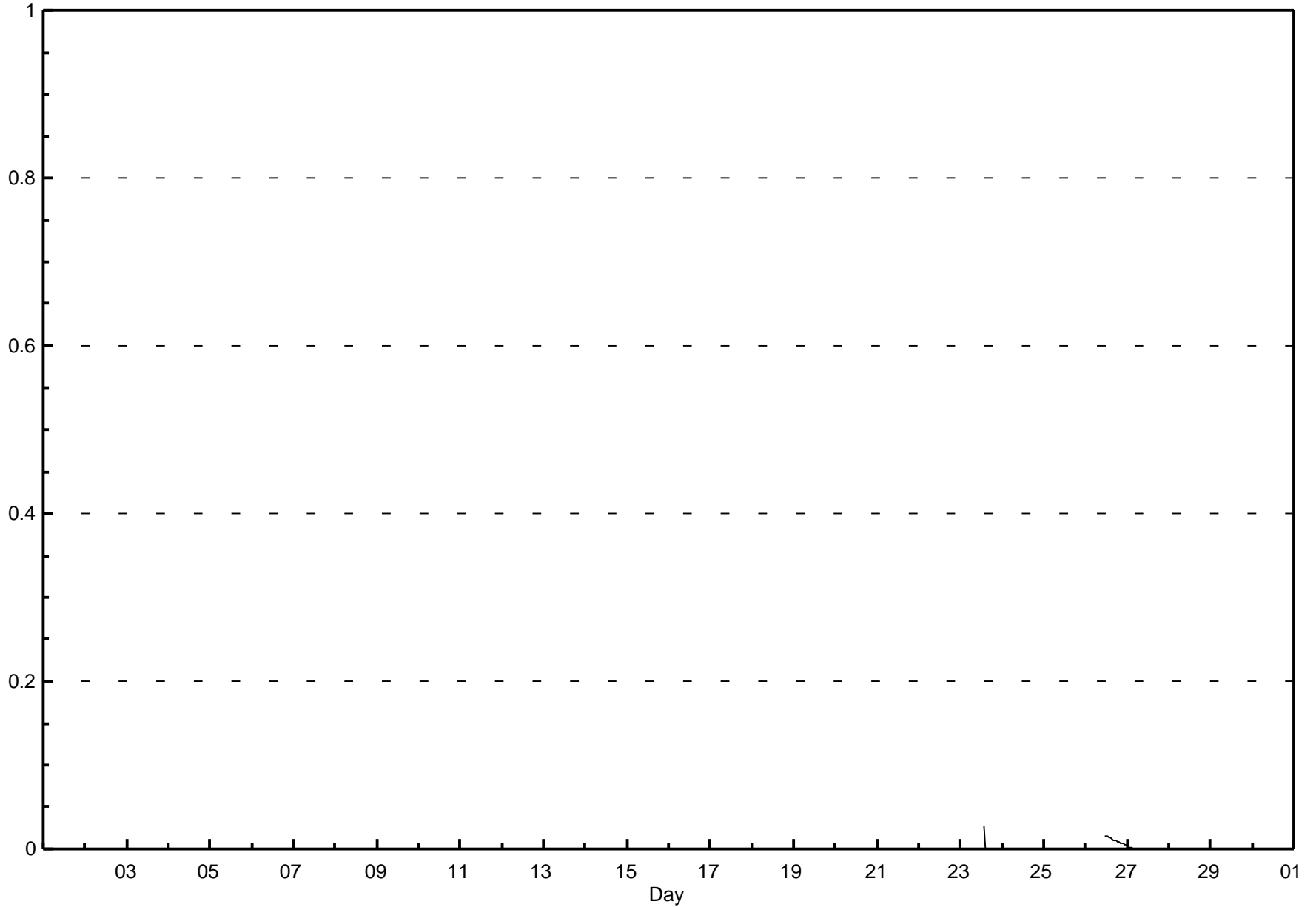
### Non Methane Hydrocarbon (NMHC) - ppm

#### Henry Pirker - June 2014

<b>Number of Exceedences (AAAQO):</b> 1-hr: 0    24-hr: 0	<b>Hours in Service:</b> 720
<b>Maximum Value:</b> 0.03 ppm on Jun 23 14:00	<b>Maximum Daily Average:</b> 0.01 ppm on Jun 26
<b>Minimum Value:</b> 0.0 ppm on Jun 1 01:00	<b>Hours of Data:</b> 677
<b>Maximum Diurnal Average:</b> 0.00 ppm at hour 14	<b>Hours of Missing Data:</b> 43
<b>Monthly Average:</b> 0.000 ppm	<b>Hours of Calibration:</b> 39
<b>Minimum Daily Average:</b> 0.00 ppm on Jun 5	<b>Percent Operational Time:</b> 99.4
<b>Minimum Diurnal Average:</b> 0.00 ppm at hour 11	
<b>Percentiles:</b> 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> = 0.01	

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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																								
2-Jun	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																								
3-Jun	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																								
4-Jun	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																								
5-Jun	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																								
6-Jun	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																								
7-Jun	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																								
8-Jun	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	0.0	0.00	0.00																								
9-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																								
10-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00																								
11-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																								
12-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																								
13-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																								
14-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																								
15-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																								
16-Jun	0.0	0.0	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																								
17-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																								
18-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																								
19-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																								
20-Jun	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																								
21-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																								
22-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																								
23-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	M	M	M	M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.03																								
24-Jun	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																								
25-Jun	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																								
26-Jun	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.02																								
27-Jun	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																								
28-Jun	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																								
29-Jun	0.0	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																								
30-Jun	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																								
0.00																								0.00	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			
0.00																								0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	Diurnal Maximum	

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

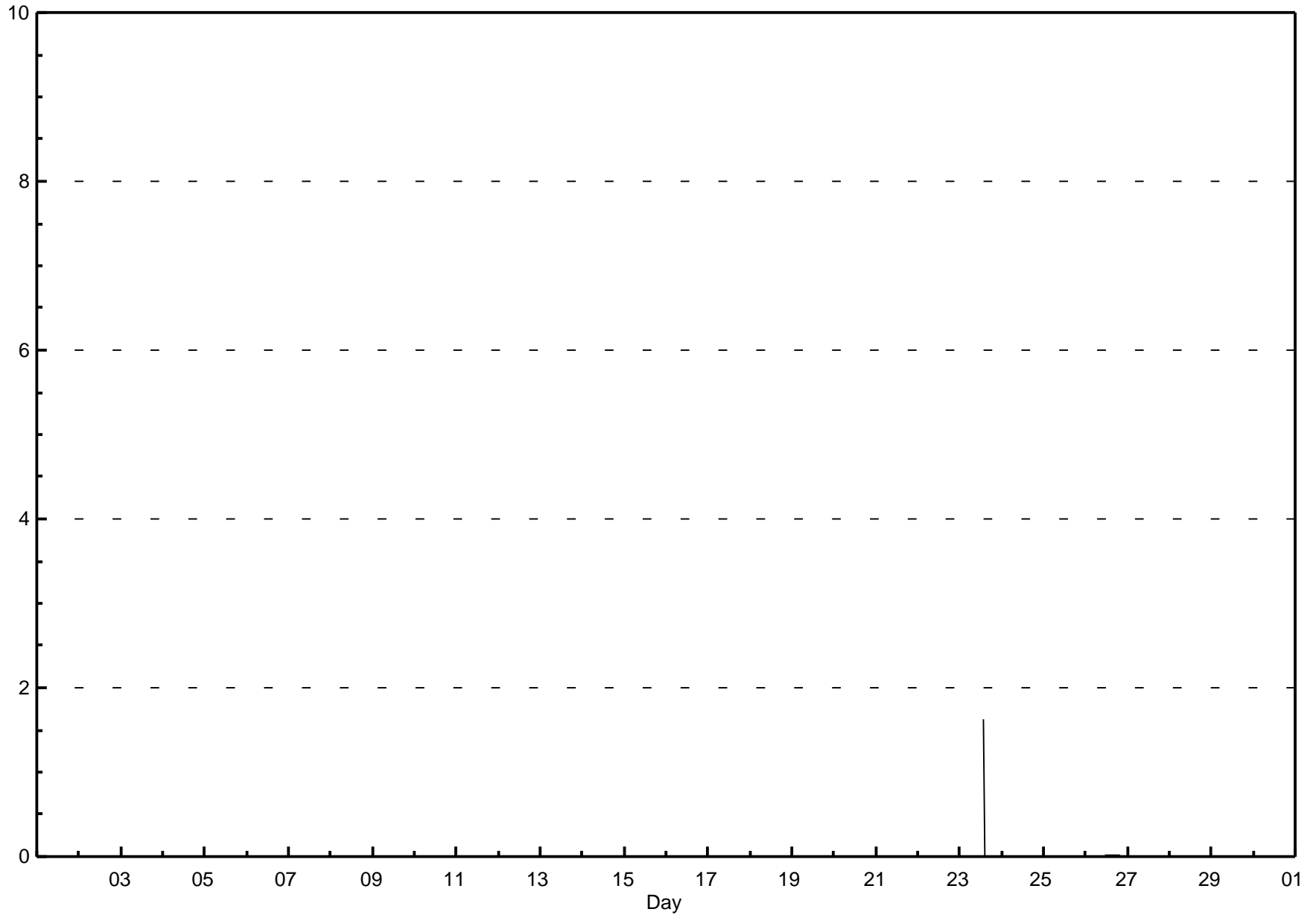


## Hourly Maximums

## Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - June 2014

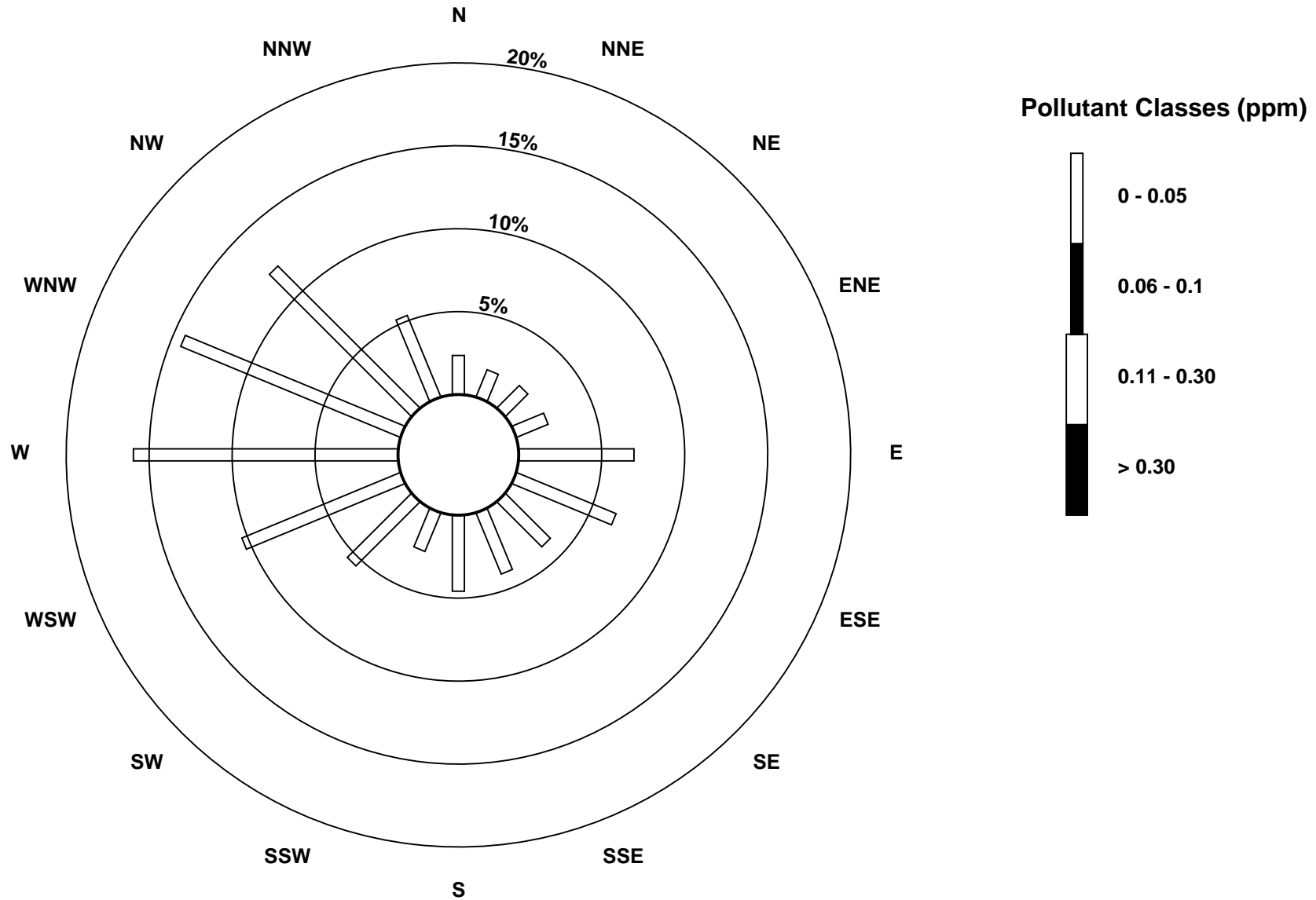
Maximum Value: 1.62 ppm on Jun 23 14:00		Maximum Daily Average: 0.09 ppm on Jun 23		Hours in Service: 720																								
Minimum Value: 0.0 ppm on Jun 1 13:00		Minimum Daily Average: 0.00 ppm on Jun 11		Hours of Data: 677																								
Maximum Diurnal Average: 0.06 ppm at hour 14		Minimum Diurnal Average: 0.00 ppm at hour 7		Hours of Missing Data: 43																								
Monthly Average: 0.003 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> = 0.01		Hours of Calibration: 39																								
				Percent Operational Time: 99.4																								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jun	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	0.0	0.00	0.00	
2-Jun	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	0.0	0.00	0.00	
3-Jun	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	0.0	0.00	0.00	
4-Jun	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	0.0	0.00	0.00	
5-Jun	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00		
6-Jun	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00		
7-Jun	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00		
8-Jun	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	0.0	0.0	0.00	0.00	
9-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	
10-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	A	0.0	0.0	0.00	0.00	
11-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00	
12-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00	
13-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
14-Jun	0.0	0.0	0.0	0.0	0.0	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	
15-Jun	0.0	0.0	0.0	0.0	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	
16-Jun	0.0	0.0	0.0	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	
17-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
18-Jun	0.0	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	
19-Jun	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	0.0	0.00	0.00	
20-Jun	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	0.0	0.00	0.00	
21-Jun	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	0.0	0.00	0.00	
22-Jun	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	0.0	0.00	0.00	
23-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	M	M	M	M	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.09	1.62	
24-Jun	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	0.0	0.00	0.00	
25-Jun	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	0.0	0.00	0.00	
26-Jun	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.02	
27-Jun	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	0.0	0.00	0.00	
28-Jun	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	0.0	0.00	0.00	
29-Jun	0.0	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	0.0	0.00	0.00	
30-Jun	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	0.0	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	0.06	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	Diurnal Average
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	1.62	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	Diurnal Maximum
C - Calibration			M - Maintenance					A - Automated Daily Zero Span																				

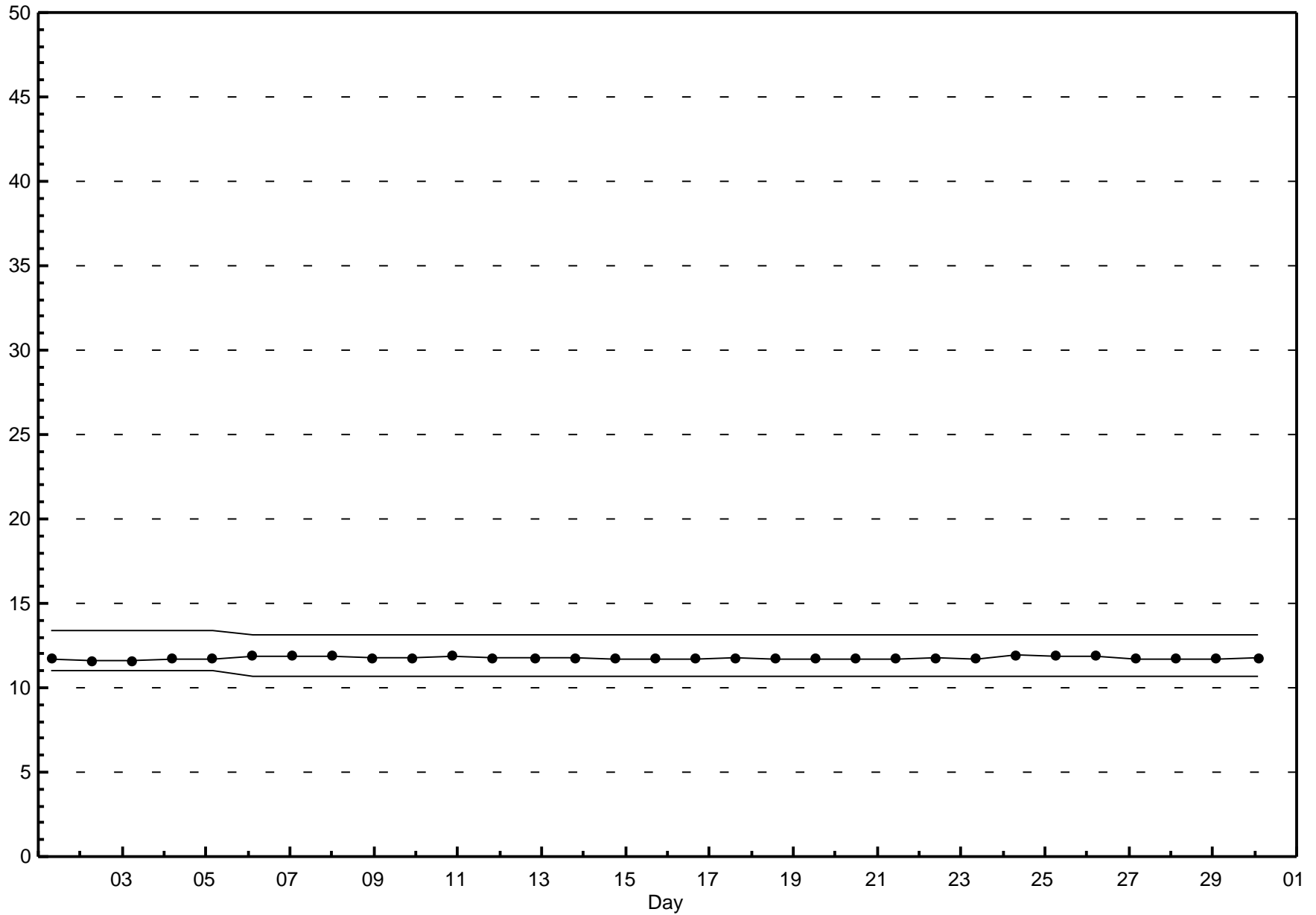


**Pollutant Rose**

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

**Henry Pirker - June 2014**





## Hourly Averages

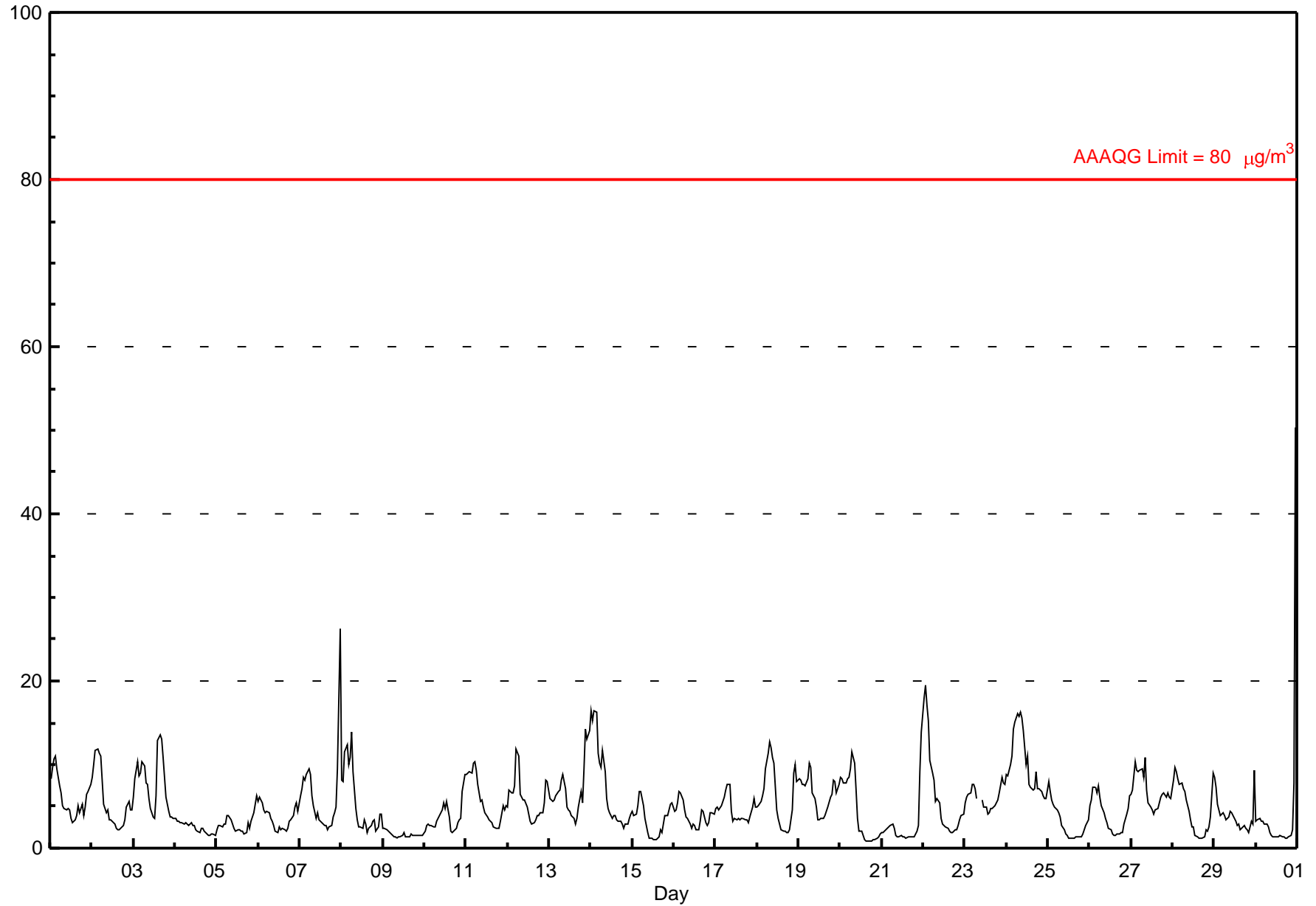
## Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

Henry Pirker - June 2014

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 720
Maximum Value: 50.4 µg/m <sup>3</sup> on Jul 1 00:00	Maximum Daily Average: 10.2 µg/m <sup>3</sup> on Jun 24
Minimum Value: 1 µg/m <sup>3</sup> on Jun 20 17:00	Hours of Data: 718
Maximum Diurnal Average: 8.3 µg/m <sup>3</sup> at hour 24	Hours of Missing Data: 2
Monthly Average: 5.05 µg/m <sup>3</sup>	Hours of Calibration: 0
Minimum Daily Average: 1.6 µg/m <sup>3</sup> on Jun 9	Percent Operational Time: 99.7
Minimum Diurnal Average: 3.0 µg/m <sup>3</sup> at hour 16	
Percentiles: P <sub>1</sub> = 1.0 P <sub>10</sub> = 1.6 Q <sub>1</sub> = 2.5 Median = 4.1 Q <sub>3</sub> = 6.7 P <sub>90</sub> = 9.5 P <sub>99</sub> = 16.5	

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-Jun	8	10	11	11	9	7	7	5	5	5	5	4	3	3	4	5	4	5	4	5	6	7	8	6.0	11.0	
2-Jun	9	10	12	12	11	11	8	5	4	5	3	3	3	2	2	2	3	3	3	3	5	6	5	4	5.6	11.8
3-Jun	6	8	10	9	9	10	10	8	8	6	5	4	4	6	13	14	13	11	8	6	4	4	4	4	7.6	13.6
4-Jun	4	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	1	2	2	2	2	2.4	3.5
5-Jun	2	3	3	3	3	3	4	4	3	3	2	2	2	2	2	2	2	2	3	2	3	4	5	6	3.0	6.3
6-Jun	6	6	5	5	4	4	4	4	3	3	2	2	2	2	2	2	2	3	3	4	5	5	4	3.6	6.0	
7-Jun	6	7	9	8	9	10	9	6	5	4	4	3	3	3	3	3	2	2	3	4	4	5	10	26	6.2	26.3
8-Jun	8	8	12	12	10	11	14	9	5	3	3	2	3	3	2	2	3	3	3	2	3	4	4	4	5.5	13.9
9-Jun	2	2	2	2	2	2	1	1	1	1	1	2	2	1	1	1	2	1	2	2	2	1	2	2	1.6	2.4
10-Jun	2	3	3	3	3	3	3	3	4	4	5	5	6	4	2	2	2	2	2	3	3	4	7	9	3.6	8.9
11-Jun	9	9	9	9	10	10	9	8	6	6	5	4	4	3	3	3	3	2	2	2	3	5	5	5	5.6	10.4
12-Jun	5	7	7	7	7	12	11	6	6	6	6	5	4	3	3	3	3	4	4	4	4	5	8	8	5.8	11.8
13-Jun	6	6	6	6	6	7	7	8	9	7	5	5	4	4	4	3	3	5	7	5	9	14	13	14	6.8	14.3
14-Jun	16	15	16	16	11	10	10	12	9	6	5	4	4	4	4	3	3	3	3	2	3	3	4	4	7.1	16.5
15-Jun	4	4	4	5	7	7	5	3	3	2	1	1	1	1	1	1	2	2	3	4	4	5	5	5	3.4	6.8
16-Jun	4	5	5	7	7	6	5	4	4	3	2	3	3	2	2	3	5	4	3	3	3	4	4	4	3.9	6.8
17-Jun	5	5	5	5	6	6	7	8	8	4	3	4	3	3	3	4	4	3	3	3	4	5	6	5	4.6	7.6
18-Jun	5	5	6	6	7	10	11	13	12	11	10	5	4	3	2	2	2	2	2	2	5	9	10	8	6.3	12.7
19-Jun	8	8	8	8	7	8	10	10	7	6	5	3	3	4	4	4	5	6	7	8	8	7	8	8	6.5	10.2
20-Jun	8	8	8	8	8	8	9	11	10	7	4	2	2	2	1	1	1	1	1	1	1	1	1	2	4.5	11.5
21-Jun	2	2	2	2	3	3	3	2	2	1	1	2	1	1	1	1	1	1	1	1	2	3	9	14	2.6	13.9
22-Jun	18	19	17	15	10	9	8	6	6	5	4	3	3	3	2	2	2	2	2	2	3	3	4	4	6.4	19.4
23-Jun	5	6	6	7	8	8	7	6	M	M	6	5	5	4	4	5	5	5	5	6	7	9	8	8	6.1	8.6
24-Jun	9	9	10	11	14	15	16	16	16	16	14	10	11	8	7	7	7	9	7	7	7	6	6	6	10.2	16.3
25-Jun	8	7	6	5	5	5	4	4	3	2	2	1	1	1	1	1	1	1	1	1	2	2	3	3	3.0	7.9
26-Jun	5	6	7	7	7	7	6	5	4	4	3	2	2	2	2	2	2	2	2	2	3	4	5	6	4.0	7.4
27-Jun	6	7	10	9	9	9	10	9	11	7	5	5	5	4	5	5	5	6	6	7	6	7	6	6	6.9	10.8
28-Jun	8	10	9	8	8	8	7	7	6	4	3	2	2	1	1	1	1	1	1	2	2	3	4	9	4.6	9.6
29-Jun	8	7	5	4	4	4	4	3	4	4	4	3	3	3	2	2	3	2	2	2	3	3	9	9	3.9	9.3
30-Jun	3	3	4	3	3	3	3	3	2	2	1	1	1	1	2	1	1	1	1	1	2	2	8	50	4.3	50.4
	6.6	6.9	7.3	7.2	7.0	7.3	7.2	6.4	5.7	4.8	4.1	3.4	3.2	3.0	3.0	3.0	3.1	3.2	3.3	3.3	3.7	4.7	5.6	8.3	Diurnal Average	
	17.9	19.4	17.2	16.3	14.3	15.2	16.0	15.8	16.3	15.6	14.1	10.1	10.9	7.6	13.0	13.6	13.1	10.8	8.5	7.2	9.5	14.3	13.0	50.4	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>



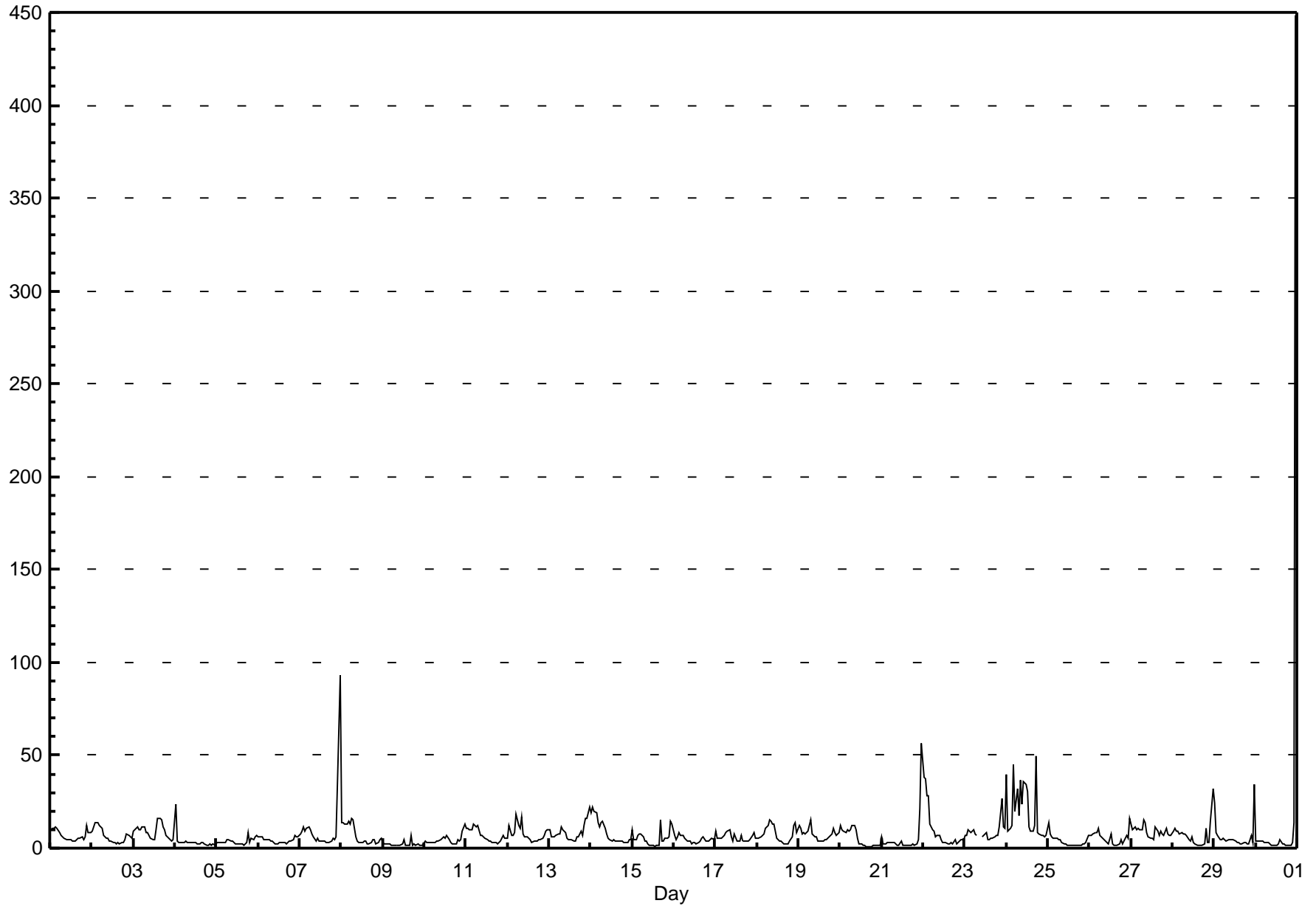


# Hourly Maximums

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

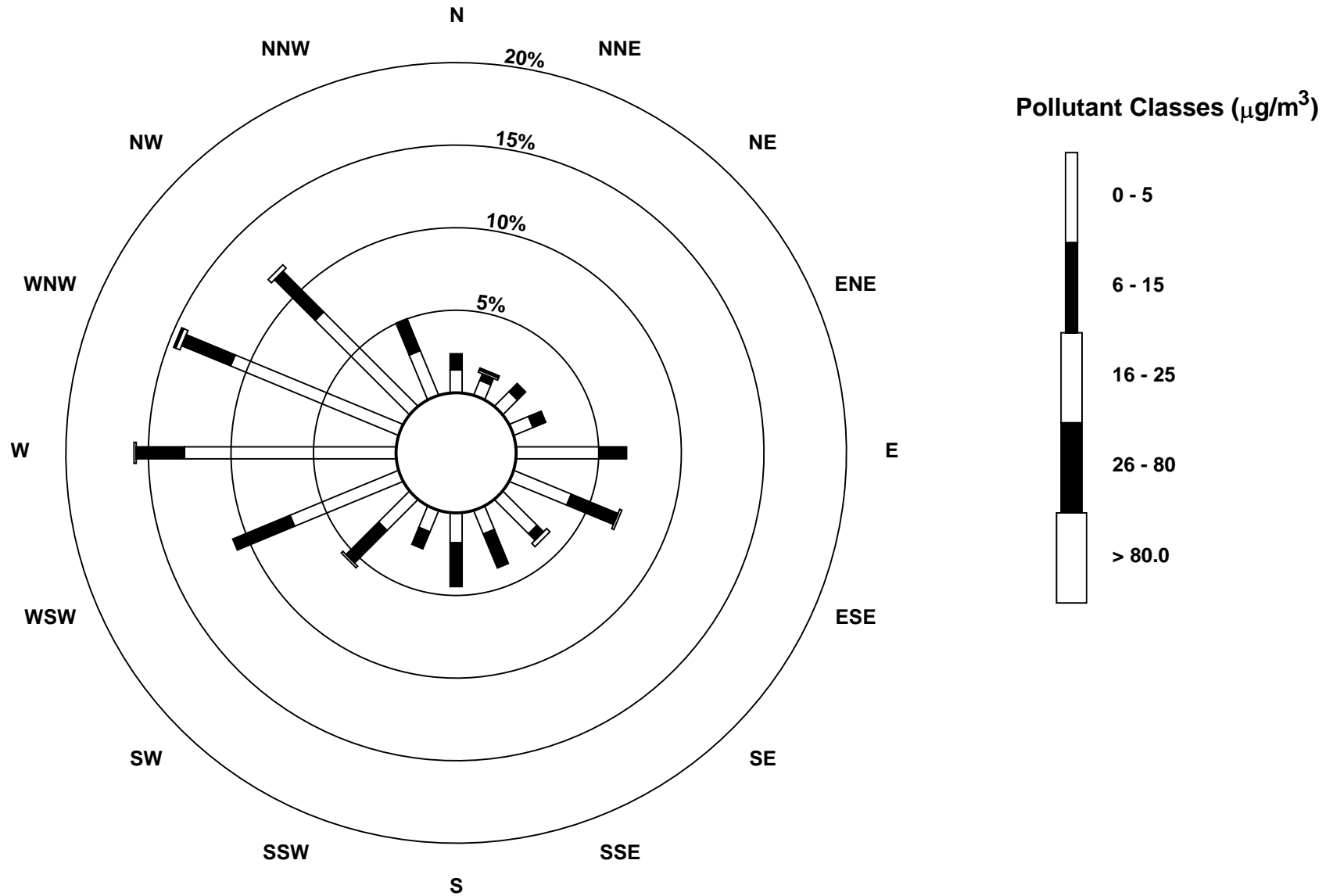
Henry Pirker - June 2014

Maximum Value: 448.3 µg/m <sup>3</sup> on Jul 1 00:00 Minimum Value: 1 µg/m <sup>3</sup> on Jun 20 17:00 Maximum Diurnal Average: 28.4 µg/m <sup>3</sup> at hour 24 Monthly Average: 7.43 µg/m <sup>3</sup>		Maximum Daily Average: 21.7 µg/m <sup>3</sup> on Jun 30 Minimum Daily Average: 2.2 µg/m <sup>3</sup> on Jun 9 Minimum Diurnal Average: 3.7 µg/m <sup>3</sup> at hour 14 Percentiles: P <sub>1</sub> = 1.1 P <sub>10</sub> = 2.0 Q <sub>1</sub> = 3.1 Median = 4.9 Q <sub>3</sub> = 8.3 P <sub>90</sub> = 12.4 P <sub>99</sub> = 36.7		Hours in Service: 720 Hours of Data: 718 Hours of Missing Data: 2 Hours of Calibration: 0 Percent Operational Time: 99.7																																												
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
1-Jun	10	11	11	12	11	8	7	6	5	5	5	4	3	4	5	6	6	6	4	6	12	8	8	7.0	11.9																							
2-Jun	9	12	13	14	12	12	11	7	5	5	4	4	3	3	3	2	3	3	4	8	7	6	6	6.6	13.6																							
3-Jun	9	10	11	10	10	11	11	8	9	7	6	4	4	10	16	16	15	12	10	7	5	4	4	5	9.0	16.2																						
4-Jun	23	3	3	3	3	3	3	3	3	3	3	3	2	2	3	3	3	2	2	2	2	2	2	3.6	23.4																							
5-Jun	3	3	3	3	3	3	5	5	4	3	3	2	3	3	2	2	2	3	8	3	5	5	6	7	3.7	8.2																						
6-Jun	6	6	6	5	4	5	5	4	3	3	3	2	3	3	3	3	2	3	4	4	4	7	6	6	4.2	6.5																						
7-Jun	7	9	11	9	11	12	10	7	6	4	5	4	3	4	4	3	3	3	6	5	6	34	93	10.9	93.1																							
8-Jun	14	13	13	13	14	13	16	15	6	4	3	3	4	4	2	3	3	5	4	2	3	5	5	5	7.1	15.9																						
9-Jun	3	3	2	2	2	2	2	1	1	2	2	2	5	2	2	7	2	2	2	2	2	2	2	2	2.2	7.0																						
10-Jun	4	3	3	3	3	3	3	4	4	4	5	5	6	6	7	5	3	2	3	3	4	4	5	9	4.4	12.6																						
11-Jun	10	10	10	10	13	12	11	12	7	7	6	5	4	4	3	3	3	3	2	3	4	7	5	5	6.6	12.8																						
12-Jun	5	12	7	7	9	18	12	11	17	7	6	6	5	4	3	3	4	4	5	5	5	7	9	10	7.6	18.2																						
13-Jun	10	6	6	6	7	8	8	12	10	8	5	5	5	4	4	4	6	6	9	7	12	16	16	22	8.4	22.3																						
14-Jun	19	22	20	19	14	11	14	14	11	7	5	5	4	4	4	4	3	4	3	3	3	3	4	5	8.6	22.5																						
15-Jun	10	4	5	7	7	7	6	4	4	4	2	2	1	1	1	2	2	15	3	4	5	5	6	14	13	5.5	15.2																					
16-Jun	7	5	6	8	7	7	5	4	4	4	4	3	3	3	3	4	5	6	3	4	4	5	5	4	4.7	8.3																						
17-Jun	9	6	5	5	6	7	8	9	10	6	4	8	4	4	4	7	4	4	4	4	4	7	9	5	5.9	10.3																						
18-Jun	5	6	6	7	7	11	12	15	14	13	13	5	4	3	4	2	2	2	4	6	12	13	8	8	7.4	14.9																						
19-Jun	12	11	8	8	8	9	12	15	8	6	6	4	4	4	4	5	5	6	7	7	11	9	7	9	7.6	15.2																						
20-Jun	12	10	9	8	10	9	10	12	12	10	5	2	2	2	1	1	1	1	1	1	1	1	2	2	5.3	12.5																						
21-Jun	6	2	3	3	3	3	3	3	2	2	2	4	1	1	1	1	1	1	2	2	2	5	21	56	5.5	56.3																						
22-Jun	38	37	29	28	13	10	9	6	7	7	5	3	3	3	3	2	3	2	5	2	3	4	4	4	9.6	38.0																						
23-Jun	6	7	10	8	9	10	8	7	M	M	6	7	8	5	5	6	5	6	7	7	11	26	11	11	8.5	26.4																						
24-Jun	40	9	11	12	45	20	32	18	37	24	36	34	31	12	9	9	12	50	8	8	7	7	6	7	20.1	49.6																						
25-Jun	14	8	6	6	5	5	5	4	3	2	2	2	1	1	1	1	1	1	1	2	2	2	3	7	3.7	14.1																						
26-Jun	7	7	8	8	8	11	7	6	5	4	3	3	8	2	2	2	2	2	4	2	4	7	5	16	5.5	16.1																						
27-Jun	13	10	11	10	10	10	10	16	13	8	6	5	5	4	11	9	7	9	8	7	11	7	7	7	9.0	15.6																						
28-Jun	9	10	9	9	8	8	7	7	7	5	4	6	3	2	1	1	2	1	2	11	3	3	15	32	7.0	32.1																						
29-Jun	25	8	7	5	4	5	4	4	5	5	5	5	3	3	3	3	3	3	2	2	7	3	35	35	6.3	34.7																						
30-Jun	3	4	4	3	3	3	3	3	2	2	2	1	2	2	5	2	3	2	2	2	2	3	14	448	21.7	448.3																						
																								11.7	8.9	8.6	8.4	9.0	8.5	8.7	8.1	7.7	5.9	5.4	5.0	4.7	3.7	3.9	3.8	4.4	5.2	4.3	4.3	4.9	6.5	8.5	28.4	Diurnal Average
																								40.0	37.2	28.5	28.2	44.7	20.0	31.7	17.7	36.8	23.6	36.2	34.3	30.9	11.5	15.6	16.2	15.2	49.6	10.2	11.0	11.9	26.4	34.0	448.3	Diurnal Maximum
M - Maintenance																																																



**Pollutant Rose**

**Particulate Matter 2.5 (PM<sub>2.5</sub>) - μg/m<sup>3</sup>**  
**Henry Pirker - June 2014**





Peace Airshed Zone Association

# Hourly Averages

External Temperature (ET) - °C

Henry Pirker - June 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 28.0 °C on Jun 23 15:00	Maximum Daily Average: 21.2 °C on Jun 23		Hours of Data:	720
Minimum Value: 3 °C on Jun 5 05:00	Minimum Daily Average: 5.8 °C on Jun 4		Hours of Missing Data:	0
Maximum Diurnal Average: 20.8 °C at hour 15	Minimum Diurnal Average: 9.2 °C at hour 5		Hours of Calibration:	0
Monthly Average: 15.23 °C	Percentiles: P <sub>1</sub> = 3.4 P <sub>10</sub> = 8.2 Q <sub>1</sub> = 10.9 Median = 14.8 Q <sub>3</sub> = 19.5 P <sub>90</sub> = 23.4 P <sub>99</sub> = 26.2		Percent Operational Time:	100.0

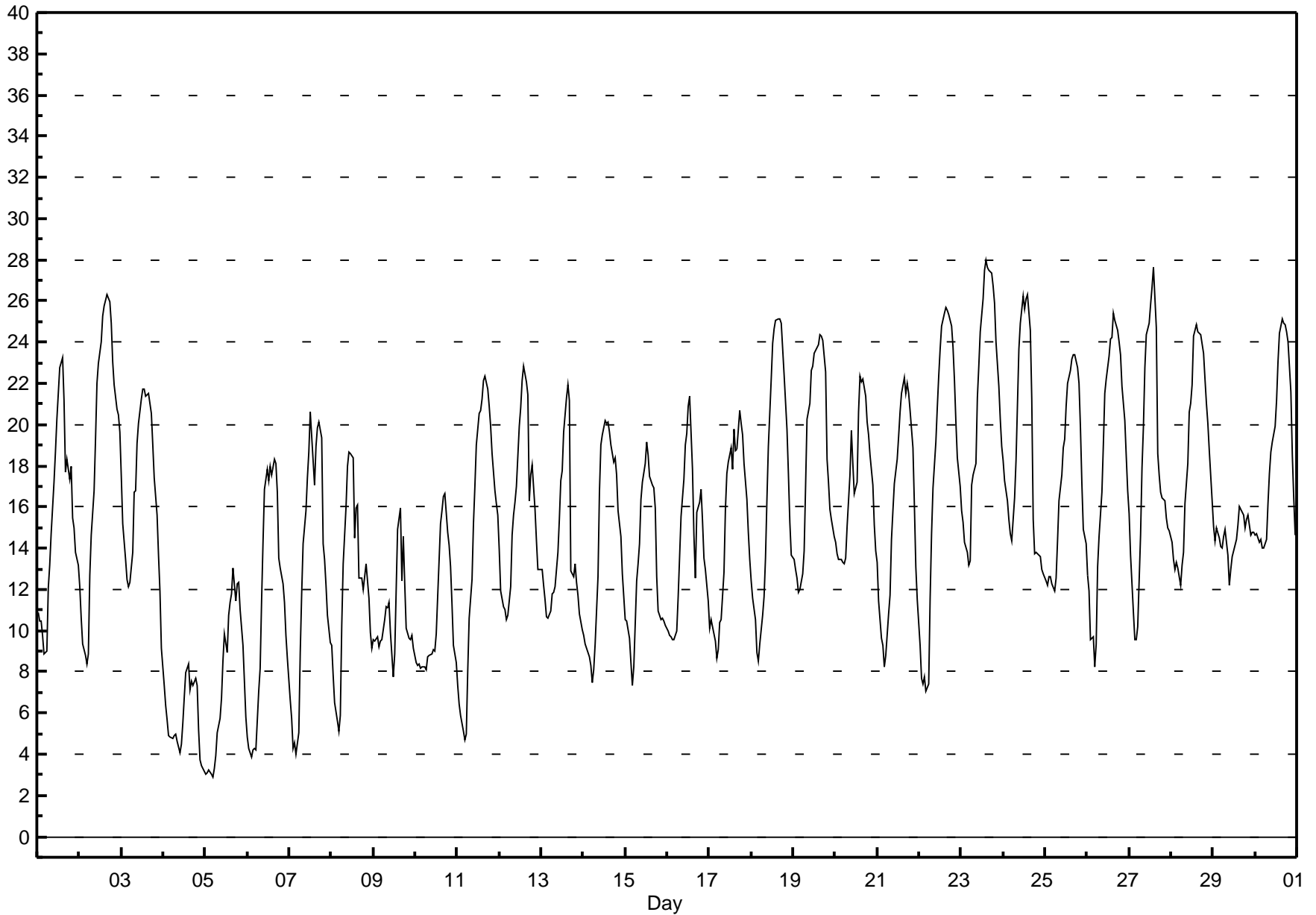
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	11	10	10	10	9	9	12	13	15	17	19	20	22	23	23	21	18	18	17	18	15	15	14	13	15.5	23.3
2-Jun	12	11	9	9	8	9	13	15	17	19	22	23	24	25	26	26	26	26	25	23	22	21	20	20	18.8	26.3
3-Jun	17	15	13	12	12	12	14	17	17	19	20	21	22	22	21	21	21	21	19	17	16	14	12	9	16.9	21.8
4-Jun	7	6	6	5	5	5	5	5	5	4	5	6	7	8	8	7	8	7	8	7	5	4	3	3	5.8	8.4
5-Jun	3	3	3	3	3	3	4	5	6	7	9	10	9	11	11	12	13	11	12	12	11	9	8	6	7.7	13.1
6-Jun	5	4	4	4	4	4	7	8	11	14	17	18	17	18	18	18	18	17	14	13	12	11	10	9	11.5	18.3
7-Jun	7	6	4	5	4	5	9	12	14	16	17	19	21	19	17	19	20	20	19	14	13	12	11	9	13.0	20.6
8-Jun	9	8	7	6	5	6	10	13	16	18	19	19	18	15	16	16	13	13	12	13	13	12	10	9	12.2	18.7
9-Jun	10	9	10	9	9	10	11	11	11	11	10	8	9	12	15	16	12	15	12	10	10	10	10	9	10.7	15.9
10-Jun	8	8	8	8	8	8	8	9	9	9	9	9	10	12	15	16	17	17	15	14	13	11	9	8	10.8	16.7
11-Jun	7	6	6	5	5	5	8	11	12	15	17	19	21	21	21	22	22	22	21	20	19	17	16	16	14.7	22.4
12-Jun	14	12	11	11	11	11	12	15	16	16	17	20	21	22	23	22	21	16	18	18	16	14	13	13	15.9	22.8
13-Jun	13	12	12	11	11	11	12	12	12	14	15	17	18	20	21	22	21	13	13	13	12	12	11	10	14.0	21.9
14-Jun	10	9	9	9	8	7	8	9	13	17	19	20	20	20	20	20	19	18	18	18	16	15	13	12	14.4	20.2
15-Jun	11	10	10	8	7	8	12	13	14	16	17	18	19	19	17	17	17	16	13	11	11	11	10	10	13.2	19.1
16-Jun	10	10	10	10	10	10	12	14	16	17	19	20	21	21	18	15	13	16	16	17	15	14	13	11	14.4	21.3
17-Jun	10	11	10	9	9	9	10	11	13	16	18	18	19	18	20	19	19	21	20	20	18	16	15	13	15.0	20.7
18-Jun	12	12	11	9	8	9	11	12	13	16	19	22	24	25	25	25	25	25	24	22	20	18	15	14	17.3	25.1
19-Jun	13	13	13	12	12	13	14	17	20	21	23	23	23	24	24	24	24	24	23	18	17	16	15	15	18.4	24.4
20-Jun	14	14	13	13	13	13	14	15	18	20	18	17	17	21	22	22	22	21	20	19	19	17	15	14	17.2	22.3
21-Jun	13	11	10	9	8	9	11	12	14	16	17	18	19	21	22	22	22	22	22	21	19	16	13	12	15.7	22.2
22-Jun	9	8	7	8	7	7	12	15	17	19	21	22	24	25	25	26	26	25	25	24	22	20	18	17	17.9	25.7
23-Jun	16	15	14	14	13	13	17	18	18	21	23	25	26	27	28	28	28	27	27	26	24	22	20	19	21.2	28.0
24-Jun	18	17	16	15	15	14	16	18	21	24	25	26	26	26	26	25	21	15	14	14	14	14	13	13	18.6	26.3
25-Jun	12	12	13	13	12	12	13	14	16	18	19	19	21	22	23	23	23	23	23	22	20	17	15	14	17.5	23.4
26-Jun	13	12	10	10	8	9	13	15	17	19	22	22	23	24	24	25	25	25	24	23	22	20	18	17	18.3	25.4
27-Jun	16	14	11	10	10	10	15	18	20	23	24	25	26	27	28	25	19	18	17	16	16	15	15	15	17.9	27.6
28-Jun	14	13	13	13	12	13	14	16	18	21	21	22	24	25	25	24	24	23	22	21	20	19	16	16	18.7	24.8
29-Jun	15	14	15	14	14	14	15	15	14	12	13	14	14	14	15	16	16	16	15	15	16	15	15	15	14.6	16.0
30-Jun	15	15	14	14	14	14	14	16	18	19	19	20	21	23	24	25	25	25	25	24	22	19	16	15	19.0	25.1

11.5	10.7	10.1	9.6	9.2	9.5	11.4	13.0	14.6	16.4	17.7	18.6	19.4	20.2	20.8	20.6	19.9	19.2	18.4	17.5	16.3	14.8	13.6	12.5	Diurnal Average	
18.2	17.3	16.3	15.4	14.7	14.4	17.1	18.3	20.9	23.7	24.9	26.2	26.1	27.5	28.0	27.6	27.5	27.4	26.7	25.9	24.0	21.9	20.5	19.7	Diurnal Maximum	

### Hourly Averages

External Temperature (ET) - °C

Henry Pirker - June 2014



# Hourly Averages

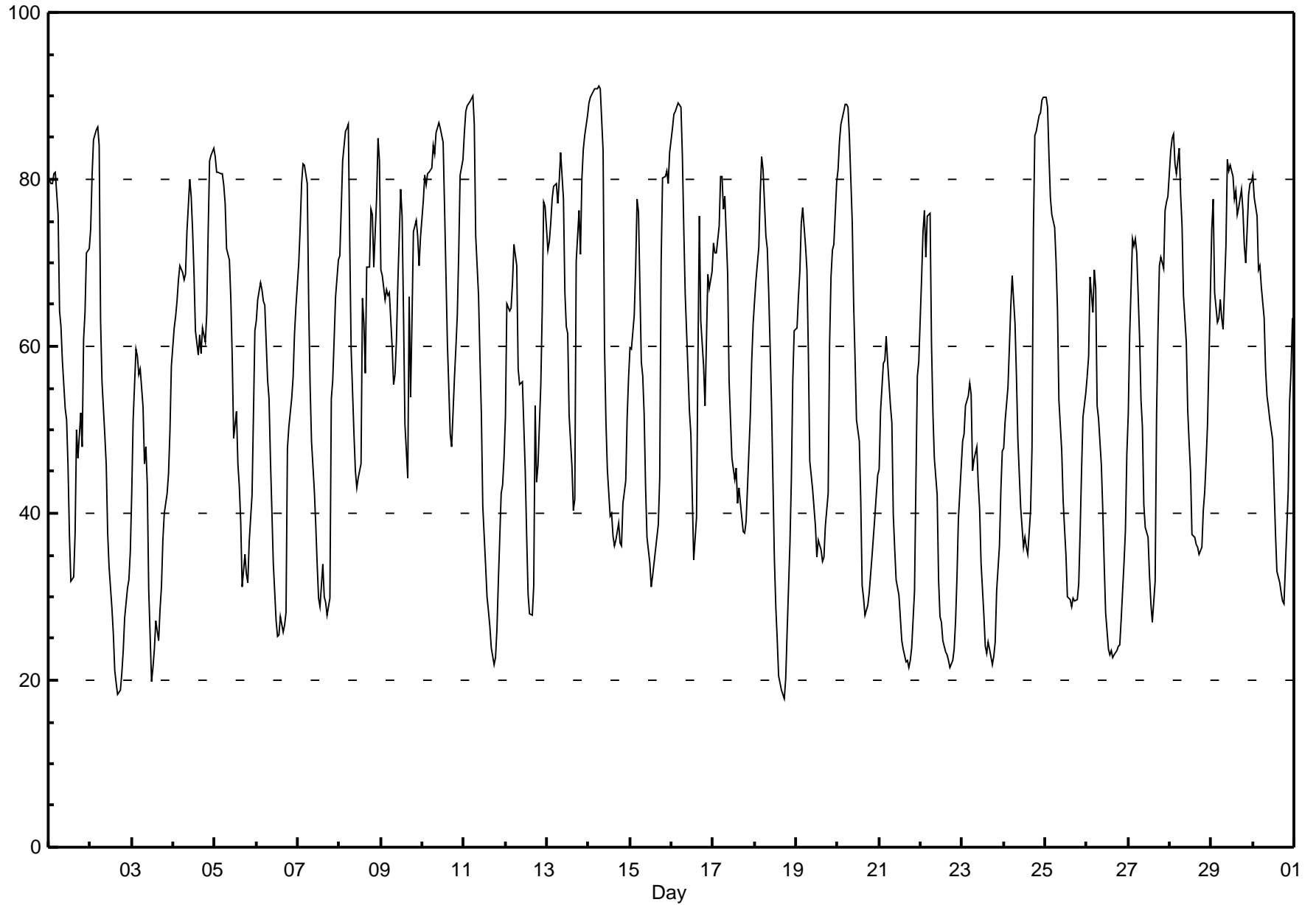
Relative Humidity (RH) - %

Henry Pirker - June 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 91.2 % on Jun 14 07:00 Maximum Daily Average: 74.1 % on Jun 10																			Hours in Service: 720 Hours of Data: 720							
Minimum Value: 18 % on Jun 18 18:00 Minimum Daily Average: 38.4 % on Jun 23 Maximum Diurnal Average: 75.5 % at hour 5 Minimum Diurnal Average: 36.1 % at hour 16 Monthly Average: 55.85 % Percentiles: P <sub>1</sub> = 20.0 P <sub>10</sub> = 28.1 Q <sub>1</sub> = 38.5 Median = 56.4 Q <sub>3</sub> = 72.9 P <sub>90</sub> = 82.1 P <sub>99</sub> = 89.8																			Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	80	80	80	81	81	76	64	62	58	53	51	46	37	32	32	38	50	47	52	48	61	64	71	72	58.9	80.8
2-Jun	74	80	85	86	86	84	63	56	49	46	38	34	29	26	21	20	18	19	21	24	27	31	32	35	45.1	86.2
3-Jun	42	51	60	59	57	57	53	46	48	43	31	20	22	24	27	25	28	31	37	40	42	45	50	58	41.4	59.7
4-Jun	62	63	65	68	70	69	68	69	74	80	78	74	69	62	59	61	59	62	61	64	74	82	83	84	69.1	83.7
5-Jun	83	81	81	81	81	79	77	72	70	66	59	49	52	46	43	39	31	35	33	32	37	42	52	62	57.6	82.8
6-Jun	63	66	68	67	65	65	56	54	46	40	34	27	25	25	28	26	27	28	48	50	54	56	61	65	47.7	67.6
7-Jun	70	74	80	82	82	79	65	55	49	43	39	34	30	29	34	30	29	28	30	54	56	61	66	70	52.8	81.8
8-Jun	71	76	82	86	86	87	73	60	50	45	43	44	46	66	63	57	69	70	77	76	69	78	85	82	68.3	86.7
9-Jun	69	68	66	67	66	66	60	55	57	61	68	79	76	64	51	44	66	54	63	74	75	73	70	73	65.1	78.8
10-Jun	78	81	79	81	81	81	84	83	86	87	86	85	84	77	60	55	49	48	56	60	64	71	81	82	74.1	86.8
11-Jun	86	88	89	89	90	90	87	73	66	59	52	41	34	30	28	26	24	22	23	26	32	42	43	47	53.6	90.0
12-Jun	52	65	64	65	68	72	70	57	55	56	56	45	37	30	28	28	31	53	44	46	55	64	77	77	54.0	77.3
13-Jun	71	73	75	78	79	79	77	80	83	78	66	62	62	52	46	40	42	70	76	71	80	84	85	88	70.7	87.6
14-Jun	89	90	90	91	91	91	91	91	83	60	51	45	40	40	37	36	37	39	36	36	41	44	52	56	60.7	91.2
15-Jun	60	60	64	69	78	76	58	56	52	43	37	34	31	33	34	37	39	44	70	80	80	81	79	83	57.5	83.2
16-Jun	86	88	88	89	89	89	83	74	66	57	52	50	42	34	39	58	76	63	58	53	61	69	67	69	66.6	89.2
17-Jun	72	71	71	74	80	80	76	78	69	56	51	47	44	46	41	43	41	38	38	39	43	52	58	63	57.1	80.3
18-Jun	65	68	72	78	83	81	73	72	66	60	53	35	29	25	20	19	18	18	20	26	36	44	56	62	49.2	82.7
19-Jun	62	66	69	75	77	72	69	59	46	43	41	39	35	37	36	34	35	39	42	60	68	72	72	80	55.3	79.7
20-Jun	81	85	87	88	89	89	89	85	75	65	59	51	49	42	31	30	28	29	31	33	35	40	42	45	57.3	89.0
21-Jun	45	52	58	58	61	58	53	51	40	36	32	30	28	25	24	22	22	21	22	24	31	44	56	58	39.7	61.2
22-Jun	68	74	76	71	76	76	60	52	47	42	32	28	27	25	23	23	22	22	22	24	27	32	39	46	43.1	76.3
23-Jun	49	49	53	54	56	54	45	47	48	44	41	34	28	24	23	25	24	22	23	25	31	36	43	47	38.4	55.7
24-Jun	48	51	55	60	65	68	63	56	49	45	41	36	37	36	35	40	48	74	85	86	88	88	89	90	59.7	89.9
25-Jun	90	89	83	78	76	74	70	64	54	47	42	38	35	30	30	29	30	29	30	32	38	45	52	54	51.5	89.8
26-Jun	56	59	68	64	69	67	53	51	46	40	34	28	24	23	24	23	23	24	24	24	27	34	38	47	40.4	69.2
27-Jun	52	61	73	72	73	71	61	54	50	41	38	37	33	29	27	32	52	62	70	71	69	76	77	78	56.6	77.9
28-Jun	83	85	85	82	81	84	78	74	66	60	52	49	45	37	37	36	36	35	36	40	43	46	51	66	57.9	85.4
29-Jun	74	78	66	63	63	66	63	62	72	82	81	82	80	78	79	76	77	79	76	72	70	78	80	80	74.0	82.4
30-Jun	80	78	76	69	70	67	63	57	54	53	51	49	43	38	33	32	30	30	29	34	43	53	57	63	52.2	80.5
																			68.8 71.6 73.5 74.1 75.5 75.0 68.2 63.5 59.1 54.3 49.6 45.0 41.7 38.7 36.5 36.1 38.7 41.1 44.4 47.4 51.9 57.6 62.2 66.0		Diurnal Average					
																			89.8 89.8 90.2 90.8 90.9 90.9 91.2 90.9 85.6 86.8 86.2 85.2 84.4 77.6 78.6 75.7 76.6 78.8 85.3 85.8 87.7 88.0 89.5 89.9		Diurnal Maximum					

**Hourly Averages**

**Relative Humidity (RH) - %**  
**Henry Pirker - June 2014**





Peace Airshed Zone Association

# Hourly Averages

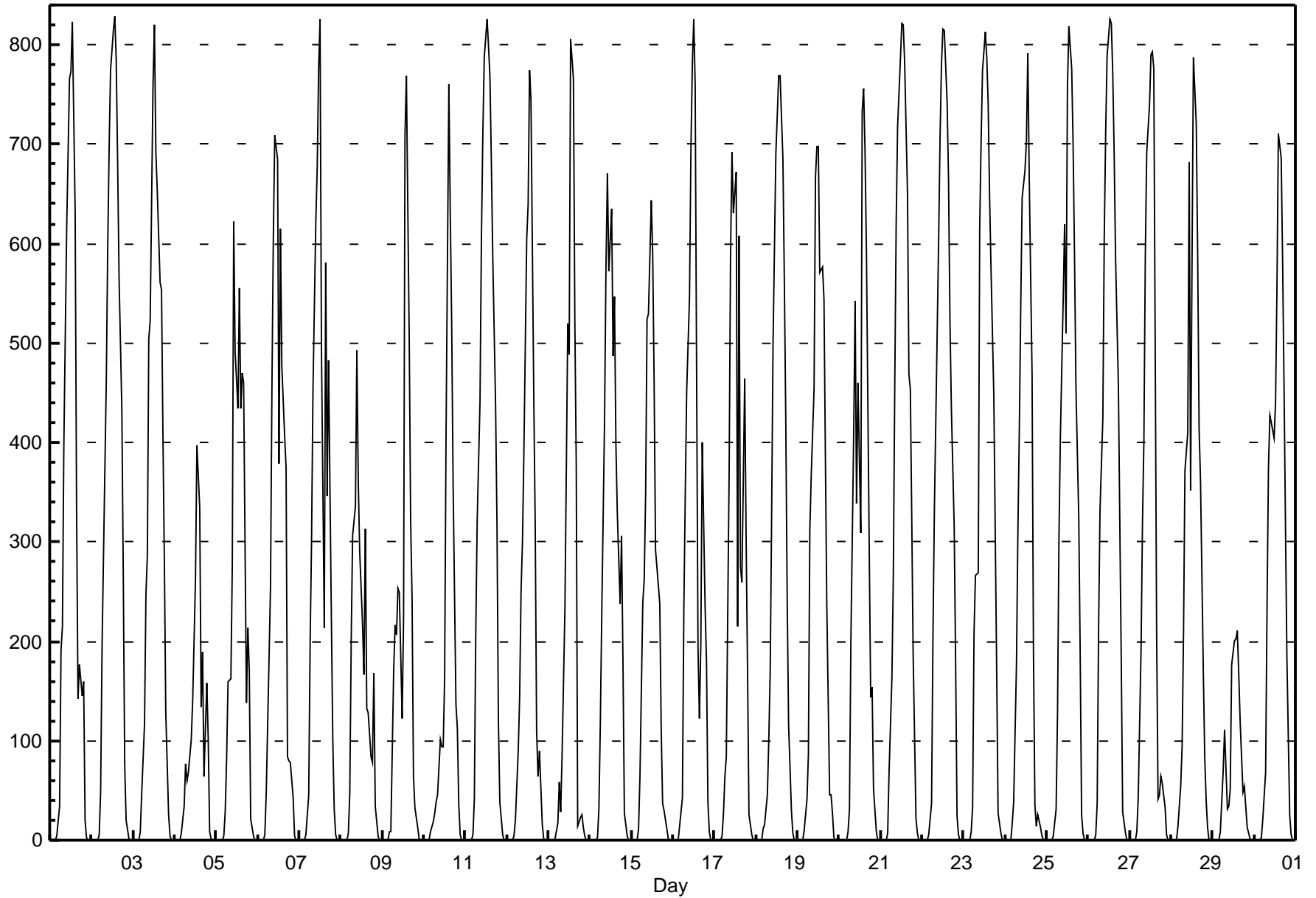
Solar Radiation (SR) - W/m<sup>2</sup>

Henry Pirker - June 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 828.9 W/m <sup>2</sup> on Jun 2 14:00	Maximum Daily Average: 325.0 W/m <sup>2</sup> on Jun 26		Hours of Data:	720
Minimum Value: 0 W/m <sup>2</sup> on Jun 1 01:00	Minimum Daily Average: 65.3 W/m <sup>2</sup> on Jun 29		Hours of Missing Data:	0
Maximum Diurnal Average: 641.7 W/m <sup>2</sup> at hour 14	Minimum Diurnal Average: 0.0 W/m <sup>2</sup> at hour 1		Hours of Calibration:	0
Monthly Average: 235.43 W/m <sup>2</sup>	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.3 Median = 112.4 Q <sub>3</sub> = 439.5 P <sub>90</sub> = 692.0 P <sub>99</sub> = 820.1		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-Jun	0	0	0	0	5	34	191	215	397	616	691	767	773	822	631	334	143	176	145	160	20	2	0	0	255.0	822.5
2-Jun	0	0	0	0	5	49	195	284	463	596	696	774	814	829	784	682	566	431	263	76	20	2	0	0	313.8	828.9
3-Jun	0	0	0	0	8	47	117	248	286	504	523	761	820	692	653	561	554	409	284	129	26	4	0	0	276.0	820.0
4-Jun	0	0	0	0	8	34	77	60	68	101	140	201	264	398	335	134	190	65	158	102	8	1	0	0	97.6	397.9
5-Jun	0	0	0	0	5	28	82	160	163	276	622	491	435	556	434	469	460	138	213	171	21	5	0	0	197.0	621.9
6-Jun	0	0	0	0	6	49	185	255	455	606	710	685	379	615	477	405	375	85	80	78	43	4	0	0	228.8	709.6
7-Jun	0	0	0	0	6	46	199	302	452	623	677	775	826	493	213	581	345	482	224	102	32	6	0	0	266.0	825.9
8-Jun	0	0	0	0	7	47	199	306	337	493	360	291	218	166	313	132	128	83	79	168	34	5	0	0	140.2	493.2
9-Jun	0	0	0	0	8	9	169	216	207	253	249	122	224	709	769	503	321	243	65	33	12	1	0	0	171.4	769.1
10-Jun	0	0	0	0	9	18	27	39	46	101	93	95	162	405	760	629	519	359	137	113	36	6	0	0	148.1	759.8
11-Jun	0	0	0	0	6	41	208	320	441	605	710	788	825	799	769	684	588	437	317	120	39	5	0	0	320.9	825.1
12-Jun	0	0	0	0	4	19	90	144	250	300	390	606	639	775	745	444	316	109	64	89	16	2	0	0	208.4	774.9
13-Jun	0	0	0	0	2	17	58	29	87	233	376	520	488	805	766	521	376	15	23	26	12	4	0	0	181.5	805.4
14-Jun	0	0	0	0	4	31	118	227	425	577	671	572	635	488	547	398	328	238	306	178	27	5	0	0	240.6	671.2
15-Jun	0	0	0	0	12	64	240	262	347	525	530	644	590	461	292	256	238	113	38	30	11	2	0	0	193.9	643.9
16-Jun	0	0	0	0	14	43	231	348	451	547	694	781	825	758	194	123	198	400	236	180	39	8	0	0	252.9	825.2
17-Jun	0	0	0	0	4	26	65	84	371	590	692	630	672	214	607	274	259	464	303	171	26	6	0	0	227.4	692.0
18-Jun	0	0	0	0	11	15	45	99	169	324	499	691	729	769	768	685	562	424	245	117	30	8	0	0	257.9	769.2
19-Jun	0	0	0	0	10	41	86	312	367	454	668	697	698	571	577	543	386	235	46	45	27	3	0	0	240.2	698.1
20-Jun	0	0	0	0	1	8	31	199	410	542	339	459	308	734	755	693	591	288	144	153	51	8	0	0	238.2	755.5
21-Jun	0	0	0	0	6	70	164	268	457	619	718	786	821	820	782	651	468	454	324	187	22	6	0	0	317.7	821.1
22-Jun	0	0	0	0	6	36	206	333	423	603	706	781	816	814	742	663	523	434	315	179	24	6	0	0	317.1	815.8
23-Jun	0	0	0	0	8	33	208	266	269	616	703	775	813	788	740	647	575	446	308	171	27	7	0	0	308.3	813.1
24-Jun	0	0	0	0	17	38	178	312	413	537	647	674	704	792	667	469	188	36	15	26	12	4	0	0	238.6	792.0
25-Jun	0	0	0	0	5	31	129	304	406	545	619	510	757	819	776	699	586	456	323	187	26	7	0	0	299.4	818.8
26-Jun	0	0	0	0	6	37	213	331	424	606	711	788	826	821	771	691	585	455	317	182	28	7	0	0	325.0	825.5
27-Jun	0	0	0	0	8	42	192	319	402	586	692	740	790	793	776	209	42	45	64	57	33	5	0	0	241.5	793.4
28-Jun	0	0	0	0	13	54	94	209	372	409	681	352	583	787	720	588	415	361	168	83	40	12	0	0	247.7	786.8
29-Jun	0	0	0	0	8	38	70	111	31	34	51	176	200	202	210	168	119	49	54	33	12	2	0	0	65.3	210.4
30-Jun	0	0	0	0	3	22	68	235	374	426	420	405	440	554	710	686	583	456	320	187	25	6	0	0	246.6	710.2
	0.0	0.0	0.0	0.0	7.2	35.7	137.9	226.5	325.4	461.5	542.6	577.9	602.4	641.7	609.5	484.0	384.1	279.6	185.9	117.7	25.9	5.0	0.0	0.0	Diurnal Average	
	0.0	0.0	0.0	0.2	17.0	70.4	239.6	347.7	463.3	622.7	717.8	788.1	825.9	828.9	784.2	698.7	590.6	482.2	324.4	187.2	50.7	12.4	0.1	0.0	Diurnal Maximum	





## Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	5	6	4	4	4	4	7	11	11	10	10	10	11	6	5	13	14	10	12	10	8	6	3	5	6.3	14.3
Dir	195	235	245	241	270	282	277	261	267	279	295	275	287	254	295	332	292	277	341	351	303	348	250	186	286.2	292.4
2 Spd	4	2	3	2	2	3	5	7	8	5	4	7	6	5	6	5	2	3	4	5	4	3	5	4	3.6	7.7
Dir	174	272	190	234	238	215	242	239	243	214	229	206	209	203	181	198	217	196	181	136	129	223	262	258	212.9	242.9
3 Spd	5	3	2	5	4	5	7	8	9	13	17	19	17	15	17	20	15	19	18	15	13	11	13	8.9	19.9	
Dir	135	185	193	290	278	236	247	252	231	254	280	294	285	309	325	306	323	321	340	356	7	3	353	332	310.4	323.1
4 Spd	12	15	12	10	9	11	11	9	5	11	9	11	11	14	14	17	13	13	17	19	19	18	19	20	13.1	19.5
Dir	332	327	321	312	316	322	329	320	320	306	319	325	319	331	312	317	320	304	303	307	312	306	303	298	314.5	298.2
5 Spd	16	18	17	20	16	16	16	12	14	14	11	12	17	11	12	13	10	10	14	10	5	5	4	11.9	19.8	
Dir	301	312	315	317	318	317	319	318	300	300	289	303	282	269	283	294	289	318	296	280	277	235	220	226	298.8	317.3
6 Spd	6	5	6	8	9	7	10	12	12	12	11	13	13	18	15	17	13	10	10	9	4	5	5	5	7.7	17.6
Dir	235	250	292	279	280	297	257	249	247	247	233	259	263	256	253	253	271	299	25	15	138	210	164	242	261.4	256.0
7 Spd	6	4	1	2	1	3	3	3	2	5	4	5	4	12	12	3	3	3	2	14	8	6	1	4	1.1	13.9
Dir	320	301	317	271	229	255	252	265	177	146	199	246	281	242	228	1	281	121	359	49	109	112	178	28	246.9	48.8
8 Spd	4	1	2	2	3	1	2	4	11	11	10	9	4	11	4	14	17	5	8	9	11	6	5	4	4.0	16.7
Dir	49	125	183	183	329	353	164	234	255	254	255	256	279	148	138	266	254	178	176	172	190	155	148	170	217.1	253.7
9 Spd	8	13	18	14	13	17	21	28	23	25	27	19	18	21	25	22	16	9	15	12	17	17	14	13	16.2	27.8
Dir	245	250	251	254	263	265	263	271	278	307	294	269	264	252	260	278	345	311	310	310	307	286	282	259	277.4	270.6
10 Spd	12	11	15	15	16	14	13	14	12	12	11	10	10	6	5	6	4	3	6	4	9	4	3	2	6.2	16.3
Dir	260	264	291	295	284	284	286	297	311	327	335	332	331	16	26	73	46	319	104	164	241	238	197	176	299.6	284.2
11 Spd	3	4	3	2	2	3	4	6	5	3	4	2	4	3	3	2	3	6	7	5	5	7	7	4	0.5	7.1
Dir	155	157	165	165	218	179	218	241	222	211	191	224	316	298	93	277	278	331	338	17	64	87	104	71	178.9	103.7
12 Spd	3	1	2	3	3	1	3	2	5	10	12	11	14	13	13	11	8	15	6	4	10	5	0	3	5.0	15.3
Dir	87	291	83	70	10	300	6	101	116	108	115	94	93	101	92	84	98	178	135	7	19	56	256	111	95.6	177.8
13 Spd	7	7	7	4	2	1	4	2	3	5	7	7	6	8	5	2	12	17	6	9	1	2	5	4	1.5	17.3
Dir	111	122	96	64	49	343	67	68	285	291	323	311	322	355	9	52	101	155	210	173	102	192	152	109	104.0	155.2
14 Spd	4	2	2	3	4	4	5	5	5	8	13	19	19	18	20	17	23	24	23	22	16	14	8	7	9.8	23.6
Dir	125	167	32	117	162	150	165	205	186	226	248	265	277	289	277	274	287	285	275	273	271	261	276	256	266.9	285.4
15 Spd	7	7	2	1	2	3	3	6	8	7	5	4	3	5	5	6	6	6	9	5	5	2	2	2	1.0	9.3
Dir	289	268	227	150	218	220	255	252	276	282	282	269	285	92	138	79	92	94	110	295	323	352	70	78	271.3	110.0
16 Spd	4	3	5	1	2	4	5	8	6	6	5	5	4	7	14	15	8	6	4	7	8	10	8	6	1.7	14.6
Dir	135	109	119	16	353	304	316	328	348	74	84	93	120	146	141	120	168	231	326	16	324	335	18	48	67.6	119.7
17 Spd	5	5	5	2	2	2	2	4	4	5	4	5	5	4	3	5	5	6	5	7	10	9	9	8	2.9	9.9
Dir	43	38	41	65	285	299	248	227	248	205	224	179	152	137	122	133	124	155	177	144	135	119	119	116	138.6	134.8
18 Spd	7	7	5	3	3	3	4	5	4	3	6	15	11	10	12	12	9	9	7	6	5	5	6	4	3.4	14.7
Dir	111	114	121	113	173	171	200	156	153	142	185	227	236	254	267	264	263	258	271	309	320	328	314	327	239.9	227.4
19 Spd	3	6	4	3	2	3	2	5	1	4	3	9	10	10	11	11	13	12	5	7	9	9	12	6	1.3	12.7
Dir	331	329	318	315	334	138	222	280	314	118	124	140	119	110	94	96	101	100	113	279	304	303	322	288	75.2	100.6
20 Spd	6	4	3	4	1	3	1	3	0	5	20	22	14	12	15	19	17	14	18	20	16	11	15	15	10.1	21.6
Dir	292	340	324	293	229	327	83	26	171	284	276	276	276	295	295	288	285	291	282	285	271	269	259	259	282.0	276.3
21 Spd	15	11	8	11	10	12	9	8	20	21	21	20	19	18	15	13	14	13	11	9	6	4	4	3	11.5	21.5
Dir	262	262	261	248	252	258	248	254	263	259	259	262	264	280	285	285	295	298	307	309	315	312	317	333	272.2	259.0
22 Spd	3	2	1	3	3	2	3	2	4	8	11	10	8	7	7	7	8	5	8	9	10	8	10	9	4.3	11.4
Dir	306	315	293	322	338	326	283	260	148	130	129	132	144	132	100	112	112	100	100	99	90	87	93	96	109.0	128.8



Peace Airshed Zone Association

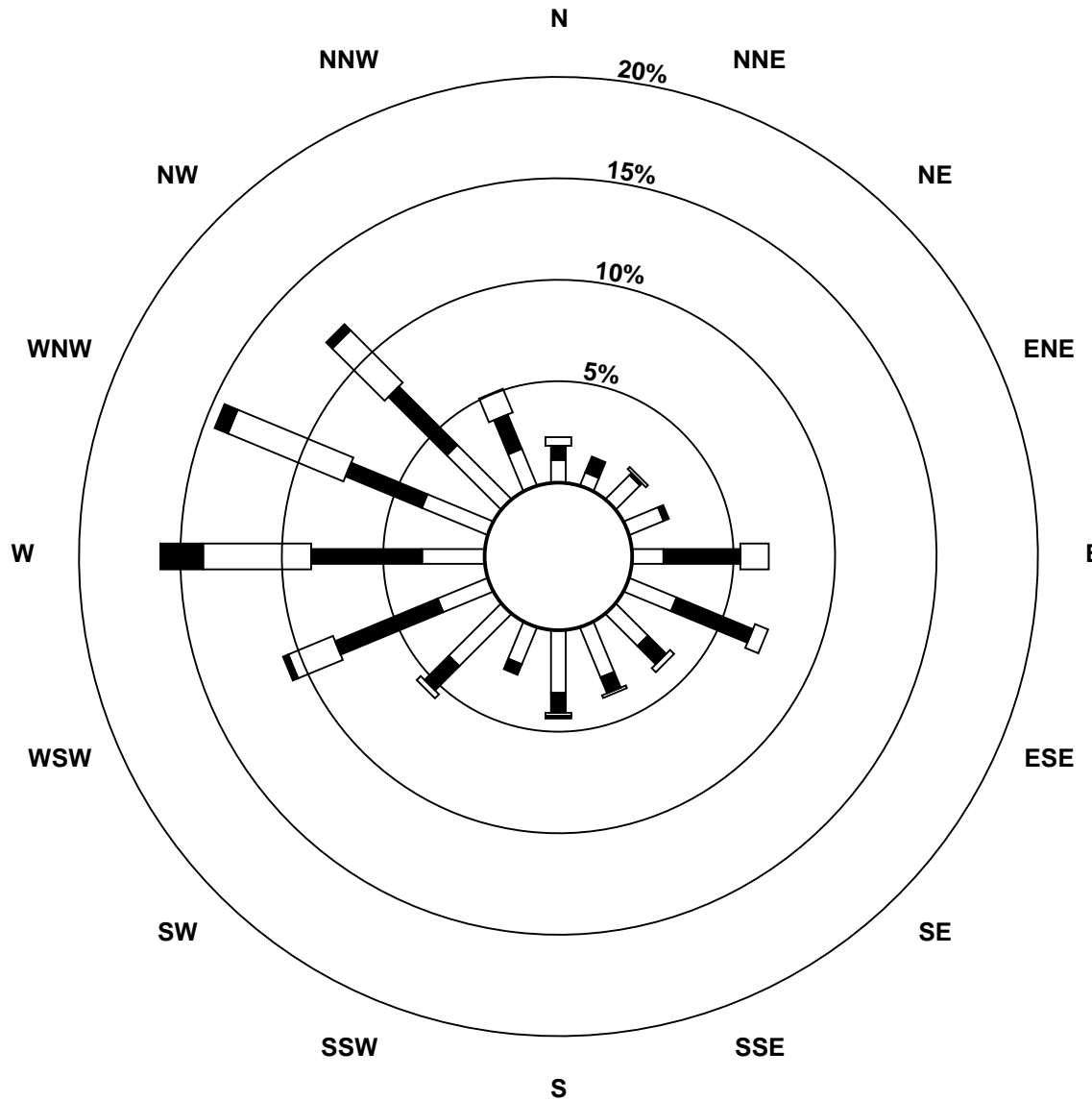
# Hourly Averages

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

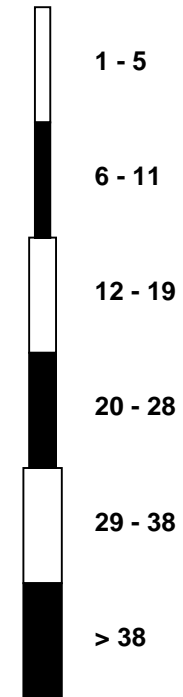
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	6	5	2	2	3	4	5	10	9	9	9	12	11	8	8	11	12	13	13	12	10	11	12	10	8.3	13.1
Dir	105	117	43	52	52	76	82	108	120	107	106	102	99	95	94	95	90	97	94	85	83	88	102	96.1	97.2	
24 Spd	11	10	12	10	8	3	4	5	4	5	8	10	12	12	13	18	28	23	13	7	5	4	5	4	3.8	27.6
Dir	116	100	98	110	120	120	139	221	273	292	295	299	311	312	308	300	269	264	245	277	287	191	165	158	270.6	269.3
25 Spd	5	5	7	7	6	8	9	14	18	18	19	16	13	14	14	12	12	12	12	10	8	7	9	5	10.1	18.6
Dir	170	187	243	251	260	255	262	269	274	281	269	287	296	278	287	290	295	292	287	285	285	286	293	291	277.2	269.3
26 Spd	5	4	3	3	1	4	7	8	7	7	5	8	7	8	7	4	6	7	6	5	5	7	6	4	2.6	8.0
Dir	335	299	217	280	316	276	268	243	251	249	227	233	260	271	314	303	315	334	340	44	76	91	86	106	284.7	270.9
27 Spd	4	2	3	4	2	3	2	3	3	2	5	8	10	11	8	14	23	11	8	7	5	7	9	8	1.0	22.7
Dir	73	319	310	333	319	331	307	277	245	93	76	94	94	108	103	140	181	220	9	357	318	250	260	245	159.9	181.0
28 Spd	7	4	6	8	8	7	9	10	12	11	10	8	9	8	7	7	6	6	7	10	7	5	6	7	6.6	11.7
Dir	252	285	275	256	257	278	255	246	267	267	279	298	295	291	287	302	296	315	321	302	309	305	214	150	277.5	266.9
29 Spd	7	4	7	8	10	9	11	10	8	8	13	15	15	15	6	5	6	8	12	4	5	4	5	6	7.3	14.8
Dir	173	179	218	240	263	271	273	275	297	231	251	271	278	271	251	237	221	265	275	262	320	308	228	244	259.3	271.1
30 Spd	5	8	5	6	7	3	7	10	13	14	15	14	15	12	12	10	10	9	6	5	6	4	2	2	7.8	15.1
Dir	256	251	275	278	261	260	250	267	270	273	279	283	291	291	296	302	314	321	323	308	307	293	277	296	284.6	279.1
Spd	1.3	2.1	2.3	3.1	3.5	3.8	4.5	5.8	6.0	5.4	6.1	6.5	6.0	4.8	4.3	4.5	4.8	4.4	4.2	4.2	3.7	2.3	1.8	1.5	Diurnal Average	
Dir	248.9	270.8	275.4	281.2	279.2	277.8	269.0	265.1	265.2	267.6	268.5	269.5	278.3	273.9	281.5	289.3	284.6	277.9	304.9	316.9	310.6	300.5	277.5	260.3	Diurnal Maximum	
Spd	16.1	18.0	18.4	19.8	16.3	16.9	21.1	27.8	23.0	24.9	26.6	21.6	19.0	20.8	25.1	21.5	27.6	23.6	22.6	22.2	19.2	17.7	18.7	19.5	Diurnal Maximum	
Dir	301.2	311.9	250.7	317.3	284.2	265.4	263.3	270.6	277.7	306.9	294.1	276.3	264.4	252.4	259.8	277.9	269.3	285.4	274.7	272.8	311.7	306.2	302.5	298.2	Diurnal Maximum	
Maximum Speed Value: 28 km/h on Jun 9 08:00		Minimum Speed Value: 0 km/h on Jun 20 09:00														Hours in Service:		720								
Maximum Daily Speed Average: 16.2 km/h on Jun 9		Minimum Daily Speed Average: 0.5 km/h on Jun 11														Hours of Data:		720								
Maximum Diurnal Speed Average: 6.5 km/h at hour 12		Minimum Diurnal Speed Average: 1.3 km/h at hour 1														Hours of Missing Data:		0								
Monthly Average Velocity: 3.91 km/h 278.74 deg		Speed Percentiles: P <sub>1</sub> = 1.0 P <sub>10</sub> = 2.7 Q <sub>1</sub> = 4.3 Median = 7.1 Q <sub>3</sub> = 11.7 P <sub>90</sub> = 16.0 P <sub>99</sub> = 23.1														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	13	15	6	0	0	0	34																			
NorthEast	14	8	1	0	0	0	23																			
East	21	48	18	0	0	0	87																			
SouthEast	33	27	7	0	0	0	67																			
South	40	10	1	1	0	0	52																			
SouthWest	31	37	7	0	0	0	75																			
West	36	82	81	22	0	0	221																			
NorthWest	45	59	51	6	0	0	161																			
Total	233	286	172	29	0	0	720																			

**Wind Rose**

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



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



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - June 2014

Maximum Speed: 29 km/h on Jun 24 17:00		Maximum Daily Speed Average: 18.0 km/h on Jun 9		Hours in Service: 720																																												
Minimum Speed: 1 km/h on Jun 16 04:00		Minimum Daily Speed Average: 4.9 km/h on Jun 11		Hours of Data: 720																																												
Maximum Diurnal Speed Average: 12.5 km/h at hour 17		Minimum Diurnal Speed Average: 5.7 km/h at hour 5		Hours of Missing Data: 0																																												
Monthly Average Speed: 9.00 km/h		Percentiles: P <sub>1</sub> = 1.8 P <sub>10</sub> = 3.4 Q <sub>1</sub> = 5.1 Median = 7.9 Q <sub>3</sub> = 12.1 P <sub>90</sub> = 16.4 P <sub>99</sub> = 23.5		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-Jun	5	6	5	4	4	5	7	11	12	11	10	11	11	8	7	14	15	11	12	11	8	7	4	5	8.5	15.5																						
2-Jun	4	3	3	3	2	3	6	8	8	6	5	8	8	7	7	7	6	5	5	6	5	5	8	6	5.5	8.0																						
3-Jun	5	4	4	6	5	5	7	9	10	13	18	19	17	16	18	18	21	16	20	19	16	13	11	13	12.5	20.8																						
4-Jun	12	15	12	10	9	11	11	9	5	11	9	11	11	14	15	18	13	14	17	19	20	18	19	20	13.5	19.7																						
5-Jun	16	18	17	20	16	16	16	12	14	15	13	13	19	13	13	13	15	10	11	14	10	5	5	4	13.2	19.9																						
6-Jun	7	5	8	9	9	8	11	13	13	13	11	15	14	18	15	18	14	11	11	9	6	6	5	5	10.5	18.2																						
7-Jun	6	5	2	3	2	4	4	4	3	6	5	7	5	14	14	6	5	5	7	15	8	6	3	4	5.9	14.6																						
8-Jun	4	2	2	2	3	1	2	4	11	11	11	10	8	12	4	14	17	6	8	9	11	6	5	5	7.1	17.1																						
9-Jun	8	13	19	14	13	17	21	28	23	25	27	20	19	21	26	23	16	9	16	12	17	17	14	13	18.0	28.0																						
10-Jun	12	11	15	16	16	15	13	14	12	13	11	10	10	7	6	7	6	4	7	5	9	4	3	2	9.6	16.5																						
11-Jun	3	4	3	2	2	3	4	6	5	4	5	4	5	6	6	5	6	7	7	5	5	7	8	5	4.9	7.8																						
12-Jun	3	3	3	3	3	3	3	3	5	10	12	12	14	14	13	12	12	16	6	5	11	6	4	4	7.5	15.6																						
13-Jun	7	7	7	4	3	2	4	3	4	6	7	8	7	8	7	6	13	18	7	9	4	3	5	4	6.4	18.0																						
14-Jun	4	4	4	3	5	4	5	5	5	8	14	19	19	18	20	18	23	24	23	22	17	15	9	7	12.3	24.0																						
15-Jun	7	8	3	2	3	3	4	6	8	8	7	6	5	6	7	7	7	8	10	6	5	3	2	3	5.5	9.6																						
16-Jun	5	4	5	1	3	4	5	9	7	7	6	7	7	9	15	17	9	7	5	8	8	10	9	6	7.2	17.0																						
17-Jun	5	5	5	3	2	3	2	4	5	6	5	7	7	5	6	6	5	7	5	7	10	9	9	8	5.8	10.1																						
18-Jun	7	7	6	3	3	4	5	5	4	4	9	15	12	11	13	13	10	10	8	7	5	5	7	4	7.3	15.4																						
19-Jun	3	6	4	3	3	3	3	5	4	5	6	10	11	10	12	12	13	12	9	8	10	12	13	8	7.7	13.4																						
20-Jun	7	7	4	5	2	4	2	3	3	5	20	22	14	12	15	20	18	14	19	20	16	11	15	15	11.5	21.8																						
21-Jun	15	11	8	11	10	12	9	9	21	22	22	21	20	18	16	14	14	13	11	9	6	4	4	3	12.7	22.1																						
22-Jun	3	2	2	3	3	2	4	3	5	8	12	11	9	8	9	8	9	6	9	9	10	8	10	9	6.7	12.0																						
23-Jun	6	5	2	2	4	4	6	10	10	9	10	12	12	9	9	13	12	13	14	12	10	11	12	10	9.0	13.5																						
24-Jun	11	10	12	10	8	3	5	6	5	6	8	10	13	13	13	19	29	24	16	9	6	5	5	4	10.4	29.2																						
25-Jun	6	5	7	7	6	8	9	15	18	18	19	17	14	15	14	13	13	13	12	10	9	7	9	6	11.2	19.2																						
26-Jun	6	5	3	4	2	5	7	8	7	8	6	10	9	10	10	6	7	8	7	6	5	7	6	5	6.5	10.1																						
27-Jun	4	3	4	4	2	3	3	3	4	4	6	9	10	11	10	15	23	12	9	8	6	7	9	8	7.4	23.1																						
28-Jun	7	5	7	8	9	7	9	11	12	11	11	9	10	9	8	9	7	7	7	10	8	7	8	8	8.4	12.0																						
29-Jun	7	4	7	8	10	9	11	10	8	9	13	15	15	15	7	6	6	9	12	5	6	5	5	6	8.7	15.0																						
30-Jun	6	8	6	6	7	4	7	11	13	14	15	14	15	12	13	10	11	9	6	5	6	4	3	3	8.7	15.5																						
																								6.7	6.6	6.3	6.0	5.7	5.8	6.8	8.2	8.7	9.9	11.1	12.0	11.7	11.6	11.6	12.2	12.5	10.9	10.5	10.0	9.1	7.7	7.6	6.8	Diurnal Average
																								16.2	18.2	18.6	19.9	16.5	17.1	21.4	28.0	23.3	25.4	26.9	21.8	20.0	21.1	25.9	23.3	29.2	24.0	23.0	22.5	19.5	18.0	18.9	19.7	Diurnal Maximum
All monthly, daily, and diurnal averages have been calculated using scalar methods																																																

# Hourly Standard Deviations

Wind Direction (WD) - deg

Henry Pirker - June 2014

Maximum Value: 95.9 deg on Jun 7 19:00																								Hours in Service:	720
Minimum Value: 6.0 deg on Jun 22 23:00																								Hours of Data:	720
Percentiles: P <sub>1</sub> = 6.7 P <sub>10</sub> = 9.3 Q <sub>1</sub> = 13.2 Median = 20.1 Q <sub>3</sub> = 33.2 P <sub>90</sub> = 52.4 P <sub>99</sub> = 80.9																								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-Jun	31	12	15	17	28	28	16	10	13	19	21	26	15	53	63	22	21	27	15	16	19	16	45	20	62.7
2-Jun	17	51	24	31	33	17	13	13	17	29	49	25	44	61	50	59	87	76	51	24	41	53	50	63	86.6
3-Jun	27	33	50	34	43	16	17	14	16	19	17	14	18	22	17	20	17	16	15	13	13	12	13	8	50.4
4-Jun	9	9	13	10	10	9	10	14	20	11	13	13	13	11	15	14	19	11	10	10	10	9	8	9	19.9
5-Jun	7	8	8	6	8	7	7	12	13	12	27	15	25	31	19	19	25	13	15	13	11	17	8	12	31.5
6-Jun	9	19	33	33	22	20	17	11	12	14	22	27	17	14	17	21	19	24	23	15	55	23	18	34	55.4
7-Jun	16	24	50	31	66	26	31	29	68	47	53	51	65	30	25	71	76	77	96	19	16	24	82	24	95.9
8-Jun	18	49	17	16	31	58	59	22	23	17	21	22	82	21	65	47	16	31	13	14	15	14	18	46	82.1
9-Jun	10	10	9	10	11	11	9	8	10	12	9	12	8	9	15	25	14	19	18	10	8	11	10	8	25.0
10-Jun	8	14	7	7	8	8	12	8	11	10	12	11	15	34	37	41	60	59	33	43	13	21	33	38	59.6
11-Jun	11	8	12	38	21	17	38	19	33	48	48	61	50	76	62	85	72	39	23	28	19	7	23	12	85.3
12-Jun	17	83	46	21	46	78	28	25	28	17	14	13	16	19	20	20	41	10	33	70	20	39	93	44	92.9
13-Jun	8	14	13	16	36	54	20	47	16	14	16	24	32	26	49	76	30	17	23	13	76	50	23	38	76.2
14-Jun	15	73	61	31	36	27	23	15	21	17	20	13	16	13	13	14	8	10	11	9	9	8	28	16	72.7
15-Jun	18	22	76	80	43	23	32	23	20	26	42	55	52	49	61	41	35	53	16	52	14	33	42	57	80.3
16-Jun	28	41	33	95	31	9	26	16	41	36	47	43	60	60	21	31	25	29	42	24	10	8	24	12	94.9
17-Jun	15	19	15	55	45	57	30	15	25	42	43	50	48	64	67	40	35	45	47	27	10	8	6	7	67.3
18-Jun	7	7	11	14	35	17	23	19	49	66	39	17	21	32	30	22	32	24	30	19	9	9	10	17	65.5
19-Jun	44	9	11	22	55	53	44	21	79	41	71	29	19	20	18	17	13	15	62	33	17	50	28	33	78.7
20-Jun	41	58	24	37	58	46	72	55	93	25	18	9	11	15	14	17	23	16	14	10	10	14	7	7	93.2
21-Jun	8	9	20	8	9	9	14	21	12	11	14	18	19	15	18	23	17	16	16	16	8	17	23	29	28.6
22-Jun	23	54	29	21	24	25	21	66	32	17	18	23	32	39	39	43	37	52	28	14	8	7	6	6	66.1
23-Jun	9	10	30	30	32	17	20	14	13	18	22	18	22	33	35	32	17	15	15	9	9	8	6	10	35.5
24-Jun	7	10	6	9	20	21	25	31	23	27	19	17	21	20	16	10	19	10	40	36	40	40	12	14	40.3
25-Jun	12	28	17	14	11	10	12	9	10	11	15	13	15	18	18	20	19	13	15	11	8	7	7	22	27.5
26-Jun	22	54	21	41	49	47	24	18	21	22	37	35	43	34	66	57	53	29	37	32	22	11	13	26	66.4
27-Jun	13	54	29	23	53	32	27	32	46	78	38	28	21	22	35	22	11	41	20	20	31	15	9	17	78.4
28-Jun	19	23	16	12	13	14	15	12	14	14	22	27	24	27	36	37	40	33	24	22	18	38	44	45	44.5
29-Jun	11	25	13	9	22	20	8	11	18	20	11	13	8	8	21	23	14	36	15	45	39	24	17	13	44.7
30-Jun	13	10	21	15	21	44	15	12	10	10	11	10	9	12	12	22	28	15	24	20	16	18	40	33	44.4
Average	44.4	82.7	76.0	94.9	65.6	78.1	71.7	66.1	93.2	78.4	70.8	60.7	82.1	75.9	67.3	85.3	86.6	77.4	95.9	70.0	76.0	52.8	92.9	62.8	

PAZA

Evergreen Park Station

Monthly Summary Tables, Graphs and  
Roses

# Hourly Averages

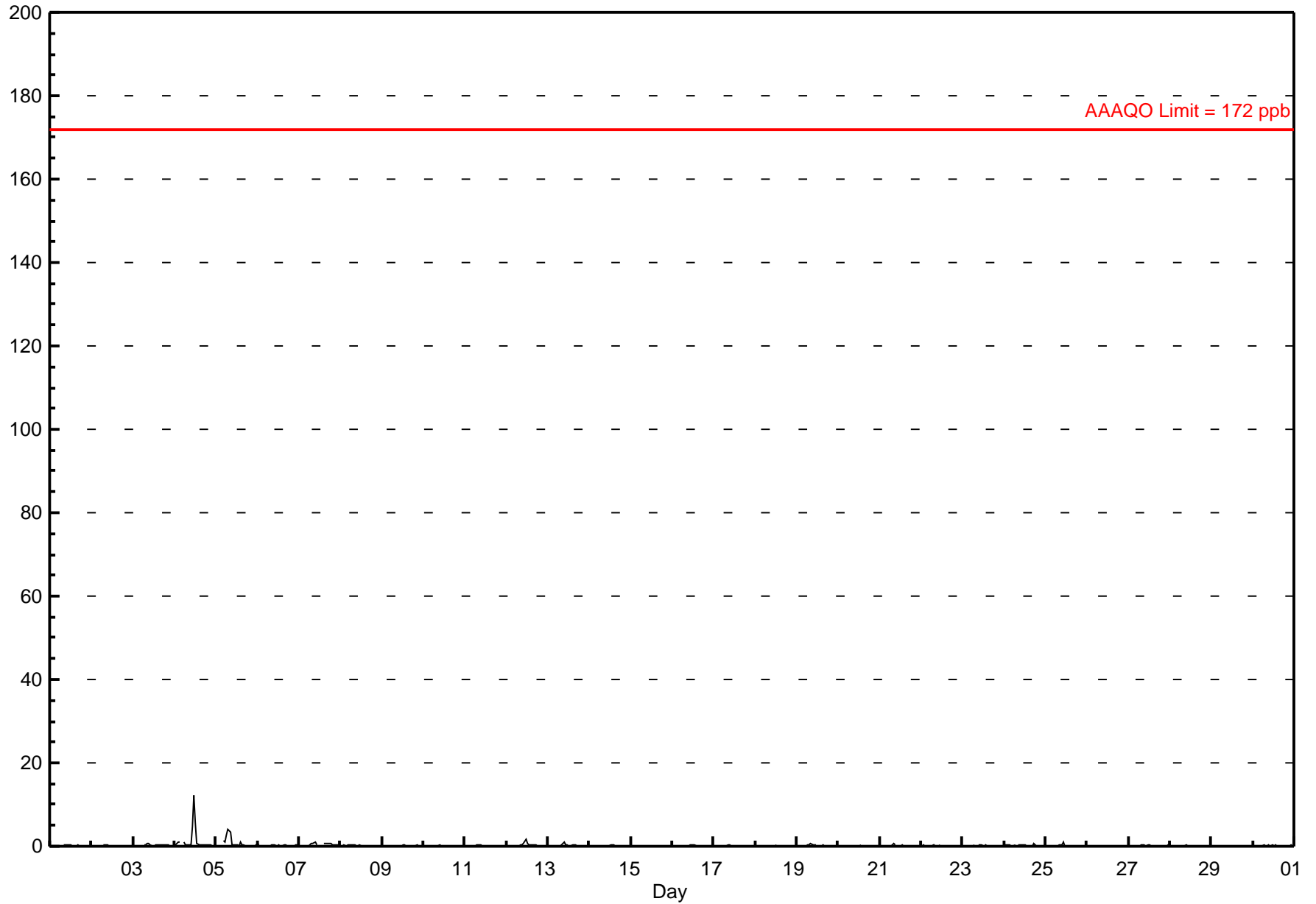
## Sulphur Dioxide (SO<sub>2</sub>) - ppb Evergreen Park - June 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 12.2 ppb on Jun 4 12:00	Maximum Daily Average: 1.4 ppb on Jun 4		Hours of Data:	686
Minimum Value: 0 ppb on Jun 1 02:00	Minimum Daily Average: 0.0 ppb on Jun 26		Hours of Missing Data:	34
Maximum Diurnal Average: 0.6 ppb at hour 12	Minimum Diurnal Average: 0.1 ppb at hour 22		Hours of Calibration:	34
Monthly Average: 0.18 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> = 1.4		Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Jun	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3																							
2-Jun	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																							
3-Jun	0	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6																							
4-Jun	0	1	1	1	A	1	0	0	0	0	5	12	6	1	0	0	0	0	0	0	0	0	0	0	1.4	12.2																							
5-Jun	0	0	0	A	1	1	3	4	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.7	4.1																							
6-Jun	1	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	0.6																							
7-Jun	0	A	0	0	0	0	0	1	1	1	0	C	C	C	1	1	1	1	1	0	0	0	0	0	0.4	0.9																							
8-Jun	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																							
9-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5																							
10-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0.1	0.2																							
11-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.5																							
12-Jun	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	A	0	0	0	0.3	1.7																							
13-Jun	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.9																							
14-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0.1	0.5																							
15-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.1																							
16-Jun	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																							
17-Jun	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																							
18-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																							
19-Jun	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5																							
20-Jun	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4																							
21-Jun	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7																							
22-Jun	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4																							
23-Jun	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																							
24-Jun	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.2	0.8																							
25-Jun	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9																							
26-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1																							
27-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																							
28-Jun	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3																							
29-Jun	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																							
30-Jun	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																							
																								0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.3	0.4	0.6	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
																								0.6	0.5	1.0	1.2	1.4	1.1	2.7	4.1	3.4	0.9	4.8	12.2	5.8	0.5	1.0	0.5	0.5	0.8	0.5	0.4	0.4	0.4	0.4	0.3	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

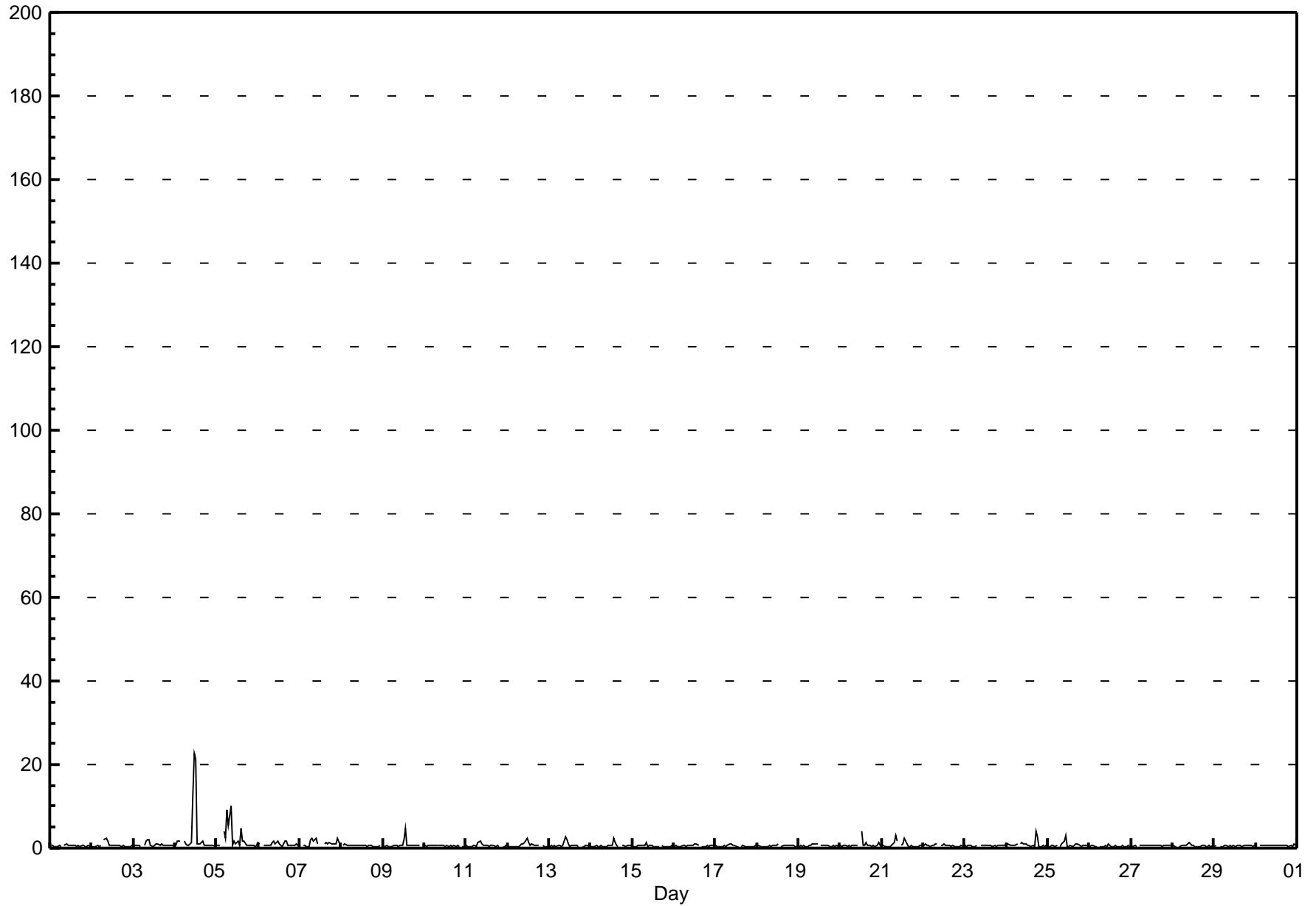
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Evergreen Park - June 2014

Maximum Value: 22.7 ppb on Jun 4 12:00		Maximum Daily Average: 3.4 ppb on Jun 4		Hours in Service: 720																							
Minimum Value: 0 ppb on Jun 26 05:00		Minimum Daily Average: 0.5 ppb on Jun 26		Hours of Data: 686																							
Maximum Diurnal Average: 1.7 ppb at hour 13		Minimum Diurnal Average: 0.5 ppb at hour 20		Hours of Missing Data: 34																							
Monthly Average: 0.83 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> = 0.7 P <sub>90</sub> = 1.2 P <sub>99</sub> = 4.5		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-Jun	1	1	0	0	0	1	0	A	1	1	1	1	1	1	1	0	1	0	1	1	0	0	1	0	0.6	0.9	
2-Jun	0	0	0	1	0	1	A	2	2	2	1	1	1	1	1	1	1	0	1	1	0	1	0	1	0.7	2.3	
3-Jun	1	1	1	1	1	A	1	2	2	2	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.1	
4-Jun	1	2	2	2	A	2	1	1	1	1	13	23	21	1	1	1	2	1	1	1	1	1	1	0	3.4	22.7	
5-Jun	1	1	1	A	4	2	9	6	10	1	2	1	2	1	5	2	2	1	1	1	1	1	0	1	2.3	10.2	
6-Jun	1	1	A	1	1	1	1	1	2	2	1	2	1	1	0	2	2	1	1	1	1	1	1	1	0.9	1.8	
7-Jun	1	A	1	1	0	0	2	2	2	2	1	C	C	C	1	1	1	1	1	1	1	1	2	1	1.2	2.4	
8-Jun	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	1	A	0.6	0.9	
9-Jun	0	0	1	0	1	0	1	1	1	0	1	1	2	5	1	1	1	1	1	1	1	1	A	1	0.8	4.8	
10-Jun	1	0	1	1	1	1	1	1	1	1	1	0	1	0	1	0	1	0	1	1	1	0	A	0	0.6	0.8	
11-Jun	1	0	0	1	1	1	0	1	2	1	1	1	1	0	1	1	1	0	1	0	A	0	0	1	0.6	1.6	
12-Jun	1	0	0	0	0	0	0	1	1	1	2	2	1	1	1	1	1	1	1	A	1	0	0	0	0.7	2.3	
13-Jun	0	1	0	1	0	1	1	0	1	3	2	1	0	1	1	1	0	A	0	0	0	1	1	0	0.7	2.6	
14-Jun	0	0	0	1	0	0	1	0	0	0	1	1	1	2	1	1	0	A	1	1	0	1	1	1	0.6	2.4	
15-Jun	0	0	0	1	1	1	1	1	1	0	1	1	0	0	0	A	1	0	0	0	0	0	0	1	0.5	1.4	
16-Jun	0	1	0	0	0	1	1	0	1	1	1	1	1	1	1	A	0	0	0	1	0	1	1	1	0.6	1.0	
17-Jun	1	0	0	0	1	1	0	1	1	1	1	1	0	0	A	0	1	0	0	0	0	0	0	1	0.5	1.2	
18-Jun	0	1	0	0	0	0	0	1	0	1	1	1	1	A	0	1	1	1	1	1	1	1	0	0	0.6	1.2	
19-Jun	0	1	0	1	0	0	1	1	1	1	1	1	A	1	1	1	1	1	1	0	0	1	0	1	0.6	1.1	
20-Jun	1	0	1	1	0	1	0	1	1	1	1	A	4	1	1	1	1	1	0	1	0	1	1	1	0.8	4.2	
21-Jun	0	1	0	0	0	0	1	2	3	2	A	1	1	2	2	0	0	1	0	0	0	0	1	1	0.9	3.0	
22-Jun	1	1	1	1	0	1	1	1	1	A	1	1	1	1	1	1	0	1	0	0	0	0	1	0	0.6	1.2	
23-Jun	1	0	1	1	1	1	0	1	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.6	0.8	
24-Jun	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	0	4	3	0	0	1	1	1	1.0	4.1	
25-Jun	0	0	1	1	0	1	A	0	1	2	3	0	0	1	0	1	1	1	1	0	1	1	1	1	0.7	2.9	
26-Jun	0	1	1	0	0	A	0	0	0	1	0	1	1	0	0	1	0	0	0	1	0	0	1	0	0.5	0.9	
27-Jun	1	0	1	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0.6	0.8	
28-Jun	1	1	0	A	0	1	1	1	1	1	1	1	0	0	0	1	1	1	0	0	1	0	1	1	0.6	1.3	
29-Jun	0	1	A	0	0	0	1	1	0	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	0.5	0.7	
30-Jun	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	0.6	1.1	
		0.6	0.6	0.6	0.6	0.7	1.0	1.0	1.3	1.1	1.3	1.6	1.7	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.5	0.5	0.6	0.7	0.6	Diurnal Average	
		1.4	1.7	1.5	1.8	4.1	2.4	9.0	5.5	10.2	2.6	12.7	22.7	21.4	4.8	4.7	1.8	1.8	4.1	2.8	1.1	0.9	1.1	2.4	0.8	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

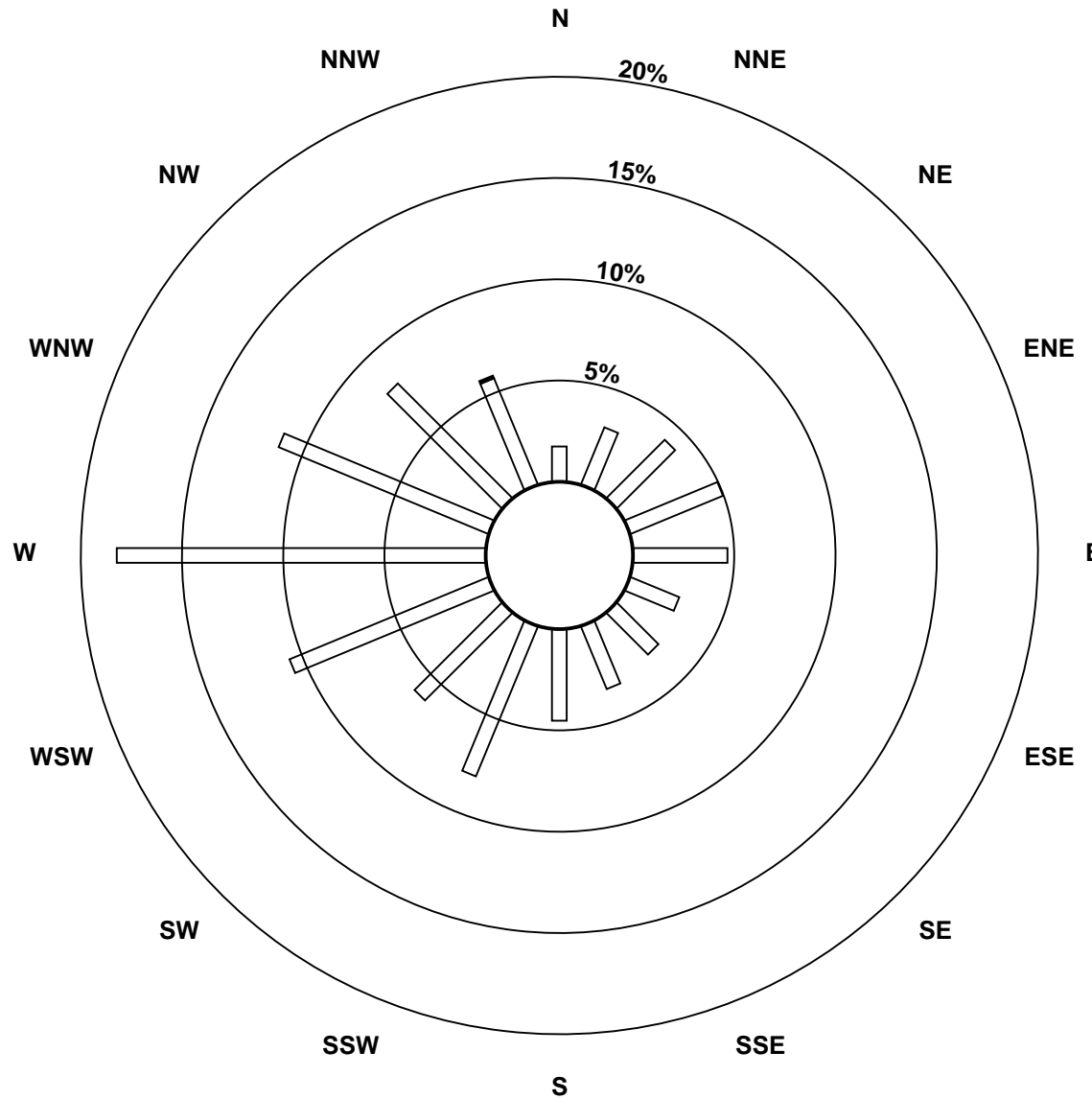
### Hourly Maximums

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Evergreen Park - June 2014**

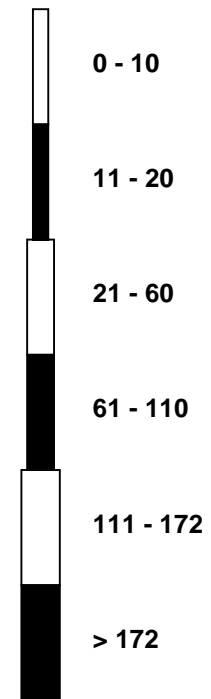


**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Evergreen Park - June 2014**

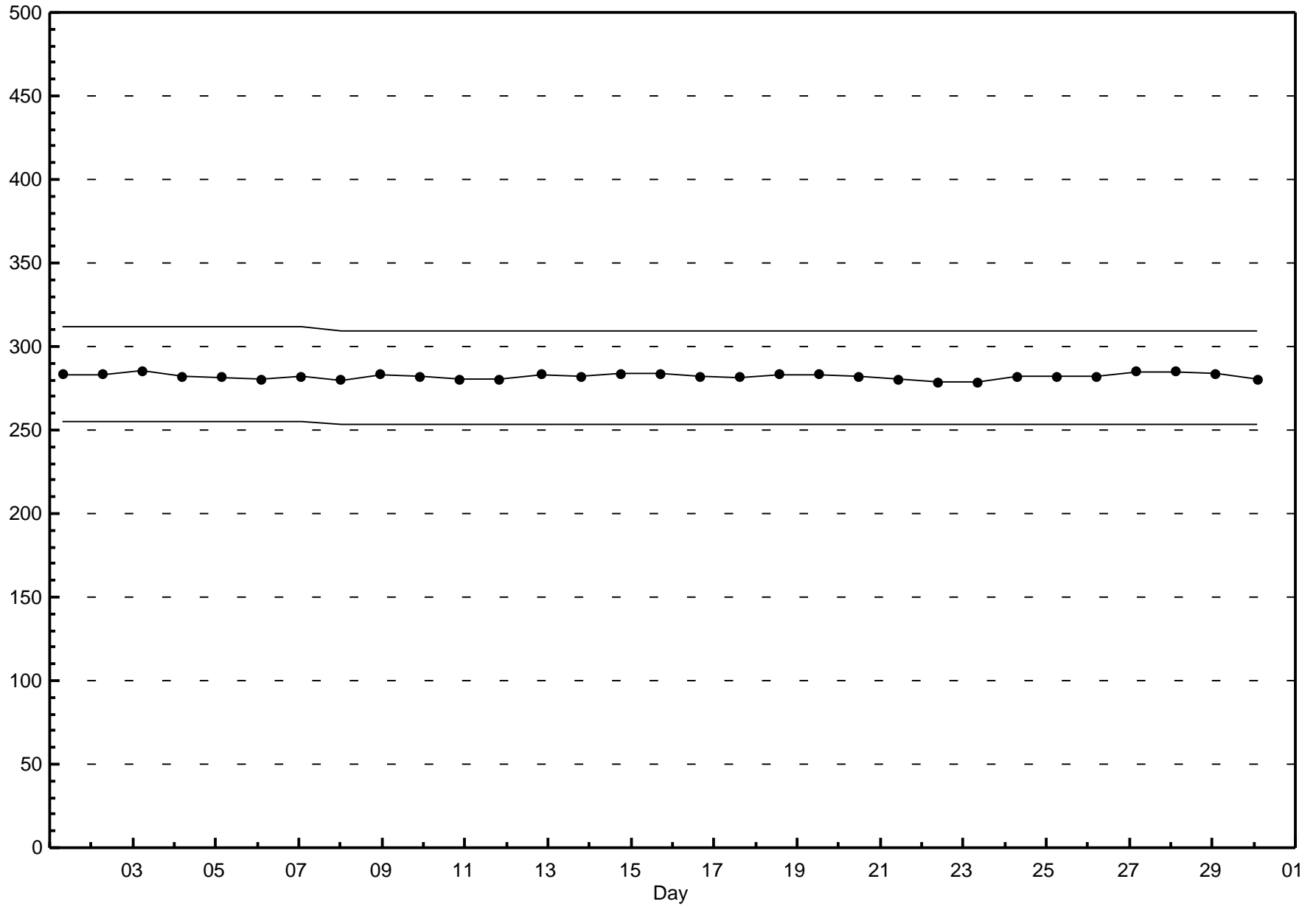


**Pollutant Classes (ppb)**



### Span Responses

**Sulphur Dioxide (SO<sub>2</sub>)**  
**Evergreen Park - June 2014**

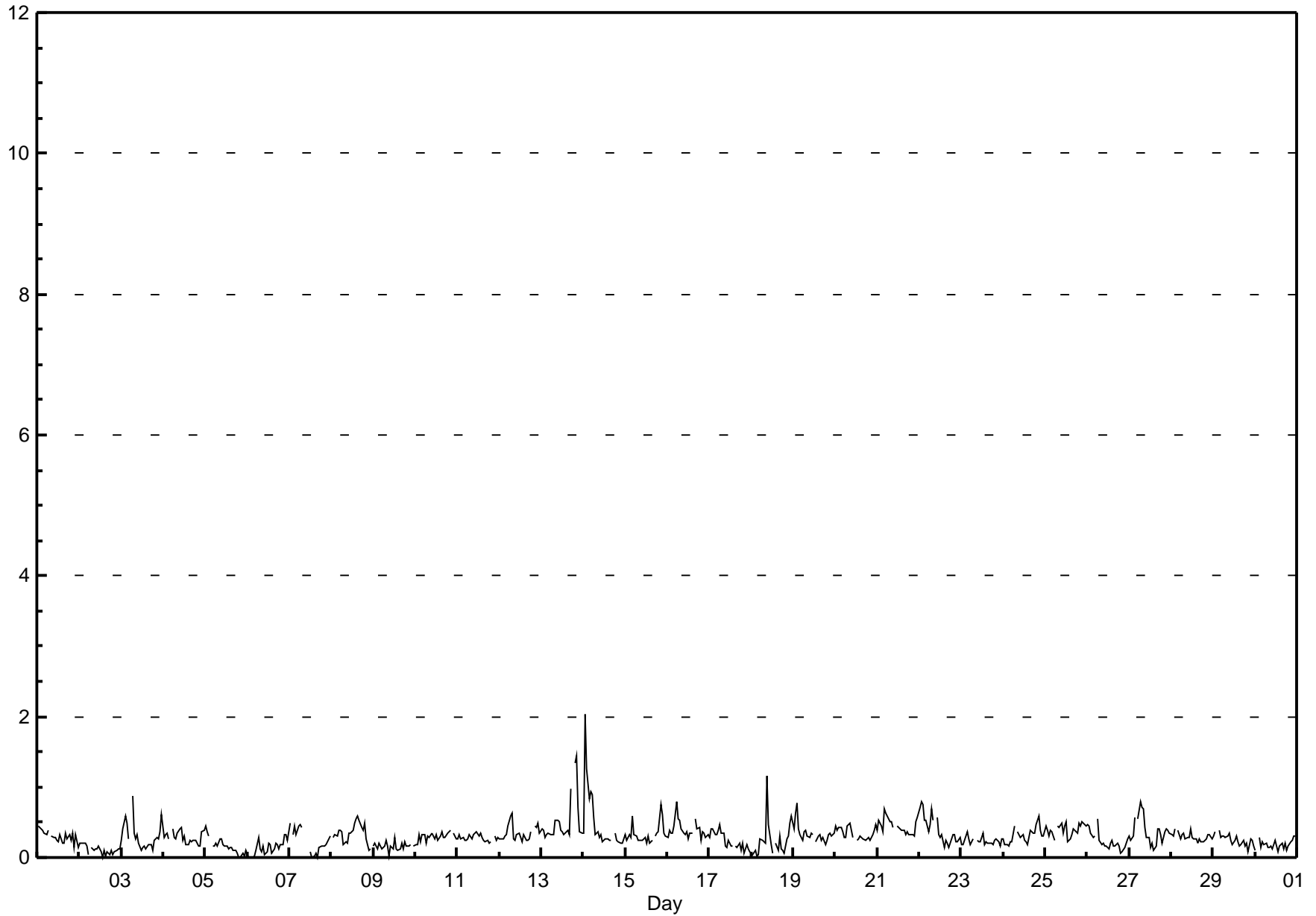


## Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - June 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.0 ppb on Jun 14 02:00      Maximum Daily Average: 0.5 ppb on Jun 13		Hours in Service: 720 Hours of Data: 685 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0																								
Minimum Value: 0 ppb on Jun 2 14:00 Maximum Diurnal Average: 0.4 ppb at hour 7 Monthly Average: 0.30 ppb		Minimum Daily Average: 0.1 ppb on Jun 2 Minimum Diurnal Average: 0.2 ppb at hour 15 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> = 0.4 P <sub>90</sub> = 0.5 P <sub>99</sub> = 0.9																								
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-Jun	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
2-Jun	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
3-Jun	0	0	1	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.9
4-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
5-Jun	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
6-Jun	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
7-Jun	0	A	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
8-Jun	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	A	0.4	0.6
9-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.3
10-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.4
11-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.4
12-Jun	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.6
13-Jun	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	A	1	1	1	0	0	0.5	1.4
14-Jun	0	2	1	1	1	1	1	0	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0.5	2.0
15-Jun	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0	0.3	0.7
16-Jun	0	0	0	0	0	1	1	1	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0.4	0.8
17-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.5
18-Jun	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0.2	1.2
19-Jun	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
20-Jun	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
21-Jun	0	1	0	0	1	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0.4	0.7
22-Jun	1	1	1	1	1	0	0	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
23-Jun	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
24-Jun	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.3	0.6
25-Jun	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0.4	0.5
26-Jun	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
27-Jun	0	0	0	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
28-Jun	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
29-Jun	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
30-Jun	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
																								0.3	0.3	
																								0.7	0.6	
C - Calibration      A - Automated Daily Zero Span																								Diurnal Average		
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb    24-hr 3 ppb																								Diurnal Maximum		



## Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

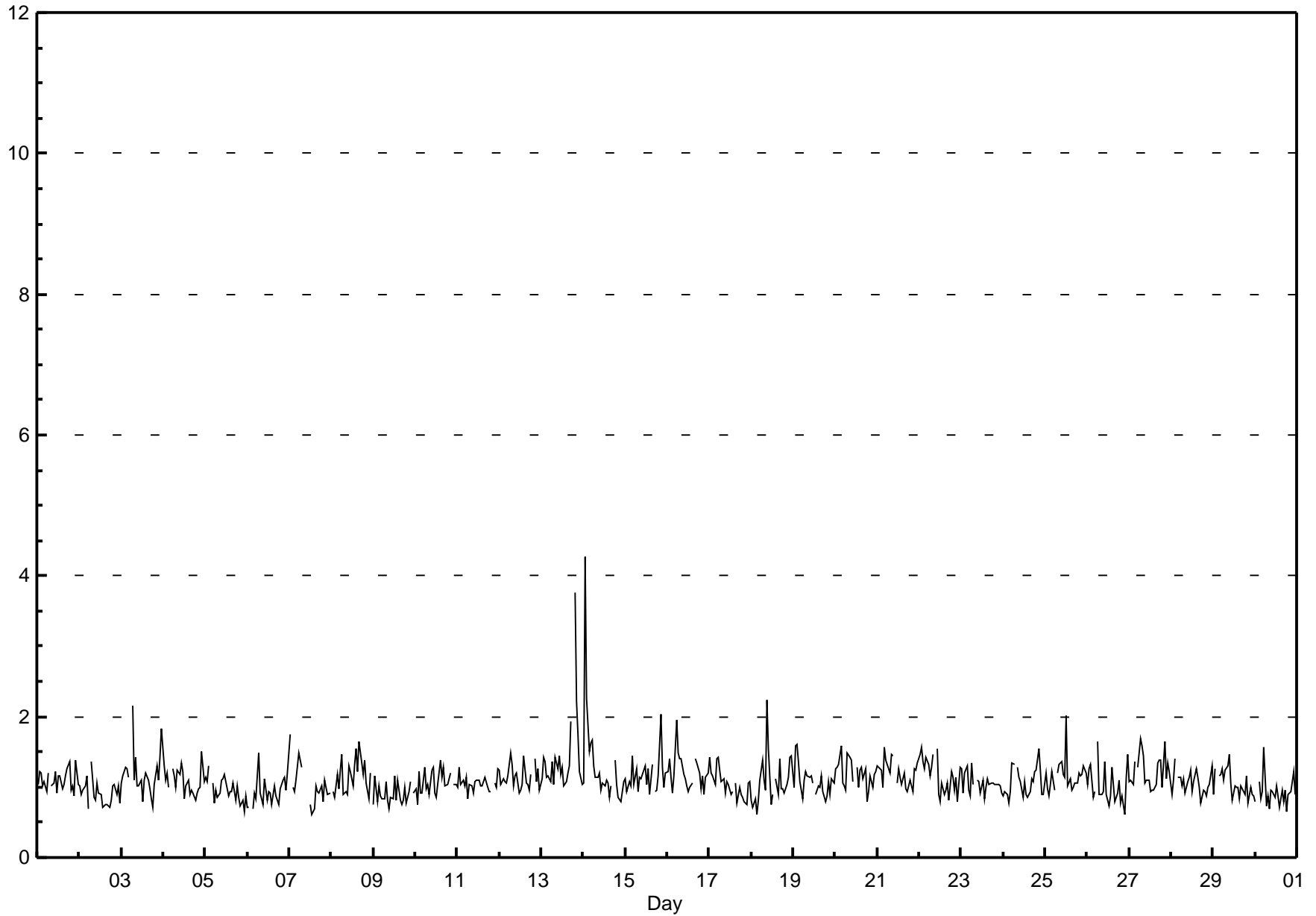
Evergreen Park - June 2014

Maximum Value: 4.3 ppb on Jun 14 02:00		Maximum Daily Average: 1.4 ppb on Jun 13		Hours in Service: 720																							
Minimum Value: 1 ppb on Jun 7 14:00		Minimum Daily Average: 0.9 ppb on Jun 9		Hours of Data: 685																							
Maximum Diurnal Average: 1.3 ppb at hour 7		Minimum Diurnal Average: 1.0 ppb at hour 14		Hours of Missing Data: 35																							
Monthly Average: 1.10 ppb		Percentiles: P <sub>1</sub> = 0.7 P <sub>10</sub> = 0.8 Q <sub>1</sub> = 0.9 Median = 1.1 Q <sub>3</sub> = 1.2 P <sub>90</sub> = 1.4 P <sub>99</sub> = 2.0		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-Jun	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	1.4	
2-Jun	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4	
3-Jun	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.2	2.2	
4-Jun	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1.1	1.5	
5-Jun	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3	
6-Jun	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.5	
7-Jun	2	A	1	1	1	1	1	1	C	C	C	C	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.8	
8-Jun	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1	1	A	1.2	1.6	
9-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	1.2	
10-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.1	1.4	
11-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.0	1.3	
12-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.1	1.5	
13-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	4	2	2	1	1	1.4	3.8	
14-Jun	1	4	2	2	2	2	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.3	4.3	
15-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	1	1	1	1.2	2.0	
16-Jun	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1.2	1.9	
17-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.1	1.4	
18-Jun	1	1	1	1	1	1	1	1	1	2	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1.1	2.2	
19-Jun	1	2	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.1	1.6	
20-Jun	1	1	1	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.6	
21-Jun	1	1	1	1	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.6	
22-Jun	1	2	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.6	
23-Jun	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.3	
24-Jun	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1.1	1.5	
25-Jun	1	1	1	1	1	1	A	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1.2	2.0	
26-Jun	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.7	
27-Jun	1	1	1	1	A	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1.2	1.7	
28-Jun	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	1.4	
29-Jun	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5	
30-Jun	1	A	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6	
		1.1	1.2	1.2	1.1	1.1	1.2	1.3	1.1	1.1	1.1	1.2	1.0	1.0	1.1	1.0	1.1	1.0	1.0	1.1	1.1	1.0	1.1	1.1	1.1	Diurnal Average	
		1.8	4.3	2.3	1.6	1.6	1.9	2.2	1.6	1.5	2.2	1.6	1.3	2.0	1.3	1.6	1.3	1.6	1.9	1.4	3.8	2.2	1.8	1.5	1.8	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



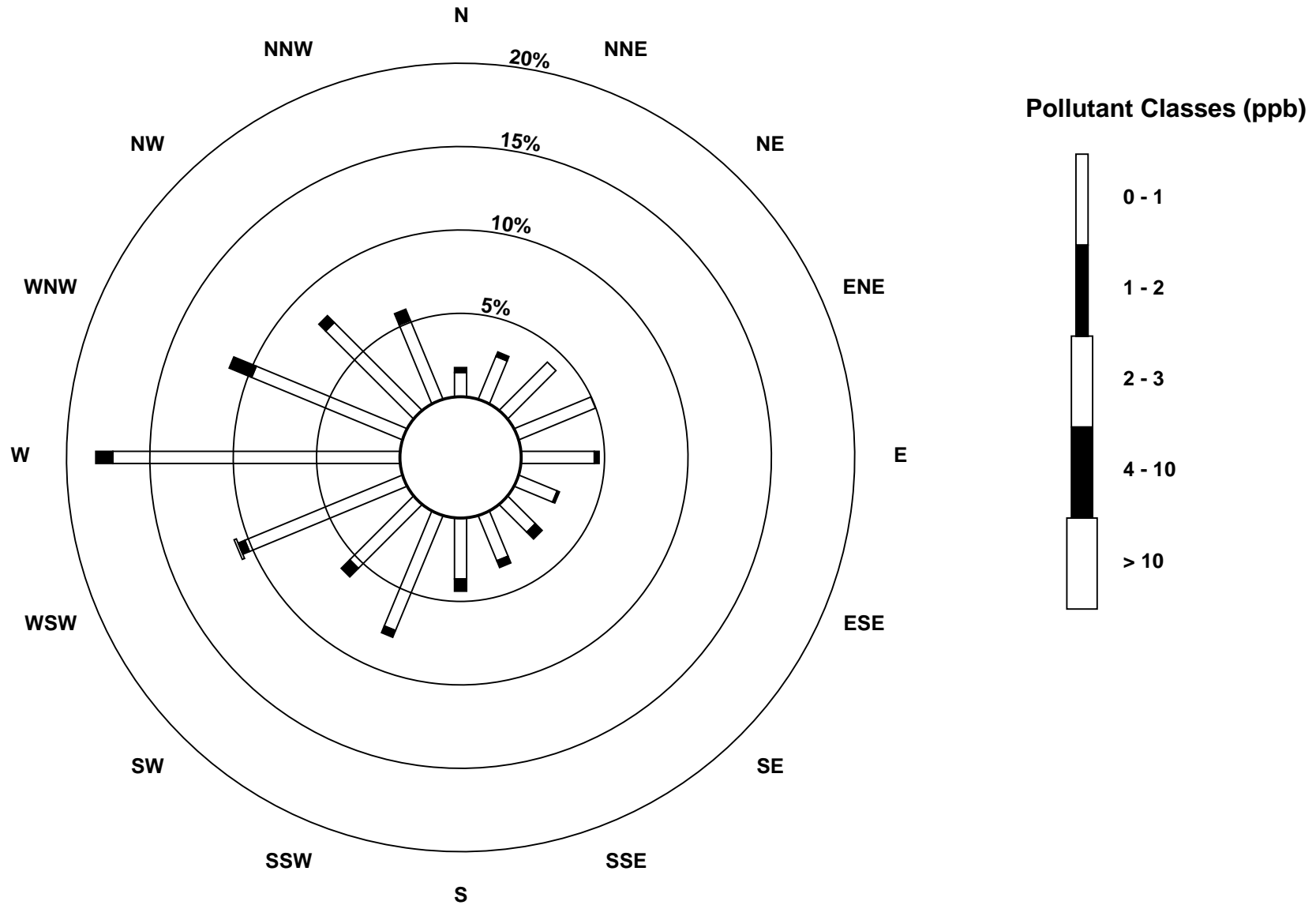
**Hourly Maximums**

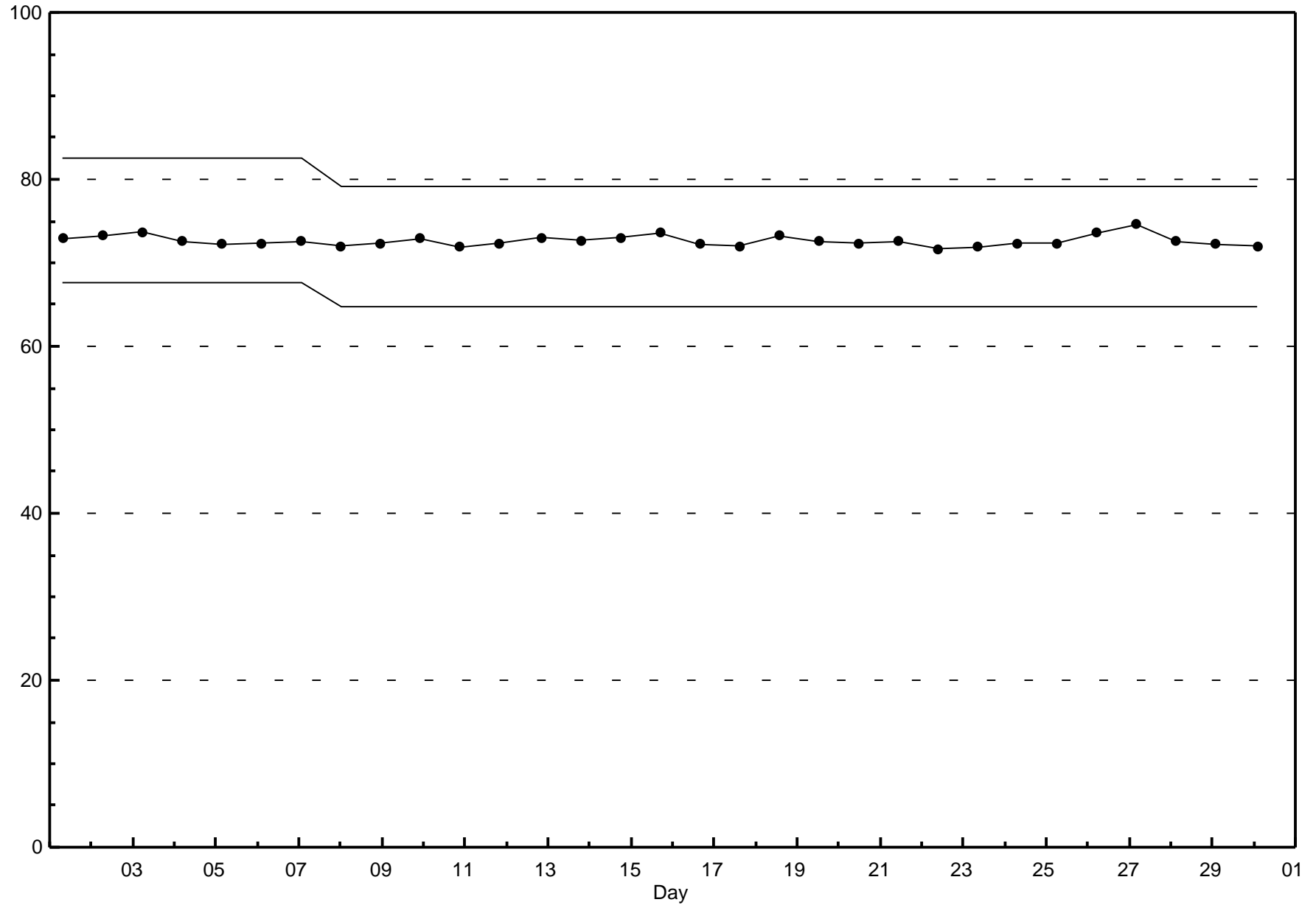
**Total Reduced Sulphur (TRS) - ppb**  
**Evergreen Park - June 2014**



**Pollutant Rose**

**Total Reduced Sulphur (TRS) - ppb**  
**Evergreen Park - June 2014**





## Hourly Averages

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

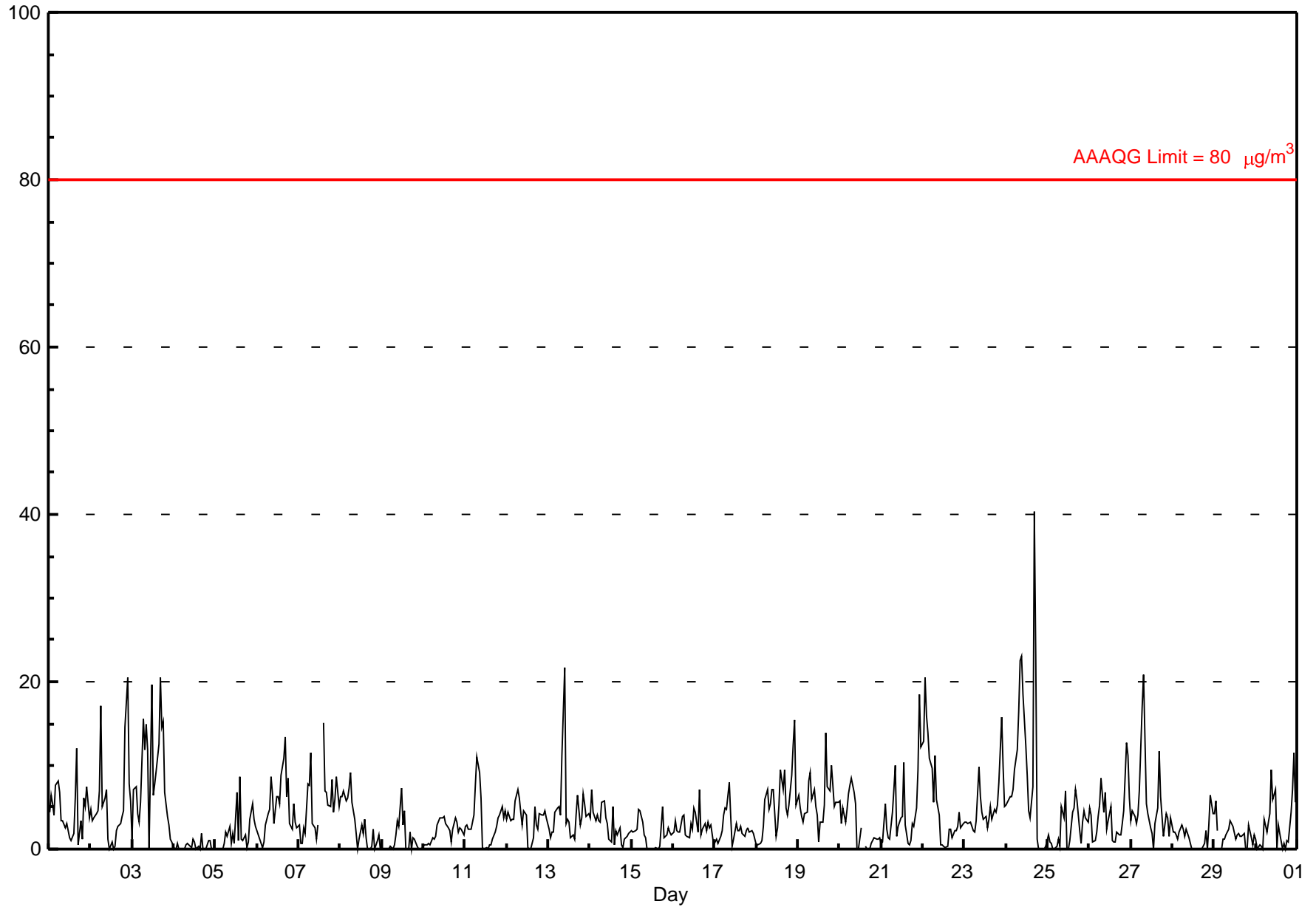
### Evergreen Park - June 2014

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 720
Maximum Value: 40.4 µg/m <sup>3</sup> on Jun 24 17:00	Maximum Daily Average: 9.8 µg/m <sup>3</sup> on Jun 24
Minimum Value: 0 µg/m <sup>3</sup> on Jun 2 12:00	Hours of Data: 715
Maximum Diurnal Average: 6.2 µg/m <sup>3</sup> at hour 9	Hours of Missing Data: 5
Monthly Average: 3.90 µg/m <sup>3</sup>	Hours of Calibration: 0
Minimum Daily Average: 0.4 µg/m <sup>3</sup> on Jun 4	Percent Operational Time: 99.3
Minimum Diurnal Average: 2.5 µg/m <sup>3</sup> at hour 14	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 1.2 Median = 2.9 Q <sub>3</sub> = 5.2 P <sub>90</sub> = 8.2 P <sub>99</sub> = 20.4	

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-Jun	4	6	5	4	8	8	7	3	3	3	3	2	1	1	2	6	12	1	3	1	6	5	7	4	4.5	12.0
2-Jun	5	3	4	4	5	7	17	5	6	7	1	0	1	0	0	2	3	3	4	5	15	21	8	6	5.4	20.6
3-Jun	1	7	7	4	3	6	16	12	15	12	0	20	6	8	9	12	21	15	15	7	4	3	1	1	8.5	20.6
4-Jun	0	0	1	0	0	0	0	1	1	0	0	1	1	0	0	0	2	0	0	1	1	1	0	0	0.4	1.8
5-Jun	0	0	0	0	0	1	2	2	3	1	2	1	7	1	9	1	1	2	0	1	4	5	3	3	1.9	8.6
6-Jun	2	2	1	0	1	3	4	5	9	7	3	6	6	5	9	11	13	6	8	3	2	5	3	3	4.9	13.4
7-Jun	3	1	1	3	2	8	8	12	3	3	1	3	M	M	15	7	7	5	5	8	4	6	9	5	5.3	15.0
8-Jun	6	6	7	6	6	7	9	6	4	2	0	1	3	2	4	1	0	0	0	2	0	1	2	0	3.1	9.2
9-Jun	0	0	0	0	0	0	0	1	2	3	3	7	3	5	0	0	2	0	0	1	1	0	0	0	1.2	7.3
10-Jun	0	1	1	1	1	1	1	1	3	4	4	4	4	3	3	2	1	2	4	3	2	3	2	2	2.2	3.9
11-Jun	3	3	2	2	3	4	8	11	9	6	0	0	0	0	0	1	1	2	3	4	4	5	4	5	3.3	11.0
12-Jun	4	4	3	4	4	6	7	6	4	3	4	4	0	0	0	1	5	3	2	4	4	4	5	4	3.6	7.1
13-Jun	2	1	2	2	4	5	5	4	11	22	3	4	3	1	2	1	4	6	3	4	7	5	4	4	4.6	21.8
14-Jun	4	7	4	3	4	3	3	6	6	4	3	1	1	5	1	2	2	2	0	0	1	2	2	2	2.9	7.1
15-Jun	2	2	2	2	5	4	3	2	1	0	0	0	0	0	0	0	0	3	5	1	2	3	2	2	1.7	5.1
16-Jun	2	3	2	2	2	4	4	2	2	1	3	2	5	4	2	7	2	2	3	2	3	3	3	1	2.8	7.2
17-Jun	1	1	1	2	2	4	5	5	8	4	0	1	3	2	2	3	2	1	2	3	2	2	2	1	2.5	7.9
18-Jun	0	0	1	1	3	6	7	5	5	7	7	1	3	5	10	7	9	5	4	5	9	12	15	5	5.6	15.5
19-Jun	6	5	4	3	4	4	8	9	6	7	5	4	1	3	3	5	14	7	7	10	8	5	6	6	5.9	13.9
20-Jun	6	3	5	3	5	7	8	9	7	5	0	0	3	N	N	0	0	0	1	1	1	1	1	1	3.0	8.5
21-Jun	1	1	5	2	1	1	4	7	10	2	3	4	4	4	3	1	1	1	3	3	5	10	18	12	4.6	18.4
22-Jun	13	21	16	14	11	10	6	11	6	4	1	0	0	0	0	2	2	1	2	2	3	4	3	3	5.7	20.5
23-Jun	3	3	3	3	3	2	2	3	10	6	4	4	4	3	4	5	3	5	4	5	8	16	10	5	4.9	15.7
24-Jun	5	6	6	6	7	9	12	16	23	23	19	12	9	5	4	7	40	23	1	0	0	0	0	0	9.8	40.4
25-Jun	2	1	1	0	0	0	1	0	5	4	7	0	0	1	4	5	7	6	2	1	3	5	4	3	2.6	7.2
26-Jun	5	4	1	1	2	4	5	8	4	7	2	3	5	1	1	1	2	2	2	3	5	13	11	6	4.1	12.8
27-Jun	3	5	4	3	4	7	17	21	13	5	4	3	2	0	3	5	12	6	4	2	4	4	2	4	5.7	20.9
28-Jun	2	2	2	1	2	3	2	2	2	1	1	0	0	0	0	0	0	0	1	2	0	3	6	4	1.5	6.4
29-Jun	4	6	2	N	0	1	1	2	2	3	3	3	1	2	2	1	1	2	0	0	3	1	1	2	1.9	5.8
30-Jun	1	0	1	0	0	4	2	3	4	10	6	7	0	3	2	0	1	0	1	1	4	7	12	6	3.1	11.6

3.1	3.5	3.1	2.7	3.0	4.3	5.8	5.9	6.2	5.5	3.1	3.3	2.6	2.5	3.2	3.3	5.7	3.8	3.1	2.8	3.8	5.1	4.8	3.3		Diurnal Average
12.8	20.5	16.0	14.0	10.8	9.6	17.1	20.9	22.5	23.1	18.5	19.7	8.8	10.3	15.0	12.5	40.4	23.2	15.2	10.0	14.6	20.6	18.4	12.1		Diurnal Maximum

M - Maintenance      N - Not Valid  
 Alberta Ambient Air Quality Guideline (AAQG): 1-hr 80 µg/m<sup>3</sup>      Alberta Ambient Air Quality Objective (AAQO): 24-hr 30 µg/m<sup>3</sup>

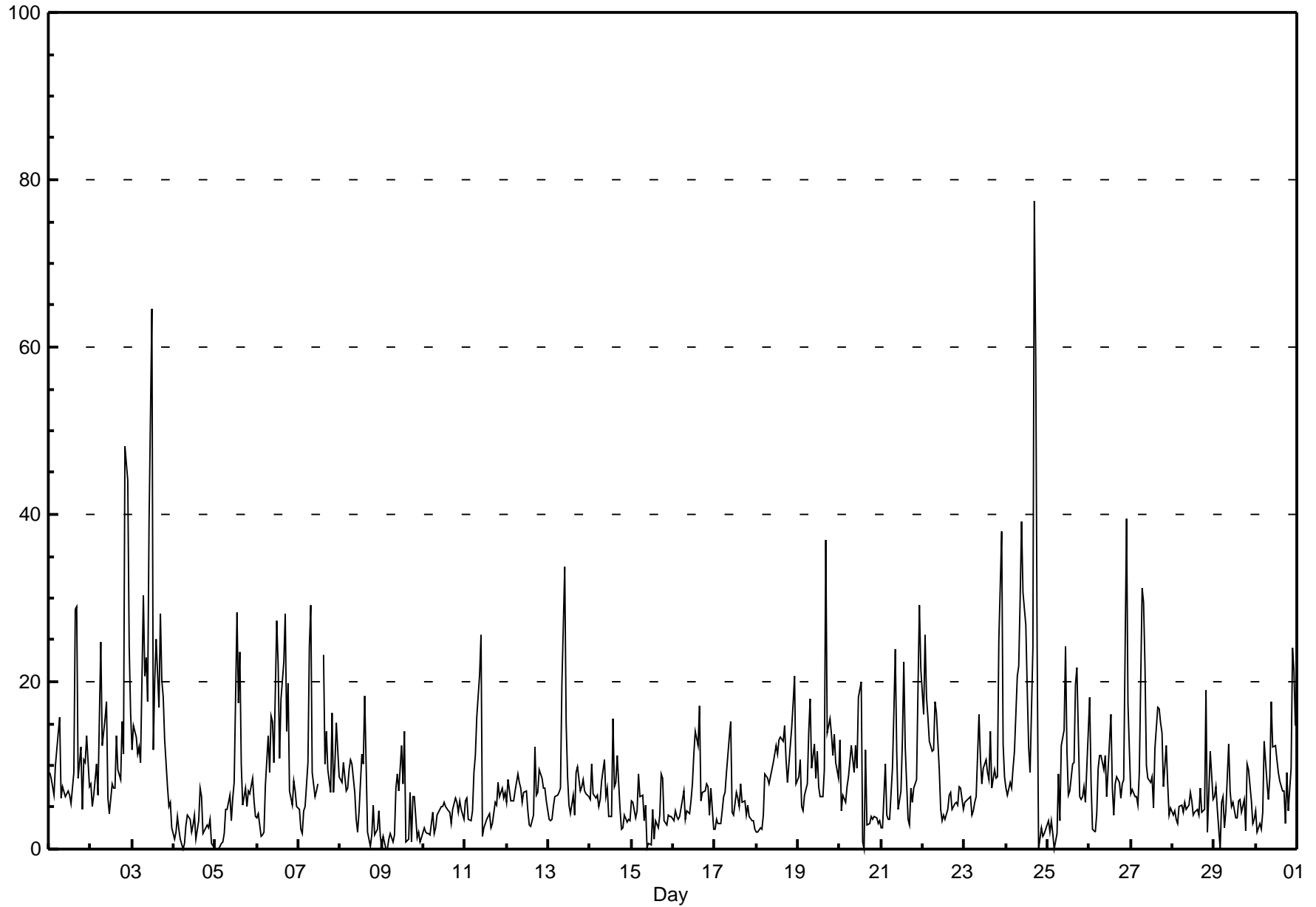


## Hourly Maximums

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

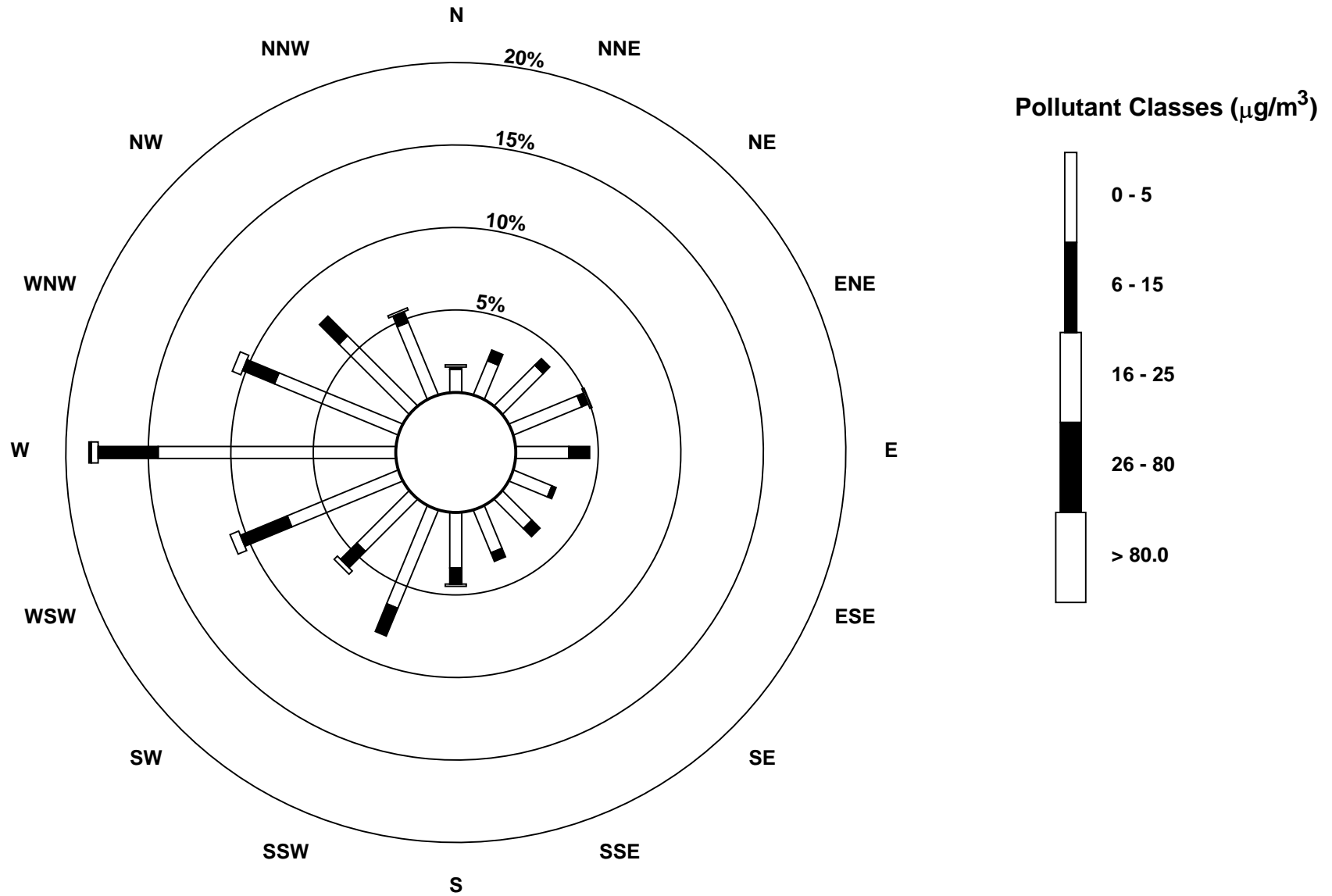
### Evergreen Park - June 2014

Maximum Value: 77.5 µg/m <sup>3</sup> on Jun 24 17:00		Maximum Daily Average: 18.8 µg/m <sup>3</sup> on Jun 24		Hours in Service: 720																							
Minimum Value: 0 µg/m <sup>3</sup> on Jun 4 06:00		Minimum Daily Average: 2.6 µg/m <sup>3</sup> on Jun 4		Hours of Data: 718																							
Maximum Diurnal Average: 13.2 µg/m <sup>3</sup> at hour 17		Minimum Diurnal Average: 4.6 µg/m <sup>3</sup> at hour 4		Hours of Missing Data: 2																							
Monthly Average: 8.77 µg/m <sup>3</sup>		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 2.4 Q <sub>1</sub> = 4.1 Median = 6.8 Q <sub>3</sub> = 10.7 P <sub>90</sub> = 17.6 P <sub>99</sub> = 39.0		Hours of Calibration: 0																							
				Percent Operational Time: 99.7																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jun	9	8	7	7	10	14	16	6	7	6	7	6	5	9	29	29	8	12	5	11	10	14	7	10.4	28.9		
2-Jun	8	5	7	10	7	16	25	12	16	18	6	4	8	7	7	14	9	8	15	11	48	44	24	16	14.4	48.2	
3-Jun	12	15	13	11	12	10	30	21	23	18	39	65	12	20	25	17	28	20	18	13	7	5	6	3	18.5	64.6	
4-Jun	1	2	4	2	1	0	1	3	4	4	2	3	4	1	3	7	6	2	3	3	3	4	1	0	2.6	7.2	
5-Jun	0	0	0	1	1	2	5	5	6	3	6	8	28	17	24	10	5	7	5	7	7	8	6	4	6.9	28.2	
6-Jun	4	4	2	2	2	8	14	9	16	15	10	27	22	11	18	22	28	14	20	7	5	8	7	5	11.7	28.2	
7-Jun	5	2	2	5	5	10	24	29	9	6	7	8	M	M	23	10	14	9	7	16	7	10	15	9	10.6	29.2	
8-Jun	8	8	10	7	7	9	11	10	7	4	2	4	11	10	18	10	2	0	2	5	2	2	5	2	6.6	18.4	
9-Jun	1	2	0	0	1	2	1	2	7	9	7	12	8	14	1	1	7	1	6	6	1	2	1	1	3.9	14.1	
10-Jun	3	2	2	2	2	4	2	3	4	5	5	5	6	5	5	4	3	5	6	6	4	6	5	4	4.0	6.0	
11-Jun	6	6	4	3	5	9	11	16	21	26	2	3	4	4	4	3	3	6	5	8	6	7	6	7	7.2	25.5	
12-Jun	6	8	6	6	6	7	9	8	7	6	7	7	5	3	3	4	12	6	7	9	8	7	7	6	6.6	12.2	
13-Jun	4	3	4	5	6	7	7	7	20	34	15	9	5	4	6	4	9	10	7	7	8	7	7	6	8.4	33.8	
14-Jun	6	10	7	6	7	5	6	8	11	6	7	4	4	16	7	8	11	5	2	3	4	3	4	3	6.4	15.5	
15-Jun	6	6	4	5	9	6	6	3	5	0	1	0	5	1	3	3	4	9	8	3	3	4	4	4	4.3	8.9	
16-Jun	3	5	4	4	4	6	7	4	5	4	6	8	11	14	12	17	6	7	7	8	7	4	7	2	6.7	17.2	
17-Jun	2	4	3	3	5	6	7	9	13	15	4	4	7	6	5	8	6	6	4	5	4	3	3	2	5.6	15.3	
18-Jun	2	2	3	2	4	9	8	8	9	9	10	12	11	13	13	13	15	11	8	10	15	17	21	8	9.7	20.6	
19-Jun	9	11	5	5	6	8	14	18	10	13	8	12	7	6	6	9	37	14	16	14	11	14	10	8	11.3	37.0	
20-Jun	13	5	6	6	7	9	10	12	9	12	10	18	20	1	0	12	3	3	4	4	4	4	3	3	7.4	19.9	
21-Jun	3	3	10	4	4	4	10	16	24	12	5	7	13	22	12	4	3	7	6	7	8	19	29	22	10.5	29.2	
22-Jun	16	26	18	16	13	12	12	18	16	9	5	3	4	4	5	6	7	5	6	6	5	7	7	5	9.6	25.5	
23-Jun	6	6	6	6	4	5	6	6	16	11	8	10	11	9	8	14	7	9	8	9	25	38	13	9	10.4	38.0	
24-Jun	7	7	8	7	10	12	21	22	30	39	31	27	19	12	9	24	77	59	23	0	3	2	2	2	18.8	77.5	
25-Jun	3	2	3	2	0	2	9	3	12	14	24	12	6	7	10	10	20	22	6	6	6	7	6	14	8.7	24.3	
26-Jun	18	8	2	2	4	10	11	11	9	11	6	9	16	7	4	8	9	8	6	8	8	39	17	12	10.2	39.4	
27-Jun	7	7	6	6	5	9	31	29	22	10	8	8	9	5	12	17	17	15	14	7	12	8	4	5	11.4	31.1	
28-Jun	4	5	4	3	5	5	4	6	5	5	7	6	4	4	5	4	7	4	5	19	2	7	12	6	5.7	18.9	
29-Jun	6	7	5	0	6	6	3	5	13	7	5	6	4	4	6	6	4	6	2	10	9	6	3	4	5.5	12.6	
30-Jun	5	2	3	2	4	13	8	6	9	18	12	12	11	9	8	7	7	3	9	5	10	24	21	15	9.3	24.0	
		6.0	6.0	5.2	4.6	5.4	7.5	10.9	10.5	12.2	11.6	9.1	10.6	9.7	8.4	9.1	10.2	13.2	9.7	8.2	7.6	8.5	11.0	8.9	6.4	Diurnal Average	
		18.2	25.5	18.2	15.8	12.9	15.7	31.1	29.4	29.9	39.2	39.0	64.6	28.2	22.3	25.0	28.7	77.5	58.6	23.5	18.9	48.2	44.1	29.2	21.6	Diurnal Maximum	
M - Maintenance																											



**Pollutant Rose**

**Particulate Matter 2.5 (PM<sub>2.5</sub>) -  $\mu\text{g}/\text{m}^3$**   
**Evergreen Park - June 2014**







Peace Airshed Zone Association

# Hourly Averages

External Temperature (ET) - °C

Evergreen Park - June 2014

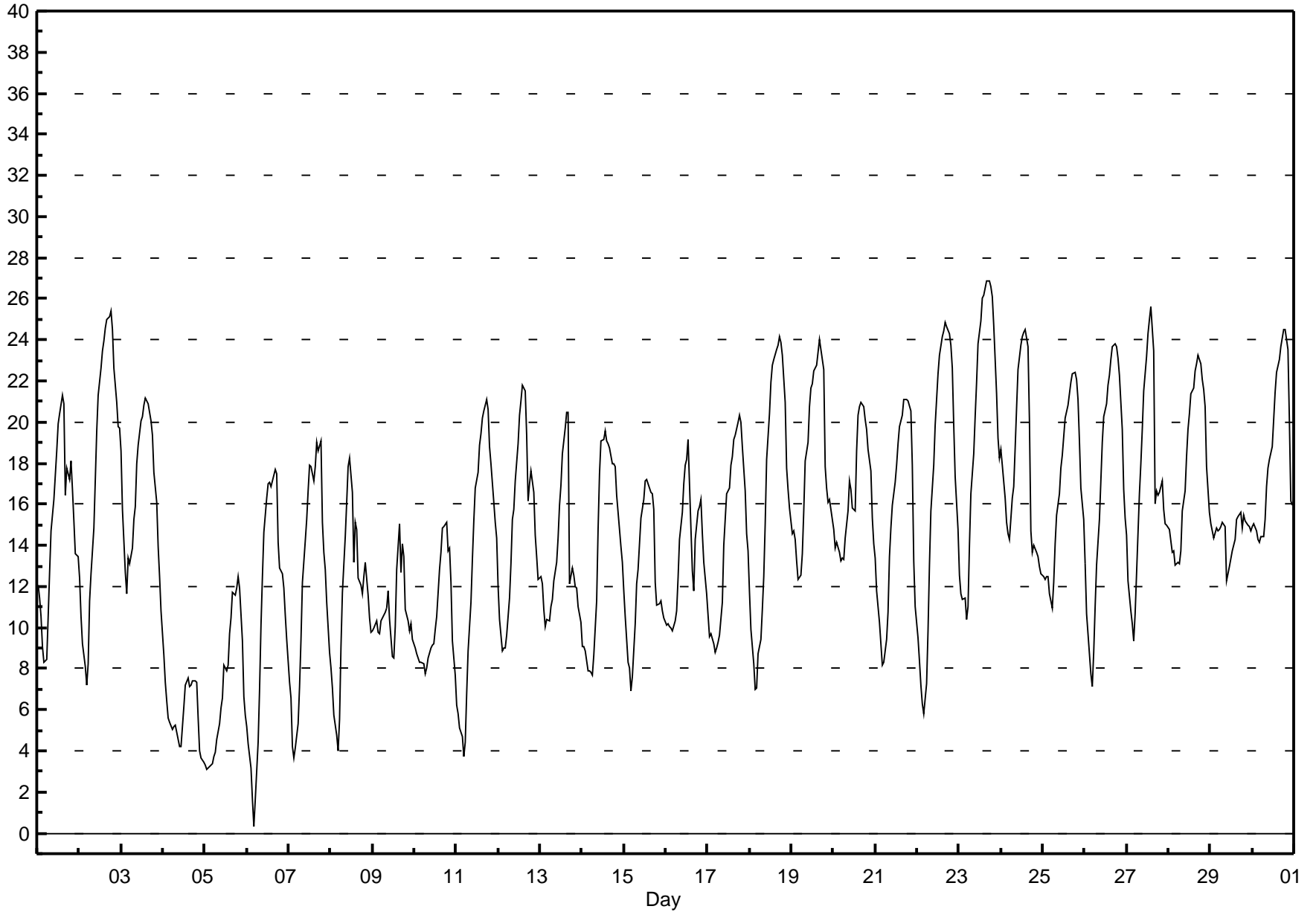
Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 720
Maximum Value: 26.9 °C on Jun 23 17:00	Maximum Daily Average: 19.9 °C on Jun 23
Minimum Value: 0 °C on Jun 6 05:00	Hours of Data: 720
Minimum Daily Average: 5.9 °C on Jun 4	Hours of Missing Data: 0
Maximum Diurnal Average: 19.5 °C at hour 16	Hours of Calibration: 0
Monthly Average: 14.63 °C	Percent Operational Time: 100.0
Minimum Diurnal Average: 8.7 °C at hour 5	
Percentiles: P <sub>1</sub> = 3.3 P <sub>10</sub> = 7.6 Q <sub>1</sub> = 10.5 Median = 14.7 Q <sub>3</sub> = 18.6 P <sub>90</sub> = 22.2 P <sub>99</sub> = 26.0	

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	12	11	11	9	8	8	11	13	15	16	17	19	20	20	21	21	16	18	17	18	17	15	14	13	15.0	21.3
2-Jun	12	11	9	8	7	8	11	13	15	17	20	21	23	23	24	25	25	25	25	25	23	21	20	20	17.9	25.4
3-Jun	19	16	13	12	13	13	14	15	16	18	19	20	20	21	21	21	20	20	19	18	16	14	12	11	16.7	21.2
4-Jun	9	7	6	6	5	5	5	5	5	4	4	5	6	7	8	7	7	7	7	7	6	4	4	3	5.9	8.6
5-Jun	3	3	3	3	3	4	4	5	5	6	7	8	8	8	10	10	12	12	12	12	12	9	7	6	7.2	12.5
6-Jun	5	4	3	2	0	2	4	7	10	12	15	16	17	17	17	17	18	18	14	13	13	12	11	9	10.7	17.7
7-Jun	7	7	4	4	4	5	7	9	12	14	15	17	18	18	17	18	19	19	19	15	14	13	11	9	12.3	19.1
8-Jun	8	7	6	5	4	6	9	12	14	16	18	18	17	13	15	15	12	12	12	13	12	10	10	10	11.5	18.2
9-Jun	10	10	10	10	10	10	11	11	11	12	10	9	9	10	13	15	13	14	13	11	10	10	10	9	10.9	15.1
10-Jun	9	9	9	8	8	8	8	8	9	9	9	9	10	11	13	14	15	15	15	14	14	12	9	8	10.5	15.1
11-Jun	6	6	5	5	4	4	7	9	11	13	15	17	18	19	19	20	21	21	21	19	18	16	15	14	13.4	21.1
12-Jun	12	10	9	9	9	10	11	13	15	16	17	19	20	21	22	22	19	16	17	18	17	15	13	12	15.1	21.8
13-Jun	12	12	11	10	10	10	11	11	12	13	14	16	17	18	20	20	20	12	13	13	12	12	11	10	13.5	20.4
14-Jun	9	9	9	8	8	8	8	9	11	15	17	19	19	20	19	19	19	18	18	18	16	15	14	13	14.1	19.6
15-Jun	12	11	8	8	7	8	10	12	13	14	15	16	17	17	17	17	16	16	12	11	11	11	11	10	12.5	17.2
16-Jun	10	10	10	10	10	10	11	12	14	16	17	18	18	19	15	13	12	14	16	16	16	15	13	12	13.6	19.2
17-Jun	11	10	10	9	9	9	9	10	11	14	15	17	17	18	18	19	19	20	20	20	19	17	15	14	14.5	20.3
18-Jun	12	10	8	7	7	9	9	11	12	15	18	20	22	23	23	24	24	24	24	23	21	18	17	16	16.5	24.1
19-Jun	15	15	14	13	12	13	14	16	18	19	21	22	22	22	23	23	24	24	24	23	18	17	16	15	18.1	24.0
20-Jun	15	14	14	14	13	13	13	14	16	17	17	16	16	19	20	21	21	21	20	20	19	18	15	14	16.6	21.0
21-Jun	13	12	10	9	8	8	9	11	13	15	16	17	18	19	20	20	21	21	21	21	21	18	13	11	15.3	21.1
22-Jun	10	8	7	6	6	7	10	13	16	18	20	21	22	23	24	24	25	25	24	24	23	20	17	15	17.0	24.9
23-Jun	13	12	11	11	10	11	14	17	18	20	22	24	25	26	26	27	27	27	27	26	25	21	19	18	19.9	26.9
24-Jun	19	18	16	15	15	14	16	17	19	21	23	24	24	24	24	24	20	15	14	14	14	13	13	13	17.8	24.5
25-Jun	12	12	12	13	12	11	12	14	15	17	18	18	19	20	21	21	22	22	22	22	21	19	17	15	17.1	22.4
26-Jun	13	11	10	8	7	9	11	13	15	17	19	20	21	22	22	23	24	24	24	23	22	20	17	15	17.0	23.8
27-Jun	15	12	11	10	9	11	15	17	18	20	21	23	24	25	26	23	16	17	16	17	17	16	15	15	17.0	25.6
28-Jun	15	14	14	14	13	13	13	14	16	17	18	20	20	21	22	23	23	23	23	22	22	21	18	16	18.0	23.3
29-Jun	15	15	14	15	15	15	15	15	15	12	13	13	14	14	14	15	15	16	15	15	15	15	15	15	14.6	15.6
30-Jun	15	15	15	14	14	14	14	15	17	18	18	19	20	21	22	23	24	24	24	25	24	20	16	16	18.7	24.5

11.6	10.7	9.8	9.1	8.7	9.2	10.6	12.0	13.6	15.0	16.3	17.4	18.0	18.7	19.2	19.5	19.0	18.6	18.3	17.6	16.8	15.2	13.6	12.6	Diurnal Average	
18.6	17.9	16.3	15.1	14.7	14.8	16.3	16.9	18.7	20.7	22.6	23.8	25.0	26.1	26.2	26.6	26.9	26.9	26.6	26.1	24.7	21.4	19.8	19.7	Diurnal Maximum	

**Hourly Averages**

**External Temperature (ET) - °C**  
**Evergreen Park - June 2014**



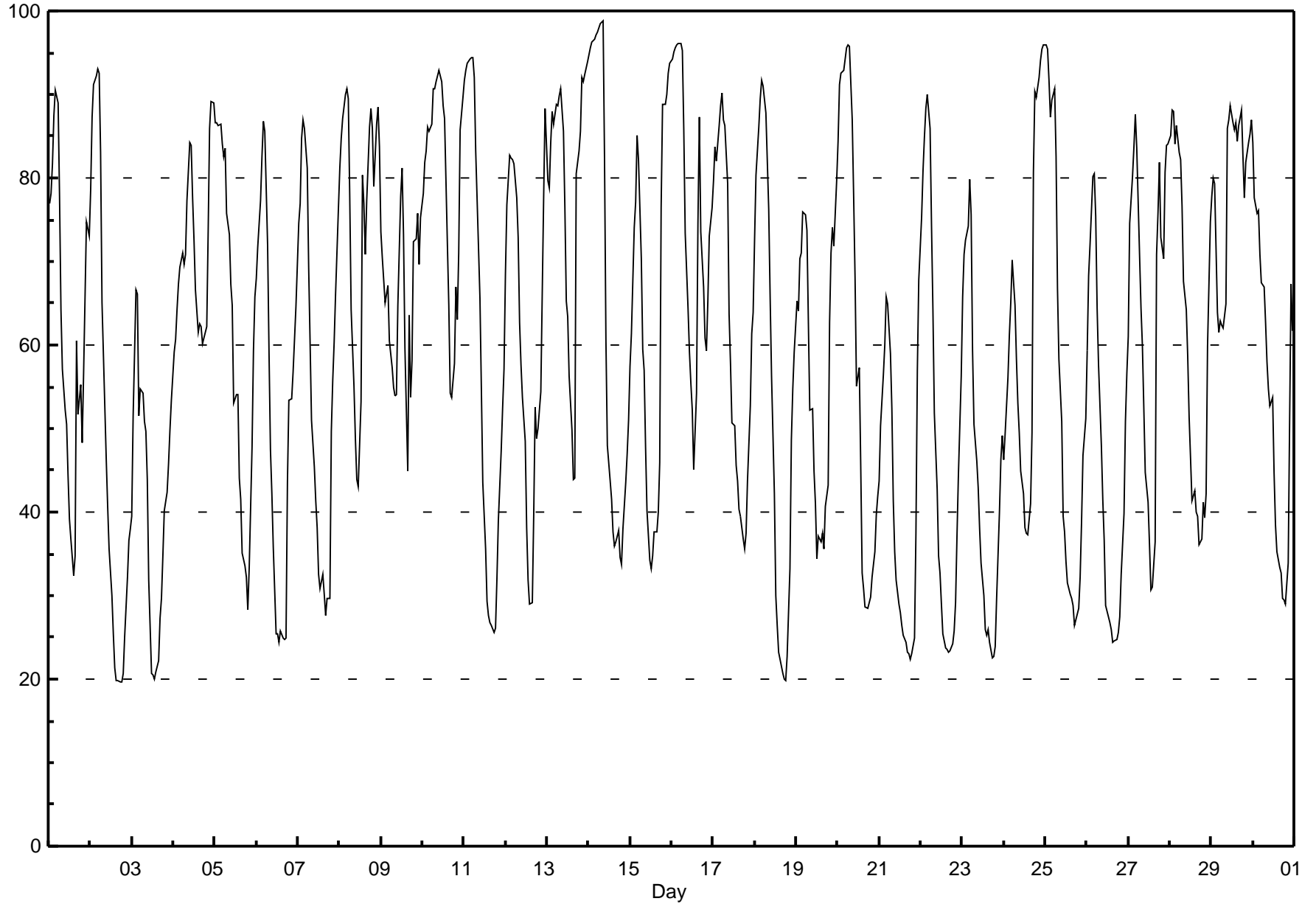
# Hourly Averages

**Relative Humidity (RH) - %**  
**Evergreen Park - June 2014**

<b>Number of Exceedences (AAQO):</b> 1-hr: 0 24-hr: 0 <b>Maximum Value:</b> 98.8 % on Jun 14 09:00 <b>Maximum Daily Average:</b> 79.4 % on Jun 10																			<b>Hours in Service:</b> 720 <b>Hours of Data:</b> 720 <b>Hours of Missing Data:</b> 0 <b>Hours of Calibration:</b> 0 <b>Percent Operational Time:</b> 100.0							
<b>Minimum Value:</b> 20 % on Jun 2 18:00 <b>Minimum Daily Average:</b> 40.6 % on Jun 21 <b>Maximum Diurnal Average:</b> 82.4 % at hour 5 <b>Minimum Diurnal Average:</b> 38.6 % at hour 16 <b>Monthly Average:</b> 59.92 % <b>Percentiles:</b> P <sub>1</sub> = 20.6 P <sub>10</sub> = 28.8 Q <sub>1</sub> = 39.9 Median = 60.5 Q <sub>3</sub> = 80.7 P <sub>90</sub> = 89.0 P <sub>99</sub> = 96.0																										
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-Jun	77	78	82	87	91	89	78	64	57	52	50	44	39	37	32	35	61	52	55	48	57	66	75	73	61.6	90.5
2-Jun	79	87	91	92	93	93	83	65	53	46	41	36	30	25	21	20	20	20	20	21	25	32	37	38	48.6	93.1
3-Jun	40	52	67	66	52	55	54	51	50	44	32	21	21	20	21	22	27	30	35	40	42	46	50	53	41.2	66.6
4-Jun	59	61	64	67	69	71	70	71	77	84	84	78	73	67	62	62	62	60	61	62	74	86	89	89	70.9	89.2
5-Jun	87	87	86	86	84	83	83	76	73	67	65	53	54	54	44	42	35	33	32	28	33	48	59	66	60.8	86.7
6-Jun	68	72	77	82	87	86	72	59	47	42	36	26	25	24	26	25	25	25	44	53	54	57	61	65	51.5	86.8
7-Jun	75	77	85	87	86	81	69	60	51	45	41	38	32	31	33	30	28	30	30	50	56	60	66	76	54.9	87.0
8-Jun	81	85	87	90	91	89	78	64	55	49	44	43	53	80	77	71	77	86	88	86	79	86	88	84	75.5	90.6
9-Jun	74	70	65	66	67	60	57	55	54	54	65	78	81	73	60	45	64	54	58	72	73	76	70	75	65.2	81.2
10-Jun	78	82	83	86	86	86	91	91	92	93	92	91	89	87	72	65	54	54	58	67	63	71	86	90	79.4	92.9
11-Jun	92	93	94	94	94	94	92	83	72	66	55	44	36	29	28	27	26	26	26	32	39	47	52	57	58.2	94.4
12-Jun	68	77	83	82	82	82	78	73	63	58	54	48	38	32	29	29	40	52	49	50	54	66	78	88	60.6	88.3
13-Jun	80	79	84	88	87	89	89	90	91	86	77	65	63	56	50	44	44	81	83	86	92	91	92	94	78.3	93.9
14-Jun	95	96	96	97	97	98	98	98	99	82	60	48	44	42	38	36	36	38	35	34	38	44	47	51	64.4	98.8
15-Jun	57	61	74	77	85	82	70	60	57	48	40	34	33	35	38	38	40	46	76	89	89	90	93	94	62.7	93.8
16-Jun	94	95	96	96	96	96	95	86	73	64	59	55	52	45	54	75	87	74	67	61	59	65	73	76	74.8	96.1
17-Jun	80	84	82	86	89	90	87	86	79	64	58	51	50	46	44	40	40	37	36	37	44	53	61	64	61.9	90.2
18-Jun	73	80	86	90	92	91	88	82	76	66	56	42	30	26	23	22	21	20	20	23	33	49	55	59	54.2	91.7
19-Jun	65	64	70	71	76	76	74	63	52	52	45	41	34	37	36	37	36	41	43	63	71	74	72	80	57.2	79.7
20-Jun	84	91	93	93	94	96	96	96	87	78	68	55	57	46	33	31	29	28	29	30	32	35	40	42	60.9	96.0
21-Jun	44	50	57	60	66	65	59	52	41	35	32	29	28	26	25	24	23	23	22	23	25	37	57	68	40.6	67.9
22-Jun	75	81	85	88	90	86	74	64	52	43	35	33	29	26	24	24	23	23	24	26	29	37	44	56	48.8	90.0
23-Jun	66	71	73	74	80	76	59	50	46	43	38	34	30	26	25	26	24	23	23	24	30	40	46	49	44.8	79.8
24-Jun	46	49	56	61	65	70	65	58	53	49	45	42	38	37	37	41	49	81	90	90	92	94	95	96	62.6	95.9
25-Jun	96	95	92	87	89	91	83	67	58	51	40	38	34	32	30	30	29	26	28	29	32	39	47	51	53.8	95.9
26-Jun	59	68	72	80	80	75	64	58	48	42	37	29	27	27	26	24	25	25	26	28	33	40	51	57	45.8	80.5
27-Jun	61	75	80	84	88	84	71	64	60	52	45	41	36	31	31	36	71	76	82	73	70	81	84	84	64.9	87.6
28-Jun	85	88	88	84	86	83	82	77	68	64	59	51	46	41	43	40	39	36	37	41	39	42	60	75	60.6	88.1
29-Jun	78	80	79	64	62	63	62	62	65	86	87	89	87	86	87	84	86	88	83	78	82	84	85	87	78.9	88.7
30-Jun	84	78	76	76	71	67	67	63	58	55	53	54	45	39	35	33	33	30	29	29	34	51	67	62	53.7	84.3
	73.3	76.9	80.1	81.5	82.4	81.5	76.3	69.6	63.6	58.7	53.0	47.7	44.5	42.1	39.4	38.6	41.8	43.8	46.3	49.0	52.4	59.6	66.0	69.9	Diurnal Average	
	95.9	95.6	96.3	96.7	97.1	97.5	98.0	98.4	98.8	92.9	92.2	91.5	88.7	87.2	86.6	84.3	87.2	88.2	90.3	89.7	92.0	94.0	95.4	95.9	Diurnal Maximum	

**Hourly Averages**

**Relative Humidity (RH) - %  
Evergreen Park - June 2014**







Peace Airshed Zone Association

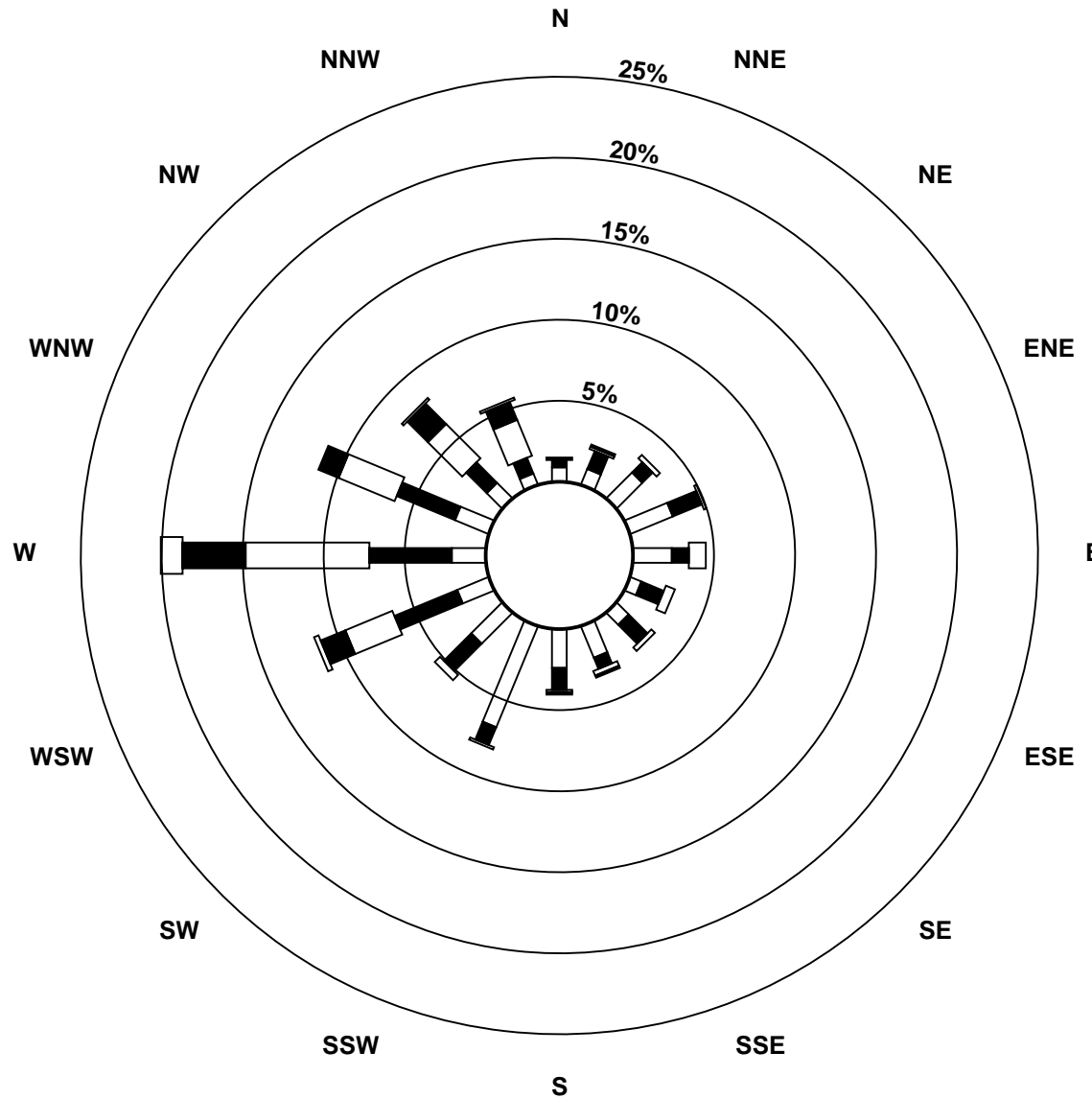
# Hourly Averages

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

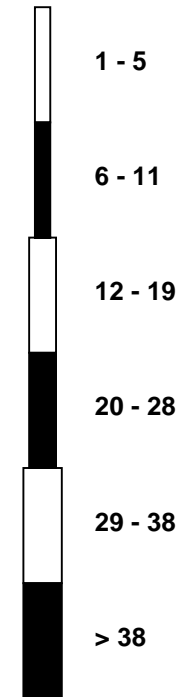
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	0	1	2	1	1	2	4	7	6	8	12	11	10	8	12	10	12	15	16	12	6	6	6	5	6.6	15.9
Dir	123	53	46	359	18	55	80	106	120	146	117	94	109	135	140	90	84	110	102	100	77	68	68	94	102.9	102.4
24 Spd	8	9	5	4	2	2	1	11	8	6	6	4	12	15	17	24	38	33	17	9	8	6	4	5	6.7	37.7
Dir	127	110	85	85	81	30	213	254	279	255	285	326	294	311	318	317	266	260	236	275	282	195	165	185	273.9	266.2
25 Spd	6	5	6	2	0	1	4	15	19	22	29	22	21	22	23	22	20	19	14	13	9	5	6	6	12.4	28.8
Dir	190	200	229	273	232	216	270	273	276	279	278	278	282	273	266	272	265	269	281	290	281	288	266	259	271.9	278.0
26 Spd	2	4	0	1	2	1	7	8	12	12	10	13	12	8	11	6	5	5	7	8	4	4	2	4	3.4	12.6
Dir	232	207	208	222	223	231	261	269	263	253	264	268	280	288	297	298	332	38	35	42	68	83	185	57	283.3	267.9
27 Spd	3	1	2	0	1	0	1	1	2	4	4	6	10	11	9	18	20	7	6	7	5	9	8	9	0.9	19.6
Dir	47	38	218	171	206	202	177	350	338	331	27	85	67	104	89	150	188	250	40	7	280	252	274	241	151.1	188.2
28 Spd	6	4	5	8	11	7	10	17	16	17	15	12	15	12	9	7	7	10	7	12	12	4	12	10	8.4	17.3
Dir	257	251	293	258	250	272	266	255	277	279	287	299	295	317	308	303	331	266	295	276	295	283	172	163	276.4	254.6
29 Spd	7	5	8	12	9	7	12	7	11	11	15	15	14	17	12	7	8	4	12	5	3	4	5	6	7.7	17.1
Dir	176	164	213	237	257	275	270	289	311	260	259	278	290	269	252	238	221	290	279	243	11	258	240	243	260.6	268.6
30 Spd	8	11	6	5	8	3	5	14	16	20	19	14	16	16	14	13	10	11	6	7	6	1	0	1	9.0	20.1
Dir	251	251	298	288	267	265	271	257	268	279	279	271	308	290	308	309	296	327	341	297	288	277	238	285	285.5	278.5
Spd	2.4	2.6	3.2	3.4	3.4	3.8	5.4	8.1	8.6	8.9	9.3	9.1	8.4	7.6	6.9	7.0	7.0	6.1	4.6	4.8	4.3	2.7	2.9	2.4	Diurnal Average	
Dir	272.7	271.0	276.7	275.8	270.7	274.3	270.2	270.6	271.2	271.5	280.6	271.0	281.8	275.8	280.8	283.9	285.2	274.9	305.1	319.7	301.9	282.1	244.7	258.6	Diurnal Maximum	
Spd	21.8	25.4	24.1	25.8	23.3	25.7	35.8	35.8	32.8	29.0	34.6	31.4	28.5	27.1	30.4	33.5	37.7	32.7	25.5	25.4	24.6	22.3	19.2	18.7	Diurnal Maximum	
Dir	341.7	337.2	254.2	250.4	332.9	267.6	263.9	266.4	267.9	263.7	304.3	264.2	262.0	255.5	251.1	270.4	266.2	259.9	269.2	281.8	316.6	312.9	306.3	301.8	Diurnal Maximum	
Maximum Speed Value: 38 km/h on Jun 24 17:00		Minimum Speed Value: 0 km/h on Jun 25 05:00		Hours in Service: 720																						
Maximum Daily Speed Average: 20.8 km/h on Jun 9		Minimum Daily Speed Average: 0.4 km/h on Jun 11		Hours of Data: 720																						
Maximum Diurnal Speed Average: 9.3 km/h at hour 11		Minimum Diurnal Speed Average: 2.4 km/h at hour 24		Hours of Missing Data: 0																						
Monthly Average Velocity: 5.40 km/h 278.35 deg				Speed Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 1.3 Q <sub>1</sub> = 3.7 Median = 7.4 Q <sub>3</sub> = 14.3 P <sub>90</sub> = 20.1 P <sub>99</sub> = 32.7				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	14	12	5	2	0	0	33																			
NorthEast	35	16	4	1	0	0	56																			
East	27	28	9	0	0	0	64																			
SouthEast	18	18	5	1	0	0	42																			
South	51	17	2	1	0	0	71																			
SouthWest	62	33	8	3	0	0	106																			
West	23	64	89	41	12	0	229																			
NorthWest	21	28	41	27	2	0	119																			
Total	251	216	163	76	14	0	720																			

**Wind Rose**

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



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



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - June 2014

Maximum Speed: 39 km/h on Jun 24 17:00		Maximum Daily Speed Average: 23.9 km/h on Jun 9		Hours in Service: 720																							
Minimum Speed: 0 km/h on Jun 6 04:00		Minimum Daily Speed Average: 5.3 km/h on Jun 11		Hours of Data: 720																							
Maximum Diurnal Speed Average: 16.6 km/h at hour 15		Minimum Diurnal Speed Average: 5.5 km/h at hour 5		Hours of Missing Data: 0																							
Monthly Average Speed: 10.67 km/h		Percentiles: P <sub>1</sub> = 0.7 P <sub>10</sub> = 2.3 Q <sub>1</sub> = 4.6 Median = 8.8 Q <sub>3</sub> = 15.4 P <sub>90</sub> = 21.8 P <sub>99</sub> = 33.1		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-Jun	4	4	5	1	6	5	7	15	18	15	15	17	15	14	12	14	16	10	12	9	7	5	7	4	9.9	17.5	
2-Jun	1	2	1	2	3	0	2	11	15	15	10	11	13	12	13	12	9	9	6	5	3	4	11	11	7.5	15.1	
3-Jun	5	4	2	6	7	7	7	13	17	23	21	24	27	22	24	22	30	23	23	21	17	10	9	17	15.9	30.0	
4-Jun	22	26	20	17	12	15	14	10	6	12	14	13	17	17	22	25	19	20	22	26	25	23	20	20	18.3	26.0	
5-Jun	22	20	21	20	24	18	16	20	16	20	19	17	24	22	23	17	23	18	12	15	10	5	4	2	17.0	23.7	
6-Jun	3	4	1	0	1	2	7	14	21	22	17	28	23	28	24	24	22	20	15	9	5	6	8	2	12.8	28.0	
7-Jun	4	3	2	2	3	8	11	10	6	9	7	9	10	26	25	10	10	7	9	18	8	4	6	4	8.9	26.1	
8-Jun	2	3	3	1	1	1	2	6	13	15	18	14	16	9	4	15	15	6	9	9	13	7	5	9	8.3	17.5	
9-Jun	6	13	24	26	21	26	36	36	33	29	36	28	25	27	31	35	22	11	19	20	20	17	17	15	23.9	36.3	
10-Jun	16	16	15	14	17	18	19	19	13	15	15	15	16	10	8	9	7	9	10	5	12	4	3	1	11.9	19.4	
11-Jun	3	1	3	2	1	3	5	6	7	7	7	8	8	9	9	7	11	7	8	4	3	4	4	3	5.3	11.0	
12-Jun	2	2	2	2	3	5	0	1	4	9	10	12	16	18	16	14	19	17	5	4	10	5	3	3	7.7	18.6	
13-Jun	4	5	4	4	1	1	1	3	4	8	12	9	11	10	9	9	18	15	5	6	3	8	6	3	6.7	18.1	
14-Jun	2	4	4	2	3	5	6	5	4	7	12	22	19	20	25	21	21	20	26	25	17	14	17	8	12.9	26.1	
15-Jun	5	4	3	2	4	3	4	10	11	13	12	7	8	9	8	11	7	8	7	8	5	1	4	3	6.5	13.4	
16-Jun	3	5	2	2	2	5	8	10	8	6	8	8	7	10	26	18	9	8	4	6	6	14	6	3	7.7	25.8	
17-Jun	2	3	1	2	3	2	7	6	8	8	9	8	8	10	8	10	7	7	7	7	7	5	4	4	6.0	10.4	
18-Jun	3	1	1	1	1	3	3	3	4	4	6	19	18	19	17	14	12	13	9	9	3	1	5	3	7.5	19.3	
19-Jun	2	5	5	4	2	2	3	9	5	7	6	11	14	12	14	11	13	11	10	17	14	16	11	9	8.9	16.8	
20-Jun	11	7	6	7	5	3	4	4	5	9	23	28	14	18	22	26	25	21	19	26	18	14	16	17	14.6	27.6	
21-Jun	14	9	10	11	5	8	8	11	24	30	31	33	30	27	21	20	18	15	14	12	7	1	1	1	15.0	33.2	
22-Jun	1	1	1	1	2	3	5	3	6	9	12	12	11	11	10	11	10	11	12	10	6	4	4	2	6.5	12.3	
23-Jun	1	2	3	1	1	2	4	7	7	9	13	12	13	11	15	13	14	16	17	13	6	6	6	6	8.3	16.9	
24-Jun	8	10	6	4	3	2	3	12	8	9	8	8	14	17	19	25	39	33	20	11	10	6	4	5	11.8	39.2	
25-Jun	6	5	6	3	1	2	4	16	19	23	30	22	23	24	25	24	22	20	15	14	10	6	6	6	13.7	30.0	
26-Jun	3	5	1	1	2	1	7	8	12	13	11	15	14	13	15	10	9	7	8	9	4	4	3	4	7.5	15.4	
27-Jun	4	2	3	2	2	1	1	2	5	6	7	9	12	14	12	20	22	7	7	8	7	10	8	9	7.5	21.7	
28-Jun	7	4	6	8	11	8	12	18	17	18	18	14	18	15	11	11	9	11	8	12	12	5	13	10	11.5	18.1	
29-Jun	8	5	8	12	10	8	12	8	11	14	15	16	15	18	12	8	9	7	13	5	4	6	6	6	9.8	17.6	
30-Jun	8	11	7	6	8	4	5	14	16	21	20	15	17	17	16	14	13	13	7	8	7	1	1	2	10.5	20.7	
		6.0	6.2	5.9	5.5	5.5	5.7	7.5	10.3	11.5	13.5	14.8	15.5	15.9	16.3	16.6	16.1	16.0	13.3	12.1	11.6	9.3	7.3	7.3	6.4	Diurnal Average	
		22.1	25.8	24.5	26.1	23.7	26.1	36.2	36.3	33.4	29.8	35.9	33.2	29.6	28.0	30.7	34.8	39.2	33.1	26.1	26.2	25.3	23.5	19.9	19.5	Diurnal Maximum	

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



# Hourly Standard Deviations

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

Maximum Value: 95.0 deg on Jun 2 06:00																						Hours in Service:	720		
Minimum Value: 6.3 deg on Jun 14 23:00																						Hours of Data:	720		
Percentiles: P <sub>1</sub> = 8.2 P <sub>10</sub> = 13.7 Q <sub>1</sub> = 18.8 Median = 31.8 Q <sub>3</sub> = 53.7 P <sub>90</sub> = 75.1 P <sub>99</sub> = 90.5																						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-Jun	55	29	11	83	59	58	31	11	21	32	43	31	44	44	61	43	37	26	24	23	29	87	11	21	87.0
2-Jun	77	75	77	48	83	95	55	10	14	15	32	39	35	54	60	52	70	88	80	43	43	76	78	63	95.0
3-Jun	72	48	85	61	50	49	19	17	15	15	31	25	23	30	41	22	17	23	20	15	16	15	20	12	85.4
4-Jun	9	10	12	16	18	16	16	19	31	17	19	22	22	28	18	18	26	18	19	16	13	19	15	16	30.9
5-Jun	14	14	15	14	10	15	14	12	21	23	29	36	35	22	27	26	28	29	29	22	17	16	7	33	36.0
6-Jun	34	15	47	37	85	31	33	11	11	12	22	14	26	17	50	26	17	30	45	30	35	19	21	51	84.8
7-Jun	34	63	76	61	48	15	26	37	65	62	71	87	64	26	32	62	69	62	28	36	28	77	64	16	87.5
8-Jun	69	68	85	64	79	77	52	36	32	23	17	20	43	48	45	51	36	47	12	19	17	16	22	13	85.4
9-Jun	18	12	10	7	12	10	8	10	11	19	16	16	12	8	9	16	33	38	20	16	22	21	18	8	38.4
10-Jun	10	11	11	15	16	12	15	13	22	18	12	10	12	35	51	41	57	33	67	77	18	17	61	57	76.6
11-Jun	64	80	13	26	27	52	23	29	41	40	58	65	51	86	85	79	46	56	36	9	15	17	53	91	91.0
12-Jun	78	52	23	75	55	86	92	48	52	43	31	34	32	30	35	33	57	44	70	81	41	27	72	44	91.9
13-Jun	11	27	23	17	80	78	43	89	27	27	25	43	42	70	51	59	67	52	61	41	41	26	66	77	88.6
14-Jun	93	81	64	51	68	35	21	26	52	28	37	20	22	27	16	16	19	20	13	13	15	10	6	18	92.5
15-Jun	24	55	75	78	79	30	27	21	23	28	34	74	76	50	48	48	58	55	47	28	47	66	75	63	79.3
16-Jun	35	66	76	59	69	32	48	23	38	68	87	72	49	73	46	44	40	45	80	22	33	12	26	17	86.6
17-Jun	47	26	38	70	85	75	23	19	20	58	57	82	59	56	89	54	80	87	57	39	15	12	14	16	89.1
18-Jun	54	29	75	57	73	24	20	53	39	73	43	20	35	27	23	39	38	43	31	39	31	69	25	28	75.4
19-Jun	68	20	19	33	51	44	51	31	63	72	91	60	27	49	31	32	39	25	75	19	28	47	52	41	90.7
20-Jun	42	63	51	62	35	49	46	74	45	48	20	17	19	34	23	22	24	26	18	14	11	12	7	8	73.8
21-Jun	12	14	17	8	24	31	29	23	15	13	14	19	16	30	26	36	36	34	23	24	15	79	90	65	90.1
22-Jun	81	52	69	75	65	51	24	57	61	34	35	48	53	76	69	70	72	31	31	27	22	10	11	59	81.0
23-Jun	87	80	83	84	55	66	28	24	33	39	36	36	49	57	41	50	36	25	24	22	22	15	15	21	86.9
24-Jun	14	13	14	14	50	36	90	17	26	55	52	73	28	35	29	21	20	9	36	38	37	19	32	16	90.1
25-Jun	12	16	16	46	90	50	60	12	16	15	17	16	24	18	22	20	23	23	26	19	15	16	23	12	89.8
26-Jun	61	16	95	82	62	56	20	25	18	21	34	37	38	55	47	72	83	67	34	18	17	14	83	17	94.6
27-Jun	32	76	70	89	87	92	79	86	80	62	71	49	37	42	46	39	26	37	37	26	46	25	21	19	92.2
28-Jun	36	30	28	17	10	40	34	12	18	15	33	34	33	37	37	59	57	34	23	20	15	47	21	23	59.1
29-Jun	21	38	12	11	31	35	15	23	18	38	12	19	18	14	15	21	16	85	22	37	48	46	68	18	84.5
30-Jun	11	8	28	26	18	37	40	9	16	14	19	18	22	23	27	27	42	31	40	42	16	82	64	60	81.8
92.5	80.9	94.6	88.9	89.8	95.0	91.9	88.6	80.1	72.9	90.7	87.5	76.5	86.2	89.1	78.5	83.4	88.2	80.3	81.1	47.6	87.0	90.1	91.0		

PAZA

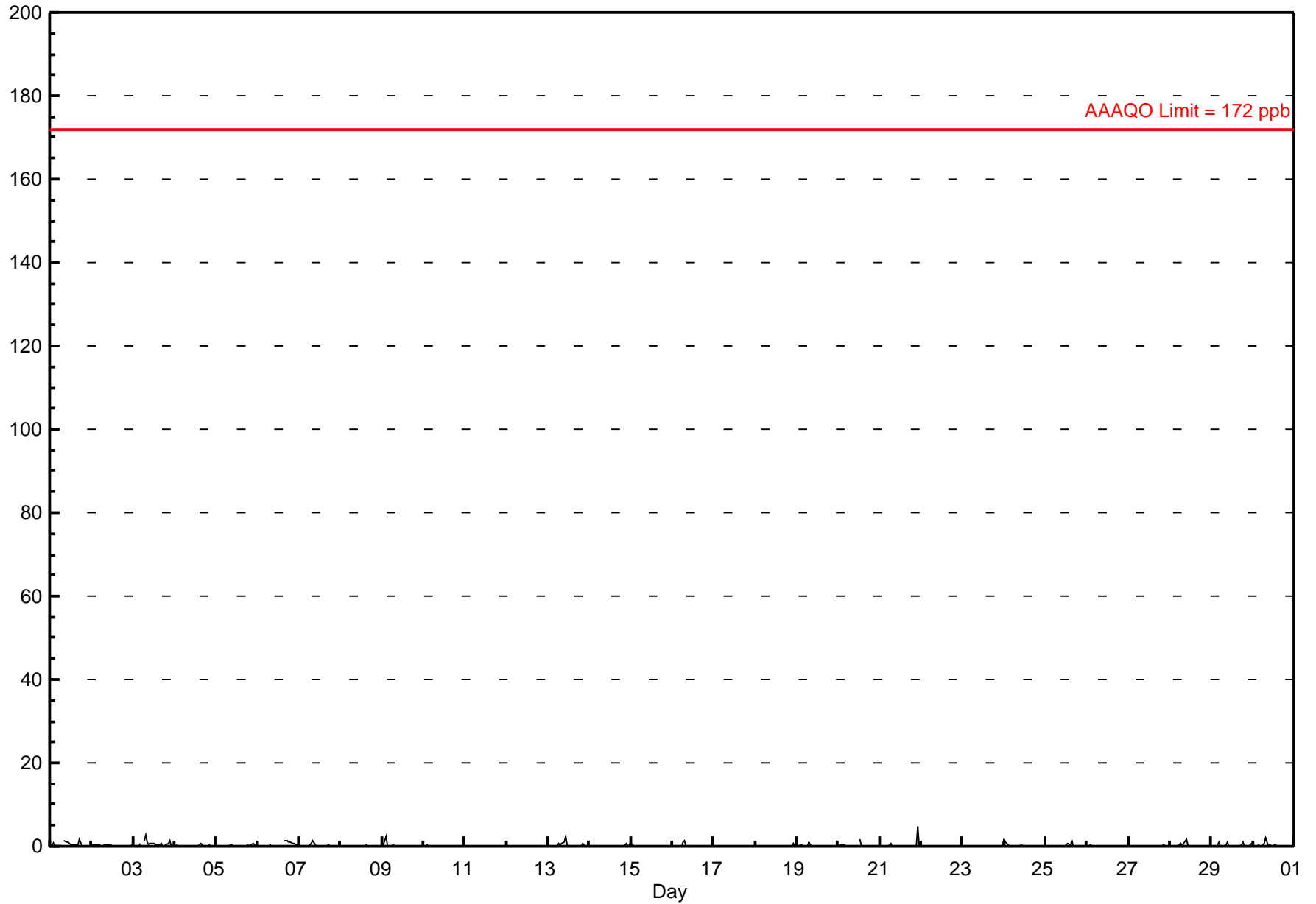
## Smoky Heights Station

Monthly Summary Tables, Graphs and  
Roses

## Hourly Averages

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Smoky Heights - June 2014**

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.8 ppb on Jun 21 23:00      Maximum Daily Average: 0.5 ppb on Jun 3		Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0																								
Minimum Value: 0 ppb on Jun 1 01:00 Maximum Diurnal Average: 0.3 ppb at hour 8 Monthly Average: 0.15 ppb		Minimum Daily Average: 0.0 ppb on Jun 11 Minimum Diurnal Average: 0.0 ppb at hour 6 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> = 0.1 P <sub>90</sub> = 0.4 P <sub>99</sub> = 1.8																								
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-Jun	0	0	1	0	0	0	0	A	1	1	1	1	0	0	0	0	0	2	0	0	0	0	0	0	0.4	1.5
2-Jun	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
3-Jun	0	0	0	0	1	A	1	3	1	0	1	1	1	0	0	0	1	0	0	0	1	1	0	0	0.5	2.6
4-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.1	0.8	
5-Jun	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	0.6
6-Jun	0	0	A	0	0	0	0	0	0	0	0	0	C	C	C	1	1	1	1	1	1	1	0	0	0.4	1.5
7-Jun	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.3
8-Jun	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.2
9-Jun	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	2.4
10-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.0	0.2
11-Jun	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
12-Jun	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
13-Jun	0	0	0	0	0	0	1	0	1	1	2	0	0	0	0	0	0	0	A	0	1	0	0	0	0.3	2.3
14-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0.1	0.5
15-Jun	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	1.1
16-Jun	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	1.2
17-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.1
18-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0.0	0.6
19-Jun	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	1.1
20-Jun	0	0	0	0	0	0	0	0	0	0	A	2	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.8
21-Jun	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	5	0	0.3	4.8
22-Jun	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	0.1
23-Jun	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	0.4
24-Jun	2	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.6
25-Jun	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0.1	1.3
26-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
27-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
28-Jun	0	0	0	A	0	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.8
29-Jun	0	0	A	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0.2	1.1
30-Jun	1	A	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.9
0.1   0.1   0.2   0.1   0.1   0.0   0.2   0.3   0.3   0.2   0.2   0.1   0.2   0.1   0.1   0.2   0.1   0.2   0.1   0.1   0.1   0.1   0.1   0.2   0.3   0.1																								Diurnal Average		
1.6   0.9   2.4   0.3   1.0   0.3   1.4   2.6   1.5   1.8   2.3   0.6   1.8   0.5   0.4   1.5   1.3   1.5   1.0   0.9   0.7   1.3   4.8   0.6																								Diurnal Maximum		
C - Calibration      A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb    24-hr 48 ppb    30-day 11 ppb																										



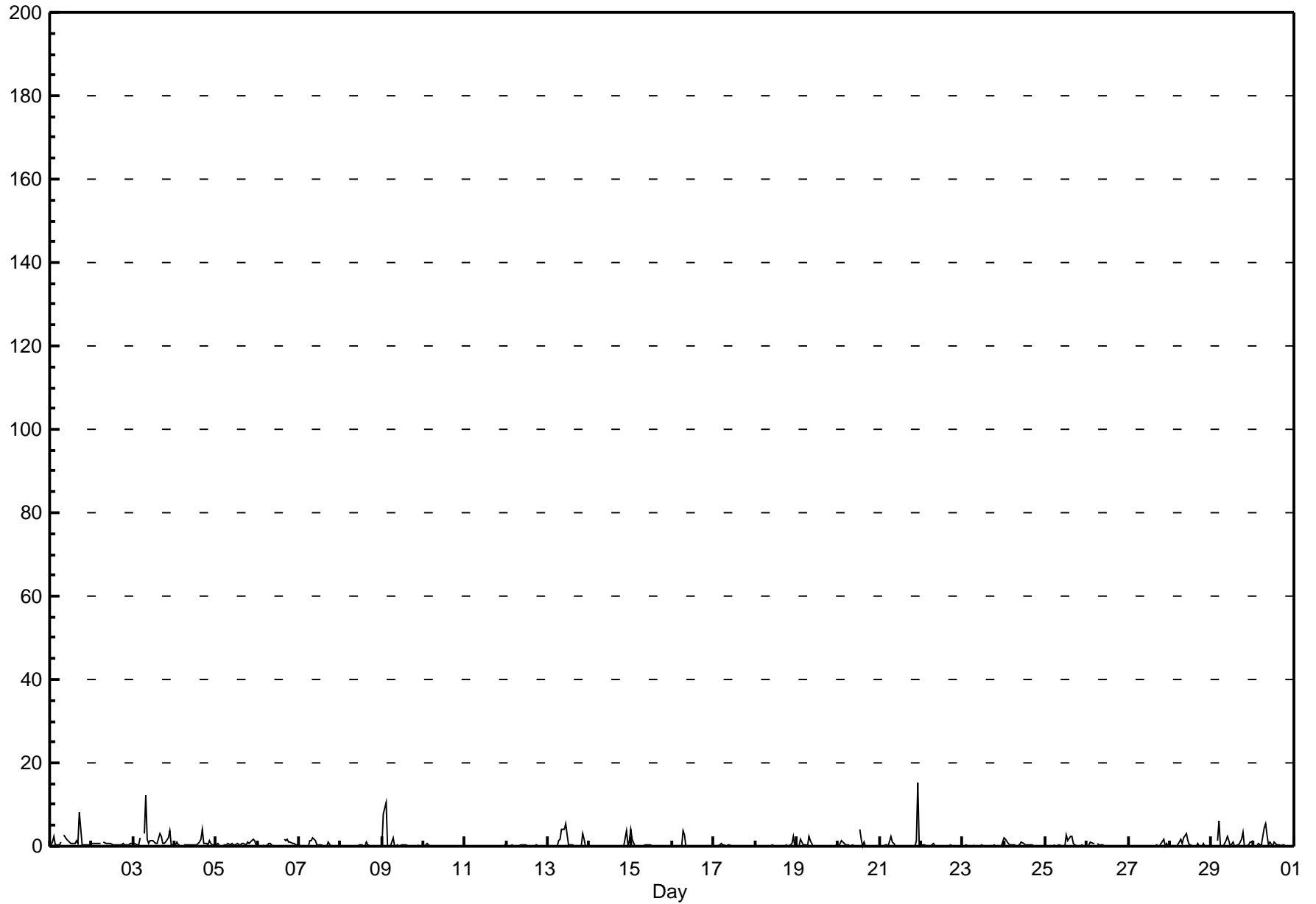
## Hourly Maximums

## Sulphur Dioxide (SO<sub>2</sub>) - ppb Smoky Heights - June 2014

Maximum Value: 15.2 ppb on Jun 21 23:00		Maximum Daily Average: 1.8 ppb on Jun 3		Hours in Service: 720																							
Minimum Value: 0 ppb on Jun 6 10:00		Minimum Daily Average: 0.0 ppb on Jun 11		Hours of Data: 686																							
Maximum Diurnal Average: 1.2 ppb at hour 8		Minimum Diurnal Average: 0.2 ppb at hour 6		Hours of Missing Data: 34																							
Monthly Average: 0.52 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> = 1.3 P <sub>99</sub> = 5.4		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-Jun	0	1	2	0	0	0	1	A	3	2	1	1	1	1	1	1	1	8	0	0	0	0	0	0	1.2	8.0	
2-Jun	1	1	1	1	1	1	A	1	1	1	1	1	0	0	0	0	0	0	1	0	0	0	1	1	0.6	0.9	
3-Jun	1	1	0	0	2	A	3	12	2	1	1	1	1	1	3	3	1	1	1	2	4	0	0	1.8	12.2		
4-Jun	0	1	0	0	A	0	0	0	0	0	0	0	0	1	2	4	1	1	0	1	1	0	0	0.8	4.1		
5-Jun	0	1	0	A	0	0	0	1	0	1	0	0	1	0	0	1	1	0	1	1	1	2	1	0	0.6	1.6	
6-Jun	0	1	A	0	0	0	1	1	0	0	0	0	C	C	C	2	1	2	1	1	1	1	1	0	0.6	1.6	
7-Jun	0	A	0	0	0	0	1	1	2	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.4	2.0	
8-Jun	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0.1	1.0	
9-Jun	0	8	11	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	1.0	10.5	
10-Jun	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.6	
11-Jun	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	0.3	
12-Jun	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	0.5	
13-Jun	0	0	0	0	0	0	1	2	4	4	6	3	0	0	0	0	0	0	A	0	3	2	0	0	1.1	5.6	
14-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	4	0	1	0.3	3.7	
15-Jun	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	3.9	
16-Jun	0	0	0	0	0	0	4	3	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	3.9	
17-Jun	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.8	
18-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0.2	2.3	
19-Jun	0	0	2	1	0	0	0	2	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	2.4	
20-Jun	0	1	1	1	0	0	0	0	0	0	0	A	4	2	0	1	0	0	0	0	0	0	0	0	0.5	4.1	
21-Jun	0	0	0	0	0	0	2	1	1	0	A	0	0	0	0	0	0	0	0	0	0	1	15	0	1.0	15.2	
22-Jun	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6	
23-Jun	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	1.2	
24-Jun	2	2	1	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.1	
25-Jun	0	0	0	0	0	0	A	0	0	0	0	0	3	1	2	2	1	0	0	0	0	0	0	0	0.5	2.9	
26-Jun	0	0	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1	
27-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	1	0	0.2	1.6	
28-Jun	0	0	0	0	A	0	1	2	1	2	3	1	0	0	0	0	1	0	0	1	0	0	0	0	0.5	2.9	
29-Jun	0	0	A	1	6	0	0	0	1	2	1	0	1	0	0	0	0	2	3	0	0	1	1	1	1.0	6.2	
30-Jun	1	A	0	1	0	1	4	5	3	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0.9	5.3	
		0.4	0.7	0.8	0.3	0.5	0.2	0.9	1.2	0.8	0.6	0.6	0.3	0.5	0.3	0.3	0.5	0.5	0.6	0.3	0.2	0.4	0.6	0.8	0.3	Diurnal Average	
		3.9	7.9	10.5	1.5	6.2	0.9	4.4	12.2	4.1	4.2	5.6	2.6	4.1	1.6	2.3	3.1	4.1	8.0	3.3	1.0	3.2	3.9	15.2	1.4	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

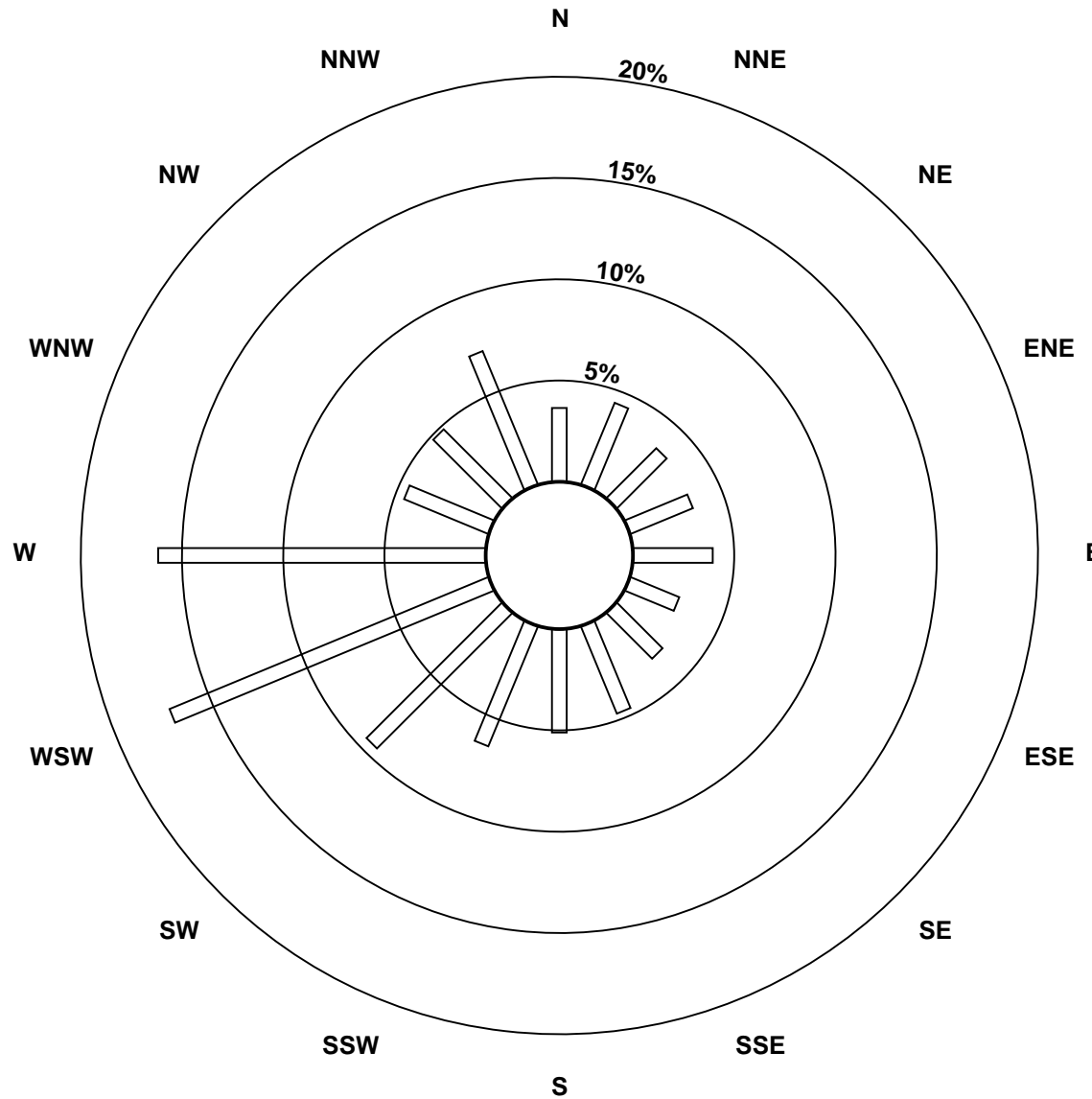
### Hourly Maximums

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Smoky Heights - June 2014**

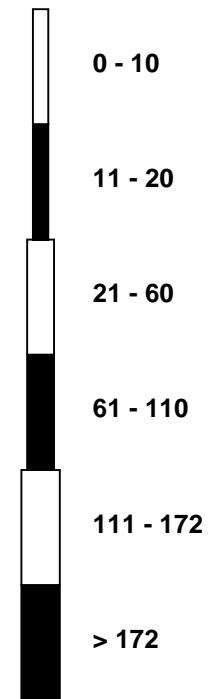


**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Smoky Heights - June 2014**

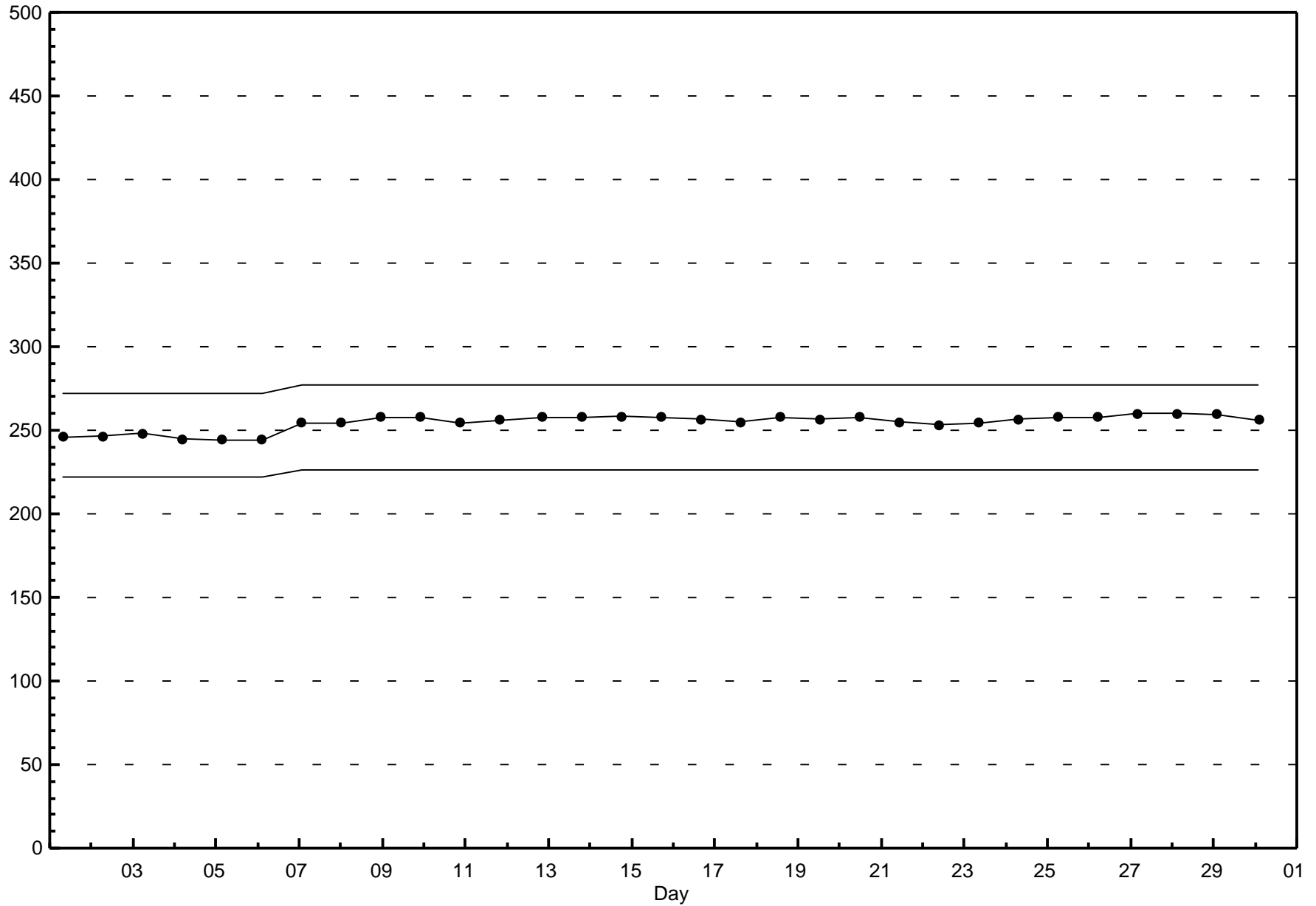


**Pollutant Classes (ppb)**



### Span Responses

Sulphur Dioxide (SO<sub>2</sub>)  
Smoky Heights - June 2014

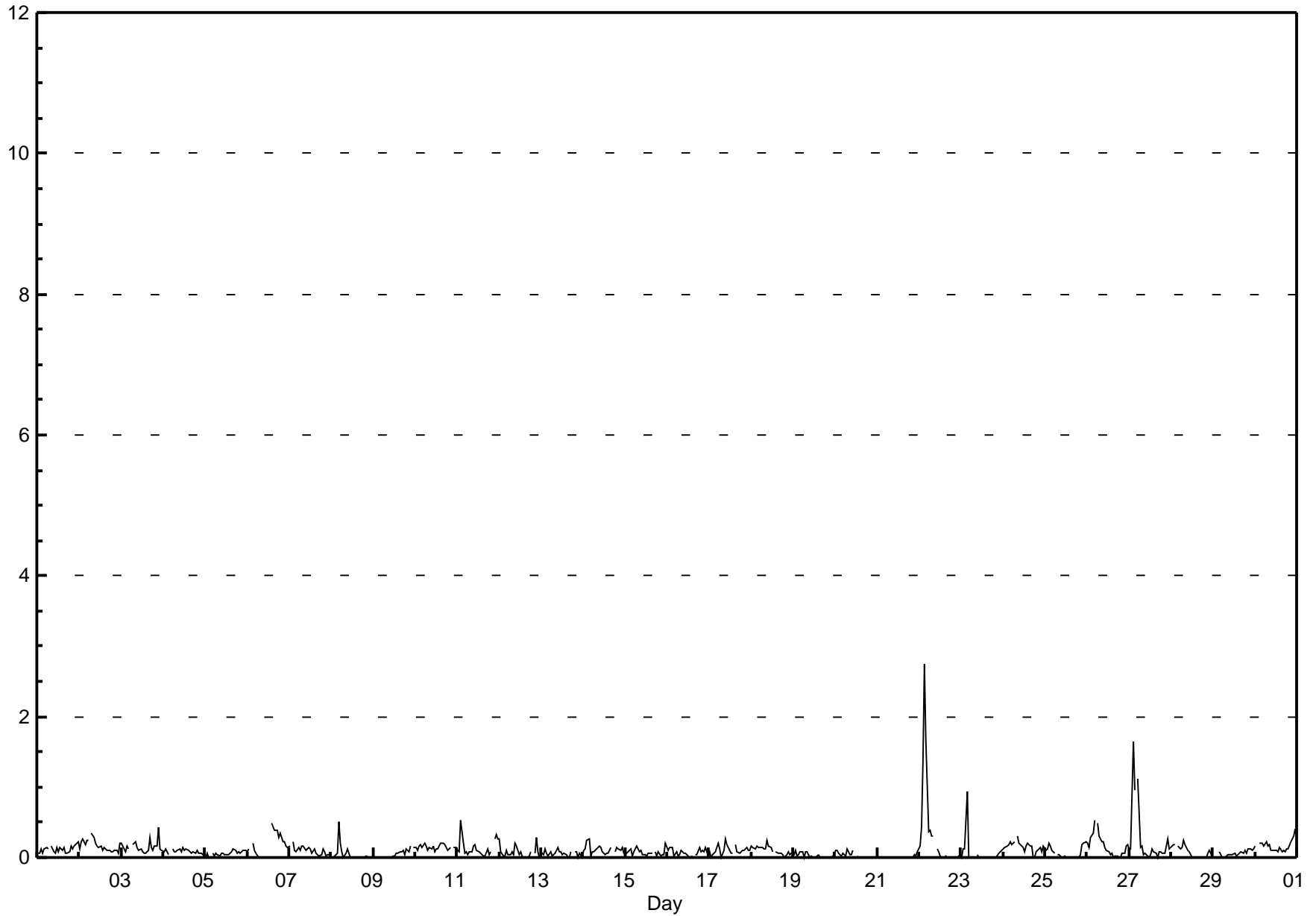




## Hourly Averages

## Total Reduced Sulphur (TRS) - ppb Smoky Heights - June 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.7 ppb on Jun 22 04:00      Maximum Daily Average: 0.3 ppb on Jun 22		Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0																																															
Minimum Value: 0 ppb on Jun 6 07:00 Maximum Diurnal Average: 0.3 ppb at hour 4 Monthly Average: 0.11 ppb		Minimum Daily Average: 0.0 ppb on Jun 21 Minimum Diurnal Average: 0.1 ppb at hour 14 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> = 0.1 P <sub>90</sub> = 0.2 P <sub>99</sub> = 0.9																																															
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-Jun	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																							
2-Jun	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3																							
3-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4																							
4-Jun	0	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																							
5-Jun	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	0.1																							
6-Jun	0	0	A	0	0	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.2	0.5																							
7-Jun	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																							
8-Jun	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5																							
9-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2																							
10-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0.1	0.2																							
11-Jun	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.5																							
12-Jun	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																							
13-Jun	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																							
14-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.3																							
15-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2																							
16-Jun	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																							
17-Jun	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																							
18-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2																							
19-Jun	0	0	0	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																							
20-Jun	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1																							
21-Jun	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1																							
22-Jun	0	0	1	3	2	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.7																							
23-Jun	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9																							
24-Jun	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3																							
25-Jun	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																							
26-Jun	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5																							
27-Jun	0	0	2	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.7																							
28-Jun	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																							
29-Jun	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																							
30-Jun	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4																							
																								0.1	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
																								0.3	0.4	1.7	2.7	1.7	1.1	0.5	0.3	0.3	0.3	0.2	0.1	0.2	0.2	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.4	0.3	0.4	0.4
C - Calibration      A - Automated Daily Zero Span																								Diurnal Average		Diurnal Maximum																							
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb    24-hr 3 ppb																																																	

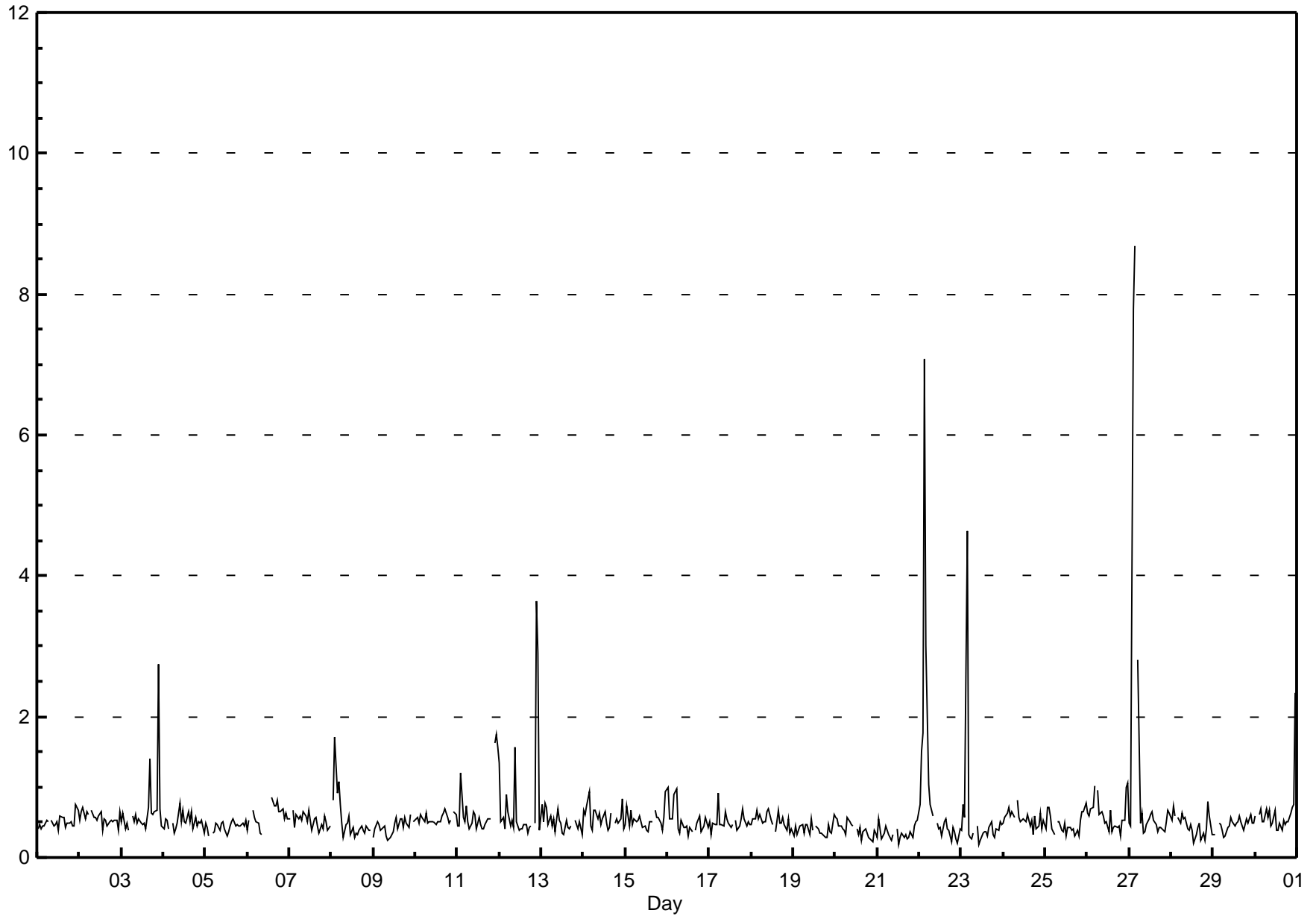


## Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

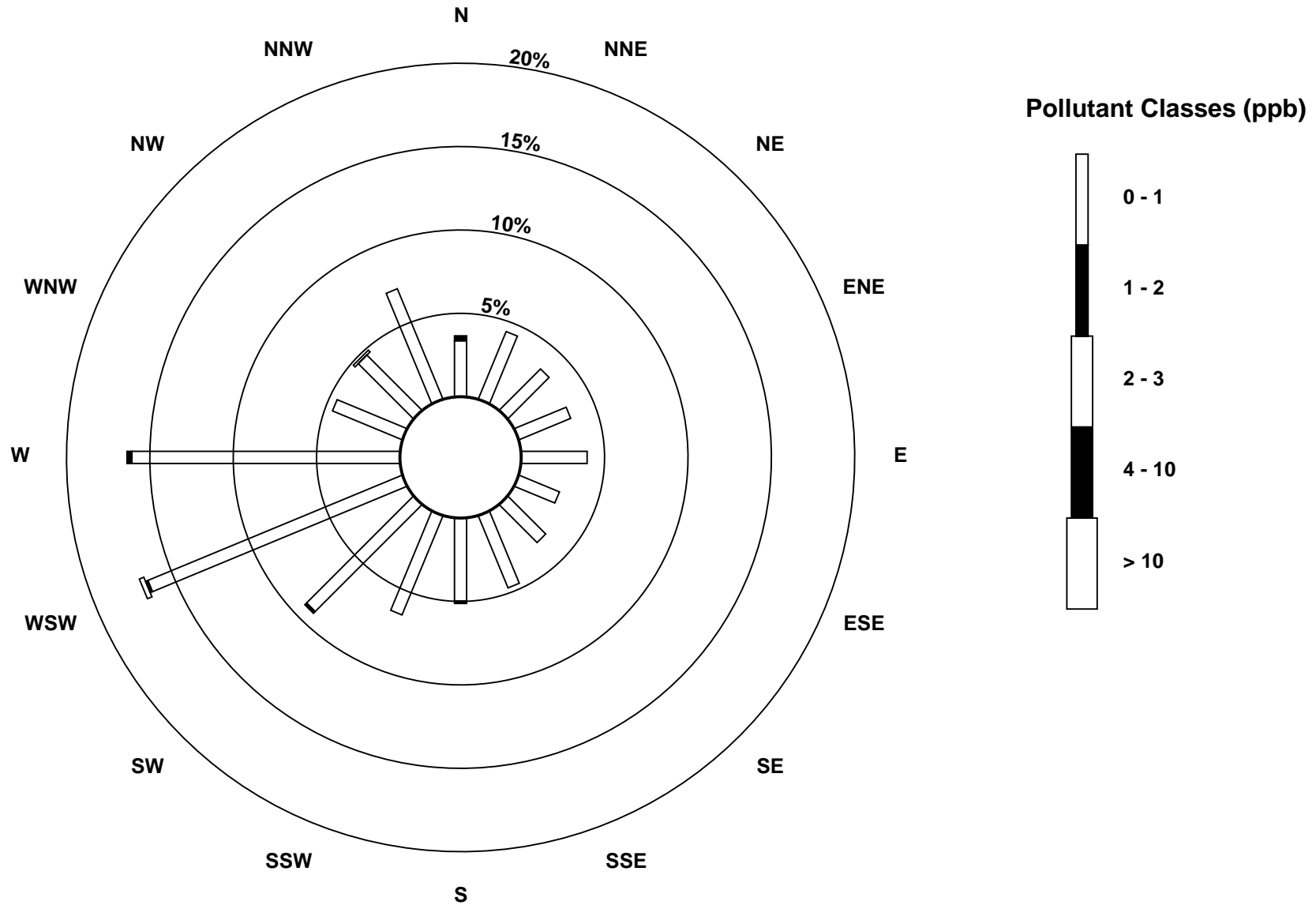
Smoky Heights - June 2014

Maximum Value: 8.7 ppb on Jun 27 04:00		Maximum Daily Average: 1.3 ppb on Jun 27		Hours in Service: 720																							
Minimum Value: 0 ppb on Jun 21 13:00		Minimum Daily Average: 0.3 ppb on Jun 21		Hours of Data: 684																							
Maximum Diurnal Average: 1.2 ppb at hour 4		Minimum Diurnal Average: 0.4 ppb at hour 14		Hours of Missing Data: 36																							
Monthly Average: 0.57 ppb		Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.3 Q <sub>1</sub> = 0.4 Median = 0.5 Q <sub>3</sub> = 0.6 P <sub>90</sub> = 0.7 P <sub>99</sub> = 2.9		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-Jun	0	0	0	0	0	1	1	A	1	0	0	1	0	1	1	1	0	0	0	1	0	0	1	1	0.5	0.8	
2-Jun	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	0	1	0.6	0.7	
3-Jun	1	1	0	0	0	A	1	1	1	0	1	0	0	0	1	1	1	1	1	1	1	3	1	0	0.7	2.7	
4-Jun	0	1	1	0	A	0	0	0	0	1	1	1	0	1	1	1	0	1	0	1	0	1	0	0	0.5	0.8	
5-Jun	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	1	0.4	0.5	
6-Jun	0	1	A	1	1	1	0	0	0	C	C	C	C	C	1	1	1	1	1	1	1	1	1	1	0.6	0.9	
7-Jun	1	A	1	0	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	1	1	0	0	0.5	0.7	
8-Jun	A	1	2	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0.5	1.7	
9-Jun	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0	1	A	1	0.4	0.6	
10-Jun	1	1	0	1	1	1	1	0	1	1	1	0	0	1	1	1	1	1	1	0	1	A	1	1	0.5	0.7	
11-Jun	0	0	1	1	1	1	0	0	0	1	1	0	1	0	0	0	0	1	1	1	A	2	2	2	0.7	1.8	
12-Jun	1	1	1	0	1	1	0	1	0	2	1	0	0	0	0	0	0	0	0	A	0	4	3	0	0.8	3.6	
13-Jun	1	1	1	1	0	1	0	1	0	1	1	0	0	0	1	0	0	0	A	1	0	0	1	0	0.5	0.8	
14-Jun	1	1	1	1	0	0	1	1	1	1	0	1	1	0	0	0	1	A	0	1	0	1	1	0	0.6	0.9	
15-Jun	0	1	0	1	0	1	1	1	1	1	0	0	0	0	1	1	A	1	1	1	0	0	1	1	0.5	0.9	
16-Jun	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	A	0	0	1	0	0	0	0	1	0	0.5	1.0
17-Jun	1	0	0	0	0	1	0	0	0	1	1	0	0	0	A	1	0	0	1	1	1	0	1	0	0.5	0.9	
18-Jun	0	1	1	1	1	1	0	1	1	1	1	0	A	0	1	0	0	0	1	0	0	1	0	0	0.5	0.7	
19-Jun	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	1	0.4	0.6	
20-Jun	1	1	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6	
21-Jun	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.5	
22-Jun	1	1	2	7	3	1	1	1	1	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1.0	7.1	
23-Jun	0	1	1	5	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0.6	4.6	
24-Jun	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	0	1	0	0	1	0	1	0.5	0.8	
25-Jun	0	1	1	1	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.5	0.8	
26-Jun	1	1	1	1	1	A	1	1	1	1	0	1	0	0	0	0	0	0	0	0	1	1	1	1	0.6	1.1	
27-Jun	0	0	8	9	A	3	0	1	0	0	0	1	1	1	1	0	0	0	0	0	0	0	1	1	1.3	8.7	
28-Jun	1	1	1	A	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.5	0.8	
29-Jun	0	0	A	0	0	0	0	0	0	0	1	0	0	1	1	1	1	0	0	1	0	1	0	0	0.5	0.6	
30-Jun	1	A	1	1	1	0	1	1	1	0	0	1	0	0	0	0	1	0	1	1	1	1	1	2	0.6	2.3	
		0.5	0.6	0.9	1.2	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.7	0.7	0.6	Diurnal Average	
		1.3	1.5	7.8	8.7	3.0	2.8	0.9	0.7	0.8	1.6	0.7	0.7	0.7	0.9	0.7	1.4	0.8	0.6	0.7	0.7	3.6	2.9	2.3	Diurnal Maximum		
C - Calibration		A - Automated Daily Zero Span																									



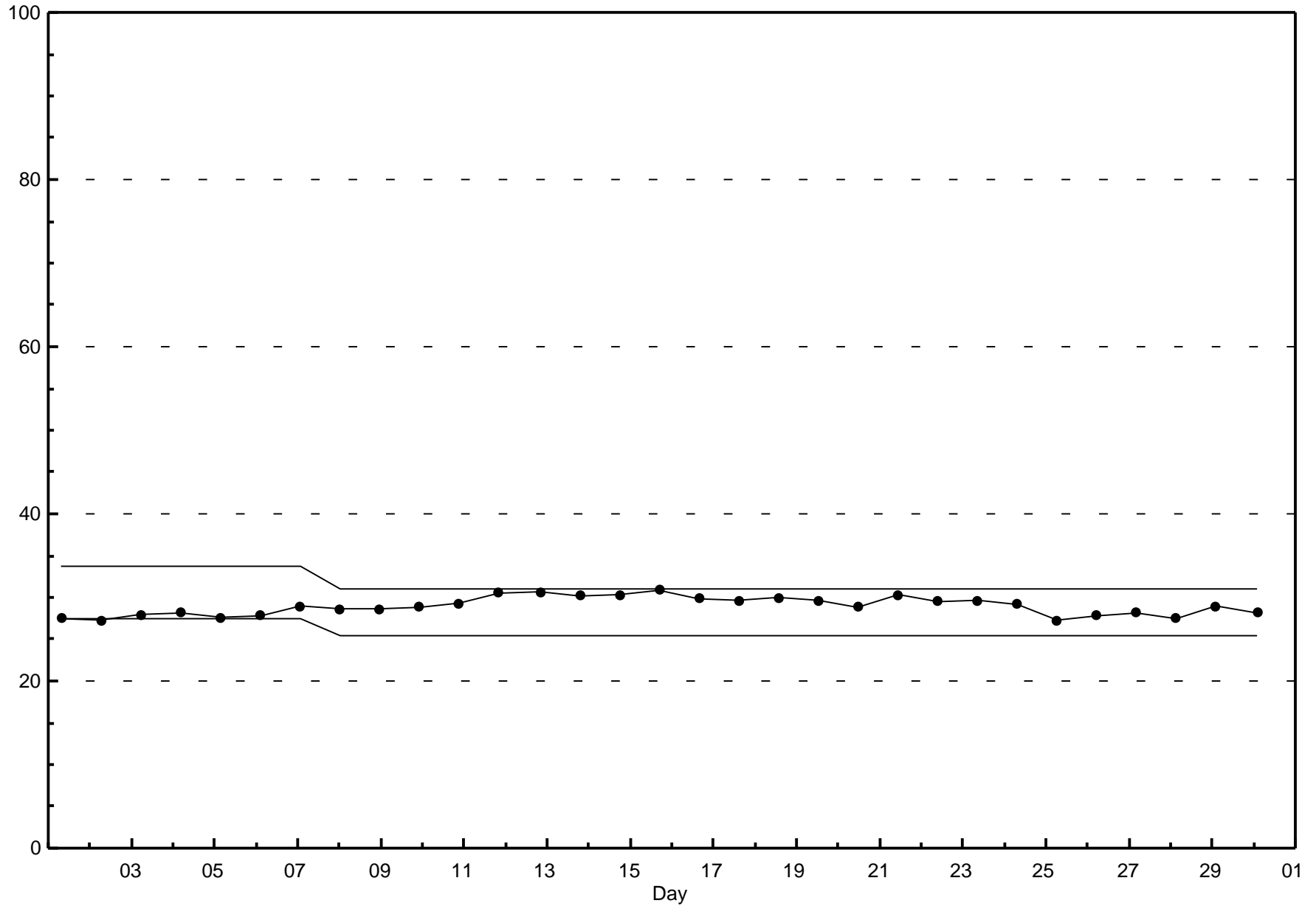
**Pollutant Rose**

**Total Reduced Sulphur (TRS) - ppb**  
**Smoky Heights - June 2014**



### Span Responses

Total Reduced Sulphur (TRS)  
Smoky Heights - June 2014



## Hourly Averages

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

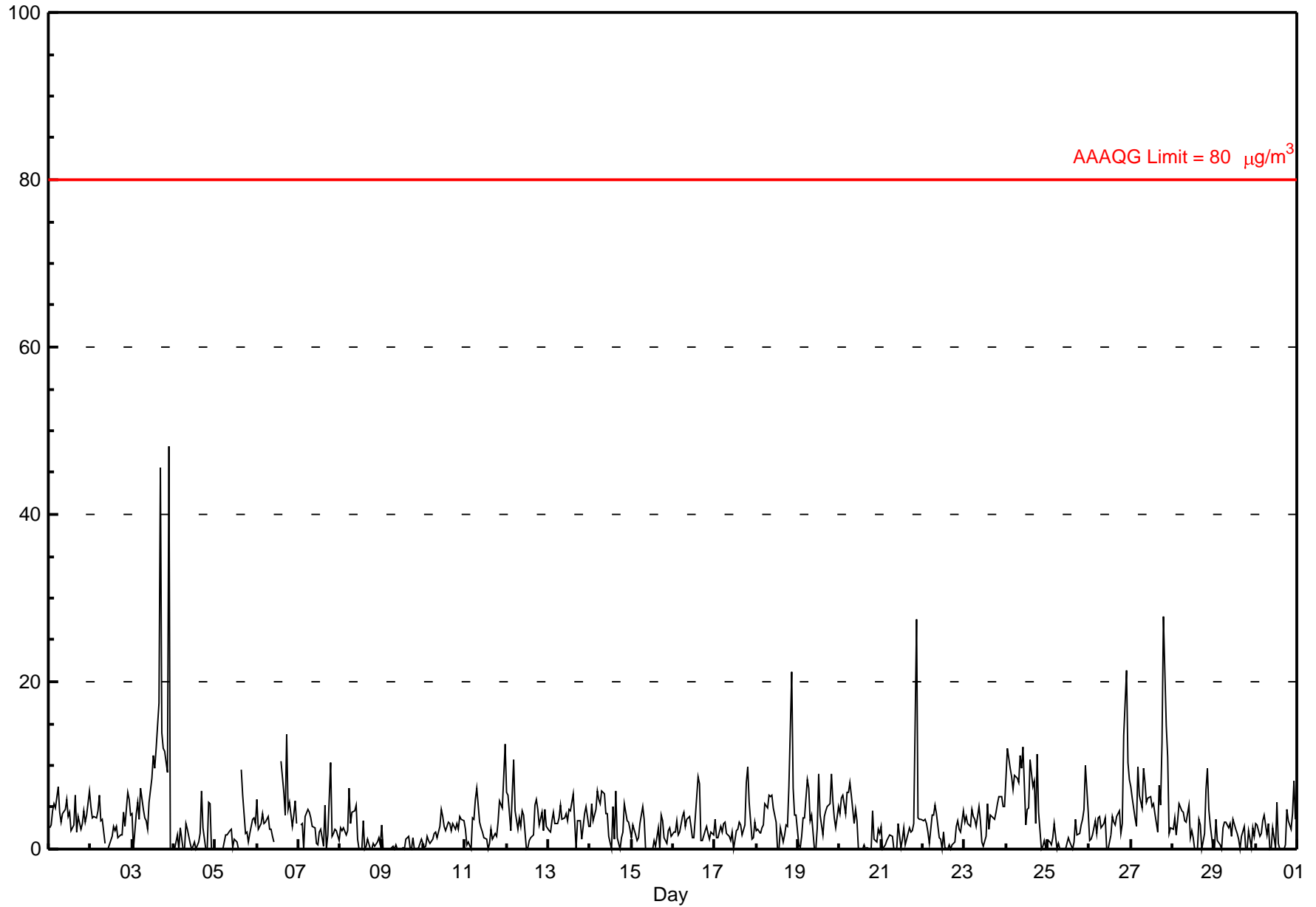
### Smoky Heights - June 2014

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 720
Maximum Value: 48.2 µg/m <sup>3</sup> on Jun 3 22:00	Maximum Daily Average: 10.2 µg/m <sup>3</sup> on Jun 3
Minimum Value: 0 µg/m <sup>3</sup> on Jun 2 11:00	Hours of Data: 713
Minimum Daily Average: 0.4 µg/m <sup>3</sup> on Jun 9	Hours of Missing Data: 7
Maximum Diurnal Average: 5.6 µg/m <sup>3</sup> at hour 21	Hours of Calibration: 0
Monthly Average: 3.40 µg/m <sup>3</sup>	Percent Operational Time: 99.0
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 1.2 Median = 2.7 Q <sub>3</sub> = 4.4 P <sub>90</sub> = 6.9 P <sub>99</sub> = 15.0	

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-Jun	2	3	5	5	5	8	4	3	4	5	6	4	4	2	3	6	2	4	2	3	5	3	4	7	4.2	7.5																							
2-Jun	5	4	4	4	5	7	3	4	1	N	0	1	2	3	2	3	1	2	2	4	3	7	6	4	3.2	6.8																							
3-Jun	4	0	4	6	4	7	5	4	3	2	6	8	11	10	12	17	46	14	12	12	9	48	0	0	10.2	48.2																							
4-Jun	0	1	2	0	3	0	0	3	2	1	0	0	1	0	1	2	7	3	0	0	6	5	0	0	1.5	6.9																							
5-Jun	0	0	0	0	0	1	2	2	2	2	0	1	1	0	N	10	6	2	2	1	2	3	4	3	1.9	9.5																							
6-Jun	6	2	3	4	3	3	4	2	2	2	1	M	M	M	11	7	4	14	5	6	3	4	6	3	4.5	13.7																							
7-Jun	N	3	3	0	4	5	4	4	3	3	1	1	2	2	0	5	0	2	10	2	2	2	2	1	2.6	10.3																							
8-Jun	2	2	3	2	2	7	3	4	5	5	1	0	0	3	0	0	1	0	0	1	0	1	1	1	1.9	7.3																							
9-Jun	3	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2	0	0	0	1	0	0	1	1	0.4	2.8																							
10-Jun	0	0	1	1	1	1	2	2	1	3	5	4	3	2	3	3	2	3	2	3	2	4	4	3	2.4	4.8																							
11-Jun	2	0	1	0	4	4	6	7	3	3	2	1	1	0	1	2	1	2	2	3	6	5	9	13	3.2	12.5																							
12-Jun	7	7	2	7	11	5	2	4	3	5	4	0	0	1	1	2	5	6	5	3	4	2	5	3	3.8	10.6																							
13-Jun	2	2	3	4	3	3	4	5	4	4	4	3	5	5	7	3	0	3	3	1	3	4	5	3	3.5	6.6																							
14-Jun	3	5	3	5	7	6	5	7	7	4	4	2	0	5	1	7	1	0	1	2	5	3	3	2	3.8	7.0																							
15-Jun	1	3	2	1	1	3	5	3	0	0	0	0	0	1	0	3	0	4	3	1	1	2	2	2	1.7	5.0																							
16-Jun	2	2	3	2	2	4	4	3	4	4	3	1	1	4	9	8	1	1	2	3	2	1	2	2	2.9	8.7																							
17-Jun	3	1	1	3	2	3	3	2	2	1	2	0	2	2	3	3	2	3	8	10	6	1	1	3	2.8	9.7																							
18-Jun	2	2	2	3	3	5	5	6	6	6	5	3	0	0	3	1	2	3	3	7	21	7	4	4	4.3	21.3																							
19-Jun	1	0	2	4	4	8	7	3	4	0	0	2	9	4	2	4	5	5	9	6	4	3	5	5	4.0	9.0																							
20-Jun	4	6	6	4	7	7	8	6	3	5	3	0	N	0	1	0	0	0	0	5	1	1	2	2	3.1	7.9																							
21-Jun	3	0	0	1	1	2	1	0	0	0	3	0	1	3	0	2	3	2	2	3	27	4	4	4	2.8	27.5																							
22-Jun	3	4	3	2	1	4	4	5	4	1	1	0	2	0	0	1	0	1	1	3	3	2	2	5	2.2	5.3																							
23-Jun	3	4	3	3	5	4	4	3	5	3	1	0	1	5	2	4	4	4	4	6	6	6	5	5	3.8	6.3																							
24-Jun	9	12	10	9	7	9	8	8	11	10	12	3	5	5	11	7	8	3	11	4	0	0	1	0	6.8	12.3																							
25-Jun	1	1	0	1	3	0	1	0	0	0	0	1	1	1	0	1	4	2	2	3	4	5	10	4	1.8	10.0																							
26-Jun	1	1	2	3	2	4	4	3	3	4	0	0	2	4	3	3	4	5	2	3	14	21	10	8	4.4	21.3																							
27-Jun	7	6	4	3	10	6	5	10	8	6	6	6	5	5	4	2	8	5	13	28	15	11	2	3	7.4	27.8																							
28-Jun	2	4	2	3	5	5	4	3	3	5	1	2	1	0	0	4	3	0	2	7	10	5	3	0	3.1	9.6																							
29-Jun	0	4	1	0	0	3	3	3	3	3	2	4	2	2	1	0	2	3	0	0	2	0	2	2	1.7	3.6																							
30-Jun	3	3	2	2	3	4	2	3	0	0	2	0	6	1	0	0	0	0	5	3	2	4	8	4	2.4	8.2																							
																								2.9	2.7	2.6	2.7	3.6	4.2	3.8	3.8	3.2	3.0	2.5	1.7	2.5	2.4	2.8	3.7	4.1	3.1	3.7	4.5	5.6	5.6	3.7	3.2	Diurnal Average	
																								8.5	12.0	9.7	8.7	10.6	8.8	8.4	9.6	11.1	9.7	12.3	8.4	11.3	9.7	12.0	17.4	45.6	13.9	12.7	27.8	27.5	48.2	10.3	12.5	Diurnal Maximum	

M - Maintenance 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>

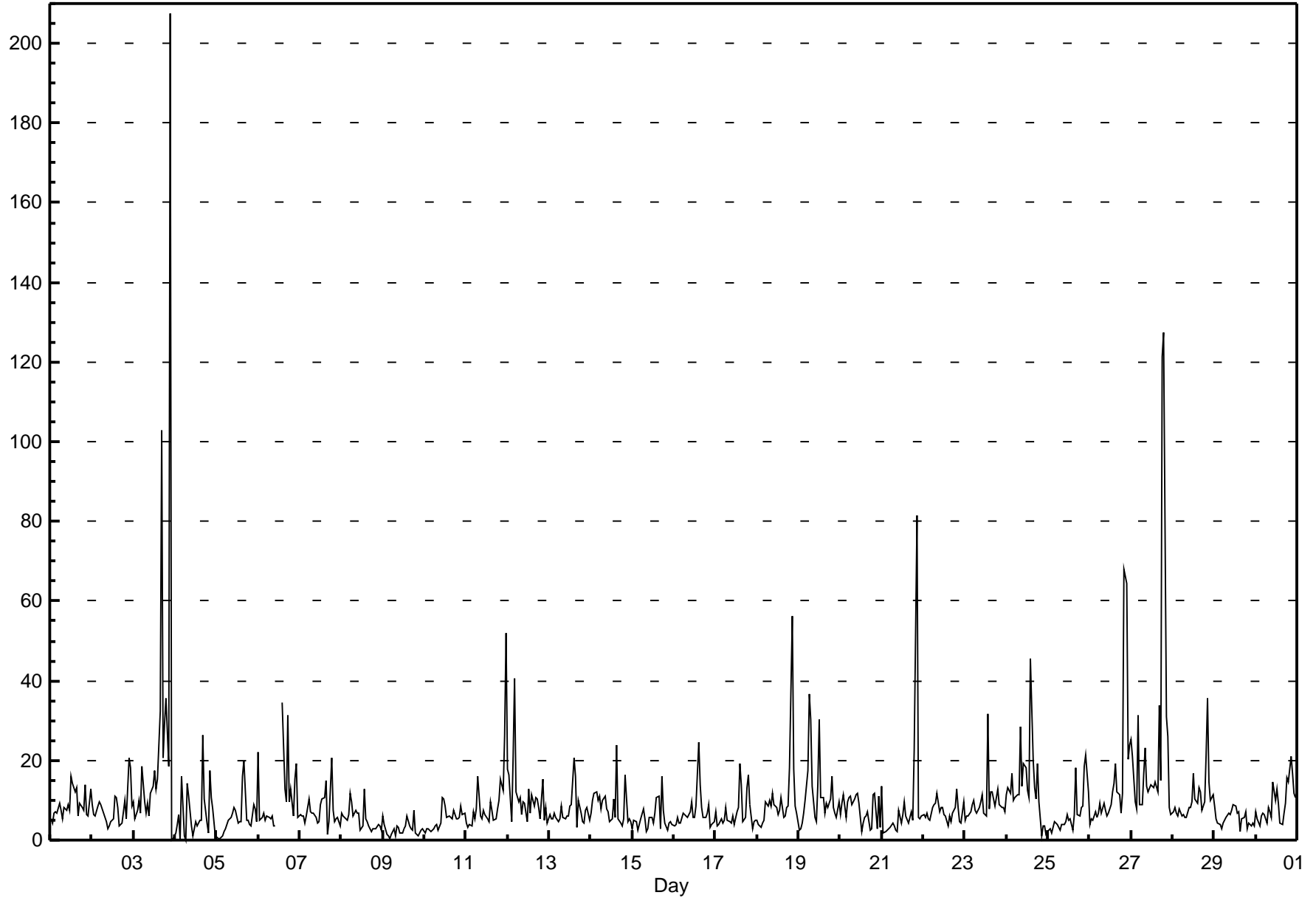




## Hourly Maximums

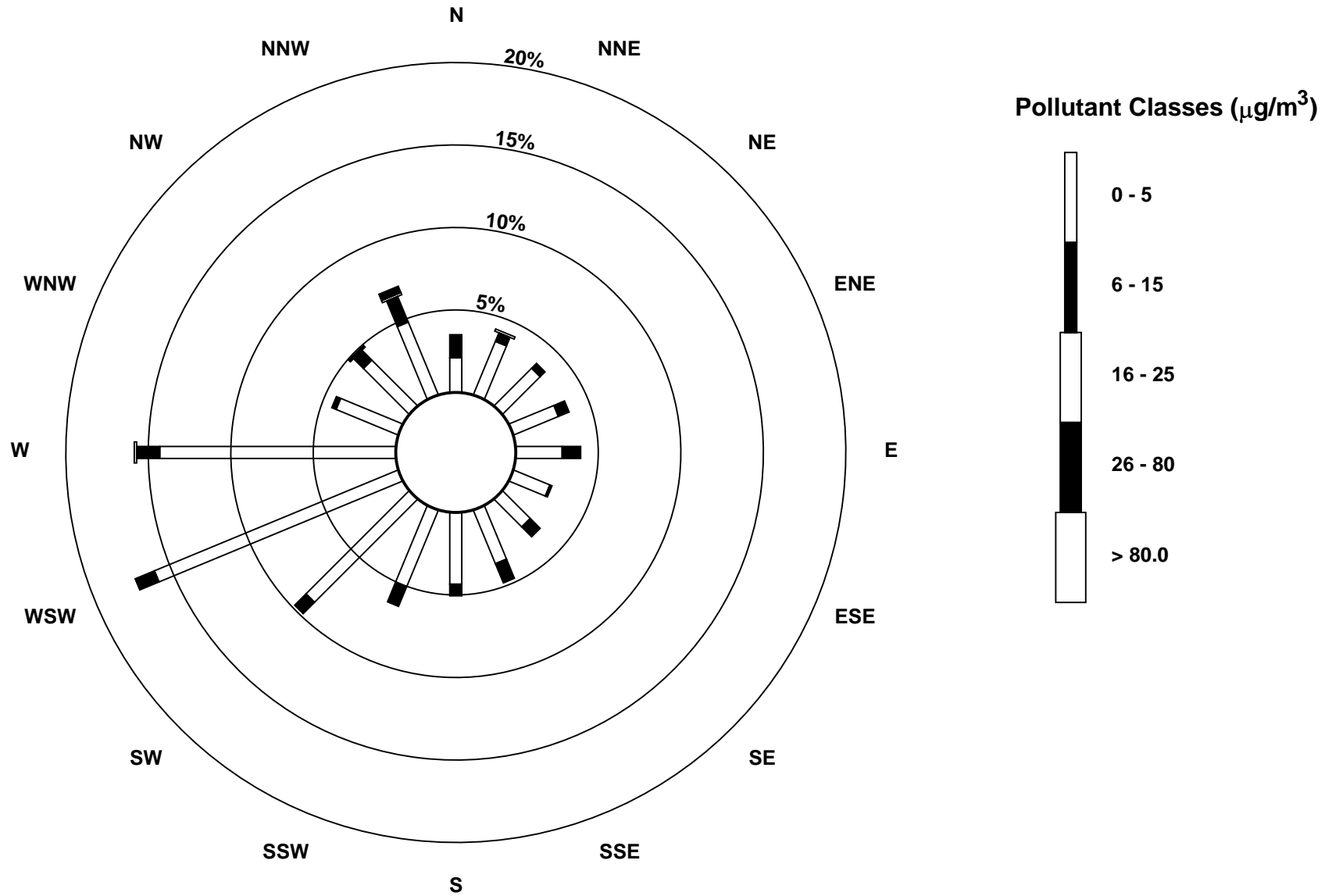
## Particulate Matter 2.5 (PM<sub>2.5</sub>) - μg/m<sup>3</sup> Smoky Heights - June 2014

Maximum Value: 207.4 μg/m <sup>3</sup> on Jun 3 22:00 Minimum Value: 0 μg/m <sup>3</sup> on Jun 3 23:00 Maximum Diurnal Average: 17.4 μg/m <sup>3</sup> at hour 22 Monthly Average: 9.46 μg/m <sup>3</sup>		Maximum Daily Average: 25.6 μg/m <sup>3</sup> on Jun 27 Minimum Daily Average: 2.8 μg/m <sup>3</sup> on Jun 9 Minimum Diurnal Average: 5.5 μg/m <sup>3</sup> at hour 3 Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 2.9 Q <sub>1</sub> = 4.7 Median = 6.8 Q <sub>3</sub> = 10.3 P <sub>90</sub> = 16.1 P <sub>99</sub> = 62.2		Hours in Service: 720 Hours of Data: 717 Hours of Missing Data: 3 Hours of Calibration: 0 Percent Operational Time: 99.6																							
Day	Hourly Period Ending At (MST)																								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-Jun	5	4	7	7	7	9	8	5	8	8	9	8	16	14	12	13	6	9	8	8	14	6	6	13	8.8	15.9	
2-Jun	9	6	6	9	10	9	8	7	5	3	4	5	5	11	11	8	3	4	7	10	5	21	18	9	8.0	20.8	
3-Jun	10	5	7	10	7	19	10	7	9	6	12	14	17	13	15	32	103	21	29	35	19	207	0	0	25.3	207.4	
4-Jun	2	4	6	0	16	1	0	14	11	3	1	3	5	4	5	5	26	10	4	2	17	11	8	0	6.6	26.4	
5-Jun	1	0	0	1	2	3	4	5	6	7	8	8	4	4	5	16	20	5	5	4	4	9	8	5	5.5	20.1	
6-Jun	22	5	6	7	5	6	6	5	6	3	4	M	M	M	34	13	10	31	10	13	6	15	19	6	11.0	34.4	
7-Jun	6	6	6	4	6	10	7	7	7	6	4	5	9	10	11	15	2	5	21	7	5	5	6	4	7.2	20.6	
8-Jun	7	6	6	5	6	12	10	6	8	7	7	2	4	13	5	5	3	2	3	3	3	4	4	2	5.5	12.7	
9-Jun	6	4	1	1	0	1	3	1	3	3	2	2	3	4	6	4	3	3	8	2	1	2	3	3	2.8	7.6	
10-Jun	2	3	3	2	2	3	3	4	2	4	11	10	9	6	6	6	5	8	5	5	6	8	6	7	5.3	10.6	
11-Jun	4	3	4	4	7	5	8	16	6	5	7	6	5	5	10	7	5	5	8	10	15	12	26	52	9.9	51.8	
12-Jun	18	16	5	21	41	12	10	11	6	10	9	5	13	7	11	9	11	10	8	5	15	5	8	4	11.2	40.6	
13-Jun	6	5	5	7	6	5	5	9	6	5	6	6	8	9	21	16	3	10	7	5	4	7	8	5	7.3	20.8	
14-Jun	7	10	12	12	10	11	8	10	11	8	7	5	5	10	6	24	5	4	3	5	16	5	5	5	8.5	23.9	
15-Jun	3	5	5	2	4	5	8	5	2	3	6	6	4	7	11	11	3	16	7	4	3	4	5	4	5.5	16.1	
16-Jun	3	4	6	4	4	7	6	6	6	7	10	6	6	9	25	14	8	6	6	7	9	3	4	4	7.0	24.7	
17-Jun	7	4	4	5	4	5	8	5	4	4	6	4	7	8	19	14	5	6	13	16	9	3	4	5	7.1	19.1	
18-Jun	5	4	3	4	5	10	8	10	9	12	9	8	6	7	11	6	6	8	9	18	56	18	9	7	10.3	56.2	
19-Jun	2	3	4	7	10	18	37	30	14	6	4	14	30	11	11	7	9	8	10	16	8	7	6	10	11.7	36.6	
20-Jun	6	9	11	6	10	11	11	9	10	11	12	9	2	4	6	6	7	3	3	12	12	3	11	3	7.8	11.8	
21-Jun	13	2	2	2	3	3	4	4	2	2	8	4	6	10	6	4	6	7	5	23	82	6	5	6	9.0	81.6	
22-Jun	6	6	7	5	5	8	9	9	12	7	8	8	6	6	4	6	5	7	8	13	8	4	4	10	7.1	12.7	
23-Jun	5	6	6	7	9	10	8	7	8	10	11	7	6	32	8	12	12	9	11	13	9	8	8	7	9.5	31.8	
24-Jun	11	13	12	17	10	11	11	11	29	14	19	18	13	11	46	20	13	10	19	10	1	4	4	1	13.6	45.5	
25-Jun	3	3	2	3	5	4	3	3	4	4	5	6	5	5	2	6	18	6	6	8	9	19	21	12	6.7	21.2	
26-Jun	4	5	5	7	6	7	9	7	9	7	6	7	9	12	14	19	12	12	7	12	68	65	20	24	14.7	68.0	
27-Jun	25	21	10	8	31	9	9	17	23	14	12	14	13	13	15	12	34	15	122	127	31	26	8	6	25.6	127.3	
28-Jun	7	8	7	6	8	6	6	6	6	8	10	17	10	9	13	12	8	10	21	35	15	10	11	10.8	35.5		
29-Jun	9	5	4	4	3	4	5	6	7	6	7	9	8	7	7	2	5	6	7	3	4	3	4	4	5.4	9.0	
30-Jun	7	5	3	6	7	6	4	8	7	6	15	10	13	9	4	4	7	9	16	15	21	17	12	11	9.2	21.0	
	7.4	6.1	5.5	6.2	8.3	7.7	7.9	8.3	8.2	6.6	7.9	7.5	8.8	9.3	11.8	11.0	12.3	8.7	12.8	14.4	16.5	17.4	8.7	8.0	Diurnal Average		
	25.2	21.1	11.8	21.1	40.6	18.6	36.6	30.3	28.6	13.7	19.3	18.2	30.4	31.8	45.5	32.2	102.7	31.3	121.5	127.3	81.6	207.4	26.2	51.8	Diurnal Maximum		
M - Maintenance																											



**Pollutant Rose**

**Particulate Matter 2.5 (PM<sub>2.5</sub>) - μg/m<sup>3</sup>**  
**Smoky Heights - June 2014**



# Hourly Averages

External Temperature (ET) - °C

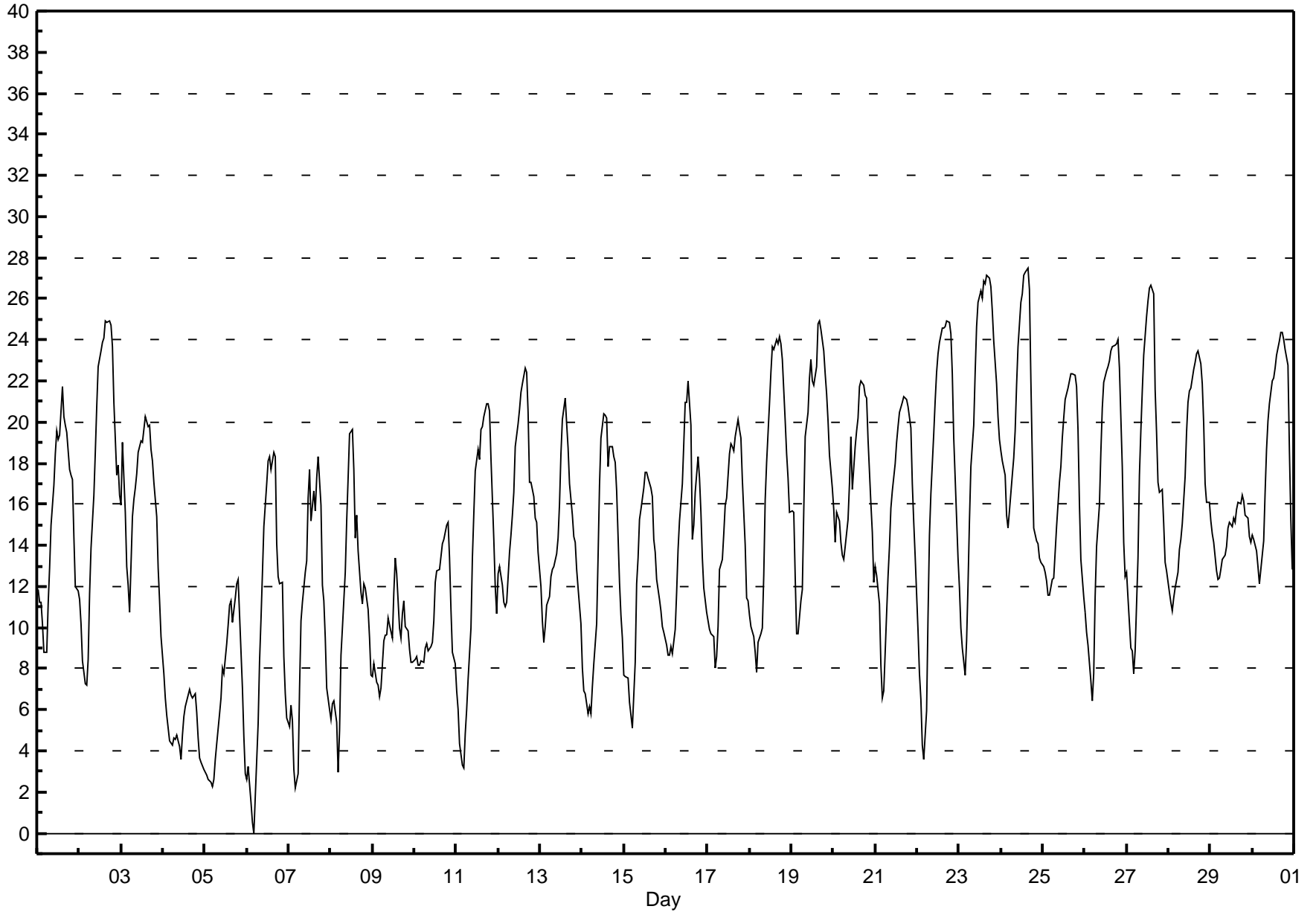
Smoky Heights - June 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 27.5 °C on Jun 24 16:00      Maximum Daily Average: 20.1 °C on Jun 23																			Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0								
Minimum Value: 0 °C on Jun 6 05:00      Minimum Daily Average: 5.3 °C on Jun 4 Maximum Diurnal Average: 19.8 °C at hour 15      Minimum Diurnal Average: 7.9 °C at hour 5 Monthly Average: 14.62 °C      Percentiles: P <sub>1</sub> = 2.6 P <sub>10</sub> = 6.7 Q <sub>1</sub> = 10.1 Median = 14.4 Q <sub>3</sub> = 19.2 P <sub>90</sub> = 22.7 P <sub>99</sub> = 26.6																											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jun	12	11	11	10	9	9	11	13	15	17	18	20	19	19	22	20	20	19	18	17	17	14	12	12	15.3	21.7	
2-Jun	11	10	8	7	7	8	12	14	16	18	21	23	23	24	24	25	25	25	25	24	21	17	18	16	17.7	24.9	
3-Jun	16	19	16	13	12	11	15	16	17	17	19	19	19	20	20	20	20	19	18	17	15	13	11	10	16.3	20.2	
4-Jun	8	7	6	5	4	4	5	5	5	4	4	5	6	6	7	7	7	7	7	6	5	4	3	3	5.3	7.7	
5-Jun	3	3	3	2	2	3	4	4	6	7	8	8	9	10	11	11	10	11	12	12	11	7	5	3	6.9	12.4	
6-Jun	3	3	2	1	0	2	5	8	10	13	15	17	18	18	18	19	18	14	12	12	12	9	7	6	10.0	18.5	
7-Jun	5	6	5	3	2	3	7	10	11	13	13	16	18	15	17	16	17	18	16	12	11	9	7	6	10.8	18.3	
8-Jun	6	6	6	5	3	5	9	10	13	15	17	19	20	18	14	15	14	12	11	12	12	11	9	8	11.3	19.6	
9-Jun	8	8	7	7	7	7	9	10	10	10	10	10	12	13	13	10	10	11	11	10	10	9	8	8	9.5	13.4	
10-Jun	8	9	8	8	8	8	9	9	9	9	9	10	12	13	13	13	14	14	15	15	13	11	9	8	10.7	15.1	
11-Jun	7	6	4	3	3	5	6	7	10	13	16	18	19	18	20	20	20	21	21	21	18	14	12	11	13.0	20.9	
12-Jun	13	13	12	11	11	11	14	14	16	17	19	20	21	21	22	23	22	20	17	17	16	15	15	14	16.4	22.7	
13-Jun	12	10	9	10	11	12	12	13	13	14	14	16	18	20	21	20	19	17	15	14	14	13	12	10	14.2	21.1	
14-Jun	8	7	7	6	6	6	7	8	10	13	17	19	20	20	20	18	19	19	18	18	17	12	11	10	13.2	20.4	
15-Jun	8	8	8	6	6	5	8	12	13	15	16	17	18	18	17	17	16	14	14	12	11	11	10	10	12.1	17.6	
16-Jun	9	9	9	9	9	10	12	14	15	17	19	21	21	22	20	14	15	17	18	17	16	13	12	11	14.5	22.0	
17-Jun	10	10	10	10	8	9	10	13	13	15	16	16	18	19	19	19	19	20	20	19	17	14	11	11	14.4	20.1	
18-Jun	11	10	10	9	8	9	10	10	13	16	18	21	22	24	24	24	24	24	24	23	20	18	17	16	16.8	24.1	
19-Jun	16	16	13	10	10	11	12	16	19	20	22	23	22	22	23	25	25	24	23	22	21	20	18	17	18.8	24.9	
20-Jun	16	14	16	15	14	14	13	14	15	17	19	17	19	20	20	22	22	22	22	21	21	19	16	15	12	17.2	22.0
21-Jun	13	13	11	8	7	7	11	12	14	16	17	18	19	20	20	21	21	21	21	21	20	17	15	13	15.6	21.2	
22-Jun	10	8	6	4	4	6	11	14	17	19	21	22	23	24	25	25	25	25	25	24	22	19	17	13	17.1	24.9	
23-Jun	12	10	9	8	9	12	15	18	20	22	25	26	26	26	27	27	27	27	27	25	24	22	20	19	20.1	27.2	
24-Jun	19	18	17	15	15	16	17	18	20	22	24	26	26	27	27	27	26	22	18	15	14	14	13	13	19.6	27.5	
25-Jun	13	13	12	12	12	12	12	14	15	17	18	19	20	21	22	22	22	22	22	22	20	16	13	12	16.8	22.4	
26-Jun	11	10	9	7	6	8	11	14	16	19	21	22	23	23	23	23	24	24	24	24	23	18	14	12	17.0	24.0	
27-Jun	13	11	9	9	8	9	13	17	20	22	23	25	26	27	27	26	22	20	17	17	17	15	13	13	17.4	26.7	
28-Jun	12	11	11	11	12	13	14	14	15	17	20	21	22	22	23	23	23	23	22	20	17	16	16	16	17.5	23.5	
29-Jun	15	15	14	13	12	12	13	13	14	14	15	15	15	15	15	16	16	16	16	16	15	15	14	14	14.6	16.5	
30-Jun	14	14	14	13	12	13	14	17	19	20	21	22	22	23	23	24	24	24	24	24	23	19	15	13	18.8	24.4	
																			10.6 10.2 9.4 8.4 7.9 8.6 10.7 12.4 13.9 15.6 17.1 18.3 19.2 19.6 19.8 19.7 19.6 19.1 18.5 17.7 16.5 14.1 12.5 11.3				Diurnal Average				
																			18.6 19.0 17.4 15.5 14.8 15.7 17.4 18.3 19.9 22.4 24.6 25.8 26.4 27.2 27.3 27.5 27.2 27.0 26.6 25.4 24.0 21.9 20.3 19.2				Diurnal Maximum				

**Hourly Averages**

**External Temperature (ET) - °C**

**Smoky Heights - June 2014**





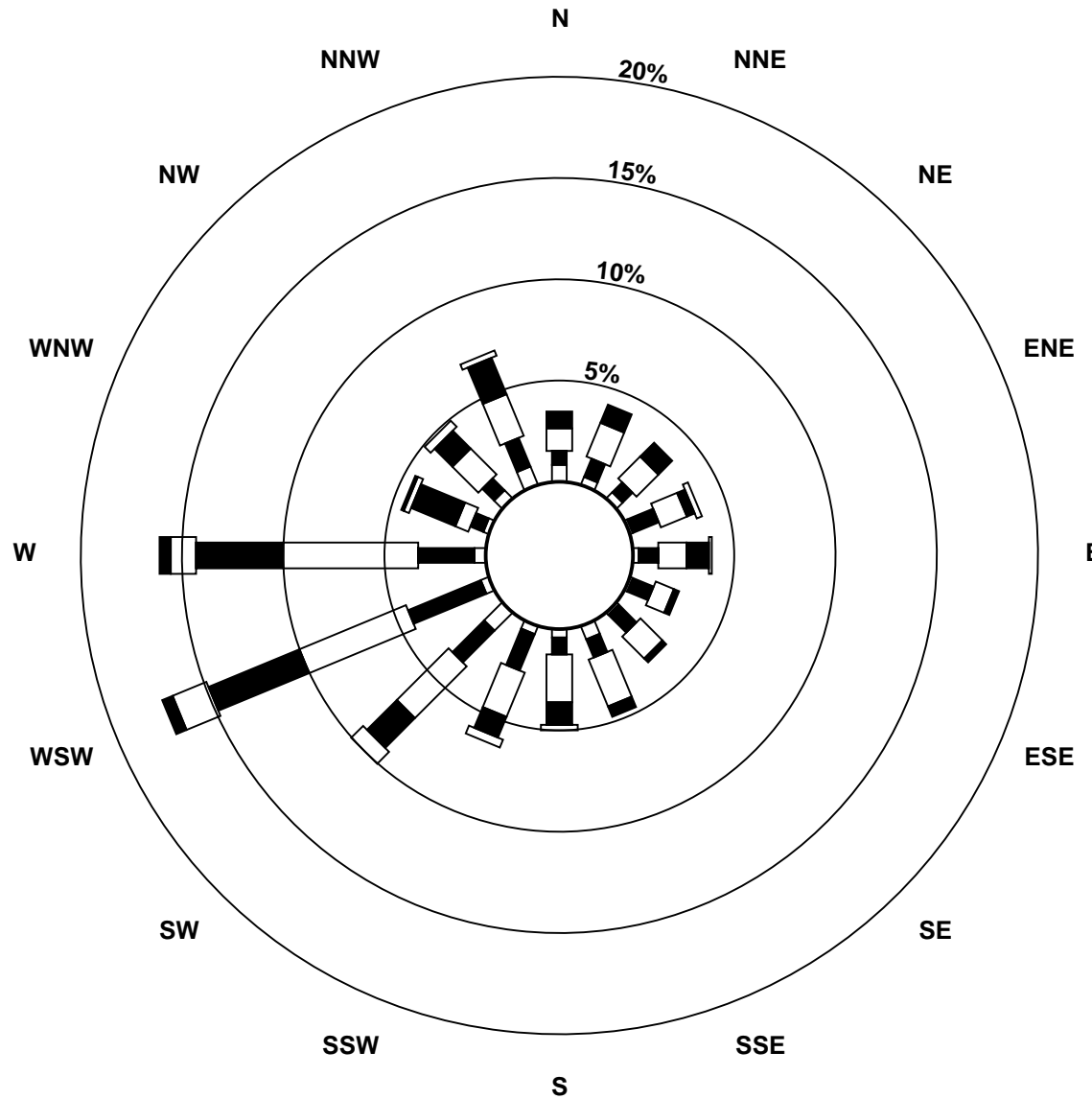
# Hourly Averages

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

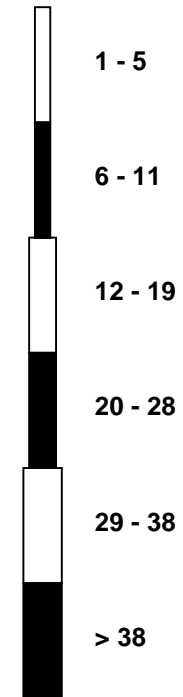
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	7	5	5	2	9	6	8	12	10	11	11	12	11	9	10	8	9	14	16	17	15	13	14	14	7.8	17.1
Dir	13	329	319	356	27	23	32	33	57	64	60	73	108	116	117	136	151	124	121	94	84	78	85	109	82.6	94.4
24 Spd	17	19	17	5	7	6	11	12	10	9	7	15	13	10	6	2	14	48	37	18	21	5	11	10	8.7	47.9
Dir	144	150	148	142	126	129	149	165	187	218	241	254	253	264	227	347	269	262	258	240	285	212	187	212	223.8	261.6
25 Spd	8	7	5	7	6	14	11	13	23	26	25	22	21	19	19	17	16	18	17	11	9	11	13	10	13.7	25.9
Dir	198	219	224	208	203	244	217	241	249	260	262	258	252	254	230	229	263	260	260	254	247	260	273	277	248.7	259.6
26 Spd	13	15	14	8	5	3	8	12	15	13	12	15	20	17	14	11	13	9	8	4	3	4	4	4	8.6	19.5
Dir	272	269	270	207	219	233	212	218	242	226	215	227	227	246	241	228	233	255	244	208	166	30	8	30	238.5	226.8
27 Spd	5	6	4	9	8	3	11	5	9	11	11	7	10	11	10	10	8	15	15	12	11	4	6	4	3.3	15.1
Dir	256	330	307	4	52	179	331	52	79	114	78	61	60	53	63	83	253	248	320	339	8	2	258	235	17.5	247.6
28 Spd	8	8	6	7	8	8	9	12	16	12	12	3	10	11	8	5	7	10	6	4	5	3	4	19	6.9	19.4
Dir	226	287	265	216	231	229	249	243	250	239	253	286	263	267	269	277	332	296	309	11	95	178	222	255	257.3	255.0
29 Spd	20	16	6	12	14	13	14	10	10	8	10	16	19	17	13	14	11	12	17	12	9	10	8	10	12.4	20.5
Dir	240	231	241	263	261	260	259	266	257	255	263	265	260	266	257	257	254	232	248	264	247	272	247	258	255.1	240.0
30 Spd	11	10	10	9	2	6	10	12	13	20	16	18	17	19	18	16	20	18	10	6	4	3	3	3	10.5	20.4
Dir	268	273	265	260	181	193	244	253	276	292	269	293	256	253	258	262	259	261	276	280	306	334	1	346	267.3	292.0
Spd	7.4	8.1	8.0	6.8	7.3	7.3	8.5	8.3	9.0	8.6	8.0	9.8	9.9	9.2	6.0	4.3	6.5	9.2	8.6	6.4	2.6	1.2	3.1	5.4	Diurnal Average	
Dir	256.7	263.9	262.8	265.6	255.1	254.1	248.1	246.4	249.0	244.3	246.5	251.2	261.2	271.3	269.8	264.4	242.3	254.7	265.8	278.3	282.6	277.8	255.4	266.2	Diurnal Maximum	
Spd	23.1	27.3	25.0	25.5	26.1	29.7	37.7	39.7	33.7	40.6	46.9	48.5	49.6	50.8	39.7	38.0	33.2	47.9	38.6	37.0	34.7	26.2	26.0	28.3	Diurnal Maximum	
Dir	236.3	250.7	252.1	240.6	255.5	259.1	255.0	262.3	262.7	254.7	260.4	255.8	256.8	260.0	284.1	305.7	249.9	261.6	257.3	262.6	268.1	260.0	252.7	156.5	Diurnal Maximum	
Maximum Speed Value: 51 km/h on Jun 9 14:00		Minimum Speed Value: 1 km/h on Jun 22 01:00		Hours in Service: 720																						
Maximum Daily Speed Average: 31.9 km/h on Jun 9		Minimum Daily Speed Average: 2.3 km/h on Jun 22		Hours of Data: 720																						
Maximum Diurnal Speed Average: 9.9 km/h at hour 13		Minimum Diurnal Speed Average: 1.2 km/h at hour 22		Hours of Missing Data: 0																						
Monthly Average Velocity: 6.95 km/h 257.88 deg				Speed Percentiles: P <sub>1</sub> = 2.6 P <sub>10</sub> = 6.3 Q <sub>1</sub> = 10.4 Median = 15.3 Q <sub>3</sub> = 21.9 P <sub>90</sub> = 27.5 P <sub>99</sub> = 39.2				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	8	16	24	17	3	0	68																			
NorthEast	6	14	19	13	1	0	53																			
East	2	12	24	6	5	0	49																			
SouthEast	0	17	26	6	1	0	50																			
South	7	14	31	15	5	0	72																			
SouthWest	12	34	50	32	13	0	141																			
West	3	36	80	63	22	9	213																			
NorthWest	4	12	26	26	5	1	74																			
Total	42	155	280	178	55	10	720																			

**Wind Rose**

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



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





# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - June 2014

<b>Maximum Speed: 51 km/h on Jun 9 14:00</b>		<b>Maximum Daily Speed Average: 33.8 km/h on Jun 9</b>		Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0																						
<b>Minimum Speed: 3 km/h on Jun 22 01:00</b>		<b>Minimum Daily Speed Average: 9.1 km/h on Jun 28</b>		Percent Operational Time: 100.0																						
<b>Maximum Diurnal Speed Average: 22.5 km/h at hour 13</b>		<b>Minimum Diurnal Speed Average: 12.9 km/h at hour 6</b>																								
<b>Monthly Average Speed: 17.93 km/h</b>		Percentiles: P <sub>1</sub> = 3.7 P <sub>10</sub> = 8.2 Q <sub>1</sub> = 12.2 Median = 17.1 Q <sub>3</sub> = 23.1 P <sub>90</sub> = 28.4 P <sub>99</sub> = 37.2																								
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-Jun	16	15	11	11	15	16	21	22	25	23	20	24	23	22	21	23	18	22	26	29	20	16	13	12	19.3	28.5
2-Jun	19	12	11	11	13	10	21	24	30	27	24	27	24	21	19	21	22	18	18	17	18	15	21	19	19.3	29.9
3-Jun	23	21	20	19	24	14	27	28	29	29	20	21	24	27	26	28	27	29	31	30	24	20	21	22	24.3	31.0
4-Jun	18	10	12	10	9	10	13	13	7	6	9	7	14	18	25	26	12	10	21	27	28	19	19	19	15.0	27.6
5-Jun	16	17	21	20	19	17	18	15	27	27	26	28	28	30	28	28	25	24	25	23	18	9	12	13	21.5	29.9
6-Jun	15	14	14	8	11	9	13	24	29	32	29	33	31	26	22	33	35	34	19	19	16	10	12	12	20.7	34.6
7-Jun	13	10	6	5	7	7	12	16	15	17	16	14	13	15	15	28	26	25	28	25	17	16	19	19	16.0	28.5
8-Jun	19	17	15	14	15	12	13	18	16	20	22	26	33	36	23	19	28	20	22	20	24	24	21	20	20.7	35.6
9-Jun	24	27	25	26	26	30	38	40	34	41	47	49	50	51	46	39	32	20	31	28	29	26	26	24	33.8	51.3
10-Jun	23	26	23	24	25	23	26	29	29	29	25	24	29	27	29	27	22	22	19	19	19	18	18	18	24.0	29.3
11-Jun	17	16	20	19	18	17	18	20	23	25	26	23	22	22	21	21	23	19	17	15	18	20	19	15	19.8	26.1
12-Jun	16	18	17	15	16	19	22	20	24	25	26	29	30	31	30	28	27	26	28	29	28	22	27	29	24.2	30.6
13-Jun	21	15	17	21	21	15	16	20	24	26	28	28	25	25	23	31	31	37	34	28	28	25	21	17	24.1	36.8
14-Jun	15	19	17	16	20	19	20	22	24	30	30	36	37	39	37	38	30	34	39	37	35	26	23	19	27.6	39.2
15-Jun	13	10	14	12	9	9	10	19	25	28	24	22	16	16	22	26	18	15	20	17	16	16	17	15	17.0	27.7
16-Jun	15	13	17	18	14	13	13	21	24	19	16	15	17	21	28	25	26	21	15	14	19	18	15	14	17.9	28.4
17-Jun	16	15	15	11	12	15	16	20	24	22	20	15	13	15	14	15	15	13	15	14	16	16	13	16	15.7	24.4
18-Jun	15	11	12	14	17	17	18	17	19	17	18	25	25	24	24	22	23	20	18	15	12	18	19	11	17.9	25.5
19-Jun	13	11	10	13	11	14	14	17	15	14	14	12	13	10	12	16	15	21	20	14	14	13	10	9	13.6	21.0
20-Jun	12	15	16	13	7	6	8	6	6	7	10	29	35	26	22	24	24	25	21	15	21	17	16	17	16.6	35.0
21-Jun	22	26	22	20	21	18	19	24	31	35	35	30	31	31	31	28	23	22	19	15	9	12	12	10	22.8	35.4
22-Jun	3	3	5	6	6	6	4	7	9	9	13	13	13	13	12	13	15	13	13	13	13	13	12	6	9.6	15.4
23-Jun	7	5	5	3	9	6	8	12	10	11	12	14	15	11	13	11	11	15	17	17	15	13	14	15	11.2	17.4
24-Jun	17	19	18	6	8	6	11	12	11	9	8	15	14	13	9	8	18	48	39	20	21	5	11	10	14.9	48.2
25-Jun	8	7	5	7	6	14	11	13	23	26	25	22	21	20	19	17	17	19	17	12	10	11	13	10	14.7	26.0
26-Jun	13	15	14	8	5	4	8	12	15	13	13	17	21	18	16	12	14	10	9	4	3	4	4	4	10.8	21.3
27-Jun	7	7	8	11	13	14	12	6	11	13	13	8	11	12	12	12	17	17	16	12	11	5	7	5	10.9	17.3
28-Jun	8	9	7	8	8	8	9	12	16	12	12	6	11	12	9	8	7	11	7	5	5	4	4	20	9.1	20.0
29-Jun	21	17	7	12	14	13	14	11	10	8	10	16	19	17	13	14	11	12	17	12	9	11	8	10	12.8	21.3
30-Jun	11	11	10	9	3	6	10	12	14	21	18	18	18	19	19	17	21	18	11	6	4	4	3	4	11.9	20.7
																								Diurnal Average		
																								Diurnal Maximum		
15.2 14.4 13.9 13.0 13.4 12.9 15.4 17.7 19.9 20.6 20.3 21.5 22.5 22.3 21.4 21.9 21.1 21.3 21.0 18.4 17.4 14.9 15.0 14.6																										
23.6 27.4 25.4 25.8 26.2 29.8 37.8 39.8 34.0 40.9 47.1 48.7 49.9 51.3 46.3 38.9 34.6 48.2 39.0 37.3 34.9 26.3 26.5 29.2																										

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

# Hourly Standard Deviations

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

Maximum Value: 91.6 deg on Jun 11 19:00																						Hours in Service:	720		
Minimum Value: 2.6 deg on Jun 5 23:00																						Hours of Data:	720		
Percentiles: P <sub>1</sub> = 3.9 P <sub>10</sub> = 6.9 Q <sub>1</sub> = 10.9 Median = 17.2 Q <sub>3</sub> = 32.0 P <sub>90</sub> = 49.8 P <sub>99</sub> = 83.9																						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-Jun	53	7	50	28	27	11	7	8	15	36	28	25	38	22	31	26	14	19	7	10	86	57	58	68	85.8
2-Jun	12	6	8	5	5	12	7	6	11	18	14	23	32	38	60	44	34	36	22	8	5	20	43	33	59.6
3-Jun	22	69	39	13	3	7	10	12	21	12	31	34	20	15	19	18	18	14	12	12	11	13	9	8	69.3
4-Jun	28	41	14	12	17	14	15	14	37	33	14	22	19	19	16	17	23	33	15	8	4	7	7	8	41.4
5-Jun	8	7	7	6	7	11	9	7	10	16	21	20	19	15	21	16	17	14	14	19	9	8	3	5	20.8
6-Jun	4	4	3	18	4	7	10	8	8	9	13	11	19	41	41	18	17	38	22	46	76	48	8	15	76.0
7-Jun	10	39	42	50	59	74	15	36	22	33	38	56	65	88	74	28	22	13	35	13	14	84	62	41	87.7
8-Jun	25	25	41	37	17	43	21	16	21	14	34	17	16	37	50	49	82	26	22	9	11	5	19	6	81.8
9-Jun	12	7	11	10	5	3	5	4	7	8	6	5	6	8	31	13	16	22	16	12	12	5	8	6	31.4
10-Jun	13	9	9	6	6	9	21	7	8	14	11	13	13	25	16	15	43	25	71	36	21	20	38	66	71.5
11-Jun	28	31	13	26	23	11	10	11	15	23	24	32	41	59	56	66	44	57	92	29	11	12	11	41	91.6
12-Jun	21	30	32	77	48	41	23	31	16	12	19	11	17	19	19	23	20	42	28	6	49	39	28	14	77.4
13-Jun	64	30	58	26	20	12	11	14	16	13	16	11	27	25	43	25	17	41	26	13	5	31	21	82	81.9
14-Jun	85	47	15	54	29	11	15	10	12	10	18	16	19	16	11	29	10	30	8	8	7	8	6	6	84.7
15-Jun	10	18	11	38	22	12	21	27	20	22	34	44	85	52	26	21	19	72	30	51	14	50	57	17	84.6
16-Jun	43	15	22	22	53	14	57	22	15	14	29	56	36	17	39	34	32	26	63	36	21	8	9	42	62.7
17-Jun	22	11	28	54	70	17	8	8	12	13	17	31	36	49	44	48	34	30	24	14	4	14	13	11	70.0
18-Jun	17	24	13	12	8	18	10	6	11	15	17	12	16	23	13	19	18	14	16	11	11	13	12	33	33.0
19-Jun	8	19	53	41	50	66	37	34	20	19	18	21	16	12	19	16	16	20	11	10	10	7	61	67	67.1
20-Jun	75	17	12	11	50	75	13	32	81	33	36	35	9	12	15	14	11	10	13	29	6	4	4	6	80.7
21-Jun	4	5	6	7	8	5	7	7	8	7	11	13	13	17	16	14	16	13	14	11	40	8	7	23	39.7
22-Jun	80	43	9	10	24	17	17	25	16	29	19	33	54	65	51	40	43	73	44	29	11	11	32	67	79.7
23-Jun	15	15	9	39	12	13	26	12	14	18	20	30	46	46	47	43	41	22	13	11	7	6	9	19	47.2
24-Jun	6	5	8	38	24	16	11	11	24	19	34	20	24	49	69	82	47	6	15	29	11	29	7	10	82.1
25-Jun	11	15	17	13	11	12	8	13	6	6	8	9	13	14	17	18	22	17	12	14	11	9	6	8	21.7
26-Jun	8	5	5	22	21	40	12	10	10	17	22	25	24	16	31	29	23	33	24	38	35	34	33	24	39.8
27-Jun	52	51	75	41	55	86	15	32	30	30	34	36	31	38	36	32	79	27	18	12	15	54	37	38	86.4
28-Jun	9	23	27	30	7	19	13	6	10	13	17	84	39	22	42	61	34	31	21	25	25	32	21	15	84.2
29-Jun	17	13	78	5	4	4	4	16	9	8	8	7	6	6	7	6	10	12	7	7	9	9	17	10	77.8
30-Jun	11	11	7	9	66	8	12	8	22	11	25	12	19	12	17	17	13	10	29	33	20	48	11	46	65.9
	84.7	69.3	77.8	77.4	70.0	86.4	57.1	36.3	80.7	36.1	38.1	84.2	84.6	87.7	74.3	82.1	81.8	73.5	91.6	51.0	85.8	83.8	62.0	81.9	

PAZA

Beaverlodge Station

Monthly Summary Tables, Graphs and  
Roses

## Hourly Averages

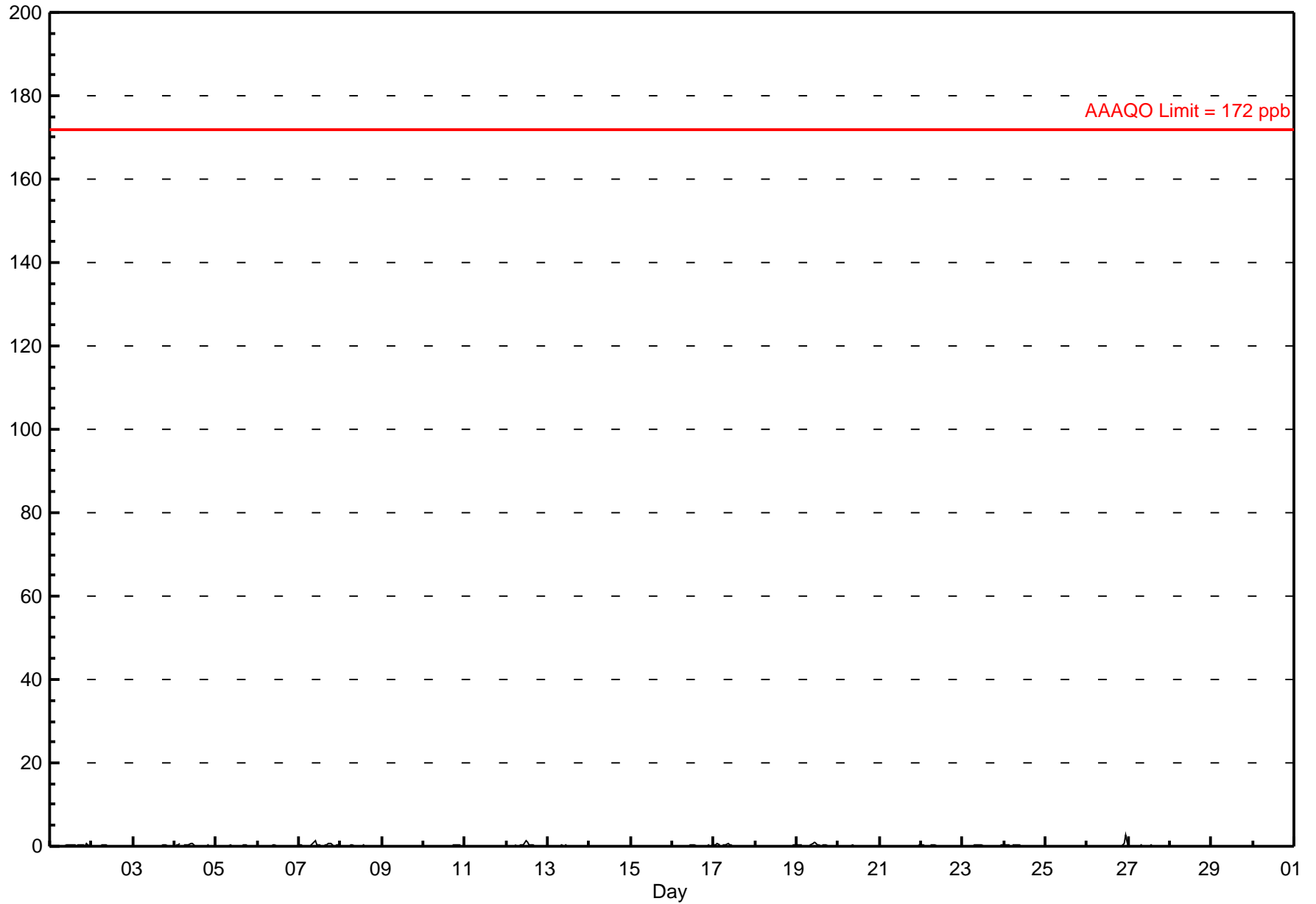
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Beaverlodge - June 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.6 ppb on Jun 26 23:00      Maximum Daily Average: 0.3 ppb on Jun 7		Hours in Service: 720 Hours of Data: 687 Hours of Missing Data: 33 Hours of Calibration: 33 Percent Operational Time: 100.0																									
Minimum Value: 0 ppb on Jun 8 23:00 Maximum Diurnal Average: 0.2 ppb at hour 10 Monthly Average: 0.11 ppb		Minimum Daily Average: 0.0 ppb on Jun 30 Minimum Diurnal Average: 0.1 ppb at hour 16 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> = 0.1 P <sub>90</sub> = 0.3 P <sub>99</sub> = 0.7																									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	0.5	
2-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
3-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
4-Jun	0	0	0	1	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7	
5-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
6-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
7-Jun	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.3	1.2	
8-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
9-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
10-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0.1	0.3	
11-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
12-Jun	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3	
13-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
14-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
15-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
16-Jun	0	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	
17-Jun	0	0	1	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7	
18-Jun	0	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	
19-Jun	0	0	0	0	A	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0	
20-Jun	0	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	
21-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2	
22-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
23-Jun	0	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	
24-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
25-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
26-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	0.2	2.6	
27-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
28-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
29-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
30-Jun	0	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	
		0.1	0.1	0.1	0.1	--	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
		0.4	0.4	0.6	0.7	--	0.3	0.3	0.3	0.7	1.2	1.0	1.3	1.1	0.5	0.3	0.2	0.4	0.7	0.7	0.3	0.2	0.5	2.6	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 - June 2014**



# Hourly Maximums

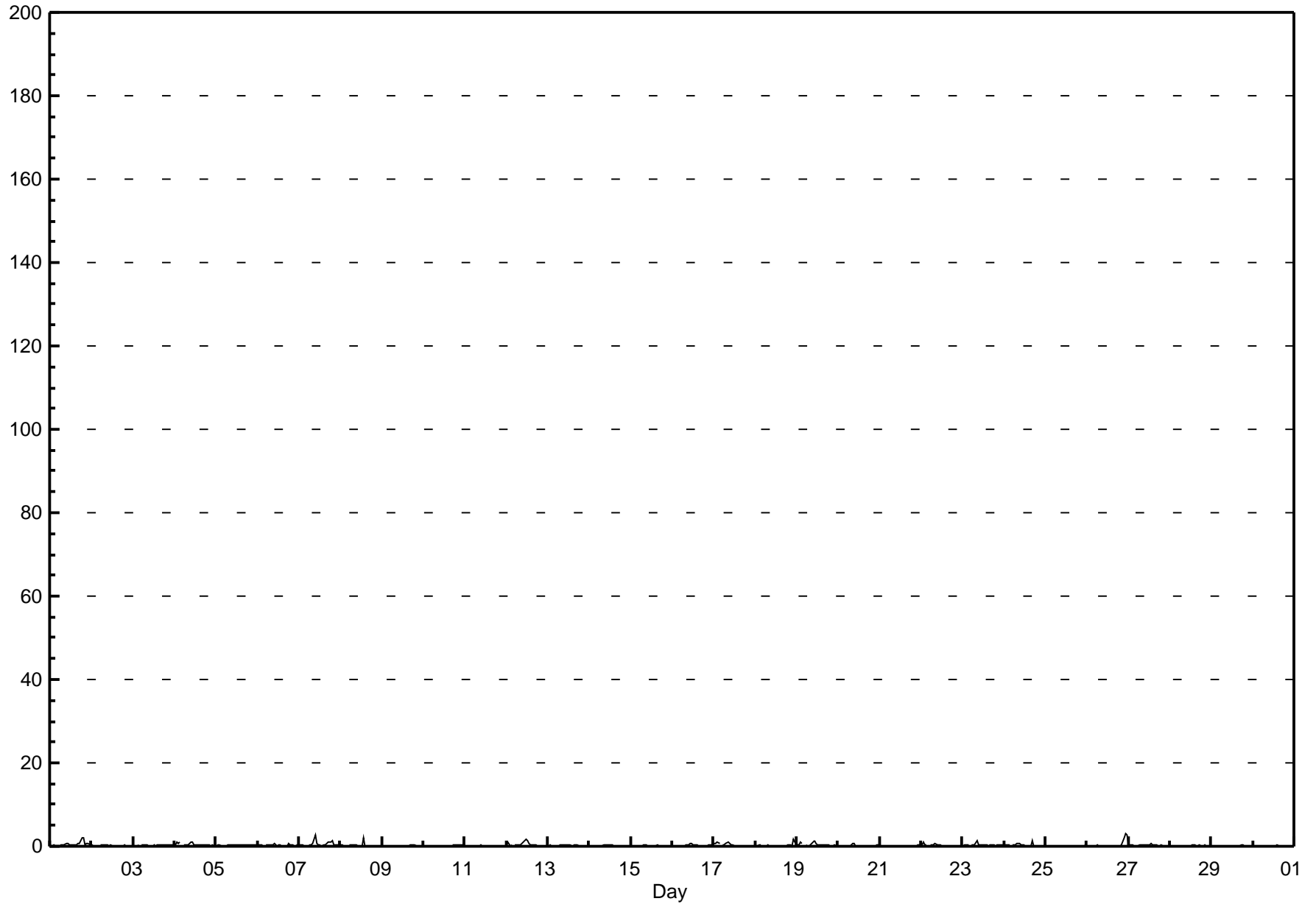
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Beaverlodge - June 2014

Maximum Value: 3.1 ppb on Jun 26 23:00		Maximum Daily Average: 0.6 ppb on Jun 7		Hours in Service: 720																										
Minimum Value: 0 ppb on Jun 10 12:00		Minimum Daily Average: 0.1 ppb on Jun 30		Hours of Data: 687																										
Maximum Diurnal Average: 0.4 ppb at hour 10		Minimum Diurnal Average: 0.2 ppb at hour 16		Hours of Missing Data: 33																										
Monthly Average: 0.25 ppb		Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.1 Median = 0.2 Q <sub>3</sub> = 0.3 P <sub>90</sub> = 0.5 P <sub>99</sub> = 1.9		Hours of Calibration: 33																										
				Percent Operational Time: 100.0																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
1-Jun	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	1	1	2	2	0	1	1	0	0.5	2.0				
2-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4				
3-Jun	0	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				
4-Jun	0	1	1	1	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.1				
5-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5				
6-Jun	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0.3	0.7				
7-Jun	0	0	0	0	A	0	0	0	1	3	1	0	0	0	0	0	1	1	1	1	0	0	0	0	0.6	2.8				
8-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0.3	2.1				
9-Jun	0	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				
10-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0.2	0.5				
11-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2				
12-Jun	0	1	0	0	A	0	0	0	1	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0.5	1.6				
13-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3				
14-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3				
15-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3				
16-Jun	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6				
17-Jun	1	1	1	1	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0				
18-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0.3	1.8				
19-Jun	0	0	1	1	A	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.5				
20-Jun	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7				
21-Jun	0	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				
22-Jun	0	1	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1				
23-Jun	0	0	0	0	A	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.5				
24-Jun	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.3	1.3				
25-Jun	0	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-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	3	0.4	3.1				
27-Jun	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8				
28-Jun	0	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				
29-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2				
30-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2				
		0.2	0.3	0.2	0.2	--	0.2	0.2	0.2	0.4	0.4	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.3	Diurnal Average				
		0.6	1.1	1.2	1.1	--	0.4	0.4	0.5	1.5	2.8	1.5	1.6	1.5	2.1	0.4	0.4	1.3	1.0	2.0	1.9	0.4	2.0	3.1	2.6	Diurnal Maximum				
C - Calibration					A - Automated Daily Zero Span																									

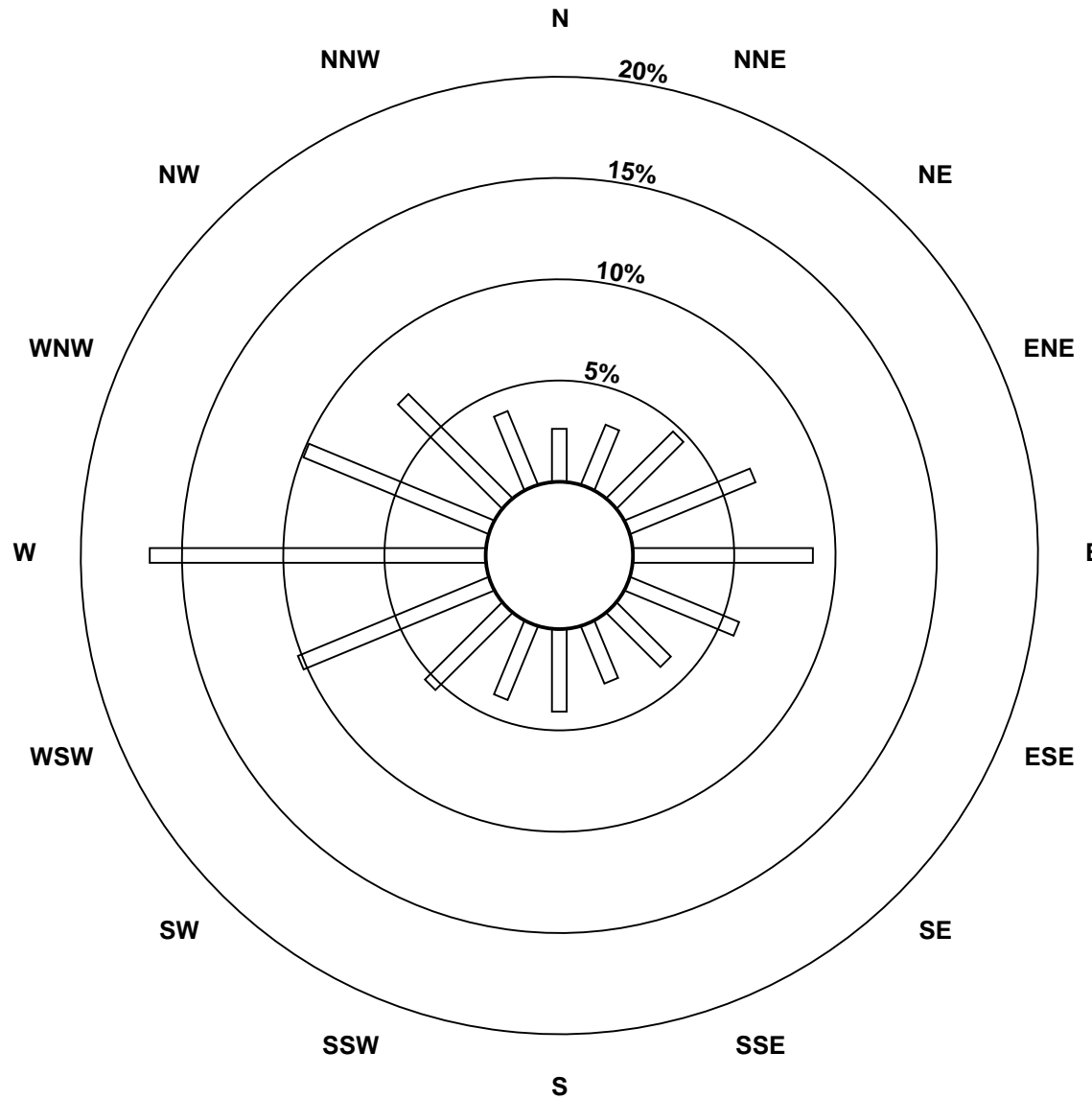
**Hourly Maximums**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Beaverlodge - June 2014**

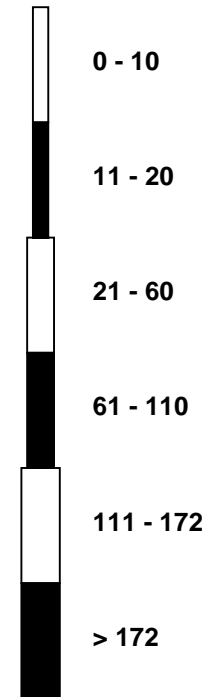


**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Beaverlodge - June 2014**



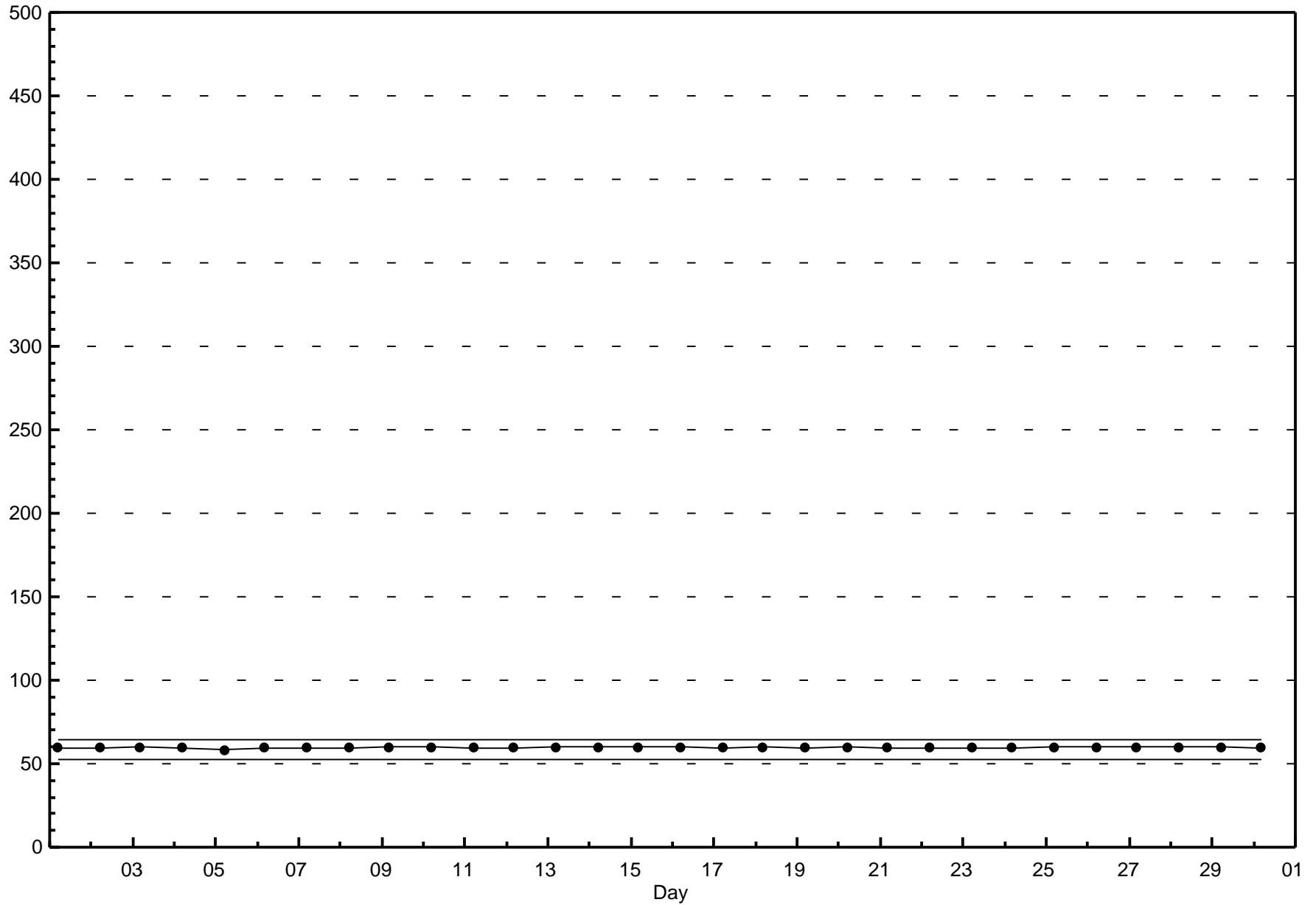
**Pollutant Classes (ppb)**





### Span Responses

**Sulphur Dioxide (SO<sub>2</sub>)**  
**Beaverlodge - June 2014**



## Hourly Averages

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

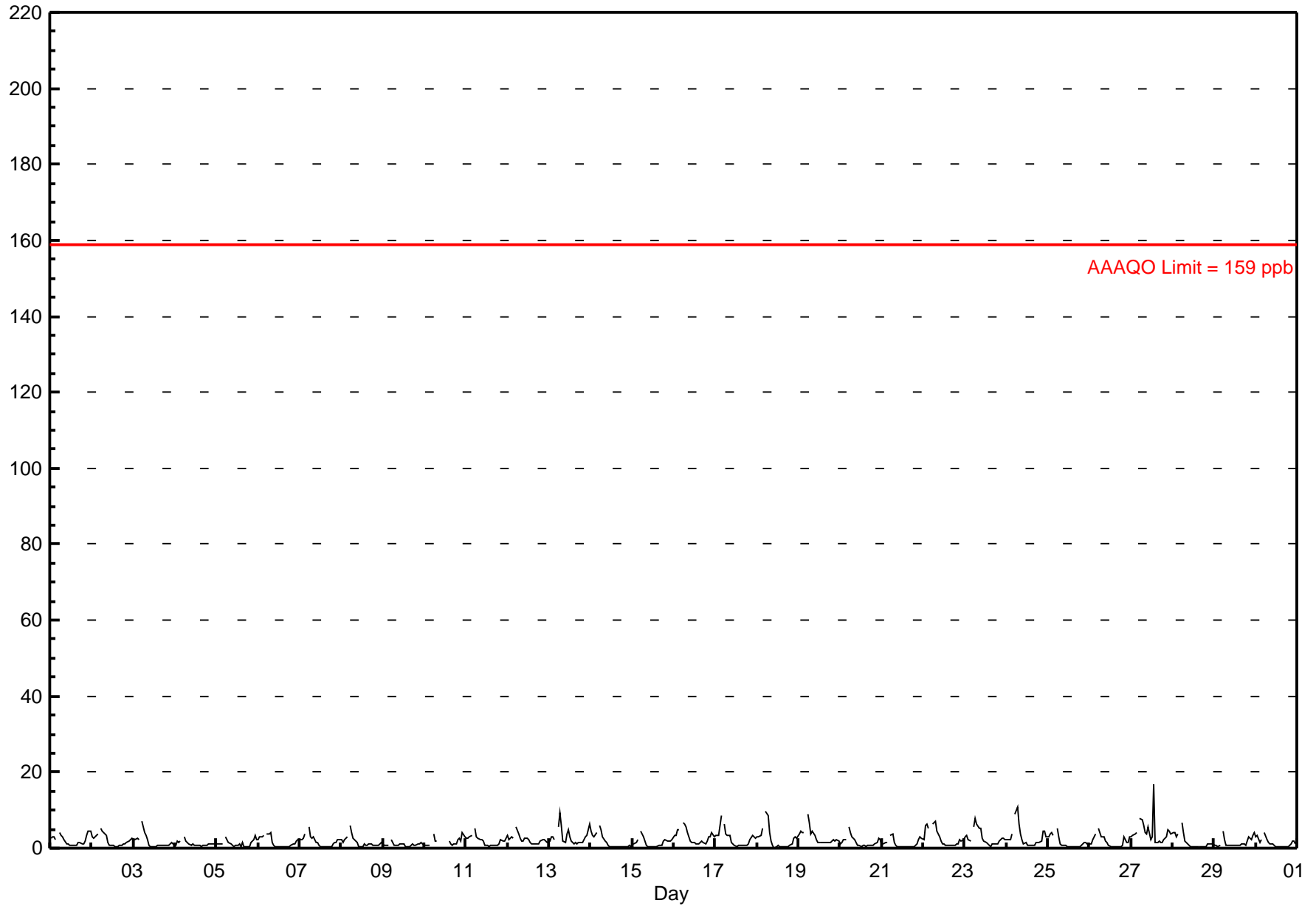
### Beaverlodge - June 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 720
Maximum Value: 16.7 ppb on Jun 27 14:00	Maximum Daily Average: 4.2 ppb on Jun 27
Minimum Value: 0 ppb on Jun 18 11:00	Hours of Data: 684
Minimum Daily Average: 0.9 ppb on Jun 9	Hours of Missing Data: 36
Maximum Diurnal Average: 5.5 ppb at hour 6	Hours of Calibration: 36
Monthly Average: 2.00 ppb	Percent Operational Time: 100.0
Minimum Diurnal Average: 0.7 ppb at hour 15	
Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 0.7 Median = 1.5 Q <sub>3</sub> = 2.8 P <sub>90</sub> = 4.2 P <sub>99</sub> = 8.6	

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-Jun	3	3	3	2	A	4	3	3	2	1	1	1	1	1	1	1	1	2	1	1	2	3	4	4	2.2	4.5
2-Jun	3	3	3	4	A	5	4	4	3	2	1	1	1	1	1	0	1	1	1	1	2	2	2	2	2.0	5.4
3-Jun	2	2	3	2	A	7	4	3	2	1	1	0	0	1	1	1	1	1	1	1	1	1	2	1	1.6	7.1
4-Jun	1	2	2	2	A	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	3.0
5-Jun	1	1	1	1	A	3	2	1	1	1	1	1	1	1	0	1	0	0	0	0	1	2	3	2	1.2	3.3
6-Jun	2	3	3	3	A	4	4	4	1	1	0	0	0	0	0	0	0	0	0	1	1	1	2	2	1.6	4.2
7-Jun	2	2	3	4	A	6	3	3	3	1	1	1	1	1	0	0	0	0	0	1	2	1	2	2	1.8	5.6
8-Jun	2	2	2	3	A	6	4	2	2	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1.6	6.0
9-Jun	1	1	1	1	A	2	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	0.9	2.2
10-Jun	1	1	1	1	A	4	2	2	C	C	C	C	C	C	2	1	1	1	1	2	3	2	4	3	--	4.0
11-Jun	3	3	3	3	A	5	3	3	2	2	2	1	1	1	1	1	1	1	1	1	2	2	2	3	1.9	5.1
12-Jun	3	2	3	3	A	6	4	3	2	2	3	3	2	2	1	1	1	1	1	2	2	2	2	2	2.2	5.6
13-Jun	2	3	3	2	A	5	9	6	2	1	4	5	3	2	1	1	1	1	2	1	2	3	3	6	3.1	9.3
14-Jun	5	3	3	4	A	6	5	3	2	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0	1.6	6.0
15-Jun	1	1	2	2	A	4	3	2	1	0	0	0	0	0	0	1	1	1	2	2	2	2	2	2	1.4	4.4
16-Jun	4	3	5	5	A	7	6	6	4	2	2	2	1	1	1	2	2	1	2	3	3	4	3	3	3.0	6.8
17-Jun	3	3	3	9	A	7	4	3	3	2	1	1	1	1	1	1	1	1	1	1	2	3	3	3	2.4	8.7
18-Jun	3	3	3	5	A	10	9	4	2	1	0	0	1	0	0	0	0	0	1	1	1	2	3	3	2.3	9.8
19-Jun	4	4	4	4	A	9	7	4	4	3	2	2	2	2	1	1	1	1	1	2	2	2	2	2	3.0	9.0
20-Jun	1	2	2	2	A	5	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	2	3	2	1.6	5.4
21-Jun	1	1	1	1	A	3	4	1	1	0	0	0	0	0	0	0	0	0	0	0	1	2	3	3	1.2	3.9
22-Jun	2	6	7	5	A	6	7	7	5	3	2	1	1	1	1	1	1	1	1	1	1	2	2	2	2.8	6.9
23-Jun	3	4	2	2	A	6	8	6	5	5	3	2	2	1	1	1	1	1	1	1	2	2	3	2	2.7	7.8
24-Jun	2	2	2	4	A	9	11	6	4	2	1	2	1	1	1	1	1	2	1	2	2	5	5	3	3.0	10.9
25-Jun	3	4	4	3	A	5	3	1	1	1	1	1	0	0	0	0	0	0	0	1	1	2	1	1	1.5	5.3
26-Jun	1	1	2	4	A	5	4	3	3	2	1	1	1	0	0	0	0	0	1	1	3	2	1	3	1.7	5.4
27-Jun	3	3	4	4	A	8	7	6	4	4	5	2	3	17	1	2	2	1	2	2	3	5	5	4	4.2	16.7
28-Jun	4	4	3	4	A	7	4	2	2	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1.6	6.6
29-Jun	1	1	1	1	A	4	2	1	1	1	1	1	1	1	1	1	1	1	1	2	3	2	3	4	1.5	4.4
30-Jun	3	3	2	2	A	4	2	1	1	1	1	1	0	0	0	0	0	0	0	1	1	2	2	1	1.3	4.1

2.3	2.5	2.7	3.1	--	5.5	4.5	3.2	2.3	1.6	1.3	1.0	0.9	1.3	0.7	0.7	0.8	0.9	0.9	1.2	1.7	2.1	2.5	2.4	Diurnal Average	
4.5	6.0	6.5	8.7	--	9.8	10.9	6.9	5.3	5.1	5.4	4.9	3.1	16.7	1.8	1.5	2.0	1.6	1.7	2.4	3.1	4.9	4.7	6.4	Diurnal Maximum	

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



# Hourly Maximums

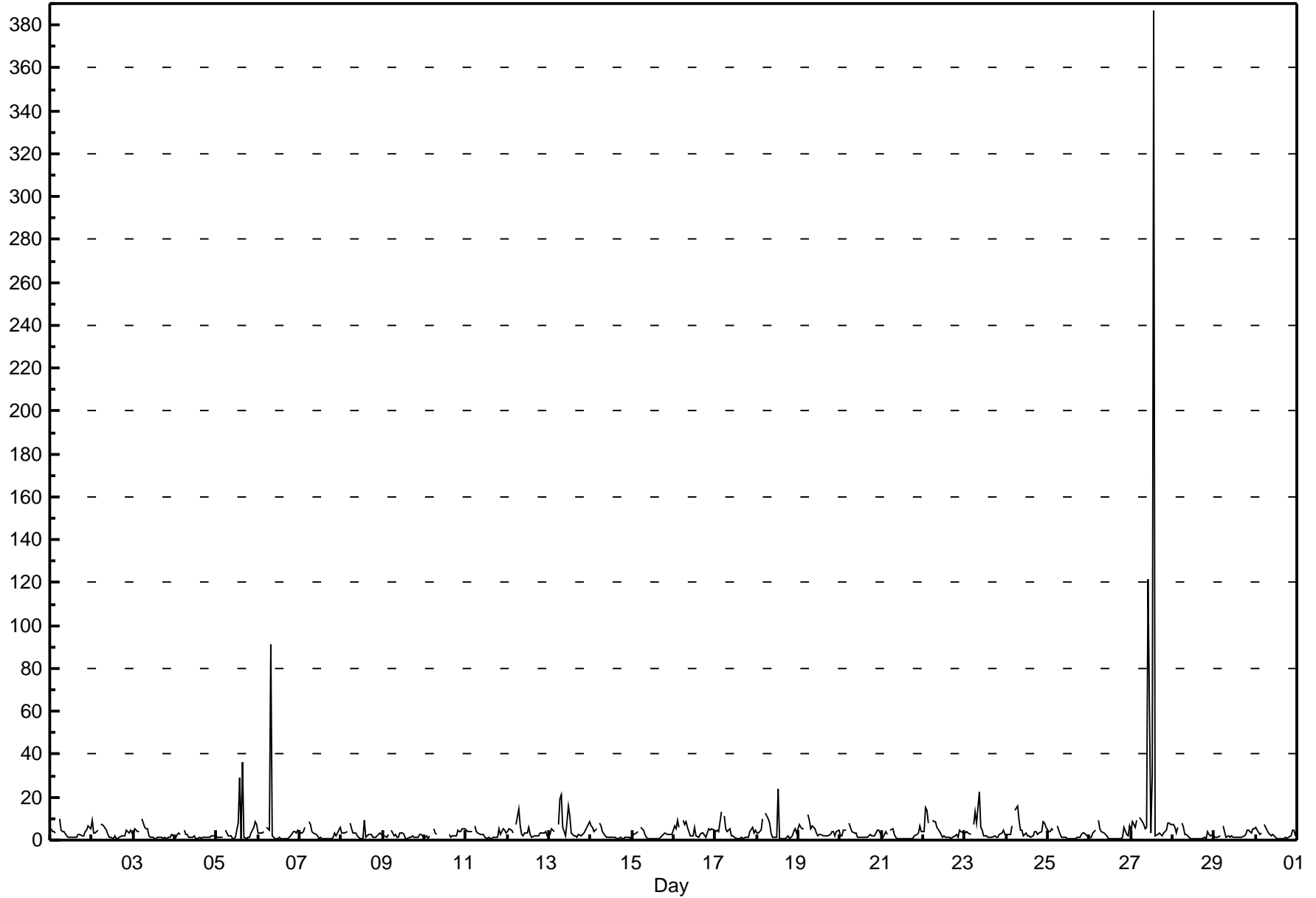
Nitrogen Dioxide (NO<sub>2</sub>) - ppb

Beaverlodge - June 2014

Maximum Value: 386.7 ppb on Jun 27 14:00		Maximum Daily Average: 28.3 ppb on Jun 27		Hours in Service: 720																																													
Minimum Value: 0 ppb on Jun 15 12:00		Minimum Daily Average: 1.9 ppb on Jun 4		Hours of Data: 684																																													
Maximum Diurnal Average: 15.8 ppb at hour 14		Minimum Diurnal Average: 1.2 ppb at hour 15		Hours of Missing Data: 36																																													
Monthly Average: 4.33 ppb		Percentiles: P <sub>1</sub> = 0.6 P <sub>10</sub> = 0.9 Q <sub>1</sub> = 1.3 Median = 2.5 Q <sub>3</sub> = 4.5 P <sub>90</sub> = 7.0 P <sub>99</sub> = 21.9		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-Jun	5	4	4	4	A	10	5	4	4	2	1	1	1	1	1	1	2	3	2	2	4	5	7	5	3.4	10.1																							
2-Jun	9	3	3	4	A	7	7	7	4	3	1	1	1	2	1	1	1	2	2	2	5	3	4	3	3.4	9.3																							
3-Jun	3	5	4	4	A	10	6	6	6	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2.7	10.1																							
4-Jun	1	3	3	3	A	5	3	3	2	1	1	2	1	1	1	1	1	1	1	1	2	2	2	2	1.9	4.7																							
5-Jun	1	2	2	1	A	5	3	2	2	1	1	1	8	29	1	36	1	1	1	1	3	6	8	8	5.4	36.2																							
6-Jun	3	4	3	4	A	6	5	91	2	1	1	1	1	1	1	1	1	1	1	2	4	4	3	5	6.3	91.0																							
7-Jun	4	3	4	6	A	9	7	4	3	2	2	1	1	1	1	1	1	1	1	1	3	2	3	6	2.9	8.5																							
8-Jun	3	3	4	4	A	8	5	3	4	2	1	1	1	9	1	2	3	3	1	2	1	2	4	2	3.1	9.5																							
9-Jun	2	2	1	2	A	5	2	2	1	1	3	4	3	1	1	1	1	2	2	1	2	3	3	2	2.0	4.5																							
10-Jun	1	2	1	2	A	5	3	3	C	C	C	C	C	C	3	1	2	2	2	5	4	4	5	5	--	5.4																							
11-Jun	4	4	4	4	A	7	4	3	3	3	2	1	1	1	1	1	1	1	1	5	3	5	5	4	2.9	6.8																							
12-Jun	4	5	4	4	A	7	15	7	3	2	3	3	6	3	2	2	2	2	2	3	3	3	4	2	4.0	14.8																							
13-Jun	3	5	4	4	A	7	19	21	6	2	8	16	11	3	2	2	2	2	2	3	3	5	6	8	6.3	21.4																							
14-Jun	7	6	4	5	A	8	7	4	2	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2.6	7.8																							
15-Jun	2	2	3	4	A	6	4	3	1	1	1	0	1	0	1	1	2	2	3	4	3	2	3	3	2.2	5.9																							
16-Jun	7	5	9	6	A	9	7	9	6	2	2	2	6	2	2	3	3	3	2	3	5	5	5	4	4.7	9.2																							
17-Jun	4	5	4	13	A	11	5	4	6	2	2	1	1	1	1	1	1	1	1	2	4	6	4	5	3.6	13.0																							
18-Jun	3	3	4	10	A	13	10	8	3	2	1	1	24	1	1	1	1	1	2	1	2	4	5	3	4.5	23.7																							
19-Jun	7	6	5	5	A	12	9	6	6	5	3	2	2	3	2	2	2	2	3	4	4	2	4	5	4.4	11.7																							
20-Jun	2	2	5	4	A	8	6	4	3	3	1	1	1	1	1	1	2	2	2	2	2	5	5	4	3.0	7.9																							
21-Jun	2	1	4	3	A	5	5	2	1	1	1	1	1	1	1	1	1	1	1	2	3	3	7	4	2.2	6.6																							
22-Jun	4	15	14	8	A	9	9	9	6	4	3	2	2	1	1	1	1	1	2	2	2	5	4	3	4.6	15.0																							
23-Jun	3	4	4	3	A	7	13	8	22	6	5	2	2	1	1	1	1	2	2	1	3	3	5	2	4.4	22.2																							
24-Jun	2	3	3	7	A	14	16	9	5	4	2	3	2	2	2	2	4	4	3	3	4	8	8	6	5.0	15.8																							
25-Jun	4	4	5	4	A	7	5	3	1	1	1	1	1	1	1	1	1	1	1	3	4	3	3	1	2.4	6.6																							
26-Jun	1	1	4	5	A	9	5	4	3	3	2	1	1	1	1	1	1	1	1	1	6	3	2	7	2.7	9.0																							
27-Jun	4	9	6	9	A	11	9	7	6	6	122	3	31	387	2	2	3	3	2	3	5	8	8	7	28.3	386.7																							
28-Jun	7	6	4	6	A	8	6	3	2	1	1	1	1	1	1	1	1	1	1	1	4	3	2	2	2.7	8.2																							
29-Jun	1	1	1	2	A	7	4	1	2	2	2	1	1	1	1	1	1	1	2	3	5	5	5	5	2.5	6.7																							
30-Jun	6	5	2	3	A	7	4	3	2	2	2	1	1	1	1	1	1	1	1	2	2	4	5	2	2.6	7.3																							
																								3.7	4.1	4.1	4.8	--	8.0	6.9	8.0	4.0	2.4	6.2	2.0	3.8	15.8	1.2	2.4	1.5	1.7	1.6	2.3	3.1	3.8	4.4	4.0	Diurnal Average	
																								9.3	15.0	13.8	13.0	--	14.0	18.9	91.0	22.2	6.2	121.8	15.6	30.7	386.7	2.6	36.2	4.2	4.0	2.7	5.1	5.6	8.5	8.4	8.4	Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span																									

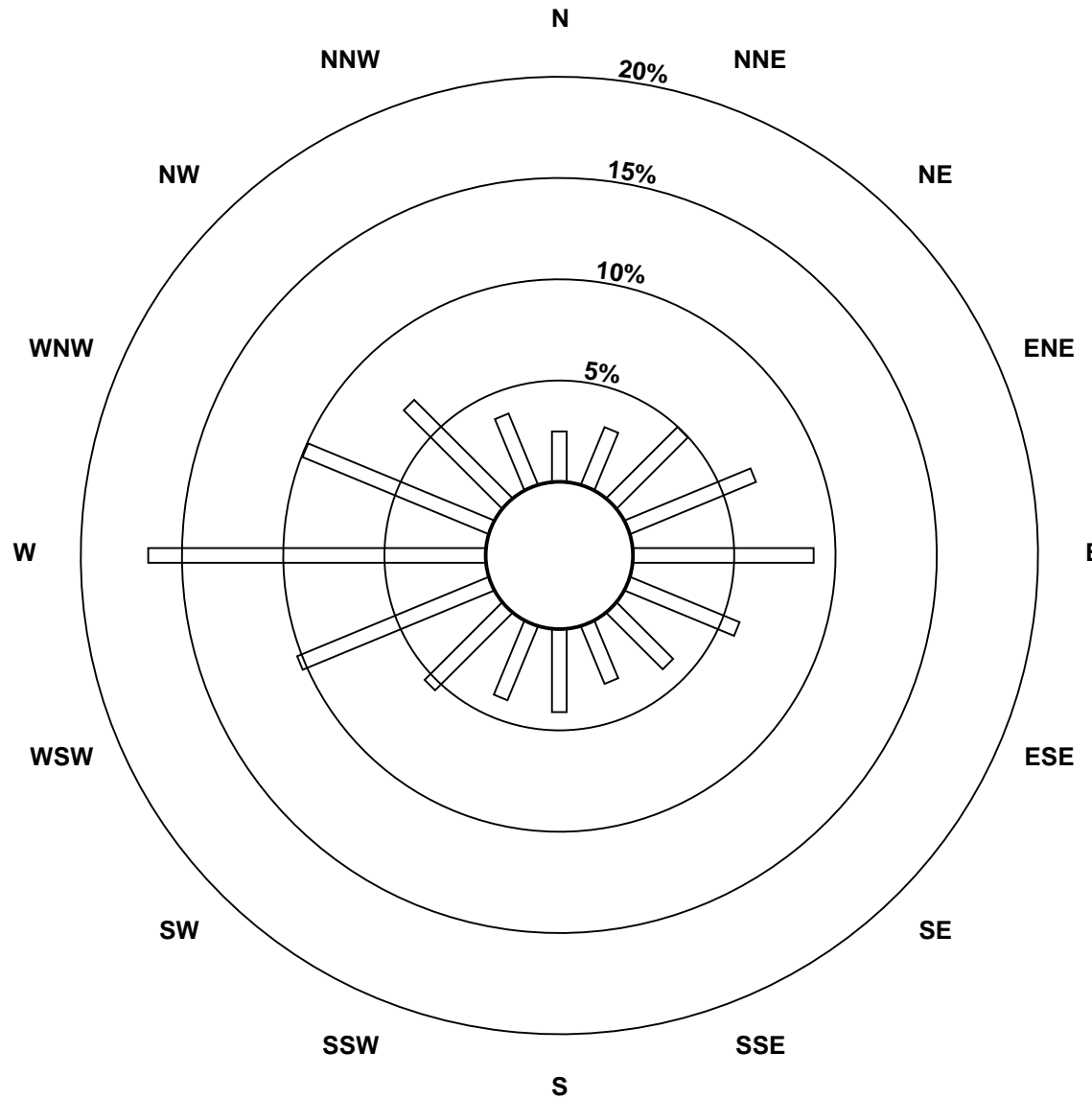
### Hourly Maximums

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Beaverlodge - June 2014**

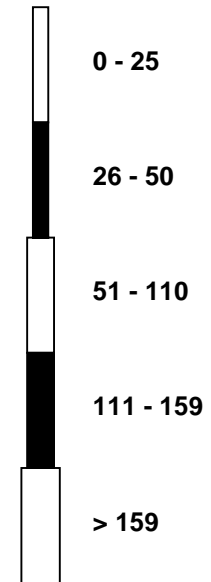


**Pollutant Rose**

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Beaverlodge - June 2014**

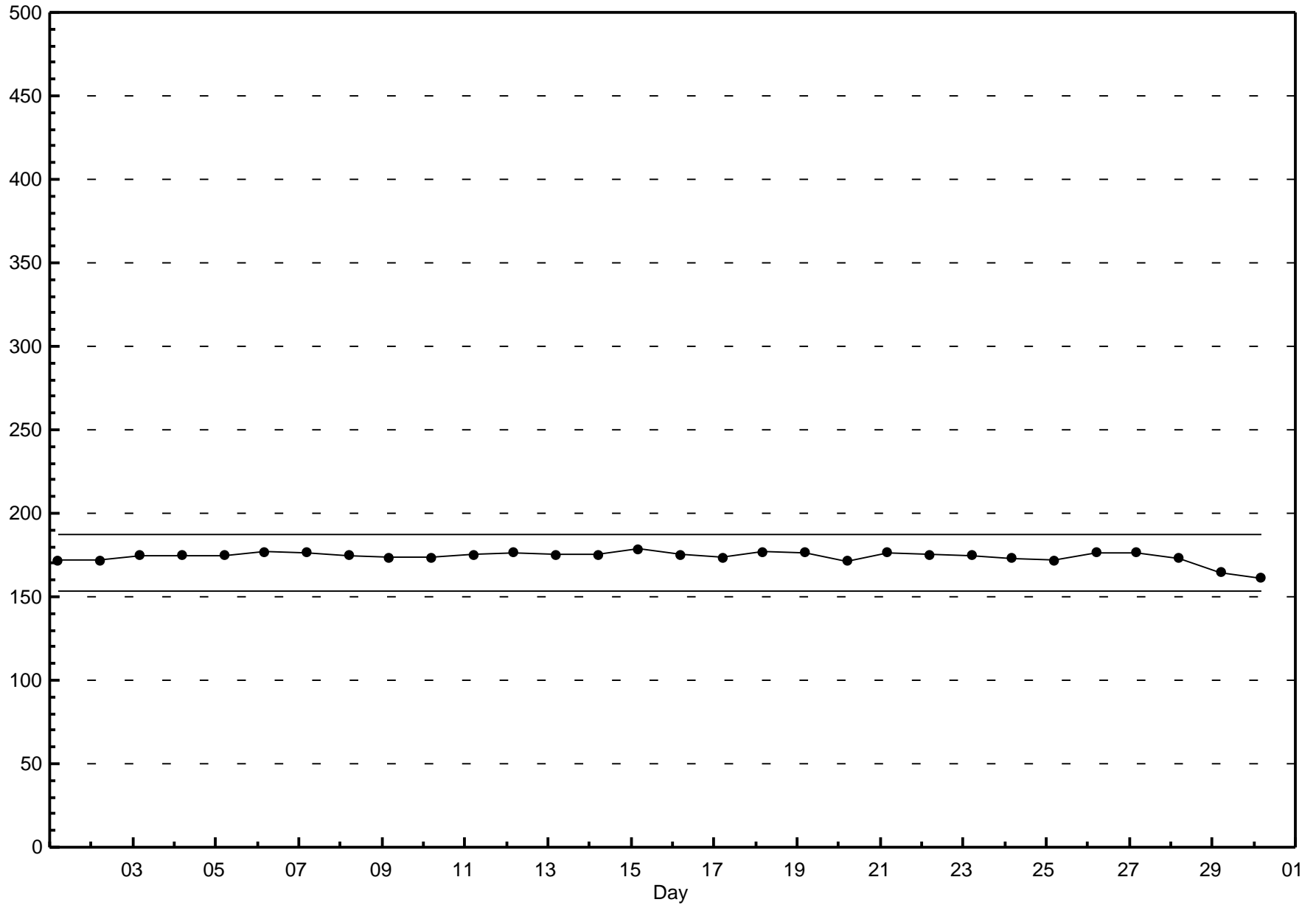


**Pollutant Classes (ppb)**



### Span Responses

**Nitrogen Dioxide (NO<sub>2</sub>)**  
**Beaverlodge - June 2014**



## Hourly Averages

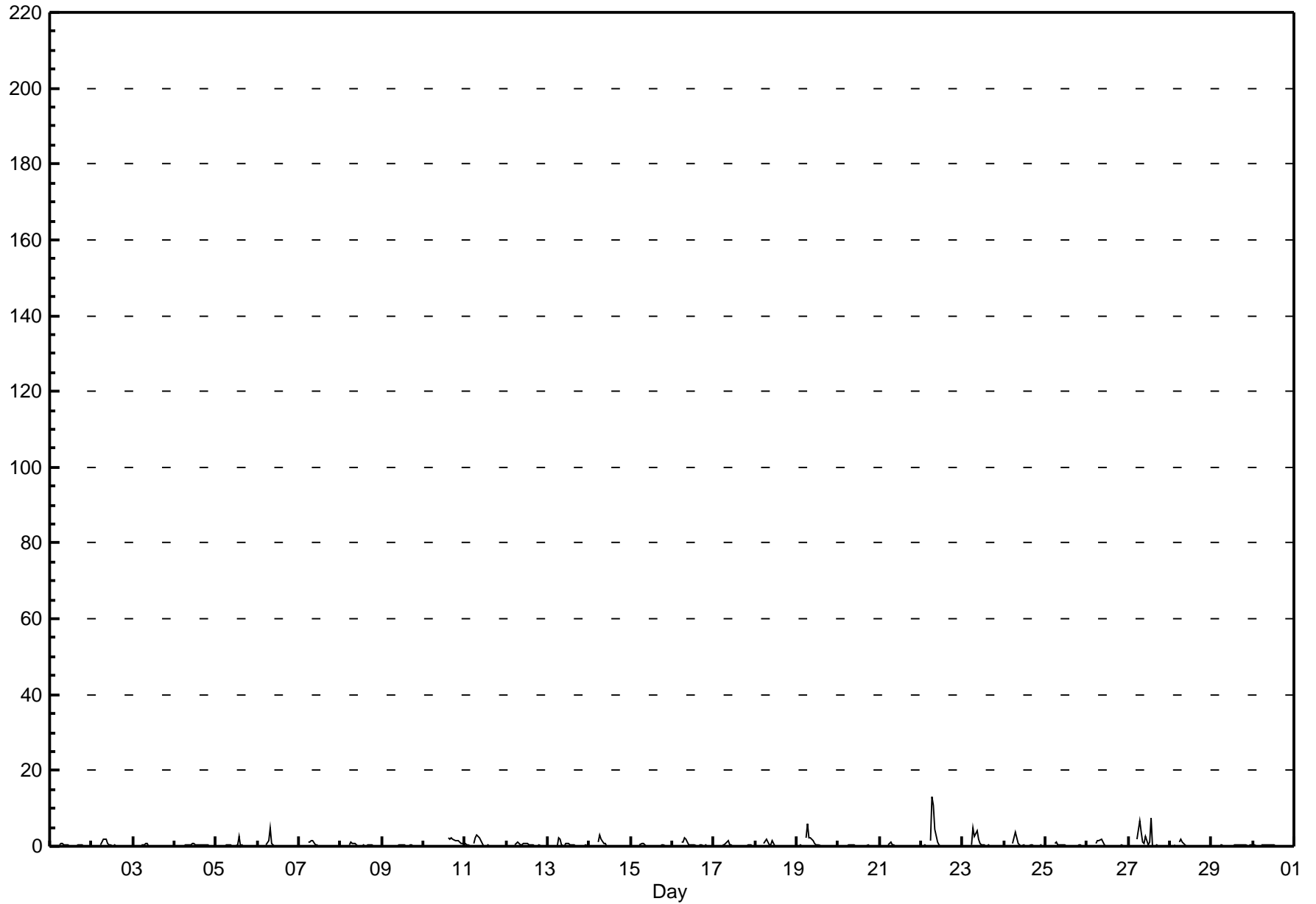
## Nitrogen Oxide (NO) - ppb Beaverlodge - June 2014

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 13.1 ppb on Jun 22 07:00      Maximum Daily Average: 1.4 ppb on Jun 22		Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0																										
Minimum Value: 0 ppb on Jun 3 03:00 Maximum Diurnal Average: 2.0 ppb at hour 7 Monthly Average: 0.40 ppb		Minimum Daily Average: 0.1 ppb on Jun 9 Minimum Diurnal Average: 0.1 ppb at hour 3 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> = 1.0 P <sub>99</sub> = 4.6																										
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-Jun	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9		
2-Jun	0	0	0	0	A	1	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.0		
3-Jun	0	0	0	0	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7		
4-Jun	0	0	0	0	A	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6		
5-Jun	0	0	0	0	A	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0.3	2.4		
6-Jun	0	0	0	0	A	1	2	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	4.7		
7-Jun	0	0	0	0	A	1	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.6		
8-Jun	0	0	0	0	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2		
9-Jun	0	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		
10-Jun	0	0	0	0	A	0	0	0	C	C	C	C	C	C	2	2	2	2	2	1	1	1	1	1	--	2.2		
11-Jun	1	0	0	0	A	1	2	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.9		
12-Jun	0	0	0	0	A	0	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1		
13-Jun	0	0	0	0	A	0	2	2	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	2.1		
14-Jun	0	0	0	0	A	1	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.9		
15-Jun	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7		
16-Jun	0	0	0	0	A	1	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.2		
17-Jun	0	0	0	0	A	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.6		
18-Jun	0	0	0	0	A	1	2	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.9		
19-Jun	0	0	0	0	A	2	6	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	5.9		
20-Jun	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5		
21-Jun	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0		
22-Jun	0	0	0	0	A	1	13	11	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.4	13.1		
23-Jun	0	0	0	0	A	0	5	3	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	5.0		
24-Jun	0	0	0	0	A	1	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.9		
25-Jun	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0		
26-Jun	0	0	0	0	A	1	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.0		
27-Jun	0	0	0	0	A	2	7	4	1	1	3	0	1	7	0	0	0	0	0	0	0	0	0	0	1.2	7.4		
28-Jun	0	0	0	0	A	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.9		
29-Jun	0	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-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5		
		0.1	0.1	0.1	0.1	--	0.6	2.0	1.7	1.1	0.5	0.4	0.2	0.2	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	Diurnal Average
		0.6	0.4	0.3	0.3	--	2.2	13.1	10.9	4.3	1.7	2.6	0.8	1.2	7.4	2.2	2.0	2.1	1.7	1.6	1.5	1.3	1.1	0.9	0.8	0.8	0.8	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																										



### Hourly Averages

**Nitrogen Oxide (NO) - ppb**  
**Beaverlodge - June 2014**



# Hourly Maximums

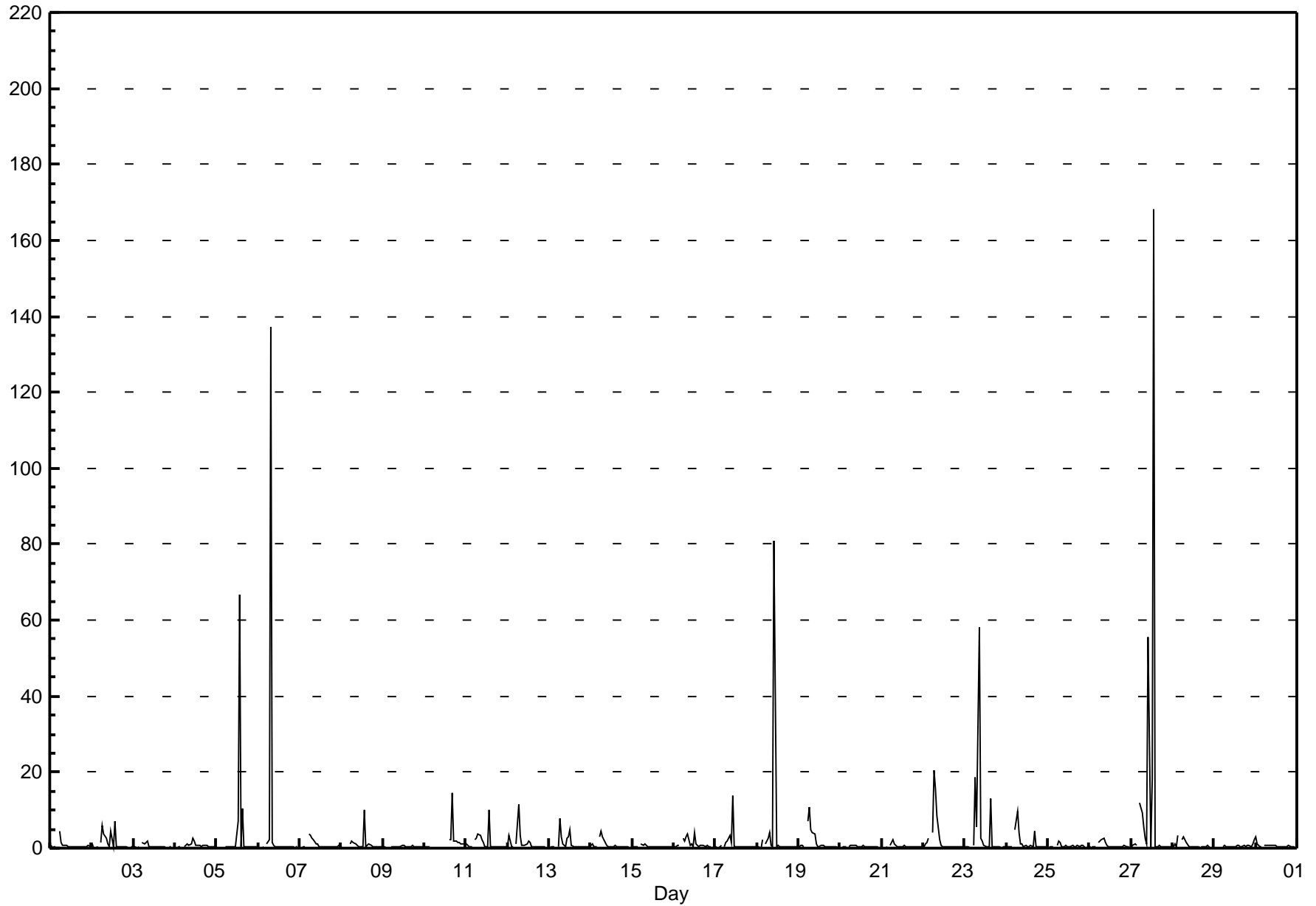
Nitrogen Oxide (NO) - ppb

Beaverlodge - June 2014

Maximum Value: 168.0 ppb on Jun 27 14:00 Minimum Value: 0 ppb on Jun 10 07:00 Maximum Diurnal Average: 9.4 ppb at hour 14 Monthly Average: 1.85 ppb		Maximum Daily Average: 12.1 ppb on Jun 27 Minimum Daily Average: 0.4 ppb on Jun 15 Minimum Diurnal Average: 0.3 ppb at hour 23 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> = 0.8 P <sub>90</sub> = 2.5 P <sub>99</sub> = 8.6		Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								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-Jun	1	0	0	0	A	5	2	1	1	1	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0.7	4.5	
2-Jun	1	0	0	0	A	1	6	4	2	1	0	4	0	7	0	0	0	0	0	0	0	0	0	0	1.4	7.2	
3-Jun	0	0	0	0	A	1	1	2	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.5	1.7	
4-Jun	0	0	0	0	A	1	1	1	1	1	3	2	1	1	1	0	1	1	1	1	0	0	0	0	0.7	2.7	
5-Jun	0	0	0	0	A	0	0	0	1	0	0	0	7	67	0	10	0	0	0	0	0	0	0	0	3.9	66.7	
6-Jun	0	0	0	0	A	1	2	137	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.4	137.3	
7-Jun	0	0	0	0	A	4	3	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.8	3.6	
8-Jun	0	0	0	0	A	1	2	1	1	1	0	0	0	10	0	1	1	1	1	0	0	0	1	0	1.0	9.9	
9-Jun	0	0	0	0	A	0	0	0	0	1	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0.4	0.8	
10-Jun	0	0	0	0	A	0	0	0	C	C	C	C	C	C	2	2	15	2	2	2	2	1	1	1	--	14.6	
11-Jun	1	1	0	0	A	2	3	4	3	2	1	0	0	10	0	0	0	0	0	0	0	0	0	0	1.4	10.1	
12-Jun	0	4	0	0	A	1	11	3	1	1	1	1	2	2	0	0	0	0	0	0	0	0	0	0	1.3	11.4	
13-Jun	0	0	0	0	A	0	8	3	1	0	3	3	5	1	0	0	0	0	0	0	0	0	1	0	1.2	7.6	
14-Jun	1	1	0	0	A	3	5	3	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.9	4.5	
15-Jun	0	0	0	0	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.1	
16-Jun	1	0	1	1	A	2	2	3	4	1	1	0	4	1	0	1	1	1	0	1	0	0	0	0	1.1	4.2	
17-Jun	0	0	0	1	A	1	1	2	4	1	14	0	0	0	0	0	0	0	0	0	0	0	0	0	1.2	13.8	
18-Jun	0	0	0	2	A	1	3	4	1	1	81	1	1	0	0	0	0	0	1	0	0	0	0	0	4.3	81.0	
19-Jun	0	1	1	0	A	7	11	5	4	4	1	1	0	1	1	0	0	0	0	0	0	0	0	0	1.6	10.7	
20-Jun	0	0	0	0	A	0	1	1	1	1	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0.4	0.9	
21-Jun	0	0	0	0	A	1	2	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0.4	2.1	
22-Jun	0	1	2	2	A	4	20	16	8	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2.7	20.5	
23-Jun	0	0	0	0	A	1	18	6	58	3	2	1	0	0	0	13	0	0	0	0	0	0	0	0	4.5	58.2	
24-Jun	0	0	0	0	A	5	10	4	1	1	0	1	1	0	1	1	4	0	0	0	0	1	0	0	1.4	9.6	
25-Jun	0	0	0	1	A	1	2	1	0	1	1	1	0	0	1	0	0	1	1	1	1	1	0	0	0.6	1.9	
26-Jun	0	0	0	0	A	1	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0.6	2.5	
27-Jun	0	1	1	1	A	12	9	6	2	1	55	1	18	168	0	0	1	0	0	0	0	0	1	0	12.1	168.0	
28-Jun	0	1	0	3	A	2	3	2	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0.8	3.4	
29-Jun	0	0	0	0	A	0	1	0	0	0	0	0	0	1	1	0	0	1	1	1	1	1	1	2	0.6	2.1	
30-Jun	3	1	0	0	A	1	1	1	1	1	1	1	0	0	0	0	0	1	0	1	0	0	0	0	0.6	3.0	
	0.4	0.5	0.3	0.5	--	2.1	4.3	7.2	3.7	1.0	5.9	0.7	1.6	9.4	0.5	1.2	1.0	0.5	0.4	0.4	0.4	0.3	0.3	0.4		Diurnal Average	
	3.0	3.5	1.5	3.4	--	11.9	20.5	137.3	58.2	3.8	81.0	4.3	18.4	168.0	2.4	13.0	14.6	2.0	1.9	1.7	1.5	1.3	1.3	2.1		Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

### Hourly Maximums

**Nitrogen Oxide (NO) - ppb**  
**Beaverlodge - June 2014**

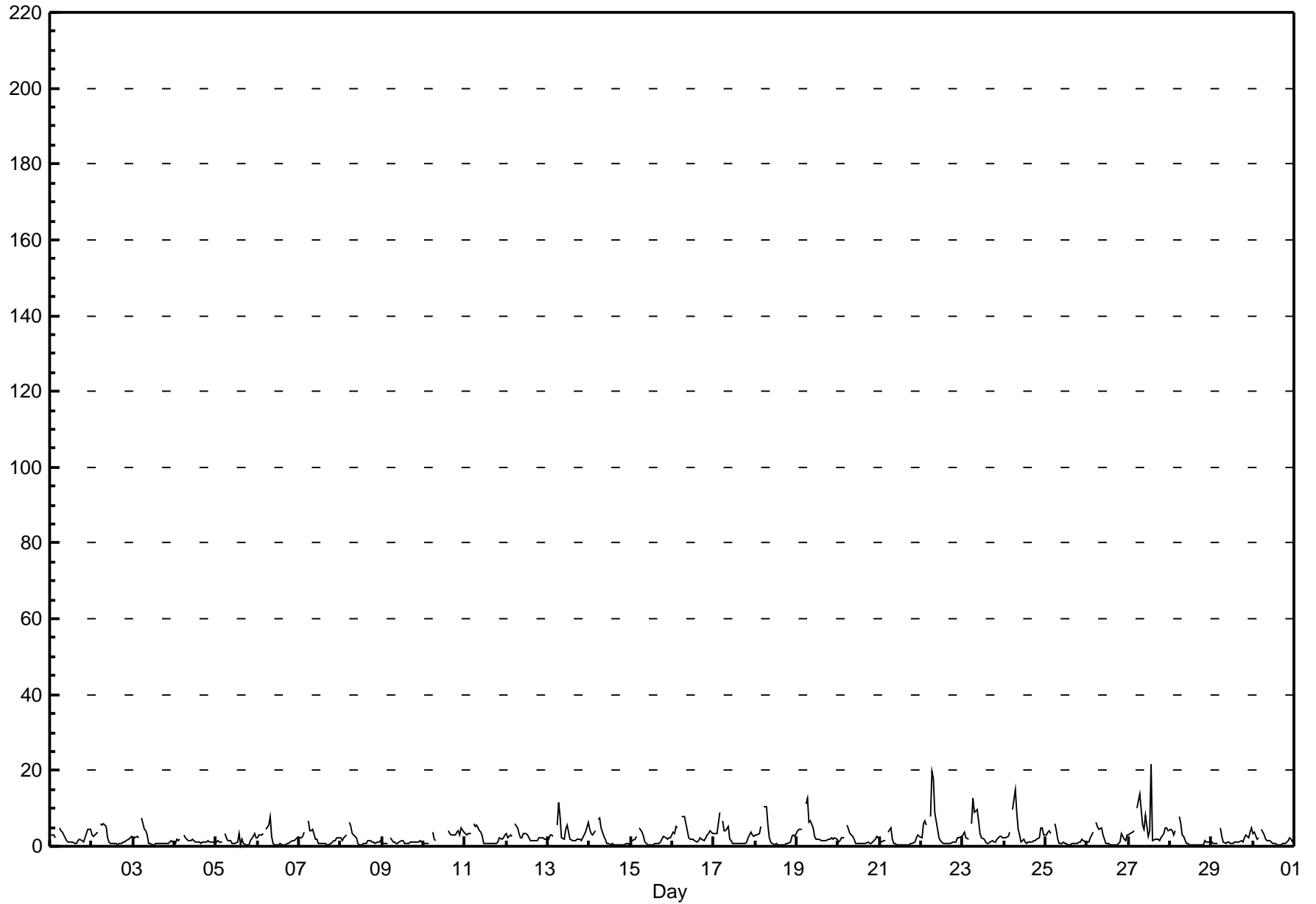


## Hourly Averages

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

Beaverlodge - June 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 21.7 ppb on Jun 27 14:00      Maximum Daily Average: 5.3 ppb on Jun 27		Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0																									
Minimum Value: 0 ppb on Jun 28 17:00 Maximum Diurnal Average: 6.6 ppb at hour 7 Monthly Average: 2.42 ppb		Minimum Daily Average: 1.1 ppb on Jun 9 Minimum Diurnal Average: 0.9 ppb at hour 15 Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 0.6 Q <sub>1</sub> = 0.9 Median = 1.7 Q <sub>3</sub> = 3.1 P <sub>90</sub> = 4.9 P <sub>99</sub> = 12.8																									
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-Jun	3	3	3	2	A	5	4	4	3	1	1	1	1	1	1	1	2	2	1	1	2	3	4	5	2.4	4.7	
2-Jun	3	3	3	4	A	6	6	6	5	2	1	1	1	1	1	0	1	1	1	1	2	2	2	3	2.3	6.1	
3-Jun	2	2	3	2	A	8	5	4	3	1	1	0	0	1	1	1	1	1	1	1	1	1	2	1	1.8	7.6	
4-Jun	1	2	2	2	A	3	2	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.4	3.1	
5-Jun	1	1	1	1	A	3	2	2	1	1	1	1	1	3	0	2	1	0	0	1	2	2	3	2	1.5	3.4	
6-Jun	2	3	3	3	A	4	6	8	2	1	0	0	0	1	1	0	0	1	1	1	1	1	2	2	2.0	7.6	
7-Jun	2	2	3	4	A	7	4	4	5	2	2	1	1	1	1	1	0	0	1	1	2	2	2	2	2.1	6.8	
8-Jun	2	2	2	3	A	7	5	3	3	2	1	0	0	1	1	1	2	1	1	1	1	1	1	1	1.8	6.5	
9-Jun	1	1	1	1	A	2	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	2	1	1.1	2.3	
10-Jun	1	1	1	1	A	4	2	1	C	C	C	C	C	C	4	3	3	3	3	3	4	4	3	5	4	--	4.9
11-Jun	3	3	3	3	A	6	5	5	4	4	3	1	1	1	1	1	1	1	1	1	2	2	2	3	2.5	6.0	
12-Jun	3	2	3	3	A	6	5	3	2	2	3	3	3	2	1	1	1	1	1	2	2	2	2	2	2.6	5.9	
13-Jun	2	3	3	3	A	6	12	8	2	2	4	6	4	2	2	2	1	2	2	2	2	3	4	6	3.5	11.5	
14-Jun	5	3	3	4	A	7	8	5	3	2	1	1	1	1	1	0	0	0	0	0	1	1	1	0	2.0	7.6	
15-Jun	1	1	2	2	A	5	4	3	1	1	0	1	0	0	1	1	1	1	2	3	2	2	2	2	1.6	5.0	
16-Jun	4	3	5	5	A	8	8	8	6	2	2	2	2	1	1	2	2	2	1	2	3	3	4	3	3.5	7.9	
17-Jun	3	4	4	9	A	7	4	4	5	2	1	1	1	1	1	1	1	1	1	1	2	4	3	3	2.7	8.8	
18-Jun	3	3	3	5	A	10	10	5	2	1	1	0	1	0	0	0	0	0	1	1	1	3	3	3	2.6	10.5	
19-Jun	4	5	4	4	A	11	13	6	7	5	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3.7	12.8	
20-Jun	1	2	2	2	A	6	4	3	3	2	1	1	1	1	1	1	1	1	1	1	1	2	3	2	1.8	5.6	
21-Jun	1	1	1	2	A	4	5	2	1	1	1	1	0	0	0	0	0	0	1	1	1	2	3	3	1.4	5.0	
22-Jun	2	6	7	5	A	8	20	18	9	4	2	1	1	1	1	1	1	1	1	1	2	2	3	3	4.3	19.9	
23-Jun	3	4	2	2	A	6	13	9	10	7	3	2	2	1	1	1	1	1	1	1	2	3	3	2	3.5	12.8	
24-Jun	2	2	2	4	A	10	15	9	5	3	1	2	1	1	1	1	1	2	2	2	2	5	5	3	3.4	14.9	
25-Jun	3	4	4	3	A	6	4	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1.7	5.8	
26-Jun	1	1	2	4	A	6	5	5	5	3	2	1	1	1	0	1	0	0	1	1	3	2	2	3	2.1	6.2	
27-Jun	3	4	4	4	A	10	14	10	6	5	8	3	4	22	1	2	2	2	2	2	3	5	5	4	5.3	21.7	
28-Jun	4	4	3	4	A	8	6	3	3	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1.9	7.8	
29-Jun	1	1	1	1	A	5	3	1	1	1	1	1	1	1	1	1	1	1	1	2	3	2	4	5	1.7	4.7	
30-Jun	3	4	2	2	A	4	3	2	2	1	2	1	1	1	1	1	1	1	1	1	1	2	2	1	1.6	4.4	
		2.4	2.6	2.7	3.2	--	6.2	6.6	4.9	3.5	2.1	1.7	1.3	1.2	1.7	0.9	0.9	1.0	1.1	1.1	1.4	1.9	2.2	2.6	2.5	Diurnal Average	
		4.6	6.1	6.7	8.8	--	11.2	19.9	17.9	9.5	6.9	8.1	5.7	4.1	21.7	4.1	3.2	3.0	2.8	2.9	3.7	4.1	5.0	4.9	6.4	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



# Hourly Maximums

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

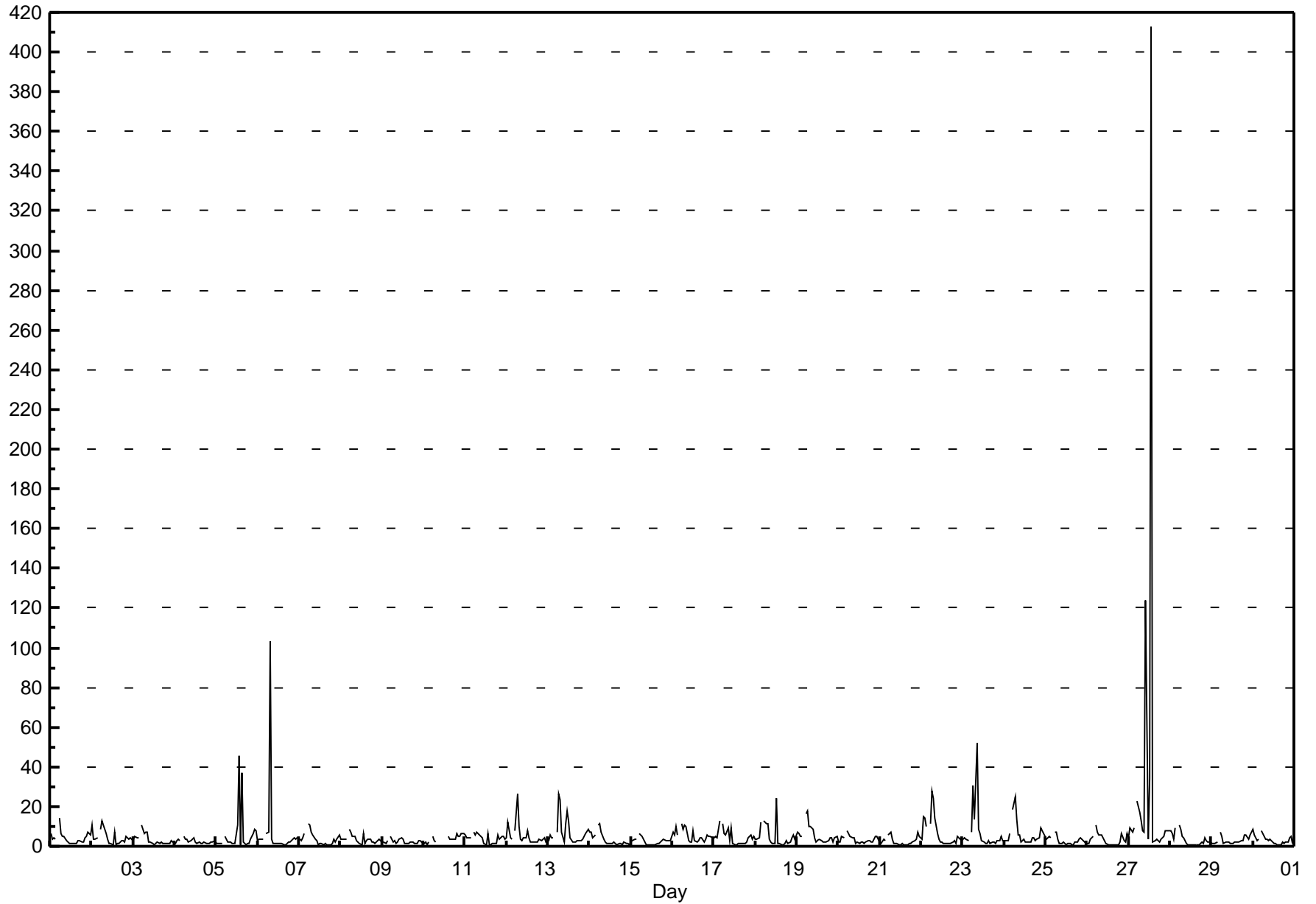
### Beaverlodge - June 2014

Maximum Value: 413.2 ppb on Jun 27 14:00		Maximum Daily Average: 31.2 ppb on Jun 27		Hours in Service: 720																							
Minimum Value: 1 ppb on Jun 15 14:00		Minimum Daily Average: 2.4 ppb on Jun 9		Hours of Data: 684																							
Maximum Diurnal Average: 18.0 ppb at hour 14		Minimum Diurnal Average: 1.6 ppb at hour 15		Hours of Missing Data: 36																							
Monthly Average: 5.25 ppb		Percentiles: P <sub>1</sub> = 0.7 P <sub>10</sub> = 1.1 Q <sub>1</sub> = 1.7 Median = 3.1 Q <sub>3</sub> = 5.1 P <sub>90</sub> = 8.5 P <sub>99</sub> = 32.9		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-Jun	6	4	4	4	A	15	6	5	5	3	2	1	2	1	1	1	3	3	2	2	5	5	7	6	4.0	14.6	
2-Jun	11	4	3	4	A	9	13	11	7	4	1	1	1	7	1	1	1	3	3	2	5	3	4	3	4.4	13.1	
3-Jun	3	5	4	4	A	10	7	7	7	2	2	1	1	1	2	1	2	1	1	1	1	2	3	2	3.1	10.4	
4-Jun	2	3	3	3	A	5	4	3	2	3	4	4	2	1	2	1	2	2	2	2	2	2	2	3	2.4	4.7	
5-Jun	1	2	2	1	A	5	4	2	2	1	1	2	11	46	1	37	2	1	1	1	3	6	9	8	6.5	45.9	
6-Jun	3	4	3	4	A	6	7	103	3	2	1	1	1	1	1	1	1	1	2	2	4	4	3	4	7.2	103.2	
7-Jun	4	3	4	6	A	11	10	7	5	4	3	1	2	1	1	1	1	1	1	2	3	2	3	6	3.6	11.1	
8-Jun	3	3	4	4	A	8	7	5	5	3	2	1	1	7	2	3	4	3	2	2	1	3	4	3	3.4	8.3	
9-Jun	2	2	1	3	A	5	2	3	2	2	3	4	3	1	1	2	2	2	2	2	2	3	3	2	2.4	4.7	
10-Jun	2	2	1	2	A	5	3	2	C	C	C	C	C	C	5	4	4	4	4	4	6	5	5	6	--	6.4	
11-Jun	5	4	4	4	A	7	6	7	5	5	4	1	1	7	1	1	1	1	1	6	3	5	5	4	3.9	7.2	
12-Jun	5	12	4	4	A	8	26	10	3	3	4	4	8	5	2	2	2	2	2	4	3	3	4	2	5.3	26.2	
13-Jun	3	5	5	4	A	7	27	23	7	2	11	18	13	4	2	2	2	3	3	3	4	5	7	9	7.3	26.6	
14-Jun	7	7	4	5	A	10	11	7	4	2	1	2	2	1	2	1	1	2	1	1	2	1	1	1	3.4	11.2	
15-Jun	2	3	3	4	A	7	5	4	2	1	1	1	1	1	1	1	2	2	3	4	3	3	3	3	2.5	6.6	
16-Jun	7	5	10	6	A	12	9	11	10	3	2	2	8	3	2	3	4	4	2	4	6	5	5	5	5.5	11.5	
17-Jun	4	5	4	13	A	11	7	6	9	3	9	1	1	1	1	1	1	1	1	2	4	6	4	5	4.4	13.1	
18-Jun	3	4	4	12	A	13	12	12	4	2	2	2	24	1	1	1	1	1	3	1	2	4	6	4	5.1	24.3	
19-Jun	7	6	5	5	A	16	18	10	10	9	5	2	3	3	3	2	2	2	3	4	4	2	4	5	5.7	18.0	
20-Jun	2	2	5	5	A	8	6	5	4	4	1	2	1	2	2	1	2	3	3	2	2	5	5	4	3.3	8.0	
21-Jun	2	1	4	3	A	6	7	3	2	1	1	1	1	2	1	1	1	1	1	2	3	3	7	5	2.6	7.4	
22-Jun	4	15	14	10	A	11	28	24	14	6	3	2	2	1	1	1	1	2	2	3	2	5	4	3	6.9	28.0	
23-Jun	3	4	4	3	A	7	31	14	52	8	6	3	2	2	2	3	2	2	2	2	3	3	5	3	7.1	51.7	
24-Jun	3	3	3	7	A	18	25	13	6	5	2	4	2	2	2	2	4	4	3	3	4	9	8	6	6.1	24.8	
25-Jun	4	4	5	5	A	7	7	4	1	2	2	1	1	1	1	1	1	2	2	4	4	4	3	1	2.9	7.0	
26-Jun	1	1	4	5	A	10	7	6	6	4	3	1	1	1	1	1	1	1	1	2	6	3	2	7	3.3	10.4	
27-Jun	4	9	7	10	A	23	17	13	8	7	124	4	34	413	2	3	4	3	2	3	5	8	8	8	31.2	413.2	
28-Jun	7	6	4	10	A	10	8	5	4	1	1	1	1	1	1	1	1	2	1	4	3	2	2	2	3.4	10.5	
29-Jun	1	1	1	2	A	7	5	2	2	2	2	1	2	2	2	2	2	3	3	6	5	4	6	7	3.0	7.3	
30-Jun	8	6	3	3	A	8	5	4	3	3	3	2	1	1	1	1	1	2	1	2	2	5	5	2	3.1	8.4	
		4.0	4.6	4.3	5.1	--	9.5	11.0	11.0	6.7	3.4	7.2	2.5	4.5	18.0	1.6	2.8	1.9	2.1	2.0	2.7	3.4	4.0	4.6	4.2	Diurnal Average	
		10.6	15.2	13.9	13.1	--	22.5	30.8	103.2	51.7	8.9	124.2	17.8	33.8	413.2	4.9	36.7	4.3	4.3	3.9	6.4	6.1	9.0	8.5	8.6	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

**Hourly Maximums**

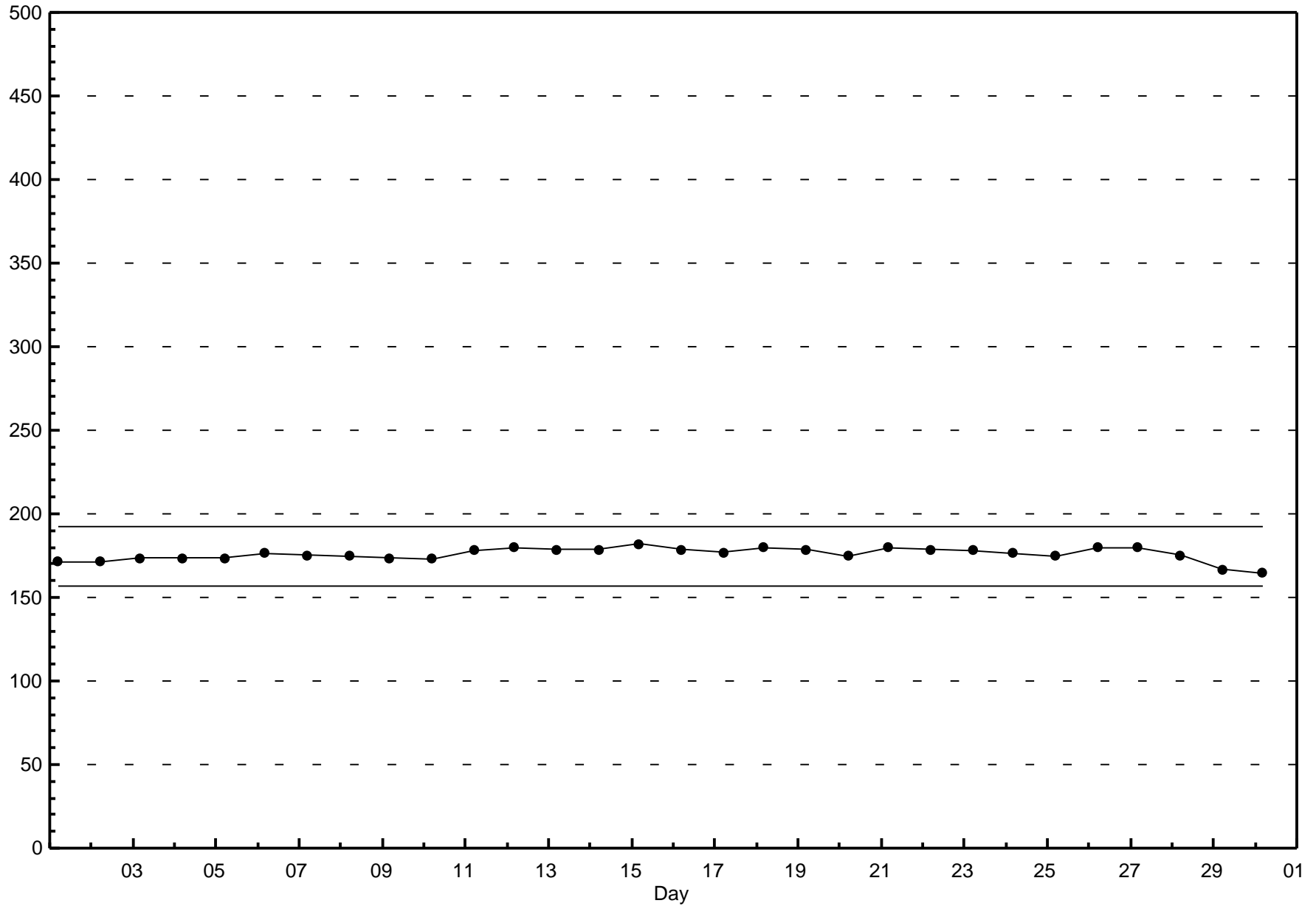
**Oxides of Nitrogen (NO<sub>x</sub>) - ppb**

**Beaverlodge - June 2014**



### Span Responses

Oxides of Nitrogen (NO<sub>x</sub>)  
Beaverlodge - June 2014





# Hourly Averages

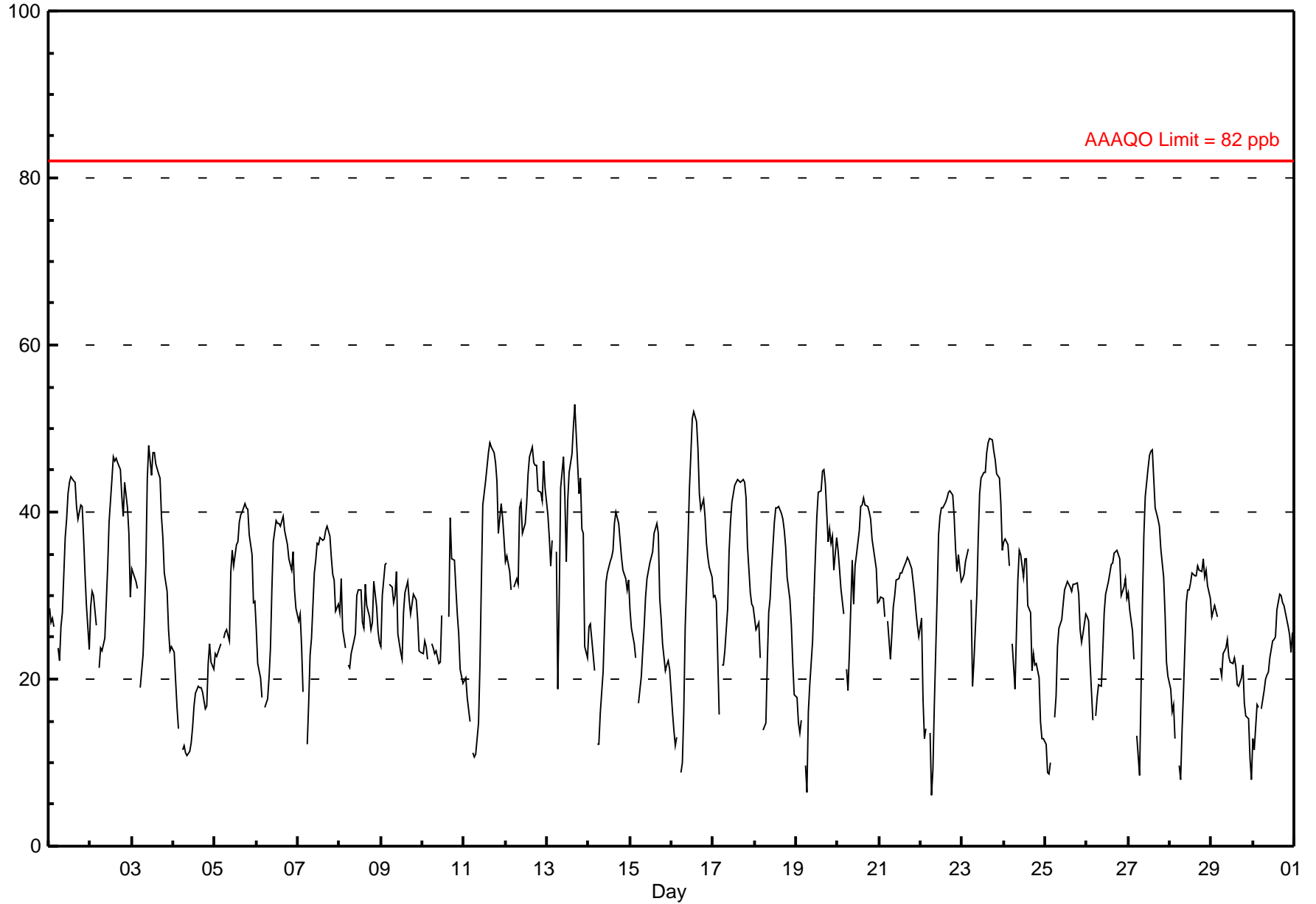
Ozone (O<sub>3</sub>) - ppb

Beaverlodge - June 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 52.9 ppb on Jun 13 17:00 Maximum Daily Average: 39.9 ppb on Jun 12																	Hours in Service: 720 Hours of Data: 687									
Minimum Value: 6 ppb on Jun 22 07:00 Minimum Daily Average: 17.0 ppb on Jun 4 Maximum Diurnal Average: 38.0 ppb at hour 15 Minimum Diurnal Average: 18.0 ppb at hour 7 Monthly Average: 30.12 ppb Percentiles: P <sub>1</sub> = 8.6 P <sub>10</sub> = 17.0 Q <sub>1</sub> = 23.1 Median = 30.2 Q <sub>3</sub> = 37.1 P <sub>90</sub> = 43.5 P <sub>99</sub> = 48.6																	Hours of Missing Data: 33 Hours of Calibration: 33 Percent Operational Time: 100.0									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	28	27	27	26	A	24	22	26	28	37	39	42	44	44	44	41	39	41	41	37	33	29	24	34.1	44.2	
2-Jun	29	30	30	26	A	21	24	23	25	29	33	39	44	47	46	46	46	45	42	40	44	41	37	30	35.5	46.6
3-Jun	33	33	32	31	A	19	23	28	34	44	48	44	47	47	46	45	44	39	37	33	31	26	23	24	35.2	48.0
4-Jun	23	20	17	14	A	12	12	11	11	11	12	14	17	18	19	19	19	18	16	17	22	24	22	21	17.0	24.2
5-Jun	23	23	23	24	A	25	26	26	25	33	35	33	36	36	39	40	40	41	41	40	37	35	29	29	32.1	41.1
6-Jun	26	22	20	18	A	17	18	20	24	31	36	39	39	39	38	40	38	37	36	34	33	35	31	28	30.4	39.5
7-Jun	27	28	24	18	A	12	17	23	25	33	34	36	36	37	37	37	38	38	37	35	33	32	28	29	30.1	38.3
8-Jun	28	32	26	24	A	22	21	23	25	25	30	31	31	27	26	31	29	27	26	27	32	29	26	24	27.0	32.0
9-Jun	24	30	34	34	A	31	31	29	30	33	25	23	22	28	30	32	29	28	29	30	30	27	23	23	28.5	33.9
10-Jun	23	25	24	22	A	24	24	23	23	22	22	28	C	C	C	27	39	34	34	31	28	25	21	19	26.0	39.4
11-Jun	20	20	18	15	A	11	11	11	15	22	32	41	44	45	47	48	48	47	46	44	37	41	39	37	32.1	48.3
12-Jun	34	35	33	31	A	31	32	31	40	41	37	39	41	45	47	48	46	46	46	43	42	41	46	43	39.9	47.8
13-Jun	40	37	33	37	A	35	19	30	43	47	42	34	41	45	47	50	53	49	42	44	38	37	24	23	38.7	52.9
14-Jun	26	27	25	21	A	12	12	16	21	26	31	33	34	34	35	39	40	39	37	35	33	32	31	32	29.1	40.0
15-Jun	28	26	24	23	A	17	20	23	26	30	32	34	35	35	37	39	37	30	27	24	21	22	22	21	27.6	38.7
16-Jun	16	14	12	13	A	9	10	16	26	37	43	47	51	52	51	48	42	40	42	39	36	35	33	32	32.4	52.0
17-Jun	30	30	29	16	A	22	22	23	28	35	39	41	43	44	44	44	44	44	43	42	36	30	29	29	34.2	43.9
18-Jun	27	26	27	23	A	14	15	22	28	30	33	39	41	40	41	40	39	38	36	32	29	26	22	18	29.8	40.7
19-Jun	18	15	13	15	A	10	6	16	19	25	30	35	39	42	43	45	45	43	37	38	36	37	33	37	29.5	45.1
20-Jun	35	33	31	28	A	21	19	23	34	29	34	35	38	41	41	42	41	41	40	39	37	34	33	29	33.8	41.7
21-Jun	29	30	30	27	A	27	22	26	29	30	32	32	33	33	33	34	35	34	34	33	30	28	26	25	30.1	34.5
22-Jun	27	18	13	14	A	14	6	9	17	30	37	39	41	41	41	42	42	43	42	40	36	33	35	32	30.0	42.5
23-Jun	32	33	34	36	A	30	19	22	30	37	42	44	45	45	47	48	49	49	47	46	45	44	41	35	39.1	48.8
24-Jun	36	37	36	34	A	24	19	26	32	35	35	32	34	34	29	28	21	23	22	22	20	15	13	13	26.9	36.7
25-Jun	12	9	9	10	A	15	18	24	26	27	29	31	31	32	31	30	31	31	31	30	26	24	25	28	24.5	31.7
26-Jun	27	27	22	15	A	16	18	19	19	23	28	30	32	33	34	34	35	35	35	34	30	31	32	30	27.8	35.4
27-Jun	30	28	26	22	A	13	8	18	29	37	42	45	47	47	47	41	40	39	38	36	32	28	22	20	32.1	47.4
28-Jun	19	16	17	13	A	10	8	14	18	29	31	31	31	33	32	32	33	33	34	32	33	31	30	25.8	34.5	
29-Jun	28	28	29	28	A	21	20	23	24	25	23	22	22	22	22	19	19	20	22	17	16	15	11	8	21.0	28.9
30-Jun	13	12	17	17	A	16	19	20	21	21	23	25	25	25	28	30	30	29	29	28	26	25	23	26	22.9	30.2
26.4 25.6 24.5 22.4 -- 19.2 18.0 21.5 25.8 30.5 33.0 34.6 36.6 37.6 38.0 38.0 37.8 36.7 35.6 34.2 32.1 30.6 28.1 26.6																								Diurnal Average		
39.6 37.0 36.2 36.7 -- 35.2 32.0 31.3 42.9 46.7 48.0 46.9 51.2 52.0 50.8 50.2 52.9 49.4 47.3 46.2 44.5 44.1 46.1 42.9																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na																										

### Hourly Averages

Ozone (O<sub>3</sub>) - ppb  
Beaverlodge - June 2014



# Hourly Maximums

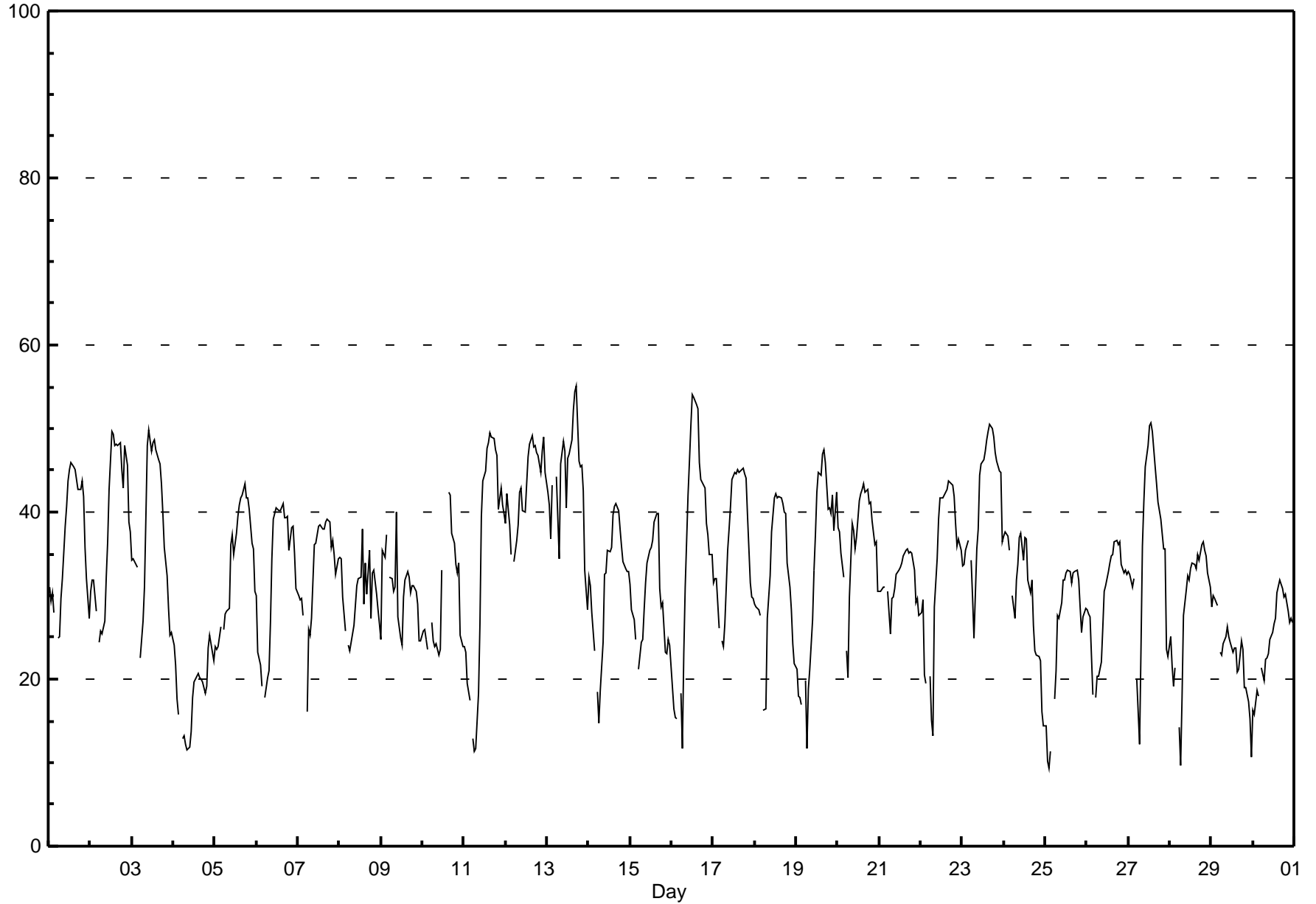
Ozone (O<sub>3</sub>) - ppb

Beaverlodge - June 2014

Maximum Value: 55.2 ppb on Jun 13 18:00		Maximum Daily Average: 43.8 ppb on Jun 13		Hours in Service: 720																							
Minimum Value: 9 ppb on Jun 25 03:00		Minimum Daily Average: 18.5 ppb on Jun 4		Hours of Data: 687																							
Maximum Diurnal Average: 40.2 ppb at hour 16		Minimum Diurnal Average: 21.9 ppb at hour 7		Hours of Missing Data: 33																							
Monthly Average: 32.86 ppb		Percentiles: P <sub>1</sub> = 11.6 P <sub>10</sub> = 20.2 Q <sub>1</sub> = 25.9 Median = 32.9 Q <sub>3</sub> = 40.0 P <sub>90</sub> = 45.5 P <sub>99</sub> = 52.1		Hours of Calibration: 33																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jun	31	29	30	28	A	25	25	30	32	38	41	44	45	46	46	45	44	43	43	44	42	36	32	27	36.7	45.9	
2-Jun	30	32	32	28	A	24	26	25	27	32	36	43	50	49	48	48	48	45	43	48	46	39	38	38.5	49.7		
3-Jun	34	34	34	33	A	23	27	31	39	48	50	47	48	49	47	46	46	43	40	36	32	28	25	26	37.7	49.8	
4-Jun	24	22	18	16	A	13	13	12	12	12	14	18	20	20	21	20	20	20	18	19	24	25	24	22	18.5	25.3	
5-Jun	24	24	24	26	A	26	28	28	28	36	37	35	37	40	41	42	42	43	42	42	40	36	36	31	34.2	43.3	
6-Jun	30	23	22	19	A	18	20	21	27	34	39	41	40	40	40	41	39	39	39	35	38	38	35	31	32.7	41.0	
7-Jun	30	30	30	28	A	16	26	25	27	36	36	37	38	38	38	38	39	39	39	36	37	35	32	34	33.2	39.1	
8-Jun	35	34	30	26	A	24	23	24	27	29	31	32	32	38	29	34	30	35	27	33	33	30	28	27	30.1	37.9	
9-Jun	25	36	35	37	A	32	32	31	31	40	27	25	24	30	32	33	32	30	31	31	29	25	25	25	30.5	40.0	
10-Jun	26	26	25	24	A	27	25	24	24	23	24	33	C	C	C	42	42	37	36	34	33	34	25	24	29.3	42.4	
11-Jun	24	23	20	17	A	13	11	12	18	27	40	44	45	48	48	49	49	49	47	47	40	43	41	40	34.5	49.5	
12-Jun	39	42	38	35	A	34	37	38	42	43	40	40	43	47	48	49	48	48	47	47	45	47	49	45	43.1	49.1	
13-Jun	42	41	37	43	A	44	39	34	46	48	47	41	46	47	49	52	54	55	46	45	46	43	33	28	43.8	55.2	
14-Jun	32	31	28	23	A	18	15	19	24	32	33	36	35	36	40	41	41	40	38	36	34	33	33	33	31.8	41.1	
15-Jun	31	28	27	25	A	21	24	25	28	31	34	35	36	37	39	40	40	31	29	29	23	23	25	24	29.8	39.8	
16-Jun	19	16	15	15	A	18	12	23	31	42	46	50	54	54	53	52	46	44	43	43	39	37	35	35	35.8	54.1	
17-Jun	32	32	32	26	A	25	24	27	35	38	41	44	45	45	45	45	45	45	45	44	40	32	30	30	36.7	45.3	
18-Jun	29	29	28	28	A	16	16	27	30	32	38	42	42	42	42	42	41	40	40	34	31	28	24	22	32.3	42.3	
19-Jun	21	18	18	17	A	20	12	19	21	27	33	37	42	45	44	47	47	46	40	41	40	42	38	42	32.9	47.4	
20-Jun	38	38	35	32	A	23	20	30	39	38	36	37	41	42	43	43	42	43	41	41	39	36	36	31	36.7	43.5	
21-Jun	31	31	31	31	A	30	25	30	30	31	33	33	33	34	35	35	36	35	35	35	33	29	30	28	31.9	35.6	
22-Jun	28	30	21	20	A	20	15	13	29	34	39	42	42	42	42	43	44	44	43	42	39	36	37	35	33.8	43.7	
23-Jun	34	34	35	37	A	34	30	25	36	38	44	46	46	47	49	50	51	50	49	47	46	45	45	36	41.4	50.5	
24-Jun	37	38	37	35	A	30	27	32	34	37	38	34	37	37	32	30	32	26	23	23	23	22	16	14	30.2	37.6	
25-Jun	14	10	9	11	A	18	21	28	27	29	32	32	33	33	33	31	33	33	33	32	29	26	27	29	26.2	33.1	
26-Jun	28	28	27	18	A	18	20	20	22	26	30	31	33	34	35	35	36	37	36	36	34	33	33	33	29.7	36.7	
27-Jun	33	33	31	32	A	20	12	24	36	41	45	48	50	51	50	45	43	41	40	39	36	36	24	23	36.2	50.6	
28-Jun	25	22	19	21	A	14	10	18	28	31	32	32	33	34	34	33	35	34	36	37	35	35	33	31	28.7	36.5	
29-Jun	29	30	30	29	A	23	23	24	25	26	25	24	23	24	24	21	21	25	23	19	19	17	15	11	23.1	29.9	
30-Jun	16	16	19	18	A	21	20	22	22	23	25	26	27	27	30	32	31	31	30	30	28	27	27	27	25.0	31.9	
		29.0	28.6	27.2	25.9	--	23.0	21.9	24.7	29.3	33.5	35.5	36.9	38.7	39.7	39.8	40.2	39.9	39.2	37.5	36.6	35.2	33.6	31.1	29.3	Diurnal Average	
		42.4	42.2	38.5	43.3	--	44.3	39.3	38.4	45.8	48.4	49.8	50.4	54.1	53.8	52.9	52.3	54.5	55.2	48.9	47.1	48.0	47.3	49.0	44.8	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

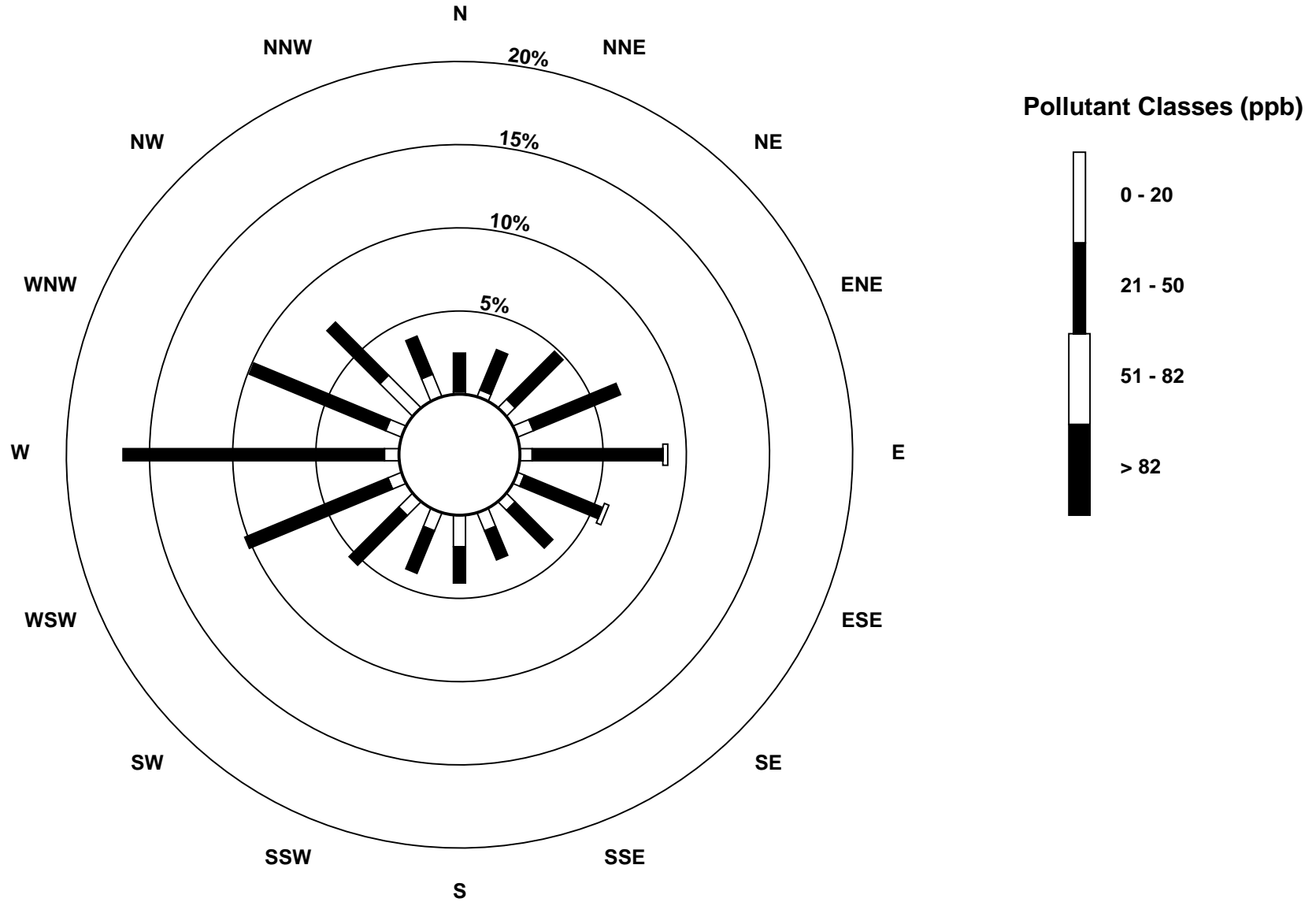
### Hourly Maximums

Ozone (O<sub>3</sub>) - ppb  
Beaverlodge - June 2014



**Pollutant Rose**

**Ozone (O<sub>3</sub>) - ppb**  
**Beaverlodge - June 2014**



# Eight Hour Running Averages

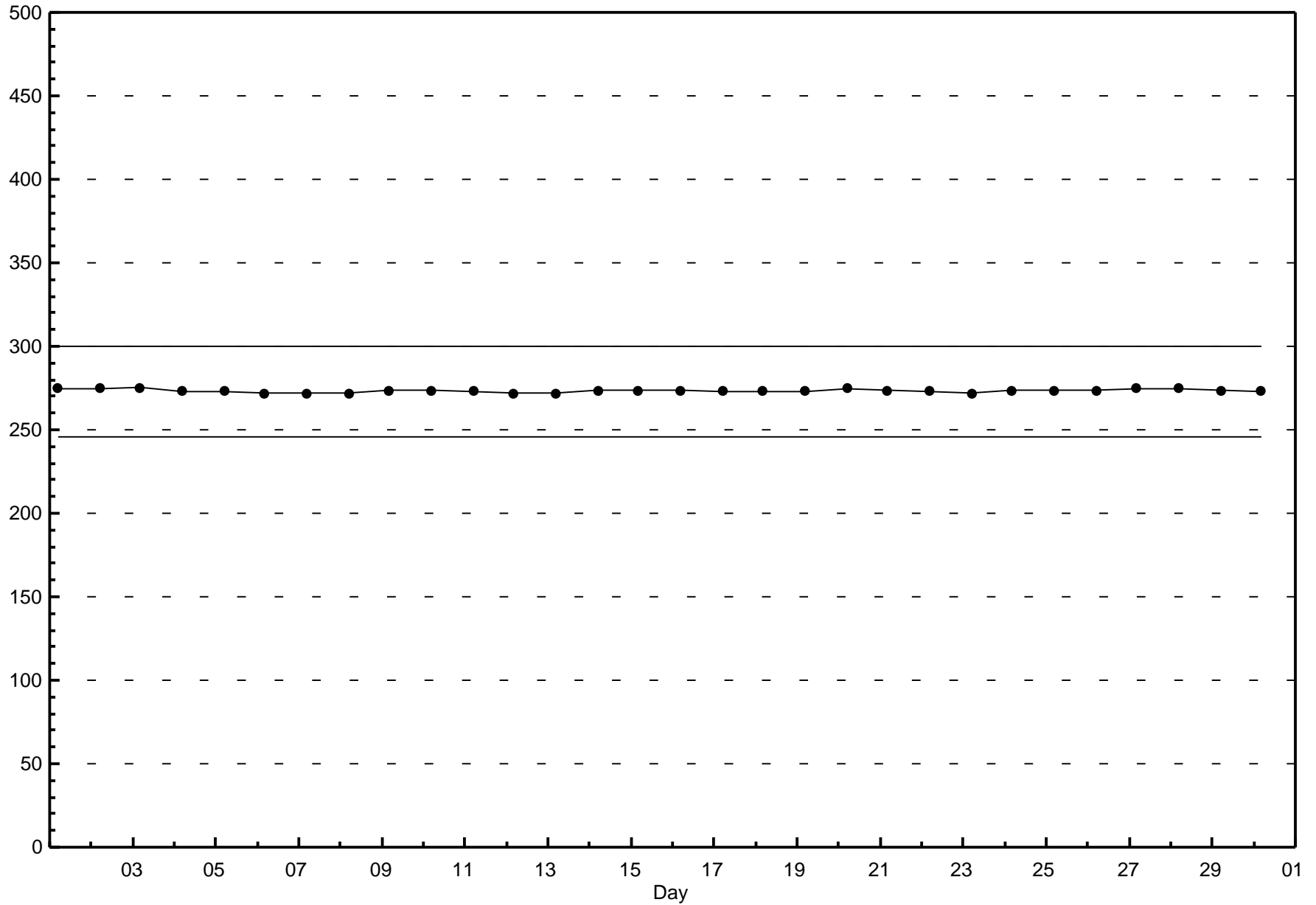
Ozone (O<sub>3</sub>) - ppb

Beaverlodge - June 2014

Maximum Value: 47.0 ppb on Jun 23 20:00																					Hours in Service:	720			
Minimum Value: 11.5 ppb on Jun 25 05:00																					Hours of Data:	714			
Percentiles: P <sub>1</sub> = 12.5 P <sub>10</sub> = 18.9 Q <sub>1</sub> = 24.2 Median = 29.7 Q <sub>3</sub> = 35.8 P <sub>90</sub> = 41.4 P <sub>99</sub> = 46.4																					Hours of Missing Data:	6			
																					Hours of Calibration:	6			
																					Percent Operational Time:	100.0			
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jun	35	34	32	31	30	28	26	26	26	27	29	31	33	35	38	40	42	42	42	42	41	40	38	35	42.2
2-Jun	34	33	31	30	29	27	26	26	26	26	26	28	30	33	36	39	41	43	44	44	44	44	43	40	44.4
3-Jun	39	37	36	35	34	31	29	28	28	30	32	34	36	39	42	44	46	45	44	42	40	38	35	32	45.7
4-Jun	30	27	25	22	21	19	17	16	14	13	12	12	13	13	14	15	16	17	18	18	19	19	20	20	29.5
5-Jun	20	21	22	23	23	23	24	24	24	26	28	29	30	31	33	35	37	38	38	39	39	39	38	37	39.3
6-Jun	35	32	30	27	26	23	21	20	20	21	23	26	28	31	33	36	37	38	38	38	37	36	35	34	38.2
7-Jun	33	32	30	28	27	24	22	21	21	22	23	26	27	30	33	34	36	37	37	37	36	36	35	34	37.0
8-Jun	32	32	30	29	28	27	26	25	25	24	24	25	26	27	27	28	29	29	28	28	28	28	28	27	32.4
9-Jun	27	27	28	29	29	29	30	30	31	32	31	29	28	28	28	28	28	27	28	29	29	29	29	27	31.7
10-Jun	27	26	26	25	24	24	24	24	24	23	23	24	24	24	N	N	N	N	N	N	32	31	30	29	32.3
11-Jun	27	25	23	21	20	18	16	15	14	15	17	20	23	27	32	37	41	44	46	46	45	45	44	42	46.1
12-Jun	41	39	38	36	36	34	33	32	33	34	35	36	37	38	40	42	43	43	44	45	45	45	45	44	45.1
13-Jun	43	42	41	40	40	39	35	33	33	35	36	36	36	38	41	44	45	45	45	46	46	45	42	39	46.5
14-Jun	35	33	30	28	26	22	21	20	19	19	20	22	23	26	29	32	34	36	36	37	36	36	36	35	36.5
15-Jun	33	32	30	29	28	26	24	23	23	25	26	27	29	32	33	35	35	34	33	31	30	28	26	34.9	
16-Jun	23	21	19	18	17	15	14	13	14	18	22	27	30	35	40	44	46	47	47	46	44	42	39	37	46.7
17-Jun	36	35	33	30	29	27	26	25	24	25	26	30	32	34	37	40	42	43	43	43	42	41	39	37	43.4
18-Jun	35	33	31	28	27	25	23	22	22	23	23	26	28	31	34	36	38	39	39	38	37	35	33	30	39.1
19-Jun	27	25	22	20	18	16	14	13	14	15	17	20	23	27	31	35	38	40	41	42	41	40	39	38	41.6
20-Jun	37	36	35	34	34	31	29	27	27	26	27	28	29	32	34	37	37	39	40	40	40	39	38	37	40.2
21-Jun	35	34	33	31	30	29	28	27	27	27	28	28	29	29	31	32	33	33	33	34	33	33	32	31	35.3
22-Jun	30	28	25	23	22	20	17	14	13	15	18	22	24	28	32	36	39	41	41	41	41	40	39	38	41.3
23-Jun	36	35	34	34	33	33	31	29	29	30	31	32	34	35	39	42	45	46	47	47	47	47	46	45	47.0
24-Jun	43	41	40	38	38	35	32	30	30	29	29	29	30	31	32	32	31	30	28	27	25	22	20	19	43.0
25-Jun	17	16	14	13	11	12	12	14	16	18	21	24	25	27	29	30	30	31	31	31	30	30	29	28	31.2
26-Jun	28	27	26	24	24	23	22	21	19	19	20	22	23	25	27	29	31	33	33	34	34	34	33	33	34.0
27-Jun	32	31	30	29	28	26	23	21	21	22	24	28	30	34	39	42	43	44	43	42	40	38	34	32	43.5
28-Jun	29	26	24	21	19	17	15	14	14	16	18	20	21	24	27	30	32	32	32	33	33	33	33	32	33.0
29-Jun	32	31	31	30	29	28	26	25	25	24	23	23	22	23	23	22	22	21	21	20	20	19	17	16	31.8
30-Jun	15	14	13	13	13	13	14	16	17	19	19	21	21	22	23	25	26	27	28	28	28	28	28	27	28.3
43.3 42.2 40.7 39.9 39.6 38.7 34.8 33.0 33.4 34.8 36.0 36.0 36.6 39.4 42.2 44.4 46.3 46.7 46.7 47.0 47.0 46.9 46.1 44.5																									
Diurnal Maximums																									
N - Not Valid																									

### Span Responses

Ozone (O<sub>3</sub>)  
Beaverlodge - June 2014



## Hourly Averages

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

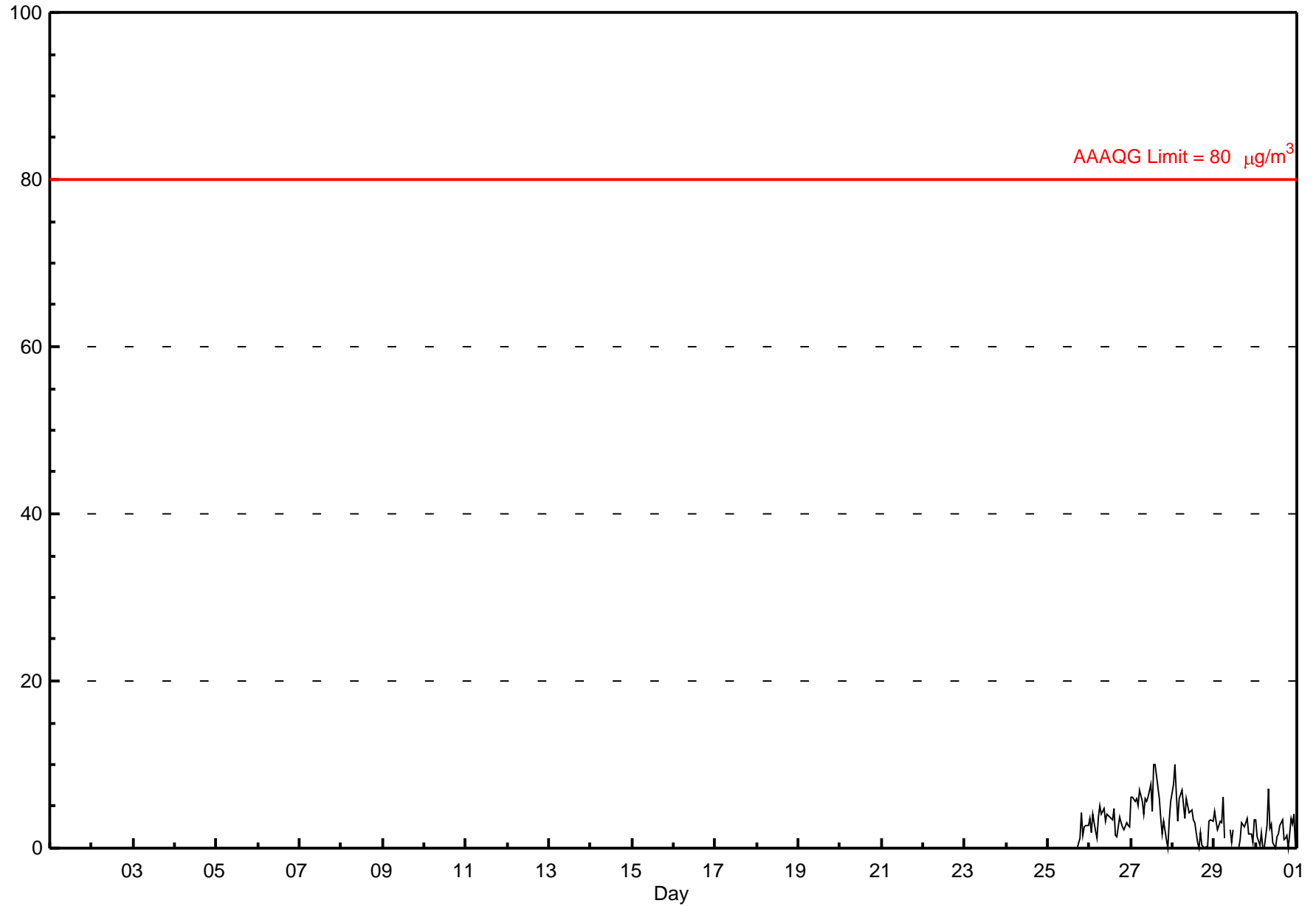
### Beaverlodge - June 2014

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 720
Maximum Value: 10.0 µg/m <sup>3</sup> on Jun 27 15:00	Maximum Daily Average: 5.3 µg/m <sup>3</sup> on Jun 27
Minimum Value: 0 µg/m <sup>3</sup> on Jun 25 17:00	Hours of Data: 125
Maximum Diurnal Average: 5.0 µg/m <sup>3</sup> at hour 1	Hours of Missing Data: 595
Monthly Average: 3.20 µg/m <sup>3</sup>	Hours of Calibration: 7
Minimum Daily Average: 1.9 µg/m <sup>3</sup> on Jun 30	Percent Operational Time: 18.3
Minimum Diurnal Average: 1.7 µg/m <sup>3</sup> at hour 21	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 1.5 Median = 3.1 Q <sub>3</sub> = 4.5 P <sub>90</sub> = 6.0 P <sub>99</sub> = 10.0	

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-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
2-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
3-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
4-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
5-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
6-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
7-Jun	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-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
9-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
10-Jun	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-Jun	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-Jun	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-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
14-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
15-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
16-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
17-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
18-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
19-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
20-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
21-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
22-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
23-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
24-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
25-Jun	N	N	N	N	N	N	N	N	N	C	C	C	C	C	C	C	0	0	1	4	1	3	3	3	--	4.2																						
26-Jun	3	2	4	2	1	4	5	4	5	3	4	4	3	3	5	2	1	4	3	2	2	3	3	2	3.2	5.0																						
27-Jun	6	6	6	6	5	7	6	4	6	6	6	8	4	10	10	7	6	4	2	3	1	0	3	6	5.3	10.0																						
28-Jun	8	10	6	3	6	7	5	4	6	4	4	5	3	3	1	0	2	0	0	0	0	3	3	3	3.6	9.9																						
29-Jun	4	3	2	3	3	6	1	N	N	2	1	2	N	0	0	1	3	3	3	4	2	2	1	3	2.3	6.1																						
30-Jun	3	1	0	2	0	0	3	7	2	3	1	0	1	2	3	3	1	1	1	0	3	3	4	0	1.9	7.0																						
																								5.0	4.5	3.7	3.3	3.0	4.7	4.0	4.7	4.8	3.6	3.2	3.7	3.2	3.6	3.6	2.6	2.2	1.9	1.7	2.3	1.7	2.2	2.8	3.0	Diurnal Average
																								7.6	9.9	6.4	5.9	6.0	7.0	5.7	7.0	6.0	5.6	6.0	7.7	4.4	9.9	10.0	7.2	5.9	3.7	3.0	4.2	3.5	3.1	4.1	5.7	Diurnal Maximum

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

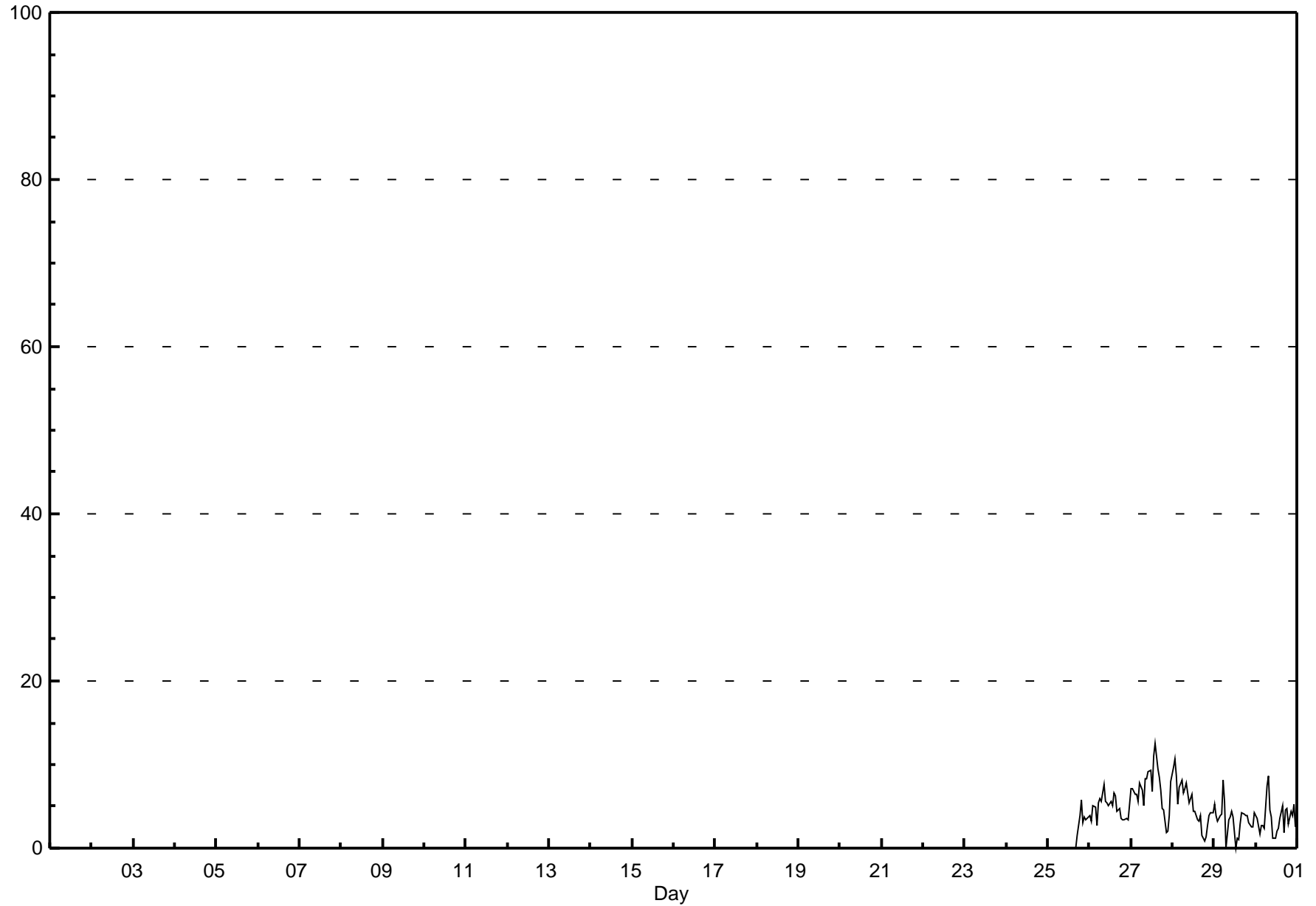




## Hourly Maximums

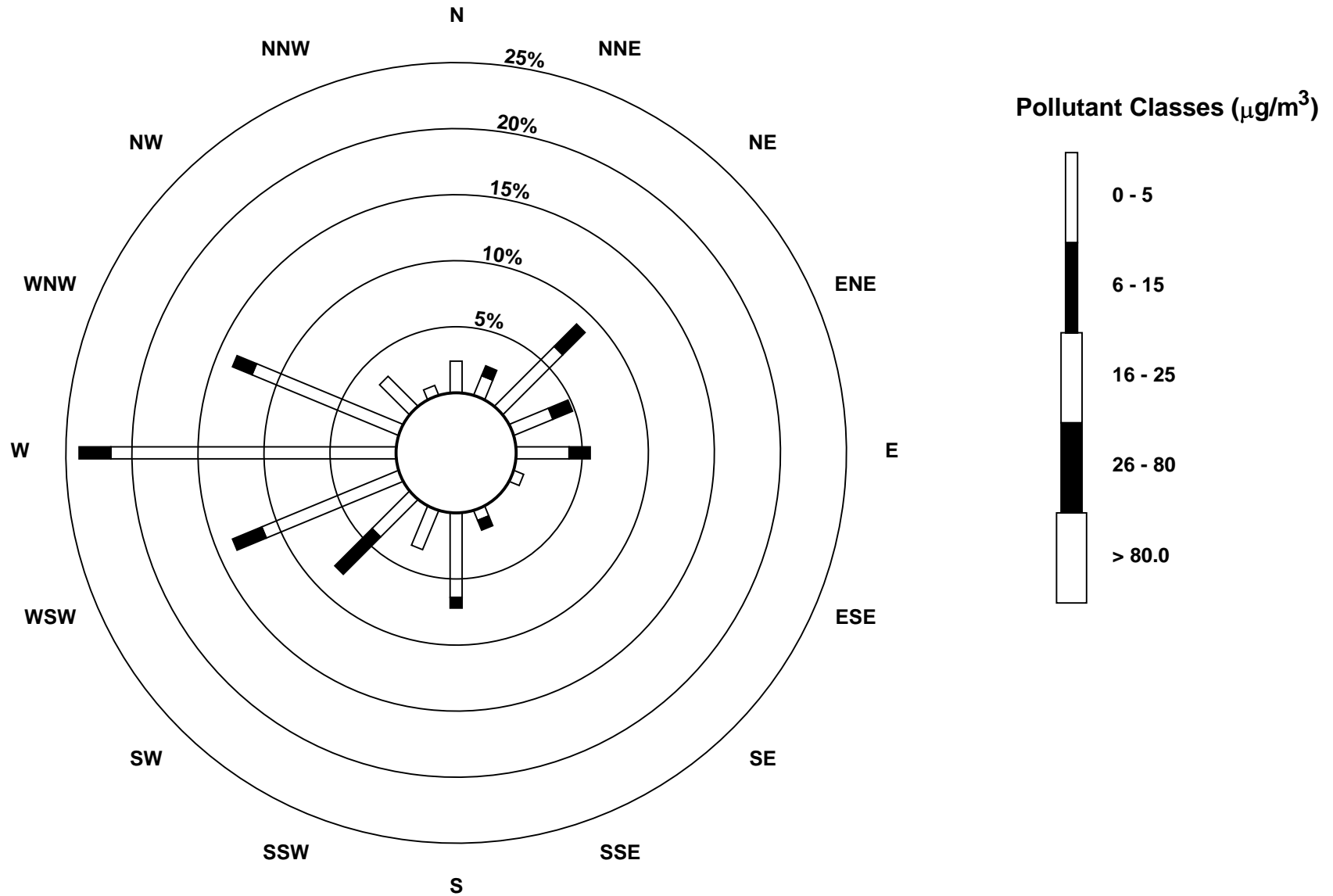
## Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup> Beaverlodge - June 2014

<b>Maximum Value: 12.5 µg/m<sup>3</sup> on Jun 27 15:00</b>		<b>Maximum Daily Average: 7.0 µg/m<sup>3</sup> on Jun 27</b>		Hours in Service: 720 Hours of Data: 128 Hours of Missing Data: 592 Hours of Calibration: 7 Percent Operational Time: 18.8																																													
<b>Minimum Value: 0 µg/m<sup>3</sup> on Jun 25 17:00</b>		<b>Minimum Daily Average: 3.4 µg/m<sup>3</sup> on Jun 29</b>																																															
<b>Maximum Diurnal Average: 6.5 µg/m<sup>3</sup> at hour 7</b>		<b>Minimum Diurnal Average: 3.1 µg/m<sup>3</sup> at hour 21</b>																																															
<b>Monthly Average: 4.73 µg/m<sup>3</sup></b>		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 1.8 Q <sub>1</sub> = 3.3 Median = 4.3 Q <sub>3</sub> = 6.3 P <sub>90</sub> = 8.1 P <sub>99</sub> = 12.5																																															
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-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
2-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
3-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
4-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
5-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
6-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
7-Jun	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-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
9-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
10-Jun	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-Jun	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-Jun	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-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
14-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
15-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
16-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
17-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
18-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
19-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
20-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
21-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
22-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
23-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
24-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
25-Jun	N	N	N	N	N	N	N	N	N	N	C	C	C	C	C	C	C	0	2	4	6	3	4	3	4	--	5.8																						
26-Jun	4	3	5	5	3	5	6	6	8	6	6	5	6	5	7	6	4	5	4	3	3	4	3	5	4.8	7.6																							
27-Jun	7	7	6	7	6	8	7	5	8	8	9	9	7	11	13	10	8	7	5	5	2	2	4	8	7.0	12.5																							
28-Jun	10	11	9	5	7	8	7	7	8	6	6	6	4	4	3	3	4	2	1	1	3	4	4	4	5.3	10.8																							
29-Jun	5	4	3	4	4	8	6	0	3	4	4	4	0	1	1	3	4	4	4	4	3	2	3	4	3.4	8.2																							
30-Jun	4	4	2	3	3	2	7	9	5	4	1	1	2	2	3	5	2	5	5	3	4	4	5	3	3.6	8.6																							
																								6.0	5.7	5.0	4.7	4.5	6.4	6.5	5.3	6.3	5.4	5.2	5.1	3.8	4.8	5.4	5.4	3.8	3.9	3.6	3.7	3.1	3.3	3.8	4.7	Diurnal Average	
																								9.6	10.8	8.7	6.5	7.3	8.2	7.4	8.6	8.3	8.3	9.1	9.3	6.8	11.1	12.5	9.5	8.5	6.9	4.7	5.8	4.4	4.0	5.2	7.9	Diurnal Maximum	
C - Calibration																								N - Not Valid																									



**Pollutant Rose**

**Particulate Matter 2.5 (PM<sub>2.5</sub>) - μg/m<sup>3</sup>**  
**Beaverlodge - June 2014**





Peace Airshed Zone Association

# Hourly Averages

External Temperature (ET) - °C

Beaverlodge - June 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 720
Maximum Value: 26.4 °C on Jun 23 17:00	Maximum Daily Average: 20.7 °C on Jun 23
Minimum Value: 1 °C on Jun 6 04:00	Hours of Data: 720
Minimum Daily Average: 4.7 °C on Jun 4	Hours of Missing Data: 0
Maximum Diurnal Average: 19.2 °C at hour 16	Hours of Calibration: 0
Monthly Average: 14.31 °C	Percent Operational Time: 100.0
Minimum Diurnal Average: 8.9 °C at hour 5	
Percentiles: P <sub>1</sub> = 2.6 P <sub>10</sub> = 7.2 Q <sub>1</sub> = 10.4 Median = 14.2 Q <sub>3</sub> = 18.3 P <sub>90</sub> = 21.6 P <sub>99</sub> = 24.5	

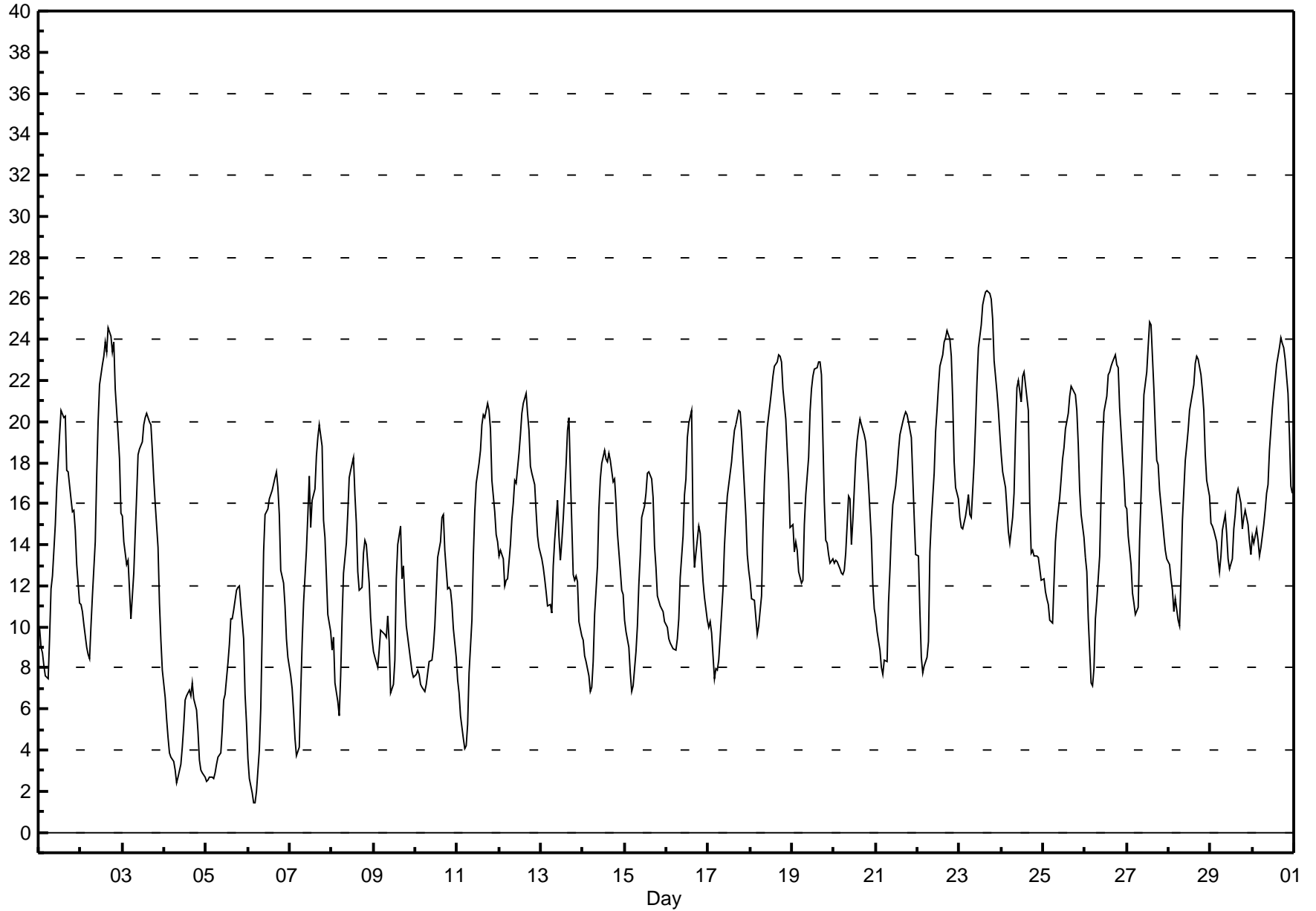
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jun	10	9	9	8	8	7	10	12	12	15	17	18	19	21	20	20	18	18	16	16	16	15	13	11	14.0	20.6	
2-Jun	11	11	10	9	9	8	10	12	14	17	20	22	23	23	24	23	25	24	23	24	22	19	18	16	17.4	24.6	
3-Jun	15	14	13	13	12	10	13	15	16	18	19	19	20	20	20	20	20	19	17	16	14	11	9	8	15.5	20.4	
4-Jun	7	6	5	4	4	3	3	2	3	3	4	5	6	7	7	7	7	7	6	5	4	3	3	3	4.7	7.3	
5-Jun	2	3	3	3	3	3	3	4	4	5	6	7	8	9	10	10	11	12	12	12	11	9	7	5	6.8	12.0	
6-Jun	4	3	2	1	1	2	4	6	10	14	15	16	16	16	17	17	18	17	15	13	12	11	9	9	10.3	17.5	
7-Jun	8	7	6	5	4	4	7	9	11	14	15	17	15	16	17	18	19	20	19	15	14	12	11	10	12.2	19.8	
8-Jun	9	9	7	6	6	8	10	13	14	16	17	18	18	16	15	13	12	12	14	14	14	12	10	9	12.2	18.2	
9-Jun	9	9	8	9	10	10	10	10	11	9	7	7	8	12	14	15	12	13	11	10	9	8	8	8	9.8	14.9	
10-Jun	8	8	8	7	7	7	7	8	8	8	9	10	12	13	14	15	15	14	12	12	12	11	10	9	10.2	15.4	
11-Jun	7	7	6	5	4	4	5	8	10	13	16	17	18	19	20	20	20	21	21	20	17	16	15	14	13.4	20.9	
12-Jun	13	14	13	12	12	12	14	15	16	17	17	18	19	20	21	21	20	20	18	17	17	16	14	14	16.4	21.4	
13-Jun	13	13	12	12	11	11	11	13	14	16	14	13	14	15	18	20	20	17	13	12	12	12	10	10	13.7	20.2	
14-Jun	9	9	8	8	7	7	8	11	13	16	17	18	19	18	18	18	18	17	17	16	15	13	12	12	13.5	18.6	
15-Jun	10	10	9	8	7	7	9	10	12	14	15	16	16	17	18	17	16	14	13	11	11	11	11	10	12.2	17.5	
16-Jun	10	9	9	9	9	9	9	10	12	14	16	17	19	20	21	15	13	14	15	15	13	12	11	10	13.1	20.5	
17-Jun	10	10	10	7	8	8	8	10	12	14	15	16	18	18	19	20	20	21	20	20	18	15	14	13	14.3	20.6	
18-Jun	12	11	11	10	10	10	11	15	17	19	20	21	22	22	23	23	23	23	23	23	22	20	19	17	15	17.4	23.2
19-Jun	15	14	14	14	13	12	12	15	16	18	20	22	22	23	23	23	23	23	22	16	14	14	13	13	16.9	22.9	
20-Jun	13	13	13	13	13	13	13	14	16	16	14	15	18	19	20	20	20	19	19	18	17	14	12	11	15.5	20.1	
21-Jun	10	10	9	8	8	8	8	11	13	15	16	17	18	19	19	20	20	20	20	20	19	17	15	14	14.8	20.5	
22-Jun	13	11	8	8	8	9	9	14	15	17	20	21	22	23	23	24	24	24	24	23	21	18	17	16	17.2	24.5	
23-Jun	15	15	15	15	16	16	15	15	18	20	22	24	25	26	26	26	26	26	26	26	25	23	21	21	19	20.7	26.4
24-Jun	18	18	17	16	15	14	15	16	19	22	22	21	22	22	22	21	16	14	14	13	13	13	13	12	17.0	22.5	
25-Jun	12	12	11	11	10	10	12	14	15	16	17	18	19	20	20	21	22	22	21	21	19	17	15	14	16.3	21.7	
26-Jun	13	13	10	7	7	8	10	11	13	16	19	20	21	22	22	23	23	23	23	23	21	18	17	16	16.8	23.3	
27-Jun	16	14	13	12	11	11	11	14	16	19	21	22	24	25	25	22	20	18	18	17	15	14	14	13	16.9	24.9	
28-Jun	13	12	12	11	11	10	10	12	15	18	19	20	21	21	22	23	23	23	22	22	21	18	17	16	17.2	23.2	
29-Jun	15	15	15	14	13	13	13	15	15	15	13	13	13	15	16	16	17	16	15	15	16	15	14	14	14.6	16.7	
30-Jun	14	14	15	14	13	14	15	16	17	17	19	21	21	22	23	24	24	24	24	24	23	21	19	17	16	18.6	24.1

11.3	10.7	10.0	9.3	8.9	9.0	9.9	11.6	13.3	15.1	16.1	17.0	17.9	18.7	19.2	19.2	18.9	18.4	17.6	16.8	15.7	14.2	12.9	12.0	Diurnal Average	
18.4	17.6	16.8	15.8	15.9	16.4	15.5	16.5	19.3	21.6	22.0	23.6	24.7	25.7	26.0	26.3	26.4	26.3	26.0	25.0	23.0	21.4	20.5	19.4	Diurnal Maximum	

**Hourly Averages**

**External Temperature (ET) - °C**

**Beaverlodge - June 2014**



# Hourly Averages

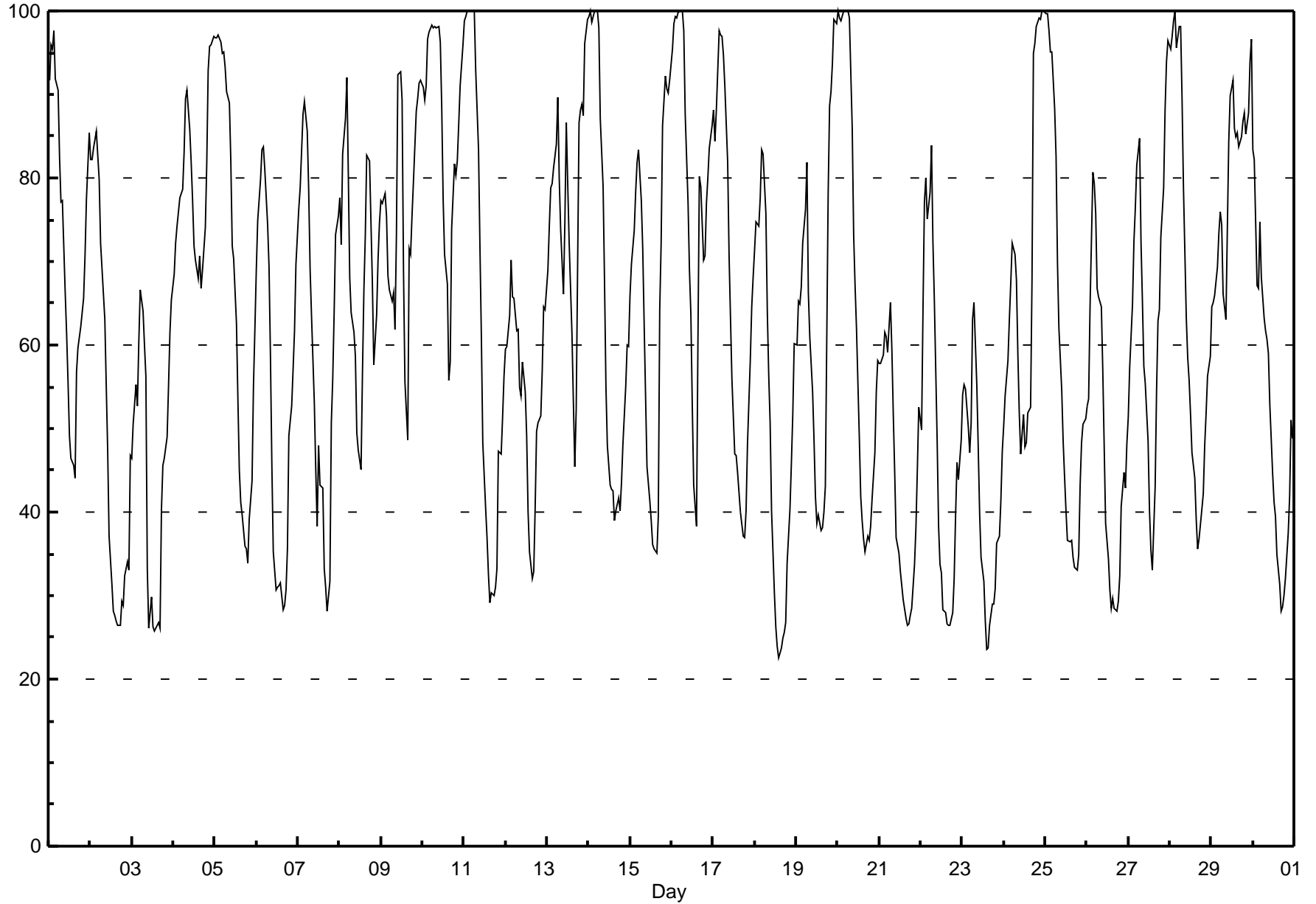
Relative Humidity (RH) - %

Beaverlodge - June 2014

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 100.0 % on Jun 11 03:00 Maximum Daily Average: 85.9 % on Jun 10		Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																								
Minimum Value: 22 % on Jun 18 15:00 Maximum Diurnal Average: 82.2 % at hour 5 Monthly Average: 62.79 %		Minimum Daily Average: 41.7 % on Jun 23 Minimum Diurnal Average: 41.1 % at hour 16 Percentiles: P <sub>1</sub> = 25.7 P <sub>10</sub> = 32.3 Q <sub>1</sub> = 44.0 Median = 63.0 Q <sub>3</sub> = 81.7 P <sub>90</sub> = 95.5 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-Jun	92	96	96	98	92	90	83	77	77	66	61	56	49	46	46	44	57	60	62	64	66	71	77	85	71.2	97.5
2-Jun	82	82	84	86	83	80	72	69	63	55	48	37	31	28	28	27	26	27	29	29	32	34	33	47	50.5	85.7
3-Jun	46	50	55	53	60	67	64	60	56	33	26	30	26	26	26	27	26	40	46	46	49	55	62	65	45.6	66.6
4-Jun	69	72	74	76	78	79	83	90	91	86	82	77	72	70	68	71	67	69	74	82	93	96	96	97	79.6	97.0
5-Jun	97	97	97	96	95	95	93	90	89	82	72	70	63	54	45	41	40	36	36	34	39	44	55	62	67.5	97.2
6-Jun	69	75	80	83	84	81	74	69	59	46	35	31	31	31	32	28	29	31	36	49	53	57	62	70	53.9	83.7
7-Jun	76	79	83	88	89	86	79	69	64	53	45	38	48	43	43	33	31	28	32	51	56	64	73	75	59.4	89.2
8-Jun	78	72	83	87	92	80	68	64	61	59	50	47	45	57	67	73	83	82	75	67	58	64	70	75	69.0	92.1
9-Jun	77	77	78	75	68	67	65	66	62	73	92	93	89	69	56	49	71	71	75	80	88	89	91	92	75.6	92.7
10-Jun	91	89	91	97	97	98	98	98	98	98	96	89	78	71	67	56	58	74	82	80	82	86	91	96	85.9	98.3
11-Jun	99	99	100	100	100	100	100	93	83	72	61	48	41	37	33	29	30	30	31	33	47	47	51	56	63.4	100.0
12-Jun	60	60	64	70	66	66	62	62	55	54	58	54	49	40	35	32	33	41	50	51	52	57	65	64	54.0	70.2
13-Jun	69	74	79	79	81	84	90	80	74	66	75	87	79	72	61	53	46	52	87	88	89	87	96	99	77.0	98.9
14-Jun	99	100	99	100	100	100	98	87	79	68	55	48	43	43	43	39	40	42	40	44	48	55	60	60	66.2	100.0
15-Jun	66	70	74	78	82	83	77	72	63	54	45	41	39	36	36	35	39	64	72	86	92	91	90	92	65.7	92.2
16-Jun	95	99	99	99	100	100	100	98	88	77	69	64	53	43	38	60	80	79	70	71	77	80	84	86	79.5	100.0
17-Jun	88	84	88	98	97	97	95	91	82	71	63	56	47	47	45	42	40	37	37	40	48	58	65	68	66.0	97.7
18-Jun	71	75	74	78	83	83	76	64	56	51	40	30	26	24	22	24	25	26	27	34	40	46	52	60	49.5	83.4
19-Jun	60	65	65	67	72	76	82	66	61	54	49	42	39	40	38	38	40	43	78	89	90	94	99	98	64.4	98.9
20-Jun	100	99	99	100	100	100	100	99	86	73	67	62	49	42	39	37	35	37	37	38	41	47	54	58	66.7	100.0
21-Jun	58	58	59	62	61	59	65	59	52	45	37	35	33	31	29	27	26	27	28	28	34	38	45	53	43.7	65.1
22-Jun	50	64	77	80	75	78	84	72	65	49	38	34	33	28	28	27	26	27	28	32	40	46	44	49	48.9	83.9
23-Jun	54	55	55	50	47	51	63	65	55	48	40	35	32	27	24	24	26	29	29	31	36	37	41	47	41.7	65.1
24-Jun	50	54	58	63	67	72	71	68	59	52	47	52	48	48	52	53	68	95	96	98	99	99	100	100	69.5	100.0
25-Jun	100	100	98	95	95	88	83	70	62	55	49	44	40	37	36	37	35	33	33	35	43	48	50	51	59.0	99.6
26-Jun	53	54	65	81	79	76	67	66	65	57	48	39	34	31	29	30	28	28	29	32	41	45	43	48	48.6	80.7
27-Jun	51	57	65	72	76	82	85	72	65	58	55	48	40	35	33	43	55	63	64	73	79	88	94	96	64.6	96.4
28-Jun	95	97	99	100	96	98	98	89	79	63	58	56	52	47	44	39	36	37	40	42	48	52	56	59	65.9	100.0
29-Jun	65	65	66	69	73	76	74	66	63	74	84	90	92	86	85	85	84	85	87	88	85	88	94	97	80.0	96.6
30-Jun	83	82	67	67	75	68	63	62	61	59	53	45	41	40	35	31	28	29	30	32	38	42	51	49	51.2	83.4
	74.8	76.7	78.9	81.6	82.2	82.0	80.4	75.2	69.1	61.6	56.6	52.6	48.1	44.3	42.0	41.1	43.6	47.3	51.3	54.9	59.4	63.5	68.2	71.8	Diurnal Average	
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.2	97.9	98.1	96.2	92.7	91.8	85.9	84.9	85.5	83.7	94.8	96.1	98.1	99.2	99.0	100.0	100.0	Diurnal Maximum	

**Hourly Averages**

**Relative Humidity (RH) - %**  
**Beaverlodge - June 2014**









Peace Airshed Zone Association

# Hourly Averages

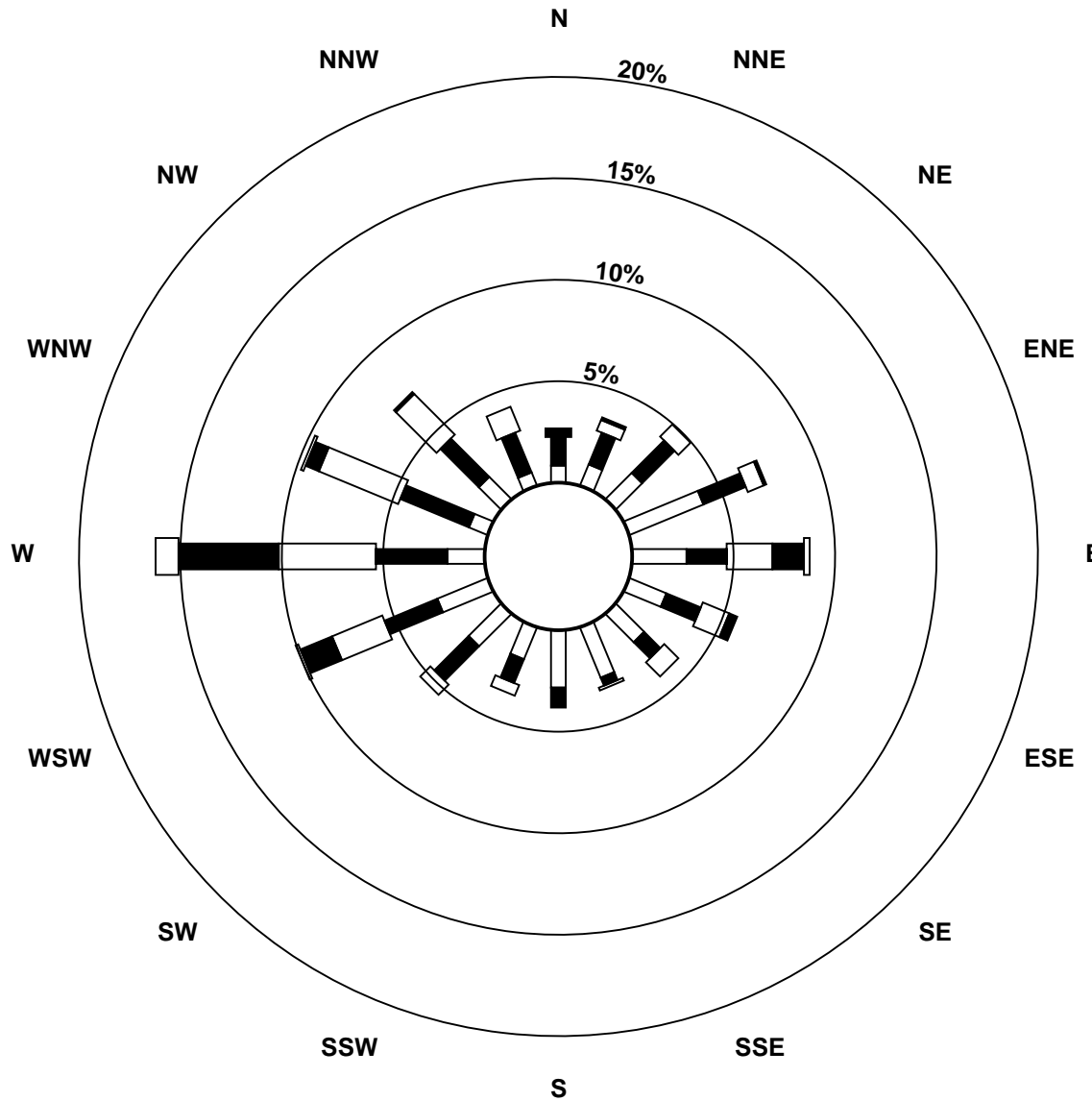
Wind Speed (km/h)  
Wind Direction (deg)  
Beaverlodge - June 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	12	7	7	7	8	3	4	4	10	12	19	23	23	20	13	14	17	24	24	21	16	18	25	25	14.2	25.1
Dir	91	88	90	74	75	105	218	196	111	108	104	98	95	97	91	95	96	85	79	79	74	79	85	96	91	85
24 Spd	21	20	15	9	3	3	2	5	6	7	13	12	17	14	19	26	24	14	12	7	1	2	5	4	4.1	25.7
Dir	102	101	106	110	170	336	235	248	284	306	272	273	297	297	287	271	263	248	237	231	353	180	125	71	262	271
25 Spd	2	3	3	3	2	3	3	13	16	20	24	20	17	18	16	14	16	19	18	17	14	9	9	10	10.8	24.0
Dir	137	162	164	174	103	141	198	259	266	275	271	268	269	270	258	273	265	260	254	259	259	277	316	306	265	271
26 Spd	11	9	2	4	4	3	2	4	4	5	4	4	2	2	4	4	8	7	10	12	8	9	9	6	2.0	12.1
Dir	304	298	218	80	65	67	169	175	161	190	211	233	266	245	245	37	35	43	46	88	61	41	52	79	53	88
27 Spd	5	1	6	4	3	2	4	5	5	3	3	8	14	16	14	9	3	13	7	10	3	4	8	5	2.1	16.5
Dir	60	185	39	29	3	47	235	243	220	287	46	64	83	94	82	276	239	71	359	15	329	276	252	239	49	94
28 Spd	5	3	5	2	4	2	5	7	6	17	22	16	10	9	8	12	14	12	25	20	11	11	9	8	9.3	25.0
Dir	263	230	285	277	269	154	181	213	228	271	276	284	302	302	295	275	283	287	266	265	247	257	265	257	269	266
29 Spd	8	8	11	8	6	6	7	10	15	15	11	4	5	5	8	6	7	8	8	6	2	5	0	2	3.4	15.4
Dir	236	254	265	250	226	232	255	263	280	292	279	357	91	120	176	181	189	45	54	224	179	14	200	80	254	292
30 Spd	2	5	6	6	1	5	6	9	8	9	12	20	18	15	9	8	14	17	19	18	10	6	4	7	9.3	19.8
Dir	265	239	313	292	209	276	275	252	257	274	281	281	280	272	316	301	277	259	266	273	277	287	303	292	277	281
Spd	1.7	1.2	1.5	1.7	1.5	1.8	2.3	4.5	5.3	7.6	7.8	5.9	4.4	3.8	4.5	6.1	2.9	3.6	4.7	4.6	4.5	2.9	1.6	2.2	Diurnal Average	
Dir	8	347	327	335	349	301	262	257	257	266	260	265	262	276	276	277	277	260	275	298	299	311	342	359	Diurnal Maximum	
Spd	21.3	20.1	15.9	15.2	20.0	20.5	22.2	22.4	26.7	31.4	30.6	27.4	28.8	30.3	33.9	35.4	34.1	27.1	26.7	23.7	25.6	18.6	25.1	25.0	Diurnal Maximum	
Dir	102	101	306	40	253	266	258	261	275	290	264	262	262	80	266	255	266	258	260	250	250	243	85	96	Diurnal Maximum	
Maximum Speed Value: 35 km/h on Jun 14 16:00		Minimum Speed Value: 0 km/h on Jun 7 05:00										Hours in Service: 720														
Maximum Daily Speed Average: 14.9 km/h on Jun 9		Minimum Daily Speed Average: 0.7 km/h on Jun 11										Hours of Data: 720														
Maximum Diurnal Speed Average: 7.8 km/h at hour 11		Minimum Diurnal Speed Average: 1.2 km/h at hour 2										Hours of Missing Data: 0														
Monthly Average Velocity: 3.27 km/h 280.6 deg		Speed Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 2.4 Q <sub>1</sub> = 4.4 Median = 8.5 Q <sub>3</sub> = 14.4 P <sub>90</sub> = 20.2 P <sub>99</sub> = 30.4										Percent Operational Time: 100.0														
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
		Speed Range (km/h)																								
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	10	20	8	4	0	0	42																			
NorthEast	32	35	10	0	0	0	77																			
East	35	29	30	16	2	0	112																			
SouthEast	30	16	11	0	0	0	57																			
South	36	16	5	0	0	0	57																			
SouthWest	36	30	14	2	0	0	82																			
West	21	45	64	52	10	0	192																			
NorthWest	16	38	44	3	0	0	101																			
Total	216	229	186	77	12	0	720																			

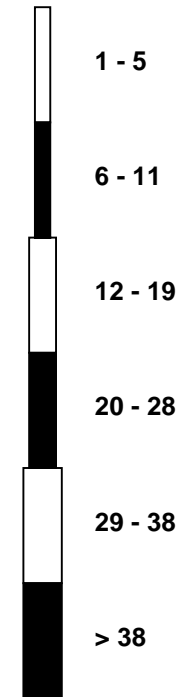
**Wind Rose**

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

**Beaverlodge - June 2014**



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



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - June 2014

<b>Maximum Speed: 36 km/h on Jun 14 16:00</b>		<b>Maximum Daily Speed Average: 17.4 km/h on Jun 9</b>		Hours in Service: 720																																													
<b>Minimum Speed: 2 km/h on Jun 7 05:00</b>		<b>Minimum Daily Speed Average: 5.0 km/h on Jun 11</b>		Hours of Data: 720																																													
<b>Maximum Diurnal Speed Average: 16.3 km/h at hour 16</b>		<b>Minimum Diurnal Speed Average: 5.6 km/h at hour 7</b>		Hours of Missing Data: 0																																													
<b>Monthly Average Speed: 10.96 km/h</b>		Percentiles: P <sub>1</sub> = 2.3 P <sub>10</sub> = 3.6 Q <sub>1</sub> = 5.6 Median = 9.2 Q <sub>3</sub> = 15.1 P <sub>90</sub> = 20.5 P <sub>99</sub> = 30.7		<b>Percent Operational Time: 100.0</b>																																													
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-Jun	6	3	3	2	4	5	3	3	5	13	9	9	8	7	11	14	12	10	17	13	12	7	6	3	7.7	16.5																							
2-Jun	3	5	3	4	3	3	5	6	5	5	5	6	8	5	8	7	7	8	11	11	15	10	9	5	6.5	14.6																							
3-Jun	4	4	4	4	5	3	3	5	10	31	31	26	23	21	23	21	18	22	21	20	20	16	12	15	15.1	31.3																							
4-Jun	15	15	15	13	11	11	12	11	11	12	14	14	16	17	18	19	20	18	19	21	19	17	17	17	15.5	21.1																							
5-Jun	17	17	16	15	11	11	11	14	12	10	9	11	7	8	11	14	15	16	14	12	8	5	2	3	11.1	16.9																							
6-Jun	4	4	2	3	2	3	4	6	10	12	14	19	18	18	17	17	20	24	17	15	15	5	3	5	10.7	24.0																							
7-Jun	5	3	4	4	2	2	3	4	5	7	7	6	19	10	6	12	7	6	13	18	9	8	8	9	7.4	18.9																							
8-Jun	6	4	4	3	3	3	2	6	13	9	23	22	22	18	17	21	11	11	15	16	20	19	12	10	12.2	23.3																							
9-Jun	8	14	11	9	20	21	22	23	27	32	18	10	8	28	34	33	12	11	16	16	18	10	8	9	17.4	34.3																							
10-Jun	13	14	14	13	13	14	11	15	15	12	11	12	8	9	9	8	8	11	14	7	4	5	5	3	10.4	15.0																							
11-Jun	4	3	3	3	3	2	3	4	5	5	5	6	6	7	6	5	6	5	5	4	7	7	9	7	5.0	8.7																							
12-Jun	6	10	12	15	12	9	5	8	10	11	14	21	29	31	27	25	20	19	17	8	10	11	19	10	15.0	30.7																							
13-Jun	5	7	7	6	8	3	6	6	4	4	10	8	8	8	8	10	12	16	18	9	9	5	6	5	7.8	18.3																							
14-Jun	4	6	5	3	3	4	6	6	9	15	19	25	29	29	26	36	34	28	27	24	26	18	16	15	17.2	35.8																							
15-Jun	4	5	4	3	4	3	4	7	6	9	7	7	6	7	8	13	14	18	12	7	6	6	4	7	7.1	18.0																							
16-Jun	5	5	3	2	6	5	4	9	11	7	5	6	9	11	11	24	20	15	6	8	9	9	11	13	8.8	23.6																							
17-Jun	14	13	9	8	8	9	4	5	6	5	7	8	8	8	8	6	9	7	9	12	12	12	12	11	8.7	14.0																							
18-Jun	9	7	4	3	3	2	3	5	13	19	24	26	25	22	21	18	12	15	15	14	7	6	9	8	12.1	25.5																							
19-Jun	8	9	6	9	4	4	4	3	6	6	6	13	16	18	22	20	18	13	26	14	11	9	6	8	10.9	26.2																							
20-Jun	10	5	4	8	9	6	5	7	4	20	18	13	23	25	24	26	23	21	24	21	16	13	11	11	14.4	25.9																							
21-Jun	10	8	8	4	4	9	7	10	18	22	31	28	25	25	19	20	17	16	16	14	7	7	8	10	14.3	30.9																							
22-Jun	9	6	6	5	4	2	3	3	7	14	15	17	15	15	14	10	10	12	16	13	11	11	10	14	10.0	17.0																							
23-Jun	12	7	7	7	8	4	4	4	10	12	19	24	24	21	15	15	18	24	24	21	16	18	25	25	15.2	25.2																							
24-Jun	21	20	15	9	4	5	2	5	6	7	13	12	18	15	19	26	24	14	13	7	4	3	5	4	11.4	26.3																							
25-Jun	3	4	3	3	2	4	4	13	17	20	24	21	18	19	17	15	17	20	19	17	14	9	9	10	12.5	24.4																							
26-Jun	11	9	5	4	4	4	3	5	4	5	5	6	6	6	6	8	9	8	11	12	8	9	10	7	6.8	12.4																							
27-Jun	5	2	6	4	7	4	4	5	6	5	5	9	15	17	15	17	16	16	8	10	8	7	8	5	8.5	17.3																							
28-Jun	6	3	5	3	5	2	5	7	6	18	22	17	11	10	10	13	15	14	25	20	11	11	9	8	10.7	25.4																							
29-Jun	8	8	11	8	6	6	7	10	15	16	14	8	5	6	8	7	7	12	11	6	3	6	4	4	8.1	15.8																							
30-Jun	3	6	7	6	3	6	6	9	8	9	12	20	19	16	11	9	15	17	19	18	10	6	4	7	10.2	20.2																							
																								7.8	7.5	6.9	6.1	6.1	5.6	5.6	7.5	9.5	12.4	13.9	14.3	15.0	15.2	15.0	16.3	14.9	14.9	15.9	13.6	11.5	9.6	9.3	8.9	Diurnal Average	
																								21.3	20.1	16.0	15.2	20.1	20.6	22.3	22.5	27.3	31.8	30.9	28.1	29.2	30.7	34.3	35.8	34.4	27.8	27.2	23.9	25.7	18.6	25.2	25.1	Diurnal Maximum	
All monthly, daily, and diurnal averages have been calculated using scalar methods																																																	

# Hourly Standard Deviations

Wind Direction (WD) - deg

Beaverlodge - June 2014

Maximum Value: 95.4 deg on Jun 7 05:00 Minimum Value: 2.2 deg on Jun 24 02:00 Percentiles: P <sub>1</sub> = 2.9 P <sub>10</sub> = 6.7 Q <sub>1</sub> = 10.4 Median = 19.3 Q <sub>3</sub> = 38.3 P <sub>90</sub> = 62.8 P <sub>99</sub> = 91.6																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Maximum
1-Jun	56	56	84	57	85	12	16	47	28	14	21	36	60	49	30	44	10	22	16	18	19	56	34	40	85.3
2-Jun	29	11	19	43	17	40	10	10	18	33	52	61	43	81	76	86	48	60	11	15	16	21	12	63	85.8
3-Jun	23	23	77	43	90	63	70	34	24	9	10	15	16	11	11	14	14	23	10	9	8	7	6	7	90.4
4-Jun	7	7	8	11	10	9	9	9	10	12	14	15	14	15	13	10	14	16	10	7	6	6	6	5	15.5
5-Jun	5	6	5	8	14	7	7	8	13	11	31	63	49	93	31	23	15	15	16	15	16	6	83	14	93.2
6-Jun	26	45	26	15	35	16	19	13	14	21	25	19	19	21	17	30	22	10	59	13	50	47	37	69	69.3
7-Jun	75	16	75	64	95	78	54	60	42	25	45	79	53	64	55	41	78	49	54	13	54	26	25	6	95.4
8-Jun	58	45	21	14	52	30	30	26	8	15	9	8	18	28	29	16	14	6	6	16	3	3	12	12	58.4
9-Jun	36	3	11	32	5	6	5	6	12	10	9	7	19	9	9	9	27	38	19	8	15	12	6	6	38.0
10-Jun	8	8	4	4	4	6	53	8	5	9	8	21	23	33	25	53	55	23	8	34	61	77	69	77	77.3
11-Jun	10	27	48	25	41	79	39	25	46	20	29	50	63	53	73	71	55	47	28	20	12	11	9	8	79.0
12-Jun	82	86	22	3	5	14	10	10	20	19	18	12	10	10	11	13	8	34	11	30	32	14	12	25	86.2
13-Jun	52	30	16	17	9	35	31	22	43	74	21	58	15	19	26	22	15	53	17	20	22	49	18	48	74.3
14-Jun	86	17	35	48	30	29	22	15	22	15	19	12	10	9	14	8	9	13	12	7	5	5	6	10	85.8
15-Jun	73	51	70	43	59	42	67	17	21	24	39	74	78	70	64	18	45	7	25	14	58	7	35	9	77.6
16-Jun	87	24	40	84	41	31	28	13	21	33	59	52	62	32	50	93	38	25	20	21	11	20	8	9	92.9
17-Jun	8	5	6	32	22	44	42	20	29	38	40	39	45	47	36	51	47	52	29	10	7	3	3	3	52.0
18-Jun	5	8	31	36	34	34	33	84	11	9	8	15	12	21	19	19	25	24	12	18	11	10	10	26	84.2
19-Jun	31	29	38	36	15	37	78	41	14	21	78	23	15	14	11	10	11	79	46	14	36	45	62	44	79.1
20-Jun	25	87	56	33	53	11	80	16	71	17	9	9	13	11	15	14	11	13	7	8	5	7	5	5	86.9
21-Jun	8	9	15	58	90	10	11	19	9	11	8	13	12	13	20	17	15	14	9	9	12	8	23	6	90.0
22-Jun	2	92	66	64	63	92	33	47	24	10	13	14	21	22	23	38	38	24	17	3	3	6	3	5	92.0
23-Jun	3	8	15	4	11	47	20	35	11	14	13	8	10	20	28	21	20	12	7	4	2	3	3	5	46.6
24-Jun	2	2	3	26	33	79	62	26	25	18	16	12	13	17	10	12	9	11	8	19	89	57	9	15	88.5
25-Jun	41	10	31	10	42	32	18	10	10	9	10	15	17	14	18	25	22	15	7	6	4	8	15	4	42.4
26-Jun	4	4	68	23	12	23	38	15	25	28	47	60	93	92	63	77	31	25	16	13	12	6	7	35	92.8
27-Jun	48	82	14	27	61	74	14	21	19	57	68	35	22	19	20	82	83	34	30	16	61	64	12	33	83.2
28-Jun	37	37	25	61	47	53	33	16	23	12	8	18	30	42	45	25	19	26	10	7	4	5	7	20	60.7
29-Jun	9	10	8	12	20	13	9	5	6	12	50	57	35	28	10	18	12	70	57	33	36	76	88	72	87.7
30-Jun	59	33	14	9	86	68	9	11	8	10	18	12	15	24	31	31	30	12	10	5	5	11	46	13	85.6
	86.8	92.0	83.6	84.1	95.4	91.7	80.5	84.2	71.3	74.3	78.1	78.8	92.8	93.2	76.3	92.9	83.2	79.1	59.4	33.9	88.5	76.9	87.7	77.3	

**PAZA**  
**Valleyview Station**  
**Monthly Summary Tables, Graphs and**  
**Roses**

## Hourly Averages

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

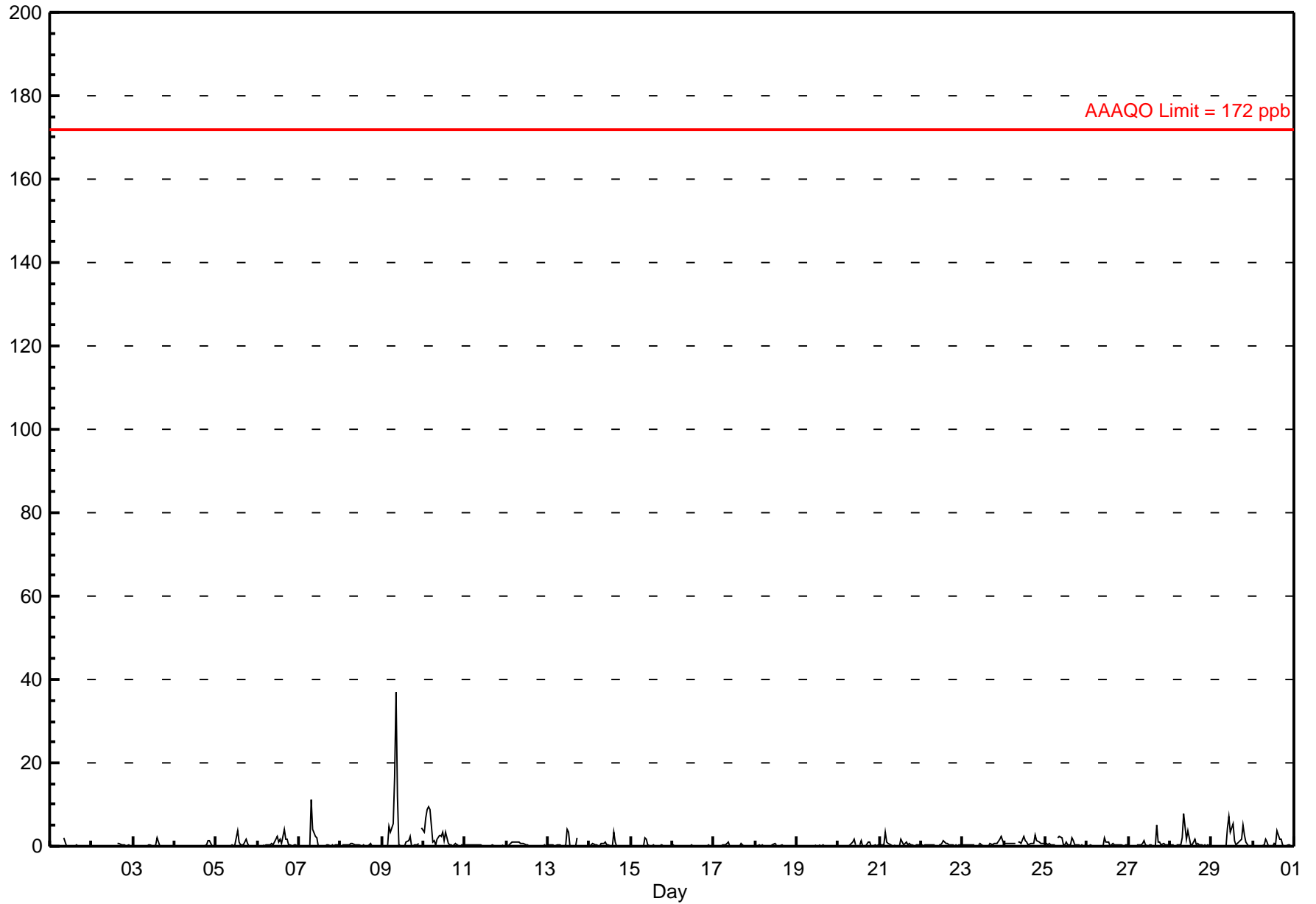
Valleyview - June 2014

Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 36.8 ppb on Jun 9 09:00	Maximum Daily Average: 3.9 ppb on Jun 9		Hours of Data:	685
Minimum Value: 0 ppb on Jun 1 02:00	Minimum Daily Average: 0.0 ppb on Jun 16		Hours of Missing Data:	35
Maximum Diurnal Average: 2.2 ppb at hour 9	Minimum Diurnal Average: 0.2 ppb at hour 23		Hours of Calibration:	35
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 = 0.2 Q <sub>3</sub> = 0.5 P <sub>90</sub> = 1.5 P <sub>99</sub> = 8.8		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-Jun	0	0	0	0	0	0	0	A	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.9	
2-Jun	0	0	0	0	0	0	A	0	0	0	0	C	C	C	C	1	1	0	0	0	0	0	0	0	0.2	0.8	
3-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0.1	2.1	
4-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0.2	1.4	
5-Jun	0	0	0	A	0	0	0	0	0	0	0	0	4	1	0	0	0	2	1	0	0	0	0	0	0.4	3.9	
6-Jun	0	0	A	0	0	0	0	0	1	0	1	2	1	2	1	4	2	2	0	0	0	0	0	0	0.8	3.9	
7-Jun	0	A	0	0	0	0	0	11	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0	11.1	
8-Jun	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.2	0.6	
9-Jun	0	0	0	0	5	3	6	17	37	12	0	0	0	0	1	1	2	0	0	0	0	1	A	4	3.9	36.8	
10-Jun	3	7	9	9	9	1	1	0	2	3	2	3	1	3	1	0	0	0	1	0	0	A	0	0	2.5	9.5	
11-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.4	
12-Jun	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0.4	1.2	
13-Jun	0	0	0	0	0	0	0	0	0	0	0	4	3	0	0	0	0	2	A	0	0	0	0	0	0.5	4.1	
14-Jun	0	0	1	0	0	0	0	1	1	1	0	0	0	0	3	1	0	A	0	0	0	0	0	0	0.4	3.2	
15-Jun	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	2.1	
16-Jun	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	0.3	
17-Jun	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0.1	1.0	
18-Jun	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.5	
19-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
20-Jun	0	0	0	0	0	0	0	1	2	0	A	0	1	0	0	0	0	1	1	0	0	0	0	0	0.4	1.7	
21-Jun	0	0	0	3	1	1	0	0	0	0	A	0	2	1	0	1	0	1	0	0	0	0	0	0	0.6	3.3	
22-Jun	0	0	0	0	0	0	0	0	0	A	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0.3	1.3	
23-Jun	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	1	0	1	1	1	1	2	2	2	0.5	2.4
24-Jun	1	1	1	1	1	1	1	A	1	1	1	2	1	1	0	1	1	1	3	1	1	1	1	1	0.9	2.9	
25-Jun	1	0	1	0	0	0	A	2	2	2	0	0	1	0	0	2	1	0	0	0	0	0	0	0	0.7	2.5	
26-Jun	0	0	0	0	0	A	0	0	0	0	2	1	1	0	0	1	0	0	0	0	0	0	0	0	0.3	1.9	
27-Jun	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	5	1	1	0	1	0	0	0	0.6	5.2	
28-Jun	0	0	0	A	0	0	0	2	8	2	4	2	1	0	2	0	1	0	0	0	0	0	0	0	1.0	7.7	
29-Jun	0	0	A	0	0	0	0	0	0	4	7	3	5	1	0	1	1	2	5	3	1	0	0	0	1.5	7.3	
30-Jun	0	A	0	0	0	0	0	2	1	0	0	0	1	0	4	2	2	0	0	0	0	0	0	0	0.5	3.7	

0.3	0.4	0.5	0.6	0.7	0.4	0.5	1.4	2.2	1.2	0.8	0.8	0.8	0.5	0.6	0.6	0.7	0.5	0.5	0.3	0.3	0.2	0.2	0.3	Diurnal Average	
3.5	6.6	8.8	9.5	9.0	3.3	5.5	16.6	36.8	12.0	7.3	4.1	5.4	3.3	3.7	3.9	5.2	2.0	5.0	2.6	1.4	1.7	2.4	4.2	Diurnal Maximum	

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





## Hourly Maximums

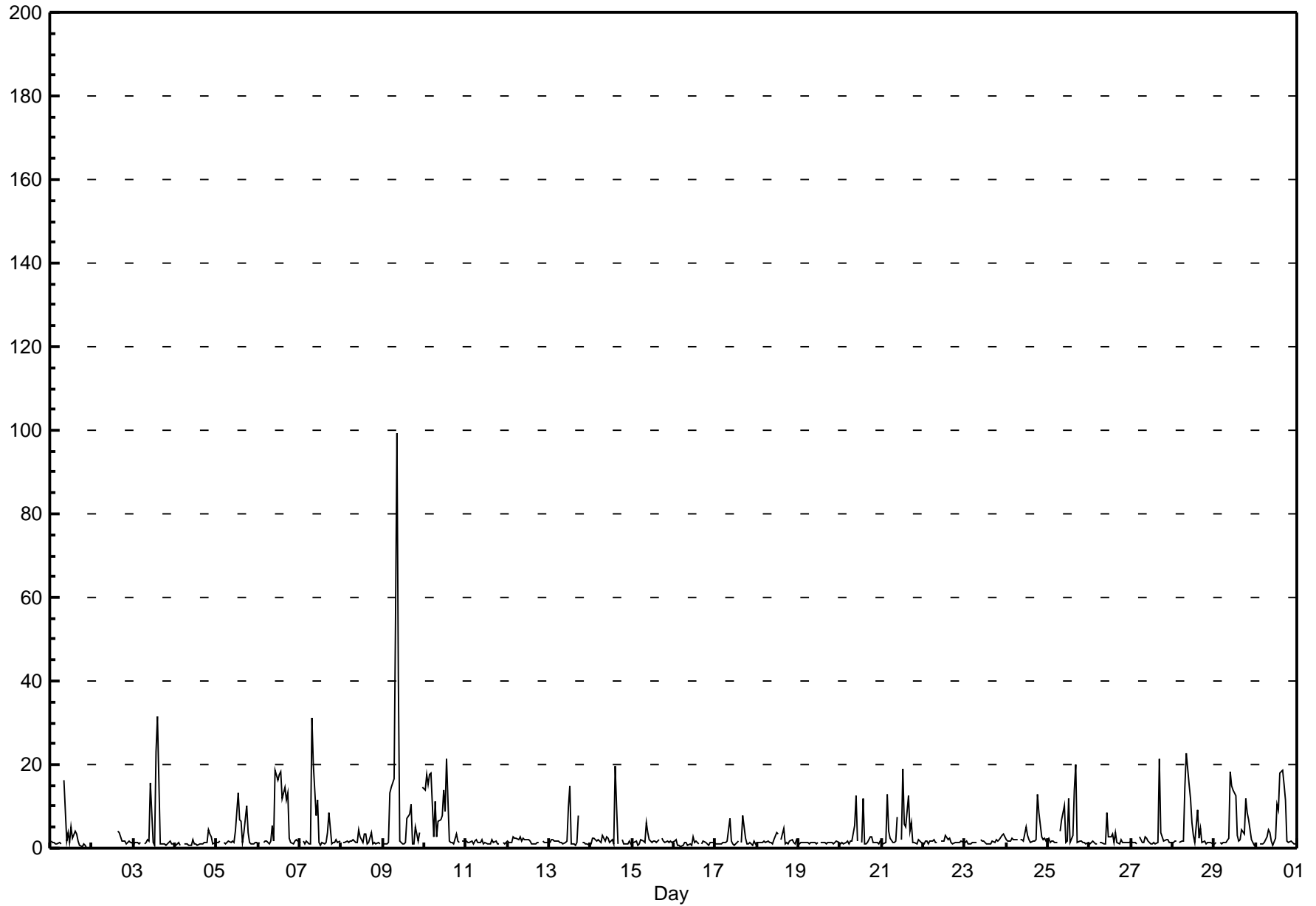
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Valleyview - June 2014

Maximum Value: 99.4 ppb on Jun 9 09:00		Maximum Daily Average: 13.1 ppb on Jun 9		Hours in Service: 720																							
Minimum Value: 0 ppb on Jun 1 22:00		Minimum Daily Average: 1.0 ppb on Jun 2		Hours of Data: 685																							
Maximum Diurnal Average: 7.8 ppb at hour 9		Minimum Diurnal Average: 1.4 ppb at hour 23		Hours of Missing Data: 35																							
Monthly Average: 3.29 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 1.0 Q <sub>1</sub> = 1.2 Median = 1.5 Q <sub>3</sub> = 2.2 P <sub>90</sub> = 8.4 P <sub>99</sub> = 22.7		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-Jun	2	1	1	1	1	1	1	A	16	2	4	1	5	2	4	4	2	1	0	1	1	0	0	0	2.2	16.3	
2-Jun	0	0	0	0	0	0	A	0	0	0	0	C	C	C	C	4	4	2	2	2	1	2	1	1	1.0	4.1	
3-Jun	1	1	1	1	1	A	1	1	2	2	15	1	1	23	32	1	1	1	1	1	1	2	1	1	4.1	31.6	
4-Jun	1	1	1	1	A	1	1	1	1	1	2	1	1	1	1	1	1	1	1	4	4	3	1	1	1.4	4.4	
5-Jun	1	1	2	A	1	1	1	2	1	2	1	4	13	7	6	1	4	10	4	1	1	1	1	1	3.0	13.3	
6-Jun	1	1	A	1	2	2	1	2	6	2	19	16	18	18	12	14	12	13	2	1	1	2	2	2	6.4	18.5	
7-Jun	1	A	2	1	2	1	1	31	20	8	12	1	1	1	1	1	4	8	1	1	1	2	1	2	4.6	31.2	
8-Jun	A	1	1	2	1	2	2	2	2	1	4	3	1	3	4	1	1	4	1	1	1	1	1	A	1.9	4.3	
9-Jun	1	1	1	1	13	14	17	55	99	41	2	1	1	1	7	8	11	1	1	5	2	4	A	14	13.1	99.4	
10-Jun	14	18	15	17	18	3	11	3	6	7	8	14	9	21	2	1	1	1	3	2	1	A	2	2	7.8	21.3	
11-Jun	2	1	1	2	1	2	2	1	1	2	1	1	1	1	1	2	1	2	1	1	A	1	1	1	1.4	2.1	
12-Jun	2	1	2	3	2	2	2	3	2	2	2	2	2	1	1	1	1	1	1	A	2	2	1	1	1.7	2.7	
13-Jun	1	2	2	2	2	2	1	1	1	1	2	10	15	1	1	1	1	8	A	1	1	1	1	1	2.6	15.1	
14-Jun	1	2	2	2	2	2	1	3	2	3	3	1	2	1	20	10	1	A	2	1	1	1	2	1	2.8	19.5	
15-Jun	1	1	2	1	1	2	2	2	6	4	2	1	2	2	1	2	A	2	2	1	2	2	2	1	1.9	6.2	
16-Jun	2	2	1	1	1	1	1	1	1	1	1	3	1	2	1	A	1	2	1	1	1	1	1	1	1.2	2.6	
17-Jun	1	1	1	1	1	1	1	2	7	2	1	1	1	2	A	1	8	2	1	1	1	1	2	1	1.8	7.7	
18-Jun	1	1	2	1	2	1	2	1	1	1	2	4	3	A	2	5	1	1	1	2	2	1	1	2	1.8	4.7	
19-Jun	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	1	1.3	1.7	
20-Jun	1	1	1	1	2	1	2	2	6	13	2	A	2	12	1	1	1	3	3	1	1	1	1	2	2.6	12.6	
21-Jun	1	1	1	13	4	2	1	1	2	8	A	2	19	6	5	13	4	6	1	1	1	2	2	1	4.3	19.0	
22-Jun	1	2	2	1	2	2	2	1	1	A	2	2	2	3	2	2	2	2	1	1	1	1	2	1	1.6	3.2	
23-Jun	2	2	1	1	1	1	1	1	A	2	2	2	1	1	1	1	2	1	2	2	2	3	3	3	1.7	3.4	
24-Jun	2	2	2	2	2	2	2	A	2	2	2	5	3	2	1	2	2	2	13	8	3	2	2	2	2.9	12.8	
25-Jun	2	1	2	2	1	1	A	4	7	10	1	2	12	1	3	14	20	1	2	2	1	1	1	1	4.1	19.8	
26-Jun	1	1	2	1	1	A	1	1	1	1	8	3	3	3	2	4	1	1	2	1	1	1	1	1	1.9	8.4	
27-Jun	2	1	1	1	A	3	1	1	3	2	2	1	1	1	1	1	21	4	3	2	2	2	2	1	2.6	21.3	
28-Jun	1	2	2	A	1	2	2	15	23	15	12	6	3	1	9	2	5	1	2	1	1	1	1	1	4.8	22.8	
29-Jun	1	1	A	1	1	1	1	1	3	18	15	14	13	3	2	2	4	3	12	9	7	2	1	1	5.1	18.2	
30-Jun	1	A	1	1	1	1	3	4	4	2	1	2	10	9	18	19	15	12	2	1	2	1	1	1	4.9	18.7	
		1.7	1.9	1.9	2.3	2.5	2.0	2.4	5.2	7.8	5.3	4.4	3.7	5.2	4.8	5.0	4.2	4.6	3.4	2.4	2.1	1.7	1.6	1.4	1.8	Diurnal Average	
		14.0	17.8	15.3	17.5	17.8	14.5	16.6	54.6	99.4	40.5	18.5	16.2	19.0	23.0	31.6	18.7	21.3	13.1	12.8	8.5	6.9	3.7	3.4	14.4	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

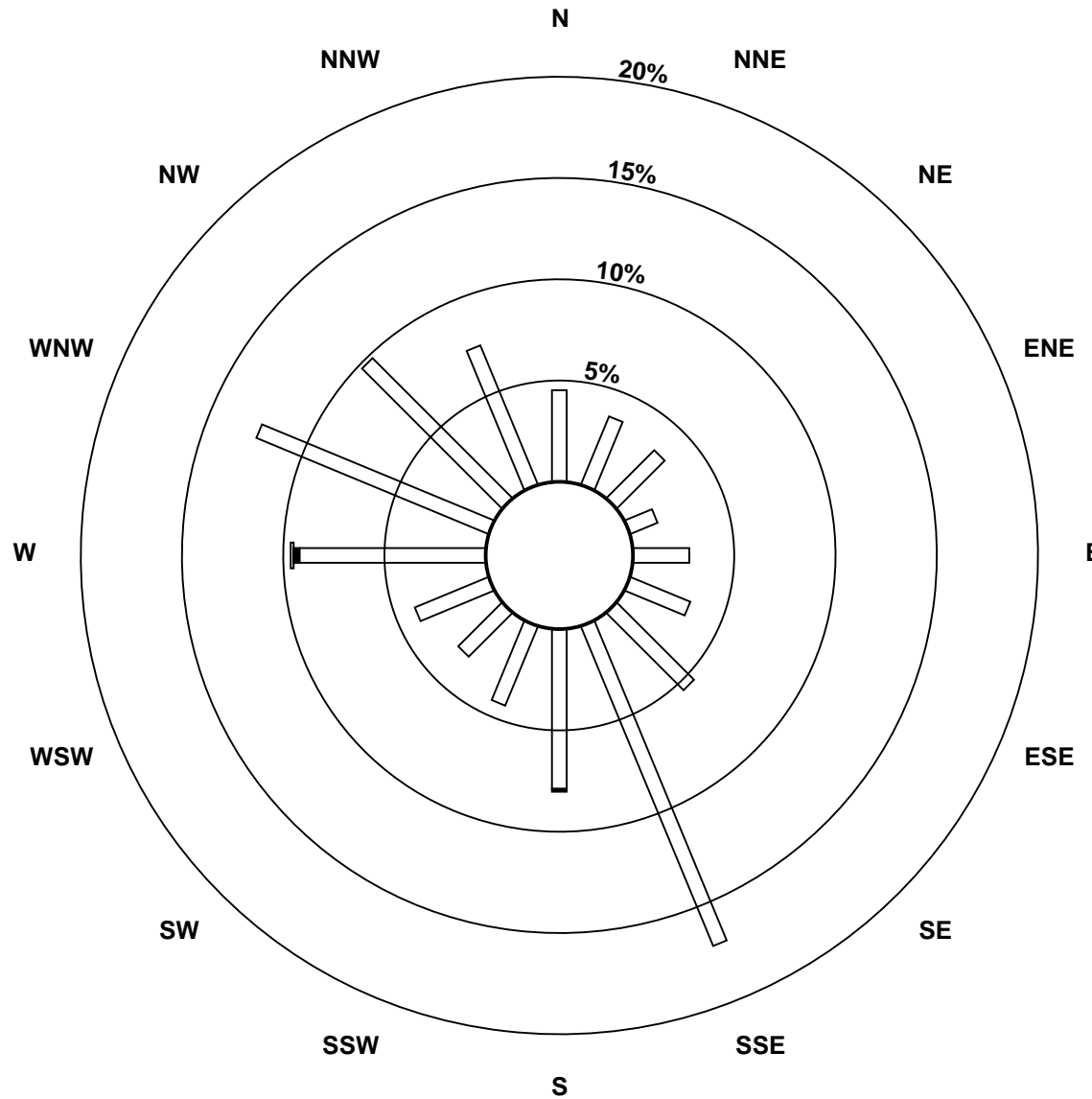
### Hourly Maximums

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Valleyview - June 2014**

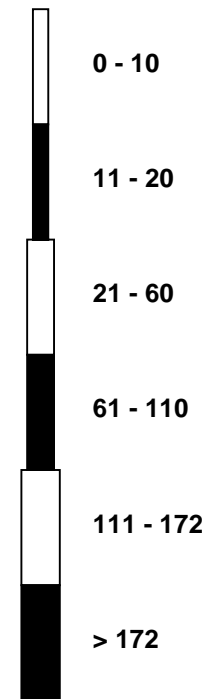


**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Valleyview - June 2014**

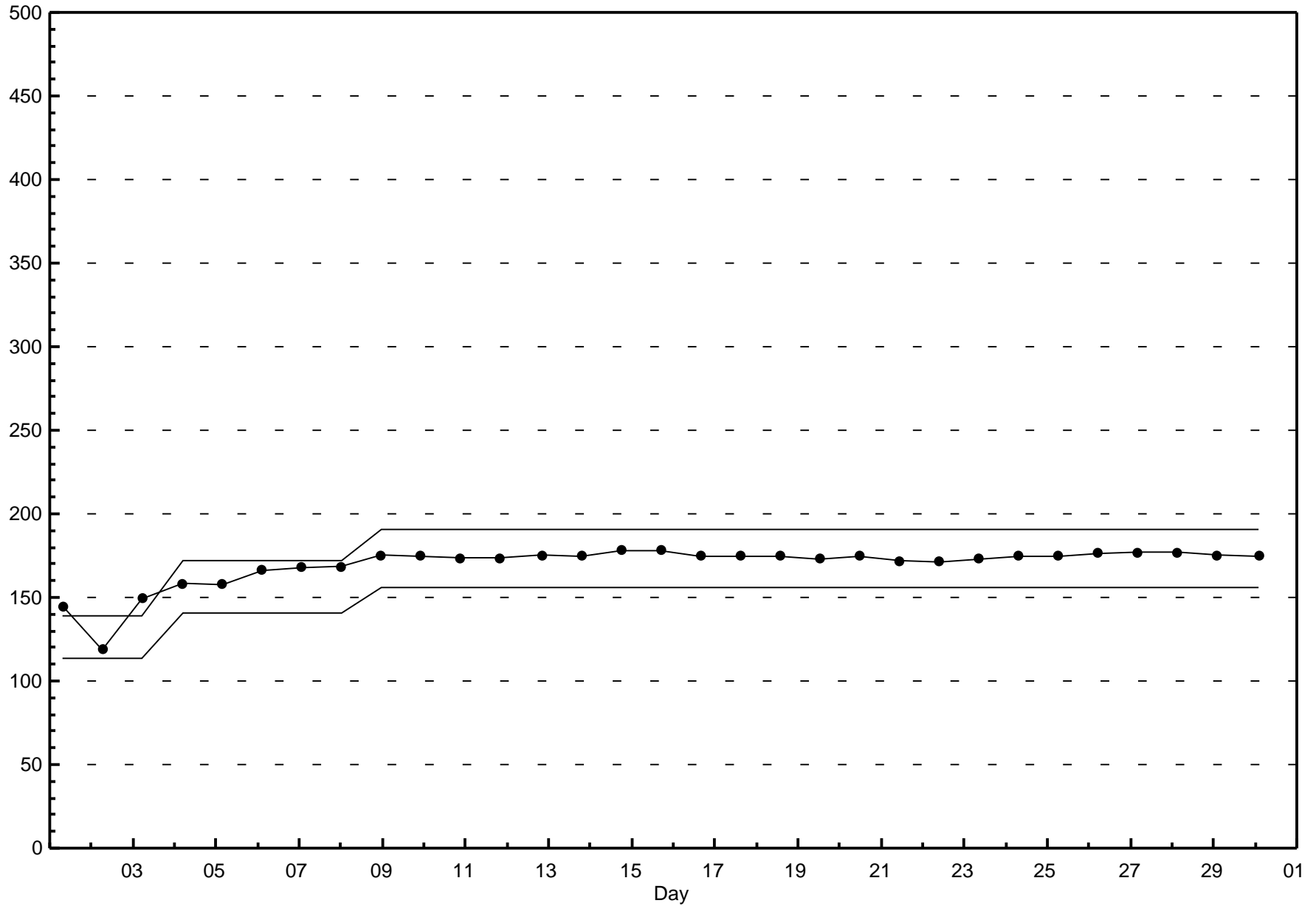


**Pollutant Classes (ppb)**



### Span Responses

**Sulphur Dioxide (SO<sub>2</sub>)**  
**Valleyview - June 2014**



## Hourly Averages

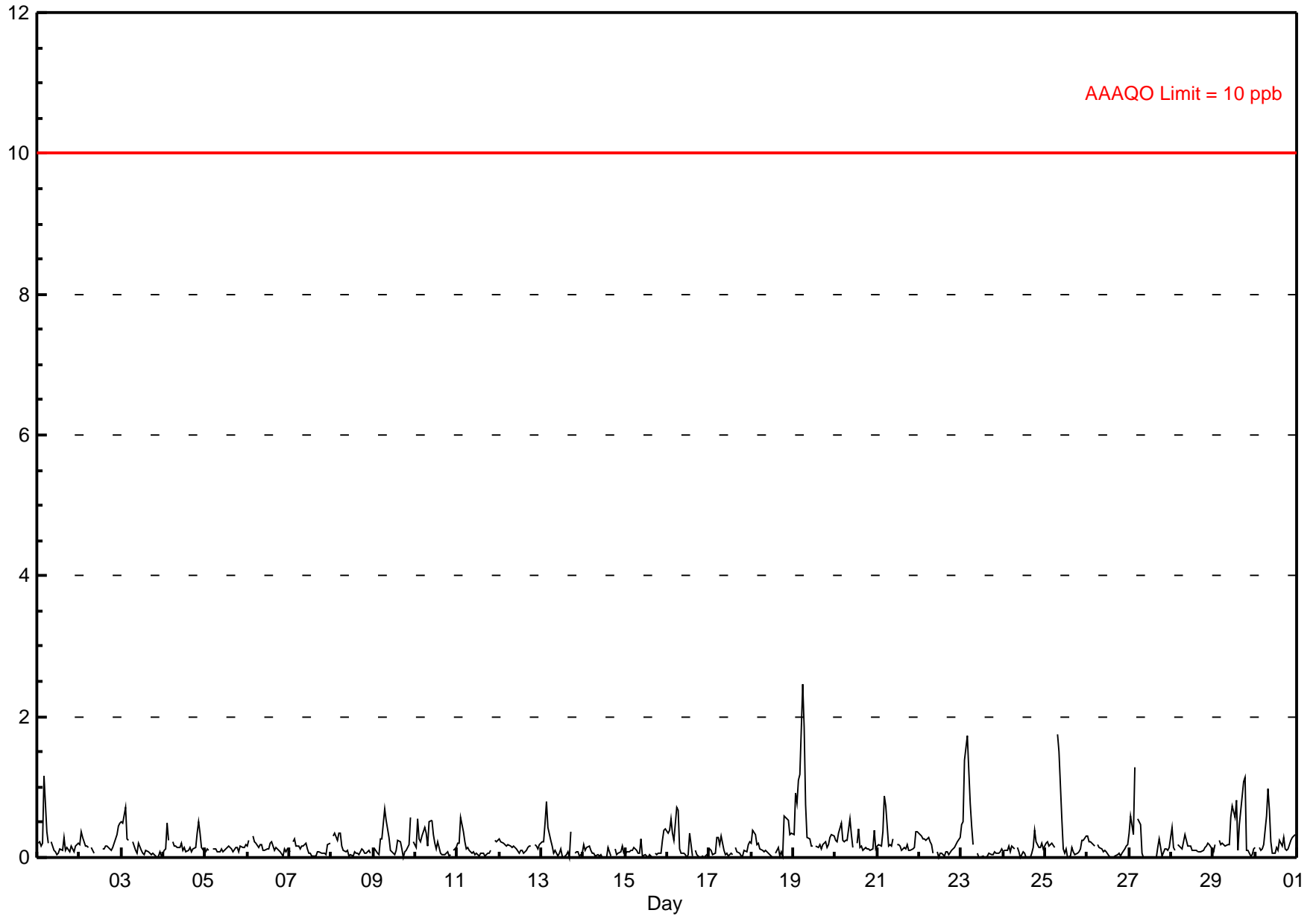
Hydrogen Sulphide (H<sub>2</sub>S) - ppb

Valleyview - June 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.5 ppb on Jun 19 06:00      Maximum Daily Average: 0.5 ppb on Jun 19		Hours in Service: 720 Hours of Data: 685 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0																								
Minimum Value: 0 ppb on Jun 9 18:00 Maximum Diurnal Average: 0.4 ppb at hour 4 Monthly Average: 0.19 ppb		Minimum Daily Average: 0.1 ppb on Jun 14 Minimum Diurnal Average: 0.1 ppb at hour 15 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> = 0.4 P <sub>99</sub> = 1.3																								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
2-Jun	0	0	0	0	0	0	A	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
3-Jun	1	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7	
4-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	0.5	
5-Jun	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
6-Jun	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	
7-Jun	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	
8-Jun	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4	
9-Jun	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0.2	0.7	
10-Jun	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.6	
11-Jun	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.6	
12-Jun	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	
13-Jun	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.8	
14-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.2	
15-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.4	
16-Jun	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.7	
17-Jun	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	
18-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	0.2	0.6	
19-Jun	0	1	1	1	1	2	2	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.5	2.5	
20-Jun	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5	
21-Jun	0	0	0	0	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9	
22-Jun	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
23-Jun	0	1	1	2	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.7	
24-Jun	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	0.4	
25-Jun	0	0	0	0	0	0	A	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.7	
26-Jun	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	
27-Jun	0	1	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.3	
28-Jun	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	
29-Jun	0	0	A	0	0	0	0	0	0	0	1	1	1	1	0	0	1	1	1	1	0	0	0	0.4	1.1	
30-Jun	0	A	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0	
Diurnal Average: 0.2 0.3 0.3 0.4 0.3 0.4 0.3 0.3 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.2 0.2 Diurnal Maximum: 0.5 0.9 1.4 1.7 1.2 2.5 1.9 1.7 1.5 0.6 0.6 0.7 0.6 0.8 0.2 0.5 0.7 1.1 1.1 0.6 0.6 0.6 0.5 0.5																										
C - Calibration      A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb    24-hr 3 ppb																										

**Hourly Averages**

**Hydrogen Sulphide (H<sub>2</sub>S) - ppb**  
**Valleyview - June 2014**



## Hourly Maximums

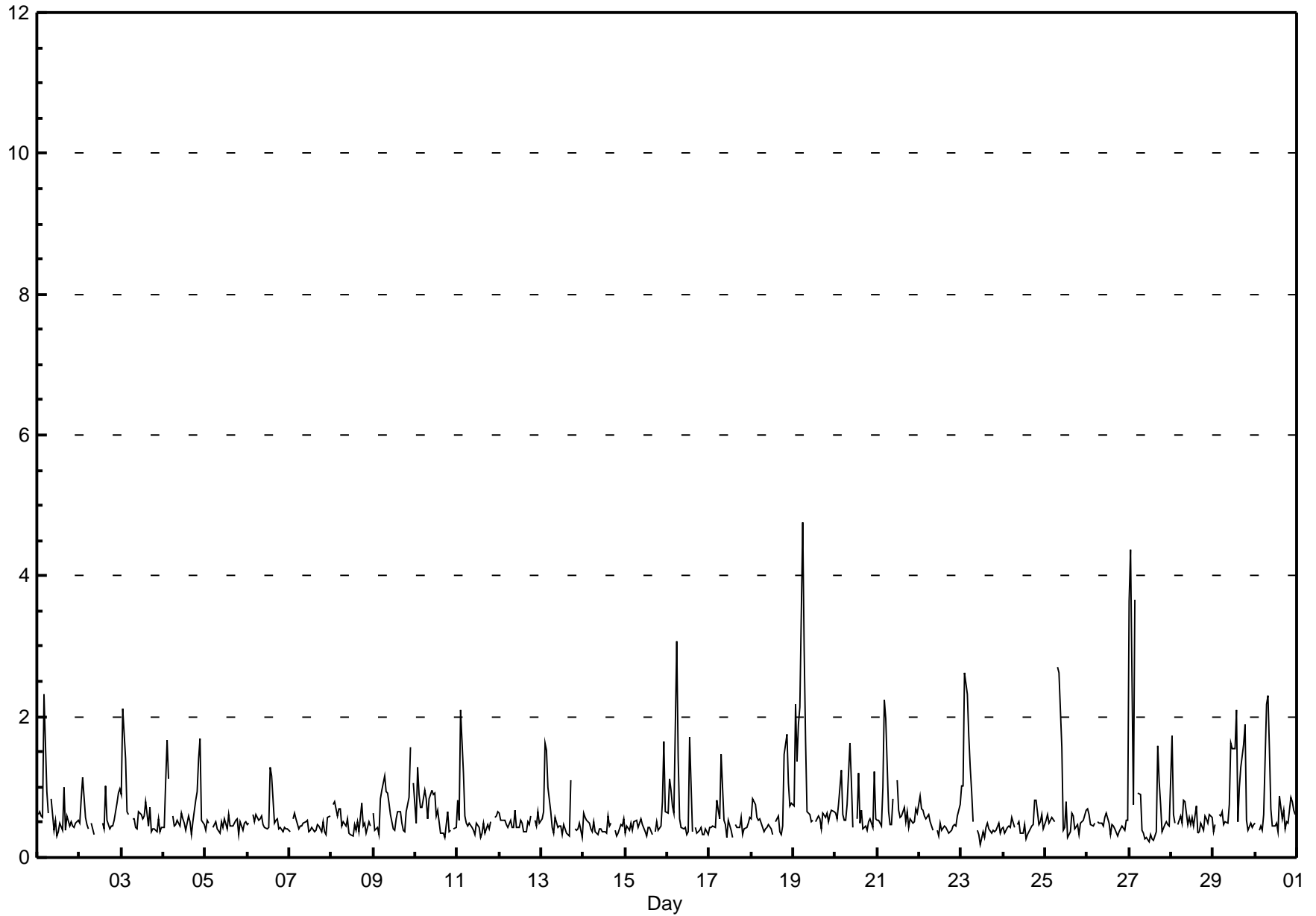
## Hydrogen Sulphide (H<sub>2</sub>S) - ppb

### Valleyview - June 2014

Maximum Value: 4.8 ppb on Jun 19 06:00		Maximum Daily Average: 1.1 ppb on Jun 19		Hours in Service: 720																																															
Minimum Value: 0 ppb on Jun 23 12:00		Minimum Daily Average: 0.4 ppb on Jun 14		Hours of Data: 685																																															
Maximum Diurnal Average: 0.9 ppb at hour 6		Minimum Diurnal Average: 0.5 ppb at hour 13		Hours of Missing Data: 35																																															
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 = 0.5 Q <sub>3</sub> = 0.6 P <sub>90</sub> = 1.0 P <sub>99</sub> = 2.6		Hours of Calibration: 35																																															
				Percent Operational Time: 100.0																																															
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																											
1-Jun	1	1	1	1	2	1	1	A	1	0	1	0	0	0	0	1	0	1	0	1	0	0	0	1	0.6	2.3																									
2-Jun	0	1	1	1	0	0	A	0	0	C	C	C	C	0	0	1	1	0	0	0	1	1	1	1	0.6	1.1																									
3-Jun	1	2	1	1	1	A	1	1	0	0	1	1	1	1	1	0	1	0	0	0	0	1	0	0	0.6	2.1																									
4-Jun	0	1	2	1	A	1	0	0	1	0	1	1	0	0	1	1	0	1	1	1	1	2	1	0	0.7	1.7																									
5-Jun	0	1	0	A	0	0	1	0	0	1	0	1	0	1	0	0	0	1	1	0	1	0	0	1	0.5	0.6																									
6-Jun	0	0	A	1	1	1	1	1	1	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0.5	1.3																									
7-Jun	0	A	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0.5	0.6																									
8-Jun	A	1	1	1	1	1	0	1	0	1	0	0	0	0	1	0	1	0	1	0	0	1	0	A	0.5	0.8																									
9-Jun	1	0	0	0	1	1	1	1	1	1	1	0	0	1	1	1	0	0	0	1	1	2	A	1	0.7	1.6																									
10-Jun	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	0	0	A	0	0	0.6	1.3																									
11-Jun	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	1	1	0.6	2.1																									
12-Jun	1	1	1	1	0	0	1	0	0	1	0	0	1	0	0	0	1	0	1	A	1	0	1	0	0.5	0.7																									
13-Jun	1	1	2	2	1	1	0	0	1	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0.6	1.6																									
14-Jun	1	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	1	0.4	0.6																									
15-Jun	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	A	0	1	0	0	0	1	2	0.5	1.6																									
16-Jun	1	1	1	1	1	3	1	1	0	0	0	0	2	0	A	0	0	0	0	0	0	0	0	0	0.7	3.1																									
17-Jun	0	0	0	0	1	1	1	1	1	0	0	1	0	0	A	0	0	0	1	0	0	0	0	1	0.5	1.5																									
18-Jun	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0	1	2	1	1	1	0.6	1.7																									
19-Jun	1	2	1	2	2	5	3	2	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1.1	4.8																									
20-Jun	1	1	1	1	1	1	1	1	2	1	0	A	1	1	0	1	0	0	0	0	1	0	1	1	0.7	1.6																									
21-Jun	1	1	0	1	2	2	1	0	0	0	1	A	1	1	1	1	1	1	1	0	1	0	1	1	0.7	2.2																									
22-Jun	1	1	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0.5	0.9																									
23-Jun	1	1	3	2	2	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	2.6																									
24-Jun	0	0	0	0	0	1	0	A	0	1	0	0	0	0	0	0	0	0	1	1	0	1	1	0	0.5	0.8																									
25-Jun	1	1	0	1	1	1	A	3	3	2	0	0	1	0	0	1	1	0	0	0	0	1	1	1	0.7	2.7																									
26-Jun	1	1	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0.5	0.7																									
27-Jun	4	4	1	4	A	1	1	0	0	0	0	0	0	0	0	0	2	1	1	0	0	1	0	0	1.0	4.4																									
28-Jun	2	1	0	A	0	1	0	1	1	0	1	0	1	0	1	0	0	0	0	1	1	0	1	1	0.6	1.7																									
29-Jun	0	0	A	1	1	1	0	1	0	1	2	2	2	2	1	1	1	2	2	1	0	0	0	0	0.9	2.1																									
30-Jun	0	A	0	0	0	1	2	2	2	1	0	0	0	1	1	1	0	1	0	1	1	1	1	1	0.7	2.3																									
0.7		0.9		0.9		0.8		0.9		0.7		0.7		0.7		0.6		0.5		0.5		0.5		0.6		0.5		0.5		0.5		0.5		0.5		0.5		0.5		0.5		0.5		0.6		0.6		0.6		Diurnal Average	
3.6		4.4		2.6		3.7		2.3		4.8		3.0		2.7		2.6		1.6		1.6		1.5		1.5		2.1		1.2		1.0		1.6		1.6		1.9		1.5		1.7		1.7		1.6		1.1		Diurnal Maximum			
C - Calibration																								A - Automated Daily Zero Span																											

**Hourly Maximums**

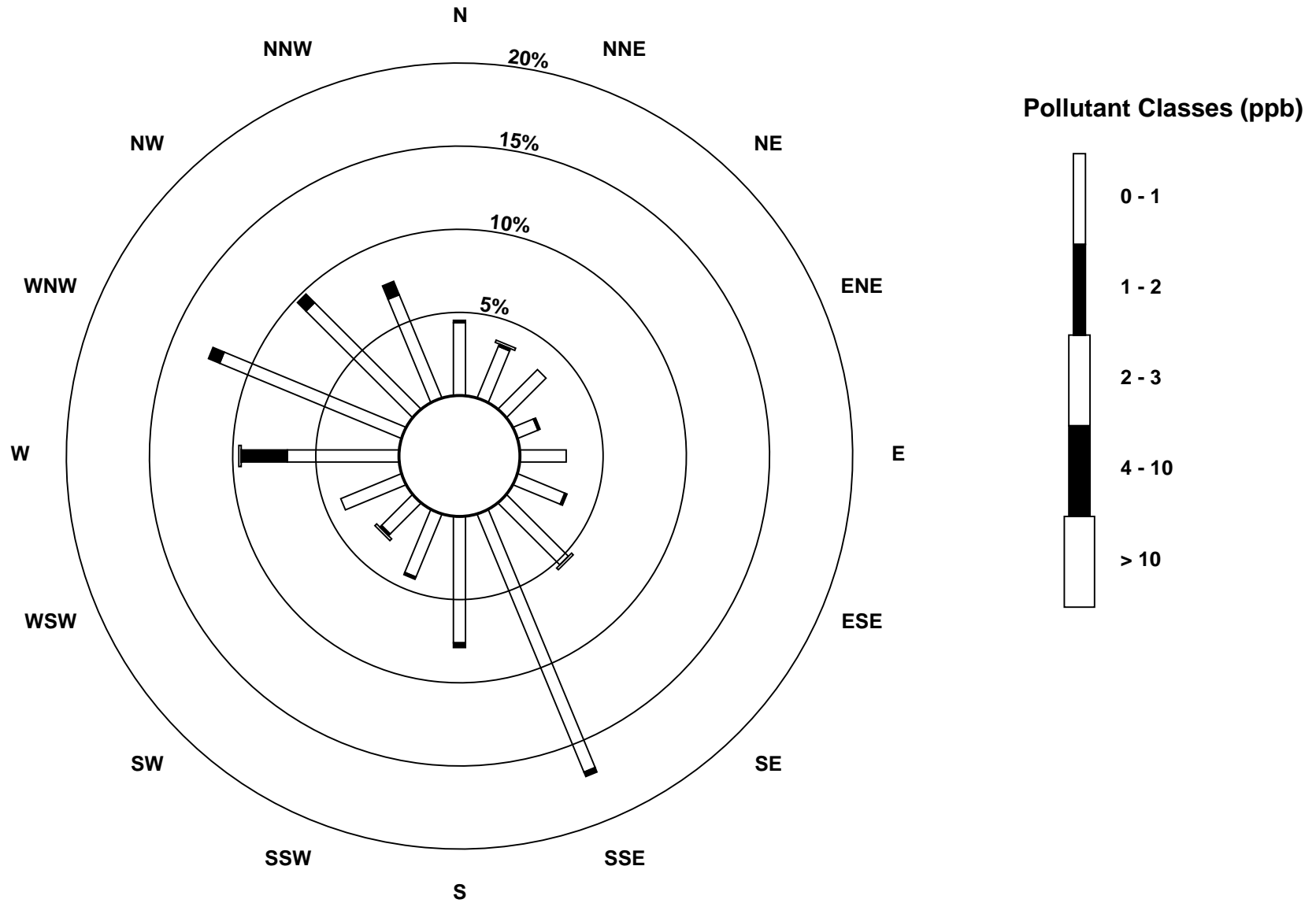
**Hydrogen Sulphide (H<sub>2</sub>S) - ppb**  
**Valleyview - June 2014**

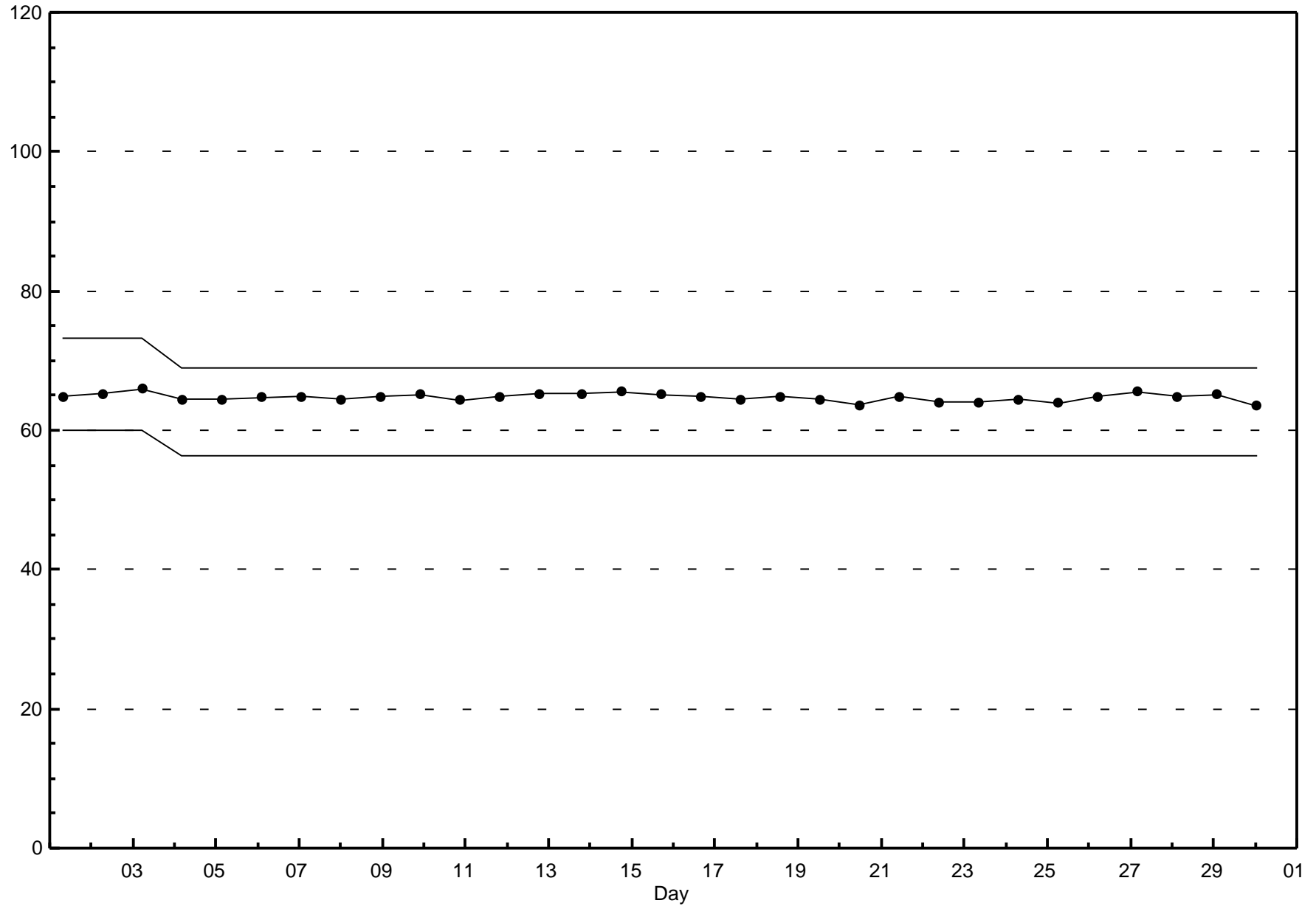




**Pollutant Rose**

**Hydrogen Sulphide (H<sub>2</sub>S) - ppb**  
**Valleyview - June 2014**







Peace Airshed Zone Association

# Hourly Averages

External Temperature (ET) - °C

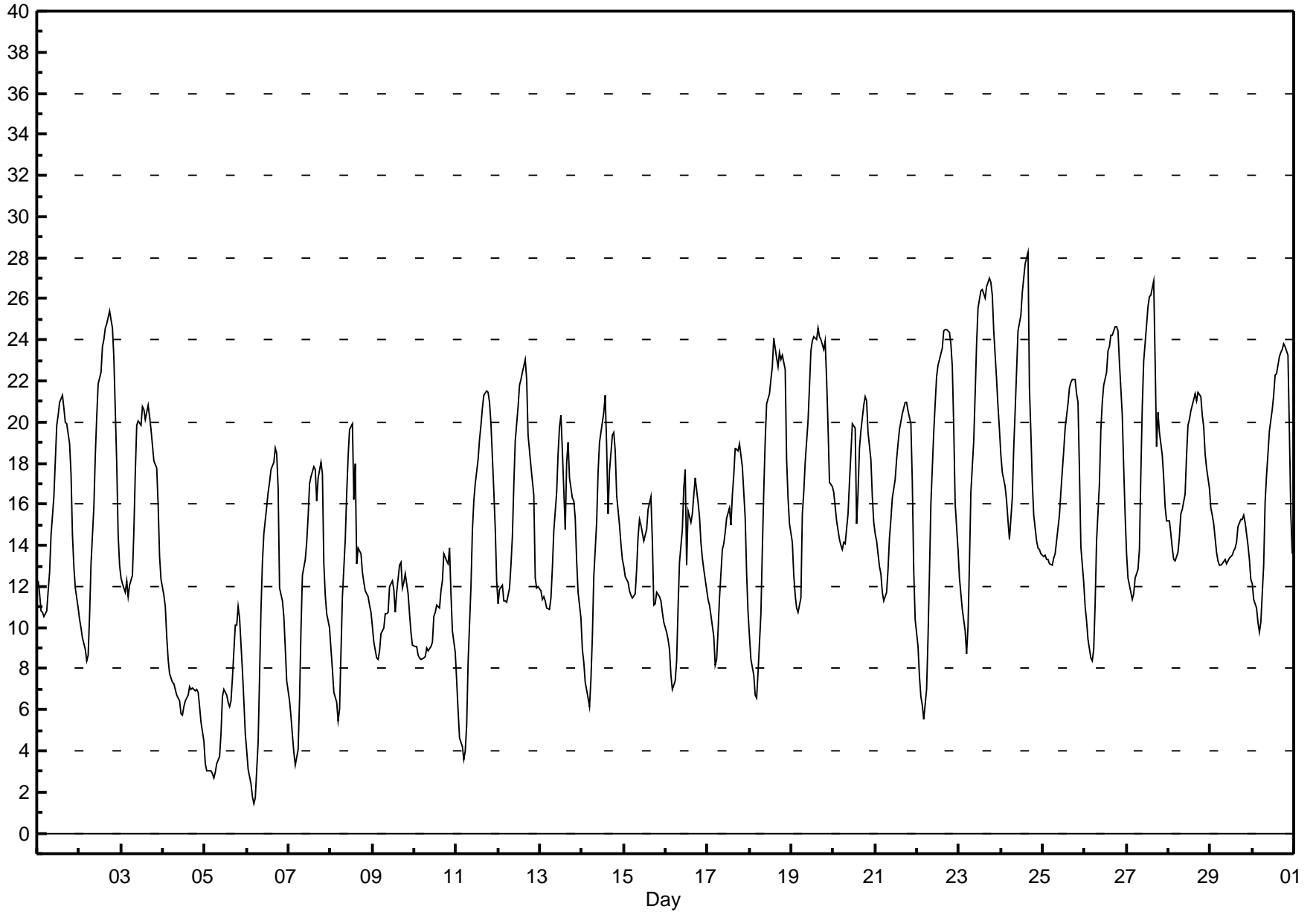
Valleyview - June 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 28.3 °C on Jun 24 16:00      Maximum Daily Average: 20.1 °C on Jun 23																	Hours in Service: 720 Hours of Data: 720									
Minimum Value: 1 °C on Jun 6 05:00      Minimum Daily Average: 5.9 °C on Jun 5 Maximum Diurnal Average: 19.2 °C at hour 16      Minimum Diurnal Average: 9.0 °C at hour 5 Monthly Average: 14.83 °C      Percentiles: P <sub>1</sub> = 3.0 P <sub>10</sub> = 7.4 Q <sub>1</sub> = 11.0 Median = 14.3 Q <sub>3</sub> = 19.1 P <sub>90</sub> = 22.7 P <sub>99</sub> = 26.4																	Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	12	12	11	11	11	11	12	13	15	16	18	20	20	21	21	21	20	20	19	18	15	13	12	11	15.4	21.3
2-Jun	10	10	10	9	8	9	11	13	16	18	20	22	22	24	24	25	25	25	25	25	23	18	15	13	17.5	25.4
3-Jun	12	12	12	12	12	12	13	15	18	20	20	20	21	21	20	21	20	20	19	18	18	16	13	12	16.5	20.8
4-Jun	12	11	10	8	8	7	7	7	7	6	6	6	6	6	7	7	7	7	7	7	7	6	5	4	7.2	11.6
5-Jun	3	3	3	3	3	3	3	3	4	5	7	7	7	6	6	6	8	10	10	11	10	8	6	5	5.9	11.1
6-Jun	4	3	2	2	1	2	4	8	11	13	15	16	17	17	18	18	19	18	17	12	11	11	9	7	10.6	18.7
7-Jun	6	6	5	4	3	4	7	10	13	13	14	15	17	17	18	18	16	17	18	17	13	12	11	10	11.8	18.0
8-Jun	9	8	7	6	5	6	9	12	14	17	18	20	20	16	18	13	14	14	13	12	12	12	11	11	12.3	19.9
9-Jun	10	9	9	8	9	10	10	11	11	11	12	12	12	11	12	13	13	12	12	13	12	11	10	9	10.8	13.2
10-Jun	9	9	9	9	8	9	9	9	9	9	9	11	11	11	11	12	12	14	13	13	14	12	10	9	10.4	13.8
11-Jun	7	6	5	4	4	4	5	8	12	15	16	17	18	19	20	21	21	21	21	21	20	17	15	12	13.7	21.5
12-Jun	11	12	12	11	11	11	12	13	14	17	19	21	22	22	22	23	22	19	19	18	16	12	12	12	16.0	23.1
13-Jun	12	11	12	11	11	11	11	13	15	17	18	20	20	19	15	18	19	17	16	16	15	13	12	10	14.7	20.3
14-Jun	9	8	7	7	6	8	10	12	15	18	19	20	20	21	19	16	18	19	19	19	16	15	14	13	14.5	21.3
15-Jun	13	12	12	12	12	11	12	13	14	15	15	14	15	15	16	16	14	11	11	12	12	11	11	10	12.9	16.3
16-Jun	10	9	9	8	7	7	8	11	13	15	17	18	13	16	15	16	16	17	16	15	14	13	13	12	12.9	17.7
17-Jun	11	11	11	10	8	8	10	11	14	14	15	15	16	15	16	17	19	19	19	18	18	15	13	11	13.9	19.0
18-Jun	10	8	8	7	7	8	11	14	17	19	21	21	22	23	24	23	23	23	23	23	23	18	16	15	16.9	24.1
19-Jun	14	13	12	11	11	11	16	17	18	20	22	23	24	24	24	25	24	24	24	24	22	20	17	17	19.0	24.6
20-Jun	17	16	15	14	14	14	14	14	16	17	18	20	20	15	17	19	20	21	21	21	19	18	16	15	17.1	21.3
21-Jun	15	14	13	13	12	11	12	13	14	15	16	17	18	19	20	20	21	21	21	21	20	17	13	10	16.1	20.9
22-Jun	9	8	7	6	6	7	9	13	16	19	21	22	23	23	24	24	25	24	24	24	23	20	16	14	16.9	24.5
23-Jun	12	12	11	10	9	10	13	17	19	21	24	26	26	26	26	26	27	27	27	26	24	22	21	20	20.1	27.0
24-Jun	18	18	17	16	15	14	16	19	21	22	24	25	26	27	28	28	22	19	17	15	14	14	14	14	19.4	28.3
25-Jun	13	14	13	13	13	13	13	14	14	15	17	18	19	20	21	22	22	22	22	21	21	18	14	12	16.8	22.1
26-Jun	11	10	9	9	8	9	11	14	17	20	21	22	22	23	24	24	24	25	25	24	23	20	18	15	17.9	24.6
27-Jun	14	12	12	11	12	12	13	14	17	21	23	25	26	26	26	27	23	19	20	20	18	17	16	15	18.3	26.9
28-Jun	15	15	14	13	13	14	14	16	16	17	18	20	20	21	21	21	21	21	21	20	20	18	18	17	17.7	21.5
29-Jun	16	15	15	14	13	13	13	13	13	13	13	13	14	14	14	14	15	15	15	15	15	14	13	12	14.0	15.8
30-Jun	12	11	11	10	10	10	13	16	17	18	20	21	21	22	22	23	23	24	24	24	23	20	16	14	17.7	23.8
																	Diurnal Average									
																	Diurnal Maximum									

**Hourly Averages**

**External Temperature (ET) - °C**

**Valleyview - June 2014**



# Hourly Averages

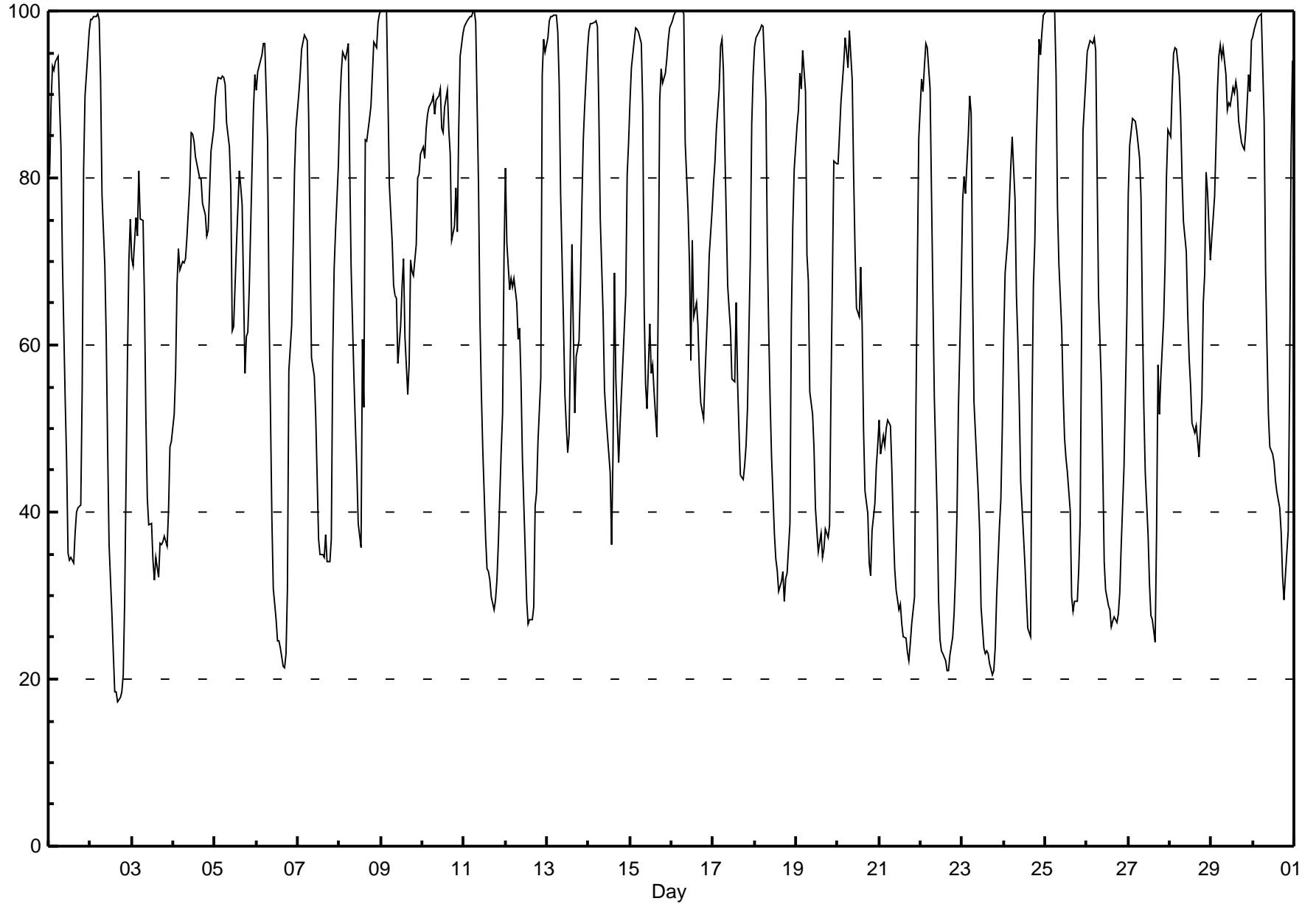
Relative Humidity (RH) - %

Valleyview - June 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 100.0 % on Jun 9 01:00 Maximum Daily Average: 88.4 % on Jun 29		Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																								
Minimum Value: 17 % on Jun 2 17:00 Maximum Diurnal Average: 91.3 % at hour 5 Monthly Average: 65.83 %		Minimum Daily Average: 40.0 % on Jun 21 Minimum Diurnal Average: 45.0 % at hour 16 Percentiles: P <sub>1</sub> = 21.0 P <sub>10</sub> = 29.7 Q <sub>1</sub> = 45.4 Median = 68.7 Q <sub>3</sub> = 88.9 P <sub>90</sub> = 96.5 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-Jun	80	89	93	93	94	95	89	84	71	53	46	35	34	35	34	37	40	41	41	55	81	90	92	98	66.6	97.6
2-Jun	99	99	99	99	100	99	92	78	70	61	47	36	28	23	19	18	17	18	19	21	29	59	70	75	57.2	99.6
3-Jun	70	69	75	73	81	75	75	65	51	42	39	39	34	32	35	32	36	36	36	37	36	40	48	48	50.2	80.9
4-Jun	52	57	67	72	69	70	70	70	73	79	85	85	84	83	81	80	80	77	76	73	74	78	83	86	75.2	85.9
5-Jun	90	91	92	92	92	92	91	87	84	79	62	62	72	76	81	79	77	57	61	62	67	81	88	92	79.4	92.4
6-Jun	91	93	94	95	96	96	84	65	52	39	31	27	25	24	24	22	21	23	31	57	62	71	81	86	57.9	96.2
7-Jun	90	92	95	96	97	96	87	71	58	56	51	44	37	35	35	35	37	34	34	37	59	69	74	81	62.6	97.2
8-Jun	89	93	95	94	95	96	81	69	56	50	45	39	36	61	53	85	84	87	89	92	96	96	99	100	78.3	99.6
9-Jun	100	100	100	100	90	79	72	67	66	66	58	62	67	70	61	54	58	70	69	68	72	80	81	83	74.7	100.0
10-Jun	84	82	86	88	88	89	90	88	89	90	91	86	85	88	91	86	83	73	74	79	74	86	95	97	85.9	97.3
11-Jun	98	98	99	99	99	100	100	99	79	63	54	47	37	33	33	32	30	28	29	32	36	47	52	71	62.3	100.0
12-Jun	81	72	67	68	67	68	65	61	62	56	46	35	29	27	27	27	29	41	42	48	56	92	97	95	56.6	96.6
13-Jun	97	99	99	99	100	100	98	91	78	63	54	50	47	49	72	61	52	59	60	67	77	85	89	95	76.7	99.5
14-Jun	98	98	98	99	99	98	88	75	64	55	52	49	45	36	47	69	56	46	51	54	58	66	80	84	69.4	98.9
15-Jun	89	93	96	98	98	98	96	88	65	55	52	63	57	58	54	49	66	89	93	91	93	94	96	98	80.4	97.9
16-Jun	99	99	100	100	100	100	100	100	84	76	70	58	73	63	65	62	57	53	51	56	61	65	71	76	76.7	100.0
17-Jun	79	82	86	91	96	97	93	84	67	64	62	56	56	65	56	50	44	44	46	48	52	70	87	92	69.4	96.6
18-Jun	96	97	97	98	98	98	89	72	62	53	47	37	34	33	30	32	33	29	32	33	39	63	74	81	60.8	98.3
19-Jun	86	88	92	91	95	90	71	68	54	52	48	40	38	35	37	34	36	38	37	38	55	68	82	82	60.7	95.3
20-Jun	82	85	89	94	97	95	93	98	92	80	71	64	63	69	62	50	43	40	34	32	38	41	45	48	66.9	97.6
21-Jun	51	47	49	48	50	51	50	45	38	33	31	28	29	27	25	25	23	22	24	27	30	52	69	85	40.0	84.8
22-Jun	92	90	93	96	96	91	78	66	54	40	29	25	23	23	22	21	21	23	25	28	33	40	52	67	51.2	96.2
23-Jun	77	80	78	85	90	88	68	53	46	42	38	29	24	23	23	23	22	21	21	24	30	38	41	50	46.4	89.7
24-Jun	61	69	73	77	81	85	78	66	60	53	44	37	34	30	26	25	52	67	72	84	97	95	97	99	65.1	99.5
25-Jun	100	100	100	100	100	100	92	77	70	62	54	49	46	45	40	30	28	29	29	33	39	61	86	92	65.1	100.0
26-Jun	95	96	96	96	97	95	81	66	55	45	34	31	29	28	26	27	27	27	28	30	36	45	54	63	54.5	96.7
27-Jun	78	84	87	87	87	86	82	78	63	53	45	37	31	28	27	24	38	58	52	56	63	70	80	86	61.6	87.1
28-Jun	85	90	95	96	95	92	87	80	75	71	64	58	55	51	49	50	49	47	54	65	68	81	78	70	71.1	95.6
29-Jun	73	75	78	91	95	96	94	96	92	88	89	89	91	90	92	90	87	84	84	83	86	92	90	96	88.4	96.4
30-Jun	97	98	99	99	100	100	87	69	60	52	48	47	46	44	42	41	38	32	29	32	38	56	83	94	63.7	99.7
	85.3	86.9	89.0	90.4	91.3	90.5	84.1	75.8	66.3	59.0	52.9	48.2	46.3	46.1	45.7	45.0	45.4	46.4	47.4	51.5	57.7	69.1	77.2	82.4	Diurnal Average	
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.7	92.3	89.9	90.6	88.6	90.9	90.2	91.5	90.4	86.8	89.3	93.0	92.3	96.5	95.6	98.7	99.6	Diurnal Maximum	

**Hourly Averages**

**Relative Humidity (RH) - %**  
**Valleyview - June 2014**





## Hourly Averages

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

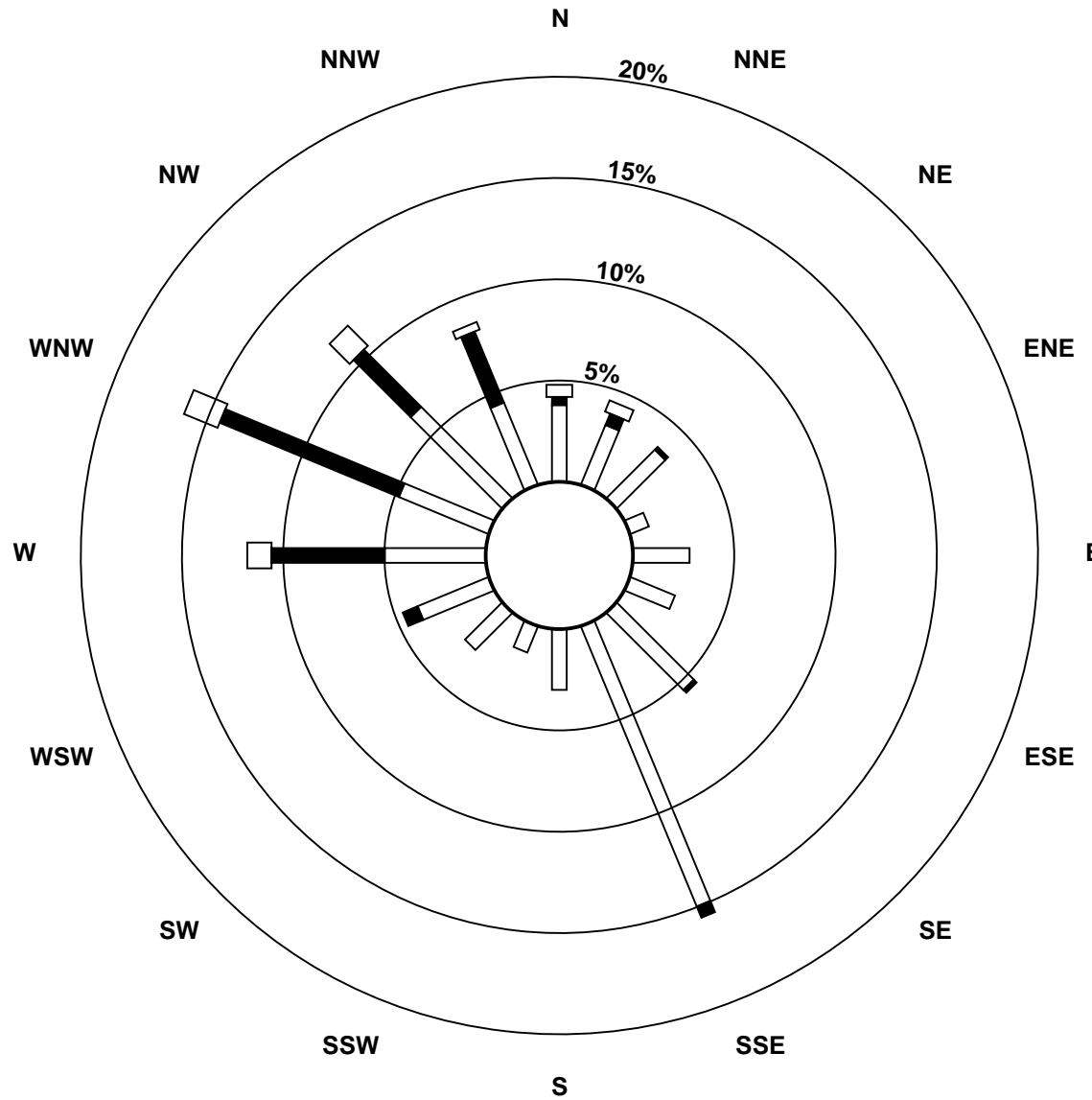
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	1	1	0	0	1	0	1	1	1	1	1	2	2	3	3	4	4	4	4	4	3	4	5	6	2.1	5.5
Dir	158	311	341	13	332	333	121	143	151	122	212	166	170	120	167	128	133	136	129	139	139	143	147	147	142	147
24 Spd	4	3	4	2	2	1	2	6	5	4	2	3	2	2	3	1	8	3	15	4	4	2	1	1	1.1	15.4
Dir	154	160	154	161	167	181	160	164	164	160	163	359	0	46	321	354	136	137	277	256	334	314	175	171	188	277
25 Spd	1	0	1	0	1	1	2	7	8	9	9	11	9	8	8	8	7	8	8	6	2	0	0	1	4.4	10.7
Dir	227	182	171	192	154	183	273	278	272	295	303	297	296	300	299	284	296	305	306	323	343	180	178	168	294	297
26 Spd	1	1	1	1	1	1	2	1	2	1	1	2	2	1	2	2	4	3	3	1	2	0	1	1	0.5	3.5
Dir	165	163	159	165	163	158	153	146	156	145	270	12	312	292	316	3	1	331	353	49	25	91	342	324	351	1
27 Spd	1	1	0	0	0	0	1	1	2	1	2	3	4	3	3	4	9	6	3	3	3	2	0	1	0.9	8.8
Dir	261	157	116	343	262	300	279	158	154	153	161	165	137	127	132	115	260	264	119	162	10	87	254	220	171	260
28 Spd	2	1	1	2	1	1	1	4	5	4	3	3	4	3	2	1	5	2	1	0	0	0	1	2	1.6	5.1
Dir	248	217	157	224	156	186	216	261	268	251	251	320	302	298	272	311	284	302	219	151	192	162	207	181	263	268
29 Spd	1	1	2	0	1	1	1	1	2	6	5	7	6	5	4	5	5	5	5	1	1	1	2	1	2.3	6.7
Dir	153	156	150	142	210	185	163	167	229	250	260	275	265	282	290	280	277	277	268	254	215	193	234	154	259	275
30 Spd	1	1	1	1	1	1	1	7	7	11	13	10	10	9	10	9	9	10	8	4	1	0	0	0	4.7	12.8
Dir	189	160	176	181	155	158	231	282	281	290	291	293	299	297	277	292	277	300	292	308	289	198	117	151	287	291
Spd	0.7	0.7	0.7	0.7	0.9	1.1	1.0	1.4	2.1	3.0	3.5	3.7	3.9	3.5	3.1	3.1	2.8	3.4	3.0	1.1	1.3	0.2	0.6	0.5	Diurnal Average	
Dir	261	275	244	269	282	271	271	272	279	283	287	302	300	299	304	319	308	314	323	357	2	253	283	266		
Spd	10.0	8.9	8.7	9.1	9.9	10.7	10.8	12.7	13.1	12.9	17.3	17.0	17.1	15.1	15.6	18.0	14.9	13.3	15.4	12.9	14.4	8.8	7.5	11.3	Diurnal Maximum	
Dir	291	290	289	301	305	309	319	327	269	283	288	313	305	286	280	275	312	10	277	20	18	359	262	291		
Maximum Speed Value: 18 km/h on Jun 9 16:00		Minimum Speed Value: 0 km/h on Jun 23 00:00										Hours in Service: 720														
Maximum Daily Speed Average: 8.5 km/h on Jun 9		Minimum Daily Speed Average: 0.1 km/h on Jun 22										Hours of Data: 720														
Maximum Diurnal Speed Average: 3.9 km/h at hour 13		Minimum Diurnal Speed Average: 0.2 km/h at hour 22										Hours of Missing Data: 0														
Monthly Average Velocity: 1.78 km/h 298.8 deg		Speed Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 0.8 Median = 2.1 Q <sub>3</sub> = 4.9 P <sub>90</sub> = 8.7 P <sub>99</sub> = 14.9										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	55	16	7	0	0	0	78																			
NorthEast	34	2	0	0	0	0	36																			
East	29	1	0	0	0	0	30																			
SouthEast	102	4	0	0	0	0	106																			
South	147	1	0	0	0	0	148																			
SouthWest	43	1	0	0	0	0	44																			
West	58	64	14	0	0	0	136																			
NorthWest	75	55	12	0	0	0	142																			
Total	543	144	33	0	0	0	720																			



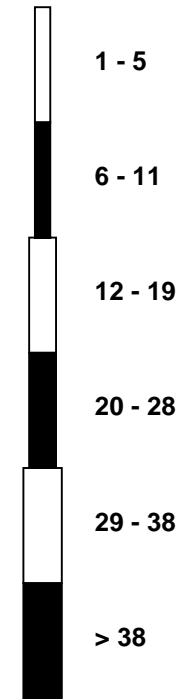
**Wind Rose**

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

**Valleyview - June 2014**



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



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - June 2014

Maximum Speed: 18 km/h on Jun 9 16:00	Maximum Daily Speed Average: 9.7 km/h on Jun 9	Hours in Service: 720
Minimum Speed: 0 km/h on Jun 18 00:00	Minimum Daily Speed Average: 1.7 km/h on Jun 22	Hours of Data: 720
Maximum Diurnal Speed Average: 6.5 km/h at hour 17	Minimum Diurnal Speed Average: 1.7 km/h at hour 4	Hours of Missing Data: 0
Monthly Average Speed: 3.95 km/h	Percentiles: $P_1 = 0.2$ $P_{10} = 0.6$ $Q_1 = 1.1$ Median = 3.0 $Q_3 = 5.5$ $P_{90} = 9.0$ $P_{99} = 15.9$	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-Jun	4	2	2	2	1	1	1	1	3	5	4	8	7	5	5	4	2	4	4	4	2	1	1	1	3.0	8.4	
2-Jun	1	0	1	0	1	0	1	2	2	2	3	3	5	3	4	4	4	2	3	2	0	0	0	1	1.9	4.8	
3-Jun	1	1	2	1	1	2	2	2	3	8	14	13	12	11	10	9	13	13	14	10	13	9	6	5	7.2	14.4	
4-Jun	4	5	3	5	8	6	8	7	7	6	4	5	6	9	7	5	10	7	7	5	6	6	8	12	6.3	11.6	
5-Jun	10	9	9	9	10	11	11	13	12	10	11	11	10	7	6	8	3	6	3	1	1	1	1	2	7.3	12.8	
6-Jun	2	1	1	0	1	1	2	2	4	7	9	10	8	7	7	8	8	11	14	13	6	2	1	1	5.2	14.4	
7-Jun	1	0	0	1	1	1	1	1	2	3	4	5	6	7	8	7	7	4	2	2	16	3	1	1	3.5	15.9	
8-Jun	1	0	0	2	1	1	1	2	2	3	3	5	4	7	3	4	2	5	4	0	1	1	1	1	2.3	7.1	
9-Jun	1	1	1	1	4	6	10	12	13	13	18	17	18	16	16	18	13	7	2	9	5	8	5	5	9.7	18.3	
10-Jun	6	7	7	7	7	9	8	8	8	8	10	9	7	4	4	3	2	3	4	3	2	2	0	0	5.2	10.3	
11-Jun	0	0	1	0	0	2	2	1	1	3	3	4	4	4	3	4	3	3	3	2	1	1	1	0	2.0	4.1	
12-Jun	0	2	2	1	1	1	1	2	2	3	3	5	5	5	6	6	6	5	4	2	6	5	3	2	3.2	6.1	
13-Jun	2	2	1	1	1	0	1	3	3	3	3	3	5	5	4	4	5	5	5	1	0	1	0	0	2.4	5.4	
14-Jun	1	1	1	1	1	2	3	3	4	4	4	3	3	4	7	3	5	3	3	2	5	1	1	1	2.7	6.6	
15-Jun	1	2	1	1	1	1	1	1	1	1	1	2	1	4	7	6	6	3	3	2	3	1	1	0	2.1	6.6	
16-Jun	1	1	1	1	2	2	2	2	2	2	2	5	4	5	4	6	8	11	12	6	4	2	2	3	3.7	11.7	
17-Jun	4	4	1	2	2	1	1	2	3	8	6	4	5	4	5	4	5	4	4	2	1	1	0	0	3.0	7.7	
18-Jun	0	1	0	0	0	1	1	3	2	2	2	5	5	6	3	9	7	7	3	2	1	0	0	1	2.5	8.8	
19-Jun	1	2	2	1	0	1	1	1	4	3	3	3	6	5	3	7	5	3	4	5	3	0	0	1	2.7	7.2	
20-Jun	2	1	1	0	1	2	1	1	1	3	5	6	6	15	13	10	8	9	11	8	4	5	6	5	5.1	14.9	
21-Jun	5	8	5	3	5	7	6	8	12	13	15	13	12	12	11	11	11	11	9	6	2	0	0	1	7.8	14.8	
22-Jun	0	0	1	1	0	0	1	1	1	1	2	3	3	4	4	3	4	4	3	2	1	0	1	0	1.7	4.2	
23-Jun	1	1	2	1	1	1	1	1	2	2	2	3	3	4	3	5	4	4	5	4	4	4	5	6	2.8	5.6	
24-Jun	4	3	4	2	2	1	2	6	5	4	2	4	3	3	4	4	8	5	16	5	5	3	1	1	4.0	16.0	
25-Jun	1	0	1	1	1	1	3	7	8	9	10	11	9	8	9	9	8	9	9	7	2	0	0	1	5.1	11.2	
26-Jun	1	1	1	1	1	1	2	1	2	2	3	3	4	3	4	3	4	4	3	1	2	0	1	1	2.0	4.4	
27-Jun	1	1	0	1	0	0	1	1	2	2	3	3	4	4	3	5	10	7	4	3	4	3	1	1	2.8	10.0	
28-Jun	2	2	1	2	1	1	1	4	5	5	4	4	5	4	3	2	5	2	1	0	0	0	1	2	2.4	5.5	
29-Jun	1	1	2	2	1	1	1	1	2	6	6	7	6	6	5	6	5	5	5	1	1	1	2	1	3.1	7.0	
30-Jun	1	1	1	1	1	1	2	7	7	11	13	11	11	10	11	10	10	10	10	8	4	1	1	0	1	5.6	13.2
	2.0	2.0	1.8	1.7	1.9	2.1	2.6	3.6	4.2	5.1	5.7	6.2	6.3	6.3	6.0	6.2	6.5	6.0	5.9	3.6	3.4	2.0	1.8	1.8	Diurnal Average		
	10.1	9.1	8.9	9.2	10.2	10.9	11.1	12.8	13.4	13.3	17.7	17.4	17.7	15.6	15.9	18.3	17.6	13.5	16.0	13.2	15.9	8.8	7.7	11.6	Diurnal Maximum		

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

# Hourly Standard Deviations

Wind Direction (WD) - deg

Valleyview - June 2014

Maximum Value: 97.3 deg on Jun 7 06:00																						Hours in Service:	720		
Minimum Value: 5.5 deg on Jun 17 01:00																						Hours of Data:	720		
Percentiles: P <sub>1</sub> = 8.6 P <sub>10</sub> = 13.3 Q <sub>1</sub> = 19.3 Median = 36.3 Q <sub>3</sub> = 59.7 P <sub>90</sub> = 79.2 P <sub>99</sub> = 94.1																						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-Jun	41	34	44	97	77	61	15	22	50	24	77	31	30	42	48	54	50	72	76	77	36	26	71	53	96.7
2-Jun	30	66	25	32	30	47	29	19	37	43	74	92	55	92	83	74	66	92	49	27	34	69	86	24	92.3
3-Jun	62	91	80	65	37	47	9	22	33	78	22	14	25	19	30	15	15	9	10	13	10	7	9	12	90.8
4-Jun	21	31	36	15	8	17	12	17	18	19	24	19	24	17	24	27	21	22	23	12	17	15	13	12	35.5
5-Jun	11	13	12	11	12	10	13	9	12	17	26	28	27	94	60	55	92	40	49	27	44	19	17	10	94.3
6-Jun	6	13	12	59	12	10	11	14	48	25	30	37	32	47	38	32	30	19	34	13	68	33	40	36	67.7
7-Jun	29	69	87	34	75	97	18	65	66	36	61	73	76	44	37	52	37	45	71	45	38	84	69	85	97.3
8-Jun	90	81	75	83	71	73	34	35	64	82	89	76	51	93	73	70	52	60	23	52	60	42	14	22	92.9
9-Jun	32	28	12	38	37	17	12	13	12	13	13	13	14	14	12	12	33	13	19	56	20	14	12	13	56.3
10-Jun	17	12	14	11	14	12	14	13	15	13	12	18	19	44	31	48	45	85	28	43	34	39	28	50	85.0
11-Jun	56	93	73	58	37	12	11	58	62	36	37	57	65	75	56	83	86	91	49	29	48	43	64	67	92.6
12-Jun	63	13	14	57	68	81	41	28	47	52	55	34	23	47	38	37	37	23	28	44	17	17	33	68	80.7
13-Jun	40	40	53	81	36	52	60	28	24	40	56	88	54	49	80	33	36	73	37	70	58	19	92	65	92.0
14-Jun	41	47	47	68	22	15	13	19	19	14	34	35	75	69	31	89	34	61	66	41	75	89	60	21	89.1
15-Jun	44	55	60	20	36	35	42	25	84	81	36	16	85	25	30	26	67	30	53	36	45	28	74	83	85.5
16-Jun	88	79	70	60	76	64	34	33	47	59	94	62	37	20	89	29	15	15	9	37	30	37	32	9	93.6
17-Jun	5	25	61	19	15	37	75	32	46	22	29	41	38	37	50	54	60	35	30	32	15	22	72	70	75.0
18-Jun	74	92	81	67	46	47	24	15	35	49	67	47	37	60	50	32	18	22	22	20	56	62	81	87	92.3
19-Jun	90	85	84	82	86	79	76	93	32	79	63	78	49	70	37	38	25	36	24	32	16	85	88	19	92.9
20-Jun	10	14	48	53	30	43	54	40	57	52	37	54	15	14	19	20	20	19	12	13	22	17	13	11	57.1
21-Jun	17	12	16	51	21	11	15	14	15	14	17	19	30	27	28	24	26	19	21	14	24	51	19	94	94.2
22-Jun	61	39	15	17	55	60	30	54	69	56	94	85	95	58	76	85	73	59	36	41	51	51	62	91	95.5
23-Jun	81	94	95	89	79	75	41	34	50	71	83	58	49	41	33	12	24	22	20	15	10	8	10	8	94.6
24-Jun	11	11	11	15	20	28	17	12	14	14	41	49	72	55	52	78	44	47	18	62	48	84	32	41	84.1
25-Jun	52	39	29	42	18	34	44	14	11	21	19	16	19	22	24	24	30	22	16	20	27	26	12	12	51.9
26-Jun	42	44	36	19	18	16	13	19	33	60	77	66	75	94	78	63	59	56	46	42	53	89	60	61	93.8
27-Jun	67	52	86	93	69	69	62	17	21	46	28	40	39	40	48	40	57	57	57	14	57	54	83	61	93.2
28-Jun	45	37	12	36	36	60	35	40	29	26	36	71	49	39	66	91	23	31	48	32	35	27	35	27	90.6
29-Jun	16	39	30	76	29	28	30	36	45	15	14	18	18	18	20	17	29	19	17	57	39	31	45	18	76.4
30-Jun	22	17	27	14	20	20	68	15	17	14	13	20	20	27	24	21	18	18	19	15	54	37	50	78	78.4
	89.8	93.8	94.6	96.7	85.6	97.3	76.5	92.9	84.4	81.9	94.3	91.9	95.5	94.3	88.8	90.6	92.5	91.6	75.7	76.7	75.1	89.1	92.0	94.2	

PAZA

Portable – Reno Station

Monthly Summary Tables, Graphs and  
Roses

## Hourly Averages

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

Portable Reno - June 2014

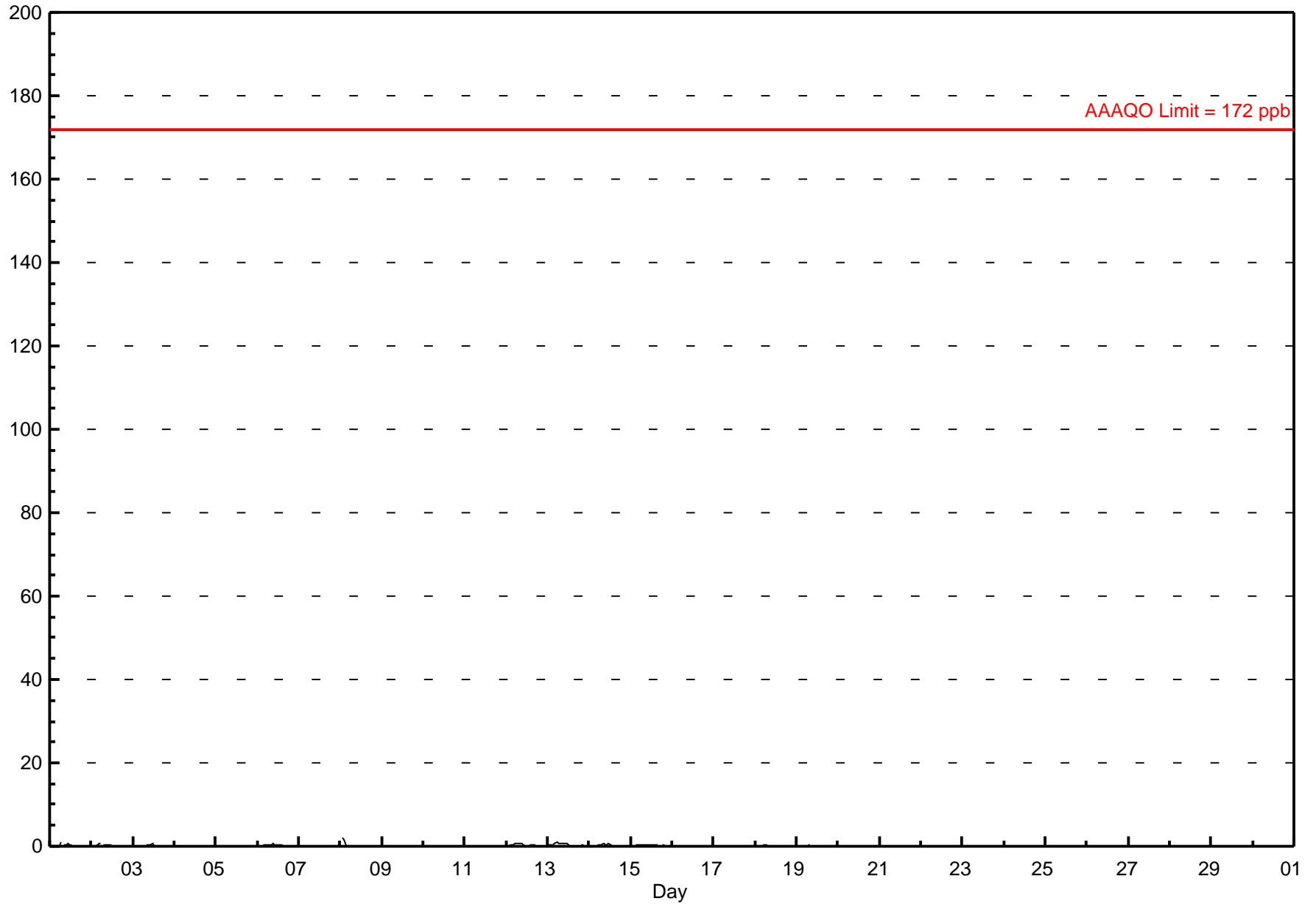
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	441
Maximum Value: 2.0 ppb on Jun 8 02:00	Maximum Daily Average: 0.3 ppb on Jun 13		Hours of Data:	417
Minimum Value: 0 ppb on Jun 1 19:00	Minimum Daily Average: 0.0 ppb on Jun 5		Hours of Missing Data:	24
Maximum Diurnal Average: 0.2 ppb at hour 7	Minimum Diurnal Average: 0.0 ppb at hour 19		Hours of Calibration:	24
Monthly Average: 0.12 ppb	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> = 0.1 P <sub>90</sub> = 0.3 P <sub>99</sub> = 0.8		Percent Operational Time:	100.0

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

C - Calibration      NS - Not in service      A - Automated Daily Zero Span  
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb    24-hr 48 ppb    30-day 11 ppb

### Hourly Averages

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Portable Reno - June 2014**



## Hourly Maximums

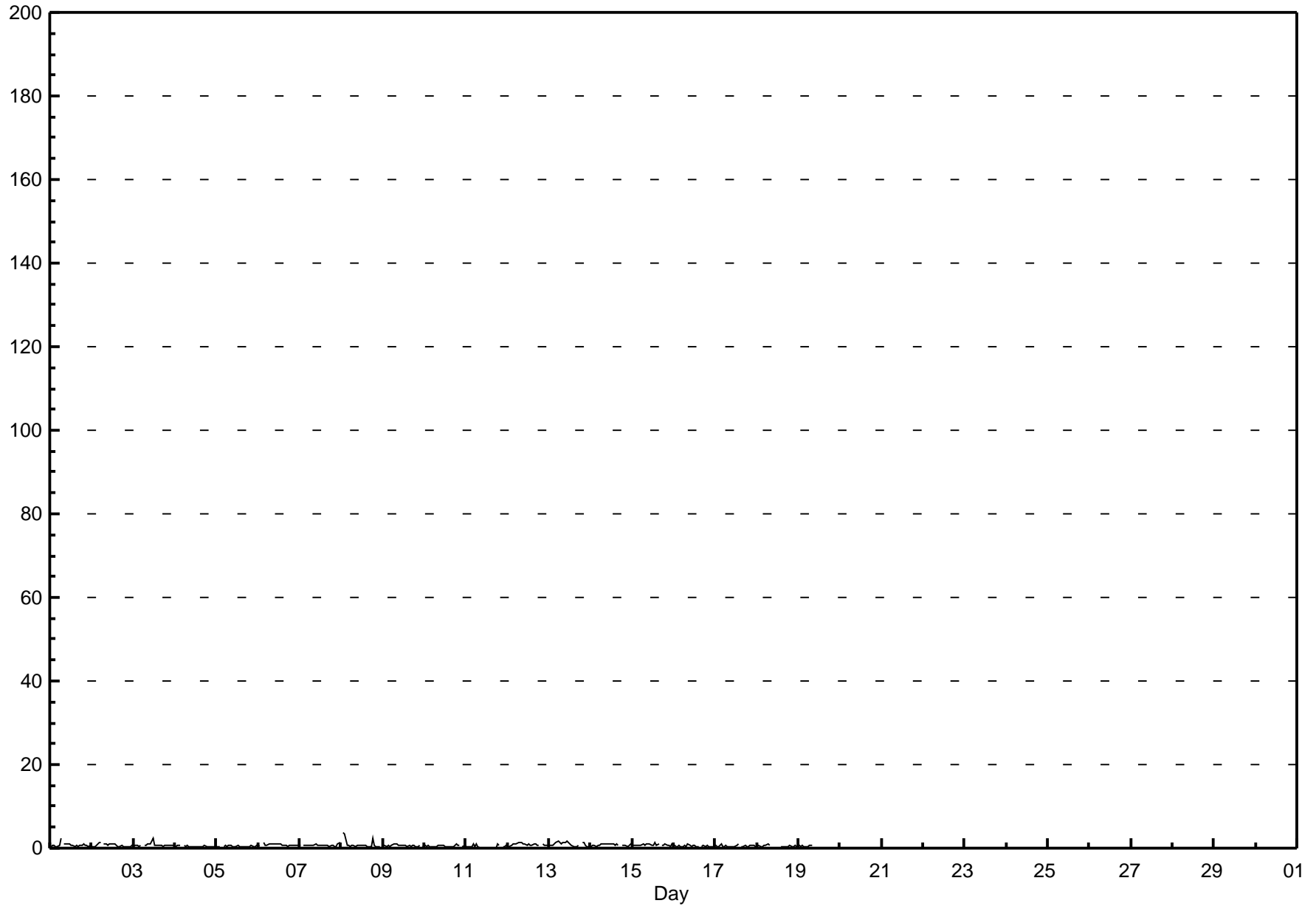
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Portable Reno - June 2014

Maximum Value: 3.9 ppb on Jun 8 02:00		Maximum Daily Average: 1.0 ppb on Jun 13		Hours in Service: 441																							
Minimum Value: 0 ppb on Jun 11 10:00		Minimum Daily Average: 0.3 ppb on Jun 11		Hours of Data: 417																							
Maximum Diurnal Average: 0.9 ppb at hour 7		Minimum Diurnal Average: 0.5 ppb at hour 17		Hours of Missing Data: 24																							
Monthly Average: 0.66 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 0.4 Median = 0.6 Q <sub>3</sub> = 0.8 P <sub>90</sub> = 1.0 P <sub>99</sub> = 2.4		Hours of Calibration: 24																							
				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-Jun	0	1	1	0	1	1	2	A	1	1	1	1	1	1	0	1	0	1	1	1	1	1	0	1	0.7	2.4	
2-Jun	0	0	0	1	1	1	A	1	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	1	0.7	1.4	
3-Jun	0	1	1	0	1	A	1	1	1	1	1	2	1	1	1	1	1	0	1	1	1	1	1	1	0.7	2.4	
4-Jun	0	1	1	1	A	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.5	0.8	
5-Jun	0	1	0	A	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0.5	0.8	
6-Jun	0	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	
7-Jun	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.4	
8-Jun	A	4	3	1	1	0	1	1	1	1	1	1	1	1	1	0	0	0	2	1	0	0	0	A	0.9	3.9	
9-Jun	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	0	1	1	0	0	1	A	0	0.6	0.9	
10-Jun	1	0	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	1	1	A	0	1	0.5	0.9	
11-Jun	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	A	0	1	1	0.3	1.1	
12-Jun	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.5	
13-Jun	1	1	1	1	1	2	1	1	1	1	2	1	1	1	0	0	0	1	A	1	1	1	0	0	1.0	1.8	
14-Jun	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.8	1.1	
15-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	0.8	1.2	
16-Jun	1	0	0	1	0	0	1	0	1	1	0	1	0	0	A	0	1	0	1	0	0	0	0	0	0.5	0.9	
17-Jun	1	0	0	1	0	0	1	0	0	0	0	1	1	1	A	0	0	1	0	0	1	1	1	0	0.5	0.9	
18-Jun	0	1	0	0	1	1	1	1	C	C	C	C	C	C	0	0	0	0	0	1	0	0	1	1	0.5	1.0	
19-Jun	1	0	1	0	0	0	1	1	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	0.8	
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
22-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
23-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
24-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
25-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
26-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
27-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
28-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
29-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
30-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
		0.5	0.7	0.7	0.6	0.7	0.7	0.9	0.7	0.8	0.7	0.7	0.8	0.7	0.7	0.5	0.6	0.5	0.5	0.7	0.7	0.6	0.5	0.5	0.6	Diurnal Average	
		0.8	3.9	3.5	1.2	1.5	1.8	2.4	1.3	1.4	1.3	1.6	2.4	1.1	1.2	0.8	1.0	1.1	0.7	2.4	1.4	1.3	0.7	0.9	1.4	Diurnal Maximum	
C - Calibration		NS - Not in service						A - Automated Daily Zero Span																			

### Hourly Maximums

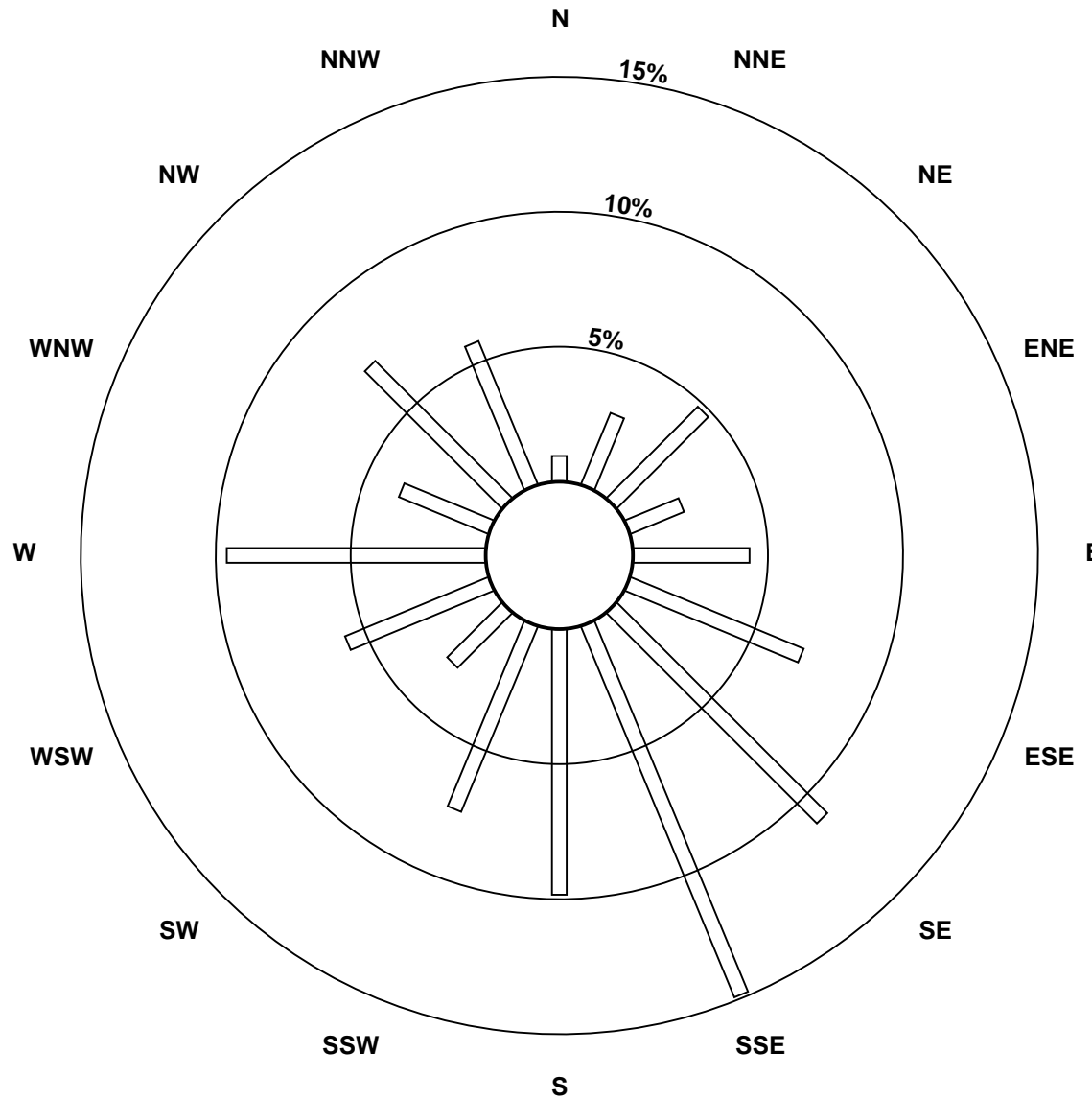
**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Portable Reno - June 2014**



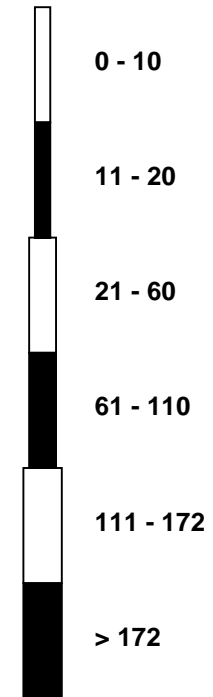


**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Portable Reno - June 2014**

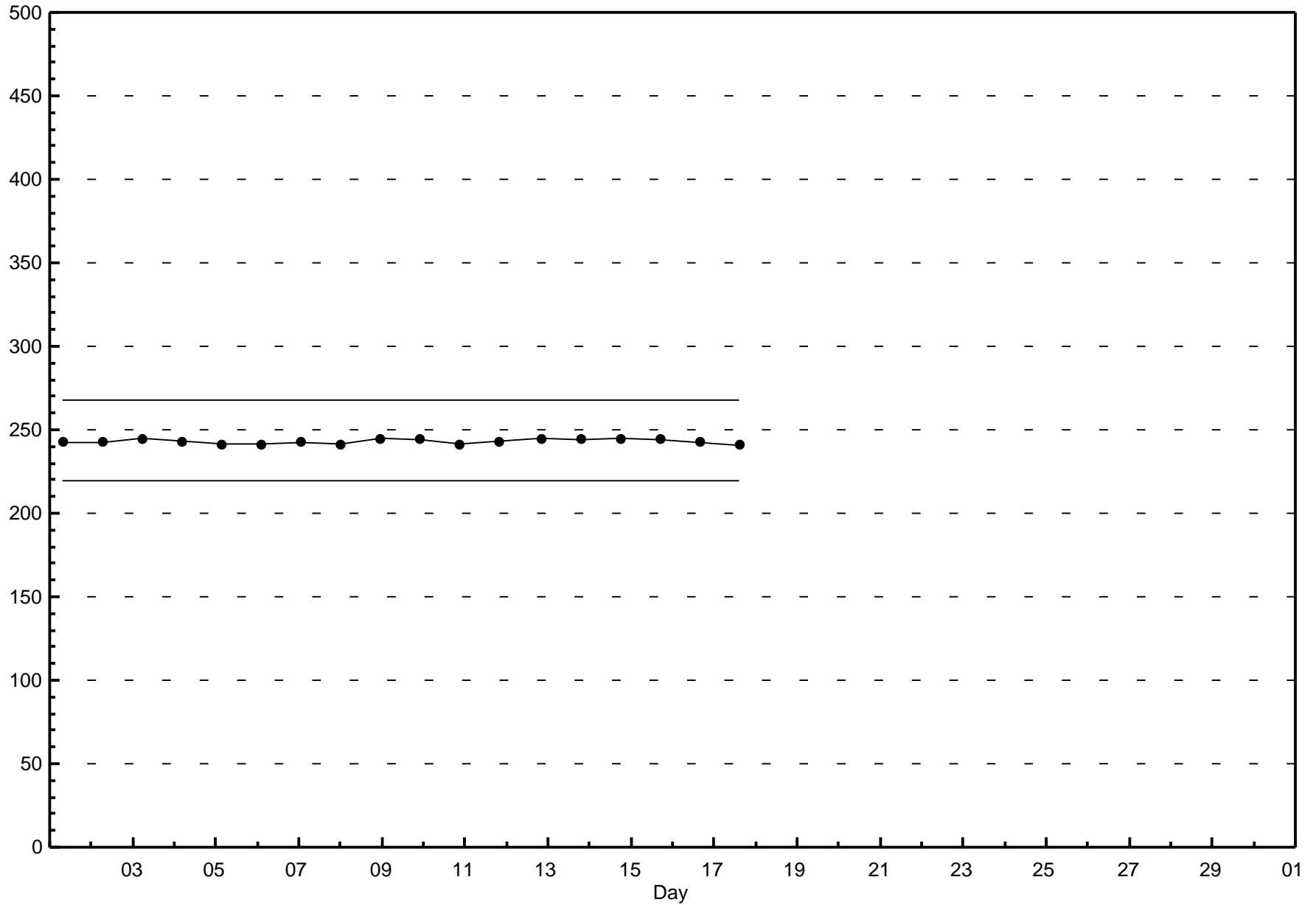


**Pollutant Classes (ppb)**



### Span Responses

Sulphur Dioxide (SO<sub>2</sub>)  
Portable Reno - June 2014



## Hourly Averages

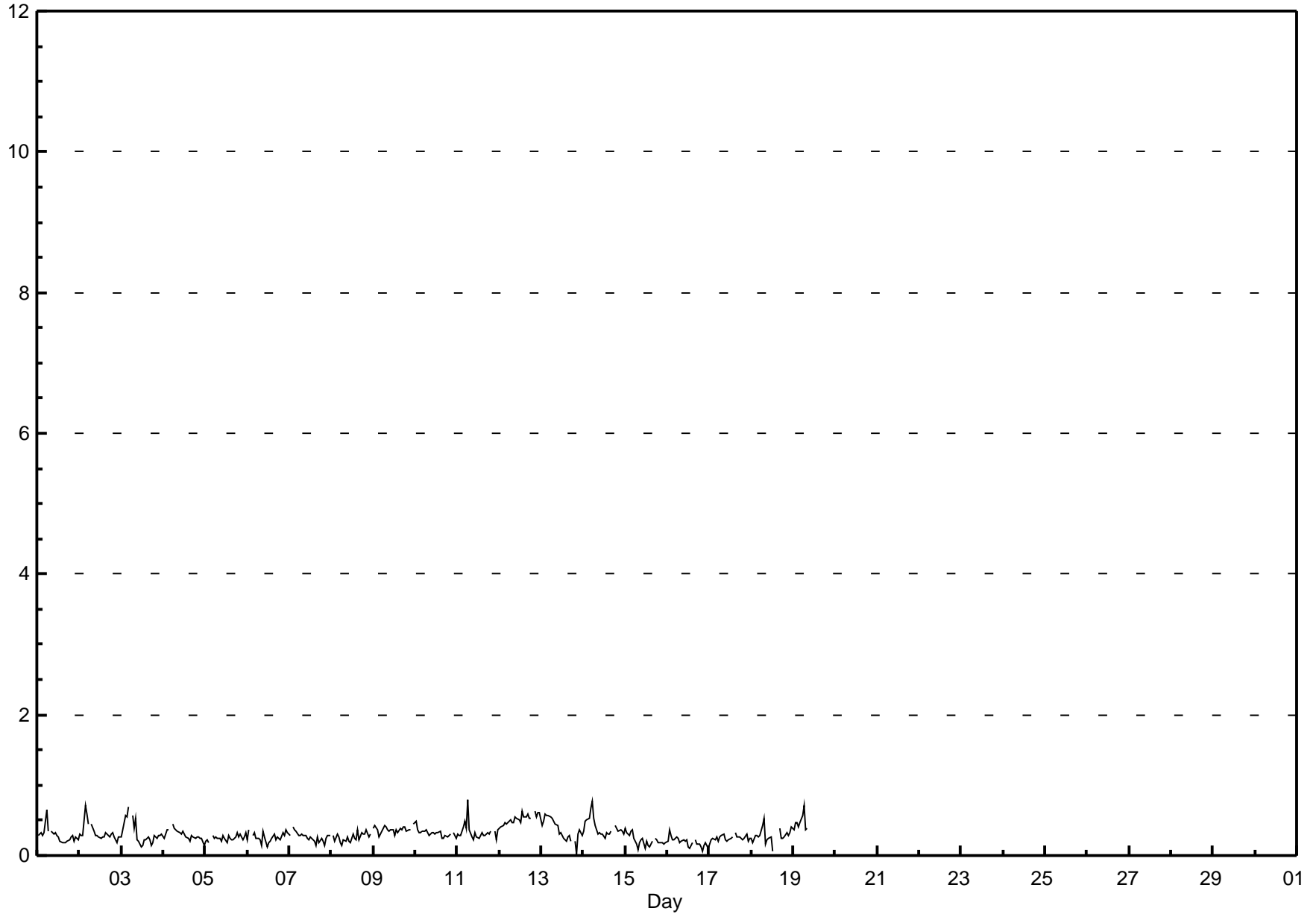
## Total Reduced Sulphur (TRS) - ppb

### Portable Reno - June 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	441
Maximum Value: 0.8 ppb on Jun 11 07:00	Maximum Daily Average: 0.5 ppb on Jun 12		Hours of Data:	420
Minimum Value: 0 ppb on Jun 13 21:00	Minimum Daily Average: 0.2 ppb on Jun 16		Hours of Missing Data:	21
Maximum Diurnal Average: 0.4 ppb at hour 7	Minimum Diurnal Average: 0.2 ppb at hour 13		Hours of Calibration:	21
Monthly Average: 0.31 ppb	Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 0.2 Median = 0.3 Q <sub>3</sub> = 0.4 P <sub>90</sub> = 0.5 P <sub>99</sub> = 0.7		Percent Operational Time:	100.0

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

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

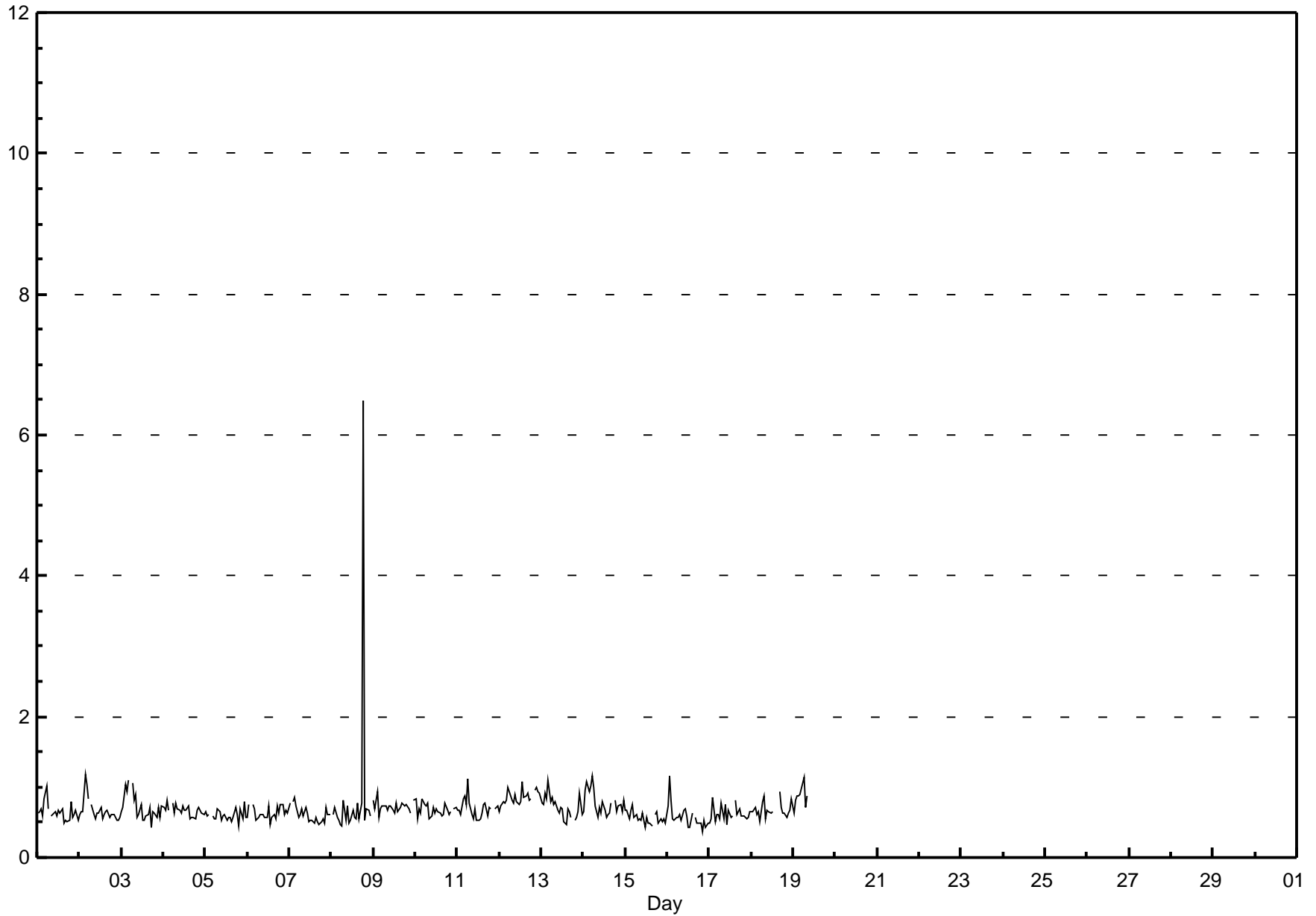


## Hourly Maximums

## Total Reduced Sulphur (TRS) - ppb

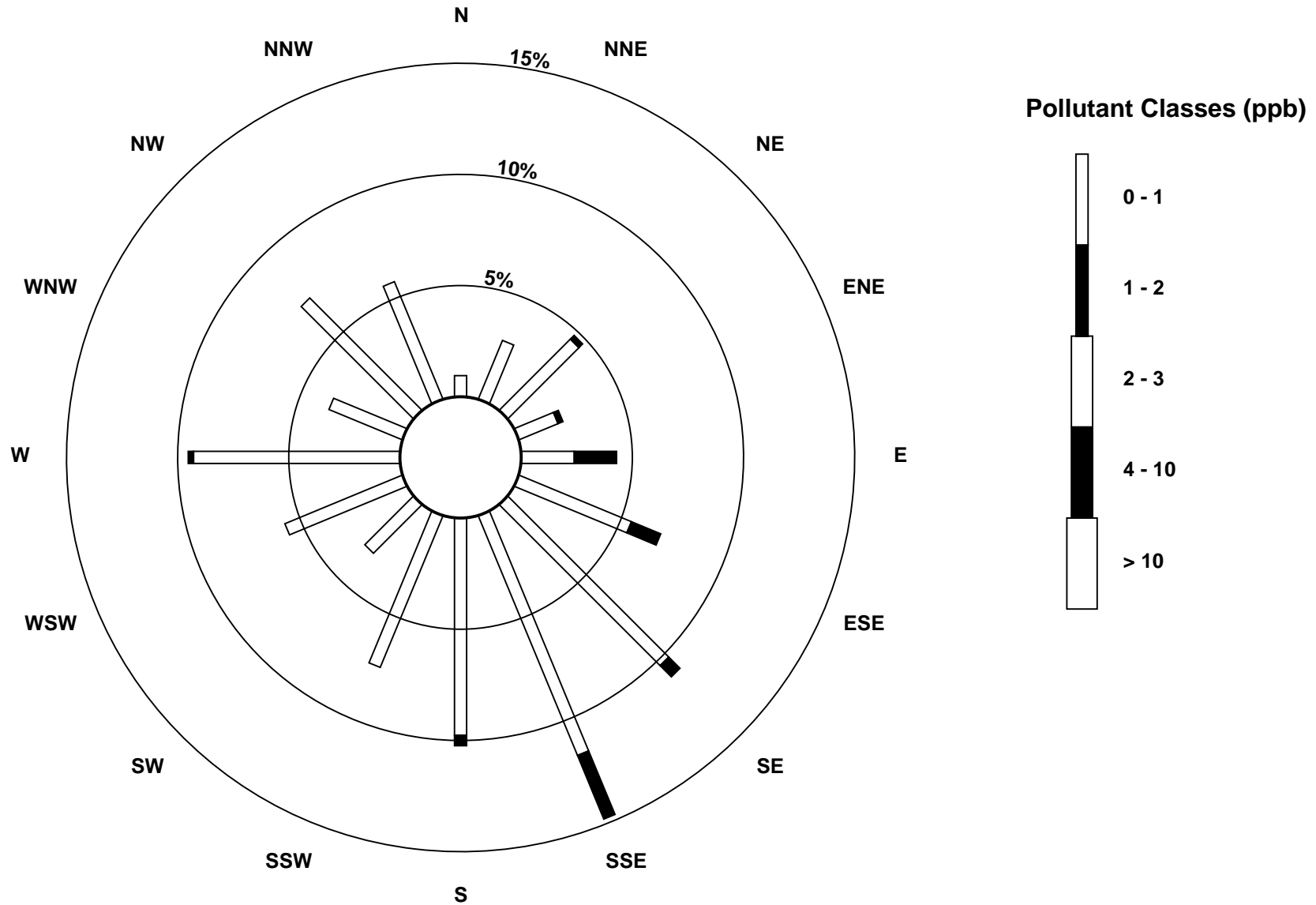
### Portable Reno - June 2014

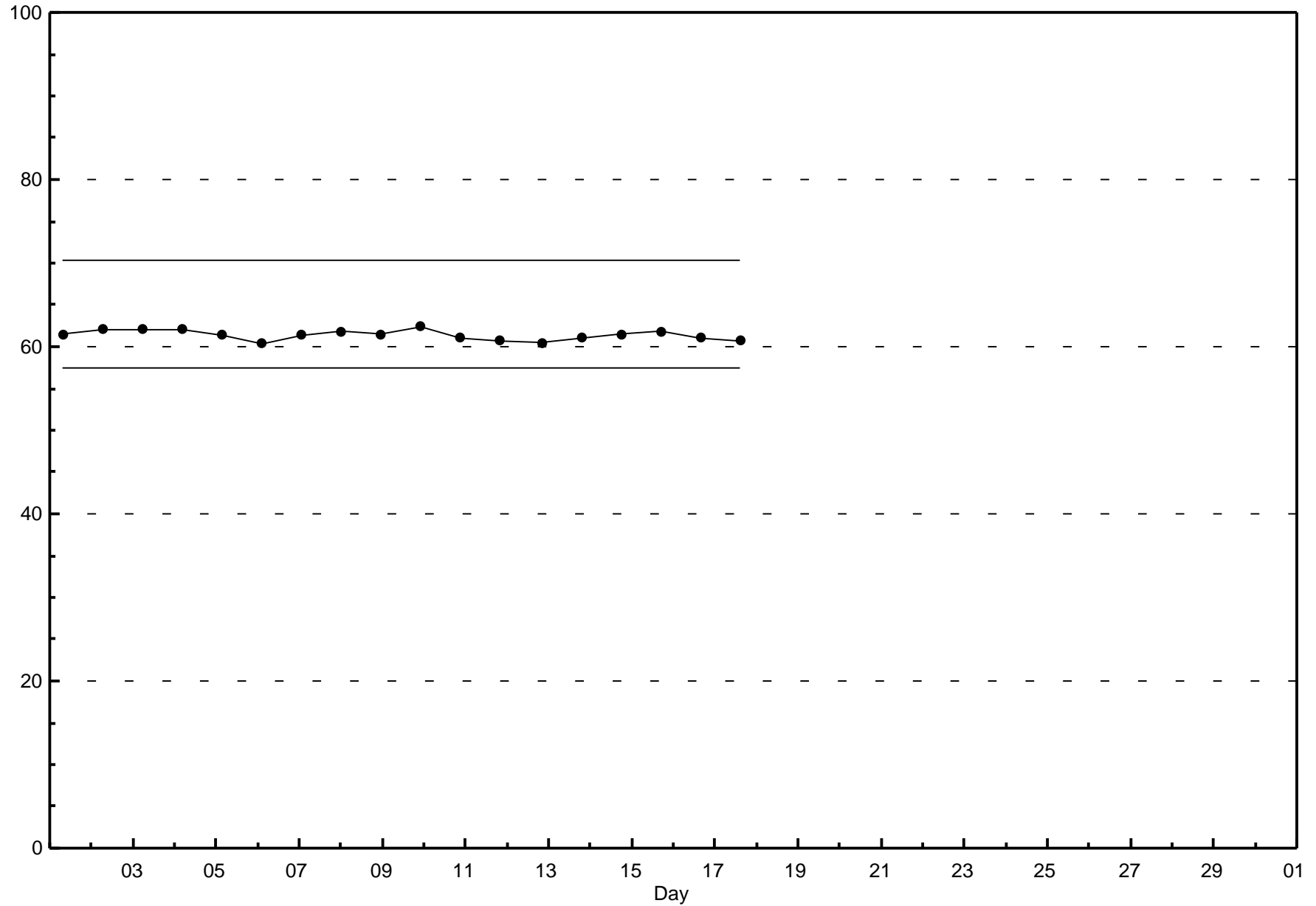
Maximum Value: 6.5 ppb on Jun 8 19:00		Maximum Daily Average: 0.9 ppb on Jun 8		Hours in Service: 441																							
Minimum Value: 0 ppb on Jun 16 21:00		Minimum Daily Average: 0.6 ppb on Jun 15		Hours of Data: 420																							
Maximum Diurnal Average: 1.0 ppb at hour 19		Minimum Diurnal Average: 0.6 ppb at hour 14		Hours of Missing Data: 21																							
Monthly Average: 0.69 ppb		Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.6 Median = 0.6 Q <sub>3</sub> = 0.7 P <sub>90</sub> = 0.9 P <sub>99</sub> = 1.2		Hours of Calibration: 21																							
				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-Jun	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0.6	1.0	
2-Jun	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2	
3-Jun	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.7	1.1	
4-Jun	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8	
5-Jun	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.6	0.8	
6-Jun	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8	
7-Jun	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	0	1	1	0	1	0.6	0.9	
8-Jun	A	1	1	1	1	0	0	1	1	1	0	1	1	1	1	1	1	1	6	1	1	1	1	A	0.9	6.5	
9-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9	
10-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	0.8	
11-Jun	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	
12-Jun	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	1.1	
13-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	0.7	1.1	
14-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.2	
15-Jun	1	1	1	1	1	1	1	1	1	1	0	1	0	0	A	1	1	1	0	1	1	1	0	1	0.6	0.7	
16-Jun	1	1	1	1	1	1	1	1	1	1	1	0	0	1	A	1	0	0	0	0	0	1	0	0	0.6	1.2	
17-Jun	0	1	1	1	1	1	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	0.6	0.9	
18-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	C	C	C	1	1	1	1	1	1	1	1	0.7	0.9	
19-Jun	1	1	1	1	1	1	1	1	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	1.1	
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
22-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
23-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
24-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
25-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
26-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
27-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
28-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
29-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
30-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
		0.7	0.7	0.8	0.7	0.8	0.7	0.8	0.7	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	1.0	0.6	0.6	0.6	0.7	0.7	Diurnal Average	
		0.8	1.2	1.1	1.2	1.1	1.2	1.1	0.9	0.9	0.9	0.8	0.8	0.8	0.6	0.9	0.9	0.9	0.8	6.5	0.8	1.0	1.0	0.9	0.9	Diurnal Maximum	
C - Calibration		NS - Not in service						A - Automated Daily Zero Span																			



**Pollutant Rose**

**Total Reduced Sulphur (TRS) - ppb**  
**Portable Reno - June 2014**







## Hourly Averages

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

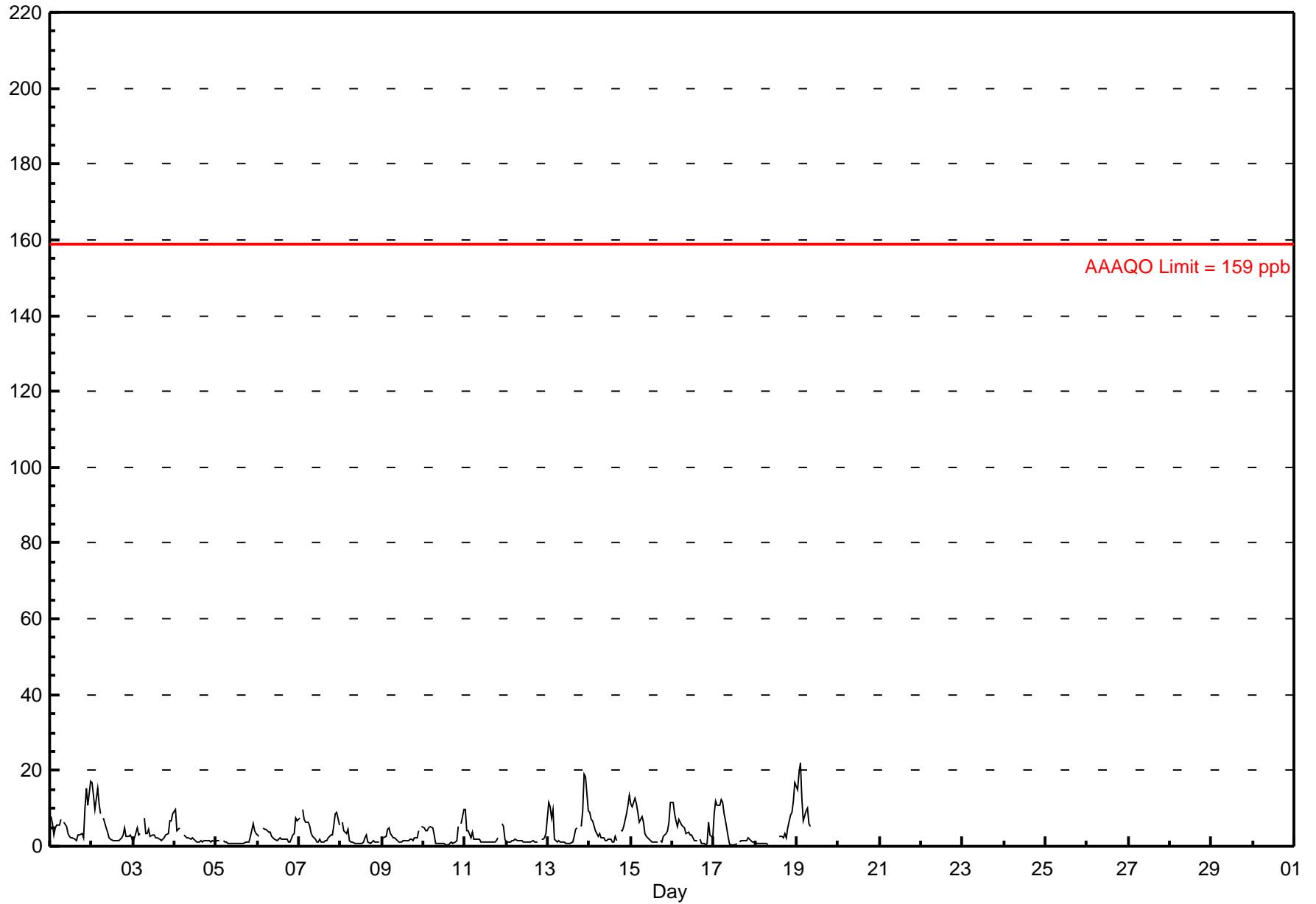
### Portable Reno - June 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	441
Maximum Value: 21.9 ppb on Jun 19 03:00	Maximum Daily Average: 5.7 ppb on Jun 1		Hours of Data:	417
Minimum Value: 0 ppb on Jun 17 12:00	Minimum Daily Average: 1.5 ppb on Jun 12		Hours of Missing Data:	24
Maximum Diurnal Average: 7.4 ppb at hour 1	Minimum Diurnal Average: 1.3 ppb at hour 14		Hours of Calibration:	24
Monthly Average: 3.72 ppb	Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 0.9 Q <sub>1</sub> = 1.3 Median = 2.2 Q <sub>3</sub> = 5.0 P <sub>90</sub> = 8.9 P <sub>99</sub> = 17.9		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-Jun	8	6	3	5	5	5	7	A	6	5	4	3	2	2	2	2	3	3	3	2	10	15	11	17	5.7	17.2
2-Jun	17	13	10	15	11	9	A	7	5	4	2	2	2	2	1	1	1	2	3	5	3	2	3	2	5.3	16.7
3-Jun	1	2	5	3	3	A	8	3	3	4	3	3	3	2	2	2	2	2	2	3	3	7	7	9	3.6	8.7
4-Jun	10	4	4	5	A	3	3	2	2	2	2	2	1	1	1	1	1	2	2	1	1	1	1	1	2.4	9.7
5-Jun	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	6	4	4	1.5	6.1
6-Jun	3	3	A	5	5	5	4	4	3	2	2	2	2	2	2	2	2	2	1	1	3	3	7	7	3.1	7.5
7-Jun	7	A	10	7	6	6	5	3	3	2	1	1	2	1	1	2	2	2	3	3	6	9	9	5	4.2	9.7
8-Jun	A	6	4	3	5	1	1	1	1	1	1	1	1	1	2	3	1	1	1	1	1	1	1	A	1.8	6.4
9-Jun	2	2	3	5	5	3	2	2	2	1	1	1	2	2	2	2	2	2	2	2	2	4	A	5	2.4	5.1
10-Jun	5	4	4	5	5	5	3	1	1	1	1	1	1	1	1	1	1	1	1	2	5	A	6	10	2.7	9.9
11-Jun	10	4	4	2	4	2	2	2	2	1	1	1	1	1	1	1	1	1	2	2	A	6	5	2	2.5	9.6
12-Jun	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	A	2	2	2	3	1.5	3.4
13-Jun	12	10	8	10	2	1	1	1	1	1	1	1	1	1	1	3	5	5	A	5	9	19	18	9	5.4	19.2
14-Jun	9	7	7	4	3	3	3	2	2	2	2	2	2	1	1	3	2	A	4	4	5	9	11	13	4.3	13.3
15-Jun	11	11	13	11	9	6	8	6	3	3	2	2	1	1	1	A	2	1	1	3	3	4	6	11	5.2	12.8
16-Jun	11	9	7	5	7	6	5	5	3	4	3	3	2	1	1	A	2	1	1	1	1	6	3	2	3.9	11.4
17-Jun	9	12	11	11	12	12	9	7	2	1	0	0	0	1	A	1	1	1	1	2	2	2	1	1	4.3	12.3
18-Jun	1	1	1	1	1	1	1	0	C	C	C	C	C	C	2	2	2	3	2	5	8	9	12	17	3.9	16.8
19-Jun	15	20	22	13	7	9	10	6	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	21.9
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
22-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
23-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
24-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
25-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
26-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
27-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
28-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
29-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
30-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--

7.4	6.5	6.5	6.1	5.2	4.4	4.1	3.1	2.6	2.1	1.7	1.5	1.4	1.3	1.4	1.7	1.7	1.8	1.8	2.5	4.0	6.2	6.4	7.0	Diurnal Average	
16.7	19.5	21.9	15.2	12.3	11.5	9.9	7.5	6.3	5.3	3.5	3.1	3.0	2.4	2.4	3.1	4.5	4.7	4.1	5.3	10.2	19.2	18.4	17.2	Diurnal Maximum	

C - Calibration      NS - Not in service      A - Automated Daily Zero Span  
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb      24-hr 106 ppb



## Hourly Maximums

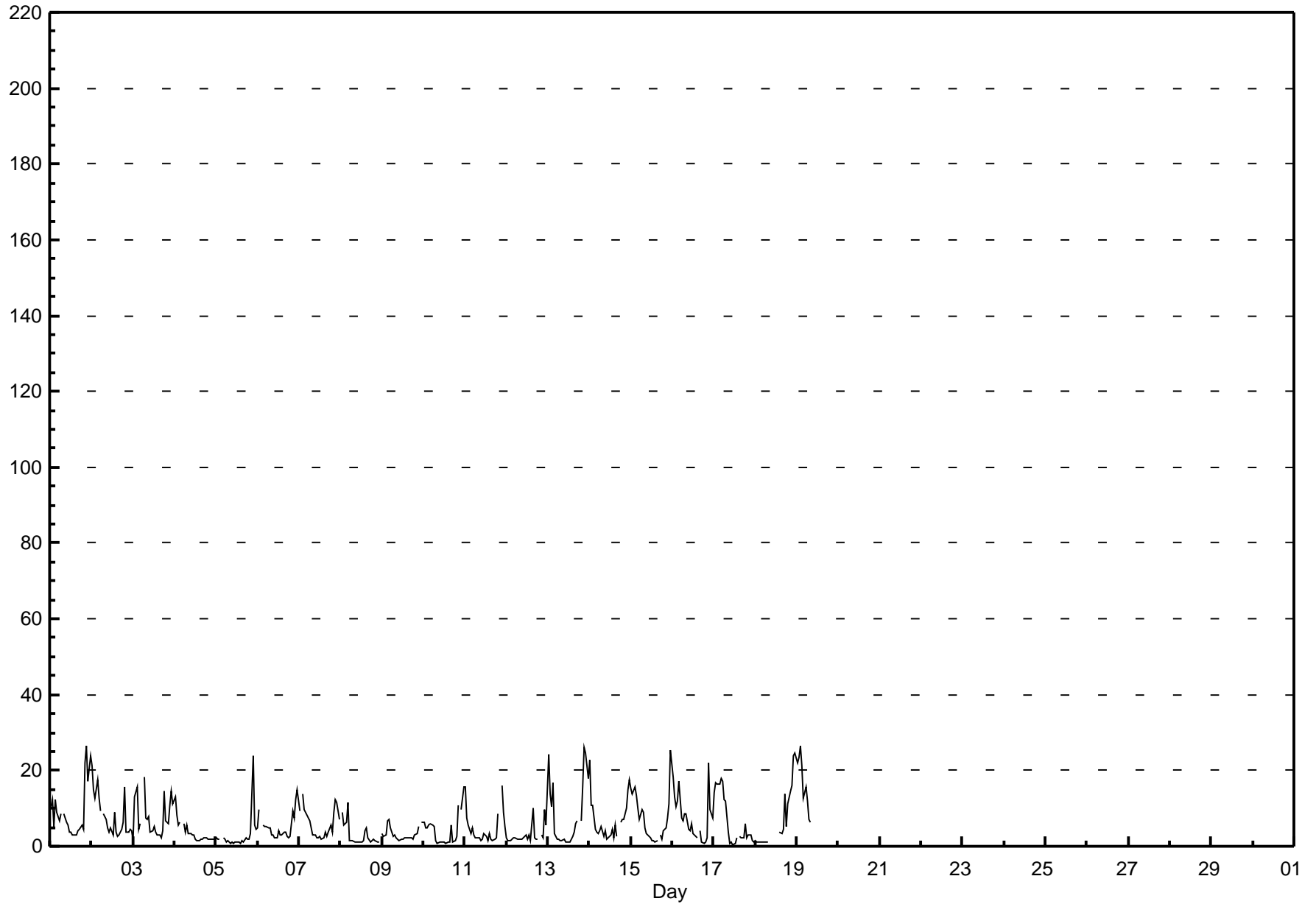
Nitrogen Dioxide (NO<sub>2</sub>) - ppb

Portable Reno - June 2014

Maximum Value: 26.5 ppb on Jun 1 22:00		Maximum Daily Average: 9.1 ppb on Jun 1		Hours in Service: 441																																													
Minimum Value: 1 ppb on Jun 17 12:00		Minimum Daily Average: 2.8 ppb on Jun 5		Hours of Data: 417																																													
Maximum Diurnal Average: 11.6 ppb at hour 1		Minimum Diurnal Average: 2.3 ppb at hour 13		Hours of Missing Data: 24																																													
Monthly Average: 6.00 ppb		Percentiles: P <sub>1</sub> = 0.8 P <sub>10</sub> = 1.3 Q <sub>1</sub> = 2.0 Median = 3.7 Q <sub>3</sub> = 7.9 P <sub>90</sub> = 14.8 P <sub>99</sub> = 24.5		Hours of Calibration: 24																																													
				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-Jun	10	12	5	12	9	7	9	A	8	6	5	4	4	3	3	3	4	4	6	4	22	27	17	24	9.1	26.5																							
2-Jun	21	15	13	18	13	9	A	9	7	5	4	5	3	9	4	3	3	4	6	16	4	4	4	4	7.8	21.2																							
3-Jun	1	13	16	5	6	A	18	7	7	8	4	4	5	4	3	3	2	4	15	7	6	11	15	11	7.6	18.3																							
4-Jun	13	8	5	7	A	6	4	6	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	3.6	12.9																							
5-Jun	2	2	2	A	2	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2	4	24	5	5	2.8	24.0																							
6-Jun	5	10	A	5	5	5	5	5	3	3	2	2	4	3	3	4	4	3	2	2	9	8	12	15	5.2	14.8																							
7-Jun	9	A	14	10	9	7	7	5	3	3	2	2	3	2	2	4	3	4	6	4	9	12	12	7	6.0	13.8																							
8-Jun	A	9	6	6	11	2	1	2	1	1	1	1	1	1	4	5	2	1	2	2	1	1	1	A	2.9	11.5																							
9-Jun	3	3	3	7	7	5	3	3	2	2	2	2	2	2	2	2	2	2	2	3	3	5	A	6	3.2	6.9																							
10-Jun	6	5	5	5	6	6	5	2	1	1	1	1	1	1	1	1	6	1	2	3	11	A	10	16	4.1	15.8																							
11-Jun	16	8	6	3	5	3	2	2	2	2	2	3	2	1	3	2	2	2	2	9	A	16	9	5	4.6	16.0																							
12-Jun	2	2	1	2	2	2	2	2	2	2	2	3	2	3	1	10	2	2	2	A	3	2	10	6	2.9	10.0																							
13-Jun	24	14	10	17	4	2	2	2	2	2	1	1	1	1	3	4	6	7	A	7	16	26	25	18	8.4	26.2																							
14-Jun	23	11	11	4	4	3	4	5	3	4	2	2	3	5	2	6	3	A	6	7	7	10	15	17	6.8	22.6																							
15-Jun	15	14	16	13	10	7	10	9	5	3	3	2	1	2	1	2	A	3	2	4	5	7	11	25	7.4	25.2																							
16-Jun	18	13	11	12	17	7	7	9	8	4	4	6	3	3	2	A	4	1	1	1	2	22	10	7	7.6	21.8																							
17-Jun	14	17	16	16	18	17	12	12	4	1	1	1	1	2	A	3	2	2	6	2	3	3	2	1	6.8	18.0																							
18-Jun	1	1	1	1	1	1	1	1	C	C	C	C	C	C	4	3	4	14	5	11	15	16	24	25	7.2	24.5																							
19-Jun	22	24	26	21	13	16	12	7	6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	26.3																							
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
22-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
23-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
24-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
25-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
26-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
27-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
28-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
29-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
30-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
11.6		9.9		9.2		9.2		7.9		6.0		5.8		4.8		3.8		3.0		2.4		2.6		2.3		2.6		2.5		3.3		3.1		3.5		4.0		5.0		7.2		11.5		10.8		11.4		Diurnal Average	
24.4		23.7		26.3		21.4		18.0		17.1		18.3		11.8		8.5		7.8		5.4		6.0		5.3		8.8		4.1		10.0		6.1		13.8		14.6		15.7		22.1		26.5		24.7		25.2		Diurnal Maximum	
C - Calibration				NS - Not in service								A - Automated Daily Zero Span																																					

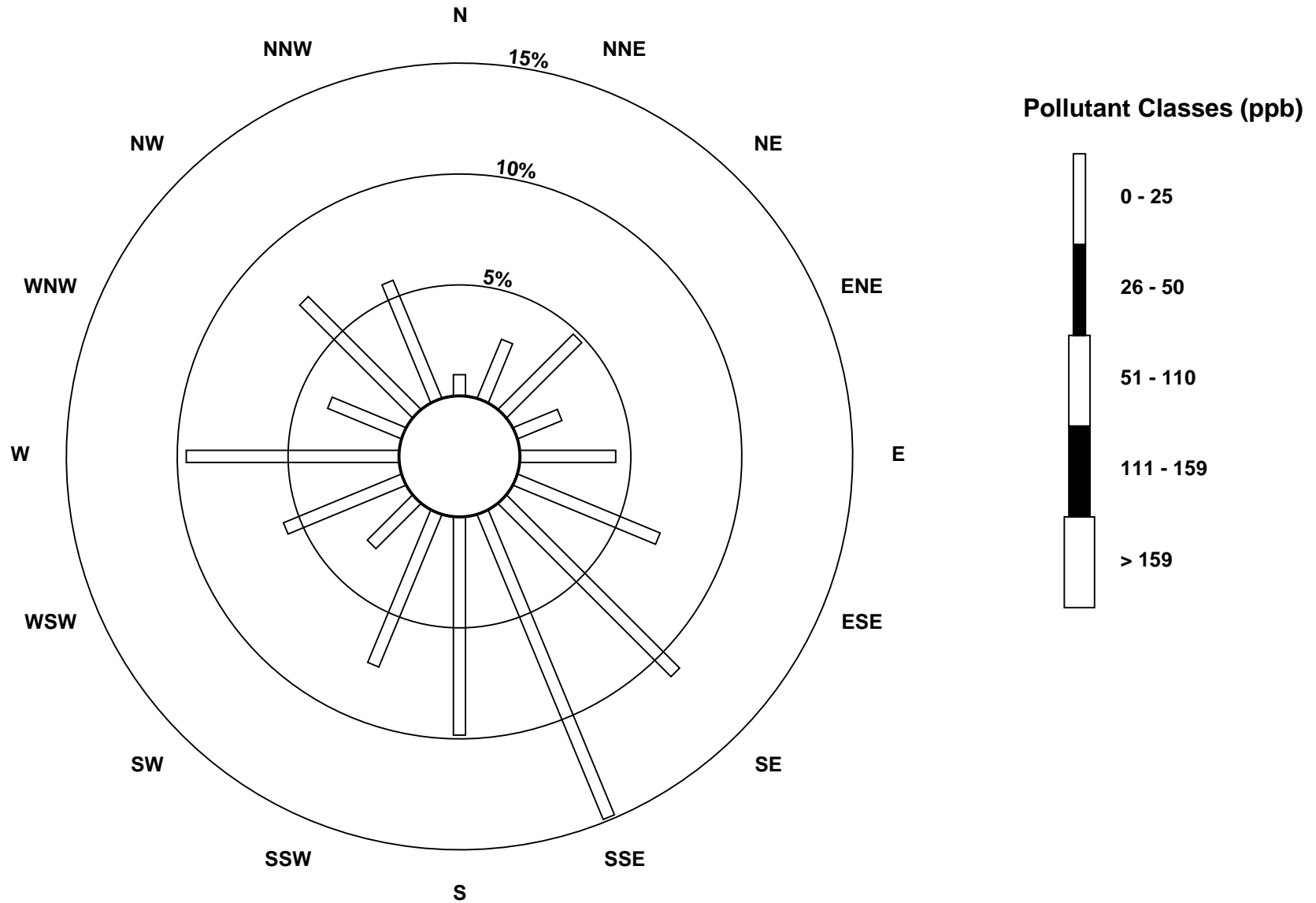
### Hourly Maximums

Nitrogen Dioxide (NO<sub>2</sub>) - ppb  
Portable Reno - June 2014



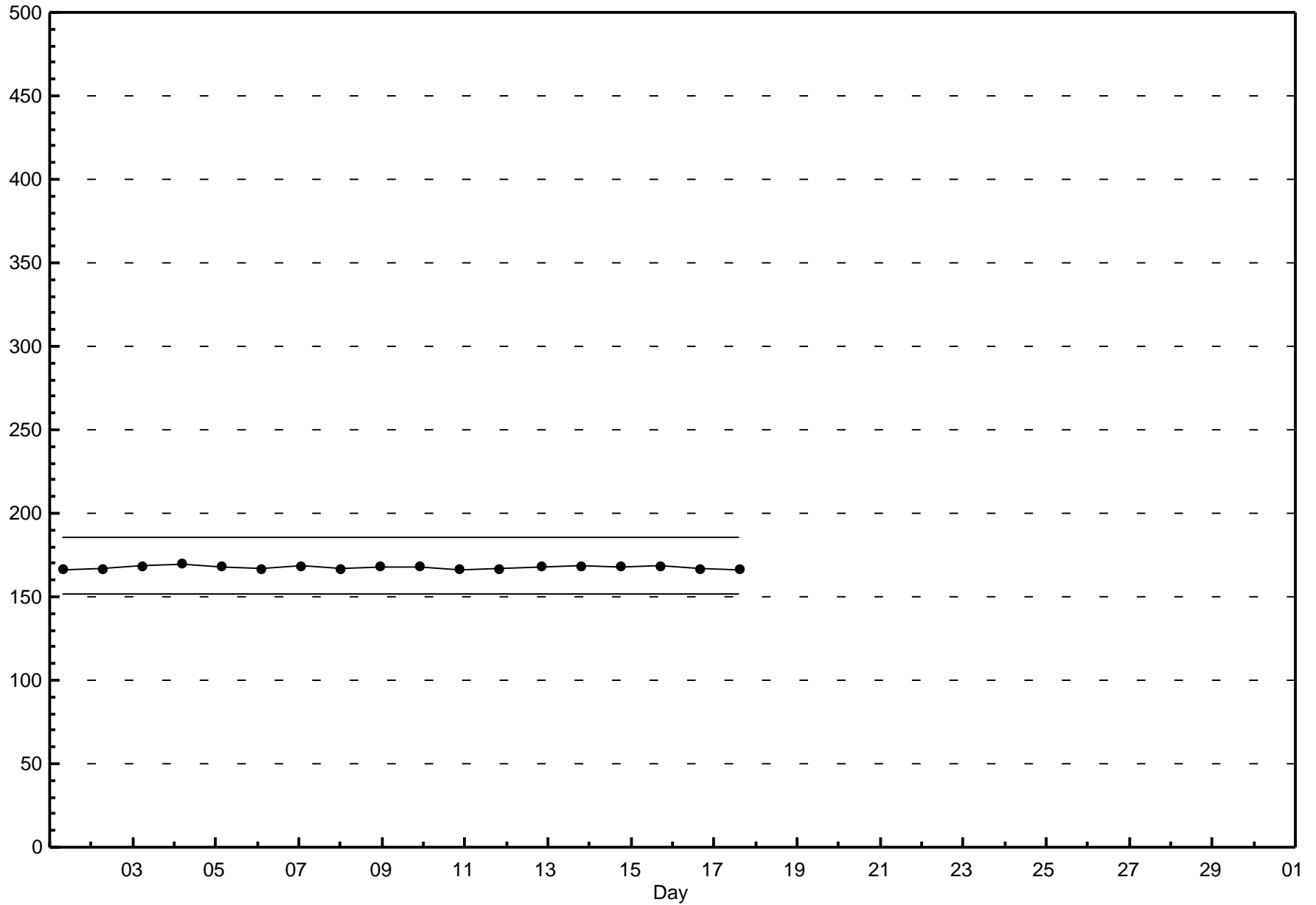
**Pollutant Rose**

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Portable Reno - June 2014**



### Span Responses

**Nitrogen Dioxide (NO<sub>2</sub>)**  
**Portable Reno - June 2014**



## Hourly Averages

Nitrogen Oxide (NO) - ppb

Portable Reno - June 2014

Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	441
Maximum Value: 14.9 ppb on Jun 19 03:00	Maximum Daily Average: 1.3 ppb on Jun 1		Hours of Data:	417
Minimum Value: 0 ppb on Jun 18 01:00	Minimum Daily Average: 0.2 ppb on Jun 12		Hours of Missing Data:	24
Maximum Diurnal Average: 1.5 ppb at hour 7	Minimum Diurnal Average: 0.5 ppb at hour 14		Hours of Calibration:	24
Monthly Average: 0.85 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> = 1.1 P <sub>90</sub> = 1.9 P <sub>99</sub> = 5.7		Percent Operational Time:	100.0

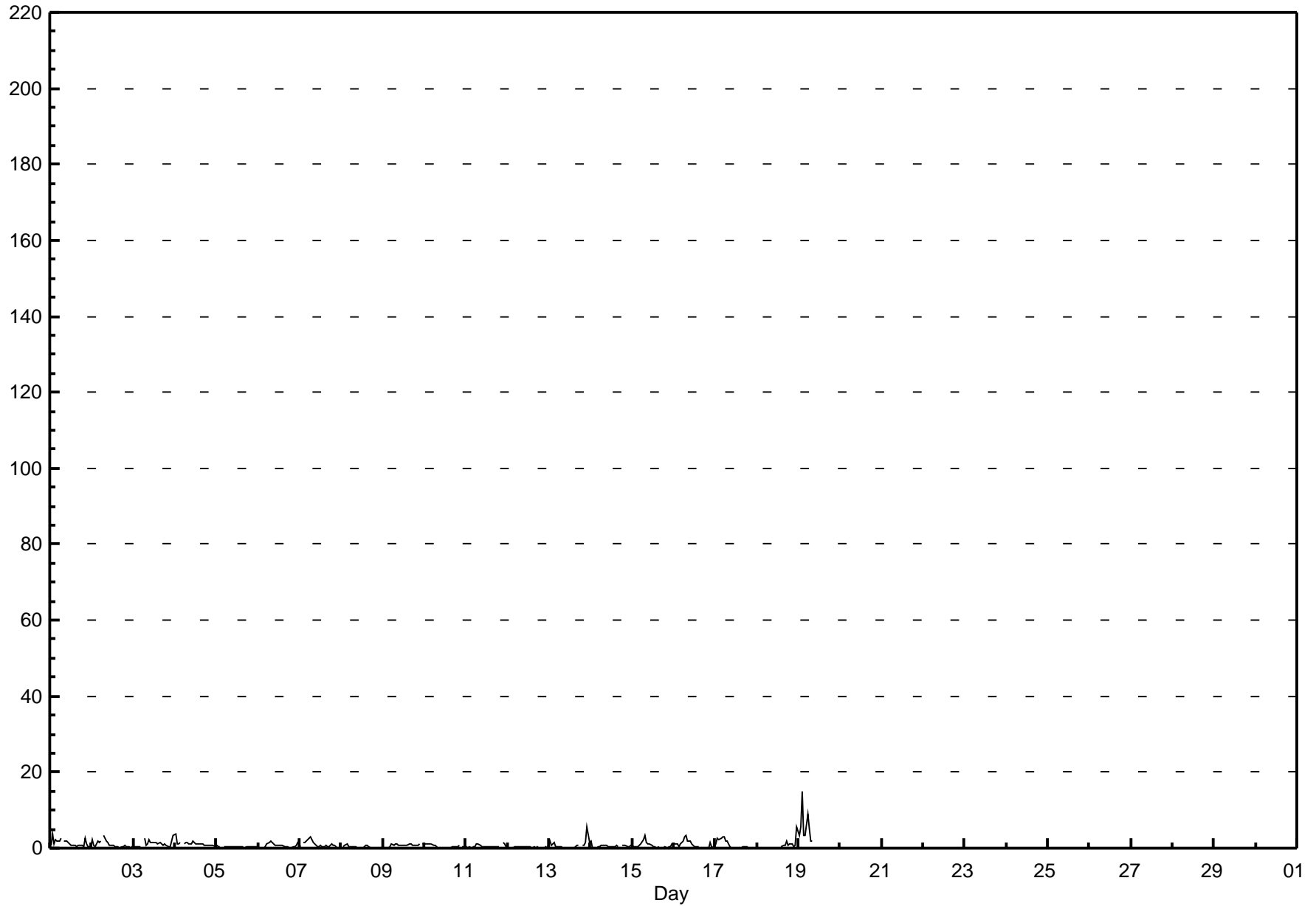
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	1	4	1	2	2	2	3	A	2	2	1	1	1	1	1	0	1	1	1	0	3	1	0	0	1.3	3.9
2-Jun	2	1	0	2	1	2	A	3	2	2	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0.9	3.3
3-Jun	0	0	0	0	0	A	3	1	1	2	2	2	2	1	1	1	1	1	1	1	0	1	2	3	1.2	3.3
4-Jun	4	1	1	2	A	1	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	3.9
5-Jun	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.3	0.6
6-Jun	0	0	A	0	0	1	2	2	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	1	0.7	1.8
7-Jun	0	A	2	2	2	3	3	2	1	1	0	0	1	0	0	1	1	0	1	1	1	0	0	0	1.0	2.8
8-Jun	A	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	0.3	1.2
9-Jun	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.2
10-Jun	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0.5	1.2
11-Jun	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0	0.5	1.4
12-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.3
13-Jun	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	1	1	1	6	2	0.8	5.7
14-Jun	2	0	0	0	0	0	1	1	1	1	0	0	0	0	0	1	0	A	1	1	1	1	0	1	0.6	1.7
15-Jun	1	0	0	0	1	1	2	3	2	1	1	0	0	0	0	A	0	0	0	0	0	0	0	1	0.8	3.3
16-Jun	1	1	1	0	1	2	3	3	2	2	1	0	0	0	A	0	0	0	0	0	0	1	0	0	0.9	3.3
17-Jun	1	3	2	3	3	3	2	2	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.9	3.0
18-Jun	0	0	0	0	0	0	0	0	C	C	C	C	C	C	1	1	1	2	1	1	1	0	1	5	0.7	5.5
19-Jun	3	6	15	3	4	9	5	2	2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	14.9
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
22-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
23-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
24-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
25-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
26-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
27-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
28-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
29-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
30-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--

1.1	1.1	1.5	1.1	1.0	1.5	1.5	1.4	1.1	0.9	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.8	1.0	Diurnal Average
3.9	5.7	14.9	3.4	3.5	8.9	5.2	3.3	2.0	2.2	1.9	1.6	1.7	1.4	1.3	1.3	1.0	1.8	1.1	1.0	2.7	1.4	5.7	5.5	Diurnal Maximum	

C - Calibration      NS - Not in service      A - Automated Daily Zero Span

**Hourly Averages**

**Nitrogen Oxide (NO) - ppb**  
**Portable Reno - June 2014**





# Hourly Maximums

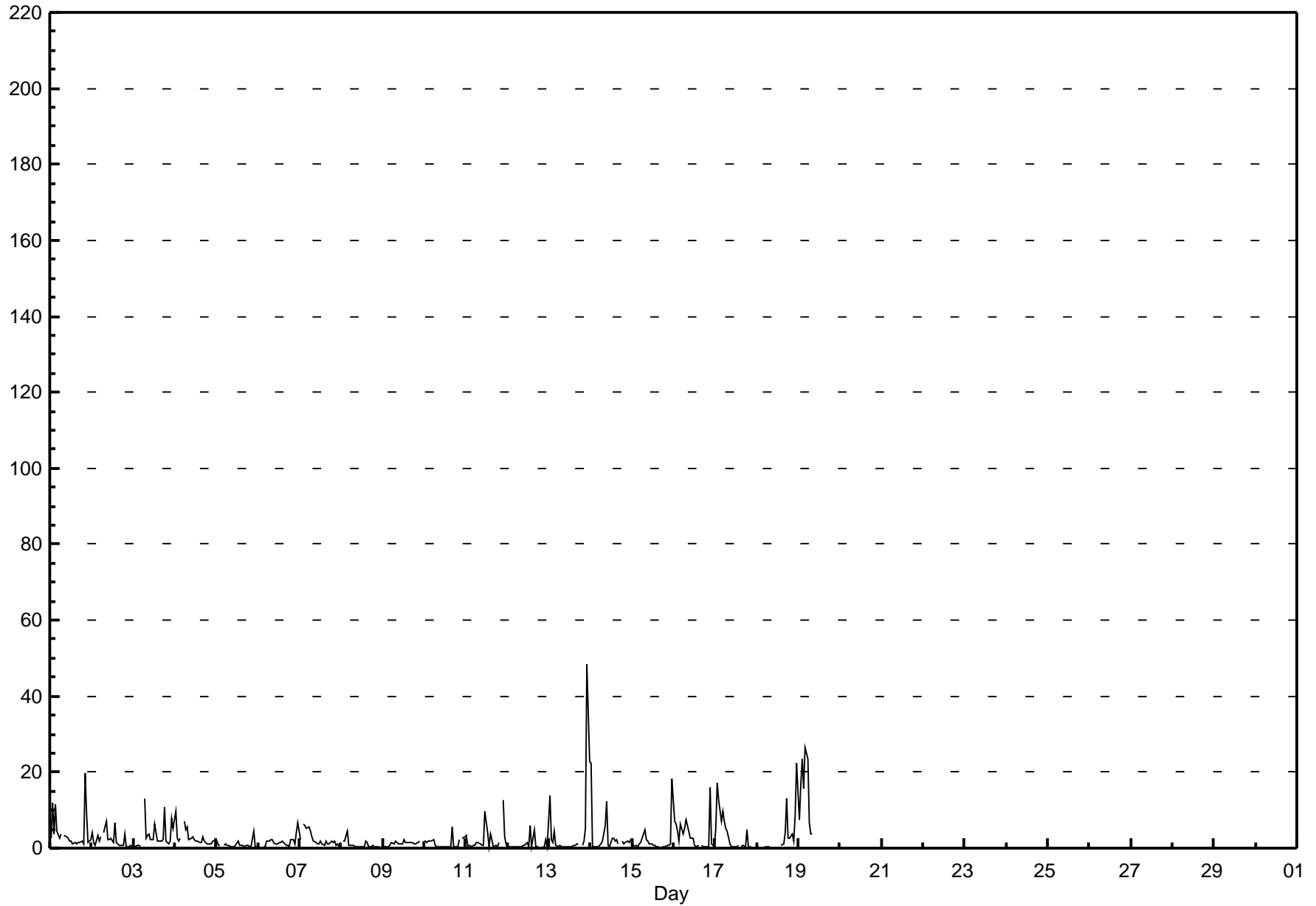
Nitrogen Oxide (NO) - ppb

Portable Reno - June 2014

Maximum Value: 48.3 ppb on Jun 13 23:00		Maximum Daily Average: 4.7 ppb on Jun 13		Hours in Service:	441																						
Minimum Value: 0 ppb on Jun 18 05:00		Minimum Daily Average: 0.8 ppb on Jun 8		Hours of Data:	417																						
Maximum Diurnal Average: 5.2 ppb at hour 24		Minimum Diurnal Average: 1.2 ppb at hour 20		Hours of Missing Data:	24																						
Monthly Average: 2.68 ppb		Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.3 Q <sub>1</sub> = 0.5 Median = 1.3 Q <sub>3</sub> = 2.5 P <sub>90</sub> = 6.2 P <sub>99</sub> = 23.3		Hours of Calibration:	24																						
				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-Jun	3	12	4	12	4	3	4	A	3	3	3	2	2	1	1	1	2	2	2	1	20	9	2	2	4.2	19.9	
2-Jun	4	2	1	3	2	3	A	4	7	2	2	3	1	7	1	1	1	1	1	4	1	0	1	0	2.2	6.9	
3-Jun	0	1	1	1	1	A	13	2	3	4	2	2	6	4	2	2	2	2	11	2	1	2	8	5	3.3	13.2	
4-Jun	10	3	2	3	A	7	5	6	2	3	3	2	2	2	1	2	3	2	1	1	1	1	2	2	2.8	9.8	
5-Jun	2	1	1	A	1	1	1	1	0	1	0	1	2	1	1	1	0	1	1	1	0	5	1	1	0.9	4.6	
6-Jun	0	0	A	0	1	2	2	2	2	1	1	1	2	1	2	1	1	1	0	2	2	1	4	7	1.6	6.7	
7-Jun	2	A	6	6	5	6	4	3	2	1	1	1	2	1	1	2	1	1	2	1	2	1	1	0	2.3	6.5	
8-Jun	A	2	2	4	1	1	1	1	0	0	0	0	0	0	2	1	1	0	1	0	0	0	0	A	0.8	4.3	
9-Jun	0	0	0	0	1	1	1	1	2	2	1	1	2	2	1	1	1	1	1	1	1	2	A	1	1.2	2.1	
10-Jun	2	2	2	2	2	2	1	1	0	0	0	0	0	0	0	0	6	1	1	1	2	A	3	3	1.3	5.6	
11-Jun	3	0	1	0	1	1	1	2	1	1	1	10	4	0	4	2	1	1	1	1	A	13	3	1	2.3	12.8	
12-Jun	0	0	0	0	0	0	1	1	1	1	1	1	1	6	0	5	1	1	0	A	0	0	2	0	1.0	5.9	
13-Jun	14	2	2	4	1	0	1	1	0	0	0	0	0	0	1	1	1	1	A	1	2	5	48	23	4.7	48.3	
14-Jun	22	0	0	0	0	1	1	2	6	12	1	1	3	3	2	2	1	A	2	1	1	2	1	2	2.9	22.4	
15-Jun	2	1	1	1	1	2	4	5	2	2	1	1	1	1	0	0	A	0	0	1	1	1	1	18	2.0	18.2	
16-Jun	7	6	4	2	6	4	5	8	6	3	3	2	1	1	1	A	1	0	0	0	0	16	1	1	3.4	15.9	
17-Jun	5	17	13	7	10	7	5	5	1	0	0	0	0	1	A	0	1	1	5	0	0	0	0	0	3.4	17.1	
18-Jun	0	0	0	0	0	0	0	0	C	C	C	C	C	C	1	1	4	13	3	3	4	2	9	22	3.5	22.3	
19-Jun	8	17	23	15	27	24	7	4	4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	26.6	
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
22-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
23-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
24-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
25-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
26-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
27-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
28-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
29-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
30-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
	4.7	3.6	3.5	3.4	3.5	3.6	3.1	2.6	2.4	2.1	1.2	1.7	1.7	1.8	1.2	1.4	1.5	1.6	1.8	1.2	2.3	3.5	5.1	5.2	Diurnal Average		
	22.4	17.1	23.4	15.5	26.6	23.5	13.2	7.6	6.9	12.2	3.0	9.6	6.2	6.8	3.7	4.8	5.6	13.2	10.8	3.7	19.9	15.9	48.3	22.7	Diurnal Maximum		
C - Calibration		NS - Not in service										A - Automated Daily Zero Span															

### Hourly Maximums

**Nitrogen Oxide (NO) - ppb**  
**Portable Reno - June 2014**



## Hourly Averages

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

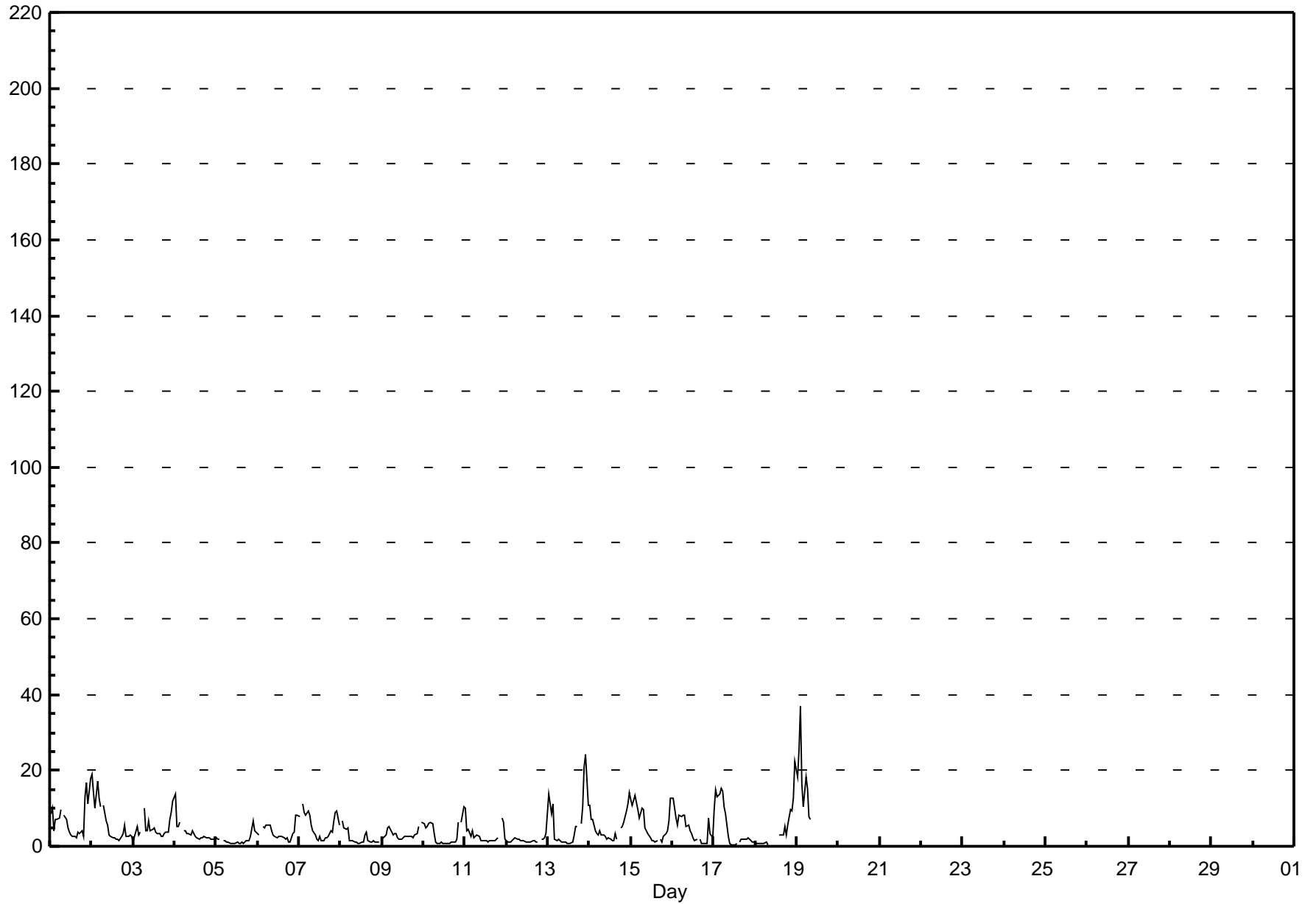
### Portable Reno - June 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	441
Maximum Value: 37.1 ppb on Jun 19 03:00	Maximum Daily Average: 7.0 ppb on Jun 1		Hours of Data:	417
Minimum Value: 0 ppb on Jun 17 12:00	Minimum Daily Average: 1.6 ppb on Jun 12		Hours of Missing Data:	24
Maximum Diurnal Average: 8.6 ppb at hour 1	Minimum Diurnal Average: 1.7 ppb at hour 14		Hours of Calibration:	24
Monthly Average: 4.57 ppb	Percentiles: P <sub>1</sub> = 0.6 P <sub>10</sub> = 1.0 Q <sub>1</sub> = 1.6 Median = 2.9 Q <sub>3</sub> = 5.9 P <sub>90</sub> = 10.4 P <sub>99</sub> = 21.3		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-Jun	9	10	4	7	7	7	10	A	8	7	5	4	3	3	3	2	4	3	4	3	13	17	11	18	7.0	17.7
2-Jun	19	14	10	17	13	10	A	11	7	5	3	3	2	2	2	2	2	3	3	6	3	3	3	2	6.3	18.9
3-Jun	1	2	5	3	4	A	10	4	4	7	4	5	5	4	3	3	3	3	3	4	4	7	9	12	4.8	12.1
4-Jun	14	5	5	6	A	4	4	4	3	3	4	3	3	2	2	2	2	2	2	2	2	2	2	2	3.5	13.7
5-Jun	2	2	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	3	7	4	4	1.8	6.7
6-Jun	3	3	A	5	5	6	5	5	4	3	3	2	2	3	3	2	2	2	1	1	3	4	8	8	3.7	8.3
7-Jun	8	A	11	9	8	9	8	6	4	3	2	2	3	1	1	2	2	2	4	4	7	9	9	5	5.2	11.3
8-Jun	A	7	5	5	5	2	1	1	1	1	1	1	1	1	3	4	1	1	1	1	1	1	1	A	2.1	6.8
9-Jun	2	2	3	5	5	4	3	3	3	2	2	2	2	2	2	3	3	3	3	2	3	3	5	A	3.2	6.2
10-Jun	6	5	5	6	6	6	3	1	1	1	1	1	1	1	1	1	1	1	1	2	6	A	7	10	3.2	10.4
11-Jun	10	4	4	3	4	2	3	3	3	2	2	2	1	1	2	1	2	1	2	2	A	7	7	2	3.0	10.0
12-Jun	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	2	1	1	1	A	2	2	2	3	1.6	3.5
13-Jun	14	11	9	11	2	1	2	1	1	1	1	1	1	1	1	3	5	5	A	6	10	21	24	11	6.3	24.3
14-Jun	11	7	7	4	3	3	4	3	3	2	2	2	2	2	1	4	2	A	5	5	6	9	11	14	4.9	14.2
15-Jun	12	11	13	12	10	7	10	10	5	4	3	2	1	1	1	A	2	1	3	3	4	7	13	6.0	13.4	
16-Jun	13	10	8	6	8	8	8	8	5	6	4	4	2	2	2	A	2	1	1	1	1	8	3	2	4.8	12.6
17-Jun	10	15	13	14	15	14	10	9	3	1	1	0	0	1	A	1	2	2	2	2	2	2	1	1	5.2	15.4
18-Jun	1	1	1	1	1	1	1	0	C	C	C	C	C	C	3	3	3	5	3	6	10	9	13	22	4.6	22.5
19-Jun	18	26	37	16	10	18	15	8	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	37.1
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
22-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
23-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
24-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
25-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
26-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
27-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
28-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
29-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
30-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--

8.6	7.6	8.0	7.3	6.2	6.0	5.7	4.5	3.6	2.9	2.3	2.0	1.9	1.7	1.9	2.2	2.2	2.3	2.3	3.0	4.7	6.8	7.2	8.1	Diurnal Average	
18.9	25.5	37.1	17.3	15.4	18.1	15.3	10.8	8.3	7.2	5.0	4.6	4.7	3.8	3.4	3.9	5.1	5.4	4.9	5.8	12.9	20.8	24.3	22.5	Diurnal Maximum	

C - Calibration      NS - Not in service      A - Automated Daily Zero Span



## Hourly Maximums

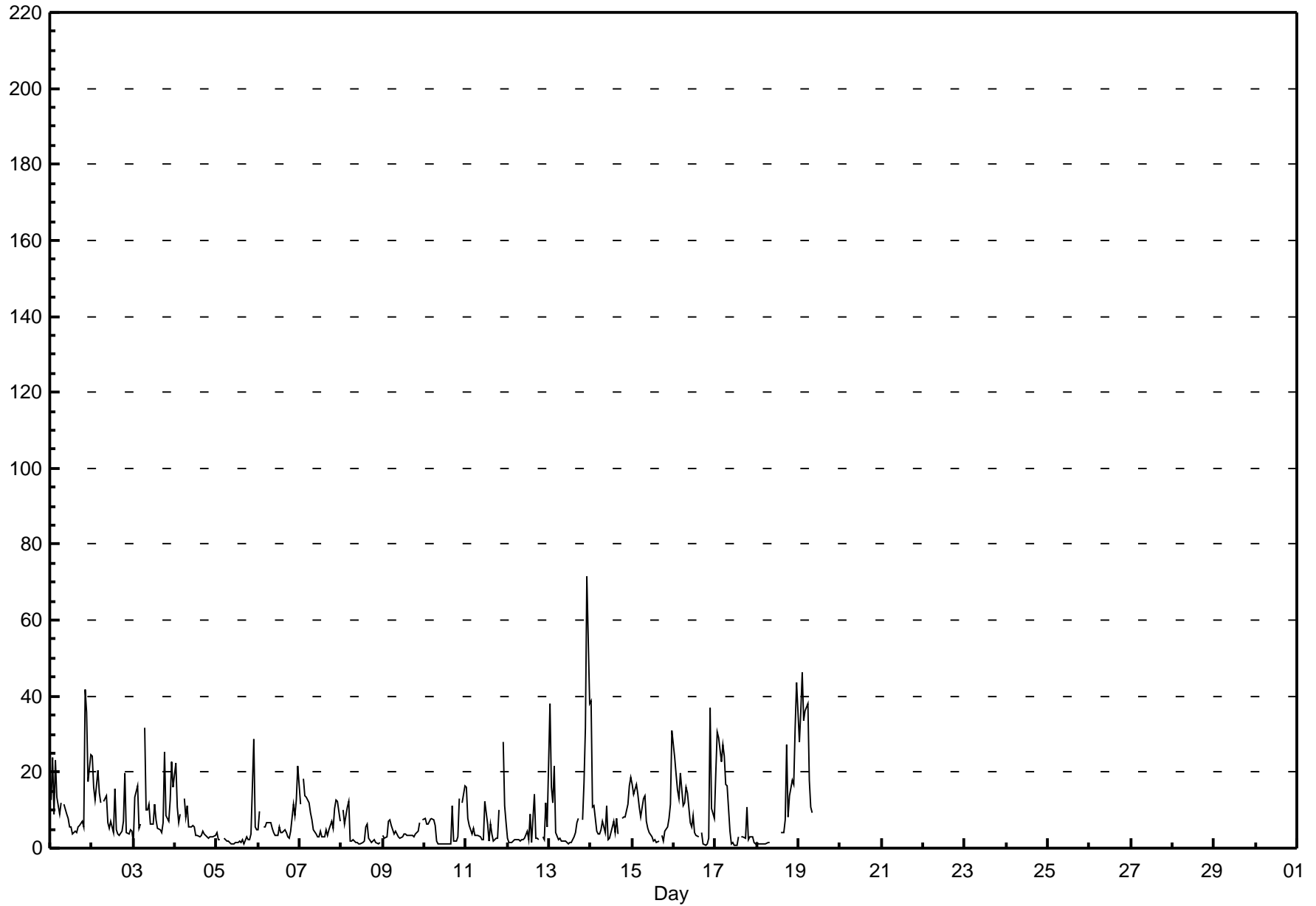
## Oxides of Nitrogen (NO<sub>x</sub>) - ppb

### Portable Reno - June 2014

<b>Maximum Value: 71.5 ppb on Jun 13 23:00</b>		<b>Maximum Daily Average: 13.0 ppb on Jun 1</b>		Hours in Service: 441 Hours of Data: 417 Hours of Missing Data: 24 Hours of Calibration: 24 Percent Operational Time: 100.0																							
<b>Minimum Value: 1 ppb on Jun 17 12:00</b>		<b>Minimum Daily Average: 3.5 ppb on Jun 5</b>																									
<b>Maximum Diurnal Average: 15.5 ppb at hour 1</b>		<b>Minimum Diurnal Average: 3.4 ppb at hour 11</b>																									
<b>Monthly Average: 8.31 ppb</b>		Percentiles: P <sub>1</sub> = 0.9 P <sub>10</sub> = 1.6 Q <sub>1</sub> = 2.6 Median = 5.0 Q <sub>3</sub> = 11.1 P <sub>90</sub> = 18.7 P <sub>99</sub> = 40.7																									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Jun	13	24	9	23	13	9	12	A	12	9	8	6	5	4	5	4	6	6	7	5	42	36	17	25	13.0	41.9	
2-Jun	24	16	13	20	14	12	A	12	14	7	5	7	4	16	5	4	4	5	7	20	4	4	5	4	9.8	24.3	
3-Jun	2	13	16	5	6	A	32	10	10	12	6	6	12	8	5	5	4	7	25	8	7	12	23	16	10.9	31.7	
4-Jun	23	11	7	9	A	13	8	11	6	6	6	5	3	3	3	3	5	4	3	3	3	3	3	3	6.2	22.5	
5-Jun	4	2	2	A	3	2	2	2	1	1	1	2	2	2	1	2	1	3	2	2	4	29	6	5	3.5	28.8	
6-Jun	5	10	A	6	6	7	7	7	5	4	3	3	6	4	4	5	4	3	3	4	12	8	13	22	6.5	21.8	
7-Jun	11	A	18	14	13	12	9	8	5	4	3	3	4	3	3	5	4	5	7	5	10	13	12	7	7.8	18.4	
8-Jun	A	10	6	11	12	2	2	2	1	1	1	1	1	2	6	6	3	1	2	2	2	1	1	A	3.5	12.2	
9-Jun	3	3	3	7	7	6	4	5	4	3	3	3	4	4	3	3	3	3	3	4	5	7	A	8	4.2	7.5	
10-Jun	8	6	6	7	8	8	6	2	1	1	1	1	1	1	1	1	11	2	2	3	13	A	12	16	5.2	16.2	
11-Jun	16	8	6	4	5	3	3	3	3	2	2	12	6	2	6	4	2	3	3	10	A	28	11	7	6.5	28.0	
12-Jun	3	2	2	2	2	2	2	2	2	2	3	4	2	9	2	14	3	2	2	A	3	2	12	6	3.7	14.3	
13-Jun	38	16	12	21	4	2	3	2	2	2	1	1	2	1	3	4	7	8	A	7	17	32	72	38	12.9	71.5	
14-Jun	39	11	11	5	4	4	5	7	4	11	2	2	6	7	4	8	4	A	8	8	8	12	17	19	8.9	38.9	
15-Jun	17	14	17	14	11	8	13	14	7	5	4	3	2	2	1	2	A	3	2	5	5	8	12	31	8.7	30.8	
16-Jun	24	19	15	13	20	11	12	16	15	7	6	8	4	3	3	A	4	1	1	1	2	37	10	8	10.5	37.1	
17-Jun	20	31	29	23	27	24	17	17	4	1	1	1	1	3	A	3	3	3	11	2	3	3	2	1	9.9	30.6	
18-Jun	1	1	1	1	1	1	1	2	C	C	C	C	C	C	4	4	8	27	8	14	18	17	32	44	10.2	43.6	
19-Jun	28	36	46	34	36	38	18	11	9	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	46.2	
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
22-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
23-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
24-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
25-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
26-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
27-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
28-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
29-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
30-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
		15.5	13.0	12.2	12.1	10.7	9.1	8.6	7.3	5.8	4.6	3.4	4.2	3.8	4.3	3.5	4.5	4.3	5.0	5.6	6.1	9.3	14.8	15.2	15.2	Diurnal Average	
		38.9	36.1	46.2	33.6	36.0	38.1	31.7	16.6	14.6	11.7	7.9	12.4	11.7	15.8	6.4	14.3	11.3	27.1	25.5	19.6	41.9	37.1	71.5	43.6	Diurnal Maximum	
C - Calibration		NS - Not in service						A - Automated Daily Zero Span																			

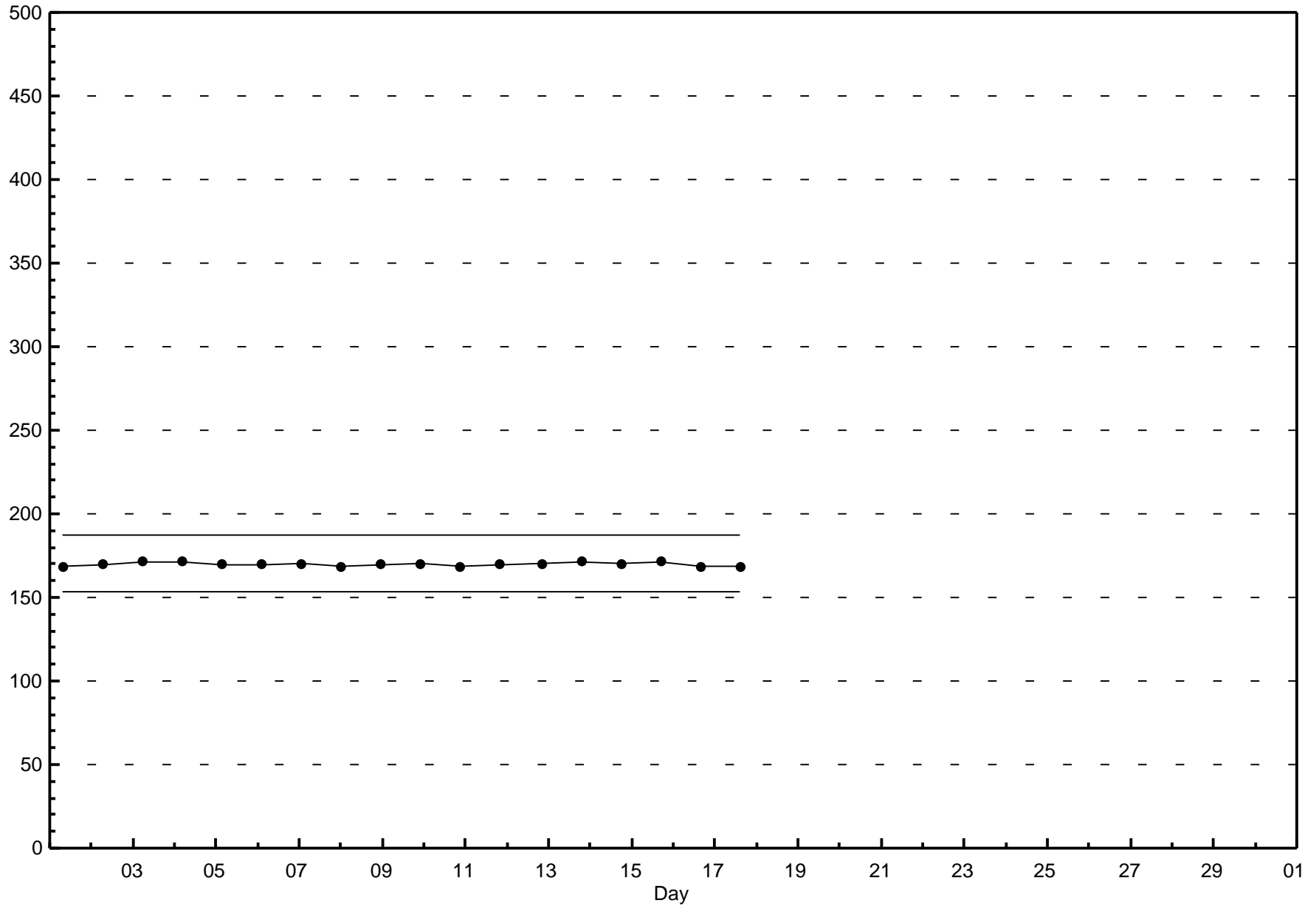
### Hourly Maximums

Oxides of Nitrogen (NO<sub>x</sub>) - ppb  
Portable Reno - June 2014



### Span Responses

Oxides of Nitrogen (NO<sub>x</sub>)  
Portable Reno - June 2014



# Hourly Averages

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

Peace Airshed Zone Association

### Portable Reno - June 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	441
Maximum Value: 55.8 ppb on Jun 12 17:00	Maximum Daily Average: 42.0 ppb on Jun 12		Hours of Data:	420
Minimum Value: 1 ppb on Jun 19 03:00	Minimum Daily Average: 13.3 ppb on Jun 4		Hours of Missing Data:	21
Maximum Diurnal Average: 40.9 ppb at hour 15	Minimum Diurnal Average: 18.2 ppb at hour 4		Hours of Calibration:	21
Monthly Average: 29.58 ppb	Percentiles: P <sub>1</sub> = 8.1 P <sub>10</sub> = 13.4 Q <sub>1</sub> = 19.8 Median = 29.6 Q <sub>3</sub> = 38.4 P <sub>90</sub> = 44.8 P <sub>99</sub> = 54.0		Percent Operational Time:	100.0

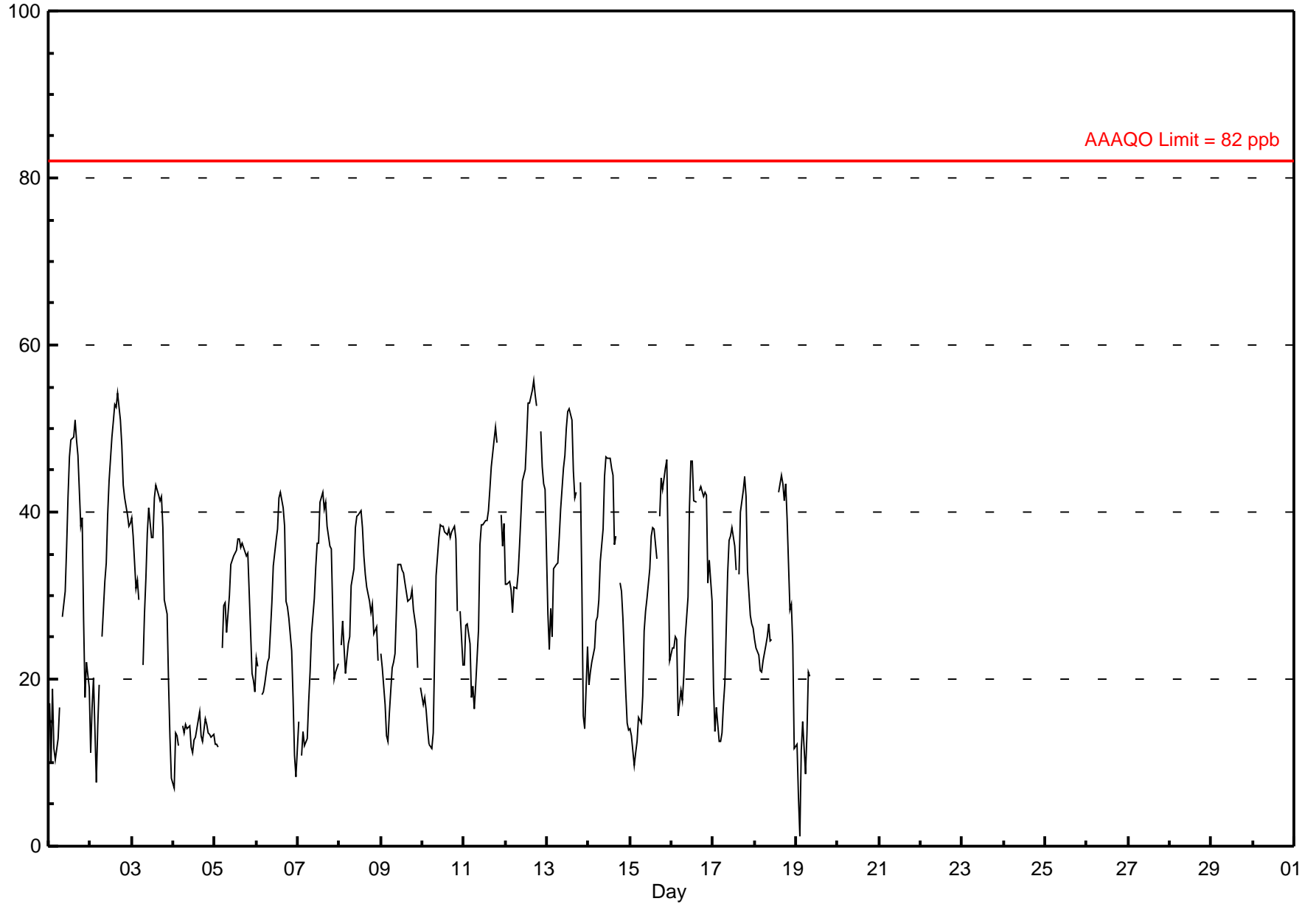
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	17	10	19	12	10	13	17	A	27	31	36	42	47	49	49	51	49	47	38	39	27	18	22	19	29.9	51.1
2-Jun	11	17	20	8	14	19	A	25	32	34	40	44	49	51	53	53	54	51	48	43	42	40	38	39	35.8	54.2
3-Jun	39	37	31	32	30	A	22	28	32	38	40	37	37	42	43	42	41	42	38	29	28	20	13	8	32.5	43.3
4-Jun	7	14	13	12	A	14	14	15	14	14	12	11	13	13	15	16	13	13	15	15	14	13	13	13	13.3	16.1
5-Jun	12	12	12	A	24	29	29	26	30	34	34	35	35	37	37	36	36	35	35	35	30	21	20	18	28.3	36.8
6-Jun	22	22	A	18	19	19	22	23	26	29	34	37	38	42	42	40	38	29	29	27	23	18	11	8	26.8	42.4
7-Jun	15	A	11	14	12	13	17	21	26	30	33	36	36	41	42	40	41	38	36	36	28	20	21	22	27.4	42.3
8-Jun	A	24	27	21	23	24	25	31	33	38	40	40	40	38	35	32	31	29	28	29	25	26	22	A	30.1	40.2
9-Jun	23	21	17	13	13	16	21	22	23	28	34	34	33	33	32	29	30	30	31	28	26	21	A	19	25.1	33.7
10-Jun	17	18	16	14	12	12	13	23	32	37	38	38	38	38	37	38	37	38	38	37	28	A	28	22	28.3	38.5
11-Jun	22	26	27	24	18	19	17	19	26	36	38	39	39	39	40	43	45	49	50	48	A	40	36	39	33.8	50.1
12-Jun	31	31	32	31	28	31	31	33	36	40	44	45	49	53	53	55	56	54	53	A	50	45	43	43	42.0	55.8
13-Jun	28	24	28	25	33	34	34	37	40	45	47	50	52	52	51	45	42	42	A	44	31	16	14	24	36.4	52.4
14-Jun	19	21	22	24	27	27	30	34	38	44	47	46	46	45	44	36	37	A	32	31	27	18	15	14	31.5	46.6
15-Jun	14	13	10	11	13	15	15	18	26	28	30	33	37	38	38	34	A	40	44	43	45	46	35	22	28.2	46.2
16-Jun	24	24	25	25	16	19	17	20	25	30	40	46	46	41	41	A	43	43	42	42	42	32	34	29	32.4	46.1
17-Jun	19	14	17	13	13	14	17	19	33	37	37	38	36	33	A	33	40	43	44	42	33	28	27	26	28.4	44.2
18-Jun	25	24	23	21	21	22	24	25	27	25	C	C	C	42	44	43	41	43	39	28	29	24	12	28.9	44.4	
19-Jun	12	6	1	11	15	9	13	21	20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	20.8
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
22-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
23-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
24-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
25-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
26-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
27-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
28-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
29-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
30-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
	19.9	19.8	19.5	18.2	18.8	19.4	21.0	24.4	28.7	33.2	36.0	38.3	39.5	40.3	40.9	39.3	39.8	39.0	37.9	35.7	31.1	26.5	24.5	22.2	Diurnal Average	
	39.4	37.1	31.6	31.9	33.2	33.8	33.9	36.9	40.3	45.2	46.7	50.1	52.0	53.1	53.0	54.5	55.8	54.1	52.7	48.3	49.6	46.2	43.4	42.8	Diurnal Maximum	

C - Calibration      NS - Not in service      A - Automated Daily Zero Span  
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb    24-hr na



### Hourly Averages

Ozone (O<sub>3</sub>) - ppb  
Portable Reno - June 2014



# Hourly Maximums

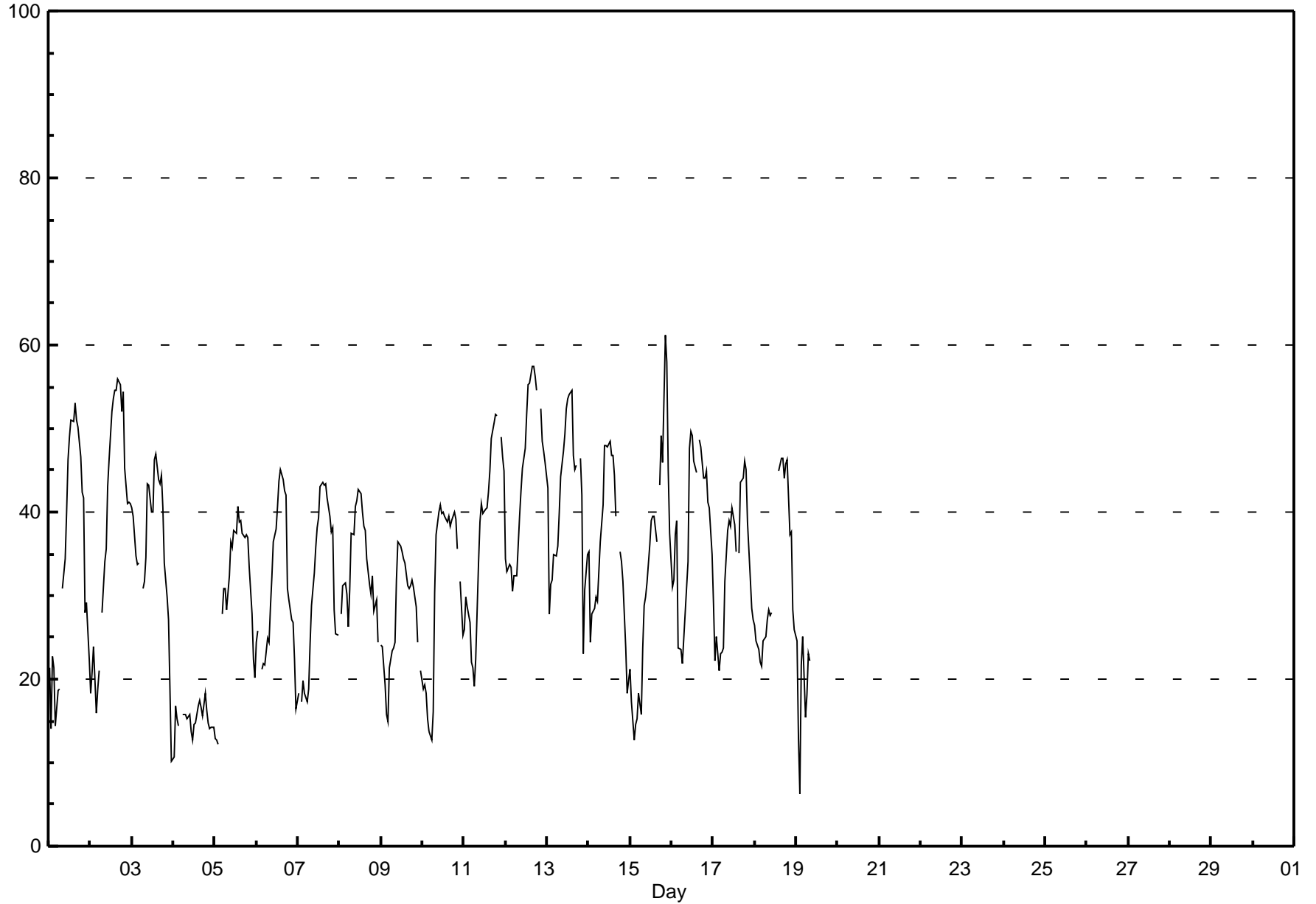
Ozone (O<sub>3</sub>) - ppb

Portable Reno - June 2014

Maximum Value: 61.1 ppb on Jun 15 21:00		Maximum Daily Average: 44.5 ppb on Jun 12		Hours in Service: 441																							
Minimum Value: 6 ppb on Jun 19 03:00		Minimum Daily Average: 15.2 ppb on Jun 4		Hours of Data: 420																							
Maximum Diurnal Average: 43.3 ppb at hour 15		Minimum Diurnal Average: 22.7 ppb at hour 6		Hours of Missing Data: 21																							
Monthly Average: 33.37 ppb		Percentiles: P <sub>1</sub> = 12.7 P <sub>10</sub> = 17.3 Q <sub>1</sub> = 24.3 Median = 33.9 Q <sub>3</sub> = 42.2 P <sub>90</sub> = 48.0 P <sub>99</sub> = 57.4		Hours of Calibration: 21																							
				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-Jun	21	14	23	21	14	19	19	A	31	34	40	46	49	51	51	53	51	50	47	42	42	28	29	22	34.7	53.1	
2-Jun	18	21	24	16	19	21	A	28	34	36	43	46	52	54	55	55	56	55	52	54	45	41	41	41	39.4	56.0	
3-Jun	40	39	35	34	34	A	31	32	35	43	43	40	40	46	47	44	43	44	40	34	30	27	19	10	36.1	47.0	
4-Jun	11	17	15	14	A	16	16	16	15	16	14	13	15	15	17	17	17	16	18	16	15	14	14	14	15.2	18.3	
5-Jun	13	13	12	A	28	31	31	28	32	36	36	38	37	41	39	39	37	37	37	37	33	28	22	20	30.7	40.6	
6-Jun	24	26	A	21	22	22	25	24	29	32	36	38	41	44	45	44	42	42	31	29	27	27	22	16	30.9	45.2	
7-Jun	18	A	17	20	18	17	19	24	29	33	36	38	39	43	44	43	43	42	39	38	38	28	25	25	31.2	43.6	
8-Jun	A	28	31	32	30	26	31	37	37	41	41	43	42	40	38	38	34	31	30	32	28	29	24	A	33.9	42.6	
9-Jun	24	24	19	16	15	21	23	24	24	32	36	36	35	34	34	31	31	31	32	31	29	24	A	21	27.4	36.5	
10-Jun	19	19	18	15	14	13	16	30	37	40	41	40	40	39	39	39	38	39	40	39	36	A	32	25	30.8	40.9	
11-Jun	26	30	29	27	22	21	19	22	34	39	41	40	40	40	42	45	49	51	52	52	A	49	47	45	37.4	51.8	
12-Jun	34	33	34	33	30	32	32	36	39	43	45	48	52	55	55	57	57	56	55	A	52	48	47	46	44.5	57.4	
13-Jun	43	28	31	32	35	35	36	40	44	47	49	52	54	54	55	47	45	46	A	46	42	23	31	35	41.3	54.5	
14-Jun	35	24	28	28	30	29	33	36	41	48	48	48	49	47	47	44	40	A	35	34	32	24	18	20	35.6	48.5	
15-Jun	21	17	13	15	15	18	16	24	29	30	32	36	39	39	39	36	A	43	49	46	61	58	45	37	33.0	61.1	
16-Jun	31	32	37	39	24	24	22	25	28	34	48	50	49	46	45	A	49	48	44	44	45	41	41	35	38.2	49.7	
17-Jun	29	22	25	21	23	23	24	32	38	39	38	41	38	35	A	35	44	44	46	45	39	32	29	27	33.4	46.1	
18-Jun	26	25	24	22	25	25	25	27	28	28	C	C	C	45	46	46	44	46	46	37	38	28	26	32.5	46.4		
19-Jun	25	13	6	22	25	15	18	23	22	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	25.1	
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
22-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
23-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
24-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
25-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
26-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
27-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
28-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
29-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
30-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
		25.5	23.6	23.4	23.8	23.3	22.7	24.2	28.3	32.0	36.1	38.6	40.7	41.8	42.6	43.3	42.1	42.5	42.3	40.8	39.2	37.1	32.9	30.3	27.5	Diurnal Average	
		43.0	39.4	37.3	39.0	34.9	34.8	35.9	39.9	44.3	48.0	49.3	52.3	53.6	55.2	57.4	57.4	56.2	54.5	54.3	61.1	58.0	47.3	46.0	Diurnal Maximum		
C - Calibration		NS - Not in service						A - Automated Daily Zero Span																			

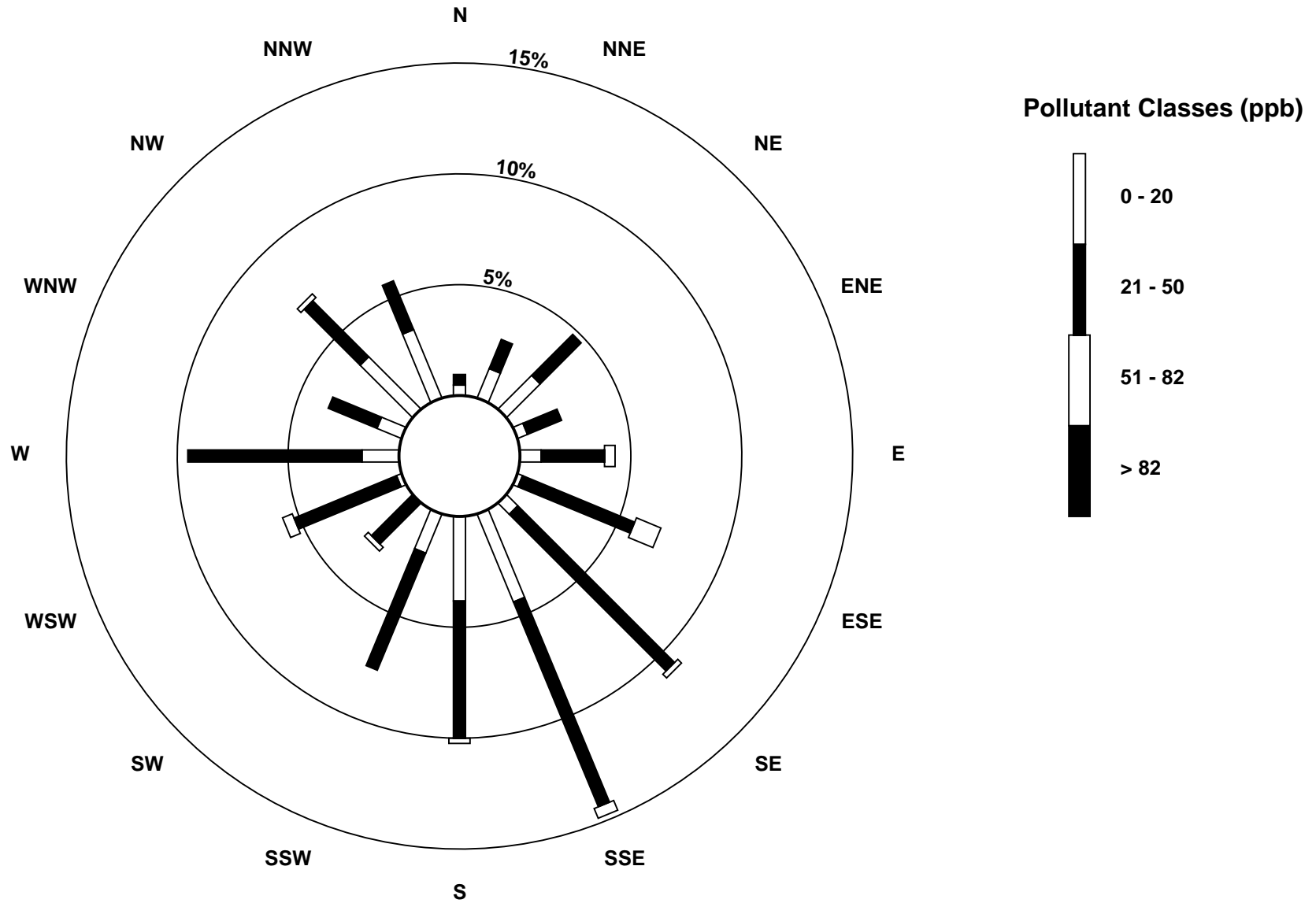
# Hourly Maximums

Ozone (O<sub>3</sub>) - ppb  
Portable Reno - June 2014



**Pollutant Rose**

**Ozone (O<sub>3</sub>) - ppb**  
**Portable Reno - June 2014**



## Eight Hour Running Averages

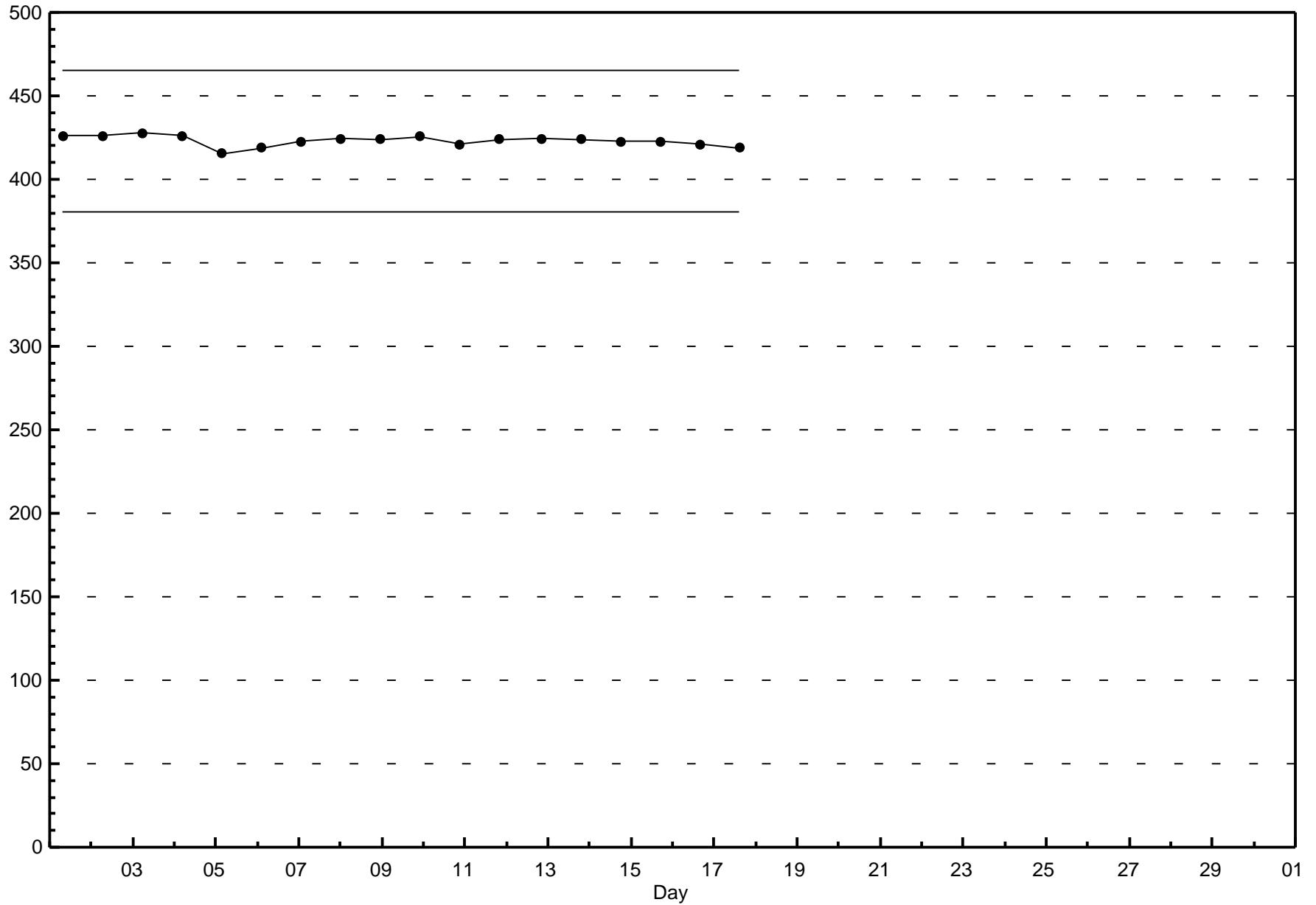
Ozone (O<sub>3</sub>) - ppb

Portable Reno - June 2014

Maximum Value: 53.3 ppb on Jun 12 21:00																					Hours in Service:	443			
Minimum Value: 9.9 ppb on Jun 19 07:00																					Hours of Data:	437			
Percentiles: P <sub>1</sub> = 11.7 P <sub>10</sub> = 14.9 Q <sub>1</sub> = 21.7 Median = 30.3 Q <sub>3</sub> = 37.1 P <sub>90</sub> = 42.9 P <sub>99</sub> = 52.1																					Hours of Missing Data:	6			
																					Hours of Calibration:	6			
																					Percent Operational Time:	100.0			
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jun	33	29	27	23	20	17	15	14	15	18	21	25	30	35	40	41	44	46	46	46	44	40	36	32	46.4
2-Jun	28	24	22	18	16	16	15	16	19	22	24	30	35	39	41	44	47	49	50	50	49	48	46	44	50.3
3-Jun	43	41	39	37	36	35	33	31	30	30	32	32	33	34	37	39	40	41	40	39	38	35	32	27	42.5
4-Jun	23	20	16	14	12	12	12	13	14	14	14	13	13	13	14	13	13	13	14	14	14	14	14	14	23.1
5-Jun	14	13	13	13	14	16	19	21	23	26	29	30	31	32	33	35	35	36	36	36	35	33	31	29	35.8
6-Jun	27	25	24	22	20	20	20	21	21	22	24	26	28	31	34	36	38	38	37	36	34	31	27	23	37.5
7-Jun	20	19	16	14	13	12	13	15	16	18	21	23	27	30	33	36	38	39	39	39	38	35	33	30	39.0
8-Jun	29	27	25	23	22	23	24	25	26	28	29	32	34	36	37	37	37	36	34	33	31	30	28	27	37.0
9-Jun	26	25	23	21	19	18	18	18	18	19	21	24	26	28	30	31	31	32	31	31	30	28	28	26	31.7
10-Jun	25	23	21	19	17	15	15	16	18	20	23	26	29	32	35	37	38	38	38	38	36	36	35	33	37.8
11-Jun	30	29	27	25	24	23	22	21	22	23	25	26	29	32	35	37	40	41	43	44	45	45	44	44	45.0
12-Jun	42	39	37	34	33	32	32	31	32	33	34	36	39	41	44	47	49	51	52	53	53	52	51	49	53.3
13-Jun	45	41	37	36	34	32	31	30	32	35	37	40	42	45	47	48	48	48	48	47	44	39	33	30	48.0
14-Jun	27	24	24	21	21	22	24	25	28	31	34	37	39	41	43	43	43	43	41	39	36	32	28	25	43.4
15-Jun	21	20	18	15	13	13	13	14	15	17	19	22	25	28	31	33	34	36	38	39	40	41	41	39	41.5
16-Jun	37	35	33	31	27	24	21	21	21	22	24	27	30	33	36	39	41	43	43	43	42	41	40	38	43.2
17-Jun	35	32	29	25	21	19	17	16	17	20	23	26	29	31	33	35	36	37	38	39	38	37	36	35	38.6
18-Jun	33	31	28	26	24	24	23	23	23	24	24	25	N	N	N	N	N	N	N	42	40	39	37	33	42.3
19-Jun	29	24	19	15	14	11	10	11	12	13	15	N	N	N	N	N	N	N	N	N	N	N	N	N	28.7
20-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
21-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
22-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
23-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
24-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
25-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
26-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
27-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
28-Jun	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-Jun	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-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
45.1 40.8 38.6 37.2 35.7 35.1 32.8 31.2 31.9 34.6 36.9 40.0 42.3 44.7 46.8 47.8 49.2 51.0 52.1 53.1 53.3 52.2 50.8 49.1																									
Diurnal Maximums																									
N - Not Valid																									

### Span Responses

Ozone (O<sub>3</sub>)  
Portable Reno - June 2014

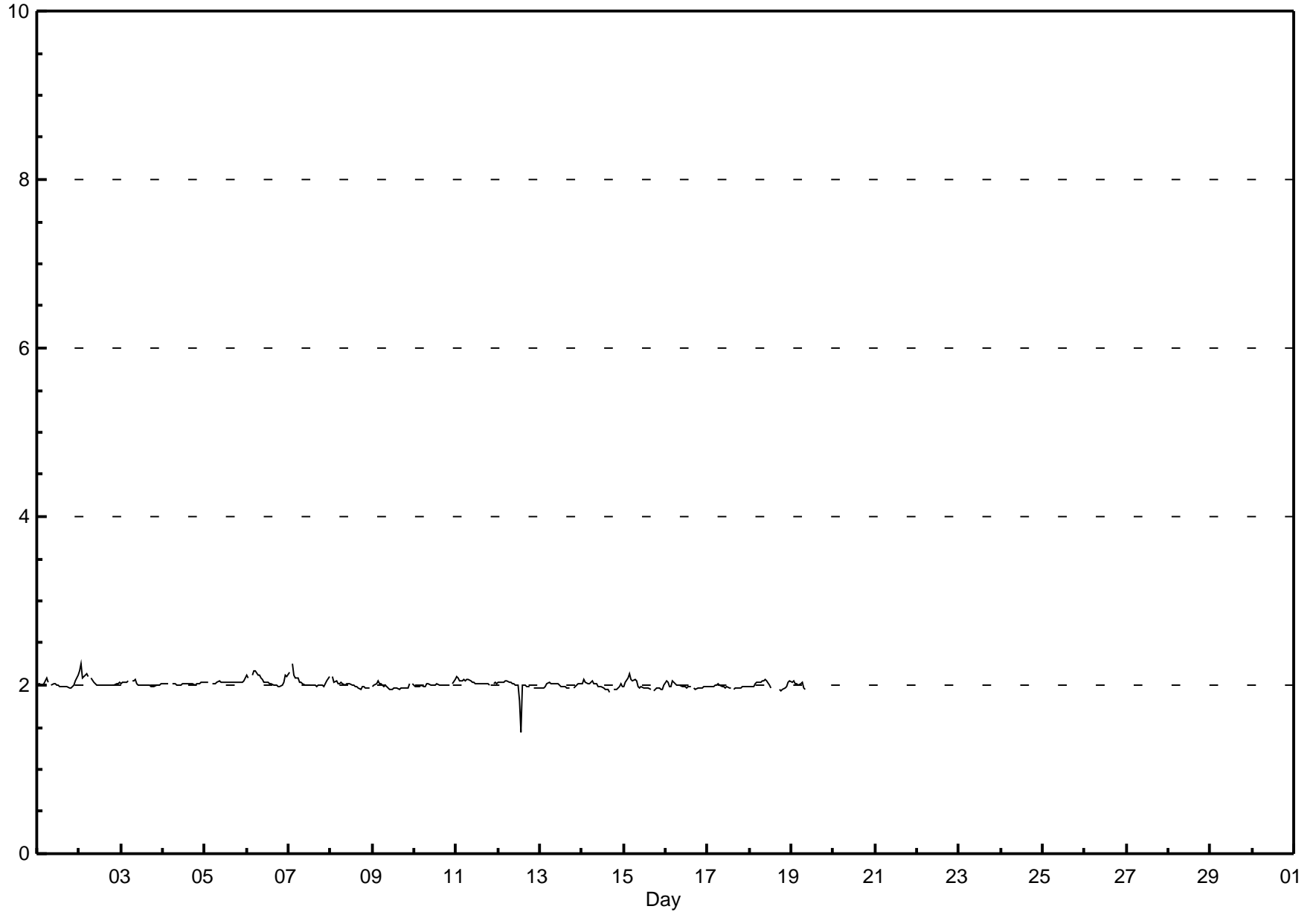


## Hourly Averages

## Total Hydrocarbons (THC) - ppm

### Portable Reno - June 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0		Hours in Service: 441																								
Maximum Value: 2.25 ppm on Jun 2 02:00		Maximum Daily Average: 2.06 ppm on Jun 6																								
Minimum Value: 1.4 ppm on Jun 12 14:00		Hours of Data: 419																								
Maximum Diurnal Average: 2.04 ppm at hour 5		Hours of Missing Data: 22																								
Monthly Average: 2.010 ppm		Hours of Calibration: 22																								
Percentiles: P <sub>1</sub> = 1.93 P <sub>10</sub> = 1.96 Q <sub>1</sub> = 1.98 Median = 2.01 Q <sub>3</sub> = 2.03 P <sub>90</sub> = 2.06 P <sub>99</sub> = 2.16		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-Jun	2.0	2.0	2.0	2.0	2.0	2.1	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.01	2.12
2-Jun	2.2	2.2	2.1	2.1	2.1	2.1	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.05	2.25
3-Jun	2.0	2.0	2.0	2.0	2.0	A	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.06
4-Jun	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02	2.03
5-Jun	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.04	2.08
6-Jun	2.1	2.1	A	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.06	2.17
7-Jun	2.2	A	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.04	2.25
8-Jun	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.00	2.09
9-Jun	2.0	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	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	1.98	2.05
10-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.00	2.07
11-Jun	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.04	2.10
12-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.8	1.4	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.97	2.05
13-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	1.99	2.03
14-Jun	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.0	2.0	1.99	2.07
15-Jun	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	A	1.9	2.0	2.0	2.0	2.0	1.9	2.0	2.00	2.14
16-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.05
17-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.02
18-Jun	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	C	C	C	C	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.01	2.06
19-Jun	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	2.05
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
22-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
23-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
24-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
25-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
26-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
27-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
28-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
29-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
30-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
	2.04	2.04	2.03	2.04	2.04	2.04	2.03	2.03	2.02	2.01	2.00	2.00	1.99	1.96	1.99	1.99	1.99	1.98	1.98	1.98	1.98	2.00	2.02	2.03	Diurnal Average	
	2.18	2.25	2.25	2.14	2.17	2.16	2.12	2.11	2.08	2.06	2.06	2.04	2.04	2.03	2.04	2.03	2.03	2.03	2.04	2.03	2.03	2.04	2.11	2.12	Diurnal Maximum	
C - Calibration		NS - Not in service							A - Automated Daily Zero Span																	





# Hourly Maximums

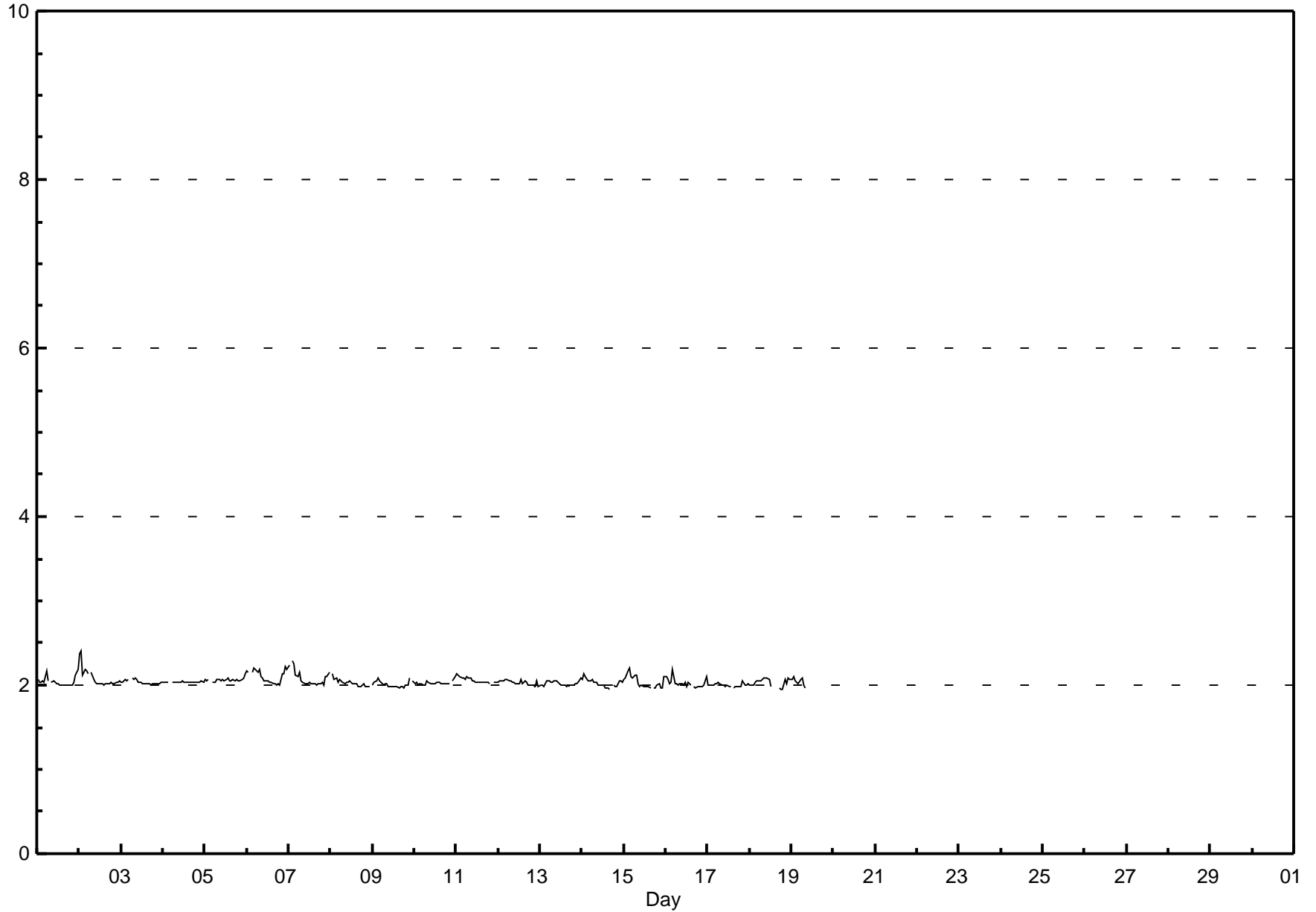
# Total Hydrocarbons (THC) - ppm

## Portable Reno - June 2014

Maximum Value: 2.41 ppm on Jun 2 02:00		Maximum Daily Average: 2.10 ppm on Jun 6		Hours in Service: 441																						
Minimum Value: 1.9 ppm on Jun 14 17:00		Minimum Daily Average: 2.00 ppm on Jun 17		Hours of Data: 419																						
Maximum Diurnal Average: 2.08 ppm at hour 24		Minimum Diurnal Average: 2.00 ppm at hour 18		Hours of Missing Data: 22																						
Monthly Average: 2.041 ppm		Percentiles: P <sub>1</sub> = 1.96 P <sub>10</sub> = 1.99 Q <sub>1</sub> = 2.01 Median = 2.03 Q <sub>3</sub> = 2.06 P <sub>90</sub> = 2.10 P <sub>99</sub> = 2.22		Hours of Calibration: 22																						
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-Jun	2.1	2.0	2.0	2.0	2.0	2.2	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.04	2.18
2-Jun	2.4	2.4	2.1	2.2	2.2	2.1	A	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.09	2.41
3-Jun	2.0	2.0	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.04	2.09
4-Jun	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.04	2.05
5-Jun	2.1	2.0	2.1	A	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	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.06	2.13
6-Jun	2.2	2.1	A	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.10	2.22
7-Jun	2.2	A	2.3	2.2	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.08	2.29
8-Jun	A	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.03	2.13
9-Jun	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.1	2.01	2.09
10-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.1	2.02	2.11
11-Jun	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.06	2.13
12-Jun	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.1	2.03	2.07
13-Jun	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	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.02	2.09
14-Jun	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	A	2.0	2.0	2.0	2.0	2.1	2.0	2.02	2.13
15-Jun	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	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	2.1	2.04	2.20
16-Jun	2.1	2.1	2.0	2.0	2.2	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	2.0	2.1	2.02	2.18
17-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.04
18-Jun	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	C	C	C	C	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.03	2.09
19-Jun	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	2.10
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
22-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
23-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
24-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
25-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
26-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
27-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
28-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
29-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
30-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
2.08		2.08	2.07	2.08	2.08	2.07	2.06	2.06	2.04	2.03	2.03	2.03	2.01	2.02	2.01	2.01	2.01	2.00	2.00	2.00	2.02	2.03	2.05	2.08	Diurnal Average	
2.37		2.41	2.29	2.25	2.20	2.19	2.16	2.18	2.09	2.09	2.08	2.07	2.06	2.08	2.05	2.05	2.06	2.04	2.07	2.05	2.14	2.13	2.22	2.19	Diurnal Maximum	
C - Calibration		NS - Not in service						A - Automated Daily Zero Span																		

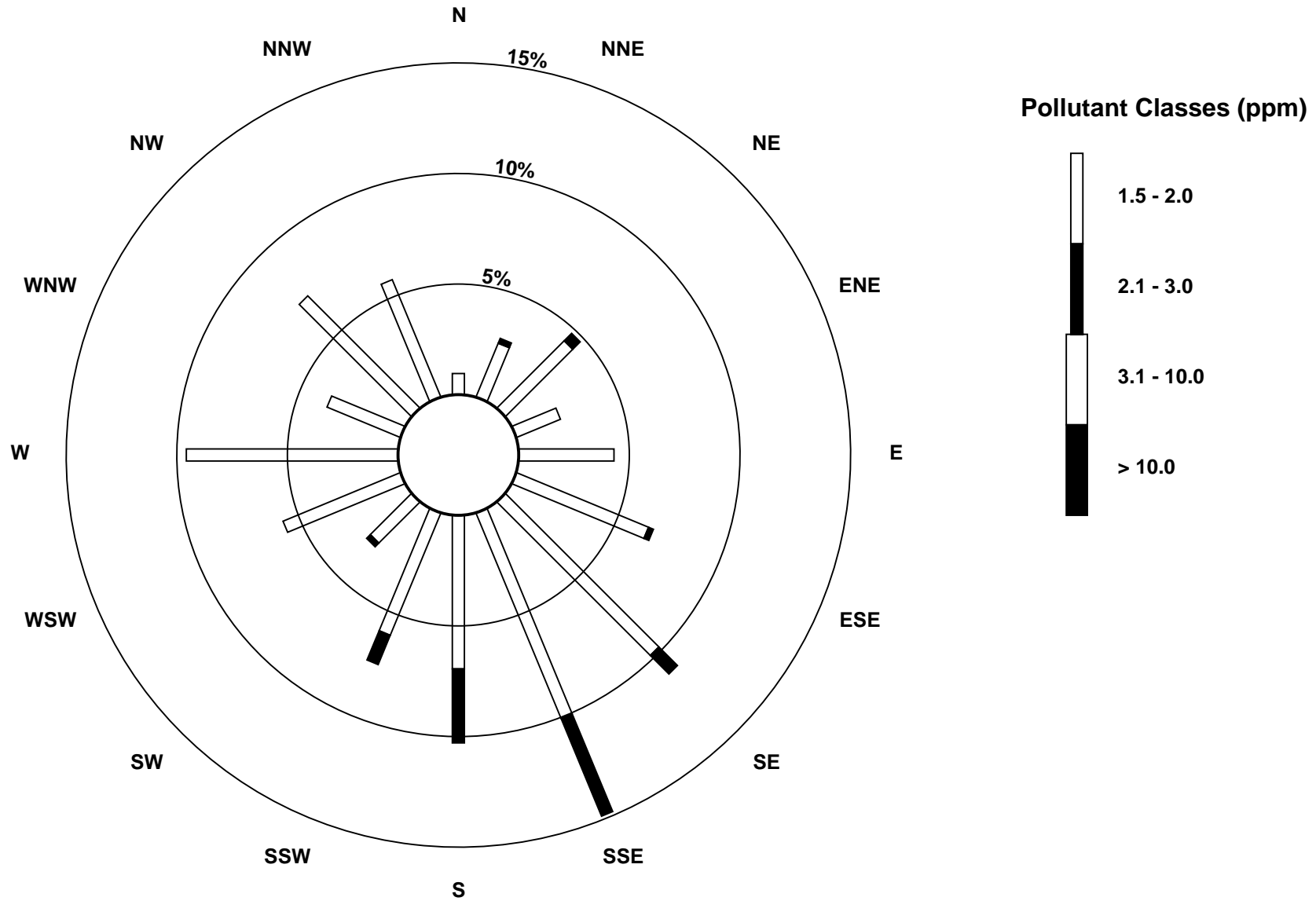
**Hourly Maximums**

**Total Hydrocarbons (THC) - ppm**  
**Portable Reno - June 2014**



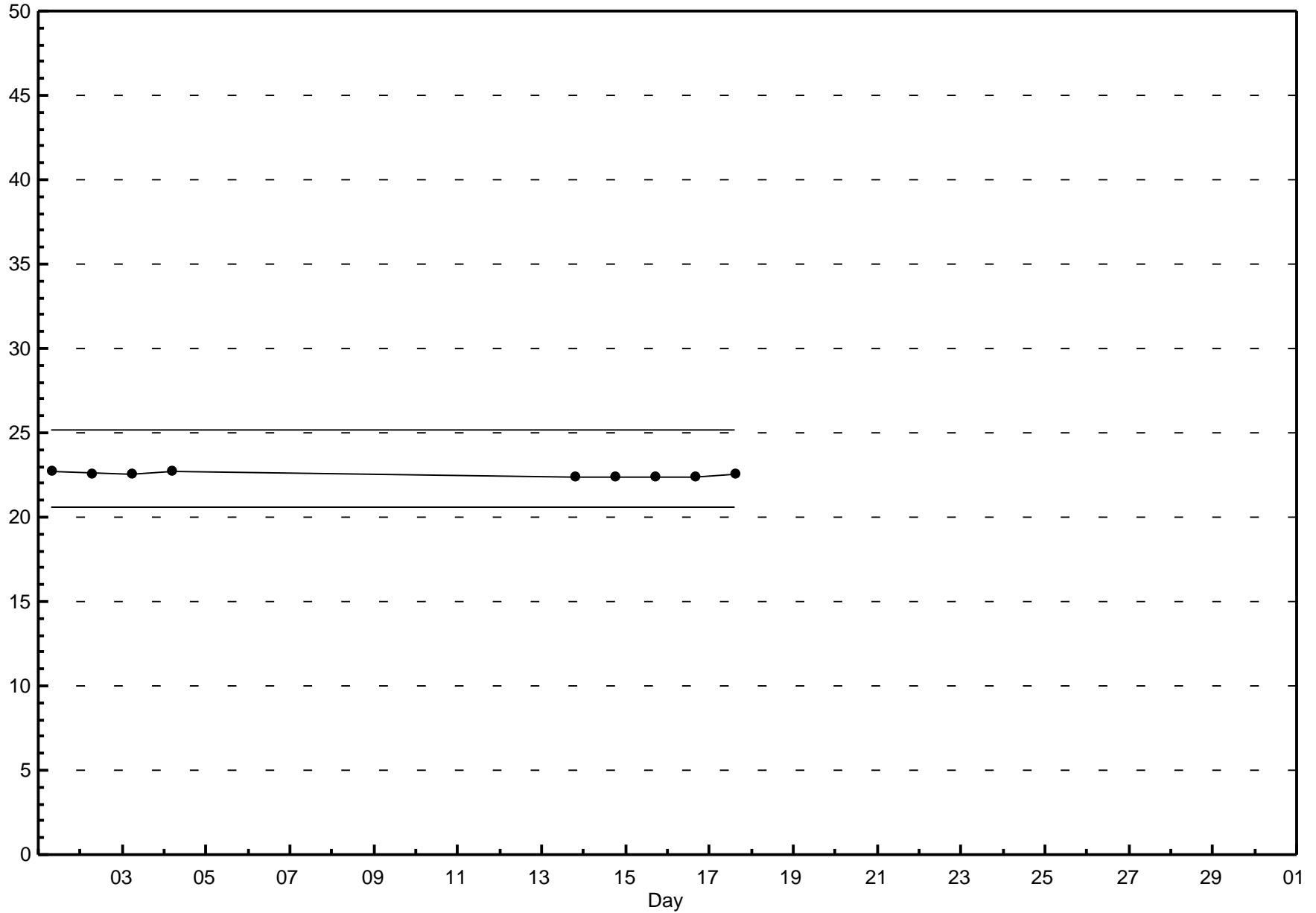
**Pollutant Rose**

**Total Hydrocarbons (THC) - ppm**  
**Portable Reno - June 2014**



### Span Responses

Total Hydrocarbons (THC)  
Portable Reno - June 2014



## Hourly Averages

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

Portable Reno - June 2014

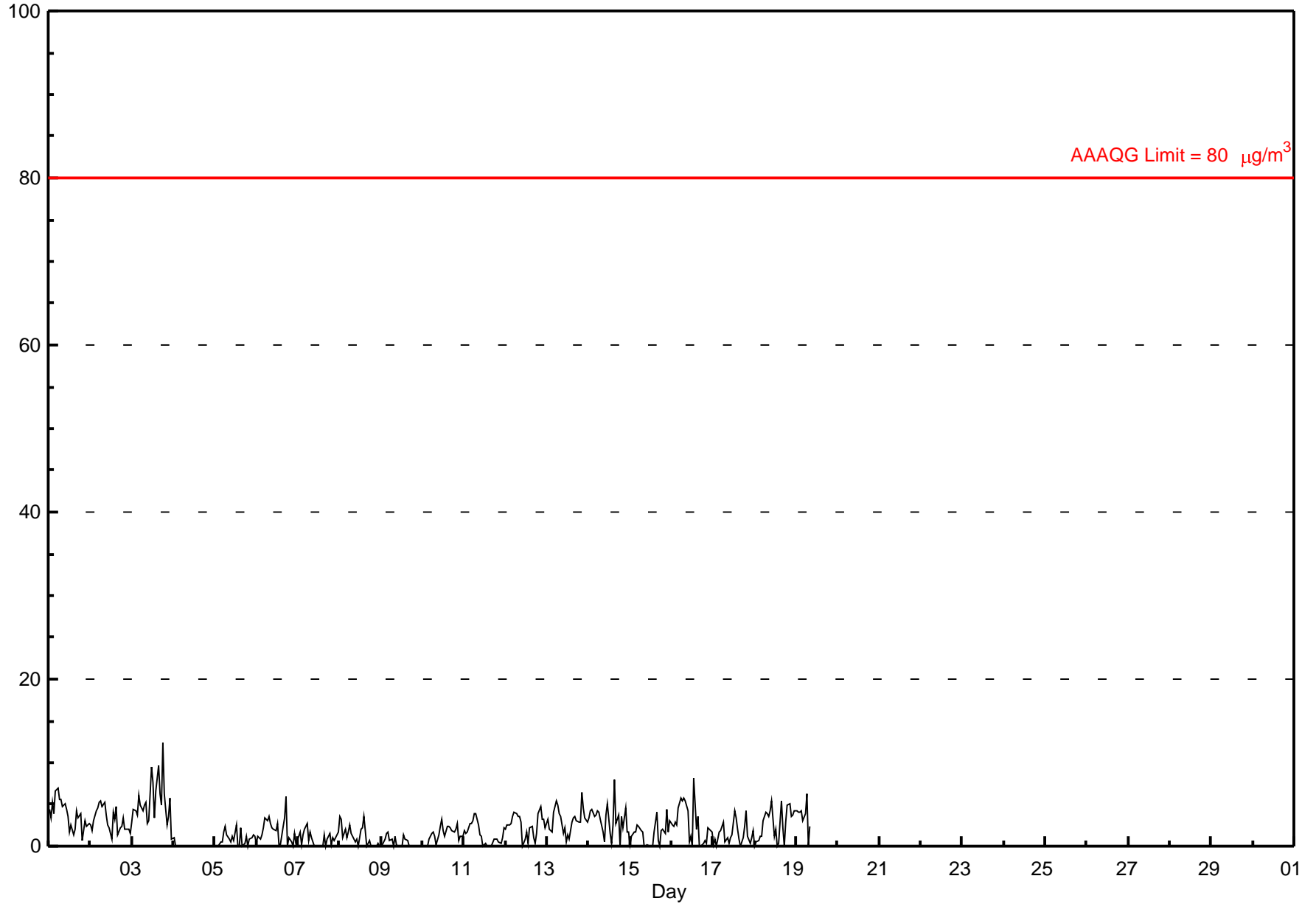
Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 441
Maximum Value: 12.4 µg/m <sup>3</sup> on Jun 3 19:00	Maximum Daily Average: 5.2 µg/m <sup>3</sup> on Jun 3
Minimum Value: 0 µg/m <sup>3</sup> on Jun 4 02:00	Hours of Data: 441
Minimum Daily Average: 0.0 µg/m <sup>3</sup> on Jun 4	Hours of Missing Data: 0
Maximum Diurnal Average: 3.4 µg/m <sup>3</sup> at hour 7	Hours of Calibration: 0
Minimum Diurnal Average: 1.5 µg/m <sup>3</sup> at hour 17	Percent Operational Time: 100.0
Monthly Average: 2.09 µg/m <sup>3</sup>	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.4 Median = 1.7 Q <sub>3</sub> = 3.3 P <sub>90</sub> = 4.6 P <sub>99</sub> = 7.0

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-Jun	4	3	5	4	7	7	6	6	5	5	4	4	2	3	1	2	4	3	4	1	2	3	2	3	3.7	6.9																						
2-Jun	2	2	3	4	5	5	5	5	5	4	3	2	1	4	3	5	1	2	2	3	2	2	2	1	3.1	5.5																						
3-Jun	3	4	4	4	6	5	4	5	5	3	3	9	8	3	7	10	6	5	12	6	2	4	6	1	5.2	12.4																						
4-Jun	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.9																						
5-Jun	0	0	0	1	1	2	2	1	1	0	1	1	3	0	0	2	0	0	1	0	1	1	1	1	0.8	2.5																						
6-Jun	0	1	1	1	2	3	3	4	3	2	2	2	3	0	0	2	3	6	0	1	0	0	2	0	1.8	6.0																						
7-Jun	1	2	0	1	2	3	1	2	1	0	0	0	0	0	0	1	0	1	2	0	1	1	1	2	0.9	2.7																						
8-Jun	4	3	1	2	1	2	3	2	1	0	1	0	2	2	4	2	0	1	0	0	0	0	0	0	1.3	3.6																						
9-Jun	0	0	1	1	2	1	1	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0.4	1.8																						
10-Jun	0	0	0	0	1	1	2	1	0	1	2	3	2	1	2	2	2	2	2	2	2	3	1	1	1.4	3.2																						
11-Jun	2	2	2	3	3	3	4	4	2	1	1	0	0	0	0	0	0	1	1	1	0	0	1	2	1.4	3.9																						
12-Jun	2	3	3	3	4	4	4	4	4	3	0	1	2	0	2	2	1	0	2	4	5	3	3	2	2.5	4.8																						
13-Jun	3	2	2	2	4	5	5	4	4	2	2	0	1	1	3	3	4	3	3	3	6	5	3	3	3.0	6.5																						
14-Jun	3	4	4	4	4	4	4	3	2	1	4	5	2	0	3	8	3	4	0	3	2	5	2	2	3.1	8.0																						
15-Jun	0	1	2	2	2	2	2	2	0	0	0	0	0	0	2	4	1	0	2	2	2	4	2	3	1.4	4.4																						
16-Jun	3	2	3	3	5	6	5	6	5	4	1	1	0	8	2	4	0	0	0	1	0	2	2	2	2.7	8.2																						
17-Jun	0	1	0	2	2	2	3	0	1	0	1	1	4	3	2	1	0	1	2	4	1	0	1	2	1.5	4.3																						
18-Jun	0	1	1	1	1	3	4	4	4	4	5	1	2	0	0	5	2	0	3	5	5	4	4	4	2.6	5.4																						
19-Jun	4	4	4	4	3	4	6	0	2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	6.3																						
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
22-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
23-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
24-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
25-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
26-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
27-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
28-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
29-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
30-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
																								1.8	1.9	1.9	2.2	2.8	3.3	3.4	2.7	2.4	1.7	1.7	1.7	1.7	1.6	1.8	3.1	1.5	1.6	2.0	2.0	1.9	1.9	1.9	1.6	Diurnal Average
																								4.4	4.4	5.2	4.3	6.7	6.9	6.3	5.7	5.4	5.1	5.4	9.4	7.7	8.2	6.6	9.7	6.2	6.0	12.4	6.3	6.5	4.5	5.7	4.3	Diurnal Maximum

NS - Not in service  
 Alberta Ambient Air Quality Guideline (AAQG): 1-hr 80 µg/m<sup>3</sup> Alberta Ambient Air Quality Objective (AAQO): 24-hr 30 µg/m<sup>3</sup>

### Hourly Averages

PM2.5 (PM<sub>2.5</sub>) -  $\mu\text{g}/\text{m}^3$   
Portable Reno - June 2014



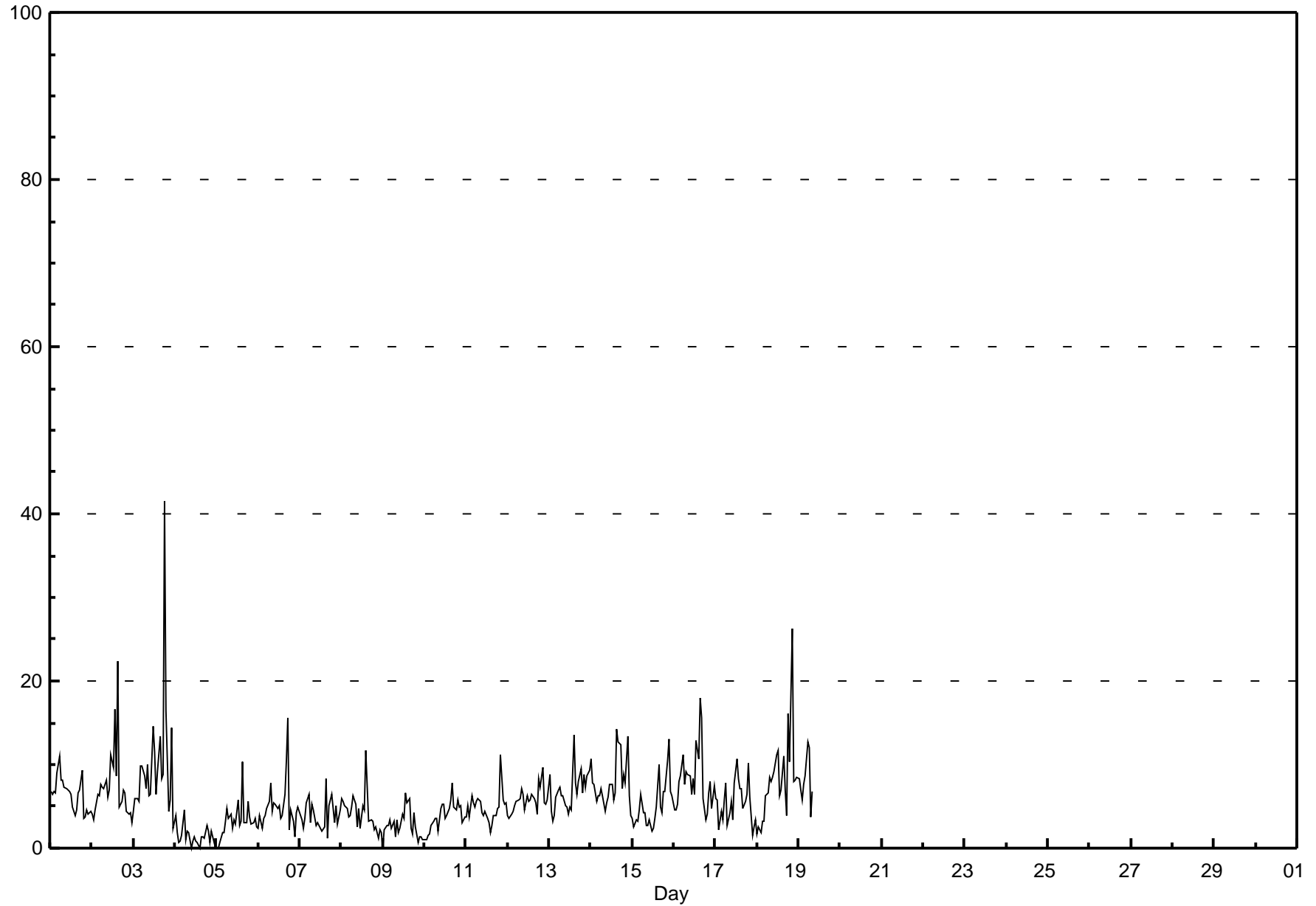
## Hourly Maximums

PM2.5 (PM<sub>2.5</sub>) - μg/m<sup>3</sup>  
 Portable Reno - June 2014

Maximum Value: 41.6 μg/m <sup>3</sup> on Jun 3 19:00 Minimum Value: 0 μg/m <sup>3</sup> on Jun 4 10:00 Maximum Diurnal Average: 9.1 μg/m <sup>3</sup> at hour 16 Monthly Average: 5.62 μg/m <sup>3</sup>		Maximum Daily Average: 9.9 μg/m <sup>3</sup> on Jun 3 Minimum Daily Average: 1.5 μg/m <sup>3</sup> on Jun 4 Minimum Diurnal Average: 3.7 μg/m <sup>3</sup> at hour 3 Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 2.0 Q <sub>1</sub> = 3.3 Median = 5.0 Q <sub>3</sub> = 7.0 P <sub>90</sub> = 9.6 P <sub>99</sub> = 14.0		Hours in Service: 441 Hours of Data: 441 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																																												
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Jun	7	6	7	7	9	11	8	8	7	7	7	7	6	5	4	5	7	7	9	4	4	5	4	4	6.4	11.0																						
2-Jun	4	3	5	6	6	8	7	7	8	6	7	11	10	17	9	22	5	6	7	7	4	4	4	3	7.3	22.4																						
3-Jun	4	6	6	6	10	10	9	7	10	6	6	15	11	6	9	13	8	9	42	16	4	6	14	2	9.9	41.6																						
4-Jun	4	2	1	1	2	5	1	2	2	0	1	1	1	1	0	1	1	1	3	2	1	2	1	0	1.5	4.6																						
5-Jun	0	0	1	2	2	3	5	4	4	2	3	3	6	3	3	10	3	3	6	4	3	3	4	3	3.3	10.3																						
6-Jun	2	4	2	4	4	5	6	8	4	5	5	5	5	4	4	6	10	16	2	5	3	1	4	5	5.0	15.7																						
7-Jun	4	3	2	4	5	6	3	5	5	3	3	3	2	2	2	8	1	5	6	5	3	5	3	5	3.9	8.3																						
8-Jun	6	6	5	5	4	4	5	6	5	3	5	2	5	5	12	7	3	3	3	2	3	1	2	2	4.3	11.7																						
9-Jun	0	2	3	3	3	2	3	1	3	2	2	4	4	7	5	6	2	2	4	2	1	1	1	1	2.8	6.6																						
10-Jun	1	1	1	2	3	3	4	4	2	5	5	5	4	4	5	6	8	5	5	6	5	5	3	4	3.9	7.8																						
11-Jun	4	5	4	6	5	5	6	6	6	4	4	4	4	3	2	3	4	4	5	5	11	6	5	5	4.8	11.1																						
12-Jun	4	4	4	4	5	6	6	6	7	6	5	6	6	6	6	6	5	4	8	7	10	5	5	6	5.8	9.7																						
13-Jun	9	4	3	4	6	7	7	6	6	5	5	4	5	5	13	8	6	8	10	7	9	7	9	9	6.8	13.5																						
14-Jun	11	8	8	6	6	6	7	6	4	5	6	8	8	6	7	14	13	12	7	9	8	13	6	4	7.8	14.3																						
15-Jun	4	3	3	3	5	6	4	4	3	3	3	2	2	4	5	10	5	4	7	7	10	13	7	6	5.1	13.0																						
16-Jun	5	4	5	8	9	11	8	9	9	9	7	8	6	13	11	18	16	6	3	4	7	8	5	7	8.1	18.0																						
17-Jun	6	6	2	4	3	6	8	3	4	6	3	8	11	8	7	7	5	6	6	10	6	2	3	3	5.5	10.6																						
18-Jun	2	3	2	3	3	6	7	8	8	8	9	11	12	6	7	11	7	4	16	10	26	8	8	8	8.1	26.2																						
19-Jun	8	7	6	8	9	13	12	4	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	12.8																						
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
22-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
23-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
24-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
25-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
26-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
27-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
28-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
29-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
30-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
																								4.4	4.0	3.7	4.4	5.2	6.5	6.0	5.5	5.5	4.8	4.8	6.0	5.9	5.7	6.2	9.1	6.1	5.8	8.3	6.2	6.5	5.3	5.0	4.4	Diurnal Average
																								10.6	7.7	7.6	8.0	9.9	12.8	12.0	9.2	10.0	8.7	9.2	14.6	11.6	16.6	13.5	22.4	15.6	15.7	41.6	16.5	26.2	13.4	14.4	9.4	Diurnal Maximum
NS - Not in service																																																

### Hourly Maximums

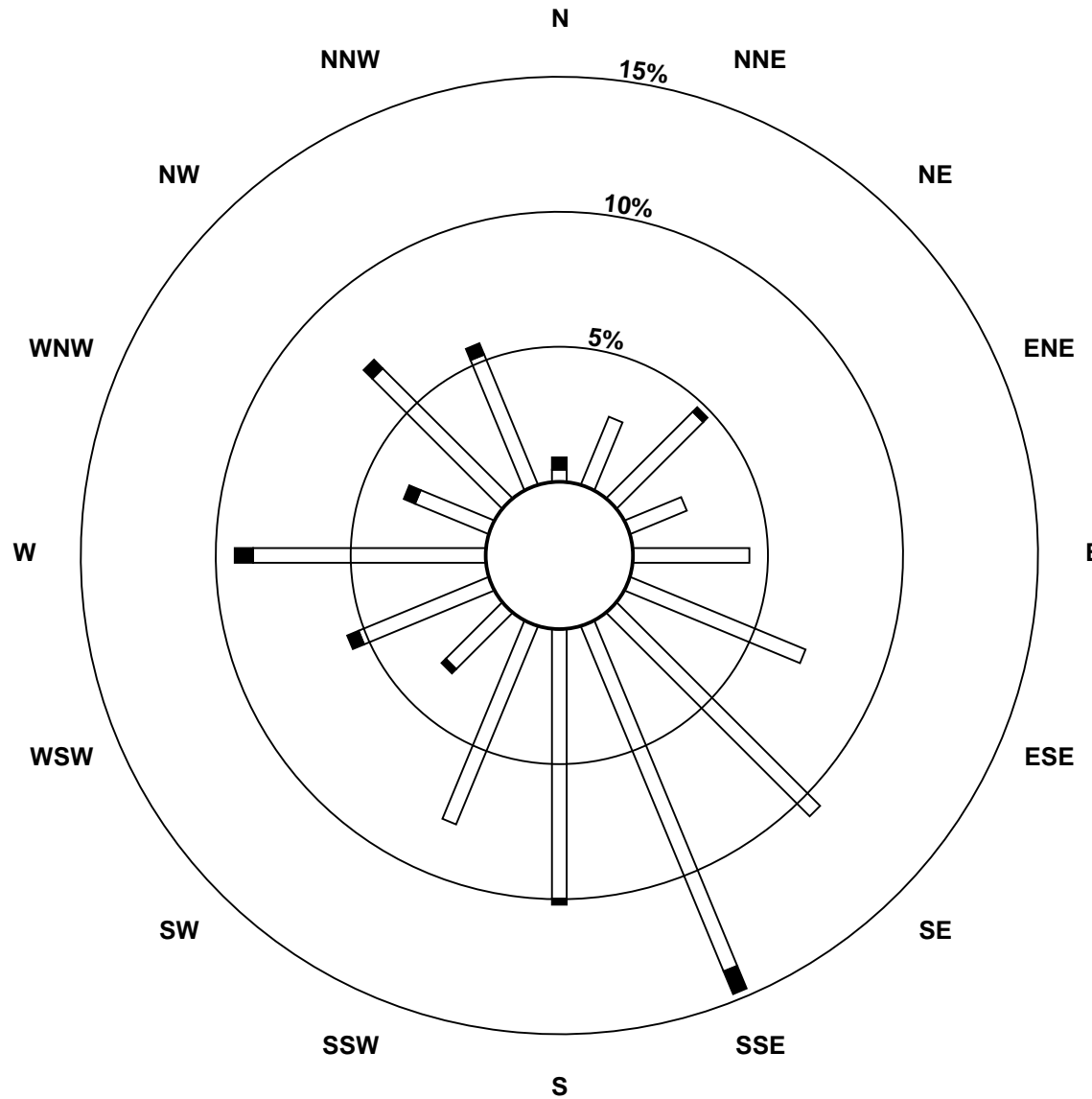
PM2.5 (PM<sub>2.5</sub>) -  $\mu\text{g}/\text{m}^3$   
Portable Reno - June 2014



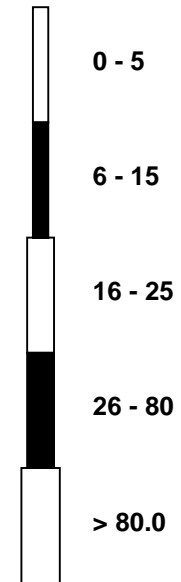


**Pollutant Rose**

**PM<sub>2.5</sub> (PM<sub>2.5</sub>) -  $\mu\text{g}/\text{m}^3$**   
**Portable Reno - June 2014**



**Pollutant Classes ( $\mu\text{g}/\text{m}^3$ )**



# Hourly Averages

External Temperature (ET) - °C

Portable Reno - June 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	441
Maximum Value: 25.8 °C on Jun 2 16:00	Maximum Daily Average: 18.2 °C on Jun 2		Hours of Data:	441
Minimum Value: 0 °C on Jun 5 02:00	Minimum Daily Average: 5.4 °C on Jun 4		Hours of Missing Data:	0
Maximum Diurnal Average: 17.8 °C at hour 15	Minimum Diurnal Average: 7.5 °C at hour 4		Hours of Calibration:	0
Monthly Average: 13.17 °C	Percentiles: P <sub>1</sub> = 1.9 P <sub>10</sub> = 6.1 Q <sub>1</sub> = 9.0 Median = 12.7 Q <sub>3</sub> = 17.3 P <sub>90</sub> = 20.5 P <sub>99</sub> = 24.0		Percent Operational Time:	100.0

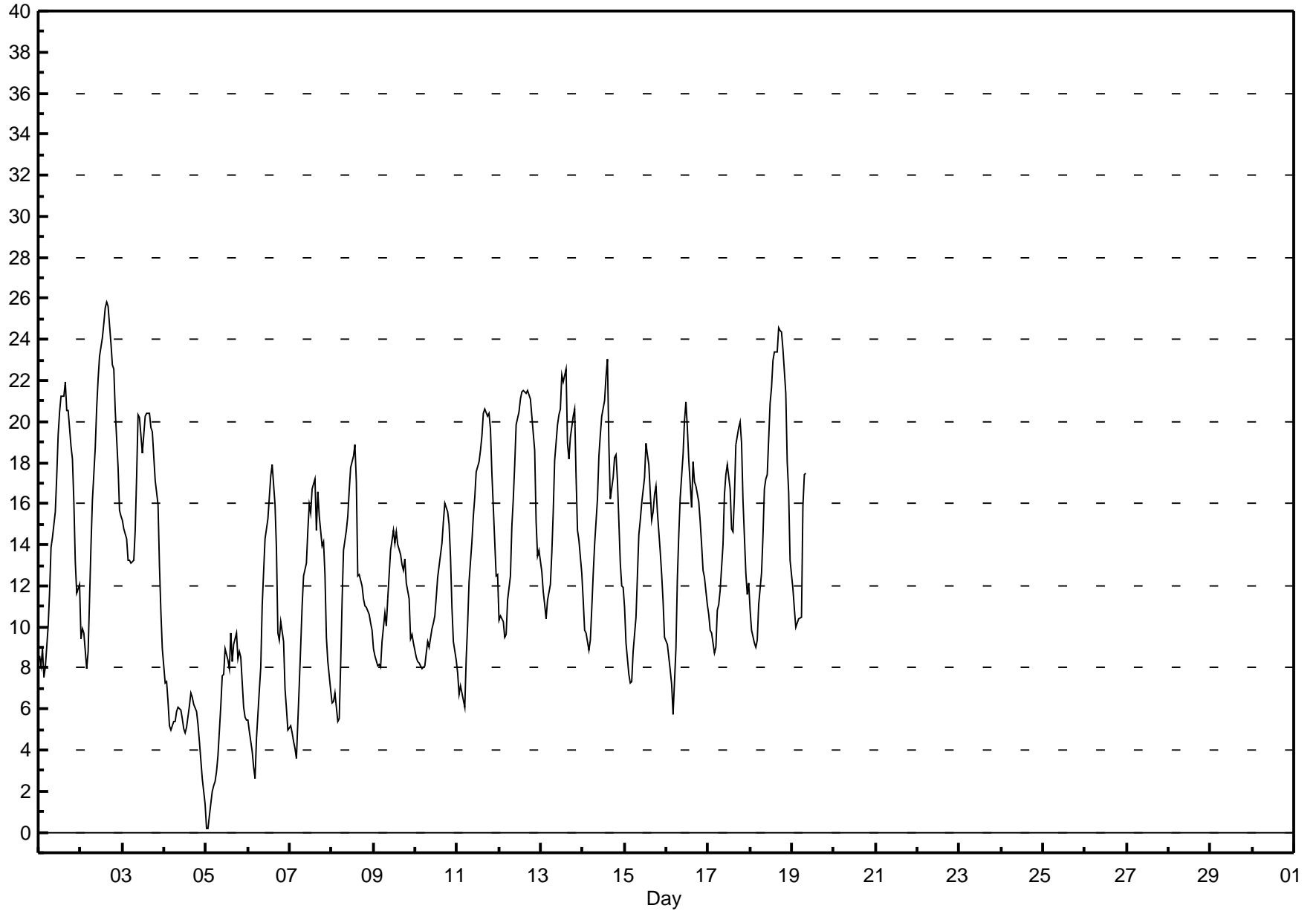
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	9	8	9	8	8	10	12	14	14	16	17	19	20	21	21	22	21	21	19	18	16	13	12	12	15.0	22.0
2-Jun	9	10	10	8	9	11	14	16	19	21	22	23	24	25	26	26	26	24	23	23	21	18	16	15	18.2	25.8
3-Jun	15	15	14	13	13	13	13	15	17	20	20	18	19	20	20	20	20	20	18	17	16	13	11	9	16.3	20.4
4-Jun	7	7	6	5	5	5	5	6	6	6	6	5	5	5	6	7	7	6	6	5	4	4	3	1	5.4	7.3
5-Jun	0	0	1	2	2	2	3	4	6	8	8	9	8	8	10	8	9	10	8	9	9	6	6	5	5.9	9.7
6-Jun	5	5	4	3	3	5	7	8	11	13	14	15	16	17	18	16	14	10	9	10	9	7	6	5	9.6	17.9
7-Jun	5	5	4	4	4	7	9	11	12	13	15	16	16	17	17	15	17	15	14	14	13	10	8	7	11.1	17.2
8-Jun	6	6	7	5	6	8	11	14	15	15	17	18	18	19	17	12	13	12	11	11	11	10	10	10	11.8	18.9
9-Jun	9	9	8	8	8	9	11	10	11	13	14	15	14	15	14	14	13	13	12	11	9	10	9	9	11.3	14.7
10-Jun	9	8	8	8	8	8	9	9	9	10	10	11	11	12	14	14	15	16	16	15	13	11	9	8	10.9	16.0
11-Jun	8	7	7	6	6	8	10	12	14	15	16	18	18	19	19	20	21	20	20	20	18	14	12	13	14.3	20.6
12-Jun	10	11	10	10	10	11	12	15	16	18	20	20	21	21	22	21	22	21	21	20	19	15	13	14	16.4	21.5
13-Jun	13	12	11	10	11	12	14	16	18	20	20	21	22	22	23	19	18	19	20	21	17	15	14	13	16.7	22.5
14-Jun	11	10	10	9	9	11	13	14	16	18	19	20	21	22	23	19	16	17	18	18	17	13	12	12	15.4	23.0
15-Jun	11	9	8	7	7	9	10	13	15	15	16	17	19	18	18	15	16	16	17	16	14	13	11	9	13.3	18.9
16-Jun	9	9	8	7	6	9	12	15	16	18	20	21	20	18	16	18	17	17	16	15	14	13	12	11	14.0	21.0
17-Jun	11	10	10	9	9	11	11	12	14	16	17	18	17	15	15	16	19	20	20	19	16	13	12	12	14.2	20.0
18-Jun	11	10	9	9	9	11	13	14	17	17	21	22	23	23	23	25	24	24	24	24	21	18	17	13	17.3	24.6
19-Jun	12	11	10	10	10	10	16	17	18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	17.5
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
22-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
23-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
24-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
25-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
26-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
27-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
28-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
29-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
30-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
	9.0	8.4	8.1	7.5	7.5	9.1	10.8	12.3	13.9	15.1	16.1	17.0	17.3	17.7	17.8	17.0	17.0	16.7	16.4	15.9	14.4	11.9	10.8	10.0	Diurnal Average	
	15.2	14.8	14.3	13.2	13.2	13.1	15.9	17.4	18.8	20.7	22.1	23.2	24.1	24.8	25.6	25.8	25.6	24.5	24.4	23.5	21.4	18.0	16.6	15.4	Diurnal Maximum	

NS - Not in service

### Hourly Averages

External Temperature (ET) - °C

Portable Reno - June 2014







Peace Airshed Zone Association

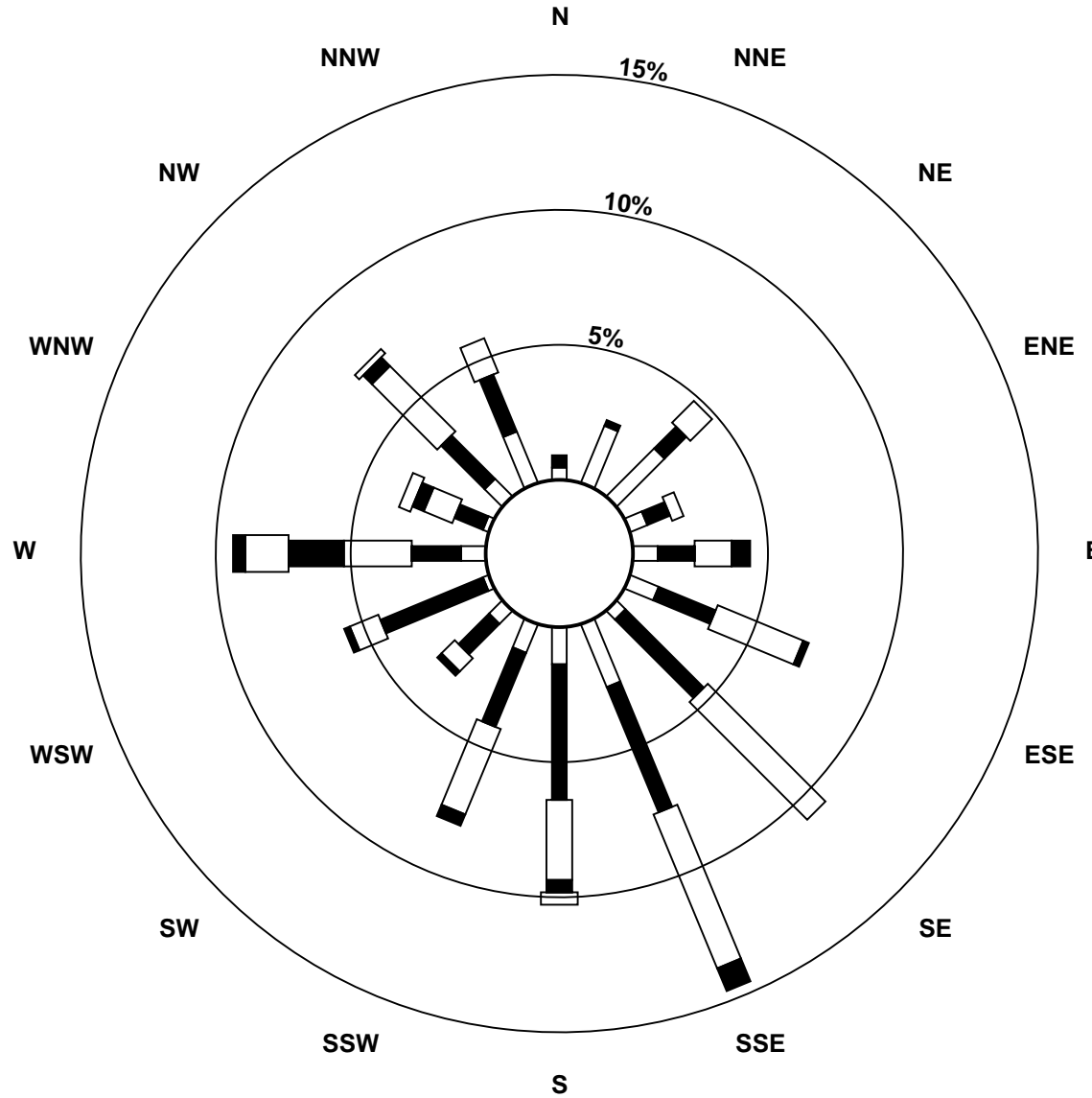
# Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Portable Reno - June 2014

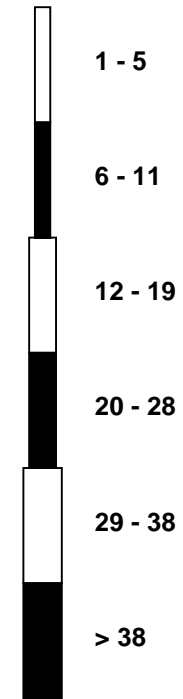
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
24 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
25 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
26 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
27 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
28 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
29 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
30 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
Spd	4.1	3.9	4.3	4.9	5.8	5.0	4.1	3.7	3.4	5.1	4.6	4.8	5.8	7.3	7.7	9.0	4.2	3.4	4.0	4.3	3.6	2.9	4.2	4.8	Diurnal Average	
Dir	159.1	155.3	139.4	145.1	139.7	137.6	153.9	160.2	177.4	212.2	227.7	236.2	228.6	228.4	238.4	245.7	249.9	251.8	235.4	201.9	189.0	152.3	153.5	166.7	Diurnal Maximum	
Spd	17.9	16.9	16.5	18.1	20.6	20.5	21.1	22.4	23.9	29.3	28.5	31.7	31.8	38.8	37.0	39.3	34.0	33.6	34.9	24.2	22.5	20.2	21.5	16.4	Diurnal Maximum	
Dir	124.4	142.0	264.8	152.9	91.8	93.1	154.3	164.0	171.5	174.2	181.6	276.1	261.7	266.6	262.6	271.4	272.7	275.4	274.4	272.6	274.0	268.8	270.4	148.6	Diurnal Maximum	
Maximum Speed Value: 39 km/h on Jun 9 16:00																			Minimum Speed Value: 0 km/h on Jun 7 05:00					Hours in Service: 441		
Maximum Daily Speed Average: 20.1 km/h on Jun 9																			Minimum Daily Speed Average: 0.4 km/h on Jun 17					Hours of Data: 441		
Maximum Diurnal Speed Average: 9.0 km/h at hour 16																			Minimum Diurnal Speed Average: 2.9 km/h at hour 22					Hours of Missing Data: 0		
Monthly Average Velocity: 3.59 km/h 195.09 deg																			Speed Percentiles: P <sub>1</sub> = 1.1 P <sub>10</sub> = 3.6 Q <sub>1</sub> = 6.8 Median = 10.6 Q <sub>3</sub> = 14.5 P <sub>90</sub> = 19.2 P <sub>99</sub> = 32.9					Percent Operational Time: 100.0		
All monthly, daily, and diurnal averages have been calculated using vector methods																										
NS - Not in service																										
Frequency Distribution																										
		Speed Range (km/h)																								
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	8	5	0	0	0	0	13																			
NorthEast	19	9	6	1	0	0	35																			
East	8	16	15	4	0	0	43																			
SouthEast	9	34	43	2	0	0	88																			
South	12	35	38	7	2	0	94																			
SouthWest	5	22	18	5	1	0	51																			
West	4	17	14	9	11	2	57																			
NorthWest	9	19	29	1	2	0	60																			
Total	74	157	163	29	16	2	441																			

**Wind Rose**

**Wind Speed (WS) (km/h)**  
**Portable Reno - June 2014**



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



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable Reno - June 2014

Maximum Speed: 40 km/h on Jun 9 16:00 Minimum Speed: 1 km/h on Jun 7 05:00 Maximum Diurnal Speed Average: 17.6 km/h at hour 16 Monthly Average Speed: 12.00 km/h		Maximum Daily Speed Average: 23.5 km/h on Jun 9 Minimum Daily Speed Average: 6.8 km/h on Jun 17 Minimum Diurnal Speed Average: 8.5 km/h at hour 22 Percentiles: P <sub>1</sub> = 1.6 P <sub>10</sub> = 4.5 Q <sub>1</sub> = 7.4 Median = 11.2 Q <sub>3</sub> = 15.0 P <sub>90</sub> = 20.0 P <sub>99</sub> = 32.9		Hours in Service: 441 Hours of Data: 441 Hours of Missing Data: 0 Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Jun	5	8	9	7	7	11	8	8	7	9	9	9	9	12	15	13	16	14	9	12	5	2	5	4	8.9	15.9	
2-Jun	9	9	10	11	13	10	9	11	11	10	11	11	12	11	10	11	9	9	6	7	13	13	13	16	10.6	15.6	
3-Jun	18	17	16	18	14	8	9	9	15	23	29	26	27	30	29	33	29	29	20	8	5	2	4	5	17.6	32.6	
4-Jun	6	15	14	12	12	13	10	11	7	5	9	13	13	12	9	10	11	6	10	12	11	13	12	13	10.8	15.3	
5-Jun	10	11	12	7	8	12	13	17	15	13	14	14	14	13	9	17	4	8	15	11	5	8	9	10	11.2	17.1	
6-Jun	12	13	12	12	11	10	10	13	11	10	10	15	11	18	16	15	8	11	11	4	3	5	4	2	10.3	18.4	
7-Jun	3	3	2	1	1	1	4	3	4	7	6	8	16	9	8	17	9	10	18	11	9	7	6	6	7.0	17.8	
8-Jun	6	7	8	8	10	9	8	11	15	20	18	17	19	16	19	16	14	12	11	14	13	15	16	16	13.4	20.3	
9-Jun	16	14	13	11	10	10	14	18	20	20	29	32	32	39	37	40	34	34	35	24	23	20	22	15	23.5	39.5	
10-Jun	14	17	17	13	8	4	11	18	19	13	15	13	10	7	6	7	8	12	13	13	8	2	3	5	10.6	19.3	
11-Jun	6	8	8	9	10	11	12	12	13	14	12	13	13	14	13	15	16	11	9	4	4	5	7	11	10.5	16.2	
12-Jun	11	14	13	13	14	14	10	14	14	14	12	19	20	19	19	16	17	18	18	13	11	16	13	14	9	14.6	20.1
13-Jun	6	8	13	11	21	21	20	18	15	17	18	18	17	16	20	28	15	6	9	10	9	4	5	4	13.7	28.2	
14-Jun	7	10	11	15	14	16	19	23	24	30	29	23	20	23	18	24	7	13	19	17	15	8	9	9	16.7	29.7	
15-Jun	12	10	10	9	9	10	9	8	8	7	6	6	7	6	6	10	6	4	8	17	20	10	6	5	8.7	19.5	
16-Jun	1	5	6	3	4	4	3	3	6	6	7	11	12	17	15	19	20	24	19	17	12	7	6	9	9.8	23.6	
17-Jun	5	3	3	7	2	3	4	5	7	5	5	8	9	10	11	7	4	5	4	6	8	12	14	16	6.8	16.4	
18-Jun	13	13	13	15	15	18	21	22	19	16	10	9	13	20	25	20	15	15	11	9	5	5	5	3	13.8	25.1	
19-Jun	2	3	4	5	10	9	4	6	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	9.8	
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
22-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
23-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
24-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
25-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
26-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
27-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
28-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
29-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
30-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
																								8.6	17.9		
																								9.9	17.3		
																								10.2	16.5		
																								9.9	18.2		
																								10.1	20.6		
																								10.3	20.6		
																								10.5	21.2		
																								12.0	22.6		
																								12.4	24.0		
																								13.3	29.7		
																								14.2	29.0		
																								14.9	32.0		
																								15.2	32.2		
																								16.2	39.1		
																								15.6	37.3		
																								17.6	39.5		
																								13.5	34.1		
																								13.4	33.8		
																								13.3	35.0		
																								11.5	24.3		
																								10.1	22.5		
																								8.5	20.2		
																								8.9	21.6		
																								8.9	16.4		
																								Diurnal Average	Diurnal Maximum		

NS - Not in service  
 All monthly, daily, and diurnal averages have been calculated using scalar methods

# Hourly Standard Deviations

Wind Direction (WD) - deg

Portable Reno - June 2014

Maximum Value: 94.0 deg on Jun 16 04:00																								Hours in Service: 441	
Minimum Value: 2.2 deg on Jun 3 01:00																								Hours of Data: 441	
Percentiles: P <sub>1</sub> = 3.2 P <sub>10</sub> = 5.3 Q <sub>1</sub> = 8.5 Median = 14.3 Q <sub>3</sub> = 27.8 P <sub>90</sub> = 45.9 P <sub>99</sub> = 88.0																								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-Jun	14	12	5	25	12	7	9	20	17	17	24	27	29	26	17	21	7	10	17	17	52	37	13	13	52.2
2-Jun	7	4	6	9	4	7	9	7	16	19	21	23	23	42	52	37	54	32	11	25	5	3	4	7	54.0
3-Jun	2	12	6	5	14	67	44	11	29	18	11	13	10	12	12	9	11	9	12	26	37	85	39	29	85.2
4-Jun	53	6	6	6	6	15	14	15	40	39	7	9	13	11	18	12	13	35	35	14	19	14	17	8	52.6
5-Jun	5	4	6	19	25	10	10	8	11	17	15	17	34	23	42	48	42	36	18	15	32	11	13	7	47.8
6-Jun	4	8	4	4	4	4	9	11	15	14	23	19	22	20	14	38	73	26	26	44	50	68	45	76	76.4
7-Jun	39	32	34	36	89	25	24	53	38	25	40	39	16	28	48	45	46	27	14	9	15	14	12	13	88.6
8-Jun	8	13	10	5	8	6	7	21	11	9	11	13	14	13	21	74	18	18	17	20	13	4	6	5	74.2
9-Jun	3	4	7	8	6	24	10	11	8	10	6	8	8	7	6	7	6	6	5	5	4	4	5	7	23.7
10-Jun	7	5	4	5	9	29	23	8	9	11	10	10	18	30	51	50	24	22	13	14	15	89	11	12	89.1
11-Jun	9	13	6	7	4	14	7	10	14	13	20	29	27	24	21	28	18	24	28	38	13	9	7	6	37.8
12-Jun	6	4	3	7	4	5	7	7	7	12	14	18	17	22	23	18	14	15	16	11	18	9	9	10	22.8
13-Jun	74	15	12	12	4	3	4	5	8	13	12	11	17	17	29	6	7	23	25	12	14	34	23	16	74.0
14-Jun	11	8	10	9	7	5	4	5	6	10	10	14	19	13	17	30	49	34	15	7	15	31	18	9	48.7
15-Jun	13	6	6	7	11	8	10	10	13	30	32	32	40	58	46	18	50	45	24	17	64	43	68	46	67.9
16-Jun	69	19	28	94	37	16	44	32	23	26	27	14	55	78	36	64	23	11	10	9	13	40	25	62	94.0
17-Jun	63	33	40	9	38	35	38	51	12	31	59	26	22	50	26	19	93	79	48	17	7	4	3	3	92.6
18-Jun	4	3	6	4	4	8	6	5	16	13	14	29	28	16	12	16	22	9	15	9	33	49	44	76	76.2
19-Jun	64	30	21	20	11	79	46	14	42	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	79.0
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
22-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
23-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
24-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
25-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
26-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
27-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
28-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
29-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
30-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
74.0	33.3	40.2	94.0	88.6	79.0	46.5	52.6	42.3	39.4	59.0	39.3	55.0	77.7	51.8	74.2	92.6	79.2	47.7	44.3	64.2	89.1	67.9	76.4		
NS - Not in service																									



PAZA

Falher Station

Monthly Summary Tables, Graphs and  
Roses

## Hourly Averages

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

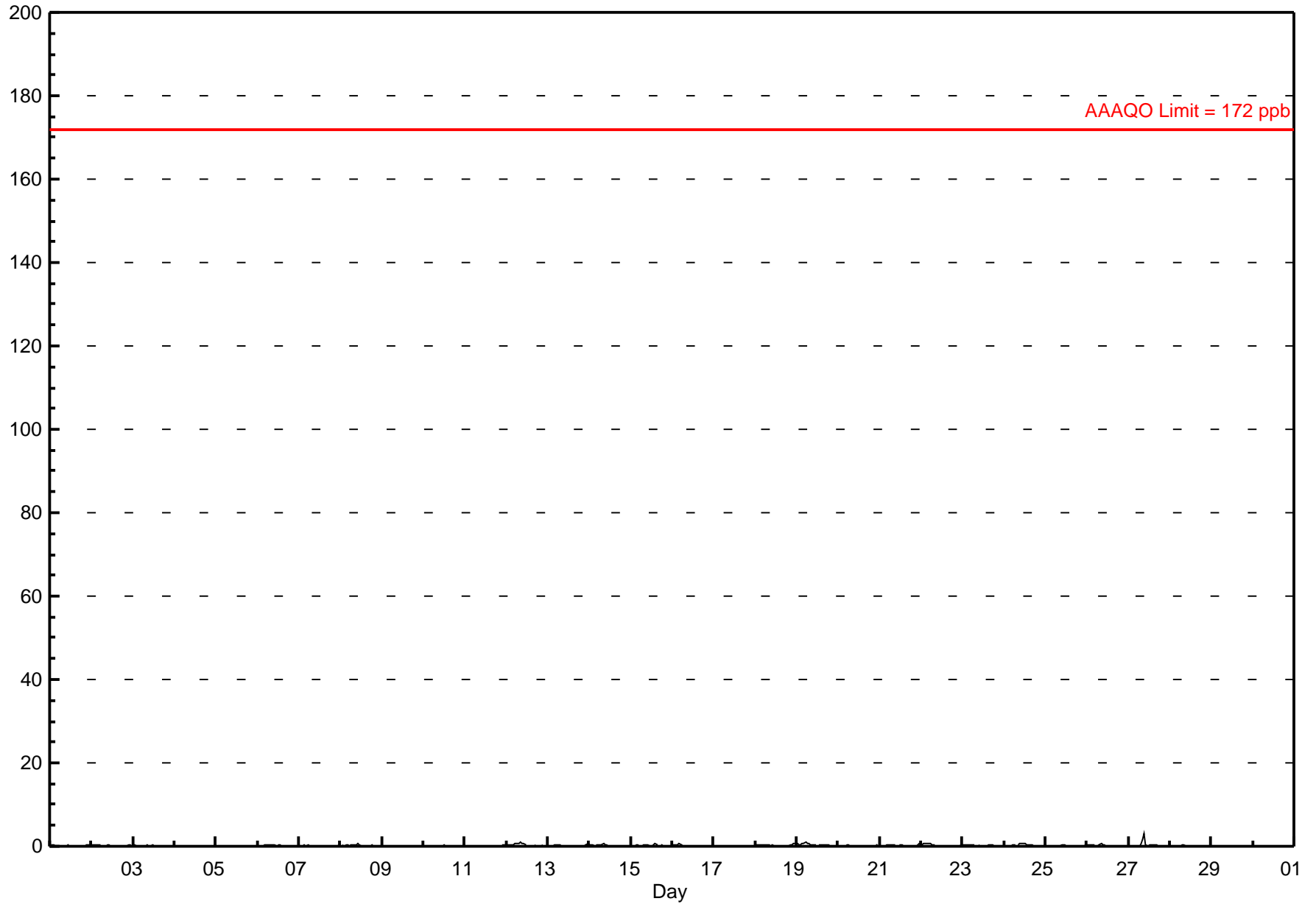
Falher - June 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 3.1 ppb on Jun 27 10:00	Maximum Daily Average: 0.4 ppb on Jun 12		Hours of Data:	680
Minimum Value: 0 ppb on Jun 1 06:00	Minimum Daily Average: 0.0 ppb on Jun 4		Hours of Missing Data:	40
Maximum Diurnal Average: 0.3 ppb at hour 10	Minimum Diurnal Average: 0.0 ppb at hour 20		Hours of Calibration:	35
Monthly Average: 0.14 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> = 0.4 P <sub>99</sub> = 0.8		Percent Operational Time:	99.3

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-Jun	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
2-Jun	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
3-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
4-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
5-Jun	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
6-Jun	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	0.4
7-Jun	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
8-Jun	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
9-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
10-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.0	0.2
11-Jun	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
12-Jun	0	0	0	0	0	1	1	1	1	1	1	0	C	C	C	C	0	0	0	A	0	0	0	0	0.4	0.9
13-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0.1	0.5
14-Jun	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.5
15-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0.2	0.6
16-Jun	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.5
17-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.0	0.1
18-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.7
19-Jun	1	1	0	1	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9
20-Jun	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
21-Jun	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0.2	0.6
22-Jun	0	1	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
23-Jun	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
24-Jun	0	0	0	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	P	P	P	P	P	0.3	0.8
25-Jun	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
26-Jun	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
27-Jun	0	0	0	0	A	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	3.1
28-Jun	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
29-Jun	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
30-Jun	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	0.2

0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.2	Diurnal Average
0.7	0.7	0.6	0.7	0.7	0.9	0.7	0.8	1.7	3.1	0.8	0.8	0.7	0.3	0.6	0.3	0.2	0.2	0.2	0.1	0.4	0.4	0.6	0.7	Diurnal Maximum	

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



## Hourly Maximums

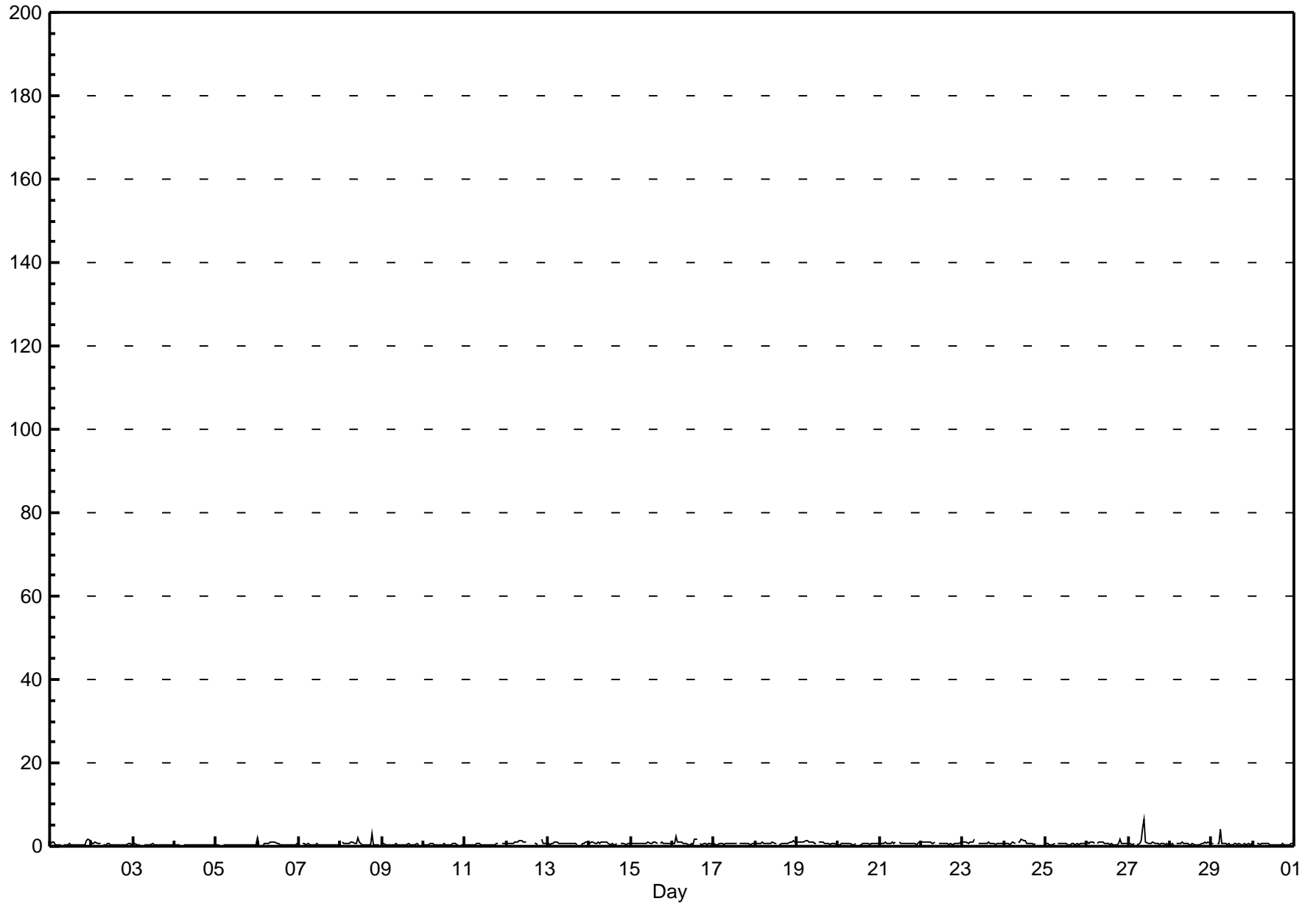
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Falher - June 2014

Maximum Value: 6.4 ppb on Jun 27 10:00		Maximum Daily Average: 1.1 ppb on Jun 27		Hours in Service: 720																								
Minimum Value: 0 ppb on Jun 5 01:00		Minimum Daily Average: 0.3 ppb on Jun 5		Hours of Data: 680																								
Maximum Diurnal Average: 0.8 ppb at hour 10		Minimum Diurnal Average: 0.5 ppb at hour 18		Hours of Missing Data: 40																								
Monthly Average: 0.64 ppb		Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.3 Q <sub>1</sub> = 0.4 Median = 0.6 Q <sub>3</sub> = 0.7 P <sub>90</sub> = 1.0 P <sub>99</sub> = 2.1		Hours of Calibration: 35																								
				Percent Operational Time: 99.3																								
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-Jun	1	1	1	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	1	2	1	0.5	1.6		
2-Jun	1	1	1	1	1	1	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0.5	1.0		
3-Jun	0	1	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8		
4-Jun	0	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		
5-Jun	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4		
6-Jun	2	0	A	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0.6	2.1		
7-Jun	1	A	1	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.8		
8-Jun	A	1	1	1	1	1	1	1	1	1	2	1	0	0	0	0	0	0	3	0	0	0	0	A	0.8	3.0		
9-Jun	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	1	0	A	0	0.4	0.5		
10-Jun	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	A	0	0	0.4	0.8		
11-Jun	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0	0	1	1	A	1	1	1	1	0.5	0.6		
12-Jun	1	1	1	1	1	1	1	1	1	1	1	1	C	C	C	C	1	1	0	A	2	1	1	1	0.9	1.7		
13-Jun	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0	1	1	1	1	1	0.7	1.1		
14-Jun	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	1	A	1	1	1	0	1	1	0.7	1.0		
15-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	1.0		
16-Jun	1	1	2	1	1	1	1	1	1	0	0	1	1	2	2	A	1	0	1	1	0	1	0	1	0.8	2.2		
17-Jun	1	0	0	1	1	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	0.6	0.8		
18-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0.8	1.4		
19-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	0	0.9	1.3		
20-Jun	0	0	1	1	1	1	1	1	0	0	1	A	0	0	1	1	1	1	1	0	1	1	1	1	0.6	0.8		
21-Jun	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	0.7	1.0		
22-Jun	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	0	1	1	1	1	1	0.8	1.0		
23-Jun	1	1	1	1	1	1	1	2	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.8	1.6		
24-Jun	1	1	1	0	1	1	1	A	1	1	2	1	2	1	1	1	1	0	1	P	P	P	P	P	0.9	1.7		
25-Jun	1	1	0	0	0	1	A	1	1	1	1	1	1	0	0	1	1	0	1	0	1	1	1	1	0.6	0.8		
26-Jun	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	0	1	0	1	2	1	1	1	1	0.7	1.7		
27-Jun	1	1	0	1	A	0	1	1	4	6	1	1	1	1	1	1	1	1	0	1	1	0	1	0	1.1	6.4		
28-Jun	0	1	0	A	1	1	1	1	1	1	1	0	0	1	0	0	0	1	1	1	1	1	1	1	0.6	1.0		
29-Jun	1	1	A	1	1	4	1	1	1	1	1	0	0	1	1	0	1	0	0	1	0	1	0	1	0.7	4.0		
30-Jun	0	A	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0.5	0.7		
	0.7	0.7	0.7	0.6	0.7	0.8	0.7	0.7	0.8	0.8	0.7	0.6	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.5	0.6	0.5	0.6	0.6	Diurnal Average		
	2.1	1.0	2.2	1.2	1.1	4.0	1.2	1.6	4.5	6.4	2.1	1.4	1.5	1.5	1.8	0.9	0.8	0.8	3.0	1.7	1.7	1.3	1.6	1.3	Diurnal Maximum			
C - Calibration		P - Power Failure					A - Automated Daily Zero Span																					

### Hourly Maximums

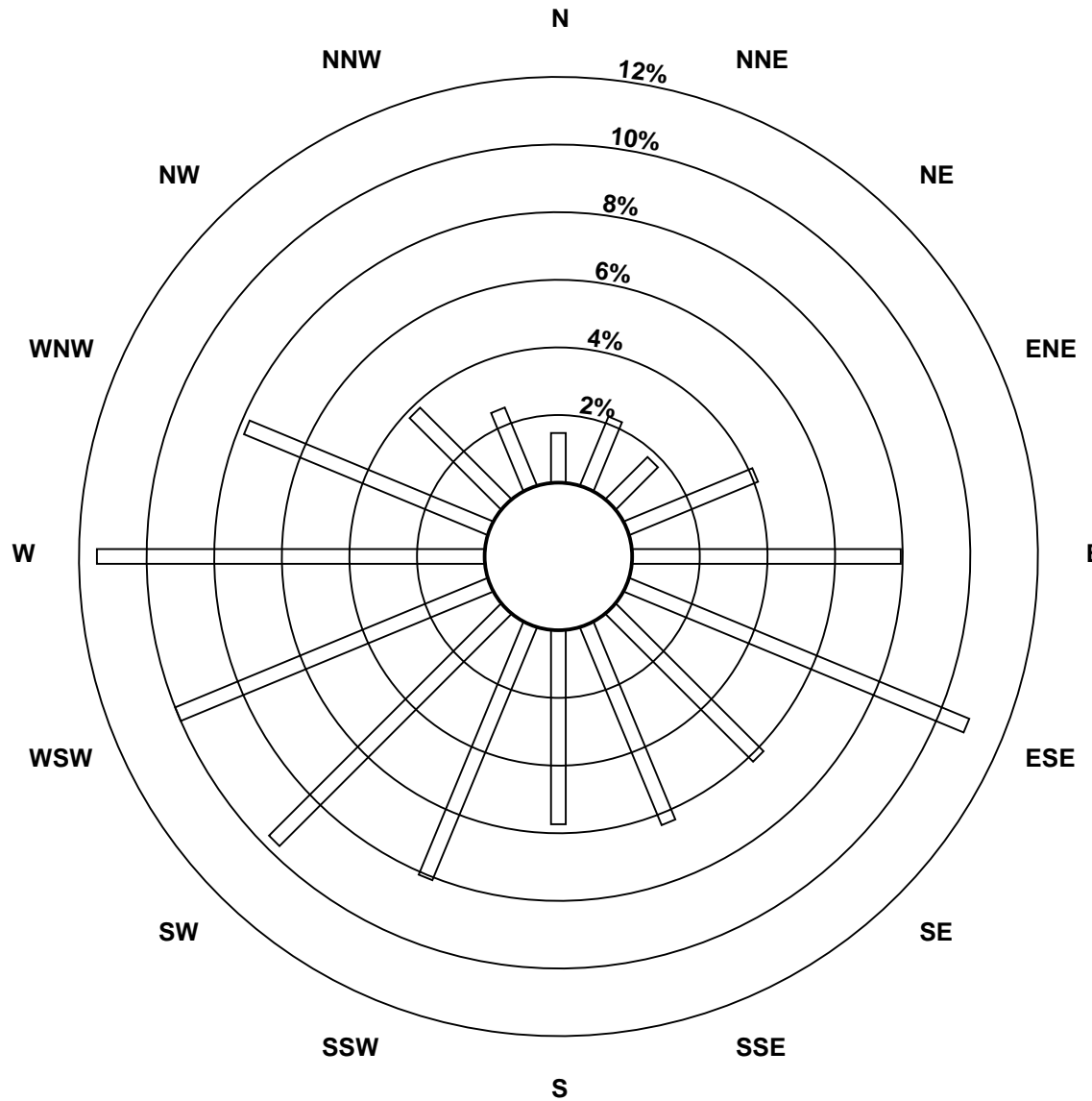
Sulphur Dioxide (SO<sub>2</sub>) - ppb  
Falher - June 2014



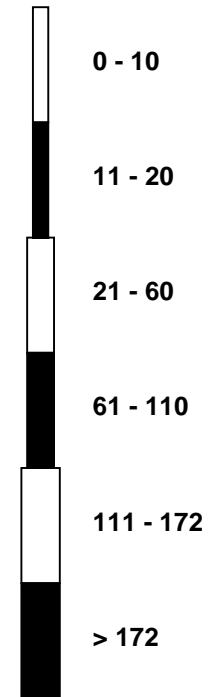
**Pollutant Rose**

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

**Falher - June 2014**

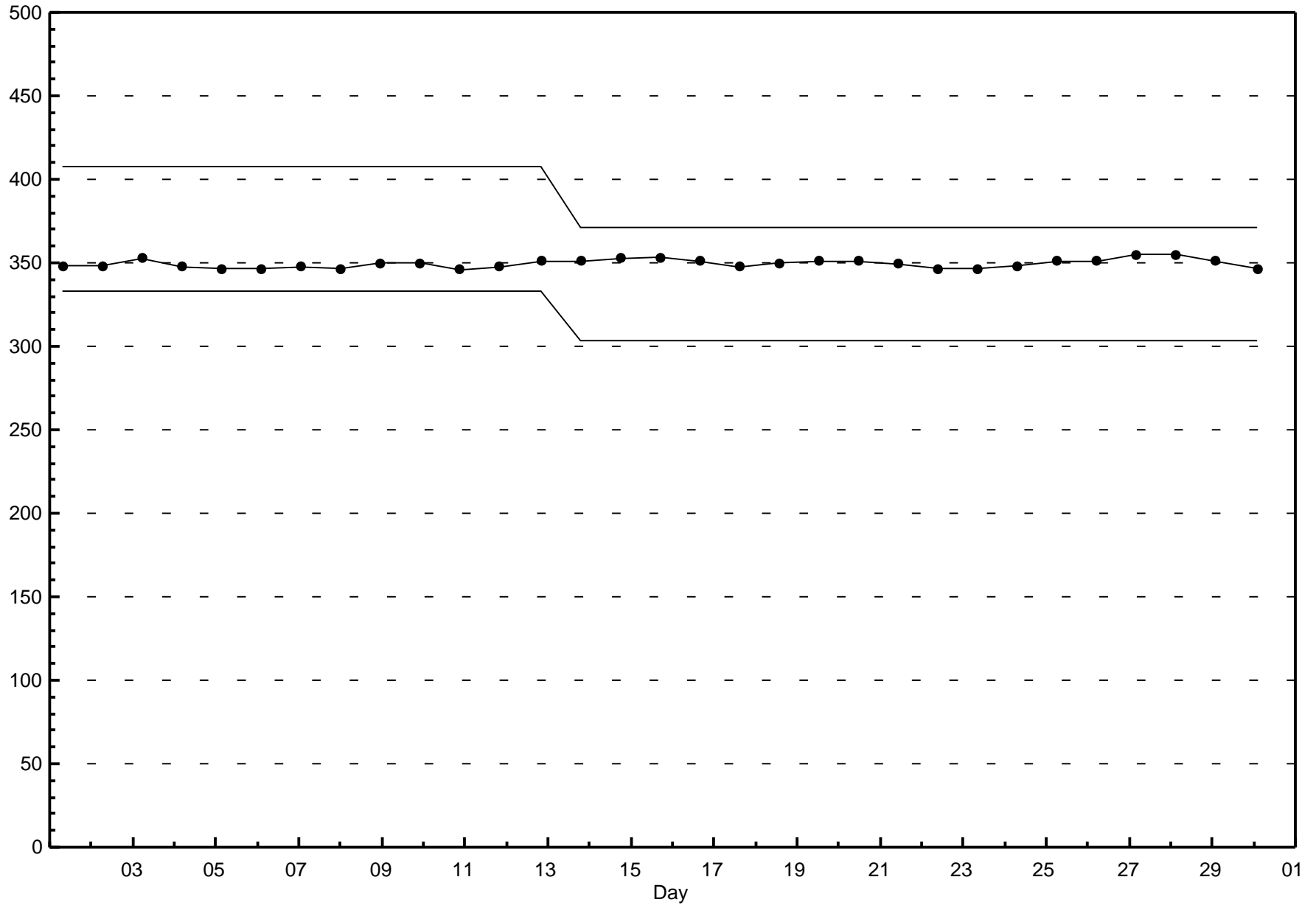


**Pollutant Classes (ppb)**



### Span Responses

Sulphur Dioxide (SO<sub>2</sub>)  
Falher - June 2014



## Hourly Averages

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

### Falher - June 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 2.6 ppb on Jun 23 07:00	Maximum Daily Average: 0.5 ppb on Jun 23		Hours of Data:	678
Minimum Value: 0 ppb on Jun 1 10:00	Minimum Daily Average: 0.0 ppb on Jun 5		Hours of Missing Data:	42
Maximum Diurnal Average: 0.5 ppb at hour 6	Minimum Diurnal Average: 0.0 ppb at hour 12		Hours of Calibration:	37
Monthly Average: 0.21 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> = 0.3 P <sub>90</sub> = 0.5 P <sub>99</sub> = 1.3		Percent Operational Time:	99.3

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-Jun	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.2	0.8
2-Jun	1	1	1	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.2	1.0
3-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
4-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
5-Jun	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
6-Jun	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
7-Jun	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
8-Jun	A	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.6
9-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.3
10-Jun	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.8
11-Jun	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	1.3
12-Jun	0	0	0	0	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	A	0	0	0	0	--	0.5
13-Jun	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0.1	1.0
14-Jun	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.6
15-Jun	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.6
16-Jun	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	1.1
17-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.4
18-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0.2	0.8
19-Jun	1	1	1	1	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.4	1.3
20-Jun	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
21-Jun	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0.3	1.1
22-Jun	1	1	1	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5	1.3
23-Jun	1	1	1	1	1	2	3	2	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.6
24-Jun	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	P	P	P	P	P	0.1	0.3
25-Jun	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	0.7
26-Jun	1	1	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
27-Jun	0	0	1	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4
28-Jun	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
29-Jun	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
30-Jun	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.3	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	Diurnal Average
	1.0	1.3	1.1	1.1	1.3	2.2	2.6	1.7	0.5	0.7	0.3	0.2	0.4	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.6	0.8	1.1	Diurnal Maximum	

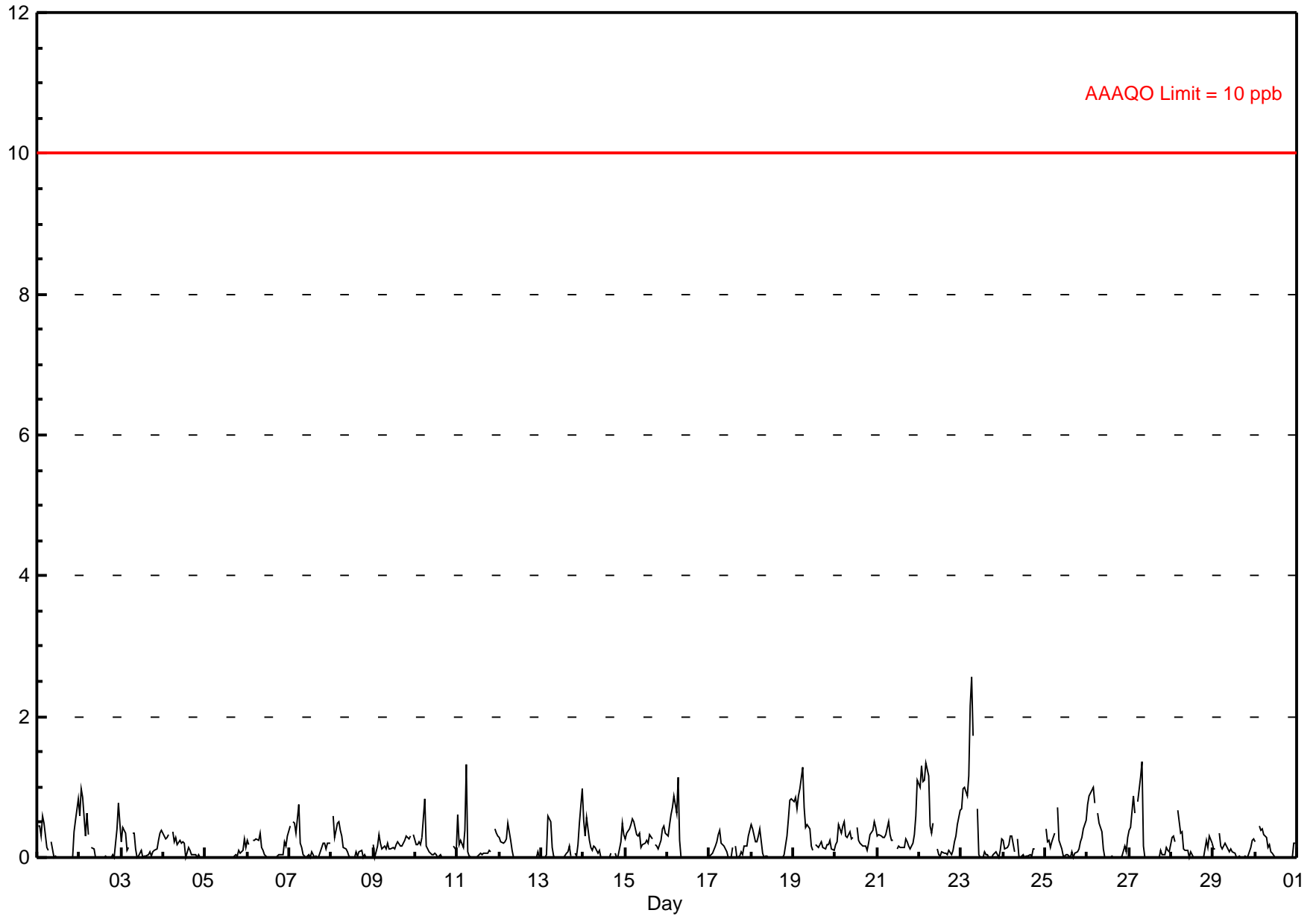
C - Calibration      P - Power Failure      A - Automated Daily Zero Span  
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb    24-hr 3 ppb



**Hourly Averages**

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

**Falher - June 2014**



## Hourly Maximums

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

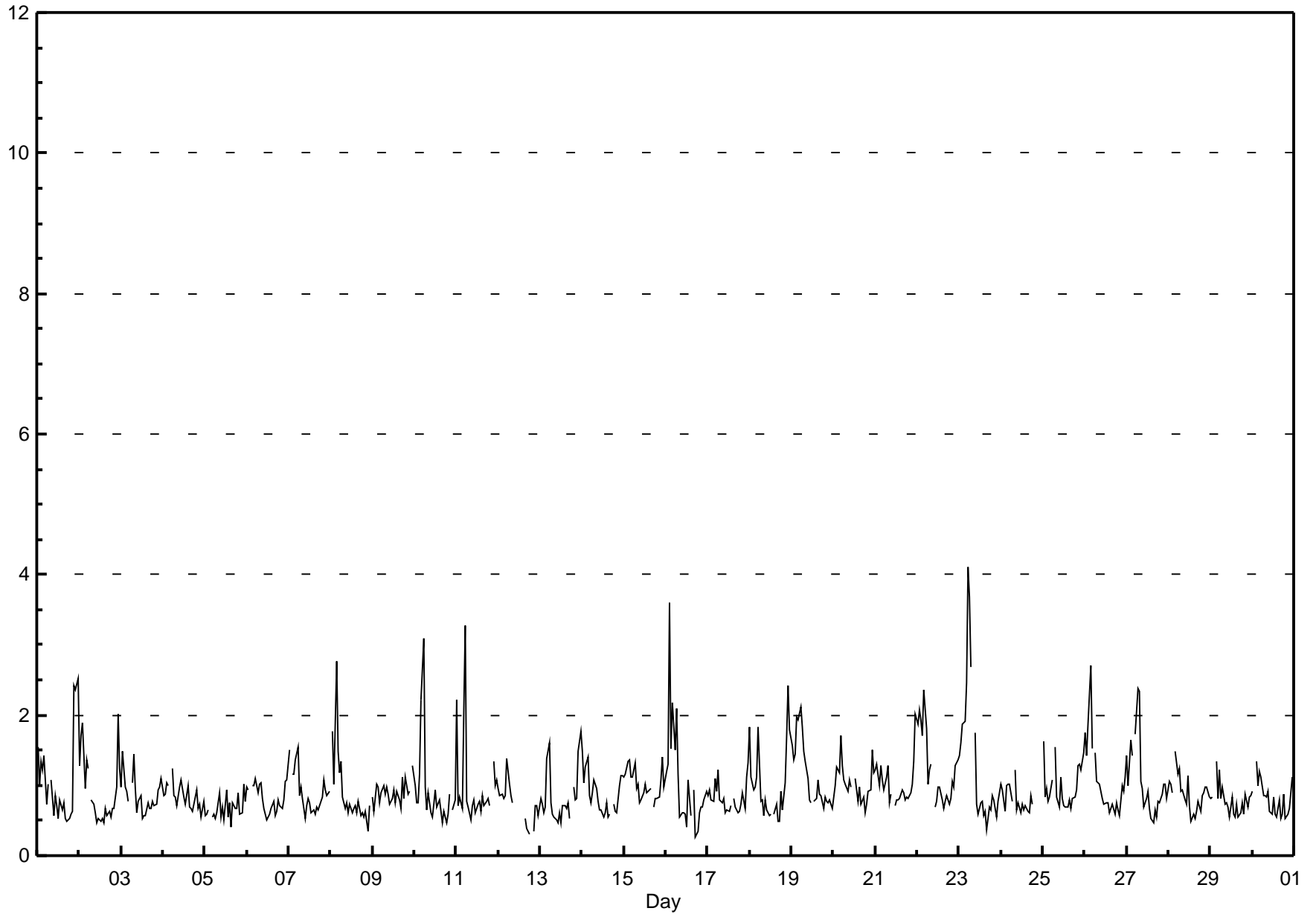
Falher - June 2014

Maximum Value: 4.1 ppb on Jun 23 06:00		Maximum Daily Average: 1.4 ppb on Jun 23		Hours in Service: 720																						
Minimum Value: 0 ppb on Jun 16 18:00		Minimum Daily Average: 0.7 ppb on Jun 5		Hours of Data: 678																						
Maximum Diurnal Average: 1.5 ppb at hour 6		Minimum Diurnal Average: 0.7 ppb at hour 17		Hours of Missing Data: 42																						
Monthly Average: 0.95 ppb		Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 0.6 Q <sub>1</sub> = 0.7 Median = 0.8 Q <sub>3</sub> = 1.0 P <sub>90</sub> = 1.5 P <sub>99</sub> = 2.7		Hours of Calibration: 37																						
				Percent Operational Time: 99.3																						
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-Jun	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	2	2	3	1.1	2.5
2-Jun	1	2	2	1	1	1	A	1	1	1	0	1	0	1	0	1	1	1	1	1	1	1	2	1	0.9	2.0
3-Jun	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.5
4-Jun	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
5-Jun	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0.7	1.0
6-Jun	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
7-Jun	2	A	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6
8-Jun	A	2	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	0.9	2.8
9-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	1.3
10-Jun	1	1	1	1	2	3	1	1	1	1	1	1	1	1	1	0	1	0	1	1	A	1	1	1	0.9	3.1
11-Jun	2	1	1	1	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.0	3.3
12-Jun	1	1	1	1	1	1	1	1	1	C	C	C	C	C	C	1	0	0	0	A	0	1	1	1	--	1.4
13-Jun	1	1	1	1	1	2	1	1	1	1	0	1	0	1	1	1	1	1	A	1	1	1	1	2	0.8	1.8
14-Jun	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	1.5
15-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1.0	1.4
16-Jun	1	1	4	2	2	2	2	1	1	1	1	0	1	1	A	1	0	0	1	1	1	1	1	1	1.1	3.6
17-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.8	1.3
18-Jun	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	2	2	2	1.0	2.4
19-Jun	2	1	1	2	2	2	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.2	2.1
20-Jun	1	1	1	1	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	1	1.0	1.7
21-Jun	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2	1.0	2.0
22-Jun	2	2	2	2	2	2	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.4
23-Jun	1	2	2	2	2	4	4	3	A	2	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1.4	4.1
24-Jun	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	P	P	P	P	0.8	1.2
25-Jun	2	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.6
26-Jun	2	1	2	3	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.7
27-Jun	1	1	2	1	A	2	2	2	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1.1	2.4
28-Jun	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.9	1.5
29-Jun	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	1.3
30-Jun	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
	1.2	1.1	1.2	1.3	1.4	1.5	1.2	1.1	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.9	1.1	1.2	Diurnal Average
	2.2	2.1	3.6	2.8	2.5	4.1	3.7	2.7	1.3	1.8	1.1	1.1	1.1	1.1	1.0	1.1	0.9	1.1	0.9	1.1	1.3	2.4	2.4	2.5	Diurnal Maximum	
C - Calibration		P - Power Failure						A - Automated Daily Zero Span																		

**Hourly Maximums**

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

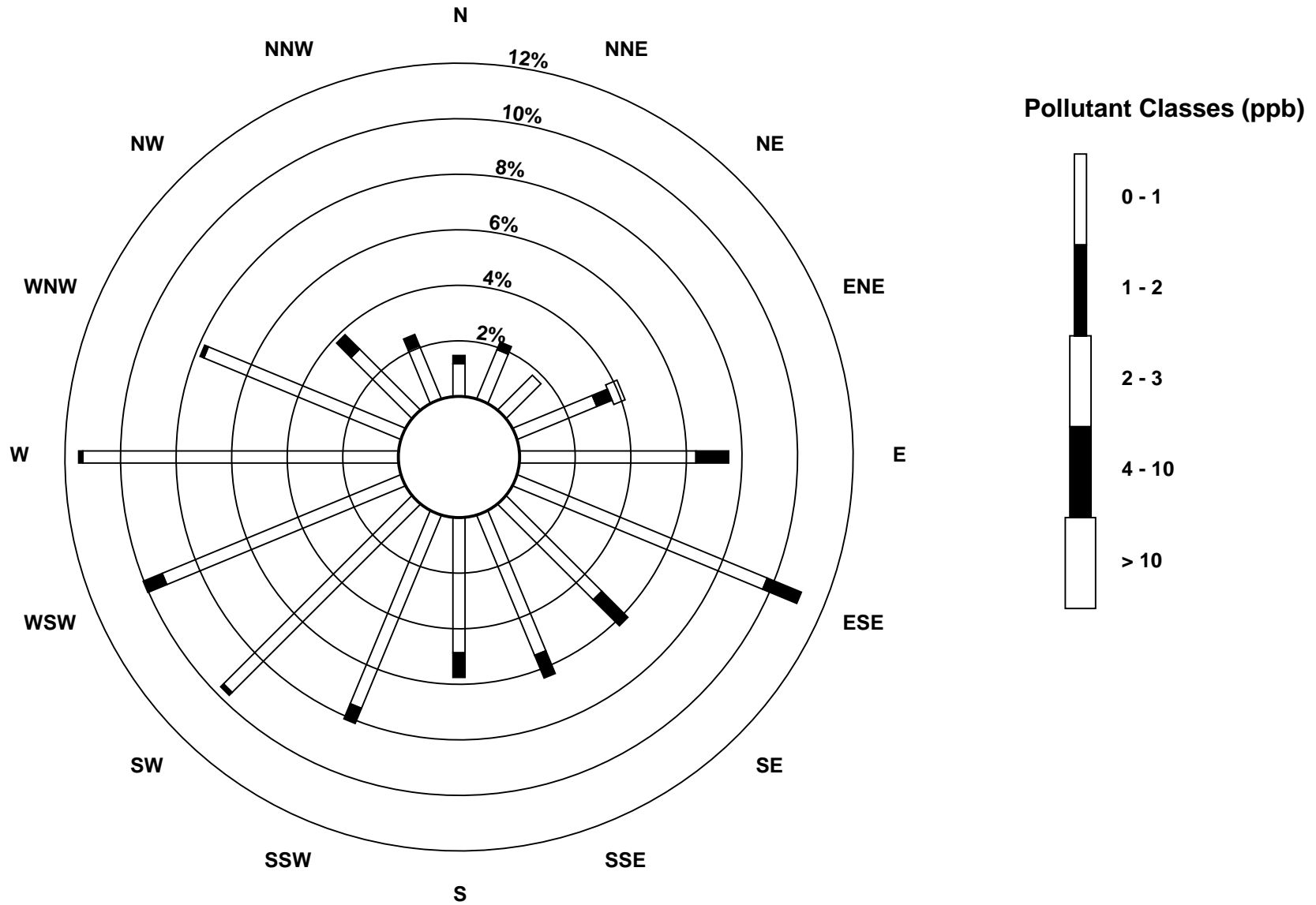
**Falher - June 2014**



**Pollutant Rose**

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

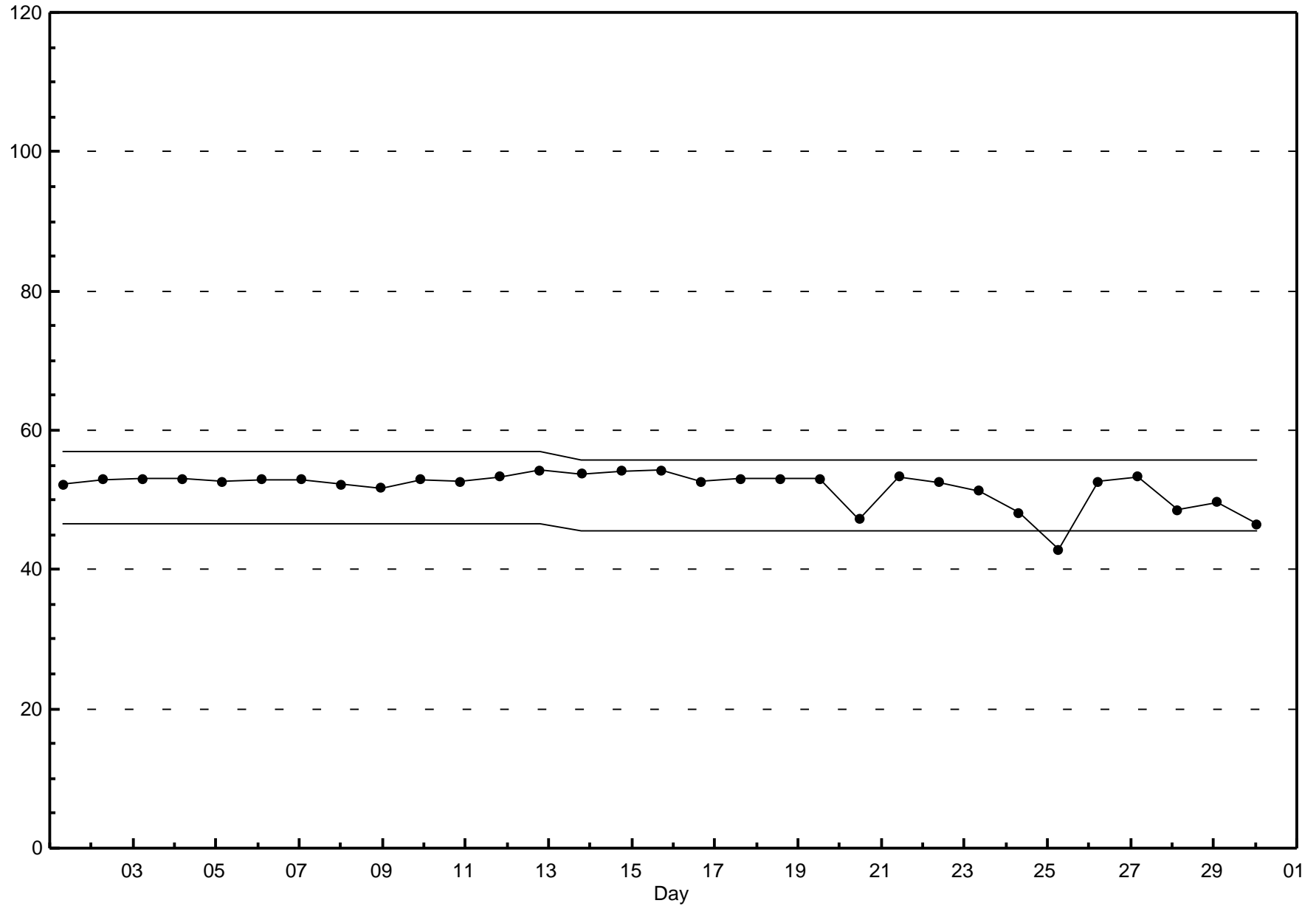
**Falher - June 2014**



### Span Responses

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

Falher - June 2014





Peace Airshed Zone Association

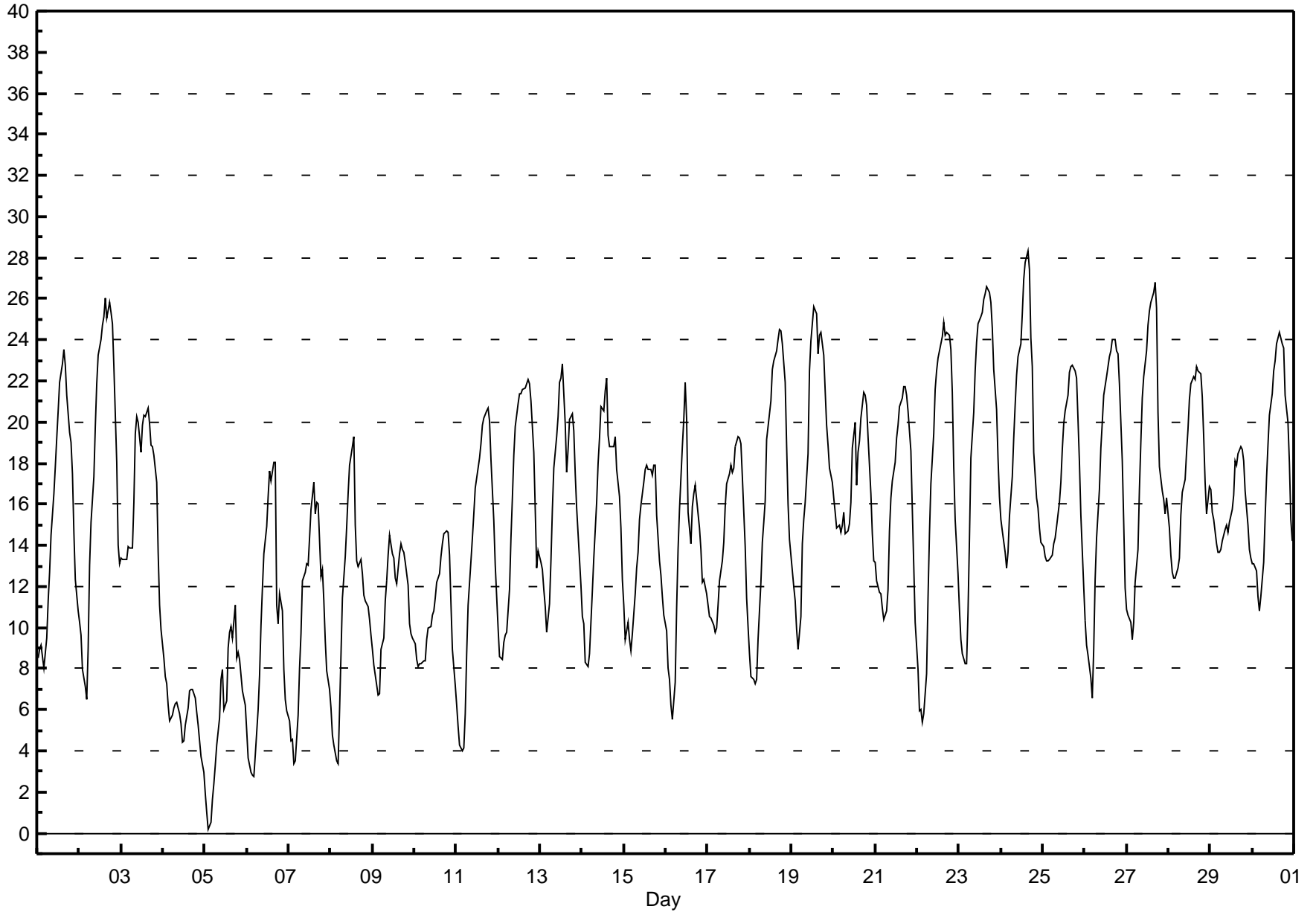
# Hourly Averages

External Temperature (ET) - °C

Falher - June 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 28.3 °C on Jun 24 16:00	Maximum Daily Average: 19.8 °C on Jun 24		Hours of Data:	720
Minimum Value: 0 °C on Jun 5 03:00	Minimum Daily Average: 5.9 °C on Jun 4		Hours of Missing Data:	0
Maximum Diurnal Average: 20.0 °C at hour 17	Minimum Diurnal Average: 8.5 °C at hour 5		Hours of Calibration:	0
Monthly Average: 14.91 °C	Percentiles: P <sub>1</sub> = 2.8 P <sub>10</sub> = 6.9 Q <sub>1</sub> = 10.5 Median = 14.7 Q <sub>3</sub> = 19.3 P <sub>90</sub> = 22.7 P <sub>99</sub> = 26.2		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-Jun	9	9	9	9	8	10	11	13	15	16	18	19	21	22	23	24	23	21	20	19	17	15	12	11	15.5	23.5
2-Jun	10	10	8	7	6	9	13	15	17	20	22	23	24	25	25	26	25	26	25	25	23	18	14	13	17.9	26.1
3-Jun	13	13	13	13	14	14	14	16	19	20	20	19	20	20	20	21	20	19	19	18	17	14	11	10	16.6	20.7
4-Jun	9	8	7	6	5	6	6	6	6	6	5	4	4	5	6	7	7	7	7	6	5	4	4	3	5.9	8.5
5-Jun	2	1	0	1	2	2	3	4	6	7	8	6	6	9	10	10	9	11	9	9	8	7	7	6	6.0	11.1
6-Jun	5	4	3	3	3	4	6	8	10	12	14	15	16	18	17	18	18	11	10	12	11	8	7	6	9.9	18.1
7-Jun	5	5	5	3	4	6	8	10	12	13	13	13	14	16	17	16	16	16	12	13	11	9	8	7	10.5	17.0
8-Jun	6	5	4	4	3	6	9	11	13	15	16	18	19	19	15	13	13	13	12	11	11	10	10	10	11.3	19.3
9-Jun	9	8	7	7	7	9	9	11	12	14	15	14	13	12	12	14	14	14	14	13	12	10	10	10	11.2	14.5
10-Jun	9	8	8	8	8	8	8	9	10	10	11	11	11	12	13	13	14	15	15	15	14	11	9	7	10.8	14.7
11-Jun	6	5	4	4	4	6	9	11	13	14	16	17	18	18	19	20	20	21	21	20	18	15	13	11	13.5	20.7
12-Jun	10	9	8	9	10	10	12	14	16	18	20	21	21	21	22	22	22	22	22	21	19	16	13	14	16.3	22.0
13-Jun	13	13	12	11	10	11	13	16	18	19	20	22	22	23	20	18	19	20	20	20	17	16	15	12	16.6	22.9
14-Jun	11	10	8	8	9	10	12	13	16	18	19	21	21	22	22	19	19	19	19	19	18	16	15	12	15.7	22.1
15-Jun	11	9	10	9	9	10	12	13	14	15	16	17	18	18	18	18	17	18	18	15	13	13	11	11	13.9	17.9
16-Jun	10	8	7	6	6	7	11	14	16	19	20	22	20	16	14	16	16	17	16	15	14	12	12	12	13.6	21.9
17-Jun	11	11	10	10	10	10	11	12	13	14	16	17	17	18	18	18	19	19	19	19	17	14	11	10	14.4	19.3
18-Jun	9	8	7	7	8	9	12	14	15	16	19	20	21	23	23	23	24	24	24	24	22	19	16	14	16.8	24.5
19-Jun	13	12	11	10	9	11	14	15	16	18	22	24	25	26	25	23	24	24	23	21	20	19	18	17	18.4	25.6
20-Jun	16	16	15	15	15	15	16	15	15	15	16	19	20	17	19	19	20	21	21	21	19	17	15	13	17.0	21.4
21-Jun	13	12	12	12	11	10	11	12	15	16	17	18	19	20	21	21	22	22	21	21	19	16	13	10	16.0	21.7
22-Jun	8	6	6	5	6	8	11	15	17	19	22	22	23	23	24	25	24	24	24	24	21	18	15	13	16.9	24.8
23-Jun	11	9	9	8	8	11	14	18	20	22	24	25	25	25	26	26	27	26	26	25	23	21	18	16	19.3	26.6
24-Jun	15	15	14	13	14	15	17	19	21	22	23	24	25	27	28	28	27	24	23	19	16	16	15	14	19.8	28.3
25-Jun	14	13	13	13	13	14	14	14	15	16	17	19	20	21	22	23	23	22	22	20	18	15	12	12	17.3	22.7
26-Jun	10	9	9	8	7	9	12	14	17	19	20	21	22	23	23	23	24	24	23	23	22	18	15	12	17.0	24.0
27-Jun	11	11	10	9	10	12	14	17	19	21	22	23	25	25	26	26	27	26	20	18	17	16	16	16	18.2	26.8
28-Jun	15	14	13	12	13	13	15	17	17	18	20	21	22	22	22	23	22	22	21	19	17	16	17	17	17.7	22.7
29-Jun	17	16	15	14	14	14	14	14	15	15	15	15	16	16	18	18	18	19	19	18	17	15	14	13	15.7	18.8
30-Jun	13	13	13	12	11	11	13	15	17	19	20	21	22	23	24	24	24	24	24	21	20	18	15	14	18.0	24.3
	10.5	9.6	9.1	8.6	8.5	9.6	11.5	13.2	14.9	16.3	17.5	18.3	19.1	19.5	19.7	19.8	20.0	19.8	19.0	18.2	16.7	14.5	12.7	11.6	Diurnal Average	
	16.7	15.6	15.3	15.0	14.6	15.4	17.3	19.2	20.8	22.5	23.9	24.8	25.3	26.9	27.8	28.3	27.5	26.3	25.8	24.8	22.7	20.6	18.3	17.1	Diurnal Maximum	







# Hourly Averages

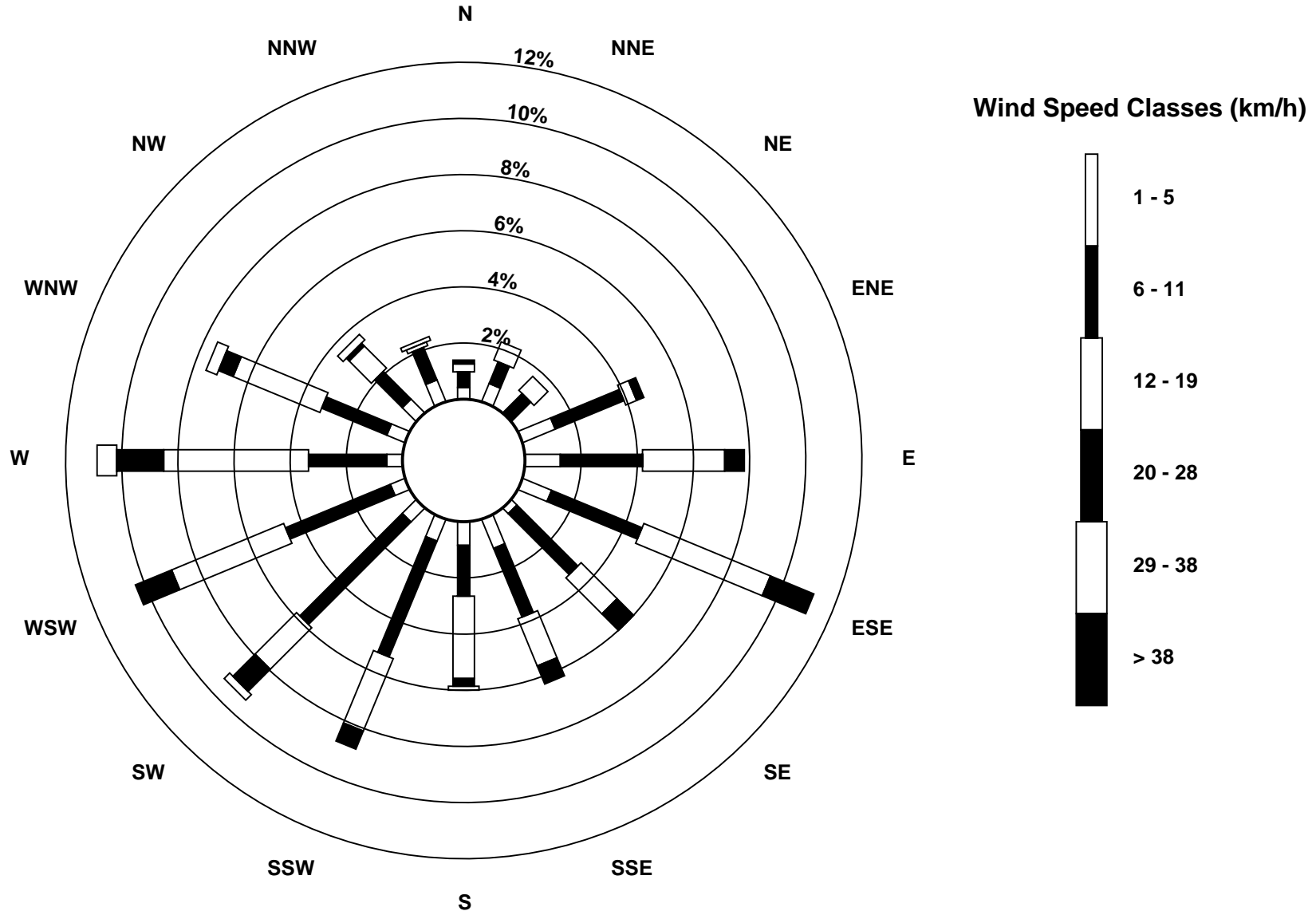
**Wind Speed (km/h)  
Wind Direction (deg)  
Falher - June 2014**

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	5	3	7	6	7	6	6	6	6	8	13	14	14	15	11	13	10	15	18	17	17	17	16	16	10.6	17.9
Dir	80	105	85	81	89	67	73	73	78	91	108	119	122	98	111	112	138	120	108	102	99	93	90	107	102	108
24 Spd	17	17	15	15	15	17	21	25	24	23	21	16	12	10	9	7	8	22	21	29	18	9	8	7	10.7	28.9
Dir	105	102	100	105	99	105	109	111	121	146	139	130	152	224	263	265	145	103	110	224	238	208	200	205	136	224
25 Spd	12	13	12	10	8	10	12	13	12	14	12	12	13	11	13	12	14	12	14	9	5	7	10	6	10.0	14.4
Dir	187	178	221	229	201	186	199	214	229	234	241	250	263	251	257	255	246	248	260	264	233	205	205	180	229	246
26 Spd	5	3	4	8	8	6	5	9	8	7	8	9	14	14	11	14	10	9	9	5	4	4	8	9	5.3	13.8
Dir	189	148	94	127	144	151	176	210	219	233	232	228	230	225	217	215	232	233	230	249	297	80	98	94	204	215
27 Spd	7	8	5	8	11	9	11	11	9	7	9	9	6	6	7	5	5	9	18	21	18	19	21	14	5.3	21.4
Dir	61	40	30	34	74	98	106	114	127	104	98	102	124	101	102	91	108	116	212	236	246	151	58	57	108	58
28 Spd	9	11	6	4	8	9	10	10	12	9	11	10	12	10	10	11	6	6	6	6	8	11	11	3	6.1	11.6
Dir	196	227	36	119	165	186	217	243	261	261	253	255	273	264	255	248	242	218	209	167	163	154	164	317	224	261
29 Spd	6	11	17	11	2	7	9	9	8	8	12	16	16	17	17	19	17	16	12	9	13	7	7	6	8.8	18.8
Dir	58	129	193	222	163	176	205	222	217	225	250	254	259	269	263	280	270	278	276	252	235	231	222	231	243	280
30 Spd	6	7	7	6	6	7	8	12	16	16	19	19	17	17	18	20	19	14	11	18	7	3	6	9	9.7	19.6
Dir	229	238	244	234	230	241	247	256	256	268	267	261	275	261	262	267	272	267	294	355	25	59	355	347	271	267
Spd	2.7	2.3	2.6	3.4	3.9	3.8	5.1	5.2	4.6	5.3	5.4	5.6	6.0	6.5	7.9	7.7	5.9	3.6	4.3	5.2	3.6	3.7	2.8	2.3	Diurnal Average	
Dir	137	142	163	161	157	167	179	197	211	224	228	220	228	225	237	258	257	257	239	219	209	168	141	130	Diurnal Maximum	
Spd	18.4	18.6	17.7	16.8	17.1	19.4	21.2	25.9	28.2	29.6	28.1	25.4	30.0	30.0	29.3	35.2	32.9	35.2	29.3	28.9	23.3	21.0	21.4	19.2	Diurnal Maximum	
Dir	286	271	254	258	279	287	143	160	158	177	257	101	282	275	280	259	260	329	307	224	300	105	58	303	Diurnal Maximum	
Maximum Speed Value: 35 km/h on Jun 6 18:00		Minimum Speed Value: 0 km/h on Jun 7 05:00										Hours in Service: 720														
Maximum Daily Speed Average: 19.5 km/h on Jun 9		Minimum Daily Speed Average: 0.1 km/h on Jun 22										Hours of Data: 720														
Maximum Diurnal Speed Average: 7.9 km/h at hour 15		Minimum Diurnal Speed Average: 2.3 km/h at hour 24										Hours of Missing Data: 0														
Monthly Average Velocity: 3.66 km/h 210.3 deg		Speed Percentiles: P <sub>1</sub> = 1.4 P <sub>10</sub> = 5.0 Q <sub>1</sub> = 7.6 Median = 11.1 Q <sub>3</sub> = 15.7 P <sub>90</sub> = 20.4 P <sub>99</sub> = 29.9										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	5	15	4	1	0	0	25																			
NorthEast	4	19	11	1	0	0	35																			
East	15	46	51	17	0	0	129																			
SouthEast	9	36	33	12	0	0	90																			
South	11	34	37	9	2	0	93																			
SouthWest	7	73	47	9	2	0	138																			
West	10	36	71	28	8	0	153																			
NorthWest	11	21	18	3	4	0	57																			
Total	72	280	272	80	16	0	720																			

**Wind Rose**

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

**Falher - June 2014**



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Falher - June 2014

<b>Maximum Speed: 36 km/h on Jun 6 18:00</b>		<b>Maximum Daily Speed Average: 22.0 km/h on Jun 9</b>		Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Percent Operational Time: 100.0																							
<b>Minimum Speed: 1 km/h on Jun 7 05:00</b>		<b>Minimum Daily Speed Average: 6.9 km/h on Jun 22</b>																									
<b>Maximum Diurnal Speed Average: 16.1 km/h at hour 15</b>		<b>Minimum Diurnal Speed Average: 9.7 km/h at hour 6</b>																									
<b>Monthly Average Speed: 12.69 km/h</b>		Percentiles: $P_1 = 2.8$ $P_{10} = 6.0$ $Q_1 = 8.1$ Median = 11.7 $Q_3 = 16.3$ $P_{90} = 21.0$ $P_{99} = 30.4$																									
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-Jun	5	7	6	7	11	13	13	11	9	8	7	9	9	12	16	15	15	16	19	13	6	3	4	9	10.1	19.2	
2-Jun	7	6	9	11	10	11	11	13	12	10	9	12	11	10	11	13	9	8	12	14	14	14	15	16	11.0	16.1	
3-Jun	18	11	7	15	15	8	8	7	17	24	26	24	30	30	30	30	31	28	30	29	23	15	14	15	20.2	30.8	
4-Jun	15	15	15	13	13	14	17	16	11	12	11	17	16	14	16	15	16	13	16	15	15	18	19	19	15.0	19.3	
5-Jun	19	19	18	17	17	19	19	20	21	17	16	13	16	16	17	14	17	12	15	9	6	10	10	10	15.3	21.0	
6-Jun	11	12	13	16	16	12	14	13	12	9	10	14	13	18	21	21	24	36	15	11	6	9	2	5	13.8	35.6	
7-Jun	3	5	6	2	1	5	6	6	5	6	7	10	10	9	13	26	16	17	18	11	11	12	11	5	9.2	25.5	
8-Jun	5	6	8	10	9	9	12	14	17	22	20	19	13	11	21	6	14	14	12	10	13	13	15	13	12.8	21.8	
9-Jun	15	13	13	11	11	13	18	21	26	27	28	25	29	19	28	35	33	31	28	27	21	21	17	16	22.0	35.4	
10-Jun	18	17	15	15	13	12	10	13	19	18	17	15	11	10	13	10	9	11	10	9	10	8	2	5	12.1	18.8	
11-Jun	7	9	9	8	6	8	11	9	9	14	13	13	14	14	14	11	10	8	5	6	8	9	10	10	9.7	14.4	
12-Jun	10	10	11	14	13	10	13	17	18	20	21	24	26	23	22	18	19	18	19	20	18	15	12	17	17.1	26.4	
13-Jun	8	8	10	4	4	5	16	17	19	17	22	26	23	22	29	26	10	14	14	20	9	4	5	8	14.2	29.1	
14-Jun	10	8	10	10	15	15	21	26	28	30	22	23	20	18	19	21	26	22	21	22	19	14	14	13	18.7	29.9	
15-Jun	15	13	13	10	7	6	9	12	9	8	5	6	8	6	11	11	13	12	9	27	9	9	6	7	10.0	26.7	
16-Jun	8	7	5	2	3	6	7	9	8	4	6	8	18	25	20	18	9	28	23	19	11	7	12	8	11.2	27.8	
17-Jun	8	10	9	6	6	5	5	8	3	5	6	7	7	11	6	9	7	6	6	6	10	12	13	14	7.7	14.3	
18-Jun	12	13	13	12	12	15	21	21	15	12	9	9	14	21	20	16	14	14	9	10	8	7	5	7	12.9	21.3	
19-Jun	8	8	9	7	6	2	4	7	7	9	9	8	7	6	12	14	13	15	19	22	19	21	18	19	11.2	21.9	
20-Jun	15	13	13	14	12	11	13	10	8	7	10	9	8	18	18	12	7	7	10	13	12	10	10	11	11.4	18.2	
21-Jun	11	11	13	14	14	13	10	9	18	22	23	21	23	21	20	20	18	21	20	19	11	6	6	5	15.4	22.9	
22-Jun	6	7	5	6	6	4	6	8	9	10	11	10	8	8	7	7	8	7	6	6	6	6	4	5	6.9	10.5	
23-Jun	5	3	7	6	8	6	6	6	7	9	13	15	15	16	13	13	11	16	18	17	17	17	16	16	11.5	18.0	
24-Jun	17	17	15	15	15	17	21	25	24	23	21	16	15	11	10	8	13	23	22	29	18	10	8	8	16.8	29.4	
25-Jun	12	13	12	10	8	10	13	13	12	14	13	12	13	12	13	13	15	13	14	10	5	7	10	6	11.4	14.9	
26-Jun	5	4	4	8	8	6	6	9	8	7	8	10	14	14	12	15	11	9	10	5	5	5	8	9	8.4	14.8	
27-Jun	7	8	6	8	12	9	11	11	9	8	10	10	7	7	8	7	6	10	21	21	19	21	22	14	11.3	21.9	
28-Jun	11	11	6	6	9	9	10	10	12	9	11	11	12	11	11	11	7	7	6	7	8	12	11	8	9.4	11.9	
29-Jun	7	12	18	11	6	8	9	9	8	8	12	16	16	17	17	19	17	17	12	9	13	8	7	6	11.7	18.9	
30-Jun	6	7	7	6	6	7	8	12	16	16	19	19	17	17	18	20	20	15	13	18	8	3	6	9	12.3	20.0	
		10.2	10.2	10.2	9.8	9.8	9.7	11.5	12.8	13.3	13.5	13.8	14.4	14.9	15.0	16.1	15.8	14.6	15.5	15.1	15.1	11.9	10.8	10.4	10.4	Diurnal Average	
		18.6	18.8	17.8	17.0	17.2	19.5	21.3	26.0	28.4	29.9	28.4	26.0	30.3	30.5	29.9	35.4	33.1	35.6	29.7	29.4	23.3	21.1	21.9	19.3	Diurnal Maximum	
All monthly, daily, and diurnal averages have been calculated using scalar methods																											

# Hourly Standard Deviations

Wind Direction (WD) - deg

Falher - June 2014

Maximum Value: 89.7 deg on Jun 8 16:00																		Hours in Service: 720							
Minimum Value: 1.7 deg on Jun 6 05:00																		Hours of Data: 720							
Percentiles: P <sub>1</sub> = 2.6 P <sub>10</sub> = 4.7 Q <sub>1</sub> = 7.6 Median = 13.5 Q <sub>3</sub> = 23.8 P <sub>90</sub> = 41.8 P <sub>99</sub> = 78.1																		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-Jun	5	15	45	7	18	8	14	7	23	20	42	43	35	28	22	26	25	27	47	15	12	71	77	21	77.0
2-Jun	62	25	16	23	4	18	8	9	13	16	35	28	33	42	45	46	39	54	32	13	10	3	8	3	61.9
3-Jun	4	10	19	7	20	38	13	43	14	9	10	10	9	10	11	11	9	9	9	6	4	6	3	3	43.1
4-Jun	4	9	4	11	8	11	7	11	13	17	7	9	10	10	12	12	9	13	6	11	15	5	5	4	17.3
5-Jun	7	8	3	6	4	3	5	5	11	16	15	36	14	16	49	48	23	10	37	9	31	3	8	16	48.8
6-Jun	19	7	10	5	2	4	3	8	10	21	17	16	17	19	18	15	15	9	29	15	52	8	65	16	65.5
7-Jun	53	24	12	40	76	10	12	15	32	22	33	35	27	38	27	48	15	29	29	22	10	4	7	45	75.5
8-Jun	12	15	12	14	13	17	11	9	8	10	14	17	19	28	19	90	60	14	20	41	7	6	7	4	89.7
9-Jun	5	5	12	8	4	6	5	15	7	6	8	6	4	12	11	7	6	6	7	7	5	4	3	3	14.9
10-Jun	3	5	3	3	5	4	9	40	7	10	13	13	18	32	13	25	32	22	20	17	13	8	87	24	87.0
11-Jun	26	7	5	6	16	12	13	18	20	13	16	22	22	26	19	39	36	51	74	44	10	5	14	3	73.9
12-Jun	10	12	5	5	4	11	8	6	7	10	11	10	11	15	17	15	21	18	9	13	7	6	12	15	20.7
13-Jun	61	18	10	48	28	58	8	8	10	11	8	12	14	16	23	11	27	13	10	20	28	30	36	7	61.4
14-Jun	14	13	18	19	7	4	5	5	7	8	9	20	11	19	21	17	6	8	12	11	8	7	3	5	21.2
15-Jun	3	3	4	7	19	18	8	8	12	24	50	76	38	55	34	35	17	22	34	8	82	18	43	18	82.4
16-Jun	19	39	24	77	18	5	7	14	18	56	45	45	63	36	28	15	70	25	5	6	10	60	46	17	77.4
17-Jun	79	39	10	12	16	15	18	6	19	30	27	40	42	36	74	44	59	45	43	20	12	3	4	3	78.9
18-Jun	7	2	3	4	5	10	4	8	12	10	26	16	16	12	14	23	24	17	21	11	6	11	88	30	88.0
19-Jun	18	13	14	37	77	39	44	9	31	17	26	58	68	79	67	4	9	7	29	3	2	3	6	3	79.2
20-Jun	5	6	4	5	3	3	27	22	10	14	32	28	31	23	7	14	28	22	16	14	10	9	6	8	31.6
21-Jun	3	4	4	3	3	5	10	8	6	11	11	15	13	17	15	17	17	14	14	7	5	4	21	33	33.1
22-Jun	42	18	24	20	24	27	15	11	11	14	22	36	55	73	74	53	71	88	67	31	23	5	31	15	88.0
23-Jun	11	20	10	19	32	11	14	16	21	17	18	22	28	25	50	19	28	23	7	4	5	4	6	10	50.0
24-Jun	3	2	2	3	3	4	3	5	6	12	10	14	32	36	23	39	80	21	21	11	5	21	7	14	79.9
25-Jun	8	13	6	6	10	6	6	7	7	7	12	13	19	15	14	16	14	13	9	8	18	4	4	20	20.4
26-Jun	39	32	20	20	19	15	16	9	15	20	18	22	19	21	25	26	29	25	11	17	16	33	11	6	39.3
27-Jun	25	12	31	11	19	10	8	11	15	17	26	28	54	39	34	55	63	42	34	14	24	40	13	14	63.1
28-Jun	50	23	34	58	24	7	13	9	10	11	14	15	14	21	17	13	25	22	20	28	7	8	8	84	84.4
29-Jun	46	22	14	10	69	14	15	12	12	11	9	7	7	8	7	8	7	8	9	12	4	6	9	7	69.0
30-Jun	6	5	32	10	13	10	10	6	6	7	8	11	12	12	11	12	10	7	30	8	22	32	46	8	45.7
	78.9	39.0	45.3	77.4	77.1	58.3	43.6	43.1	31.6	55.9	50.4	76.3	67.8	79.2	74.4	89.7	79.9	88.0	73.9	43.6	82.4	71.1	88.0	84.4	

PAZA

Portable – Clairmont Station  
Monthly Summary Tables, Graphs and  
Roses

## Hourly Averages

## Sulphur Dioxide (SO<sub>2</sub>) - ppb Portable Clairmont - June 2014

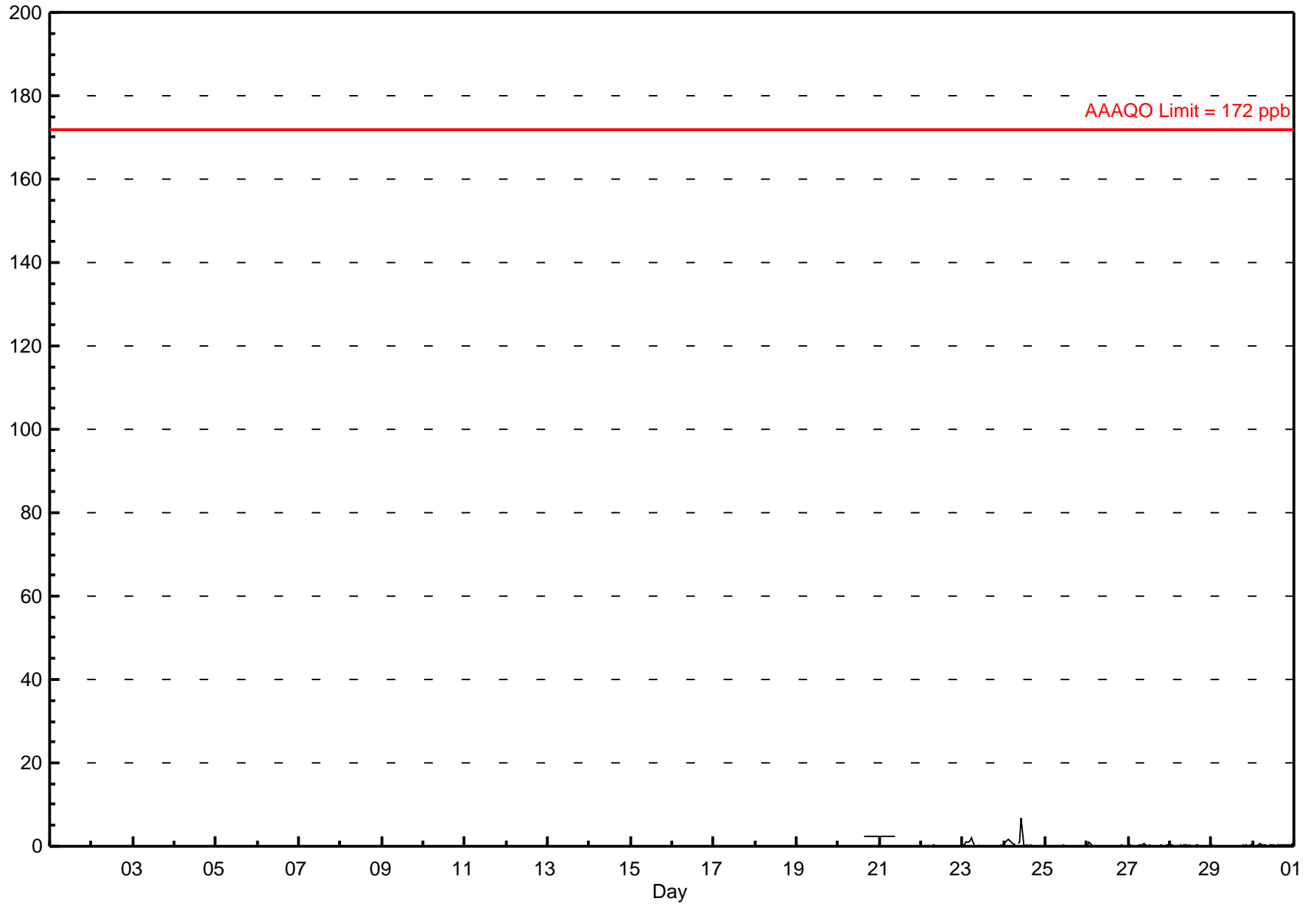
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	252
Maximum Value: 6.7 ppb on Jun 24 11:00	Maximum Daily Average: 1.1 ppb on Jun 21		Hours of Data:	239
Minimum Value: 0 ppb on Jun 21 18:00	Minimum Daily Average: 0.0 ppb on Jun 22		Hours of Missing Data:	13
Maximum Diurnal Average: 0.9 ppb at hour 11	Minimum Diurnal Average: 0.1 ppb at hour 14		Hours of Calibration:	13
Monthly Average: 0.40 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> = 0.3 P <sub>90</sub> = 1.4 P <sub>99</sub> = -1.2		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-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
2-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
3-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
4-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
5-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
6-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
7-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
8-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
9-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
10-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
11-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
12-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
13-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
14-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
15-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
16-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
17-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
18-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
19-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	C	2	2	2	2	2	2	2	2	2	--	2.4																							
21-Jun	2	2	3	2	2	3	2	2	2	2	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1	2.5																							
22-Jun	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	0.2																							
23-Jun	0	0	1	1	1	2	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.0																							
24-Jun	1	1	2	1	1	1	0	A	1	1	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	6.7																							
25-Jun	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	0.2																							
26-Jun	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.1																							
27-Jun	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7																							
28-Jun	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4																							
29-Jun	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3																							
30-Jun	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.6																							
																								0.4	0.7	0.6	0.6	0.6	0.6	0.4	0.5	0.5	0.9	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	Diurnal Average	
																								2.4	2.4	2.5	2.5	2.4	2.5	2.5	2.4	2.4	2.3	6.7	0.3	0.3	0.2	0.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	Diurnal Maximum

C - Calibration      NS - Not in service      A - Automated Daily Zero Span  
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb    24-hr 48 ppb    30-day 11 ppb

### Hourly Averages

Sulphur Dioxide (SO<sub>2</sub>) - ppb  
Portable Clairmont - June 2014



# Hourly Maximums

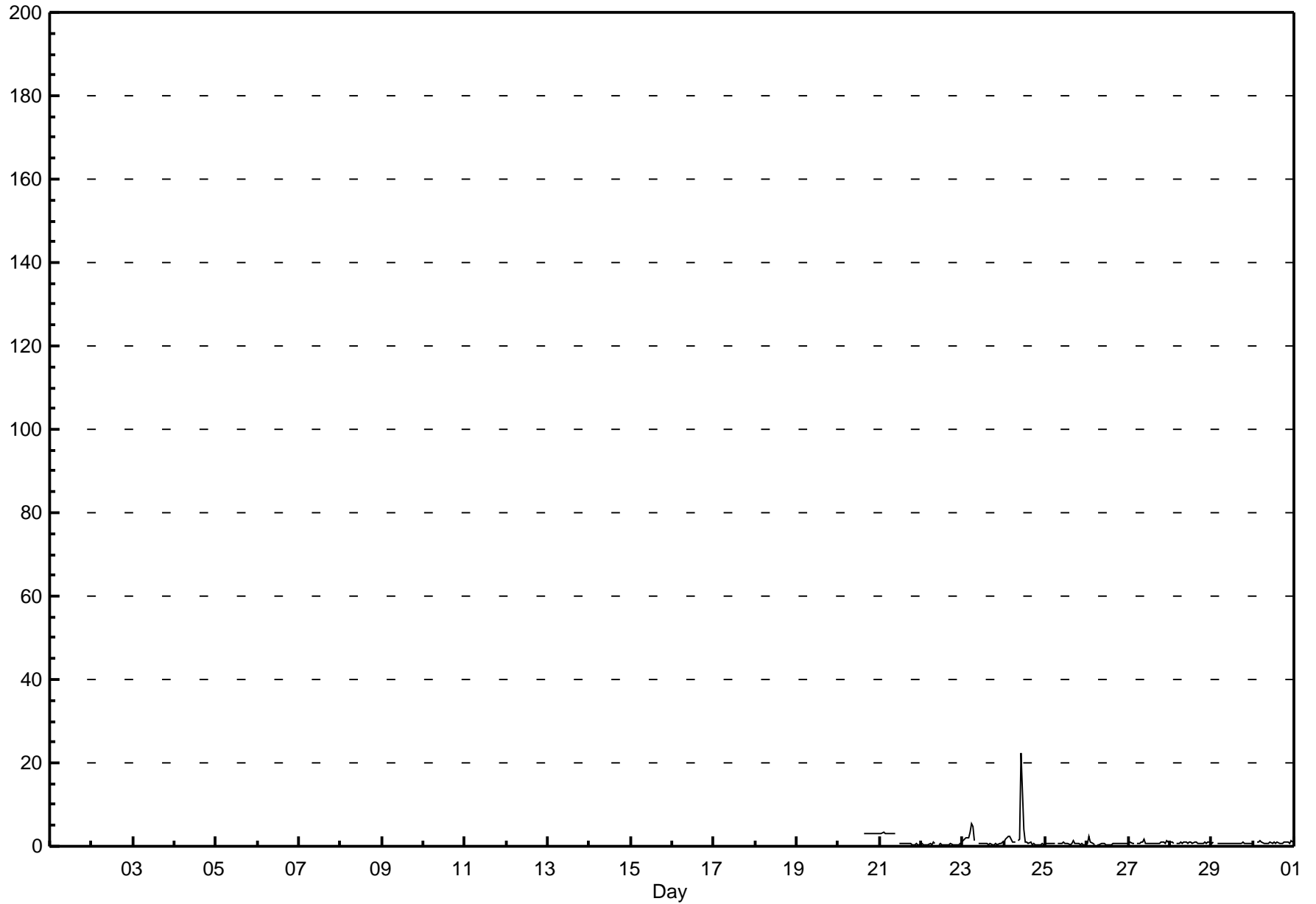
## Sulphur Dioxide (SO<sub>2</sub>) - ppb Portable Clairmont - June 2014

Maximum Value: 22.4 ppb on Jun 24 11:00		Maximum Daily Average: 2.1 ppb on Jun 24		Hours in Service: 252																																														
Minimum Value: 0 ppb on Jun 23 19:00		Minimum Daily Average: 0.6 ppb on Jun 22		Hours of Data: 239																																														
Maximum Diurnal Average: 3.1 ppb at hour 11		Minimum Diurnal Average: 0.6 ppb at hour 14		Hours of Missing Data: 13																																														
Monthly Average: 1.08 ppb		Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.5 Median = 0.7 Q <sub>3</sub> = 1.0 P <sub>90</sub> = 2.9 P <sub>99</sub> = -9.4		Hours of Calibration: 13																																														
				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-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																								
2-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
3-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
4-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
5-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
6-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
7-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
8-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
9-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
10-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
11-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
12-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
13-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
14-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
15-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
16-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
17-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
18-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
19-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	C	3	3	3	3	3	3	3	3	3	3	--	2.9																							
21-Jun	3	3	3	3	3	3	3	3	3	3	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.6	3.4																							
22-Jun	1	0	0	0	0	1	0	1	1	A	1	1	1	0	0	0	0	0	1	0	0	0	0	1	1	0.6	1.0																							
23-Jun	1	2	2	2	3	6	5	1	A	1	1	1	1	1	1	0	1	0	0	1	0	1	1	1	1	1.4	5.5																							
24-Jun	1	2	2	2	2	1	1	A	1	2	22	4	1	1	1	1	0	1	0	0	0	0	1	1	1	2.1	22.4																							
25-Jun	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0.6	1.5																							
26-Jun	1	2	1	1	0	A	0	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0.7	2.3																							
27-Jun	1	1	1	1	A	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.6																							
28-Jun	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0																							
29-Jun	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0																							
30-Jun	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3																							
																								1.0	1.4	1.3	1.2	1.4	1.5	1.4	1.0	1.1	1.2	3.1	1.0	0.7	0.6	0.6	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.9	1.0	Diurnal Average		
																								2.9	2.9	3.4	2.9	3.4	5.5	4.8	2.9	3.0	2.9	22.4	4.2	0.9	0.9	0.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	Diurnal Maximum	
C - Calibration																								NS - Not in service								A - Automated Daily Zero Span																		



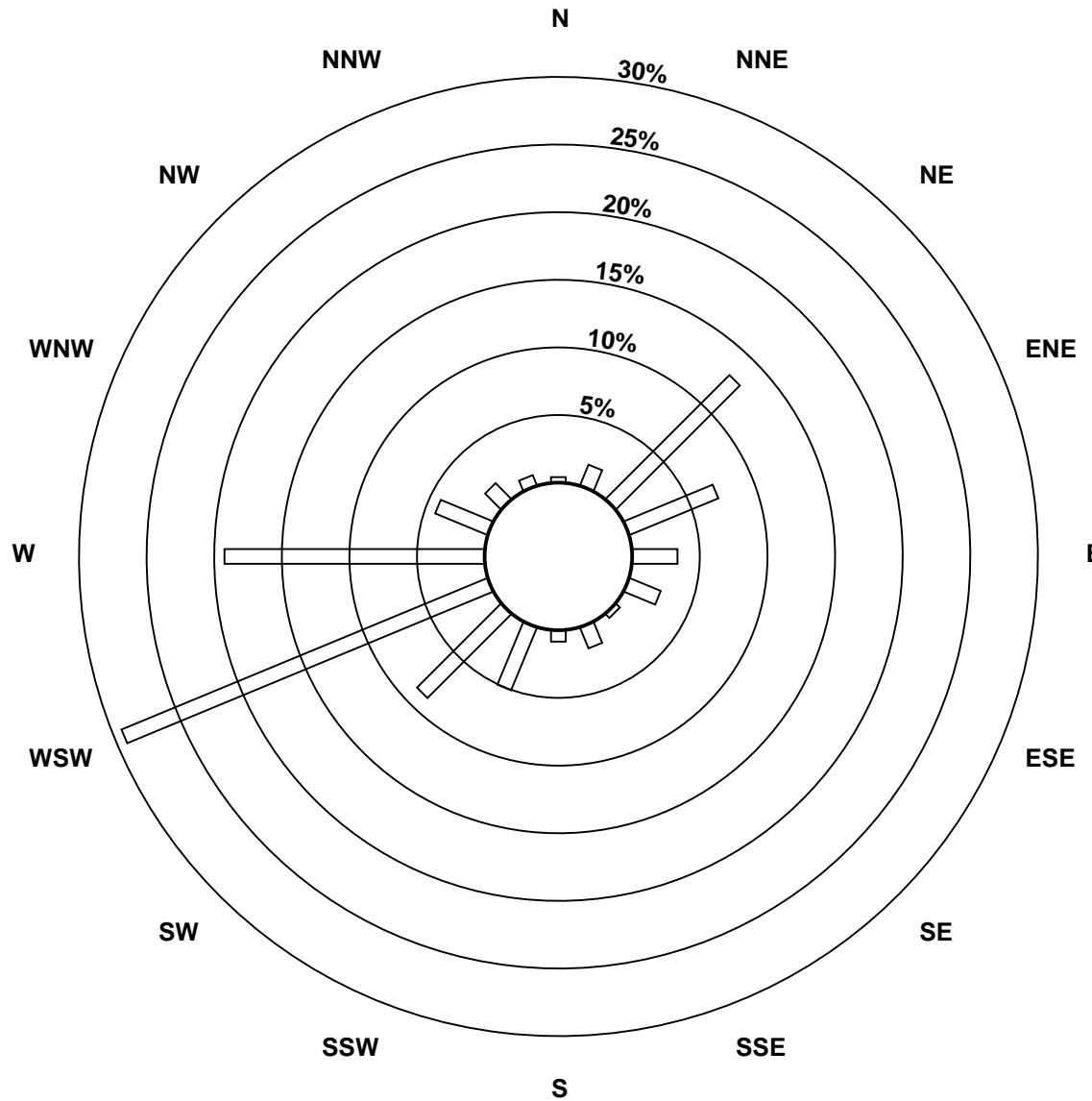
**Hourly Maximums**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Portable Clairmont - June 2014**

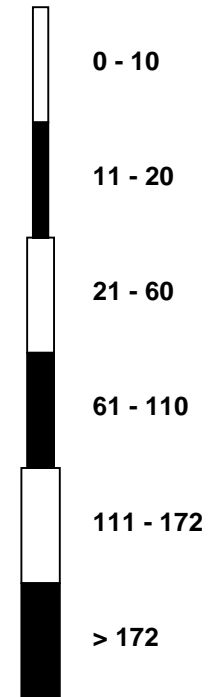


**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Portable Clairmont - June 2014**

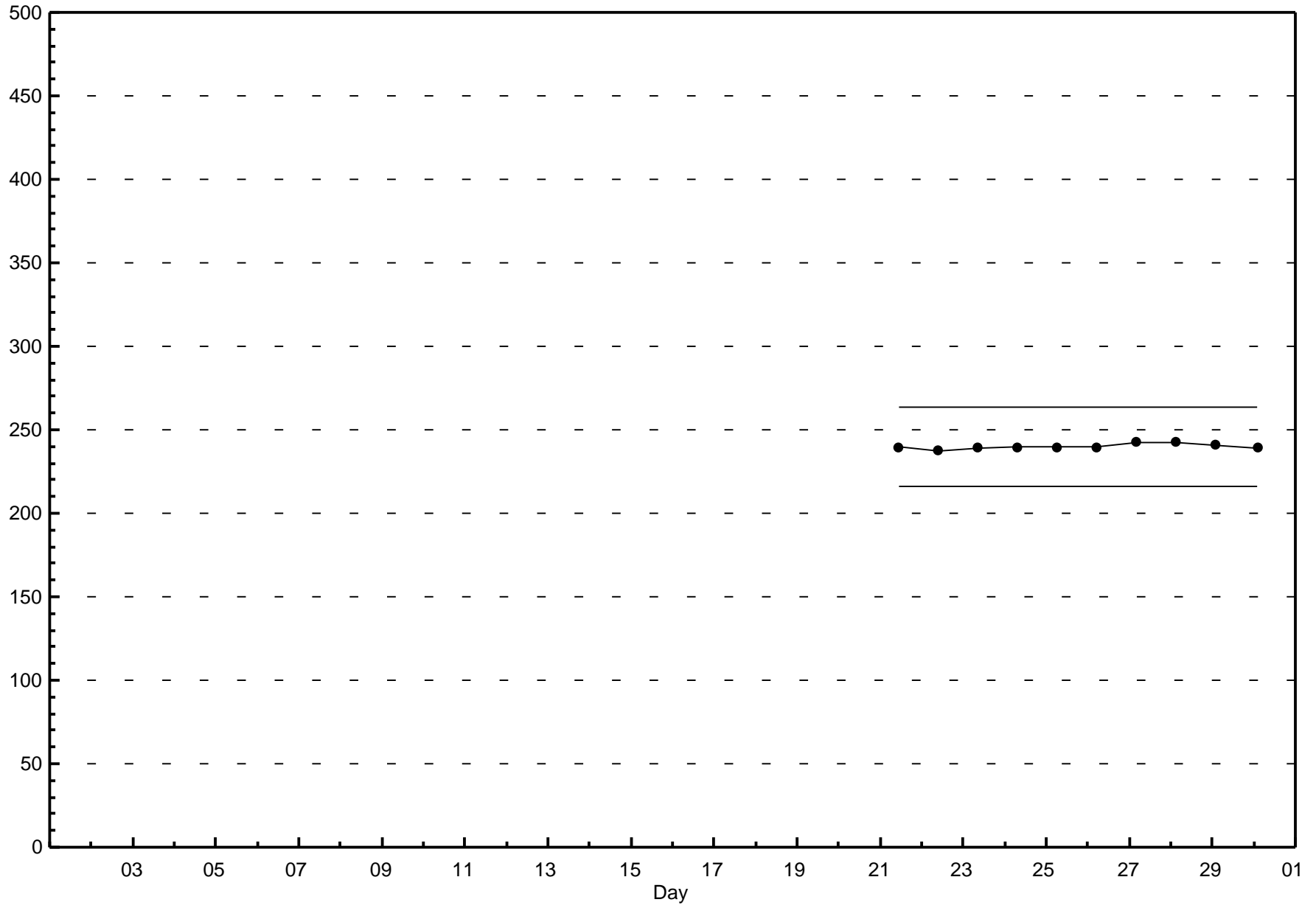


**Pollutant Classes (ppb)**



### Span Responses

Sulphur Dioxide (SO<sub>2</sub>)  
Portable Clairmont - June 2014



## Hourly Averages

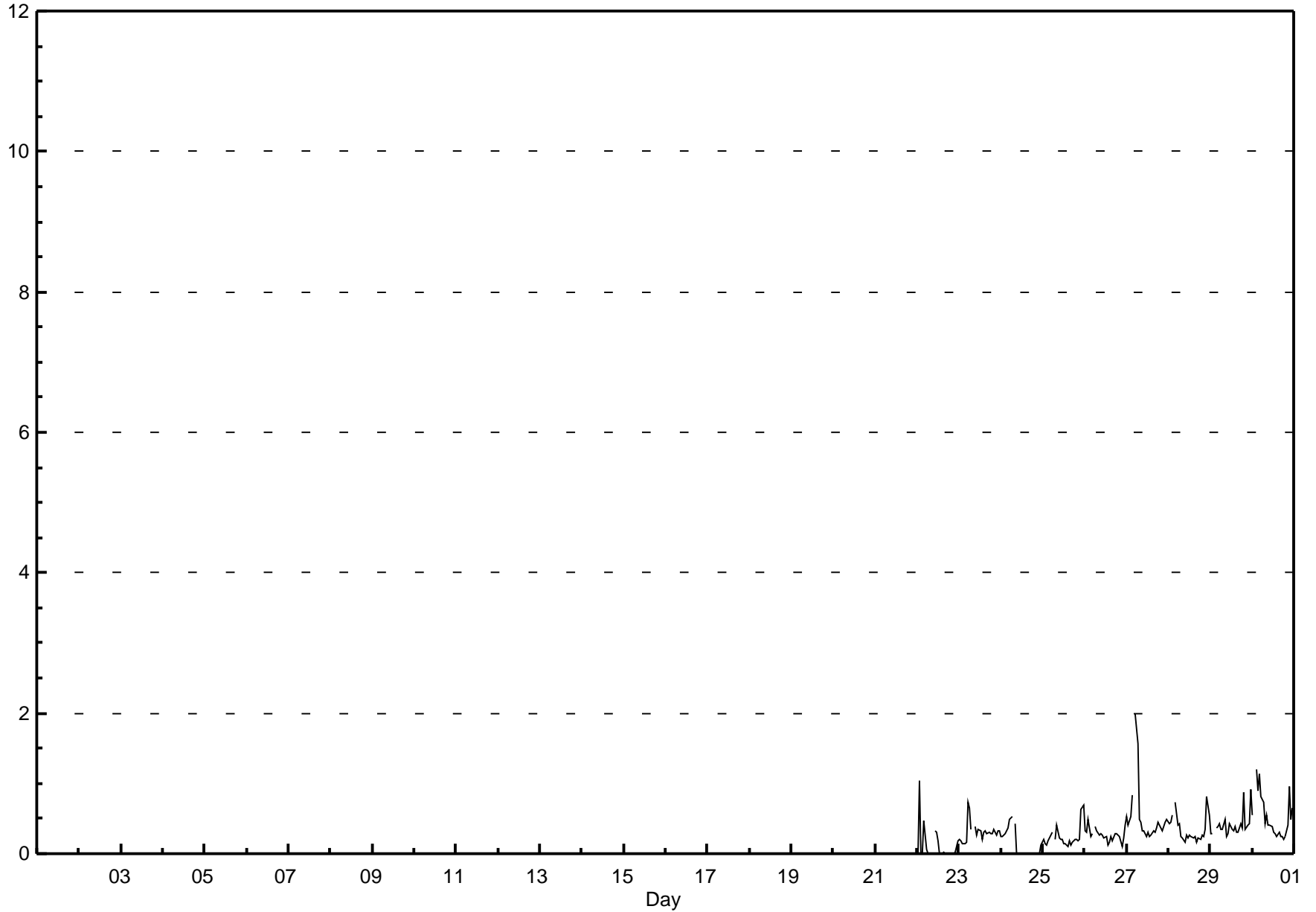
Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - June 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	226
Maximum Value: 2.0 ppb on Jun 27 06:00	Maximum Daily Average: 0.5 ppb on Jun 30		Hours of Data:	214
Minimum Value: 0 ppb on Jun 21 18:00	Minimum Daily Average: 0.1 ppb on Jun 22		Hours of Missing Data:	12
Maximum Diurnal Average: 0.7 ppb at hour 6	Minimum Diurnal Average: 0.2 ppb at hour 14		Hours of Calibration:	12
Monthly Average: 0.31 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.2 Median = 0.3 Q <sub>3</sub> = 0.4 P <sub>90</sub> = 0.5 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-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
2-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
3-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
4-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
5-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
6-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
7-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
8-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
9-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
10-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
11-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
12-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
13-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
14-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
15-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
16-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
17-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
18-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
19-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	C	0	0	0	0	0	0	0	0	--	0.0																						
22-Jun	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0																						
23-Jun	0	0	0	0	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7																						
24-Jun	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5																						
25-Jun	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.2	0.7																						
26-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5																						
27-Jun	1	0	1	1	A	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.0																						
28-Jun	0	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.3	0.8																						
29-Jun	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0.4	0.9																						
30-Jun	1	A	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.5	1.2																						
																								0.3	0.4	0.4	0.5	0.7	0.6	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	0.3	0.2	0.3	0.3	0.4	Diurnal Average
																								0.5	1.0	1.2	0.9	1.1	2.0	1.6	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.9	0.4	1.0	0.8	0.9	Diurnal Maximum

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



# Hourly Maximums

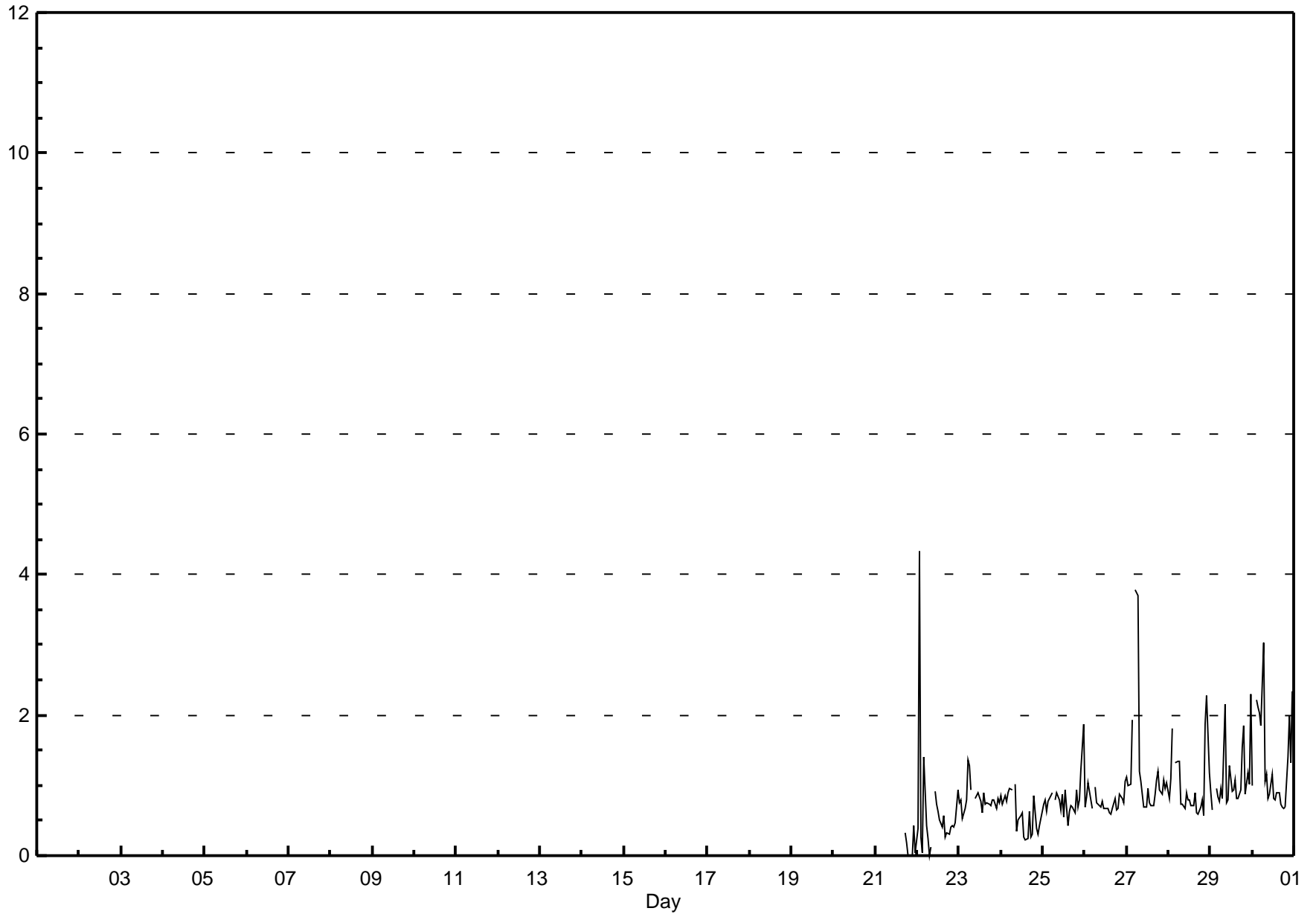
Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - June 2014

Maximum Value: 4.3 ppb on Jun 22 02:00										Maximum Daily Average: 1.3 ppb on Jun 30										Hours in Service: 226						
Minimum Value: 0 ppb on Jun 21 20:00										Minimum Daily Average: 0.6 ppb on Jun 24										Hours of Data: 214						
Maximum Diurnal Average: 1.6 ppb at hour 7										Minimum Diurnal Average: 0.6 ppb at hour 18										Hours of Missing Data: 12						
Monthly Average: 0.89 ppb										Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 0.7 Median = 0.8 Q <sub>3</sub> = 1.0 P <sub>90</sub> = 1.4 P <sub>99</sub> = 3.4										Hours of Calibration: 12						
																				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-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
2-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
3-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
4-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
5-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
6-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
7-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
8-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
9-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
10-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
11-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
12-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
13-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
14-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
15-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
16-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
17-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
18-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
19-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	C	0	0	0	0	0	0	0	--	0.4
22-Jun	0	4	0	0	1	0	0	0	0	A	1	1	1	1	0	1	0	0	0	0	0	0	0	1	0.6	4.3
23-Jun	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4
24-Jun	1	1	1	1	1	1	1	A	1	0	1	1	1	0	0	0	1	0	0	1	0	0	0	1	0.6	1.0
25-Jun	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	2	0.8	1.9
26-Jun	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
27-Jun	1	1	1	2	A	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	3.8
28-Jun	1	1	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1.0	2.3
29-Jun	1	1	A	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	2	2	1	1	1	2	1.1	2.3
30-Jun	1	A	2	2	2	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	1.3	3.0
										Diurnal Average																
										Diurnal Maximum																
C - Calibration										NS - Not in service										A - Automated Daily Zero Span						

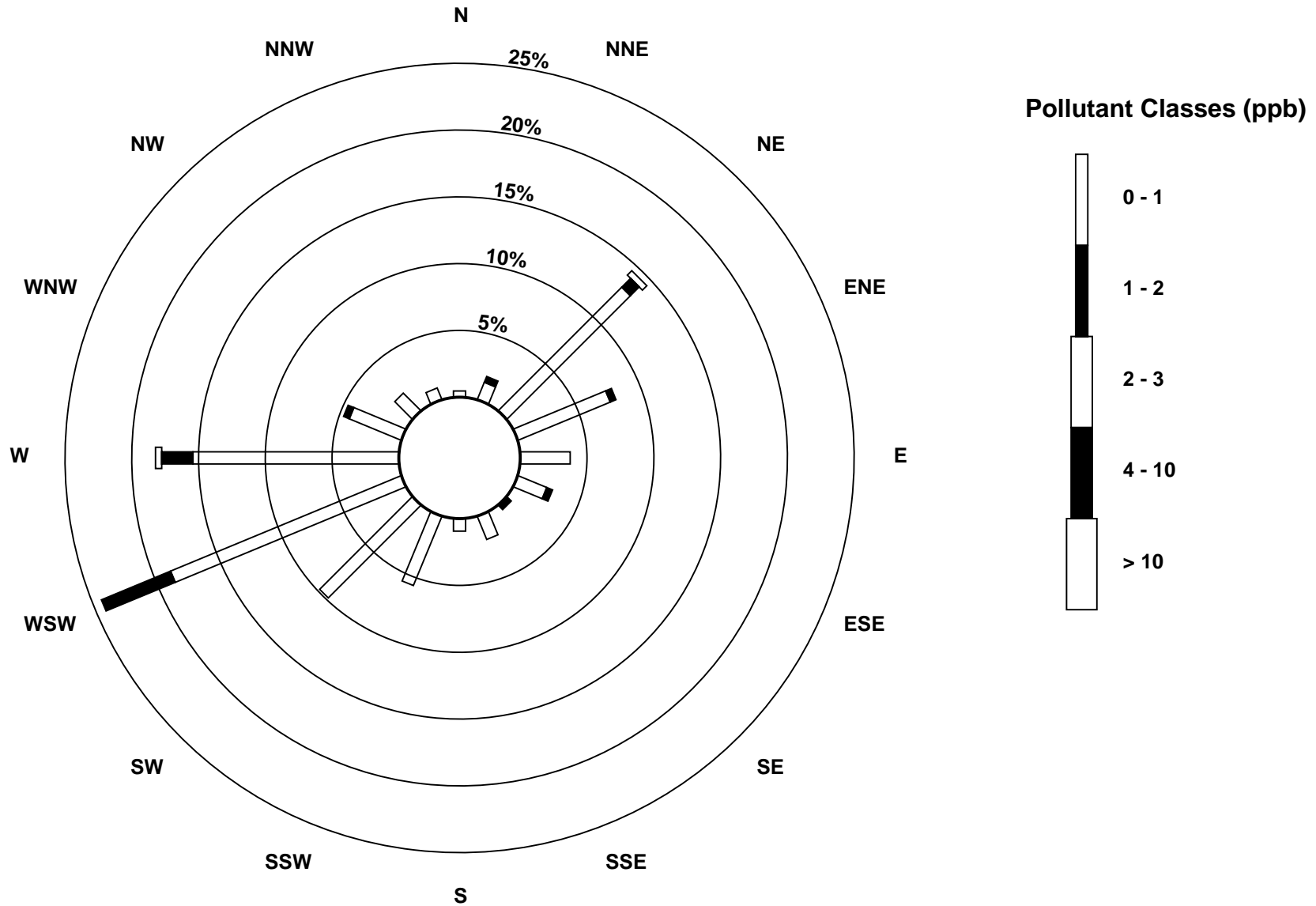
**Hourly Maximums**

**Total Reduced Sulphur (TRS) - ppb**  
**Portable Clairmont - June 2014**



**Pollutant Rose**

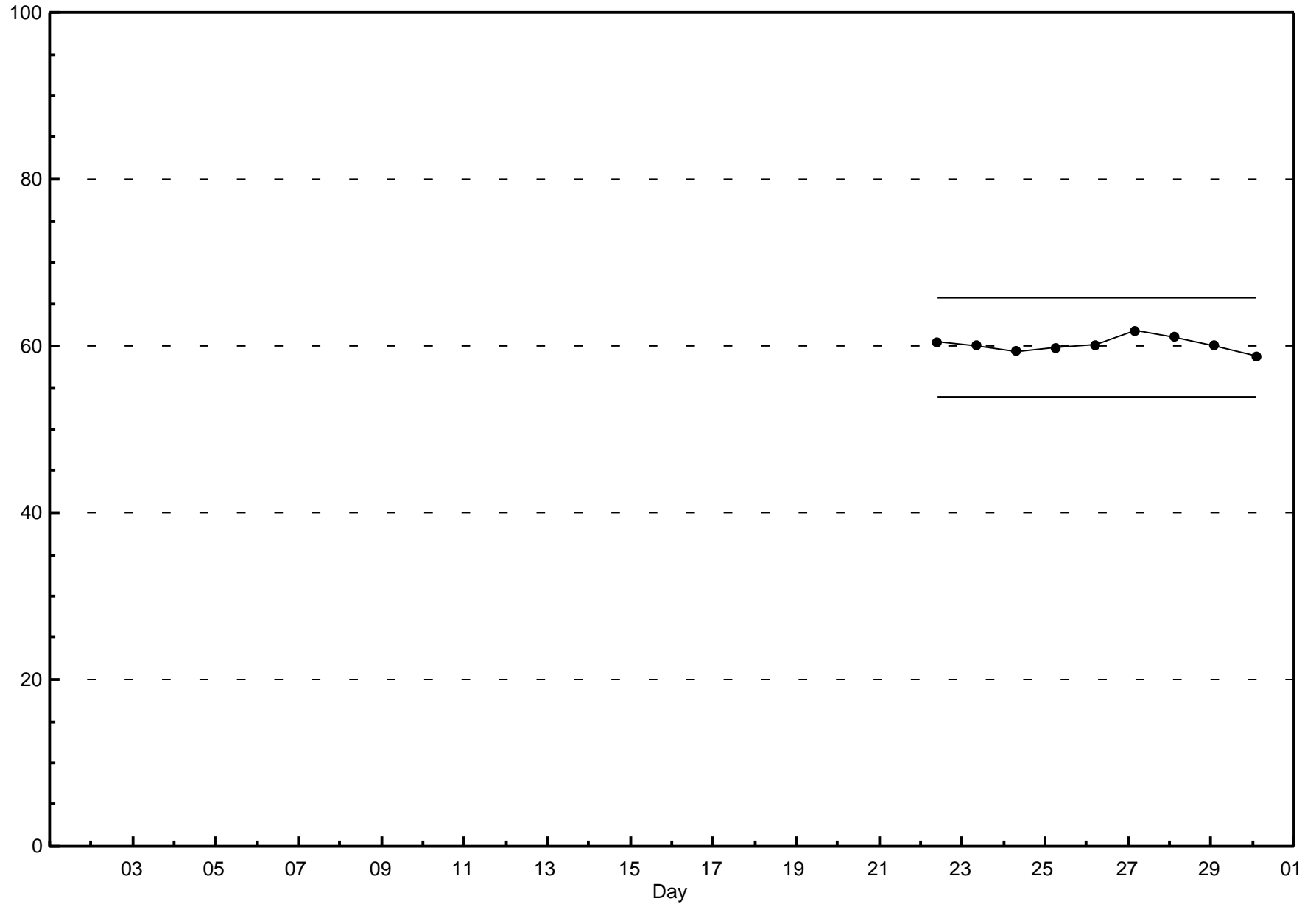
**Total Reduced Sulphur (TRS) - ppb**  
**Portable Clairmont - June 2014**





**Span Responses**

**Total Reduced Sulphur (TRS)  
Portable Clairmont - June 2014**



## Hourly Averages

## Nitrogen Dioxide (NO<sub>2</sub>) - ppb Portable Clairmont - June 2014

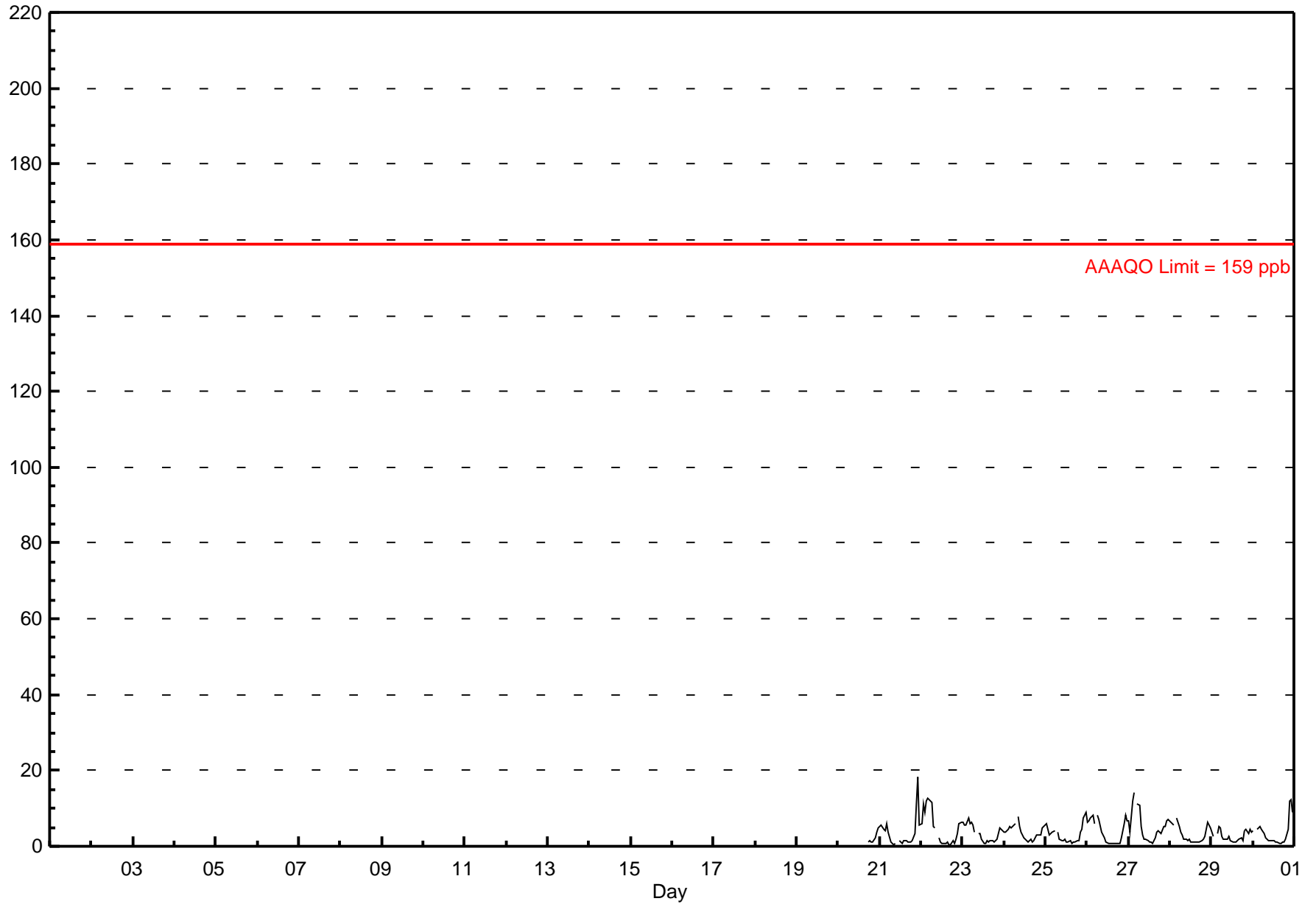
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	253
Maximum Value: 18.2 ppb on Jun 21 23:00	Maximum Daily Average: 5.0 ppb on Jun 27		Hours of Data:	237
Minimum Value: 0 ppb on Jun 21 09:00	Minimum Daily Average: 2.7 ppb on Jun 29		Hours of Missing Data:	16
Maximum Diurnal Average: 7.6 ppb at hour 23	Minimum Diurnal Average: 1.0 ppb at hour 14		Hours of Calibration:	16
Monthly Average: 3.64 ppb	Percentiles: P <sub>1</sub> = 0.6 P <sub>10</sub> = 0.9 Q <sub>1</sub> = 1.3 Median = 2.8 Q <sub>3</sub> = 5.1 P <sub>90</sub> = 7.3 P <sub>99</sub> = 10.8		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-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
2-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
3-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
4-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
5-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
6-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
7-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
8-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
9-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
10-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
11-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
12-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
13-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
14-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
15-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
16-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
17-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
18-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
19-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	C	C	C	C	1	1	1	1	2	4	5	--	5.0																						
21-Jun	5	6	4	4	6	4	1	1	0	1	A	2	1	1	1	1	1	1	1	2	3	11	18	5	3.6	18.2																						
22-Jun	6	11	9	12	13	12	12	5	5	A	2	1	1	1	1	1	1	0	2	1	2	4	6	6	4.9	12.5																						
23-Jun	6	6	6	8	6	6	6	4	A	3	3	2	1	1	1	1	1	2	1	2	2	5	4	4	3.5	7.5																						
24-Jun	4	4	4	5	5	5	6	A	8	5	4	2	2	1	1	2	1	1	2	3	3	3	5	5	3.6	7.7																						
25-Jun	6	4	3	3	4	4	A	4	2	2	1	2	1	1	1	1	1	1	1	2	4	5	8	9	3.0	8.8																						
26-Jun	6	7	7	8	6	A	8	7	4	3	2	1	1	1	1	1	1	1	1	1	2	6	8	7	3.9	8.4																						
27-Jun	7	4	12	14	A	11	11	5	3	2	2	1	1	1	1	2	4	4	4	3	5	5	7	7	5.0	14.3																						
28-Jun	6	6	6	A	8	5	4	3	2	2	1	2	1	1	1	1	1	1	1	2	3	4	7	5	3.2	7.6																						
29-Jun	4	2	A	3	5	5	3	2	2	2	3	2	1	1	1	1	1	2	2	4	4	3	4	4	2.7	5.1																						
30-Jun	4	A	5	5	5	5	3	2	2	1	1	1	1	1	1	1	1	1	1	2	4	12	12	9	3.6	12.4																						
																								5.4	5.5	6.2	7.0	6.3	6.3	5.9	3.7	3.0	2.3	2.3	1.6	1.2	1.0	1.1	1.3	1.4	1.5	1.6	1.9	3.1	5.5	7.6	6.0	Diurnal Average
																								6.8	11.3	12.0	14.3	12.5	12.0	11.6	7.2	7.7	5.4	3.7	2.1	1.9	1.4	1.4	2.3	3.6	4.1	3.7	4.2	5.1	11.8	18.2	9.0	Diurnal Maximum

C - Calibration      NS - Not in service      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 - June 2014**



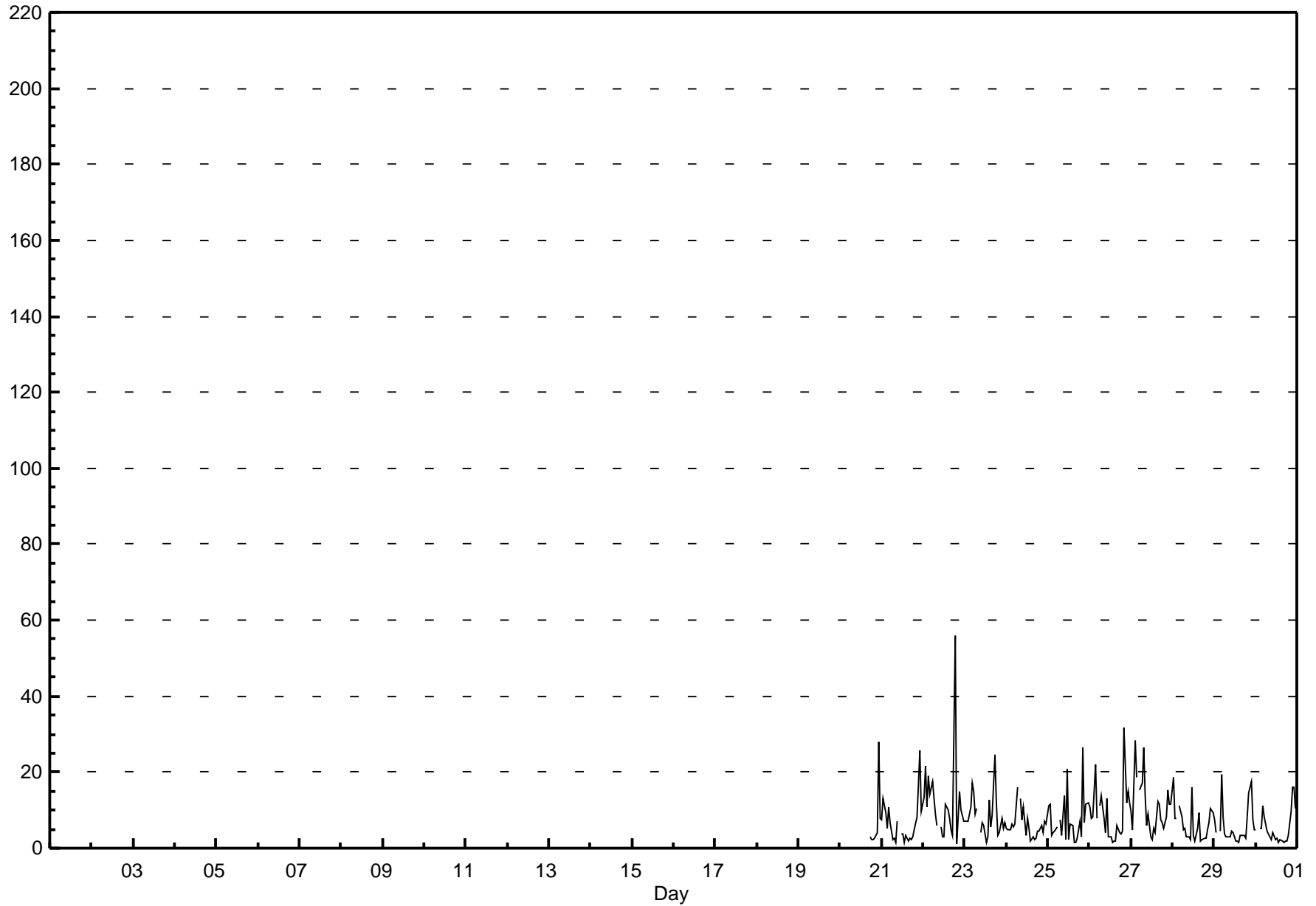
# Hourly Maximums

## Nitrogen Dioxide (NO<sub>2</sub>) - ppb Portable Clairmont - June 2014

Maximum Value: 55.8 ppb on Jun 22 19:00      Maximum Daily Average: 11.8 ppb on Jun 22 Minimum Value: 1 ppb on Jun 22 20:00      Minimum Daily Average: 5.4 ppb on Jun 30 Maximum Diurnal Average: 13.5 ppb at hour 23      Minimum Diurnal Average: 3.2 ppb at hour 13 Monthly Average: 7.81 ppb      Percentiles: P <sub>1</sub> = 1.5 P <sub>10</sub> = 2.1 Q <sub>1</sub> = 3.2 Median = 6.0 Q <sub>3</sub> = 10.7 P <sub>90</sub> = 15.9 P <sub>99</sub> = 10.6																								Hours in Service: 253 Hours of Data: 237 Hours of Missing Data: 16 Hours of Calibration: 16 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-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
2-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
3-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
4-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
5-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
6-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
7-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
8-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
9-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
10-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
11-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
12-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
13-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
14-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
15-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
16-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
17-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
18-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
19-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	C	C	C	C	3	2	2	3	4	28	8	--	27.8																						
21-Jun	7	13	9	5	11	7	2	3	1	7	A	4	4	2	3	2	3	2	3	5	8	17	26	10	6.7	25.8																						
22-Jun	13	22	11	19	14	17	13	9	6	A	6	3	3	12	10	8	5	3	56	1	8	15	10	7	11.8	55.8																						
23-Jun	7	7	7	11	17	15	9	10	A	4	7	6	2	3	13	5	9	25	12	3	4	8	5	7	8.5	24.5																						
24-Jun	5	5	5	6	6	6	16	A	13	7	11	3	8	5	2	3	2	3	4	4	6	4	7	6	6.0	15.9																						
25-Jun	11	12	3	4	5	6	A	8	3	14	2	21	2	6	6	2	2	3	7	3	26	7	11	12	7.6	26.5																						
26-Jun	11	8	8	22	8	A	11	14	8	4	13	3	3	2	2	2	6	4	4	4	32	12	15	12	9.0	31.6																						
27-Jun	10	5	28	18	A	15	17	27	14	6	9	3	2	5	4	12	12	7	7	5	8	15	11	11	11.0	28.2																						
28-Jun	19	8	8	A	11	8	5	5	3	3	2	16	3	2	5	9	2	2	3	3	5	7	11	9	6.5	18.8																						
29-Jun	7	4	A	4	19	8	4	3	3	3	4	2	2	2	3	3	4	3	8	14	17	8	5	5	5.9	19.4																						
30-Jun	5	A	5	5	11	8	4	4	3	2	4	2	3	2	2	2	2	2	2	3	10	16	16	11	5.4	16.2																						
																								9.6	9.2	9.4	10.7	11.3	10.1	9.1	9.0	6.0	5.6	6.5	6.5	3.2	4.0	4.8	4.8	4.4	5.2	9.3	3.9	11.3	11.1	13.5	8.9	Diurnal Average
																								18.8	21.5	28.2	22.0	19.4	17.5	17.0	26.6	13.7	13.6	13.2	20.8	8.0	11.5	12.6	12.2	11.7	24.5	55.8	8.3	31.6	17.5	27.8	11.9	Diurnal Maximum
C - Calibration																								NS - Not in service						A - Automated Daily Zero Span																		

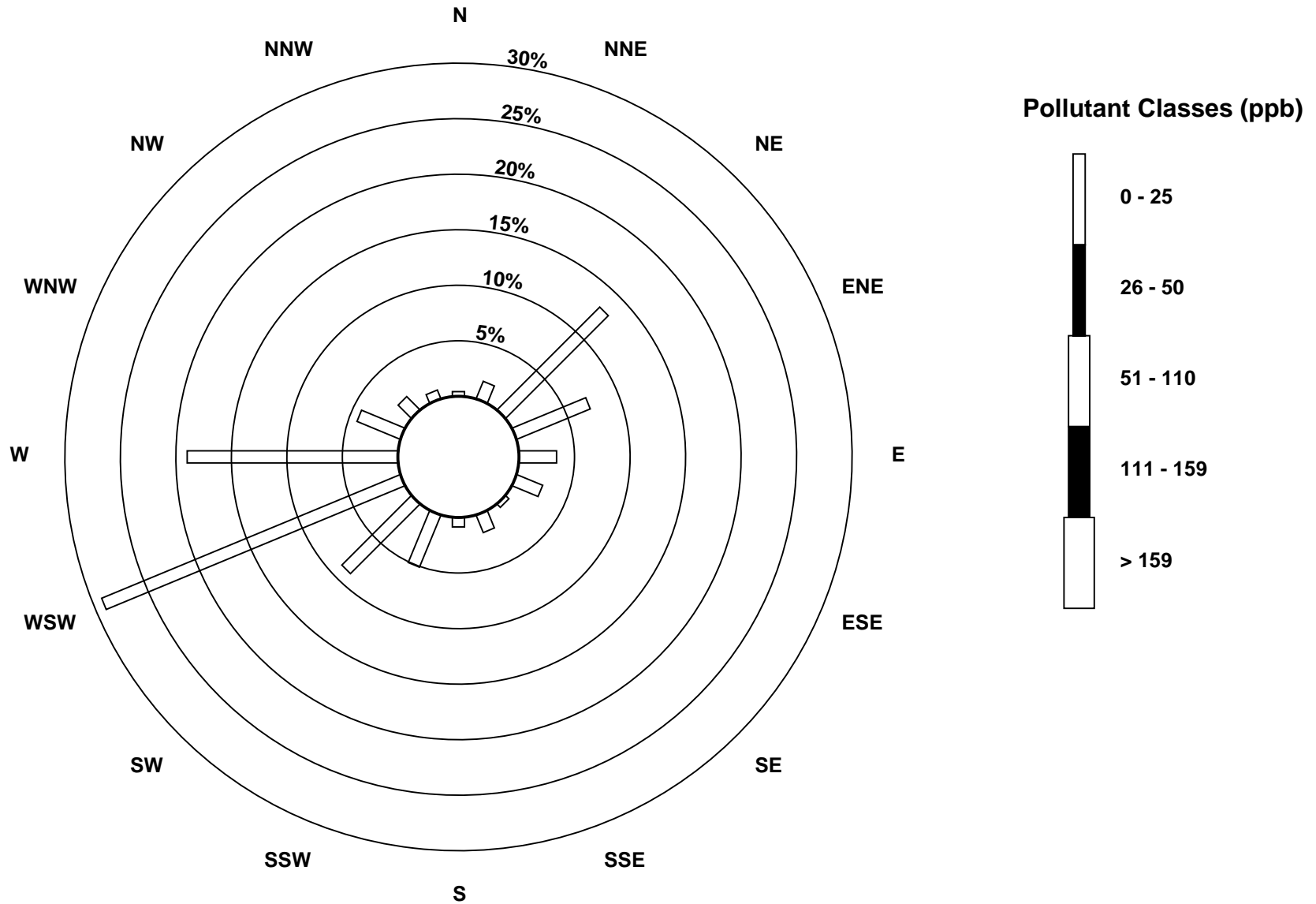
### Hourly Maximums

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Portable Clairmont - June 2014**



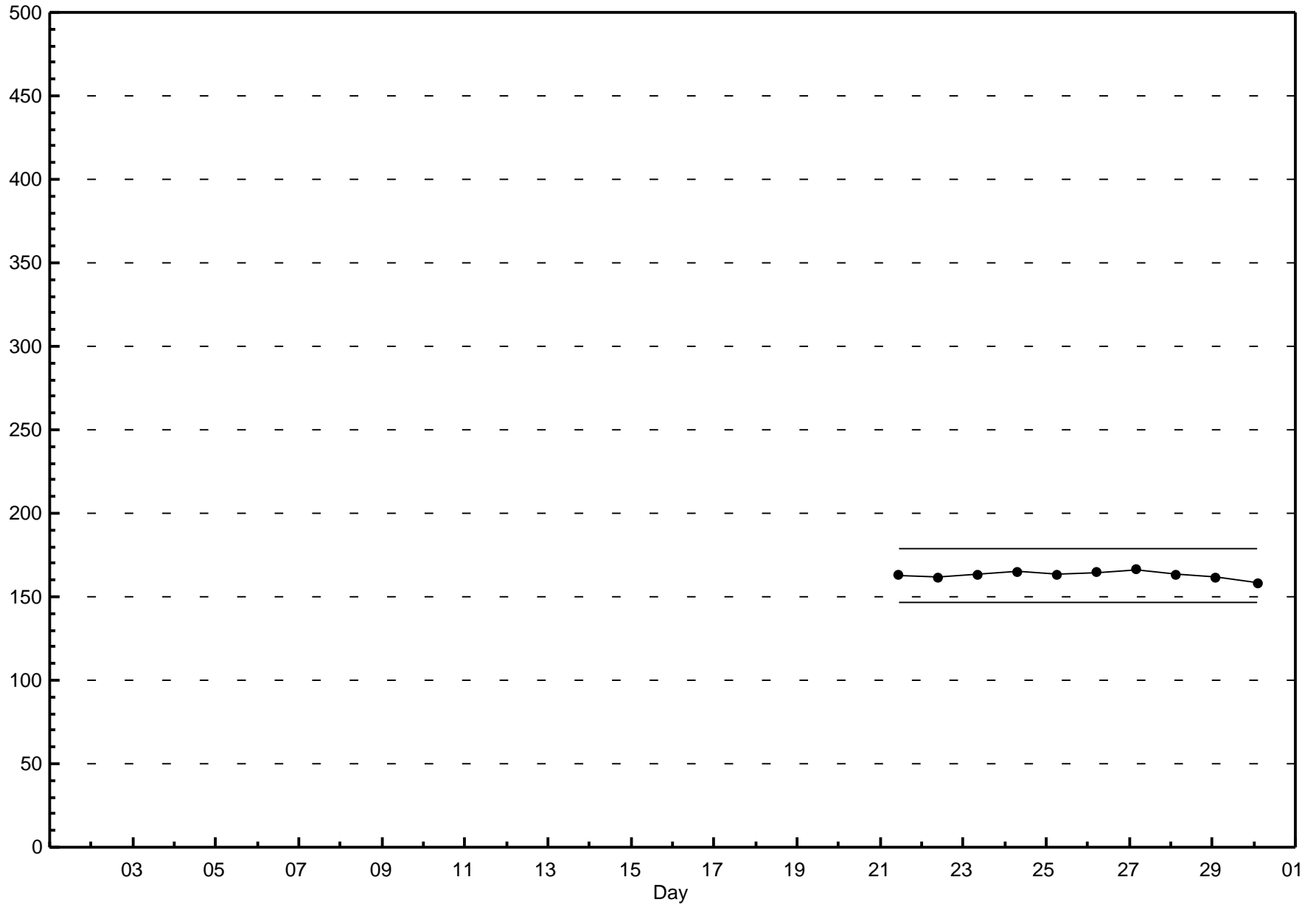
**Pollutant Rose**

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Portable Clairmont - June 2014**



**Span Responses**

**Nitrogen Dioxide (NO<sub>2</sub>)**  
**Portable Clairmont - June 2014**





Peace Airshed Zone Association

# Hourly Averages

Nitrogen Oxide (NO) - ppb

Portable Clairmont - June 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 253
Maximum Value: 11.3 ppb on Jun 27 07:00	Maximum Daily Average: 1.8 ppb on Jun 22
Minimum Value: 0 ppb on Jun 27 02:00	Hours of Data: 237
Maximum Diurnal Average: 3.5 ppb at hour 7	Hours of Missing Data: 16
Monthly Average: 0.94 ppb	Hours of Calibration: 16
Minimum Daily Average: 0.4 ppb on Jun 24	Percent Operational Time: 100.0
Minimum Diurnal Average: 0.4 ppb at hour 13	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 0.3 Median = 0.4 Q <sub>3</sub> = 1.0 P <sub>90</sub> = 2.1 P <sub>99</sub> = 6.7	

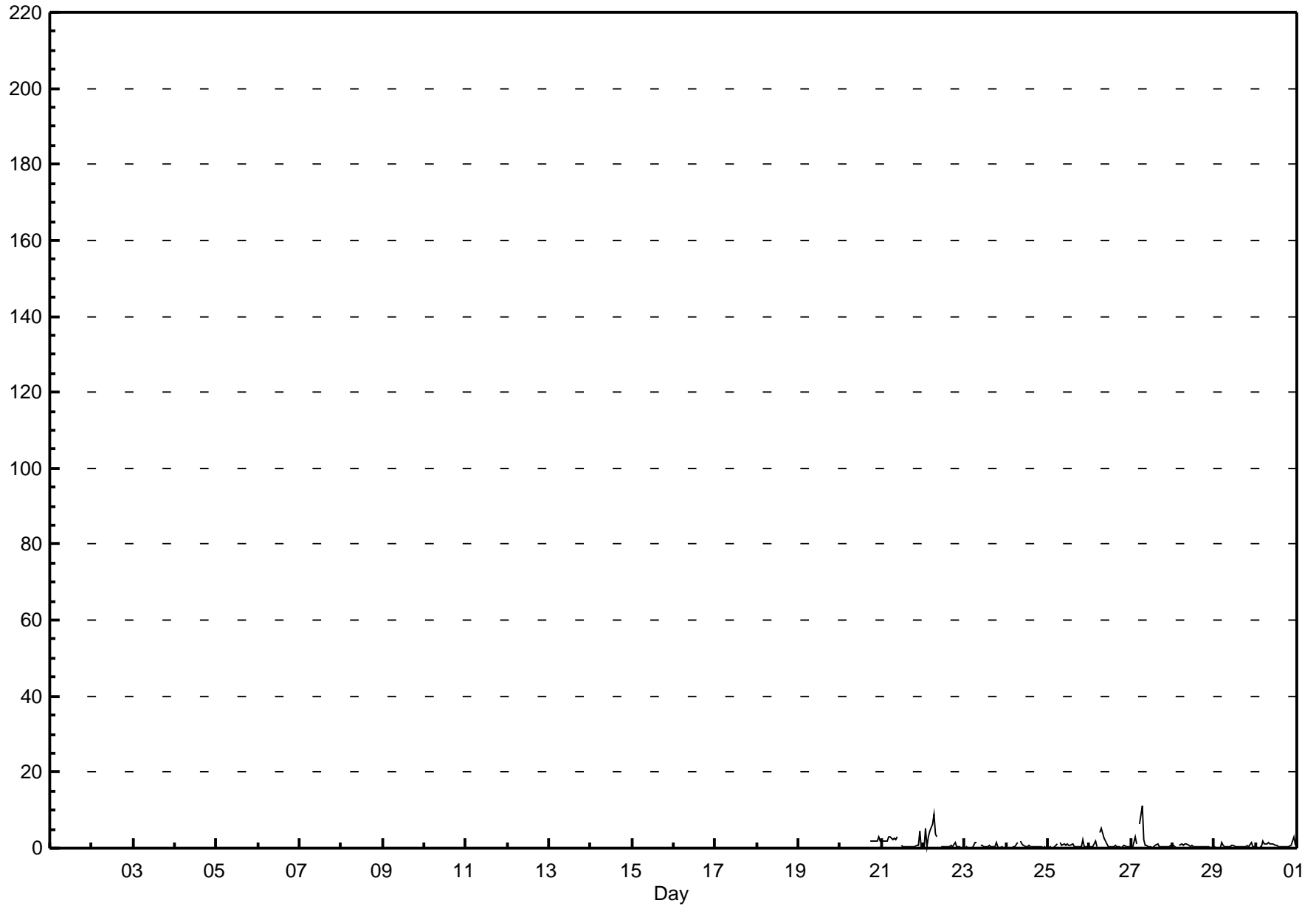
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
2-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
3-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
4-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
5-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
6-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
7-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
8-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
9-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
10-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
11-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
12-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
13-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
14-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
15-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
16-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
17-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
18-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
19-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	C	C	C	C	2	2	2	2	2	3	2	--	3.0																						
21-Jun	2	2	2	2	3	3	2	2	2	3	A	1	1	0	0	0	0	0	0	0	1	1	5	0	1.5	4.6																						
22-Jun	0	5	0	3	5	6	9	4	3	A	0	0	0	0	0	1	1	0	1	0	0	0	0	0	1.8	8.8																						
23-Jun	0	0	0	0	0	1	1	1	A	1	1	0	0	0	1	0	0	1	2	0	0	0	0	0	0.5	1.5																						
24-Jun	0	0	0	0	0	0	1	A	2	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0.4	1.8																						
25-Jun	0	0	0	0	0	1	A	2	1	1	1	1	1	1	1	0	0	0	0	0	2	0	0	0	0.7	2.2																						
26-Jun	0	0	0	2	1	A	4	5	3	2	1	0	0	0	1	1	0	0	0	0	1	1	0	0	1.0	5.1																						
27-Jun	0	0	3	1	A	6	11	2	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1.4	11.3																						
28-Jun	1	0	0	A	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.0																						
29-Jun	0	0	A	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	2	0	0	0.5	1.5																						
30-Jun	0	A	0	0	2	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	1	2	3	1	0.9	2.9																						
																								0.4	0.9	0.7	1.0	1.4	2.3	3.5	2.2	1.5	1.1	0.7	0.6	0.4	0.4	0.5	0.5	0.4	0.5	0.7	0.5	0.7	0.8	1.1	0.4	Diurnal Average
																								2.0	5.2	3.0	3.1	4.6	6.5	11.3	5.1	3.1	3.0	1.1	1.3	0.7	0.9	1.1	1.2	0.6	2.0	2.0	2.0	2.2	2.0	4.6	1.9	Diurnal Maximum

C - Calibration      NS - Not in service      A - Automated Daily Zero Span



**Hourly Averages**

**Nitrogen Oxide (NO) - ppb**  
**Portable Clairmont - June 2014**



# Hourly Maximums

## Nitrogen Oxide (NO) - ppb Portable Clairmont - June 2014

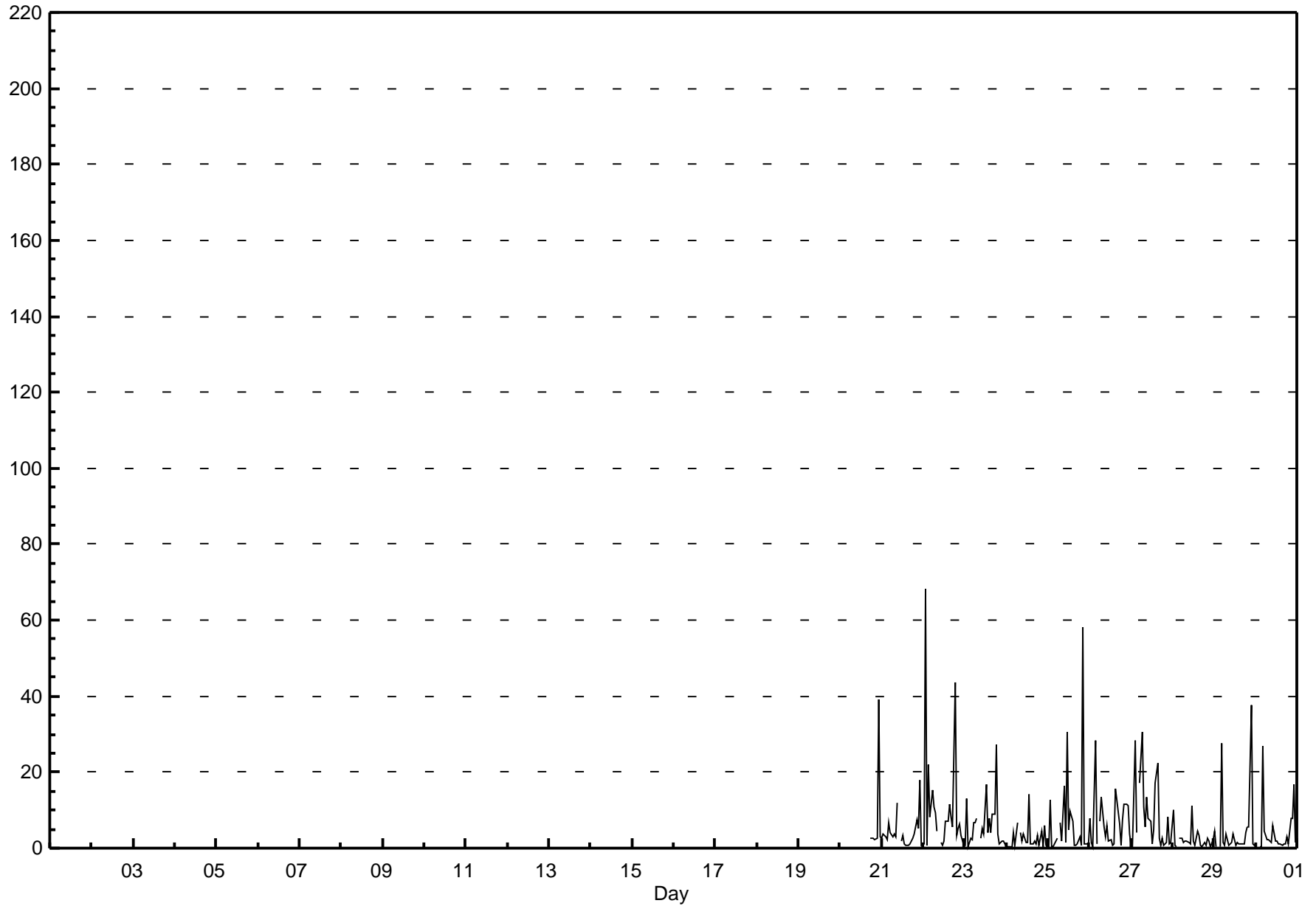
Maximum Value: 68.3 ppb on Jun 22 02:00	Maximum Daily Average: 10.7 ppb on Jun 22	Hours in Service: 253
Minimum Value: 0 ppb on Jun 24 04:00	Minimum Daily Average: 2.5 ppb on Jun 28	Hours of Data: 237
Maximum Diurnal Average: 11.2 ppb at hour 2	Minimum Diurnal Average: 1.5 ppb at hour 24	Hours of Missing Data: 16
Monthly Average: 5.76 ppb	Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.7 Q <sub>1</sub> = 1.1 Median = 2.6 Q <sub>3</sub> = 6.6 P <sub>90</sub> = 13.3 P <sub>99</sub> = 49.1	Hours of Calibration: 16
		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-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
2-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
3-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
4-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
5-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
6-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
7-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
8-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
9-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
10-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
11-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
12-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
13-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
14-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
15-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
16-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
17-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
18-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
19-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	C	C	C	C	3	3	2	2	3	39	3	--	39.0																						
21-Jun	3	4	3	2	7	4	3	4	3	12	A	2	3	1	1	1	1	2	3	4	7	5	18	1	4.0	18.0																						
22-Jun	1	68	1	22	8	15	11	9	5	A	2	1	2	7	7	11	8	6	44	3	5	6	3	1	10.7	68.3																						
23-Jun	1	13	0	2	2	7	7	8	A	3	5	4	17	4	8	4	9	9	27	4	1	2	2	1	6.1	27.2																						
24-Jun	0	0	0	0	4	1	7	A	4	2	4	1	2	14	1	1	2	1	3	1	4	0	6	1	2.6	14.0																						
25-Jun	0	13	0	0	1	3	A	7	2	16	1	31	5	10	7	1	1	1	3	1	58	1	1	1	7.1	58.0																						
26-Jun	8	1	0	28	1	A	7	13	6	3	6	2	2	1	1	16	13	6	1	7	12	11	11	4	7.0	28.4																						
27-Jun	1	0	28	4	A	17	30	11	5	13	8	7	1	5	17	22	3	1	3	1	2	8	1	1	8.2	30.4																						
28-Jun	10	1	0	A	2	3	1	2	2	2	1	11	2	1	4	3	1	1	1	1	3	2	1	2	2.5	11.1																						
29-Jun	4	0	A	0	28	2	1	4	1	1	2	4	1	2	1	1	1	1	4	6	6	38	1	1	4.7	37.6																						
30-Jun	1	A	1	0	27	4	2	2	2	2	6	2	2	1	1	1	1	1	3	1	8	8	17	2	4.1	27.0																						
																								2.9	11.2	3.8	6.7	9.0	6.2	7.7	6.6	3.3	5.9	3.8	6.4	3.6	4.5	4.9	6.1	3.9	2.8	8.6	2.8	9.8	7.7	9.1	1.5	Diurnal Average
																								10.1	68.3	28.4	28.4	27.7	17.3	30.4	13.4	5.7	16.4	7.7	30.6	16.9	14.0	17.1	22.2	12.8	8.8	43.7	7.4	58.0	37.6	39.0	3.7	Diurnal Maximum

C - Calibration      NS - Not in service      A - Automated Daily Zero Span

### Hourly Maximums

**Nitrogen Oxide (NO) - ppb**  
**Portable Clairmont - June 2014**





Peace Airshed Zone Association

# Hourly Averages

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

Portable Clairmont - June 2014

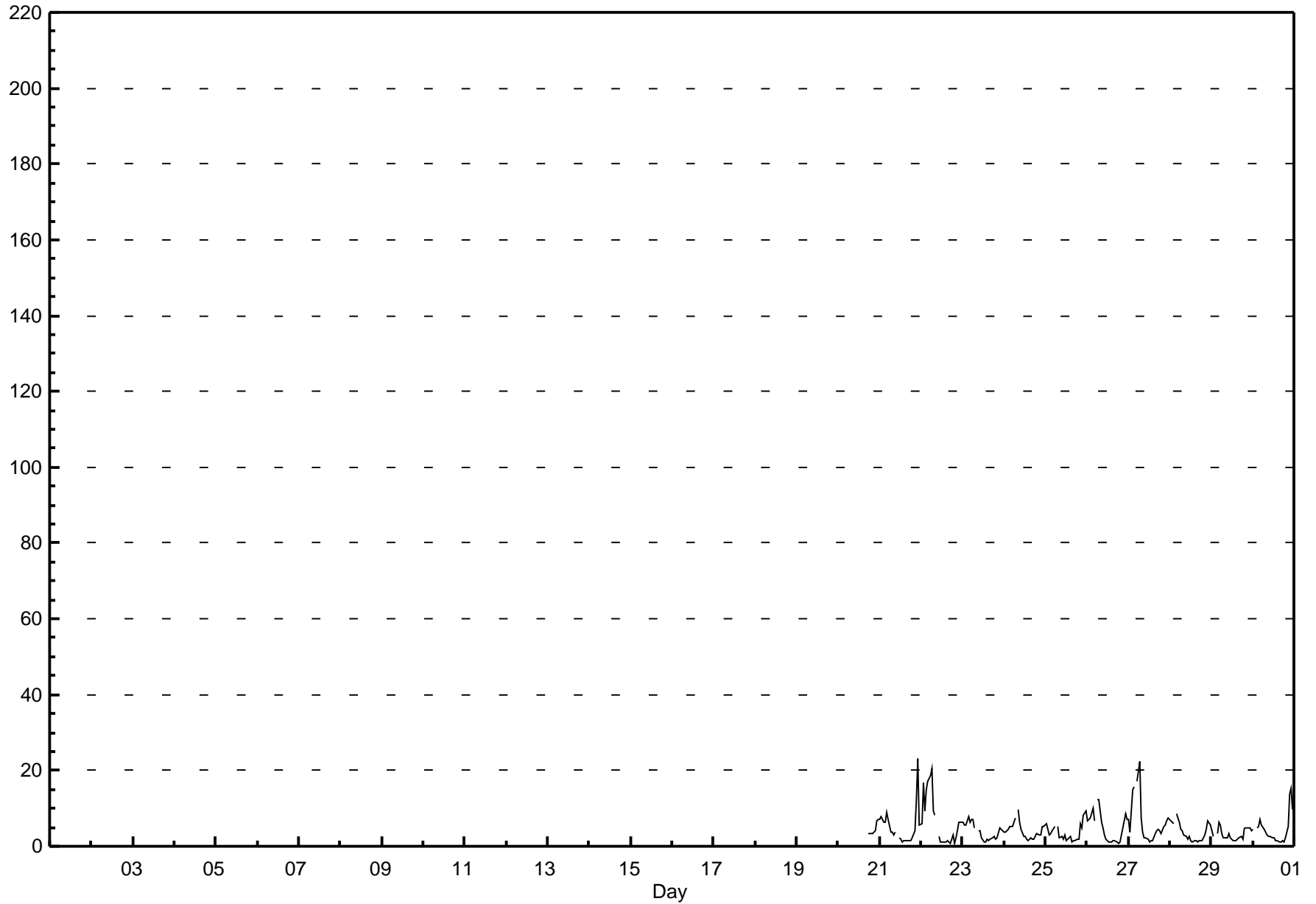
Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 253
Maximum Value: 23.1 ppb on Jun 21 23:00	Maximum Daily Average: 6.7 ppb on Jun 22
Minimum Value: 1 ppb on Jun 22 18:00	Hours of Data: 237
Maximum Diurnal Average: 9.5 ppb at hour 7	Hours of Missing Data: 16
Monthly Average: 4.60 ppb	Hours of Calibration: 16
Minimum Daily Average: 3.2 ppb on Jun 29	Percent Operational Time: 100.0
Minimum Diurnal Average: 1.5 ppb at hour 14	
Percentiles: P <sub>1</sub> = 0.9 P <sub>10</sub> = 1.4 Q <sub>1</sub> = 1.9 Median = 3.5 Q <sub>3</sub> = 6.1 P <sub>90</sub> = 8.5 P <sub>99</sub> = 21.6	

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-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
2-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
3-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
4-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
5-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
6-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
7-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
8-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
9-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
10-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
11-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
12-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
13-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
14-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
15-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
16-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
17-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
18-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
19-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	C	C	C	C	3	4	3	3	4	7	7	--	7.1																						
21-Jun	7	8	6	6	9	7	4	4	3	4	A	2	2	1	2	2	2	1	2	2	4	12	23	6	5.1	23.1																						
22-Jun	6	17	9	15	17	19	21	9	8	A	3	1	1	1	1	1	1	1	3	1	2	4	6	6	6.7	20.6																						
23-Jun	6	6	6	8	6	7	7	5	A	4	4	2	1	1	2	2	2	2	3	2	2	5	5	4	4.0	7.7																						
24-Jun	4	4	4	5	5	5	7	A	10	6	4	3	2	2	1	2	2	2	3	3	3	3	5	5	4.0	9.6																						
25-Jun	6	5	3	4	4	5	A	5	2	3	2	3	2	2	2	1	1	2	2	2	6	5	8	9	3.6	9.2																						
26-Jun	7	7	8	10	7	A	12	12	6	5	3	2	1	1	1	1	1	1	1	1	3	7	9	7	4.9	12.4																						
27-Jun	7	4	15	16	A	17	22	8	4	2	2	2	1	2	2	3	4	4	4	3	5	5	7	8	6.4	22.3																						
28-Jun	7	6	6	A	9	6	4	4	3	3	2	3	1	1	2	1	1	2	2	2	3	5	7	5	3.7	8.5																						
29-Jun	4	3	A	3	7	6	3	2	2	2	3	2	1	2	1	2	2	3	2	5	5	5	5	4	3.2	6.5																						
30-Jun	4	A	5	5	7	6	5	4	3	2	2	2	2	1	2	1	1	1	1	2	5	14	15	10	4.4	15.3																						
																								5.9	6.4	6.9	8.0	7.8	8.7	9.5	5.8	4.5	3.5	2.9	2.2	1.6	1.5	1.6	1.7	1.8	2.0	2.3	2.4	3.8	6.3	8.8	6.5	Diurnal Average
																								7.2	16.6	15.1	15.6	17.2	18.7	22.3	12.4	9.6	6.4	4.4	3.0	2.5	2.0	2.5	3.5	4.0	4.5	3.9	4.8	6.1	14.0	23.1	9.6	Diurnal Maximum

C - Calibration      NS - Not in service      A - Automated Daily Zero Span

**Hourly Averages**

**Oxides of Nitrogen (NO<sub>x</sub>) - ppb**  
**Portable Clairmont - June 2014**



# Hourly Maximums

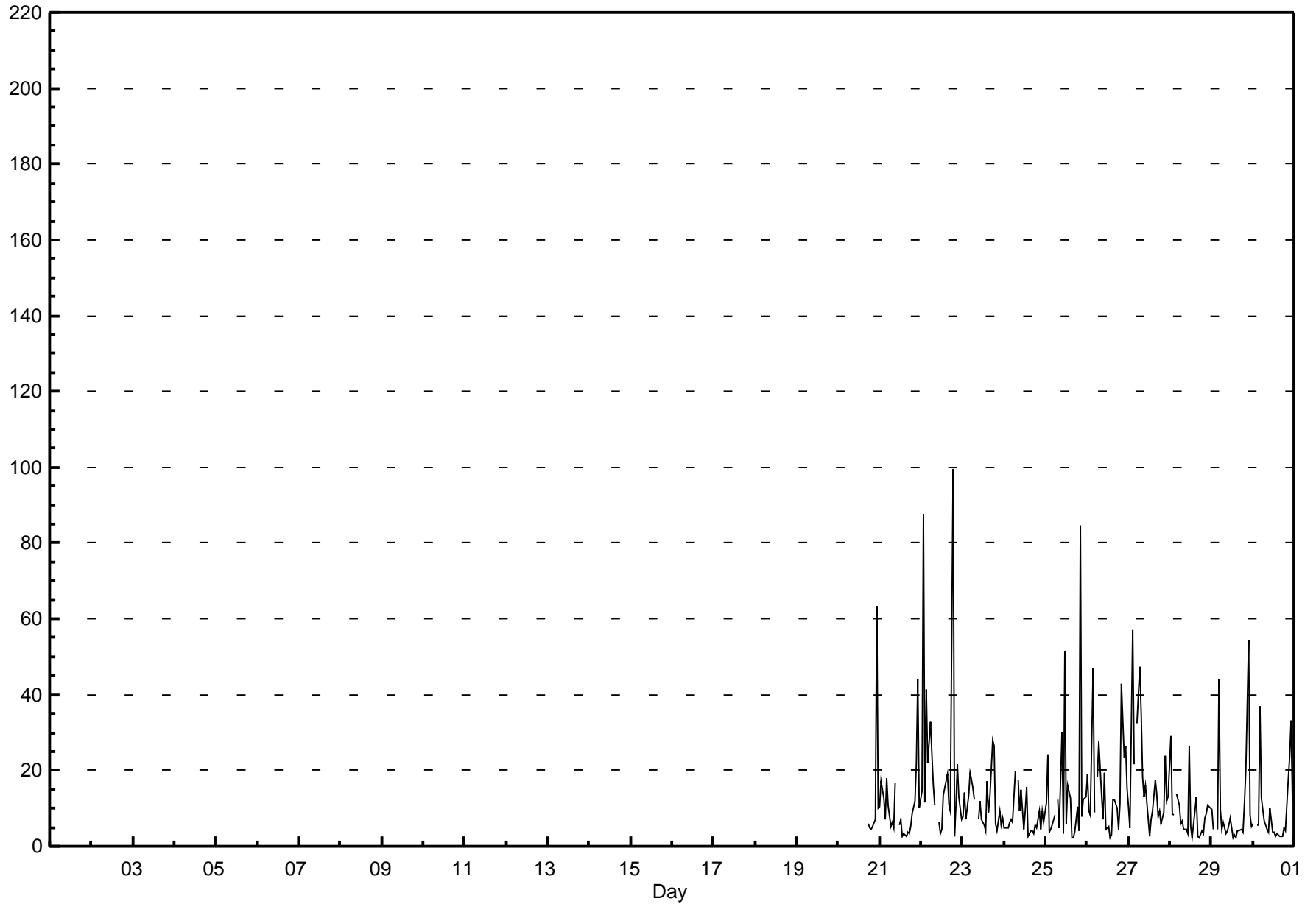
Oxides of Nitrogen (NO<sub>x</sub>) - ppb

Portable Clairmont - June 2014

Maximum Value: 99.6 ppb on Jun 22 19:00		Maximum Daily Average: 21.7 ppb on Jun 22		Hours in Service: 253																																																																			
Minimum Value: 2 ppb on Jun 26 14:00		Minimum Daily Average: 7.8 ppb on Jun 24		Hours of Data: 237																																																																			
Maximum Diurnal Average: 21.7 ppb at hour 23		Minimum Diurnal Average: 5.2 ppb at hour 13		Hours of Missing Data: 16																																																																			
Monthly Average: 12.71 ppb		Percentiles: P <sub>1</sub> = 2.2 P <sub>10</sub> = 3.4 Q <sub>1</sub> = 4.7 Median = 8.5 Q <sub>3</sub> = 14.4 P <sub>90</sub> = 26.5 P <sub>99</sub> = 77.1		Hours of Calibration: 16																																																																			
				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-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																													
2-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																												
3-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																												
4-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																												
5-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																												
6-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																												
7-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																												
8-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																												
9-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																												
10-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																												
11-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																												
12-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																												
13-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																												
14-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																												
15-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																												
16-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																												
17-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																												
18-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																												
19-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																												
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	C	C	C	C	6	5	4	5	7	63	10	--	63.2																																													
21-Jun	10	17	13	7	18	11	5	6	5	17	A	6	7	3	3	3	4	3	5	9	12	22	44	10	10.4	44.1																																													
22-Jun	15	88	12	41	22	33	24	16	11	A	6	3	5	13	17	19	11	9	100	3	11	22	13	7	21.7	99.6																																													
23-Jun	8	14	7	13	20	18	15	12	A	7	12	7	6	4	17	9	13	28	27	6	4	9	6	8	11.8	27.8																																													
24-Jun	5	5	5	6	7	6	20	A	17	9	15	4	10	16	3	4	4	3	6	5	9	4	9	6	7.8	19.9																																													
25-Jun	11	24	4	5	6	8	A	12	5	30	3	52	6	16	13	2	2	4	10	4	85	8	12	13	14.6	84.6																																													
26-Jun	19	9	8	47	9	A	18	27	14	7	19	4	5	2	3	12	12	10	4	11	43	23	26	15	15.2	46.9																																													
27-Jun	10	5	57	22	A	32	47	35	18	13	16	7	3	7	9	18	14	8	9	6	9	24	12	13	17.1	57.0																																													
28-Jun	29	9	8	A	14	11	6	7	4	4	3	27	5	2	9	13	2	2	4	3	7	9	11	10	8.7	29.3																																													
29-Jun	10	4	A	4	44	10	4	6	3	4	5	7	2	3	2	4	4	5	4	11	20	55	8	5	9.9	54.6																																													
30-Jun	6	A	5	6	37	13	7	6	5	4	10	4	4	3	3	3	3	3	5	4	18	23	33	12	9.3	37.1																																													
																								Diurnal Average		Diurnal Maximum																																													
																								12.3 29.3		19.5 87.5		13.2 57.0		16.8 46.9		19.5 44.2		15.7 32.8		16.4 47.2		14.3 35.1		9.1 18.2		10.6 30.1		10.1 19.3		12.2 51.6		5.2 9.5		6.9 16.1		8.0 17.1		8.7 19.1		7.0 14.0		7.4 27.8		16.2 99.6		6.0 11.3		20.3 84.6		18.7 54.6		21.7 63.2		10.0 15.3	
C - Calibration																								NS - Not in service								A - Automated Daily Zero Span																																							

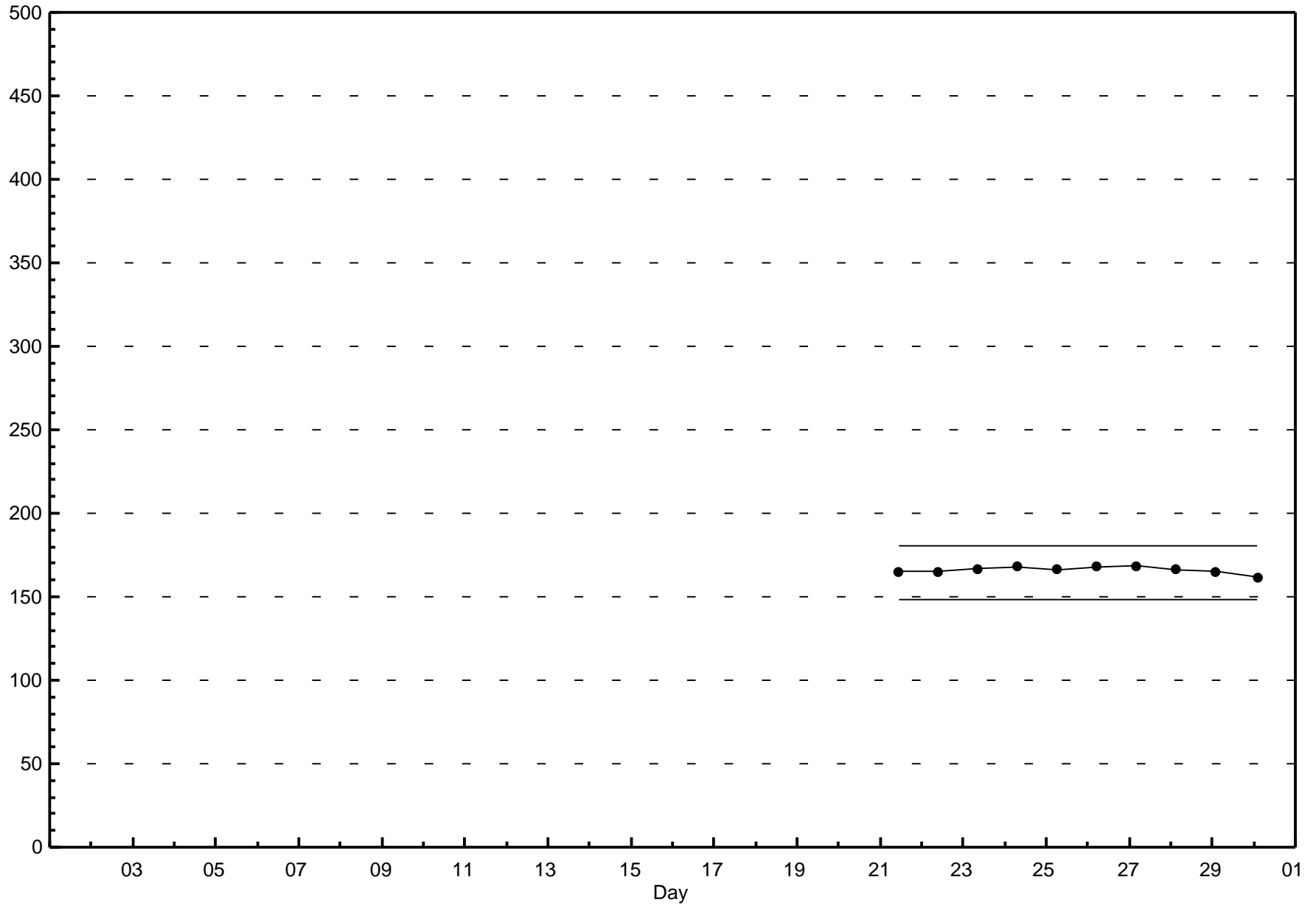
**Hourly Maximums**

**Oxides of Nitrogen (NO<sub>x</sub>) - ppb**  
**Portable Clairmont - June 2014**



### Span Responses

Oxides of Nitrogen (NO<sub>x</sub>)  
Portable Clairmont - June 2014





## Hourly Averages

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

Portable Clairmont - June 2014

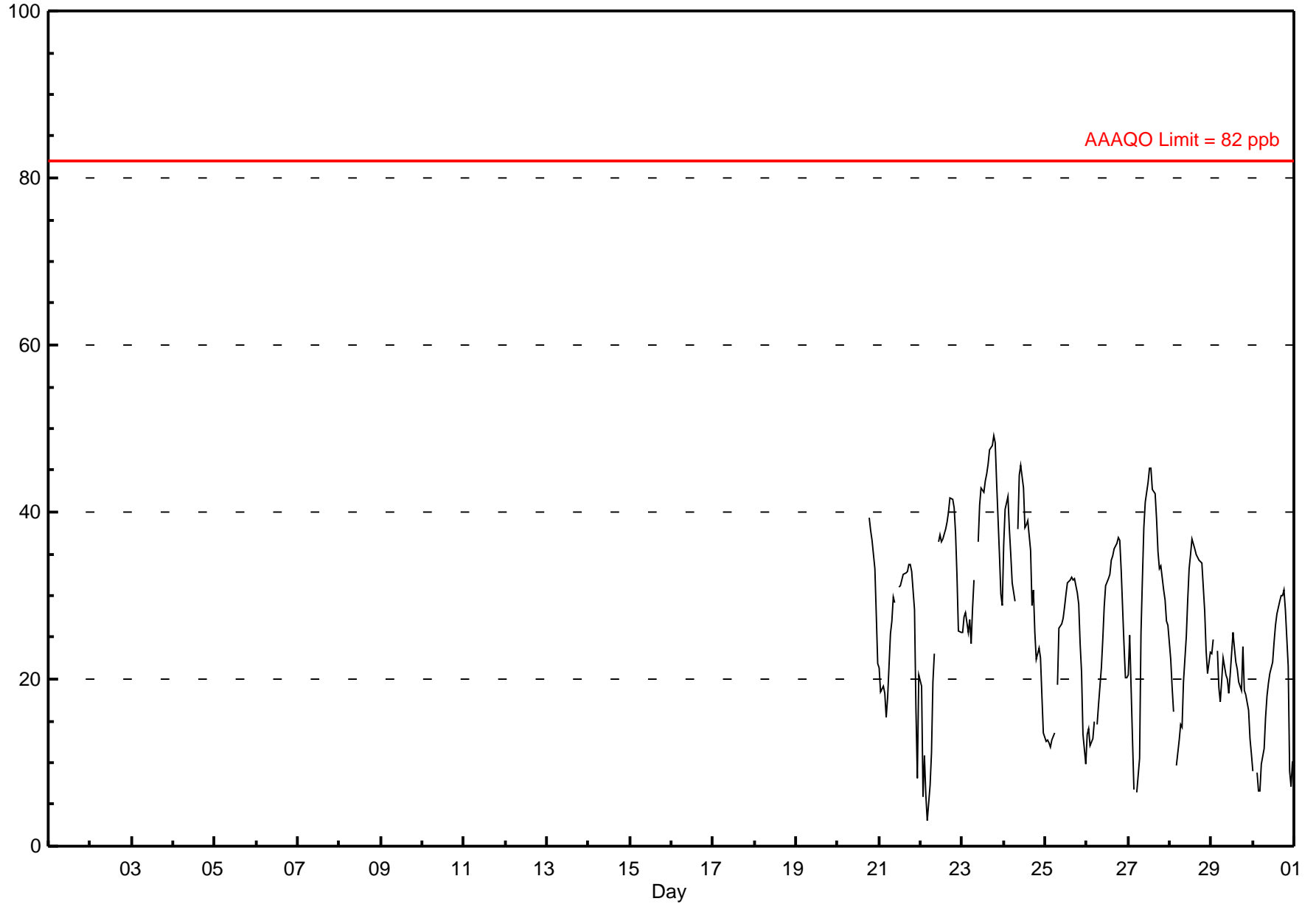
Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 248
Maximum Value: 49.2 ppb on Jun 23 19:00	Maximum Daily Average: 36.7 ppb on Jun 23
Minimum Value: 3 ppb on Jun 22 05:00	Minimum Daily Average: 18.4 ppb on Jun 30
Maximum Diurnal Average: 34.8 ppb at hour 15	Minimum Diurnal Average: 15.6 ppb at hour 6
Monthly Average: 26.57 ppb	Percentiles: P <sub>1</sub> = 6.1 P <sub>10</sub> = 12.1 Q <sub>1</sub> = 19.1 Median = 26.9 Q <sub>3</sub> = 34.5 P <sub>90</sub> = 40.6 P <sub>99</sub> = 47.5
	Hours of Data: 236
	Hours of Missing Data: 12
	Hours of Calibration: 12
	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-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
2-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
3-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
4-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
5-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
6-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
7-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
8-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
9-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
10-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
11-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
12-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
13-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
14-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
15-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
16-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
17-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
18-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
19-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	39	38	37	33	28	22	--	39.3
21-Jun	21	18	19	18	15	18	25	27	30	29	A	31	31	32	32	33	33	34	34	33	28	16	8	21	25.5	33.7
22-Jun	19	6	11	6	3	7	11	20	23	A	36	37	36	37	38	39	40	42	41	41	37	32	26	26	26.7	41.7
23-Jun	26	27	28	26	27	24	28	32	A	36	41	43	42	44	45	46	47	48	49	48	44	35	30	29	36.7	49.2
24-Jun	36	40	42	38	35	31	29	A	38	44	46	43	38	38	39	35	29	31	26	22	24	22	18	14	33.0	45.5
25-Jun	13	13	12	12	13	14	A	19	26	27	27	29	30	32	32	32	32	32	30	29	24	21	13	10	22.7	32.1
26-Jun	13	14	12	13	15	A	15	17	21	25	29	31	32	33	34	35	36	36	37	37	33	24	20	20	25.3	37.0
27-Jun	20	25	13	7	A	6	10	26	32	38	41	44	45	45	43	42	39	35	33	34	31	30	27	27	30.2	45.3
28-Jun	22	19	16	A	10	13	15	14	20	25	30	33	35	37	36	35	35	34	34	31	28	23	21	23	25.5	36.7
29-Jun	23	25	A	23	19	17	20	22	21	20	18	21	26	24	22	21	20	19	24	19	18	16	13	11	20.1	25.6
30-Jun	9	A	9	7	7	10	12	15	18	19	21	22	24	26	28	29	30	30	31	28	22	9	7	10	18.4	30.8
	20.3	20.9	18.0	16.6	15.9	15.6	18.4	21.4	25.4	29.3	32.0	33.3	34.0	34.7	34.8	34.7	34.0	34.1	34.4	32.6	29.6	23.9	19.2	19.2	Diurnal Average	
	36.1	40.3	41.8	38.0	34.9	31.5	29.3	31.9	38.0	44.3	45.5	43.6	45.3	45.3	44.6	45.8	47.5	48.0	49.2	48.3	43.6	34.9	30.2	28.8	Diurnal Maximum	

C - Calibration      NS - Not in service      A - Automated Daily Zero Span  
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb      24-hr na

### Hourly Averages

Ozone (O<sub>3</sub>) - ppb  
Portable Clairmont - June 2014



### Hourly Maximums

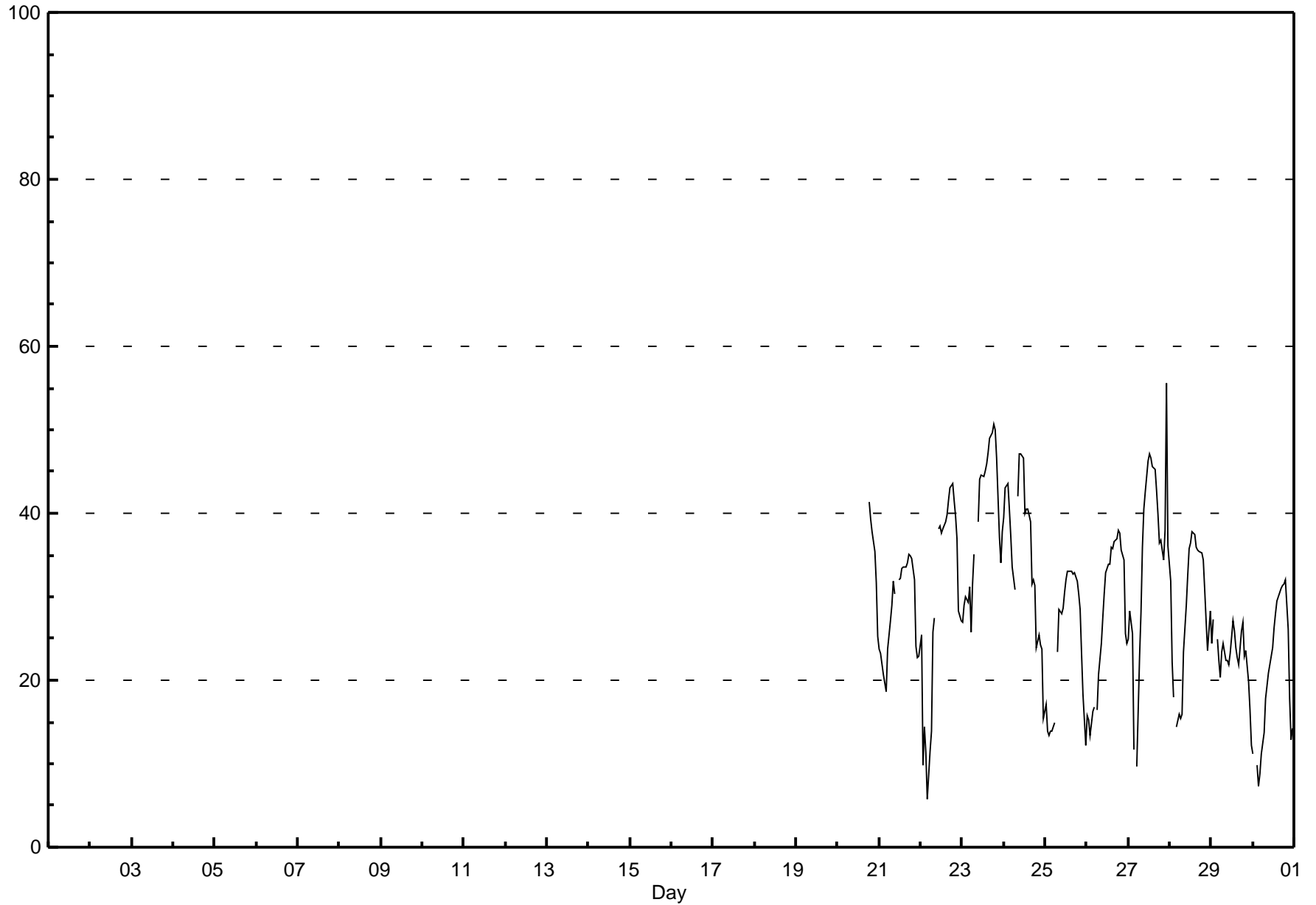
Ozone (O<sub>3</sub>) - ppb

Portable Clairmont - June 2014

Maximum Value: 55.5 ppb on Jun 27 23:00      Maximum Daily Average: 39.3 ppb on Jun 23																			Hours in Service: 248 Hours of Data: 236 Hours of Missing Data: 12 Hours of Calibration: 12 Percent Operational Time: 100.0																																																																																																																												
Minimum Value: 6 ppb on Jun 22 05:00      Minimum Daily Average: 20.7 ppb on Jun 30 Maximum Diurnal Average: 36.5 ppb at hour 19      Minimum Diurnal Average: 18.5 ppb at hour 6 Monthly Average: 29.44 ppb      Percentiles: P <sub>1</sub> = 8.6 P <sub>10</sub> = 14.5 Q <sub>1</sub> = 22.8 Median = 30.3 Q <sub>3</sub> = 36.8 P <sub>90</sub> = 43.1 P <sub>99</sub> = 46.5																																																																																																																																															
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																																																																																																																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																																																																																																																							
1-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																																																																																																					
2-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																																																																																																					
3-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																																																																																																					
4-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																																																																																																					
5-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																																																																																																					
6-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																																																																																																					
7-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																																																																																																					
8-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																																																																																																					
9-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																																																																																																					
10-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																																																																																																					
11-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																																																																																																					
12-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																																																																																																					
13-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																																																																																																					
14-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																																																																																																					
15-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																																																																																																					
16-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																																																																																																					
17-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																																																																																																					
18-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																																																																																																					
19-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																																																																																																																					
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	41	39	38	35	32	25	--	41.4																																																																																																																					
21-Jun	24	23	21	20	19	24	27	29	32	30	A	32	32	33	34	34	34	35	35	35	32	24	23	23	28.4	35.0																																																																																																																					
22-Jun	25	10	14	11	6	12	14	26	27	A	38	38	38	38	39	40	42	43	44	42	40	37	28	27	29.5	43.6																																																																																																																					
23-Jun	27	29	30	29	31	26	32	35	A	39	44	45	44	45	46	47	49	50	51	50	47	37	34	38	39.3	50.7																																																																																																																					
24-Jun	39	43	44	41	37	34	31	A	42	47	47	47	40	41	39	31	32	31	24	25	24	24	15	35.6	47.1																																																																																																																						
25-Jun	17	14	13	14	14	15	A	23	28	28	29	30	32	33	33	33	33	32	30	28	23	18	12	24.7	33.1																																																																																																																						
26-Jun	16	15	13	16	17	A	16	21	24	28	30	33	34	34	36	36	37	37	38	38	36	34	26	24	27.8	37.9																																																																																																																					
27-Jun	25	28	26	12	A	10	23	28	36	40	43	46	47	47	46	45	43	40	36	37	34	38	56	36	35.7	55.5																																																																																																																					
28-Jun	32	22	18	A	14	16	15	16	23	29	32	36	36	38	36	36	35	35	34	31	27	23	28	28.4	37.8																																																																																																																						
29-Jun	24	27	A	25	22	20	23	24	22	22	22	23	27	26	24	23	22	26	27	23	24	20	16	12	22.8	27.3																																																																																																																					
30-Jun	11	A	10	7	9	11	14	18	19	21	22	24	26	28	29	30	31	31	31	32	26	18	13	14	20.7	32.0																																																																																																																					
																			24.1					23.6					21.0					19.4					18.8					18.5					21.7					24.5					28.3					31.6					34.1					35.4					35.7					36.2					36.4					36.3					35.7					36.5					34.9					32.8					28.9					26.6					23.3					Diurnal Average									
																			39.5					43.1					43.6					40.6					37.2					33.5					31.5					35.0					42.1					47.1					47.1					46.6					47.0					46.6					46.0					47.3					49.0					49.6					50.7					50.1					46.6					38.0					55.5					37.7					Diurnal Maximum				
C - Calibration																			NS - Not in service																			A - Automated Daily Zero Span																																																																																																									

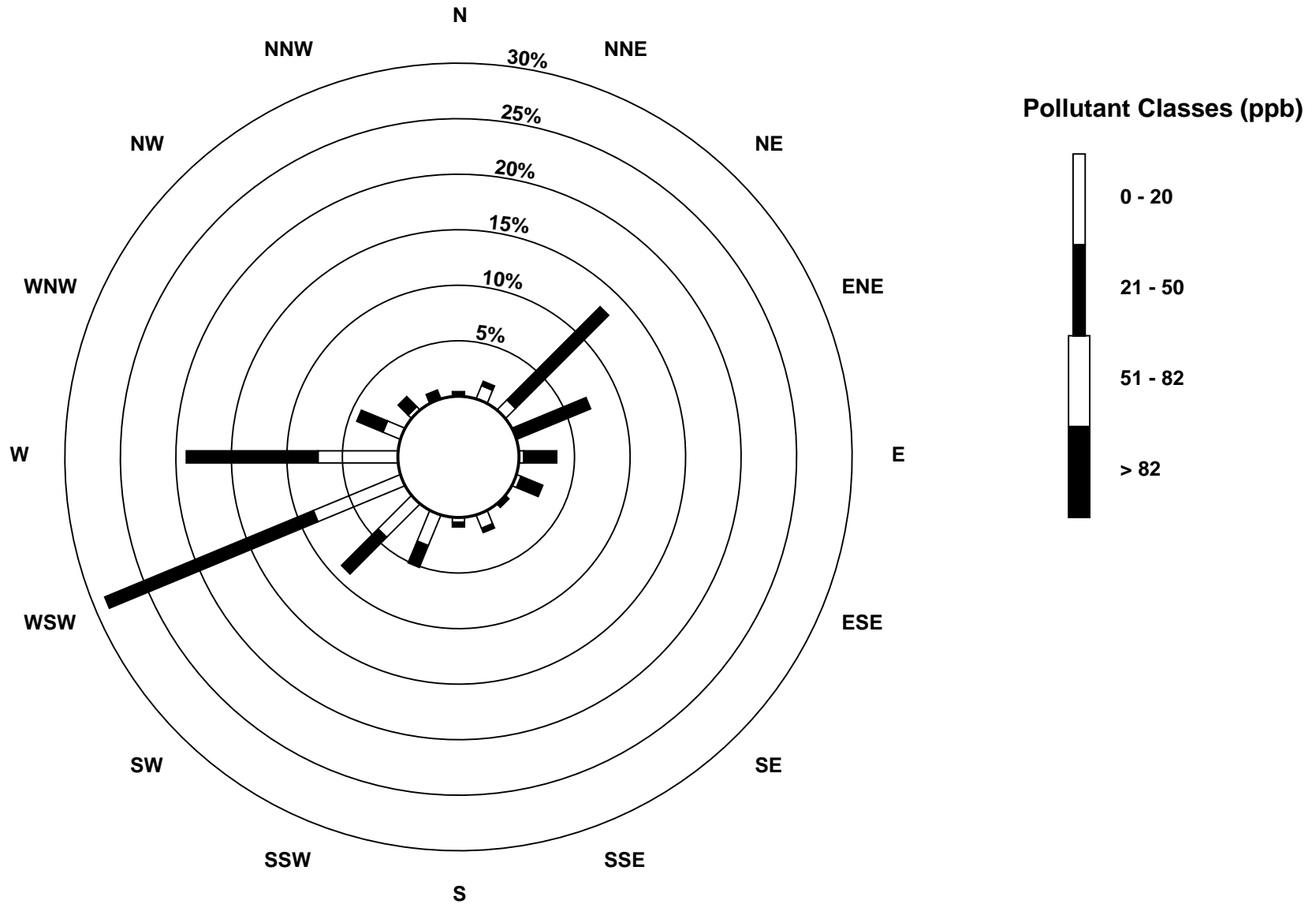
### Hourly Maximums

Ozone (O<sub>3</sub>) - ppb  
Portable Clairmont - June 2014



**Pollutant Rose**

**Ozone (O<sub>3</sub>) - ppb**  
**Portable Clairmont - June 2014**



## Eight Hour Running Averages

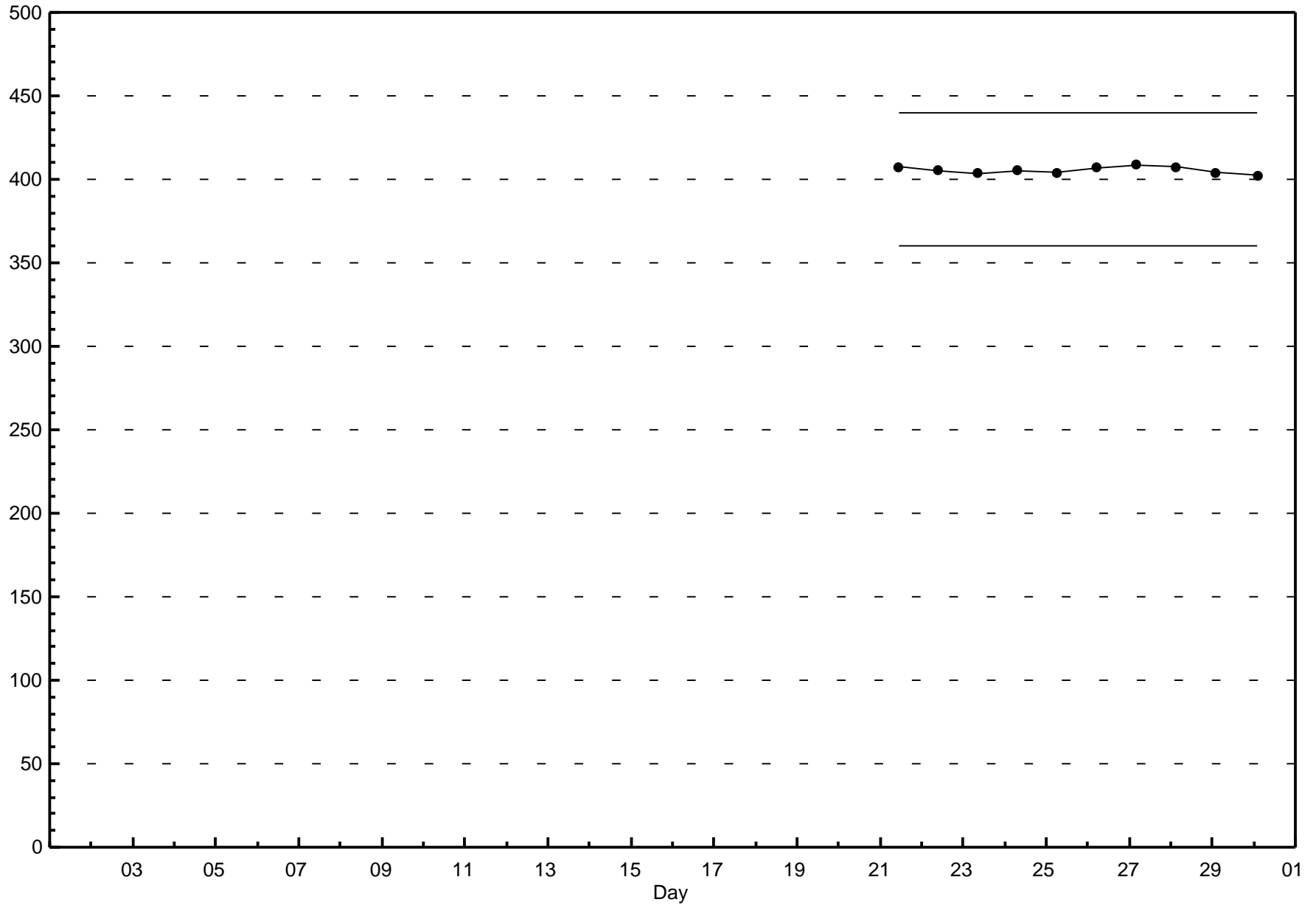
Ozone (O<sub>3</sub>) - ppb

Portable Clairmont - June 2014

Maximum Value: 46.3 ppb on Jun 23 21:00																								Hours in Service:	248
Minimum Value: 9.1 ppb on Jun 30 07:00																								Hours of Data:	241
Percentiles: P <sub>1</sub> = 9.7 P <sub>10</sub> = 14.4 Q <sub>1</sub> = 19.8 Median = 26.8 Q <sub>3</sub> = 32.8 P <sub>90</sub> = 38.8 P <sub>99</sub> = 46.0																								Hours of Missing Data:	7
																								Hours of Calibration:	0
																								Percent Operational Time:	97.2
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-Jun	MS	MS	MS	MS	MS	MS	MS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
2-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
3-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
4-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
5-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
6-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
7-Jun	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-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
9-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
10-Jun	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-Jun	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-Jun	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-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
14-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
15-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
16-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
17-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
18-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
19-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
20-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	33	32.7
21-Jun	31	30	27	25	22	20	20	20	21	23	23	25	27	29	30	31	32	32	32	33	32	30	27	26	32.7
22-Jun	24	21	18	14	11	10	11	10	11	12	15	20	24	29	33	35	38	38	39	39	39	39	37	36	39.3
23-Jun	34	32	30	28	27	26	26	27	28	29	31	33	35	38	40	42	43	44	46	46	46	45	43	41	46.3
24-Jun	40	39	38	37	36	35	35	36	36	37	37	38	39	40	41	40	39	37	35	32	31	29	26	23	40.9
25-Jun	21	19	17	16	15	13	13	14	16	18	20	22	25	27	28	29	30	31	31	31	30	29	27	24	31.1
26-Jun	22	19	17	15	14	13	13	14	15	17	19	22	24	25	28	30	32	33	34	35	35	34	32	30	35.0
27-Jun	28	27	24	20	19	16	15	15	17	19	23	28	30	35	39	41	42	42	41	40	38	36	34	32	42.2
28-Jun	30	28	26	24	21	19	17	16	15	16	18	20	23	26	29	31	33	34	35	34	34	32	30	29	34.7
29-Jun	27	26	25	24	23	22	22	21	21	20	20	20	21	21	22	22	21	21	22	22	21	20	19	17	27.2
30-Jun	16	16	14	12	10	9	9	10	11	12	14	15	18	20	22	23	25	26	28	28	28	26	23	21	28.4
	39.9	38.9	38.0	36.7	35.6	35.2	35.1	36.0	36.2	36.8	37.4	38.1	38.5	39.5	40.9	42.4	43.0	44.5	45.5	46.2	46.3	45.2	43.4	41.3	
Diurnal Maximums																									
N - Not Valid		MS - Missing																							

### Span Responses

Ozone (O<sub>3</sub>)  
Portable Clairmont - June 2014





Peace Airshed Zone Association

# Hourly Averages

Total Hydrocarbons (THC) - ppm

Portable Clairmont - June 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 230
Maximum Value: 3.02 ppm on Jun 27 06:00	Maximum Daily Average: 2.22 ppm on Jun 27
Minimum Value: 2.0 ppm on Jun 24 18:00	Hours of Data: 217
Maximum Diurnal Average: 2.39 ppm at hour 6	Hours of Missing Data: 13
Monthly Average: 2.143 ppm	Hours of Calibration: 13
Percentiles: P <sub>1</sub> = 1.99 P <sub>10</sub> = 2.01 Q <sub>1</sub> = 2.03 Median = 2.09 Q <sub>3</sub> = 2.20 P <sub>90</sub> = 2.33 P <sub>99</sub> = 2.66	Percent Operational Time: 100.0

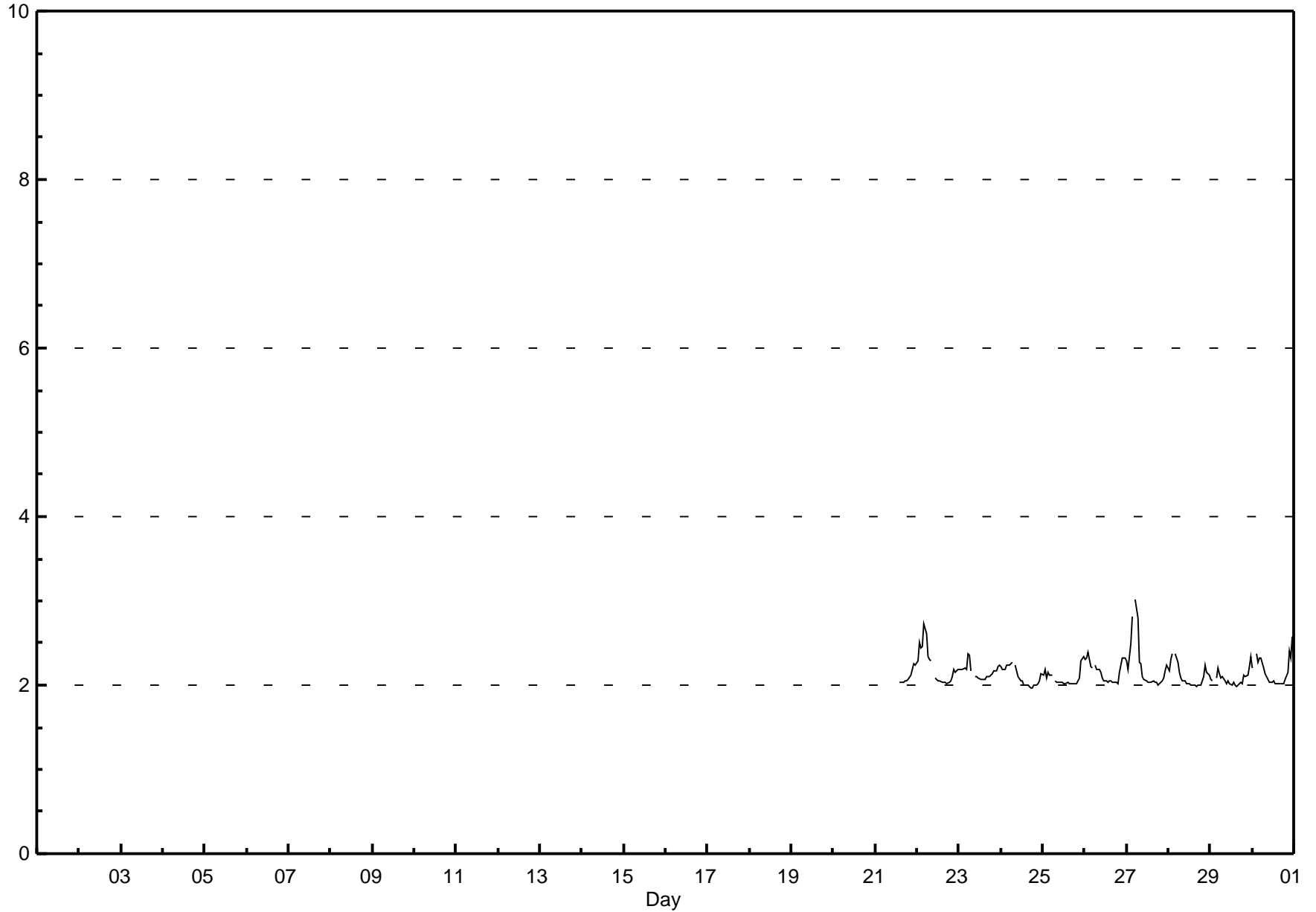
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
2-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
3-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
4-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
5-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
6-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
7-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
8-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
9-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
10-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
11-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
12-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
13-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
14-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
15-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
16-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
17-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
18-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
19-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	C	C	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.3	2.2	--	2.26																							
22-Jun	2.3	2.5	2.4	2.5	2.7	2.6	2.3	2.3	2.3	A	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.22	2.73																							
23-Jun	2.2	2.2	2.2	2.2	2.2	2.4	2.4	2.2	A	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	2.16	2.38																							
24-Jun	2.2	2.2	2.2	2.2	2.2	2.2	2.3	A	2.2	2.2	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.10	2.27																							
25-Jun	2.1	2.2	2.1	2.1	2.1	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.3	2.3	2.08	2.34																								
26-Jun	2.3	2.3	2.4	2.2	2.2	A	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.2	2.3	2.3	2.3	2.17	2.39																							
27-Jun	2.3	2.2	2.5	2.8	A	3.0	2.8	2.3	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.22	3.02																								
28-Jun	2.2	2.3	2.4	A	2.4	2.3	2.2	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.11	2.37																								
29-Jun	2.1	2.1	A	2.1	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.3	2.08	2.34																								
30-Jun	2.2	A	2.4	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.4	2.3	2.6	2.16	2.57																								
																								Diurnal Average	Diurnal Maximum																								
																								2.21	2.24	2.31	2.30	2.30	2.39	2.31	2.16	2.15	2.09	2.06	2.04	2.04	2.03	2.03	2.03	2.03	2.03	2.03	2.05	2.10	2.18	2.22	2.27	2.16	2.57
																								2.31	2.51	2.50	2.81	2.73	3.02	2.80	2.30	2.28	2.18	2.10	2.08	2.07	2.06	2.07	2.07	2.10	2.10	2.12	2.14	2.18	2.41	2.33	2.57	2.16	2.57

C - Calibration      NS - Not in service      A - Automated Daily Zero Span



**Hourly Averages**

**Total Hydrocarbons (THC) - ppm**  
**Portable Clairmont - June 2014**



## Hourly Maximums

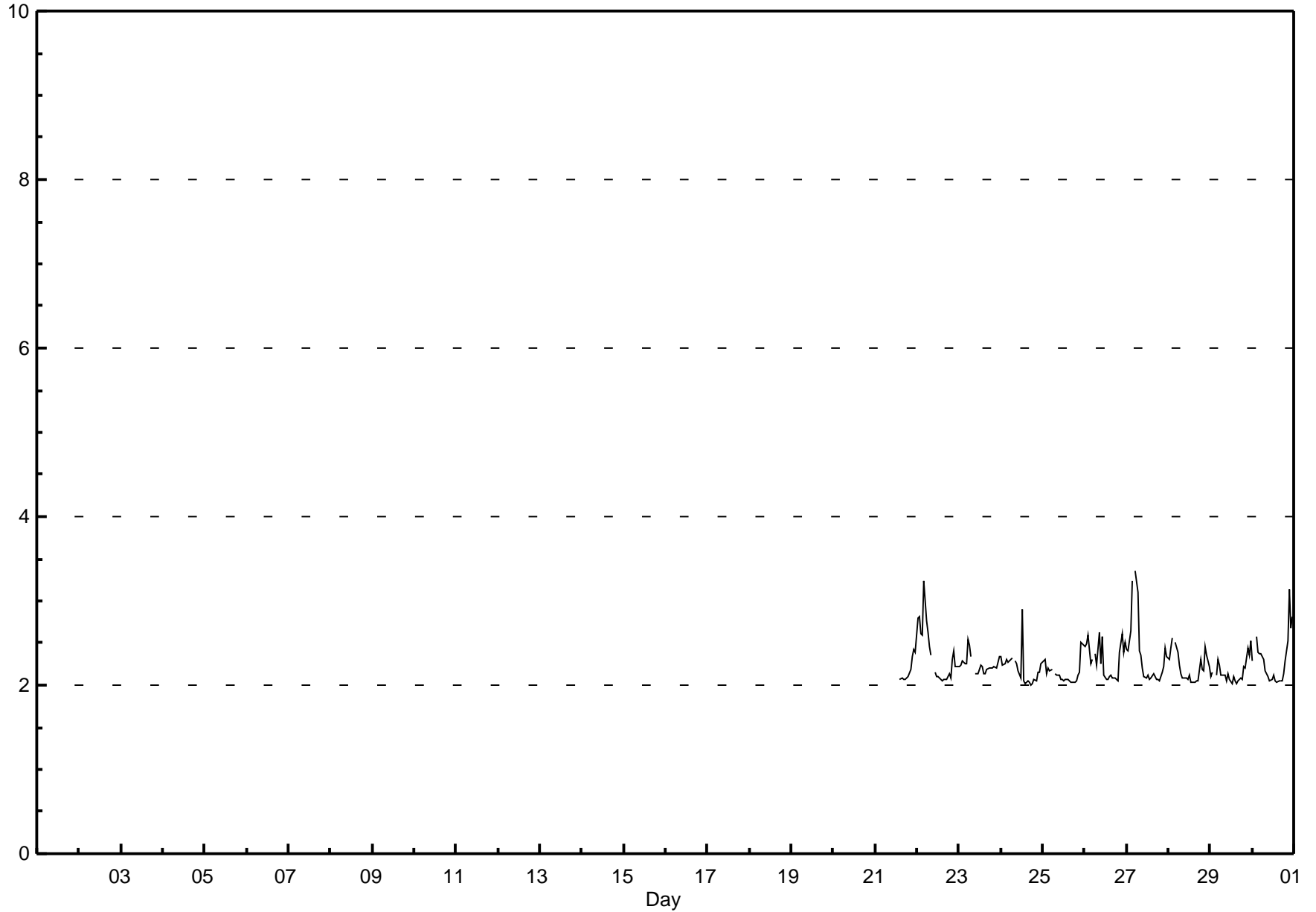
## Total Hydrocarbons (THC) - ppm

## Portable Clairmont - June 2014

Maximum Value: 3.36 ppm on Jun 27 06:00		Maximum Daily Average: 2.36 ppm on Jun 22		Hours in Service: 230																							
Minimum Value: 2.0 ppm on Jun 24 18:00		Minimum Daily Average: 2.15 ppm on Jun 25		Hours of Data: 217																							
Maximum Diurnal Average: 2.52 ppm at hour 6		Minimum Diurnal Average: 2.07 ppm at hour 15		Hours of Missing Data: 13																							
Monthly Average: 2.249 ppm		Percentiles: P <sub>1</sub> = 2.01 P <sub>10</sub> = 2.05 Q <sub>1</sub> = 2.08 Median = 2.17 Q <sub>3</sub> = 2.33 P <sub>90</sub> = 2.55 P <sub>99</sub> = 3.16		Hours of Calibration: 13																							
				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-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
2-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
3-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
4-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
5-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
6-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
7-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
8-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
9-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
10-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
11-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
12-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
13-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
14-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
15-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
16-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
17-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
18-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
19-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
20-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
21-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	C	C	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.4	2.4	--	2.43
22-Jun	2.8	2.8	2.6	2.6	3.2	2.8	2.6	2.5	2.4	A	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.4	2.2	2.2	2.36	3.23
23-Jun	2.2	2.2	2.3	2.2	2.2	2.5	2.5	2.3	A	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.24	2.55
24-Jun	2.3	2.2	2.3	2.3	2.3	2.3	2.3	A	2.3	2.3	2.2	2.1	2.9	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.2	2.2	2.20	2.90
25-Jun	2.3	2.3	2.1	2.2	2.2	2.2	A	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.5	2.5	2.15	2.51	
26-Jun	2.5	2.5	2.6	2.3	2.3	A	2.4	2.2	2.6	2.2	2.6	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.6	2.4	2.5	2.30	2.62	
27-Jun	2.4	2.4	2.6	3.2	A	3.4	3.1	2.4	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.4	2.3	2.35	3.36	
28-Jun	2.3	2.4	2.6	A	2.5	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.3	2.2	2.2	2.5	2.4	2.2	2.21	2.56	
29-Jun	2.1	2.2	A	2.1	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.2	2.2	2.4	2.4	2.5	2.16	2.52	
30-Jun	2.3	A	2.6	2.4	2.4	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.1	2.3	2.5	3.1	2.7	2.8	2.29	3.13	
	2.36	2.39	2.46	2.42	2.43	2.52	2.44	2.25	2.26	2.15	2.16	2.09	2.19	2.08	2.07	2.07	2.07	2.07	2.11	2.13	2.24	2.41	2.38	2.41		Diurnal Average	
	2.79	2.82	2.64	3.24	3.23	3.36	3.10	2.46	2.62	2.25	2.58	2.14	2.90	2.21	2.14	2.14	2.18	2.20	2.30	2.29	2.52	3.13	2.68	2.82		Diurnal Maximum	
C - Calibration		NS - Not in service							A - Automated Daily Zero Span																		

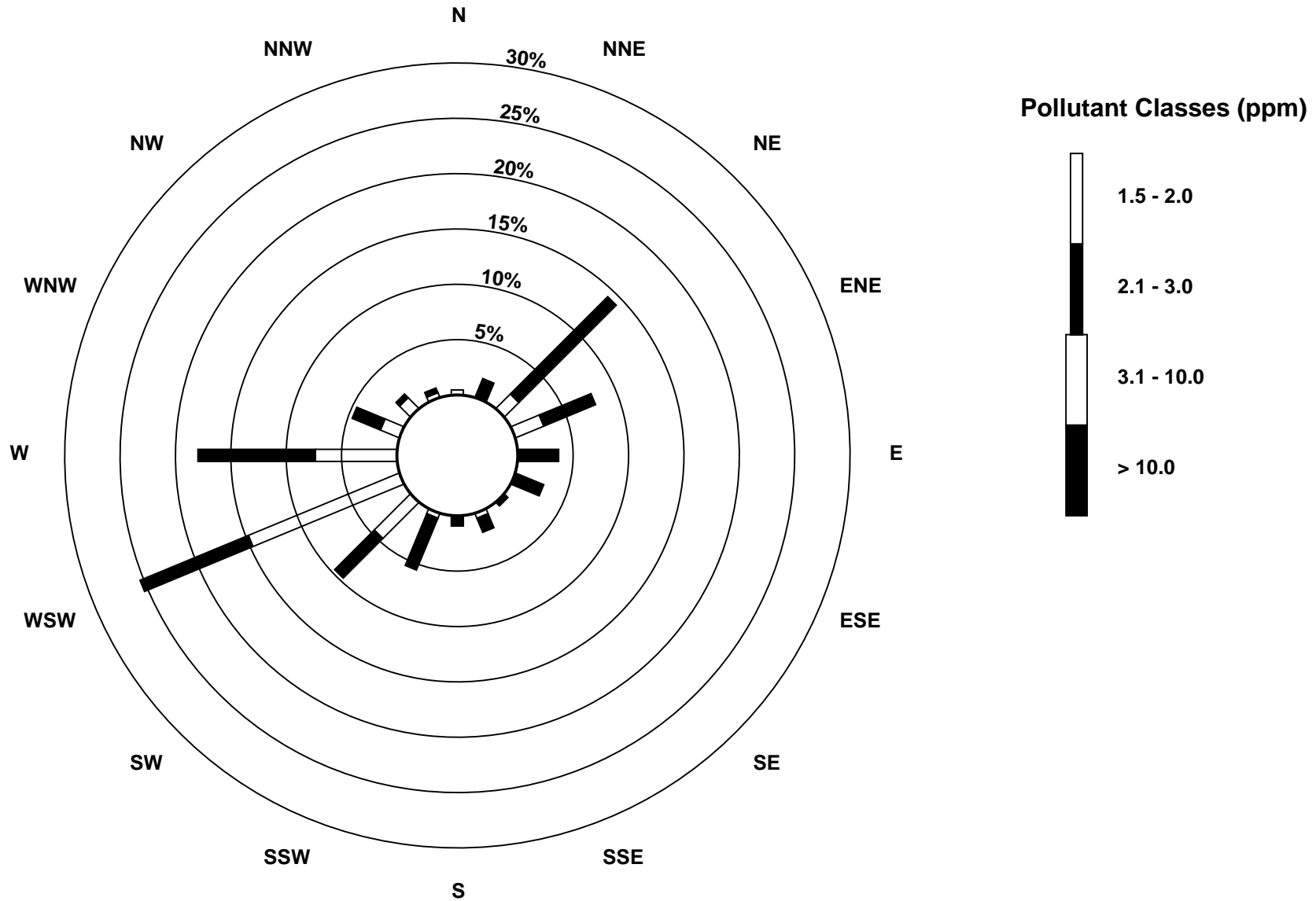
**Hourly Maximums**

**Total Hydrocarbons (THC) - ppm**  
**Portable Clairmont - June 2014**



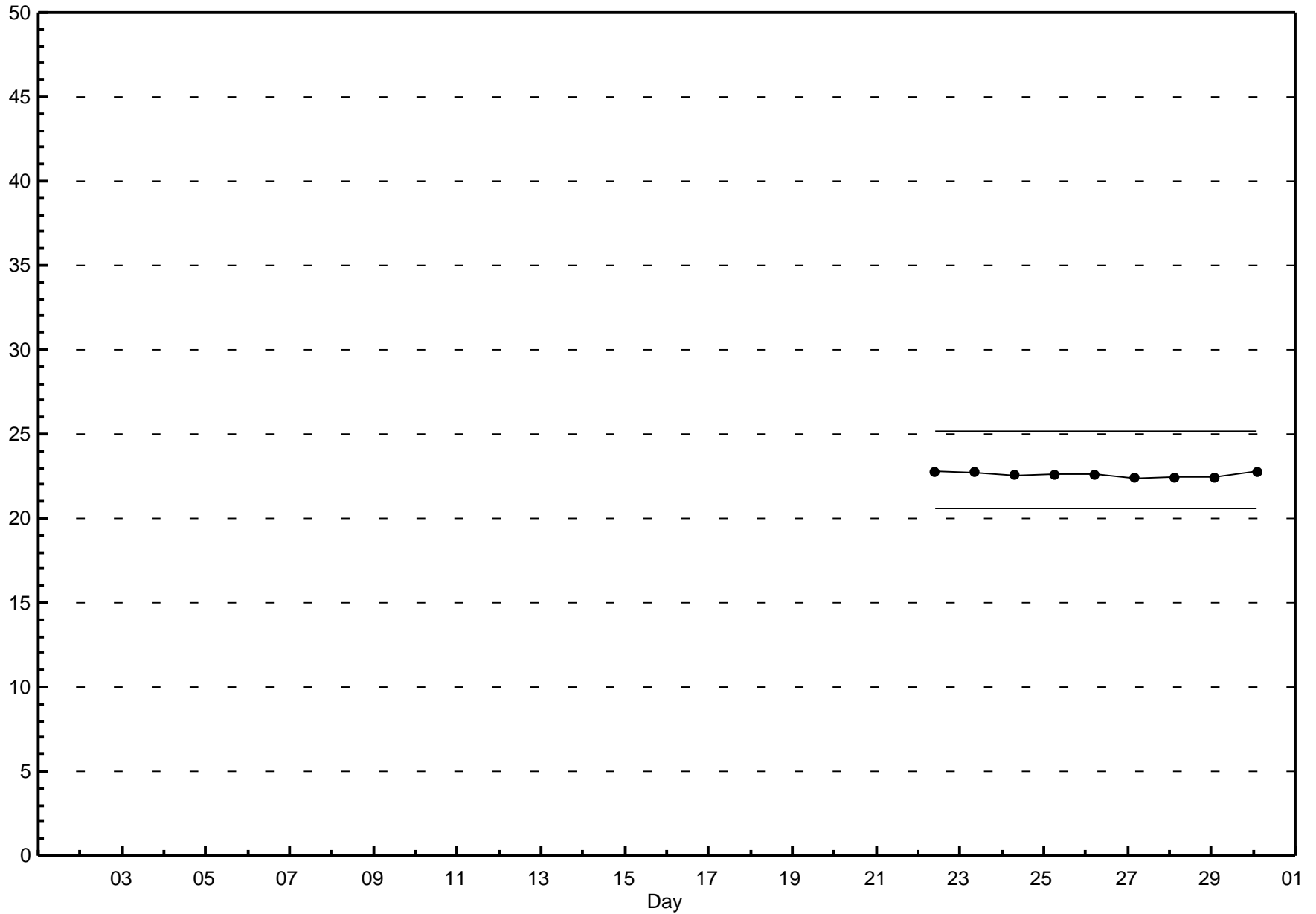
**Pollutant Rose**

**Total Hydrocarbons (THC) - ppm**  
**Portable Clairmont - June 2014**



### Span Responses

**Total Hydrocarbons (THC)**  
**Portable Clairmont - June 2014**



## Hourly Averages

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

Portable Clairmont - June 2014

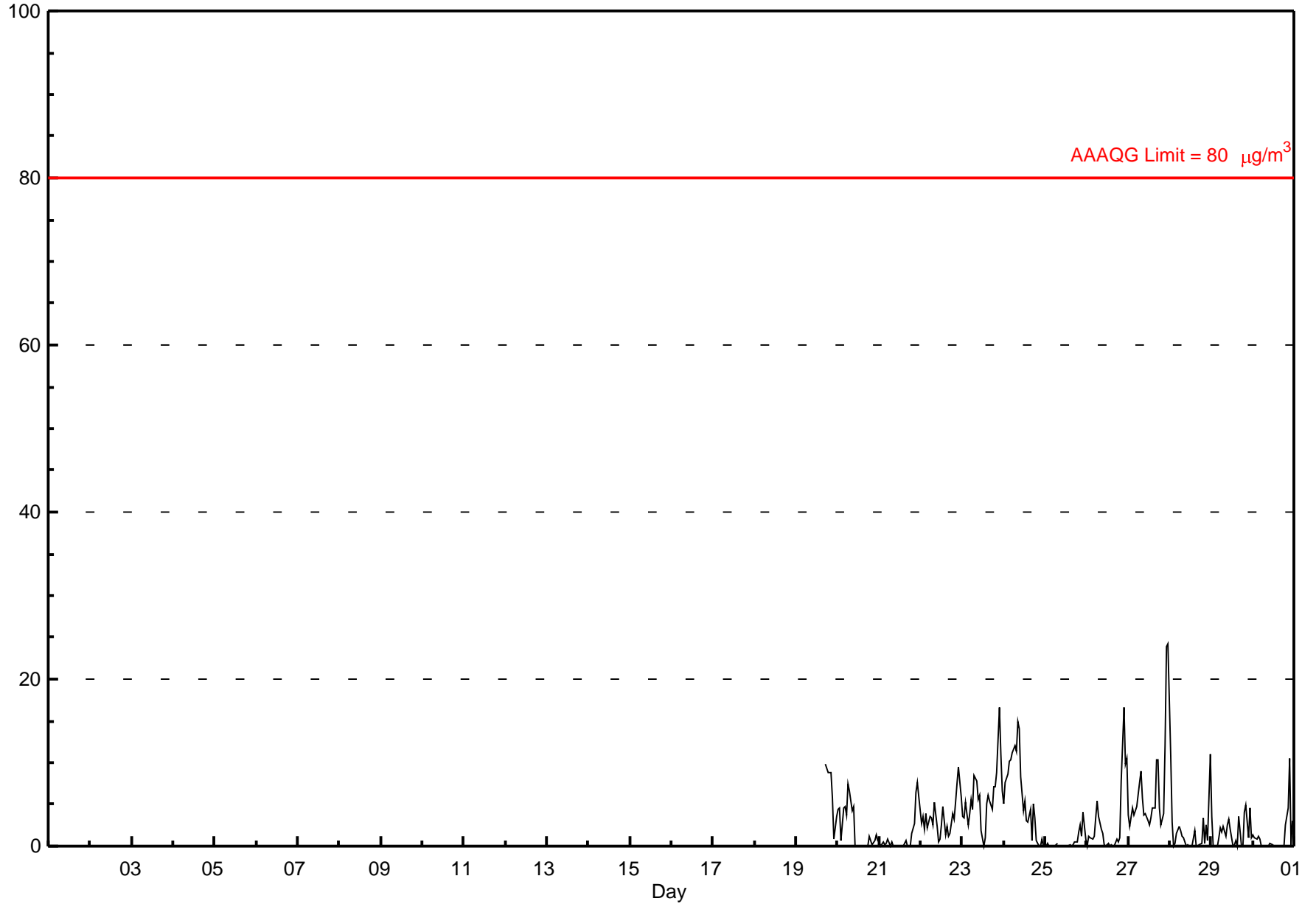
Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 272
Maximum Value: 24.2 µg/m <sup>3</sup> on Jun 28 00:00	Maximum Daily Average: 6.8 µg/m <sup>3</sup> on Jun 27
Minimum Value: 0 µg/m <sup>3</sup> on Jun 20 11:00	Hours of Data: 269
Maximum Diurnal Average: 6.7 µg/m <sup>3</sup> at hour 22	Hours of Missing Data: 3
Monthly Average: 3.13 µg/m <sup>3</sup>	Hours of Calibration: 0
Minimum Daily Average: 0.6 µg/m <sup>3</sup> on Jun 25	Percent Operational Time: 98.9
Minimum Diurnal Average: 1.0 µg/m <sup>3</sup> at hour 13	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.2 Median = 1.7 Q <sub>3</sub> = 4.5 P <sub>90</sub> = 8.7 P <sub>99</sub> = 15.2	

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-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
2-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
3-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
4-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
5-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
6-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
7-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
8-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
9-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
10-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
11-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
12-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
13-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
14-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
15-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
16-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
17-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
18-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
19-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	M	10	9	9	9	6	1	4	--	9.9																						
20-Jun	4	5	1	5	5	4	7	7	4	5	0	N	0	0	0	0	0	0	1	1	0	1	1	1	2.2	7.4																						
21-Jun	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3	6	8	6	1.1	7.6																						
22-Jun	3	4	2	4	2	4	3	2	5	2	0	1	3	5	1	2	1	1	4	3	5	7	10	6	3.4	9.5																						
23-Jun	3	3	5	2	4	6	4	8	8	6	6	2	0	1	5	6	5	4	7	7	9	17	11	7	5.7	16.6																						
24-Jun	5	8	9	10	10	11	12	11	15	14	8	4	6	3	3	4	1	5	3	1	0	0	1	0	6.0	14.9																						
25-Jun	0	0	0	0	0	0	0	0	N	0	0	0	0	0	0	0	0	1	1	2	3	1	4	1	0.6	4.1																						
26-Jun	0	1	1	1	1	3	5	4	2	2	0	0	0	0	0	0	0	1	0	1	8	17	10	11	2.8	16.5																						
27-Jun	4	2	5	4	4	5	8	9	6	4	4	3	2	3	5	5	10	10	5	3	4	12	24	24	6.8	24.2																						
28-Jun	11	3	0	0	1	2	2	1	1	0	0	0	0	0	2	0	0	0	0	3	0	3	1	11	1.8	11.1																						
29-Jun	4	0	0	0	1	2	2	2	1	3	3	2	0	0	1	0	4	0	0	4	5	1	5	1	1.7	4.9																						
30-Jun	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	11	0	3	1.1	10.5																						
																								3.2	2.4	2.1	2.5	2.8	3.4	4.0	4.2	4.2	3.1	2.0	1.2	1.0	1.1	1.5	1.6	2.0	2.7	2.5	3.1	4.2	6.7	6.2	6.1	Diurnal Average
																								10.9	7.6	8.6	10.2	10.3	11.2	12.1	11.3	14.9	14.1	8.3	4.2	5.5	4.7	5.1	6.0	10.3	10.4	8.9	8.7	8.9	16.6	23.8	24.2	Diurnal Maximum

M - Maintenance      N - Not Valid      NS - Not in service  
 Alberta Ambient Air Quality Guideline (AAQG): 1-hr 80 µg/m<sup>3</sup>      Alberta Ambient Air Quality Objective (AAQO): 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 - June 2014





Peace Airshed Zone Association

# Hourly Maximums

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

Portable Clairmont - June 2014

Maximum Value: 64.0 $\mu\text{g}/\text{m}^3$ on Jun 27 23:00	Maximum Daily Average: 16.8 $\mu\text{g}/\text{m}^3$ on Jun 27	Hours in Service: 272
Minimum Value: 0 $\mu\text{g}/\text{m}^3$ on Jun 20 12:00	Minimum Daily Average: 3.8 $\mu\text{g}/\text{m}^3$ on Jun 25	Hours of Data: 271
Maximum Diurnal Average: 15.5 $\mu\text{g}/\text{m}^3$ at hour 23	Minimum Diurnal Average: 5.6 $\mu\text{g}/\text{m}^3$ at hour 12	Hours of Missing Data: 1
Monthly Average: 8.74 $\mu\text{g}/\text{m}^3$	Percentiles: P <sub>1</sub> = 1.0 P <sub>10</sub> = 2.8 Q <sub>1</sub> = 3.8 Median = 6.7 Q <sub>3</sub> = 12.7 P <sub>90</sub> = 16.3 P <sub>99</sub> = 36.4	Hours of Calibration: 0
		Percent Operational Time: 99.6

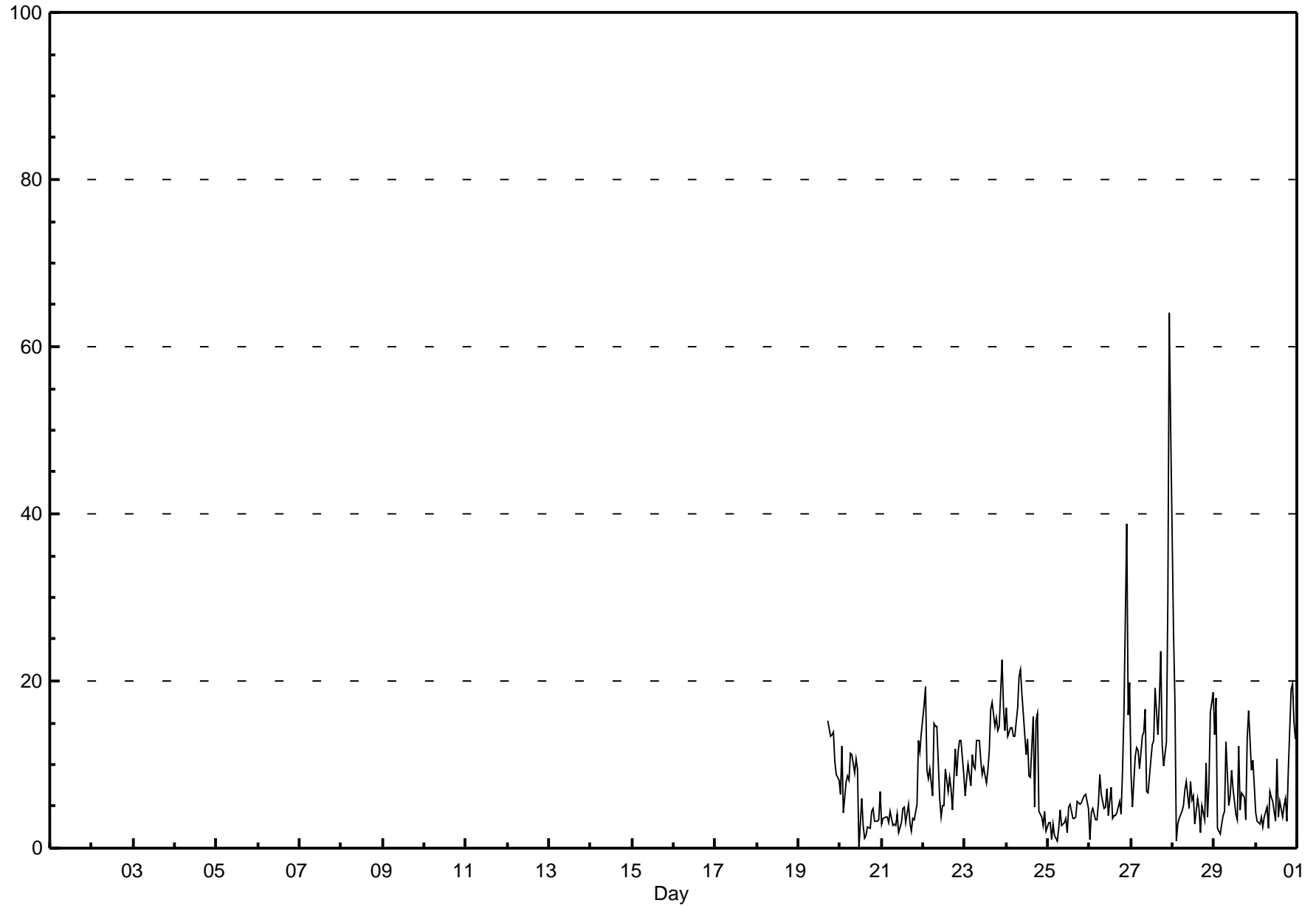
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
2-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
3-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
4-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
5-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
6-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
7-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
8-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
9-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
10-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
11-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
12-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
13-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
14-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
15-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
16-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
17-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
18-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
19-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
20-Jun	6	12	4	8	9	8	11	11	9	11	9	0	6	3	1	1	M	15	13	14	14	10	9	8	--	15.2
21-Jun	3	4	4	4	3	4	3	3	3	4	2	3	5	5	3	5	3	2	4	3	5	13	12	14	4.7	13.7
22-Jun	17	19	9	8	10	6	15	15	15	6	4	5	5	10	7	8	7	5	12	9	11	13	13	9	9.9	19.3
23-Jun	6	8	10	7	11	10	9	13	13	10	9	10	8	9	12	17	18	15	16	14	15	23	17	14	12.2	22.5
24-Jun	17	13	14	14	13	13	17	20	21	18	16	11	13	9	8	16	5	15	16	4	4	3	4	2	12.1	21.4
25-Jun	3	3	1	3	1	1	2	5	3	3	4	2	5	5	4	4	4	6	5	6	6	6	6	5	3.8	6.5
26-Jun	1	4	5	3	3	5	9	7	5	5	7	4	7	4	4	4	4	6	4	9	16	39	16	20	7.9	38.8
27-Jun	9	5	11	12	12	9	13	14	17	7	7	10	12	13	19	14	18	24	12	10	13	30	64	50	16.8	64.0
28-Jun	26	17	1	3	4	4	5	7	8	5	8	6	6	3	6	5	2	5	3	10	4	8	16	19	7.5	26.0
29-Jun	14	18	2	2	3	4	4	13	5	6	9	7	4	3	12	5	7	6	3	13	16	9	11	7	7.7	18.0
30-Jun	4	3	3	4	3	4	5	2	7	6	6	3	11	4	6	4	5	6	3	9	19	20	15	13	6.8	19.7
	9.7	9.8	5.9	6.2	6.5	6.3	8.6	9.9	9.5	7.4	7.3	5.6	7.5	6.1	7.4	7.4	6.8	8.8	8.1	8.8	10.5	14.6	15.5	14.0		Diurnal Average
	26.0	19.3	14.5	14.3	13.4	13.3	16.8	20.5	21.4	18.4	16.2	11.1	13.1	12.9	19.2	16.7	17.6	23.6	16.1	14.1	19.0	38.8	64.0	50.1		Diurnal Maximum

M - Maintenance      NS - Not in service



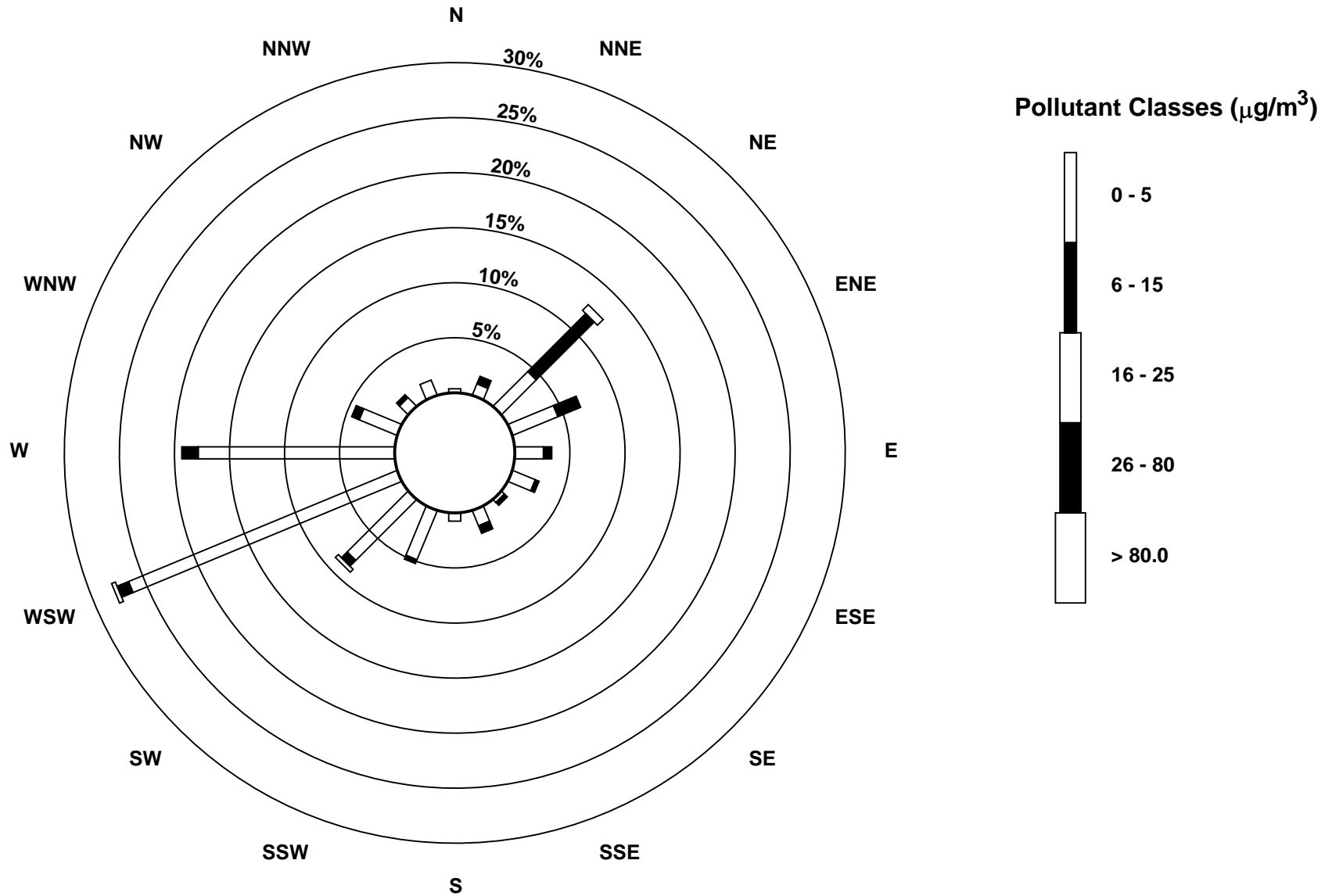
### Hourly Maximums

**PM2.5 (PM<sub>2.5</sub>) -  $\mu\text{g}/\text{m}^3$**   
**Portable Clairmont - June 2014**



**Pollutant Rose**

**PM<sub>2.5</sub> (PM<sub>2.5</sub>) -  $\mu\text{g}/\text{m}^3$**   
**Portable Clairmont - June 2014**





Peace Airshed Zone Association

# Hourly Averages

External Temperature (ET) - °C

Portable Clairmont - June 2014

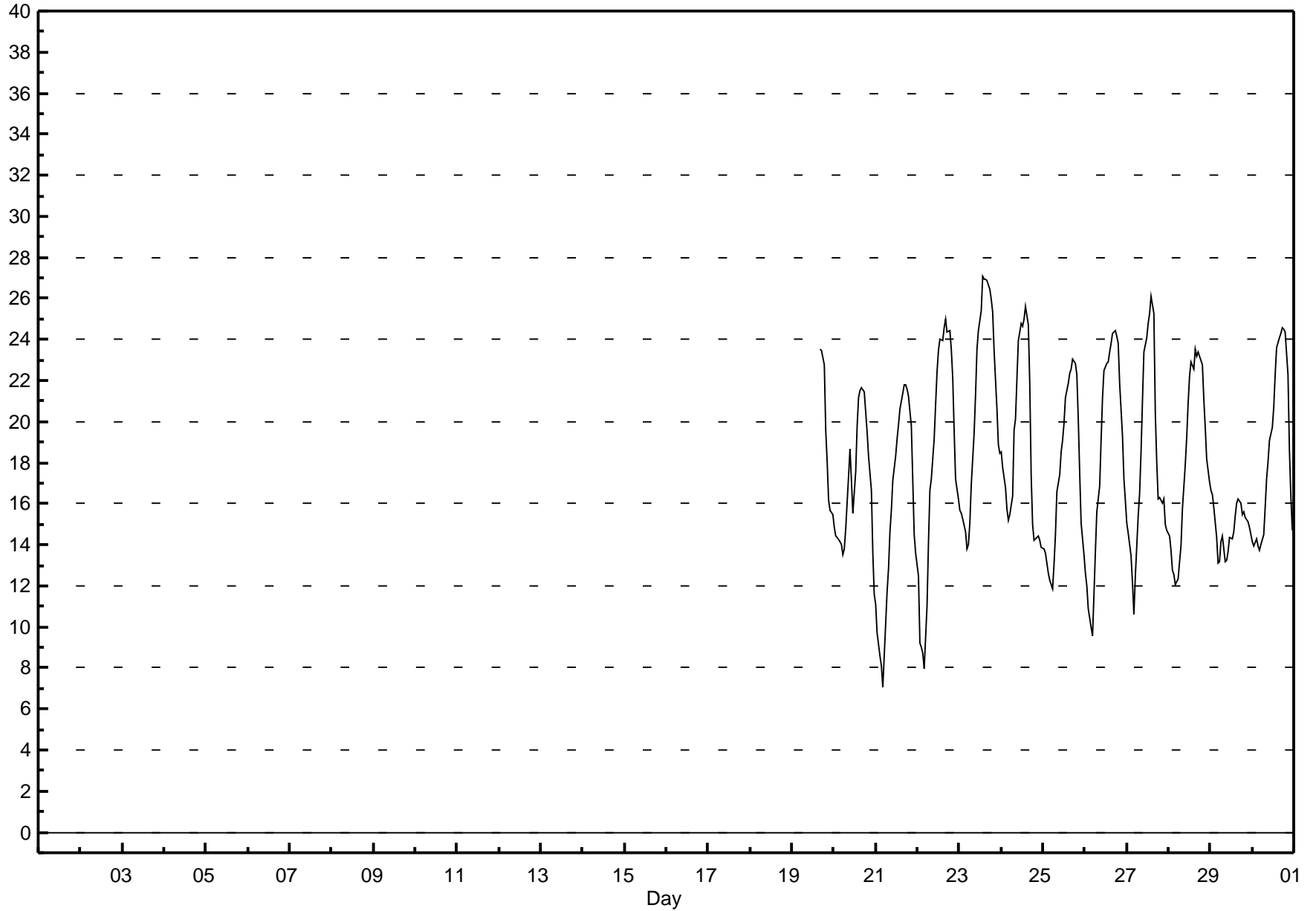
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	272
Maximum Value: 27.1 °C on Jun 23 14:00	Maximum Daily Average: 20.9 °C on Jun 23		Hours of Data:	272
Minimum Value: 7 °C on Jun 21 05:00	Minimum Daily Average: 14.8 °C on Jun 29		Hours of Missing Data:	0
Maximum Diurnal Average: 23.1 °C at hour 16	Minimum Diurnal Average: 11.8 °C at hour 5		Hours of Calibration:	0
Monthly Average: 17.87 °C	Percentiles: P <sub>1</sub> = 8.6 P <sub>10</sub> = 12.6 Q <sub>1</sub> = 14.4 Median = 17.1 Q <sub>3</sub> = 21.8 P <sub>90</sub> = 24.3 P <sub>99</sub> = 26.9		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-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
2-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
3-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
4-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
5-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
6-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
7-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
8-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
9-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
10-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
11-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
12-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
13-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
14-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
15-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
16-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
17-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
18-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
19-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
20-Jun	15	14	14	14	14	14	14	15	17	19	17	16	18	20	21	21	22	21	20	20	18	17	14	12	16.9	21.7
21-Jun	11	10	9	8	7	9	12	13	15	16	17	18	19	20	21	21	22	22	22	21	20	17	14	14	15.7	21.8
22-Jun	13	9	9	9	8	11	14	17	17	19	21	22	23	24	24	25	25	24	24	24	22	20	17	16	18.2	25.0
23-Jun	16	16	15	15	14	14	15	17	19	21	24	24	25	27	27	27	27	26	26	25	23	21	19	18	20.9	27.1
24-Jun	19	18	17	16	15	15	16	20	20	22	24	25	25	26	25	22	17	15	14	14	14	14	14	14	18.8	25.6
25-Jun	14	14	13	13	12	12	13	15	17	17	19	19	20	21	22	22	23	23	23	22	20	18	15	14	17.4	23.0
26-Jun	13	12	11	10	10	12	14	16	17	19	21	23	23	23	24	24	24	24	24	22	19	17	16	16	18.3	24.5
27-Jun	15	15	13	12	11	12	15	16	19	21	23	24	25	25	26	25	20	18	16	16	16	16	15	15	18.0	26.1
28-Jun	14	14	13	13	12	12	13	14	16	18	19	21	22	23	23	24	23	23	23	21	20	18	17	17	18.3	23.6
29-Jun	17	16	16	14	13	13	14	14	13	13	14	14	15	15	16	16	16	16	15	15	15	15	15	15	14.8	16.7
30-Jun	14	14	14	14	14	14	14	16	17	18	19	20	21	22	24	24	24	25	24	24	22	19	16	15	18.7	24.5
																								Diurnal Average	Diurnal Maximum	
																								18.6	18.5	

NS - Not in service

**Hourly Averages**

**External Temperature (ET) - °C**  
**Portable Clairmont - June 2014**





Peace Airshed Zone Association

# Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Portable Clairmont - June 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
2 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
3 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
4 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
5 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
6 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
7 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
8 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
9 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
10 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
11 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
12 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
13 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
14 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
15 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
16 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
17 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
18 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
19 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	16	14	12	8	11	12	12	11	11	--	15.6	
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	56	52	73	261	293	257	293	280	--	56.0		
20 Spd	9	7	6	3	5	5	7	6	5	1	16	18	16	14	16	19	18	18	16	16	14	11	8	6	8.6	18.5	
Dir	269	277	347	267	129	327	30	38	98	150	245	247	251	255	259	260	258	249	273	259	252	243	243	273	259.6	260.0	
21 Spd	9	5	7	7	8	10	16	14	17	20	20	21	19	19	16	13	12	12	9	10	6	4	3	4	11.0	21.0	
Dir	255	270	270	280	255	246	249	259	241	240	230	251	236	246	241	240	238	249	260	263	286	296	317	52	249.6	250.7	
22 Spd	1	6	4	2	4	2	2	4	8	11	13	12	8	5	7	7	6	6	7	11	9	8	9	9	4.7	13.5	
Dir	42	264	261	216	277	281	14	99	100	104	102	106	111	87	60	73	68	45	51	57	61	44	41	42	72.3	101.9	



Peace Airshed Zone Association

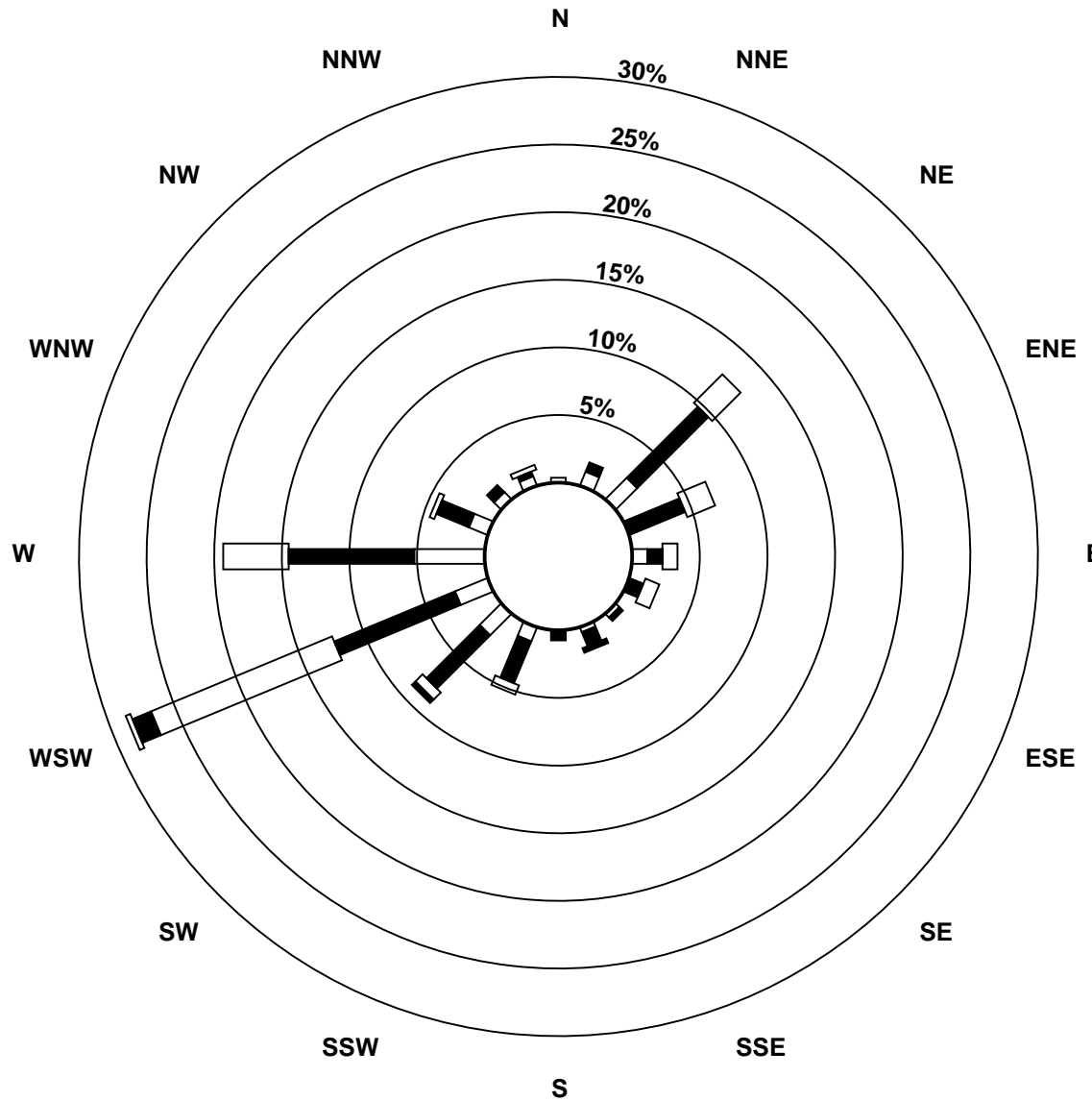
# Hourly Averages

**Wind Speed (km/h)**  
**Wind Direction (deg)**  
**Portable Clairmont - June 2014**

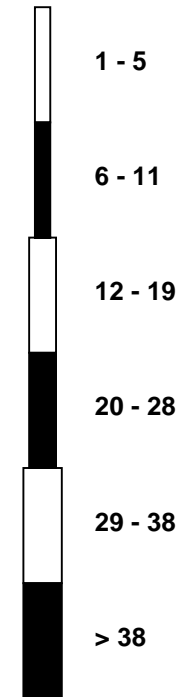
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	7	8	7	6	8	11	13	11	11	11	15	13	12	9	7	10	12	13	16	14	12	13	14	11	10.0	16.5
Dir	58	51	47	35	42	40	38	49	47	97	115	94	85	115	74	86	87	75	77	73	51	38	38	54	66.5	77.0
24 Spd	10	12	13	11	11	9	7	5	5	6	10	15	14	12	12	18	29	25	16	8	9	3	7	6	4.4	28.8
Dir	76	65	47	50	51	46	60	162	242	265	264	260	272	281	275	262	248	245	233	236	291	225	153	150	260.6	247.7
25 Spd	7	9	10	9	8	10	10	13	18	20	19	18	15	13	12	13	12	10	12	12	9	8	6	6	10.5	19.6
Dir	157	175	199	207	203	202	206	225	258	255	252	256	251	250	243	244	247	243	241	237	236	242	259	274	237.0	254.6
26 Spd	6	7	4	5	6	6	3	5	6	5	6	10	7	10	7	7	5	5	4	5	5	5	5	6	3.1	9.7
Dir	280	274	210	207	229	218	241	210	217	220	209	192	236	259	256	273	264	268	316	4	43	46	33	53	246.5	192.2
27 Spd	6	3	0	4	4	4	3	9	9	5	4	10	11	12	13	11	27	15	18	4	2	4	8	8	1.8	27.0
Dir	18	25	102	238	262	261	35	43	57	55	54	70	70	62	46	49	157	211	337	284	331	222	231	257	55.9	157.3
28 Spd	4	4	5	5	5	5	7	10	13	13	12	10	11	11	8	8	6	6	6	7	9	4	4	10	6.7	13.0
Dir	222	269	243	233	265	270	233	220	252	260	255	260	258	256	251	261	262	312	316	274	278	260	242	141	254.8	259.6
29 Spd	9	7	10	12	7	7	8	11	11	10	9	13	17	15	10	7	6	9	12	4	6	7	4	6	8.1	16.7
Dir	171	209	197	202	219	236	237	267	238	217	220	247	251	254	248	231	222	234	245	283	287	254	276	250	236.3	250.9
30 Spd	7	7	8	9	7	8	9	11	13	17	16	16	14	16	14	12	12	11	9	7	5	3	5	6	9.7	17.2
Dir	251	258	260	253	251	256	243	251	257	250	256	255	266	272	259	257	275	281	297	296	255	248	286	250	261.2	250.4
Spd	1.3	1.9	1.7	3.0	2.3	2.9	2.0	3.0	4.4	6.0	7.5	7.8	7.4	7.4	6.2	6.2	5.4	5.8	4.3	3.8	4.2	2.8	2.3	0.8	Diurnal Average	
Dir	227.9	261.1	247.2	231.8	240.8	261.2	259.5	243.4	245.2	235.0	230.8	240.5	247.8	256.3	260.2	256.9	228.5	252.4	289.9	275.4	292.6	271.1	297.4	285.0	Diurnal Maximum	
Spd	10.4	11.5	12.5	11.8	10.7	11.4	15.7	14.4	17.9	19.8	20.3	21.0	19.2	18.9	16.3	18.5	28.8	25.1	17.8	15.9	14.4	12.7	14.1	11.3	Diurnal Maximum	
Dir	75.6	64.9	47.3	202.1	51.2	39.6	249.2	259.0	258.3	239.6	229.8	250.7	236.5	246.3	258.6	260.0	247.7	245.5	337.5	258.6	252.2	38.4	37.7	279.8		
Maximum Speed Value: 29 km/h on Jun 24 17:00		Minimum Speed Value: 0 km/h on Jun 27 03:00										Hours in Service: 272														
Maximum Daily Speed Average: 11.0 km/h on Jun 21		Minimum Daily Speed Average: 1.8 km/h on Jun 26										Hours of Data: 272														
Maximum Diurnal Speed Average: 7.8 km/h at hour 12		Minimum Diurnal Speed Average: 0.8 km/h at hour 24										Hours of Missing Data: 0														
Monthly Average Velocity: 3.96 km/h 253.00 deg		Speed Percentiles: P <sub>1</sub> = 2.2 P <sub>10</sub> = 4.1 Q <sub>1</sub> = 5.7 Median = 8.8 Q <sub>3</sub> = 12.2 P <sub>90</sub> = 15.9 P <sub>99</sub> = 24.7										Percent Operational Time: 100.0														
All monthly, daily, and diurnal averages have been calculated using vector methods																										
NS - Not in service																										
Frequency Distribution																										
		Speed Range (km/h)																								
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	1	3	0	0	0	0	4																			
NorthEast	6	25	15	0	0	0	46																			
East	2	10	12	0	0	0	24																			
SouthEast	1	6	1	1	0	0	9																			
South	0	7	1	0	0	0	8																			
SouthWest	9	32	19	4	0	0	64																			
West	16	44	41	3	1	0	105																			
NorthWest	5	4	3	0	0	0	12																			
Total	40	131	92	8	1	0	272																			

**Wind Rose**

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



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



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable Clairmont - June 2014

Maximum Speed: 29 km/h on Jun 24 17:00		Maximum Daily Speed Average: 12.1 km/h on Jun 21		Hours in Service: 272																																													
Minimum Speed: 2 km/h on Jun 22 06:00		Minimum Daily Speed Average: 6.6 km/h on Jun 26		Hours of Data: 272																																													
Maximum Diurnal Speed Average: 14.7 km/h at hour 12		Minimum Diurnal Speed Average: 6.9 km/h at hour 4		Hours of Missing Data: 0																																													
Monthly Average Speed: 10.10 km/h		Percentiles: P <sub>1</sub> = 3.2 P <sub>10</sub> = 5.1 Q <sub>1</sub> = 6.7 Median = 9.2 Q <sub>3</sub> = 12.8 P <sub>90</sub> = 16.6 P <sub>99</sub> = 24.8		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-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																							
2-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
3-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
4-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
5-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
6-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
7-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
8-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
9-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
10-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
11-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
12-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
13-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
14-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
15-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
16-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
17-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
18-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
19-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--																						
20-Jun	9	9	7	3	7	7	7	7	6	5	16	19	16	14	17	19	19	18	17	16	15	11	8	7	11.6	19.0																							
21-Jun	9	6	7	7	8	11	16	15	17	20	21	22	20	19	16	14	13	13	10	11	6	4	3	4	12.1	21.5																							
22-Jun	3	6	6	3	4	2	3	4	9	11	14	13	9	8	8	8	7	7	7	11	9	8	9	9	7.5	13.6																							
23-Jun	7	8	7	6	8	11	13	11	12	13	15	13	13	11	8	11	13	13	17	15	12	13	14	12	11.5	16.8																							
24-Jun	11	12	13	11	11	9	7	7	5	7	11	15	14	13	13	19	29	25	18	9	10	4	7	7	11.9	29.3																							
25-Jun	7	10	10	9	8	10	10	13	18	20	19	19	16	13	12	13	12	10	13	12	9	8	6	6	11.8	19.9																							
26-Jun	6	7	6	5	6	6	3	6	6	6	7	10	8	11	10	9	7	6	4	5	6	6	5	7	6.6	11.5																							
27-Jun	6	4	3	5	4	5	4	9	9	6	5	11	12	13	13	17	28	19	18	7	5	5	8	8	9.3	27.8																							
28-Jun	5	4	5	6	5	6	7	10	13	13	13	11	12	11	9	10	7	7	6	7	10	5	5	10	8.2	13.4																							
29-Jun	9	8	10	12	8	7	8	11	11	10	9	13	17	15	10	7	6	9	13	4	7	7	4	6	9.3	16.9																							
30-Jun	7	7	8	9	8	8	10	11	13	17	16	16	14	16	14	13	12	11	9	7	5	4	5	6	10.2	17.4																							
																								7.1	7.4	7.4	6.9	7.0	7.4	8.0	9.5	10.9	11.8	13.2	14.7	13.7	13.2	11.9	12.8	14.0	12.8	12.1	9.6	8.8	7.4	7.4	7.7	Diurnal Average	
																								10.7	12.0	12.7	11.8	10.8	11.5	15.8	14.6	18.1	20.2	20.8	21.5	19.7	19.3	16.8	19.0	29.3	25.4	18.4	16.1	14.6	13.8	14.1	12.5	Diurnal Maximum	
NS - Not in service																																																	
All monthly, daily, and diurnal averages have been calculated using scalar methods																																																	



## Hourly Standard Deviations

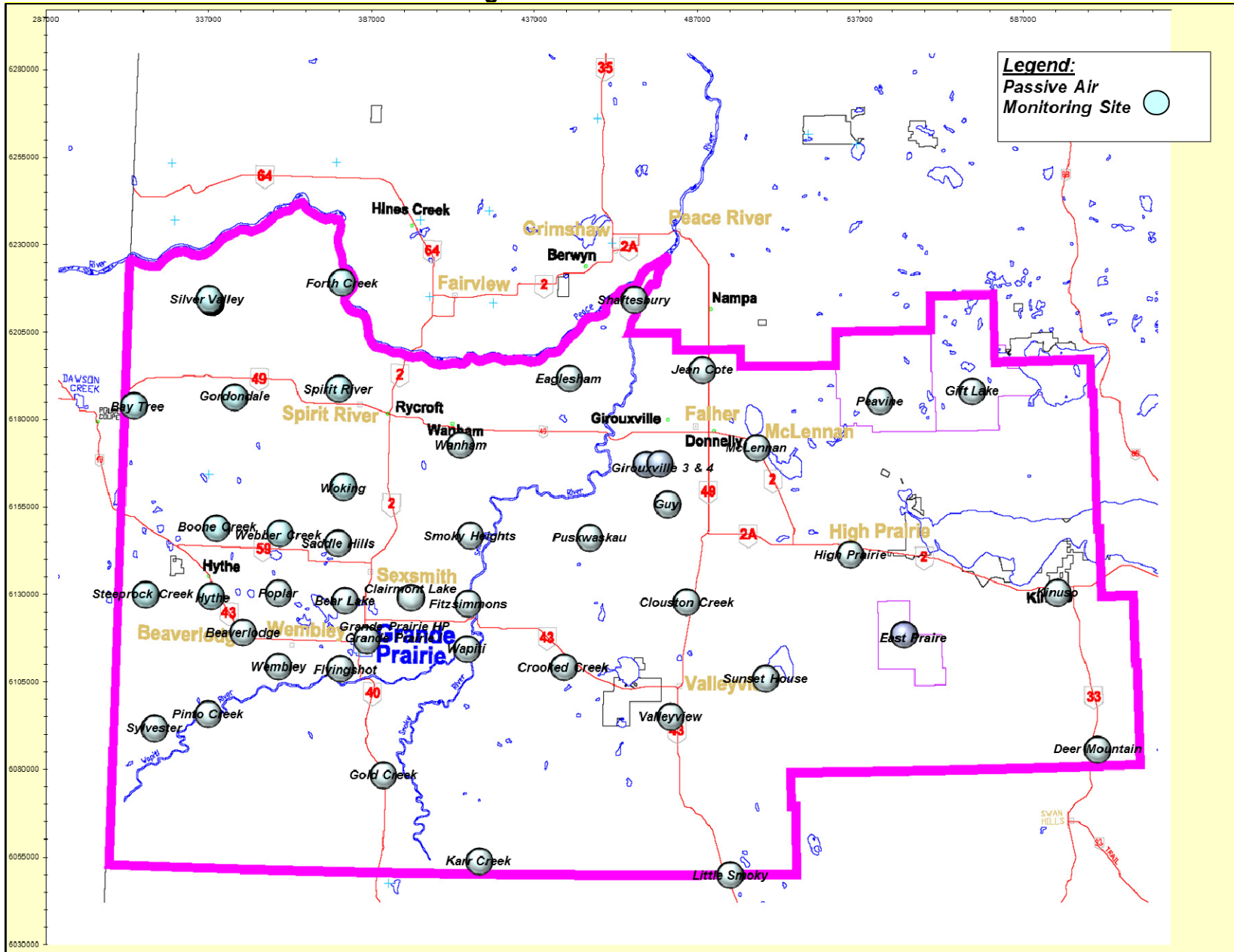
Wind Direction (WD) - deg  
**Portable Clairmont - June 2014**

Maximum Value: 92.6 deg on Jun 27 03:00																								Hours in Service: 272		
Minimum Value: 3.8 deg on Jun 23 22:00																								Hours of Data: 272		
Percentiles: P <sub>1</sub> = 5.6 P <sub>10</sub> = 8.3 Q <sub>1</sub> = 10.3 Median = 15.5 Q <sub>3</sub> = 26.3 P <sub>90</sub> = 42.9 P <sub>99</sub> = 67.8																								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-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	
2-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	
3-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	
4-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	
5-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	
6-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	
7-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	
8-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	
9-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	
10-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	
11-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	
12-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	
13-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	
14-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	
15-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	
16-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	
17-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	
18-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	
19-Jun	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	9	11	12	64	17	30	18	27	64.4	
20-Jun	17	39	32	42	46	48	11	19	35	84	18	9	11	14	14	13	18	10	10	8	8	8	14	16	83.6	
21-Jun	8	21	13	16	14	8	7	10	13	11	14	13	13	13	16	19	24	22	22	15	8	16	53	36	53.2	
22-Jun	69	12	47	51	15	19	45	16	11	9	9	14	40	60	28	31	37	23	21	11	10	9	4	6	69.3	
23-Jun	15	7	10	17	15	6	8	9	10	30	7	13	19	39	43	28	17	15	11	9	11	4	4	18	43.1	
24-Jun	14	17	10	9	9	9	25	40	28	24	16	12	16	18	19	13	12	8	29	31	18	50	13	9	50.1	
25-Jun	14	14	10	8	9	6	8	13	10	10	10	12	12	17	20	19	20	19	15	9	7	8	10	16	20.0	
26-Jun	9	8	40	10	11	12	39	23	27	32	37	24	37	36	49	38	70	48	39	19	32	27	15	28	70.0	
27-Jun	9	57	93	47	23	25	71	8	12	25	47	20	18	18	20	47	13	36	17	69	64	53	10	14	92.6	
28-Jun	31	19	16	27	14	29	9	10	17	11	14	26	25	19	27	38	35	30	18	27	12	21	44	11	44.0	
29-Jun	12	43	9	6	26	7	11	10	8	15	15	13	7	8	16	16	19	17	13	43	34	22	23	18	43.1	
30-Jun	8	10	10	9	12	14	8	8	9	8	10	9	11	13	16	17	15	14	15	15	23	26	19	6	26.2	
	69.3	56.6	92.6	51.4	45.9	47.6	70.6	40.2	34.8	83.6	46.7	25.8	40.2	59.9	48.8	47.2	70.0	48.1	39.3	69.5	64.0	53.1	53.2	35.9		
NS - Not in service																										

# PAZA

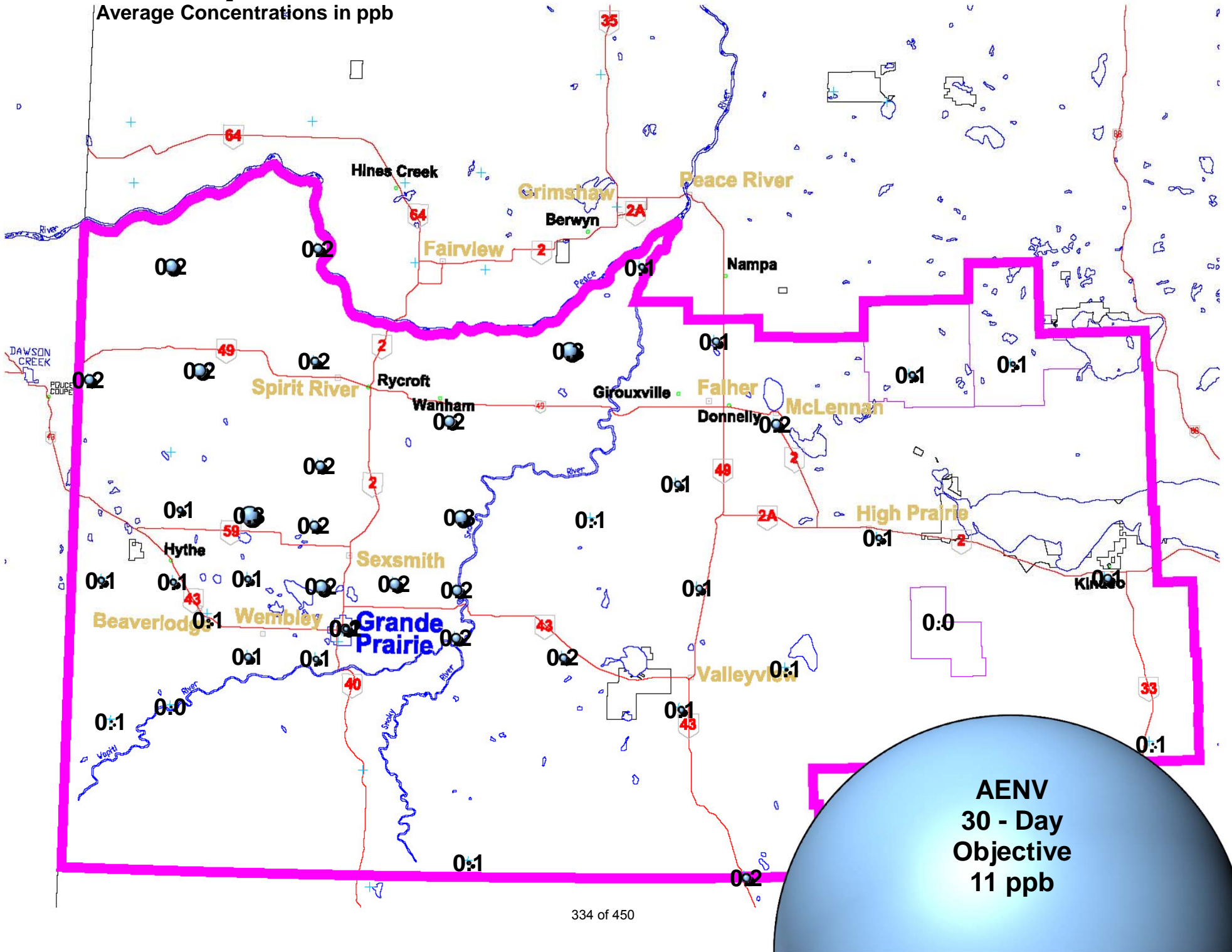
## Monthly Passive Data Summary

# Location of PAZA Passive Monitoring Stations



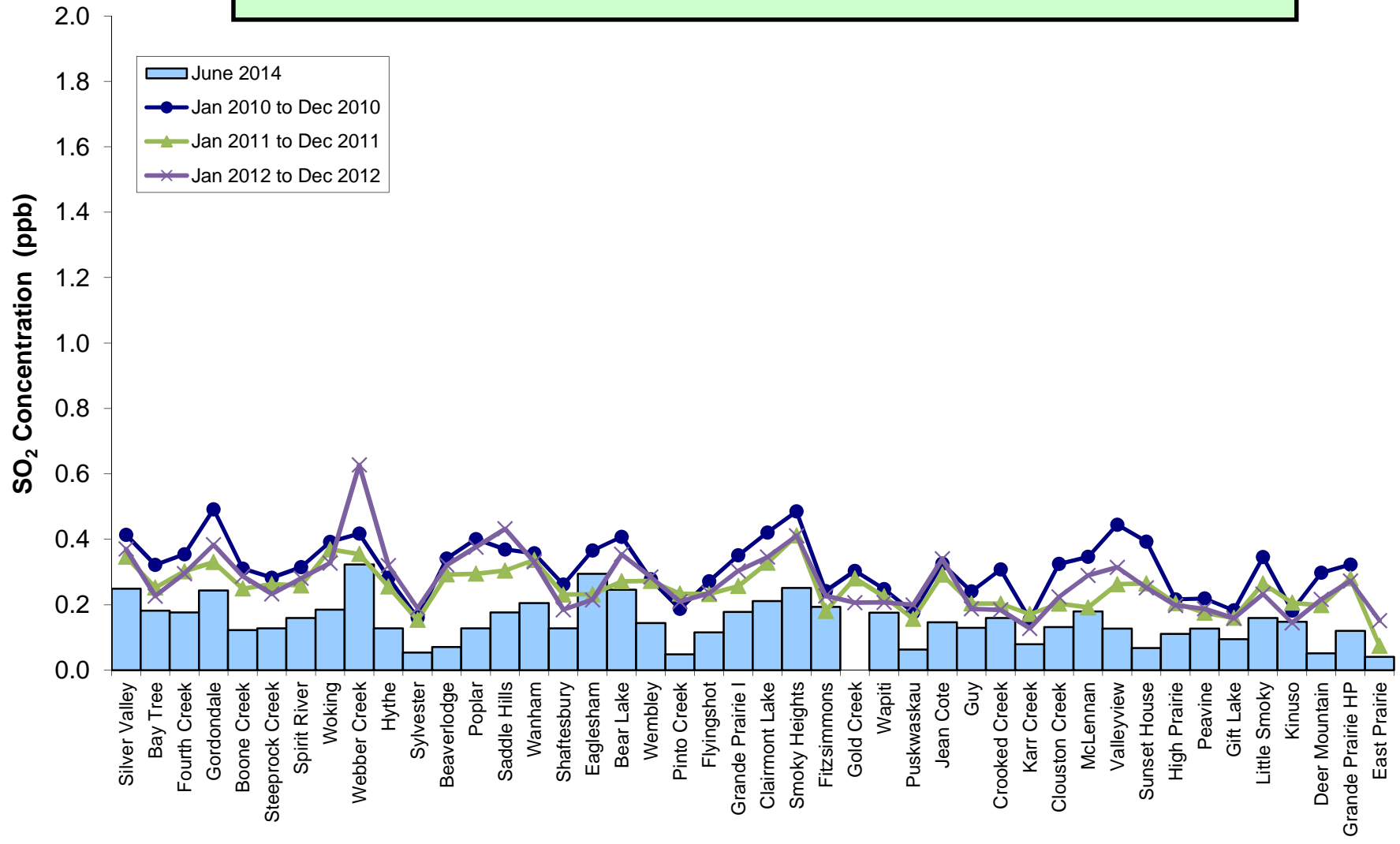
# PAZA Passive SO<sub>2</sub> Stations - June 2014

## Average Concentrations in ppb



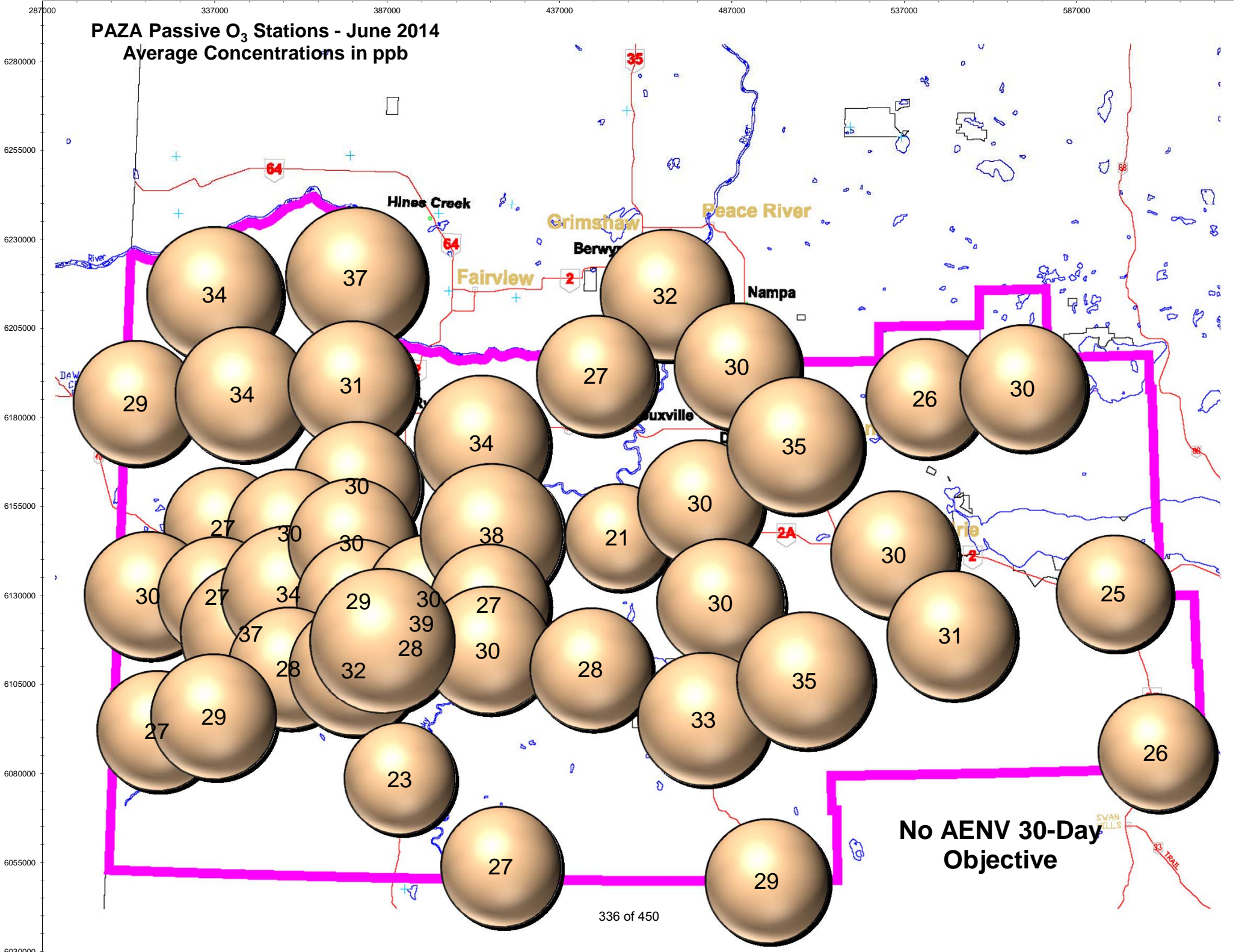
**AENV  
30 - Day  
Objective  
11 ppb**

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



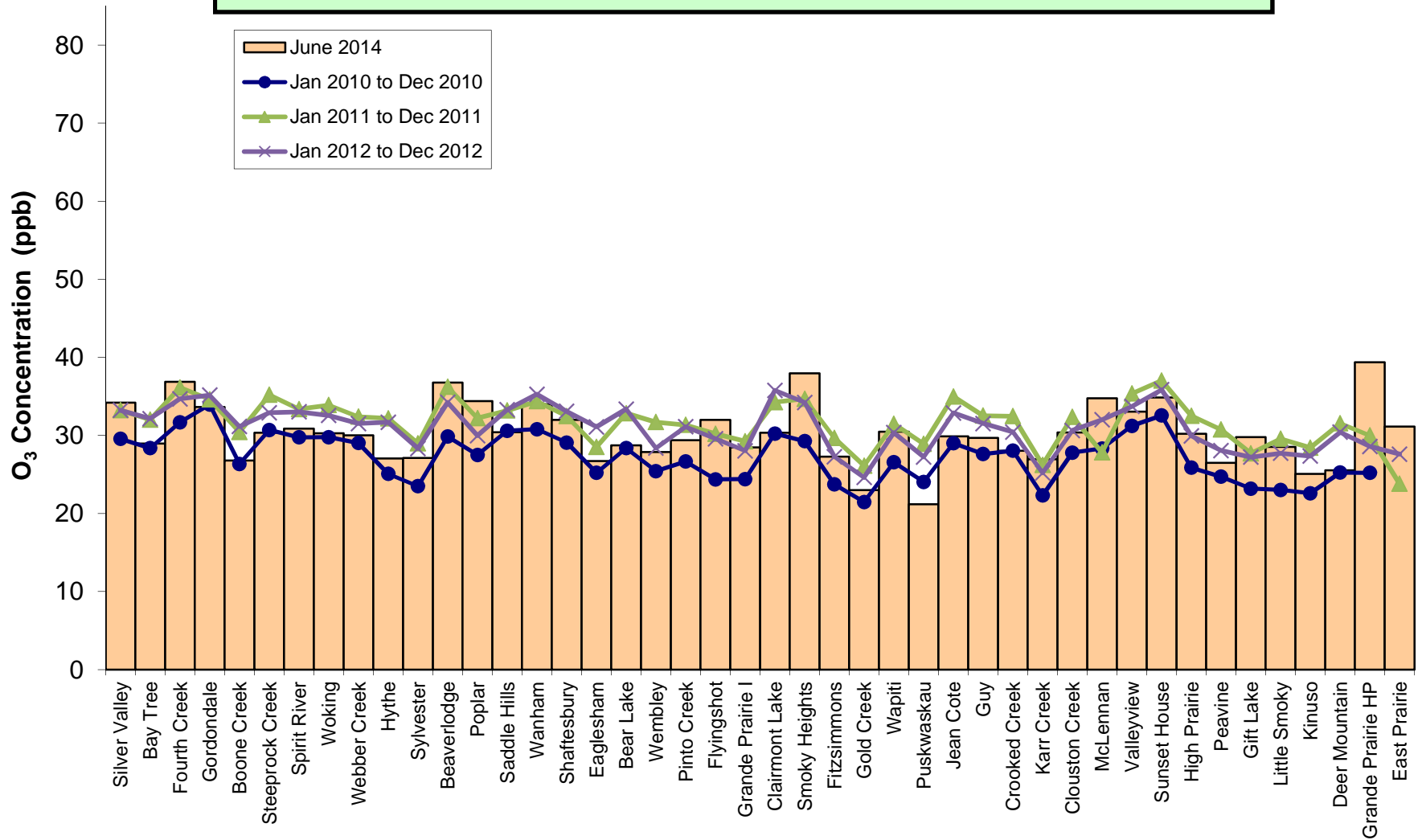
# PAZA Passive O<sub>3</sub> Stations - June 2014

## Average Concentrations in ppb

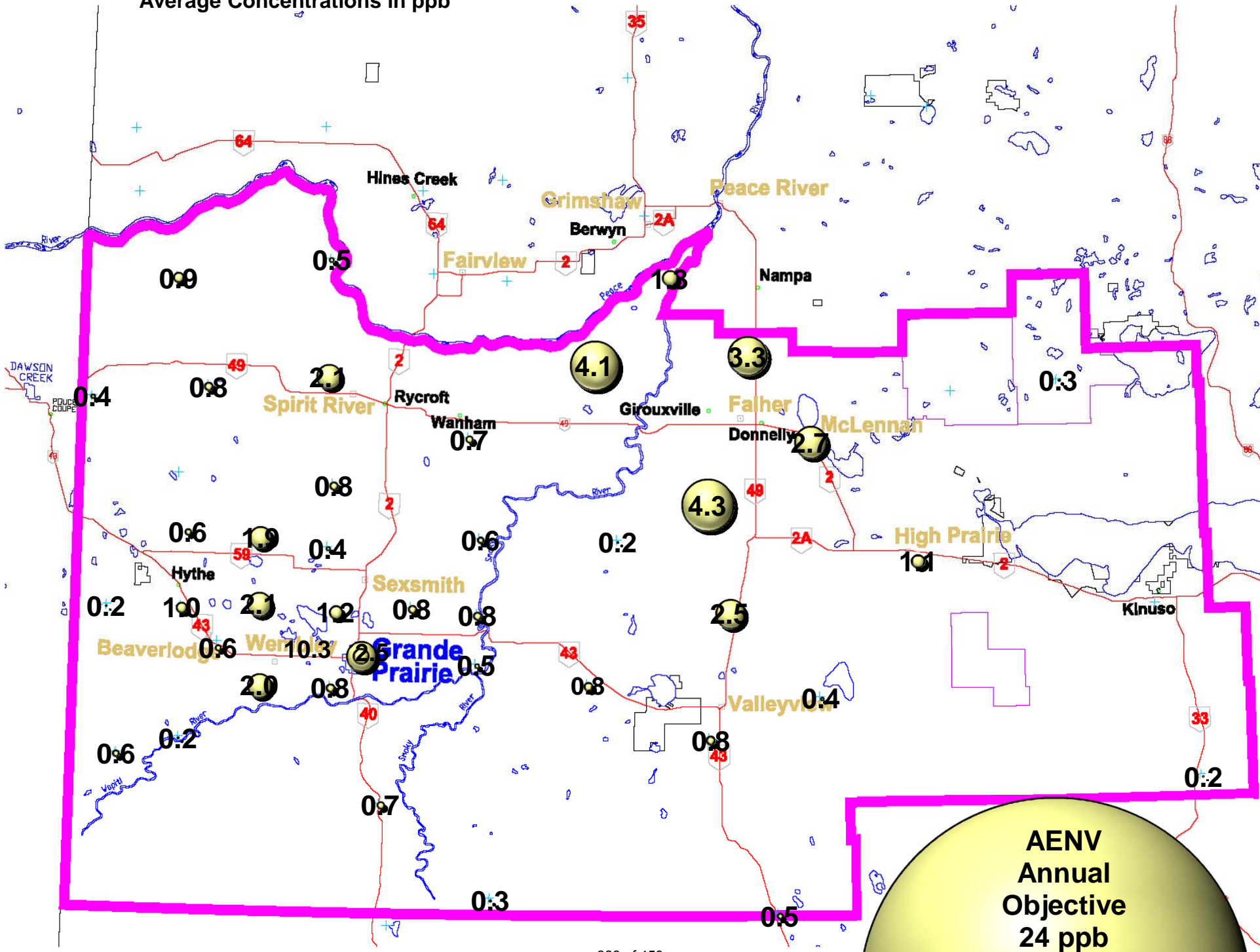


No AENV 30-Day Objective

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



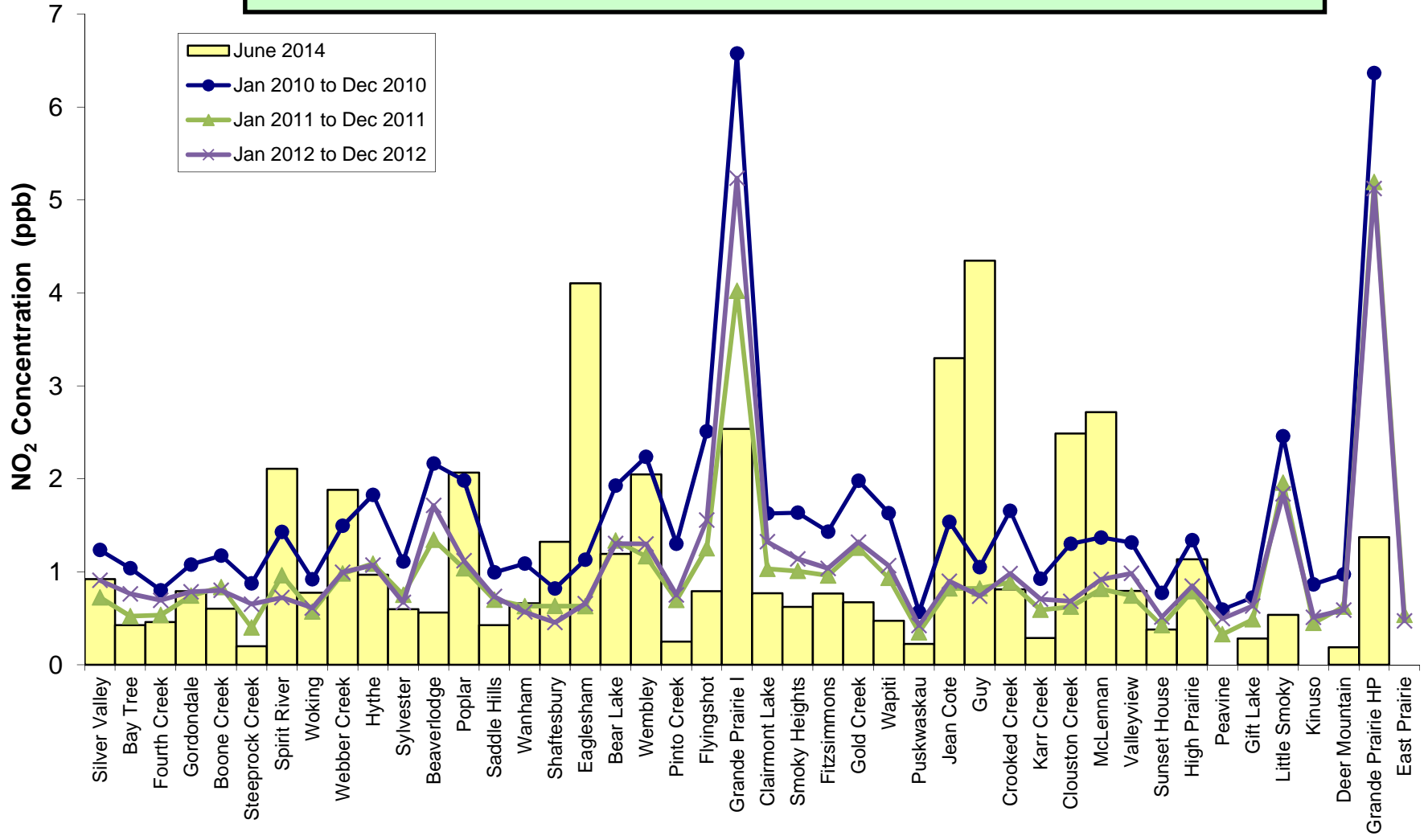
**PAZA Passive NO<sub>2</sub> Stations - June 2014**  
Average Concentrations in ppb



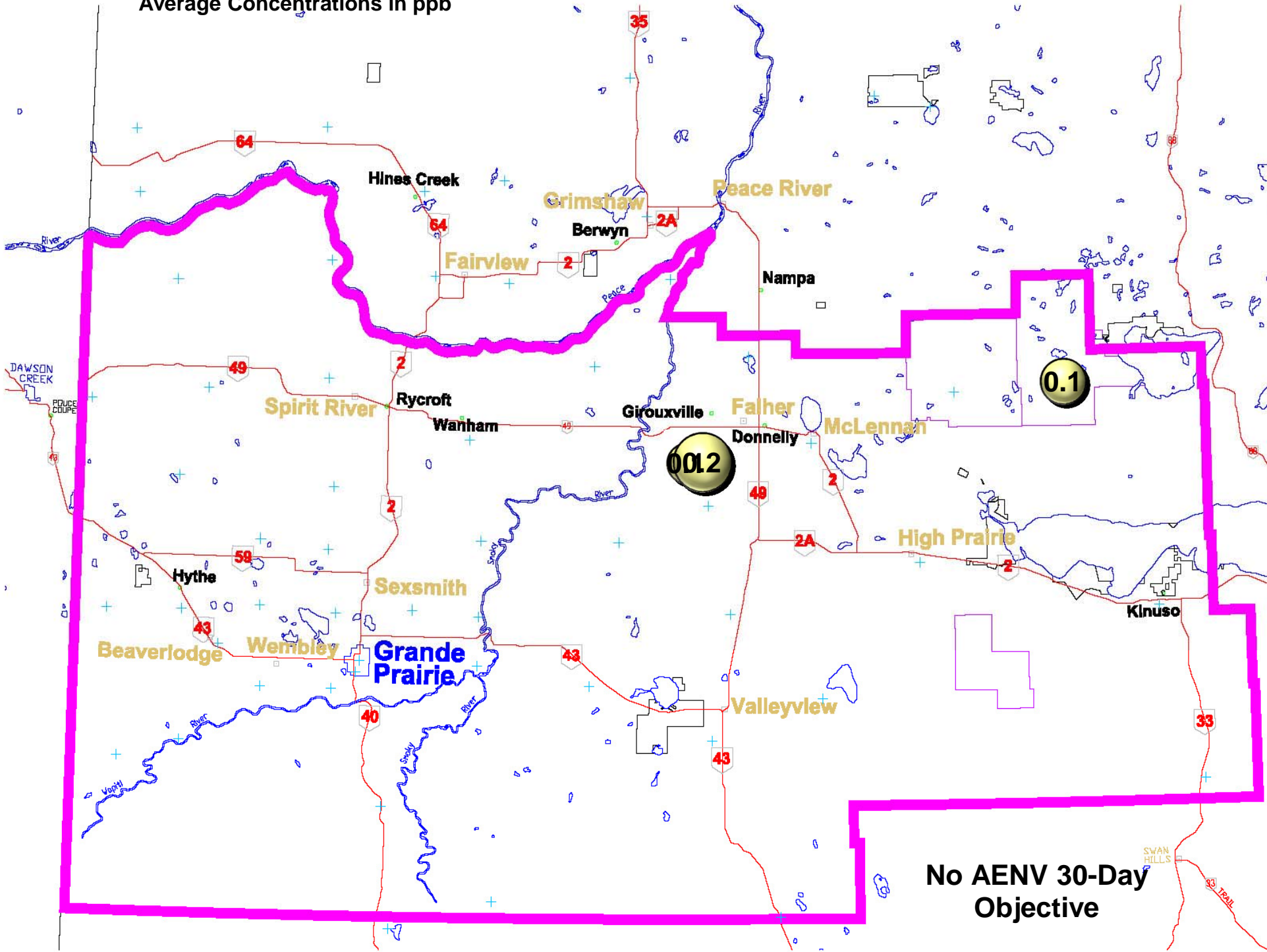
**AENV  
Annual  
Objective  
24 ppb**



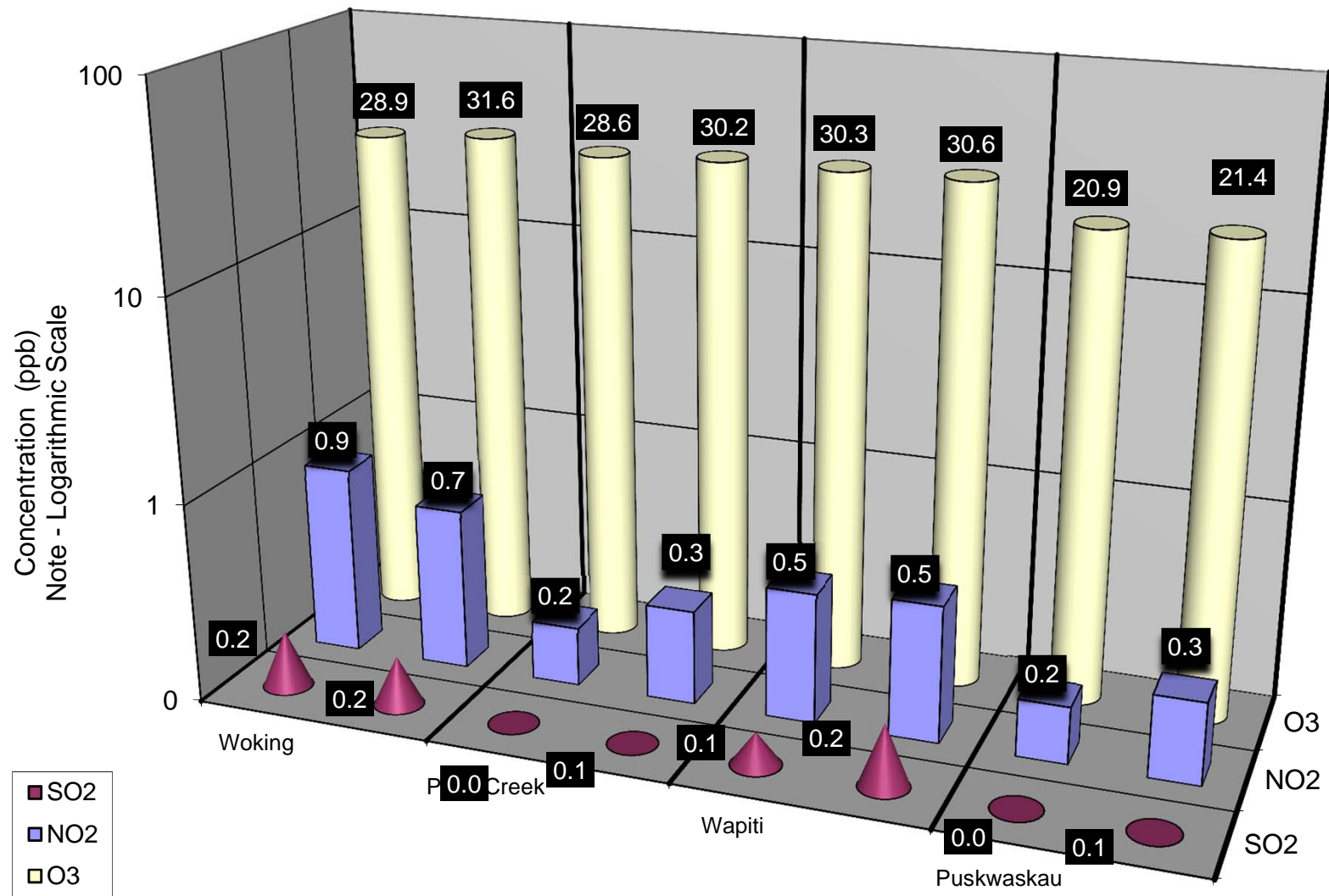
**Alberta Ambient Air Quality Objective - Annual NO<sub>2</sub> Objective is 24 ppb**



PAZA Passive H<sub>2</sub>S Stations - June 2014  
Average Concentrations in ppb



No AENV 30-Day Objective



Duplicate Summary Chart

## PAZA Passive Results for June 2014

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
<b>Duplicates</b>						
10a	Woking	0.2	28.9	0.9		
10b	Woking	0.2	31.6	0.7		
25a	Pinto Creek	BDL	28.6	0.2		
25b	Pinto Creek	0.1	30.2	0.3		
33a	Wapiti	0.1	30.3	0.5		
33b	Wapiti	0.2	30.6	0.5		
34a	Puskwaskau	0.0	20.9	0.2		
34b	Puskwaskau	0.1	21.4	0.3		
64a	Girouxville 4				0.2	
64b	Girouxville 4				0.2	
1	Silver Valley	0.2	34.2	0.9		08-27-081-11 W6M
2	Bay Tree	0.2	29.0	0.4		13-16-078-13 W6M
3	Fourth Creek	0.2	36.9	0.5		04-13-082-07 W6M
4	Gordondale	0.2	33.6	0.8		04-34-078-10 W6M
5	Boone Creek	0.1	26.8	0.6		16-36-074-11 W6M
7	Steeprock Creek	0.1	30.3	0.2		09-35-072-13 W6M
9	Spirit River	0.2	30.9	2.1		08-12-079-07 W6M
10	Woking	0.2	30.3	0.8		01-13-076-07 W6M
11	Webber Creek	0.3	30.0	1.9		09-36-074-09 W6M
12	Hythe	0.1	27.0	1.0		14-36-072-11 W6M
14	Sylvester	0.1	27.1	0.6		08-06-069-12 W6M
16	Beaverlodge	0.1	36.8	0.6		15-36-071-10 W6M
17	Poplar	0.1	34.4	2.1		13-06-073-08 W6M
18	Saddle Hills	0.2	30.4	0.4		04-25-074-07 W6M
19	Wanham	0.2	34.0	0.7		16-22-077-03 W6M
20	Shaftesbury	0.1	32.0	1.3		04-03-082-23 W5M
21	Eaglesham	0.3	26.7	4.1		16-21-079-25 W5M
23	Bear Lake	0.2	28.7	1.2		15-31-072-06 W6M
24	Wembley	0.1	27.9	2.0		12-31-070-08 W6M
25	Pinto Creek	0.1	29.4	0.2		04-24-069-11 W6M
26	Flyingshot	0.1	32.0	0.8		15-36-070-07 W6M
27	Grande Prairie I	0.2	28.5	2.5		08-15-071-06 W6M

## PAZA Passive Results for June 2014 (Continued)

28	Clairmont Lake	0.2	30.3	0.8		09-06-073-04 W6M
29	Smoky Heights	0.3	37.9	0.6		04-06-075-02 W6M
30	Fitzsimmons	0.2	27.3	0.8		15-36-072-03 W6M
32	Gold Creek	N/S	23.0	0.7		06-33-067-05 W6M
33	Wapiti	0.2	30.5	0.5		02-25-071-03 W6M
34	Puskwaskau	0.1	21.2	0.2		15-35-074-25 W5M
35	Jean Cote	0.1	29.9	3.3		12-35-079-21 W5M
36	Guy	0.1	29.7	4.3		03-04-076-22 W5M
37	Crooked Creek	0.2	28.0	0.8		16-01-071-26 W5M
38	Karr Creek	0.1	26.9	0.3		10-16-065-02 W6M
39	Clouston Creek	0.1	30.4	2.5		12-01-073-22 W5M
40	McLennan	0.2	34.7	2.7		03-29-077-19 W5M
41	Valleyview	0.1	33.0	0.8		09-30-069-22 W5M
42	Sunset House	0.1	34.9	0.4		05-32-070-19 W5M
43	High Prairie	0.1	30.2	1.1		16-13-074-17 W5M
44	Peavine	0.1	26.5	BDL		03-05-079-15 W5M
45	Gift Lake	0.1	29.8	0.3	0.1	10-07-079-12 W5M
46	Little Smoky	0.2	28.5	0.5		12-01-065-21 W5M
47	Kinuso	0.1	25.1	BDL		12-10-073-10 W5M
48	Deer Mountain	0.1	25.5	0.2		15-22-068-09 W5M
49	Grande Prairie HP	0.1	39.4	1.4		17-26-071-06 W6M
50	East Prairie	BDL	31.1	BDL		13-02-072-15 W5M
63	Girouxville 3				0.1	14-02-077-23 W5M
64	Girouxville 4				0.2	4-08-077-22 W5M

\*BDL = Below Detection Level

\*NS - No sample

## Passive Summary for June 2014

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 June 2014 (PAZA Zone)				
Mean	0.2	30.2	1.2	0.2
Standard Deviation	0.1	3.8	1.0	0.0
Minimum	0.1	21.2	0.2	0.1
Minimum At	Deer Mountain (#48)	Puskwaskau (#34)	Deer Mountain (#48)	Girouxville 3 (#63)
Maximum	0.3	39.4	4.3	0.2
Maximum At	Webber Creek (#11)	Grande Prairie HP	Guy (#36)	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	0.1	30.1	2.0
PAZA Beaverlodge passive	0.1	36.8	0.6

### 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	0.1	27.9	4.5
PAZA Grande Prairie passive	0.1	39.4	1.4

# PAZA

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

### **June 2014**

## Air Monitoring Directive Exceedence Report

### Alberta Environment and Sustainable Resource Development

#### 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>	<b>286016</b>	<b>Reported To (AESRD Contact):</b>	Jasmina
<b>Date &amp; Time Incident Reported to AESRD:</b>	June 30 <sup>th</sup> , 2014 15:50	<b>Reported By:</b>	Patrick Andersen
<b>Reported on Behalf of:</b>	PAZA	<b>Approval Number (if applicable):</b>	Not Applicable
<b>Location(s) of Incident:</b>	Beaverlodge Station		
<b>Start Date &amp; Time of Incident:</b>	May 12, 2014	<b>End Date &amp; Time of Incident:</b>	June 23, 2014
<b>Reason or Nature of Incident:</b>			
Switching valve found seized. ESRD owned equipment, replacement part ordered from them same day, received June 19 <sup>th</sup> , installed June 23 <sup>rd</sup> .			
<b>Immediate Actions Taken:</b>			
Contacted Alberta Environment			
<b>Actions Taken to Prevent Reoccurrence (if any):</b>			
N/A			
<b>Additional Actions Required (if any):</b>			
N/A			
<b>Report Completed By:</b>	Patrick Andersen	<b>Date Report Submitted:</b>	June 30, 2014
<b>7-Day Letter Due Date:</b>	July 6, 2014		



# June 2014 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**

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

**PAZA – Smoky Heights Station with the following calibrations:  
SO<sub>2</sub>, TRS, PM<sub>2.5</sub>**

**PAZA – Beaverlodge Station with the following calibrations:  
SO<sub>2</sub>, NO, NO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>, PM<sub>2.5</sub>**

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

**PAZA – Reno Station with the following calibrations:  
SO<sub>2</sub>, NO, NO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>, TRS**

**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>, TRS**

# Calibration Report



Parameter SO2

Air Monitoring Network PAZA

## Station Information

Calibration Date	June 4, 2014	Previous Calibration	May 1, 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)	10:30	End Time (MST)	14:30:00 PM
Barometric Pressure	717.000 mm	Station Temperature	20.5 Deg C
Calibrator		Serial Number	3016
Cal Gas Conc	49.8 ppm	Cal Gas Cert Date	March 12, 2014
		Cal Gas Cylinder #	LL105159
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	0.996544	Calculated slope	0.994695
Calculated intercept	1.989159	Calculated intercept	2.056631
Analyzer make	TEI 43C	Analyzer serial #	610816292

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	9.4		9.4	
Coefficient	0.781		0.781	
Pressure	645.9	mm Hg	641.0	mm Hg
Flow	0.477	lpm	0.475	lpm
Lamp intensity	44460	Hz	44016	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	0.2	N/A
4995	39.93	394.9	396.2	0.9968
4995	19.97	198.3	195.7	1.0132
4995	9.97	99.2	95.8	1.0359
4995	0.00	0.0	0.2	As Found Zero
4995	39.93	394.9	396.2	As Found Span
Average Correction Factor				1.0153

Calculated value of As Found Response: 396.7 ppb      Percent Change of As Found: -0.4%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	250.7	ppb	256.6	ppb

Notes: No adjustments made.

Calibration Performed By: Dmytro Dolotii

# Calibration Summary

Parameter SO2  
 Air Monitoring Network PAZA



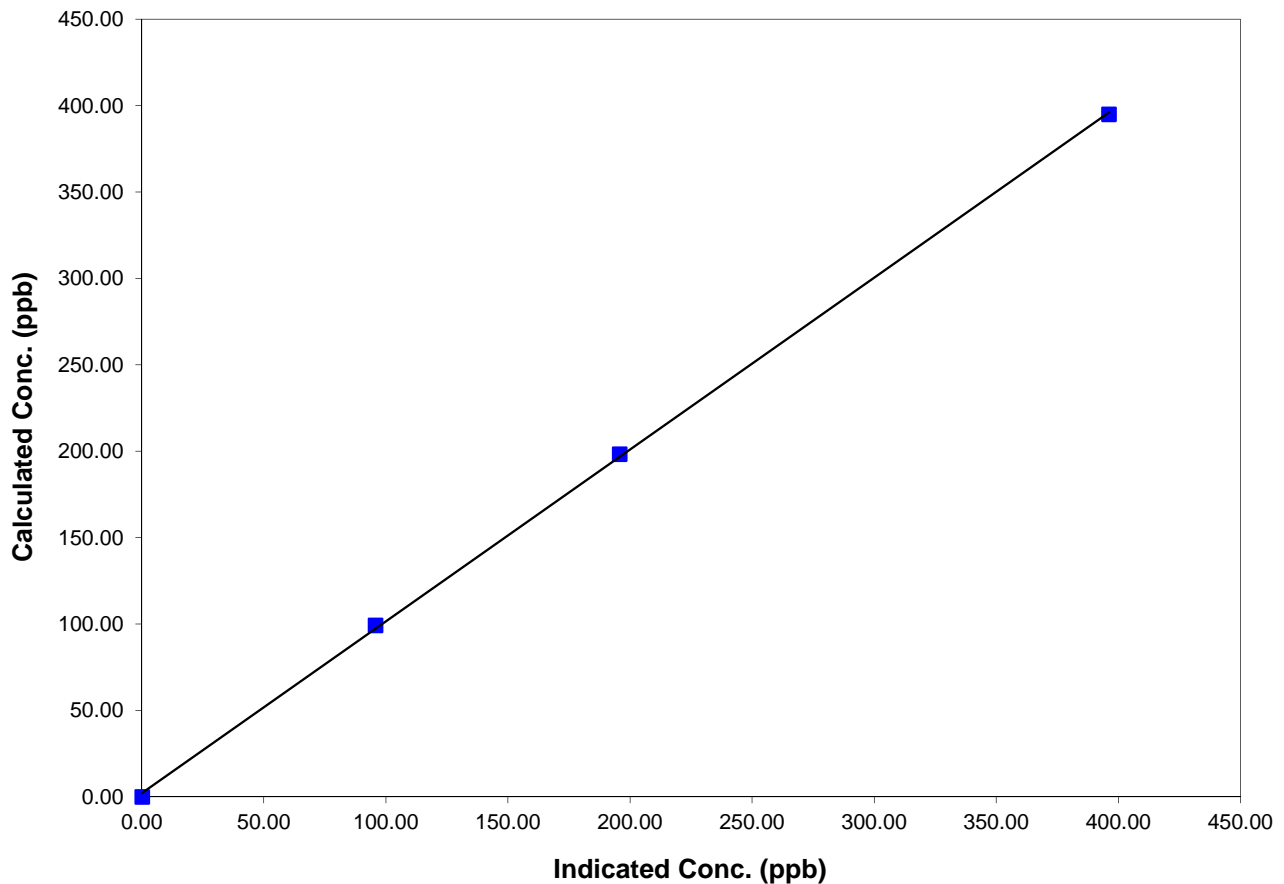
## Station Information

Calibration Date	June 4, 2014	Previous Calibration	May 1, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:30	End Time (MST)	14:30:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	610816292

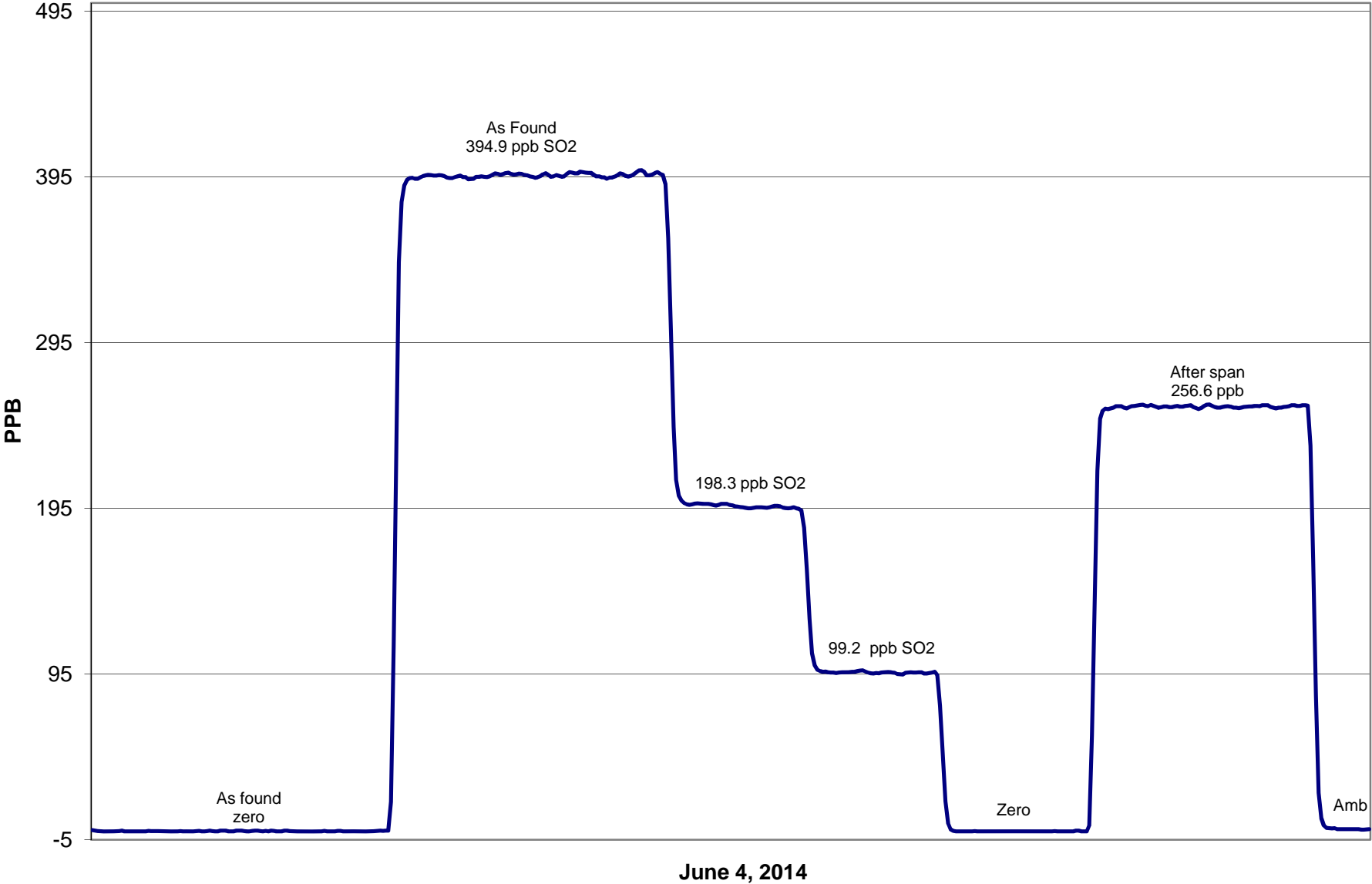
## Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999853
394.9	396.2	0.9968		
198.3	195.7	1.0132	Slope	0.994695
99.2	95.8	1.0359		
			Intercept	2.056631

### SO2 Calibration Curve



# SO2 Calibration



# Calibration Report

Parameter  
Air Monitoring Network

NO<sub>x</sub>-NO-NO<sub>2</sub>  
PAZA



## Station Information

Calibration Date	June 4, 2014	Previous Calibration	May 1, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	<b>Routine</b> Installation Removal Other:		
Start Time (MST)	10:30	End Time (MST)	16:15:00 PM
Barometric Pressure	717.000 mm	Station Temperature	20.5 Deg C
Calibrator	EnviroNics	Serial Number	3016
NO Cal Gas Conc	52.1 ppm	Cal Gas Expiry Date	March 12, 2014
NO <sub>x</sub> Cal Gas Conc	52.4 ppm	Cal Gas Serial #	LL105159

## DACS Information

DACS make	CR3000	DACS serial No.	5408
-----------	--------	-----------------	------

Parameter	NO2	NOx	NO	
Before	Data Slope	0.997642	0.995667	0.995102
	Data Offset	-0.167972	1.311673	1.698860
After	Data Slope	0.995378	0.997178	0.993273
	Data Offset	0.245102	1.463553	1.638851
Channel #	8	6	7	
Voltage Range	0 - 5 VDC	0 - 5 VDC	0 - 5 VDC	

## Analyzer Information

Analyzer make/model	TEI 42C	Analyzer serial #	508011073
---------------------	---------	-------------------	-----------

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	10.6	mV	13.8	mV
NO <sub>x</sub> bkgnd	10.8	mV	14.2	mV
NO coefficient	1.097		1.126	
NO <sub>x</sub> coefficient	1.000		1.000	
NO2 conv temp	318.0	Deg C	318.0	Deg C
Cooler	-2.5	Deg C	-2.5	Deg C
PMT Volt	-774.0	mV	-774.0	mV
R Cell Press	209.5	in Hg	210.0	in Hg

# Calibration Report

Parameter **NOx-NO-NO<sub>2</sub>**  
 Air Monitoring Network **PAZA**



Calibration Date: **June 4, 2014** Station Location: **Henry Pirker**

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	
zero	4995	0.00	0.0	0.0	0.0	0.0	-0.1	0.0	N/A	N/A	
1	4995	39.93	415.6	413.2	2.4	416.0	415.1	0.8	0.9990	0.9954	
2	4995	19.97	208.7	207.5	1.2	207.1	206.5	0.5	1.0073	1.0046	
3	4995	9.97	104.4	103.8	0.6	101.6	101.2	0.4	1.0271	1.0256	
AFZ	4995	0.00	0.0	0.0	0.0	3.1	2.8	0.4	0.0000	0.0000	
AFS	4995	39.93	415.6	413.2	2.4	405.5	404.0	1.3	1.0248	1.0227	
									Average Correction Factor	1.0111	1.0085

As Found Concentrations: **NO<sub>x</sub>= 403.8** **NO= 402.9** As Found Percent Change **NO<sub>x</sub>= -2.8%** **NO= -2.5%**

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	2.8	2.8	0.0	0.0	-0.1	0.0	N/A	N/A	N/A	N/A	
NO point	415.0	415.0	0.0	415.7	415.0	0.6	0.9984	1.0000	N/A	N/A	
300	415.0	103.6	311.4	415.7	103.6	312.4	0.9982	1.0000	0.9969	100.3%	
200	415.0	205.5	209.5	416.4	205.5	210.9	0.9967	1.0000	0.9931	100.7%	
100	415.0	305.2	109.8	414.5	305.2	109.3	1.0012	1.0000	1.0044	99.6%	
							Average Correction Factor	0.9987	1.0000	0.9981	100.2%

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.0	0.0	-0.1	ppb	0.1	0.0	0.0	ppb
Auto span	329.9	327.5	2.4	ppb	327.1	325.1	2.2	ppb

Calibration Performed By: Dmytro Dolotii

# Calibration Summary

Parameter NO<sub>2</sub>

Air Monitoring Network PAZA



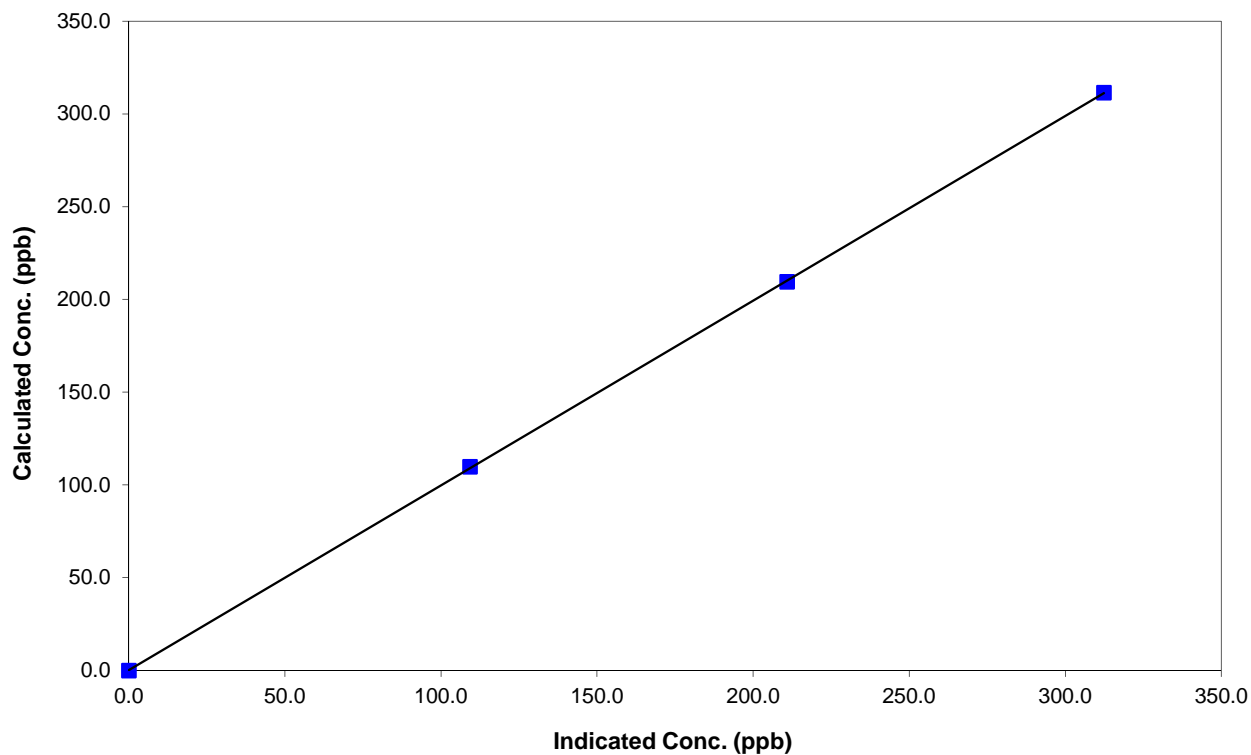
## Station Information

Calibration Date	June 4, 2014	Previous Calibration	May 1, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:30	End Time (MST)	16:15:00 PM
Analyzer make	TEI 42C	Analyzer serial #	508011073

## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
311.4	312.4	0.9969	Correlation Coefficient	0.999978
209.5	210.9	0.9931		
109.8	109.3	1.0044	Slope	0.995378
			Intercept	0.245102

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



# Calibration Summary

Parameter NO<sub>x</sub>

Air Monitoring Network PAZA



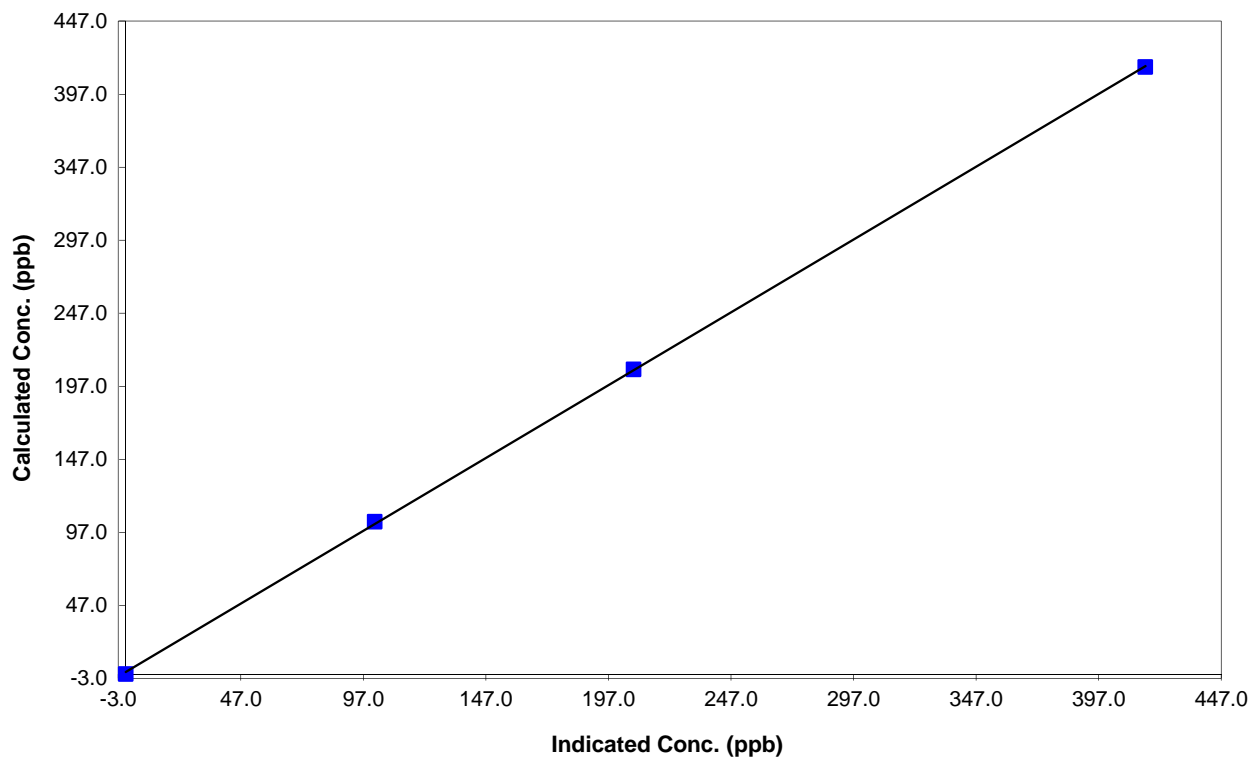
## Station Information

Calibration Date	June 4, 2014	Previous Calibration	May 1, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:30	End Time (MST)	16:15:00 PM
Analyzer make	TEI 42C	Analyzer serial #	508011073

## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999940
415.6	416.0	0.9990		
208.7	207.1	1.0073		
104.4	101.6	1.0271	Slope	0.997178
			Intercept	1.463553

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





# Calibration Summary

Parameter NO

Air Monitoring Network PAZA



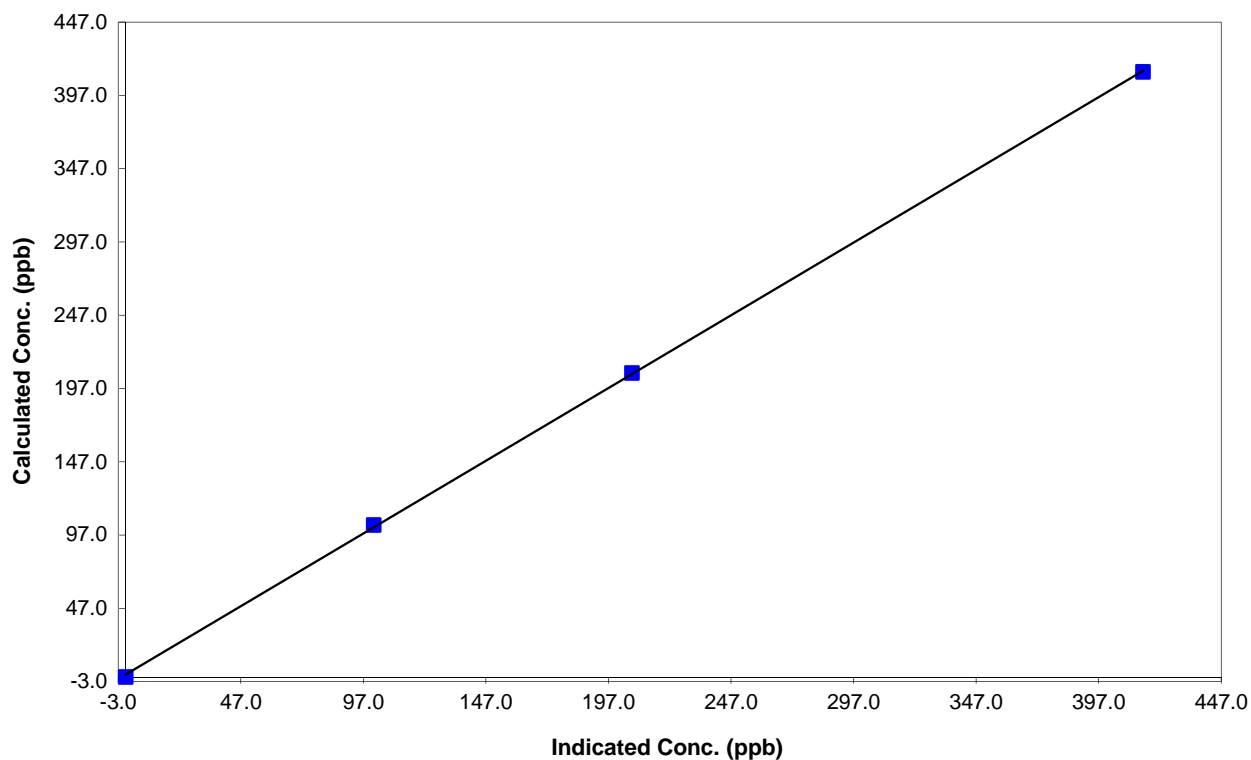
## Station Information

Calibration Date	June 4, 2014	Previous Calibration	May 1, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:30	End Time (MST)	16:15:00 PM
Analyzer make	TEI 42C	Analyzer serial #	508011073

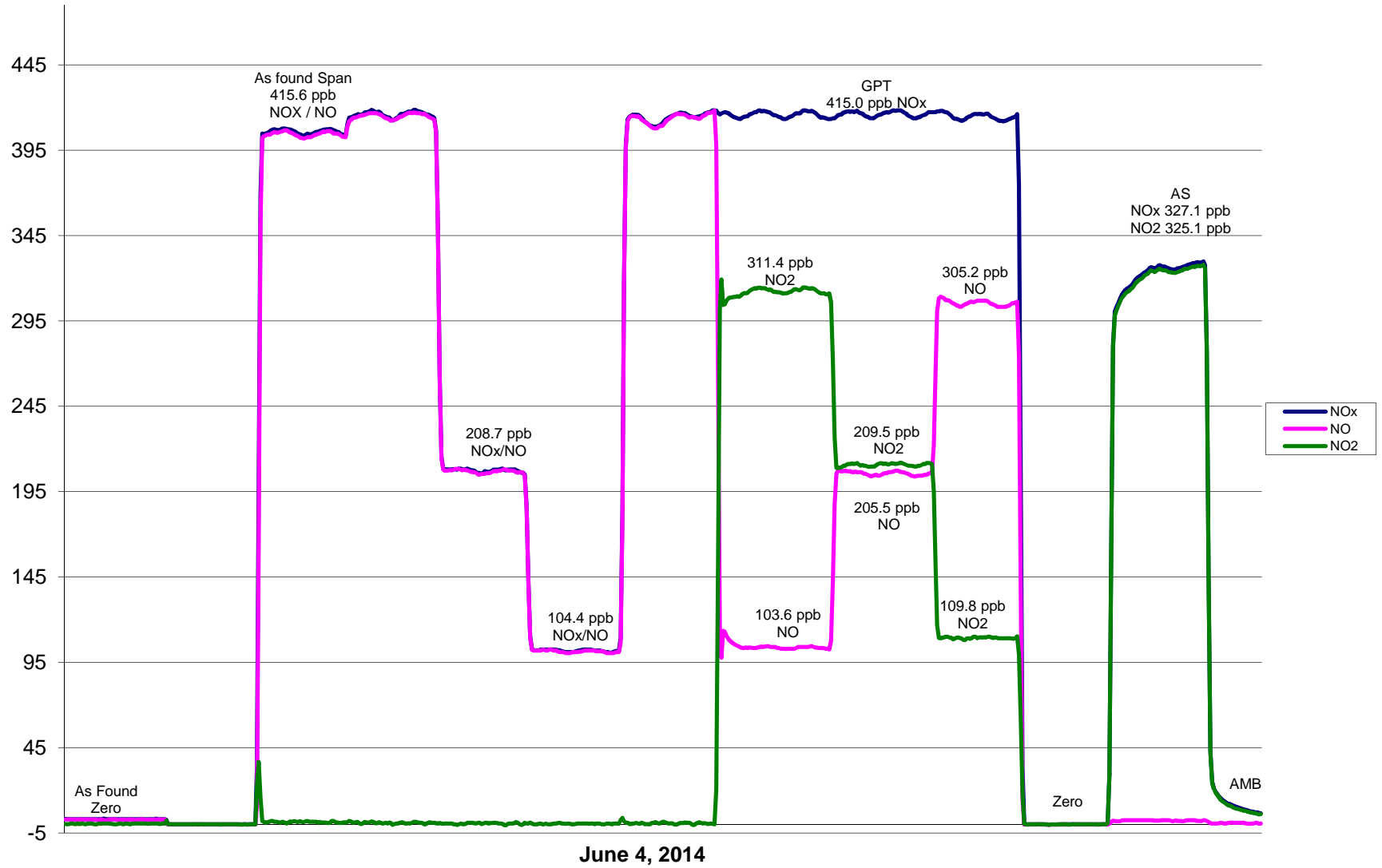
## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999933
413.2	415.1	0.9954		
207.5	206.5	1.0046	Slope	0.993273
103.8	101.2	1.0256		
			Intercept	1.638851

## NO Calibration Curve



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



# Calibration Report



Parameter 03  
 Air Monitoring Network PAZA

## Station Information

Calibration Date	<u>June 4, 2014</u>	Previous Calibration	<u>May 1, 2014</u>
Station Number	<u>1</u>	Station Location	<u>Henry Pirker</u>
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	<u>14:50:00 PM</u>	End Time (MST)	<u>17:40:00 PM</u>
Barometric Pressure	<u>mm</u>	Station Temperature	<u>20.5</u> Deg C
Calibrator	<u>EnviroNics</u>	Serial Number	<u>3016</u>
Cal Gas Concentration	<u>NA</u>	Cal Gas Expiry Date	<u>NA</u>
DACS make	<u>CR3000</u>	DACS serial No.	<u>5237</u>
DACS voltage range	<u>0 - 5 volt</u>	DACS channel #	<u>9</u>
	<u>Before</u>		<u>After</u>
Calculated slope	<u>0.998603</u>	Calculated slope	<u>0.995640</u>
Calculated intercept	<u>0.234986</u>	Calculated intercept	<u>0.340371</u>
Analyzer make	<u>Teco 49C</u>	Analyzer serial #	<u>607415761</u>

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.20	ppb	-0.20	ppb
slope	1.031		1.031	
Lamp temp	56.7	mV	56.7	mV
Lamp Intensity A/B	60337/74991	mV	60681/75378	mV
Pressure	669.5	mm Hg	670.5	mm Hg
Flow A	0.833	ccm	0.832	ccm
Flow B	0.822	ccm	0.823	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	0.2	N/A
5035	0.3	311.4	312.8	0.9957
5035	0.2	209.5	210.0	0.9978
5035	0.1	109.8	109.2	1.0057
5035	0.0	0.0	0.2	As found zero
5035	0.3	311.4	312.8	As found span
Average Correction Factor				0.9997

Calculated value of As Found Response: 312.4 ppm      Percent Change of As Found: 0.3%

	before calibration		after calibration	
Auto zero	1.0	ppb	0.4	ppb
Auto span	355.0	ppb	284.2	ppb

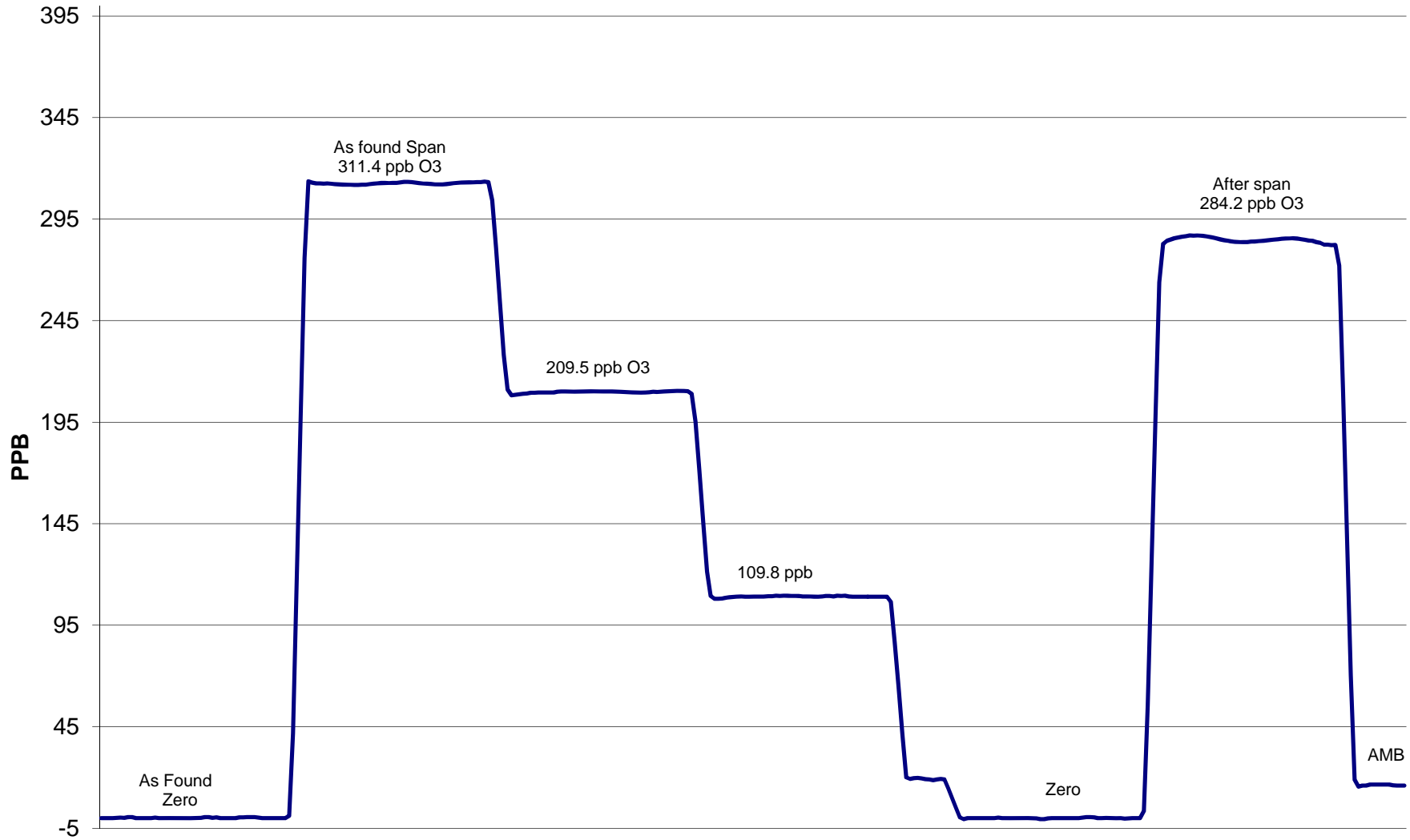
Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii



As Found  
Zero

### O3 Calibration



June 4, 2014

# Calibration Report



Parameter CO

Air Monitoring Network PAZA

## Station Information

Calibration Date	June 5, 2014	Previous Calibration	May 2, 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)	14:40:00 PM	End Time (MST)	17:46:00 PM
Barometric Pressure	704.0 mm/hg	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Conc	2898 ppm	Cal Gas Expiry Date	04/02/2013
		Cal Gas Cylinder #	LL83909
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.001376	Calculated slope	0.993459
Calculated intercept	0.144770	Calculated intercept	0.064063
Analyzer make	TEI Model 48C	Analyzer serial #	508011062

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO span setting	1.120		1.120	
CO zero setting	1.014		1.292	
Sample pressure	679.9	mm Hg	682.1	mm Hg
Sample Flow	1.117	LPM	1.119	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	40.26	0.9941
4995	34.96	20.14	20.17	0.9988
4995	17.96	10.38	10.32	1.0065
4995	0.00	0.00	0.23	As Found Zero
4995	69.94	40.02	40.26	As Found Span
Average Correction Factor				0.9998

Calculated value of As Found Response: 40.225 ppm      Percent Change of As Found: -0.5%

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	19.81	ppm	19.86	ppm

Notes: Adjust zero from 0.168 to 0.001

---



---

Calibration Performed By: Dmytro Dolotii

# Calibration Summary

Parameter CO  
 Air Monitoring Network PAZA



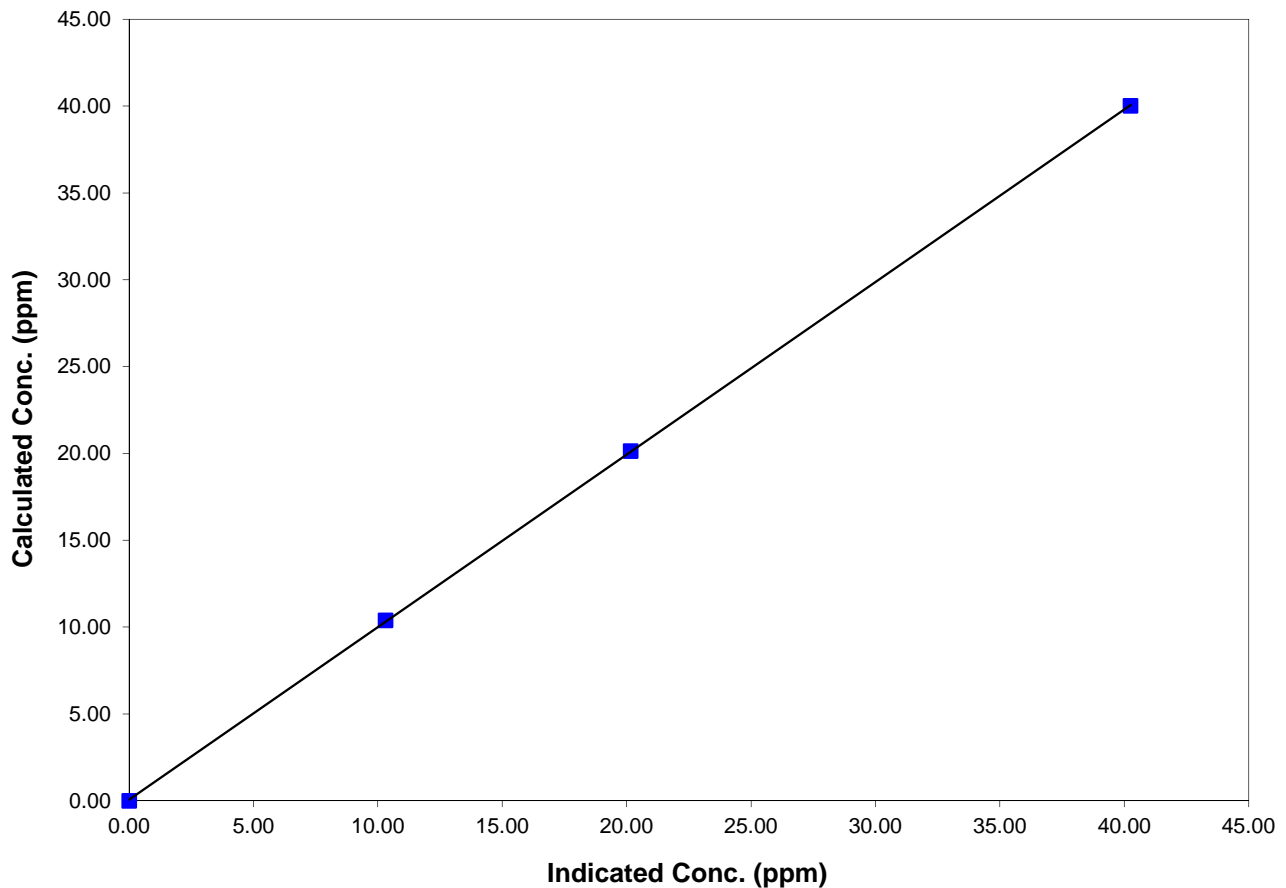
## Station Information

Calibration Date	June 5, 2014	Previous Calibration	May 2, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	14:40:00 PM	End Time (MST)	17:46:00 PM
Analyzer make/model	TEI Model 48C	Analyzer serial #	508011062

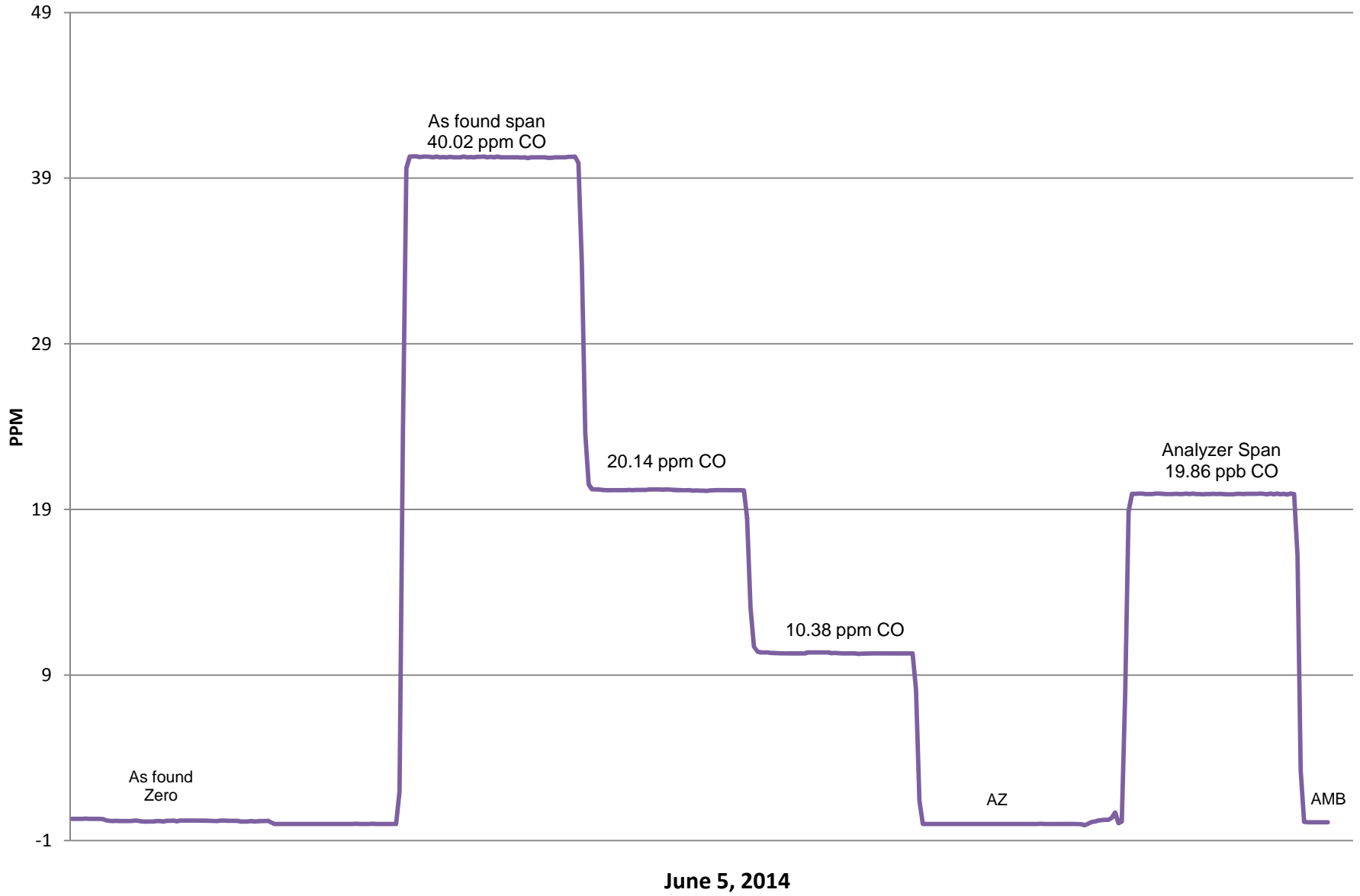
## Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.010	N/A	Correlation Coefficient	0.999984
40.017	40.257	0.9941		
20.142	20.166	0.9988	Slope	0.993459
10.383	10.316	1.0065		
			Intercept	0.064063

### CO Calibration Curve



# CO Calibration





# Calibration Report



Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA

## Station Information

Calibration Date	June 5, 2014	Previous Calibration	May 2, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	<input type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:

Start Time (MST)	11:22	End Time (MST)	15:45:00 PM
Barometric Pressure	NA inches 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	27.9	PSI
Fuel pressure	42.1	PSI	42.1	PSI
Carrier pressure	30.3	PSI	30.3	PSI
CH4 cal factor	5.68		5.68	E <sup>-4</sup>
NMHC cal factor	1.64		1.64	E <sup>-4</sup>
Rt	12.60	Sec	12.60	Sec
Pk Index	23.00		23.00	

## CH4 Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1996	0.00	0.00	0.02	N/A
1996	68.96	12.89	12.94	0.9962
1996	40.96	7.76	8.38	0.9268
1996	15.99	3.07	4.28	0.7169
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	12.89	14.77	As Found Span
Average Correction Factor				0.8799

Calculated value of As Found Response: 14.742 ppm Percent Change of As Found: -14.4%

	Before		After
Calculated slope	0.997837	Calculated slope	1.012644
Calculated intercept	0.019727	Calculated intercept	-0.554212

## Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	9.11	ppm	7.56	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	19.14	0.9932
1996	40.96	11.45	11.65	0.9824
1996	15.99	4.52	4.68	0.9663
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	19.00	18.79	As Found Span
Average Correction Factor				0.9806

Calculated value of As Found Response: 18.741 ppm      Percent Change of As Found: 1.4%

	<u>Before</u>		<u>After</u>
Calculated slope	0.999452	Calculated slope	0.994818
Calculated intercept	-0.021668	Calculated intercept	-0.081654

**Final Zero/Span Data**

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	12.55	ppm	11.95	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	32.06	0.9951
1996	40.96	19.21	20.01	0.9598
1996	15.99	7.59	8.94	0.8496
1996	0.00	0.00	0.03	As Found Zero
1996	68.93	31.89	33.54	As Found Span
Average Correction Factor				0.9348

Calculated value of As Found Response: 33.491 ppm      Percent Change of As Found: -5.0%

	<u>Before</u>		<u>After</u>
Calculated slope	0.999184	Calculated slope	1.004366
Calculated intercept	0.007799	Calculated intercept	-0.650813

**Final Zero/Span Data**

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	21.66	ppm	19.50	ppm

Notes: Span adjustments made

---



---

Calibration Performed By: Dmytro Dolotii

# Calibration Summary

Parameter CH4

Air Monitoring Network PAZA



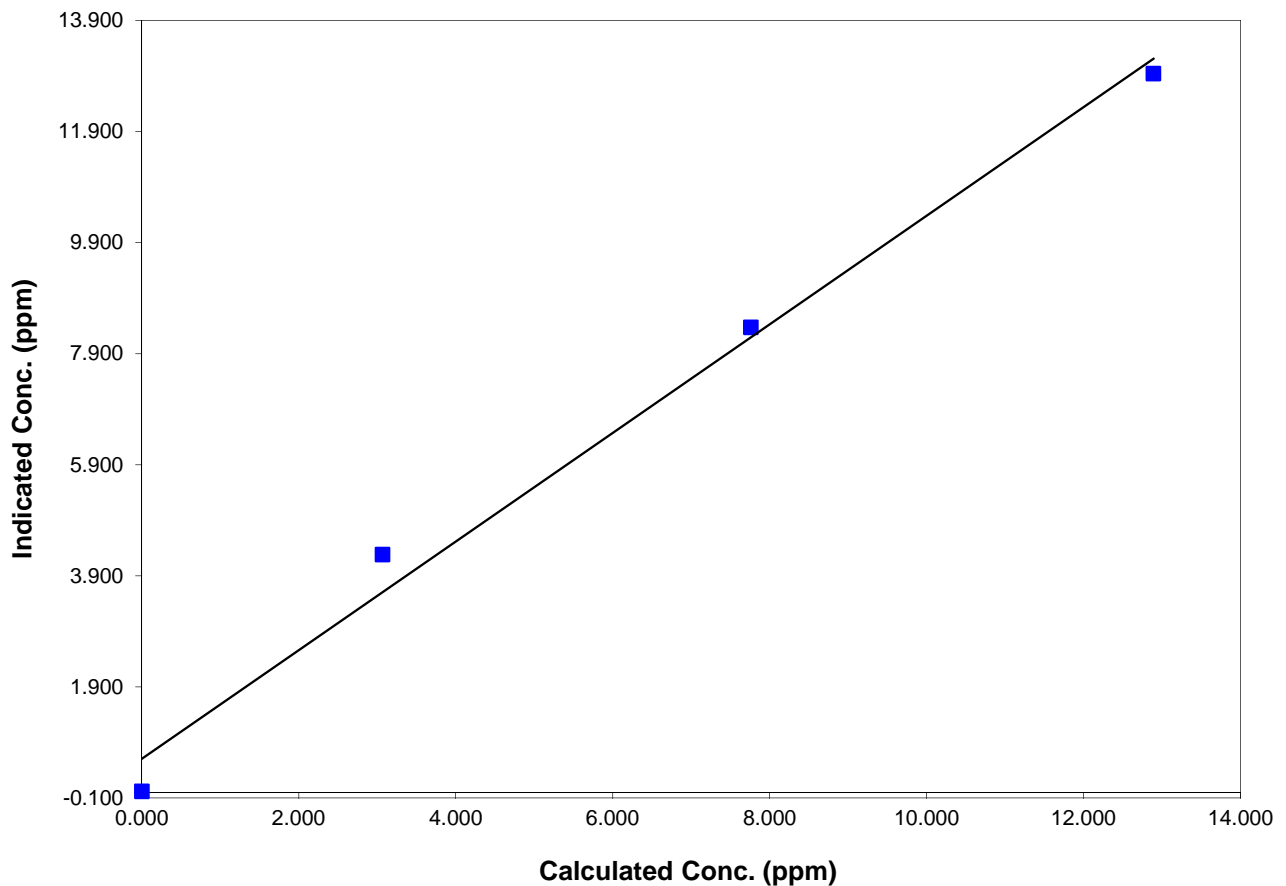
## Station Information

Calibration Date	June 5, 2014	Previous Calibration	May 2, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:22	End Time (MST)	15:45:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

## Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.019	N/A	Correlation Coefficient	0.990163
12.891	12.940	0.9962		
7.762	8.375	0.9268	Slope	1.012644
3.068	4.279	0.7169		
			Intercept	-0.554212

## CH4 Calibration Data





# Calibration Summary

Parameter THC

Air Monitoring Network PAZA



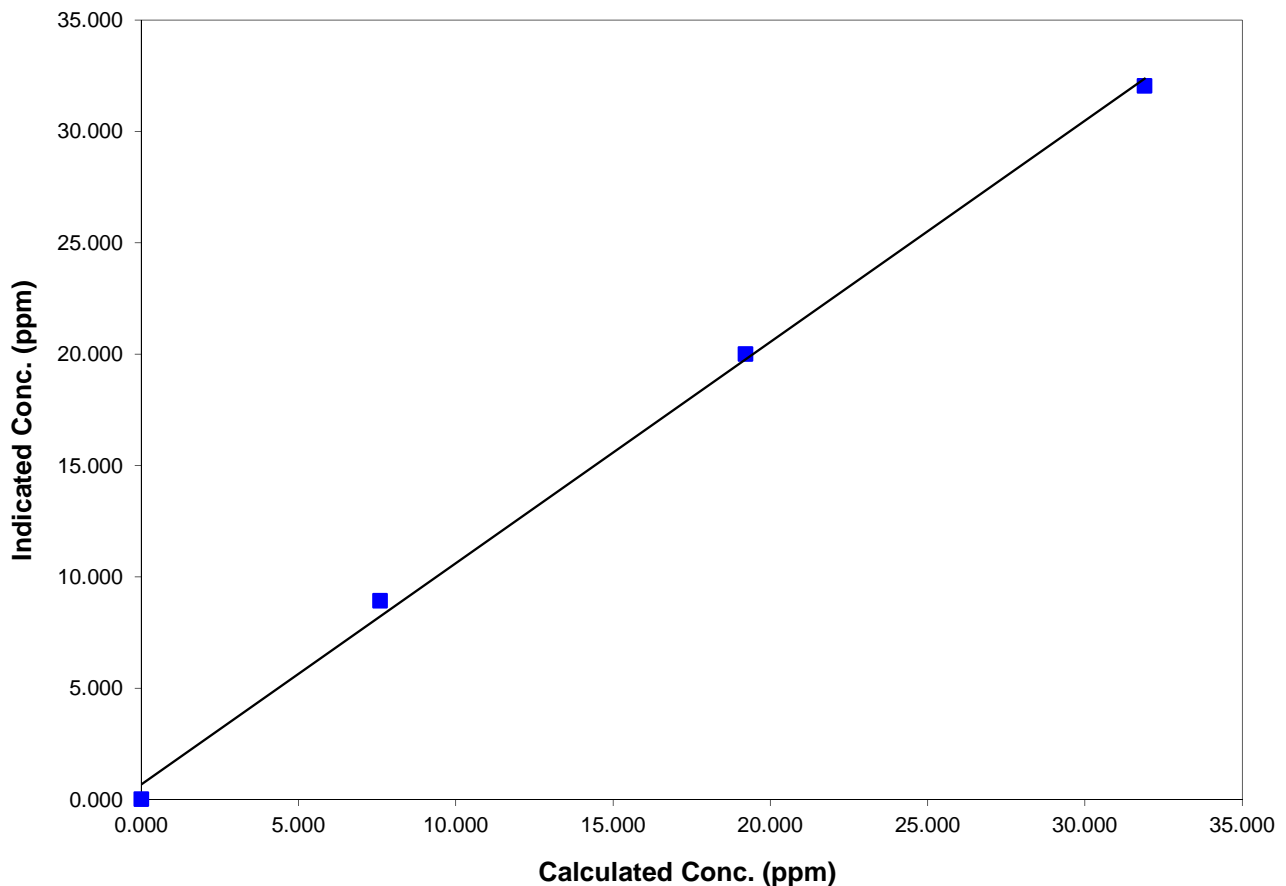
## Station Information

Calibration Date	June 5, 2014	Previous Calibration	May 2, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:22	End Time (MST)	15:45:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

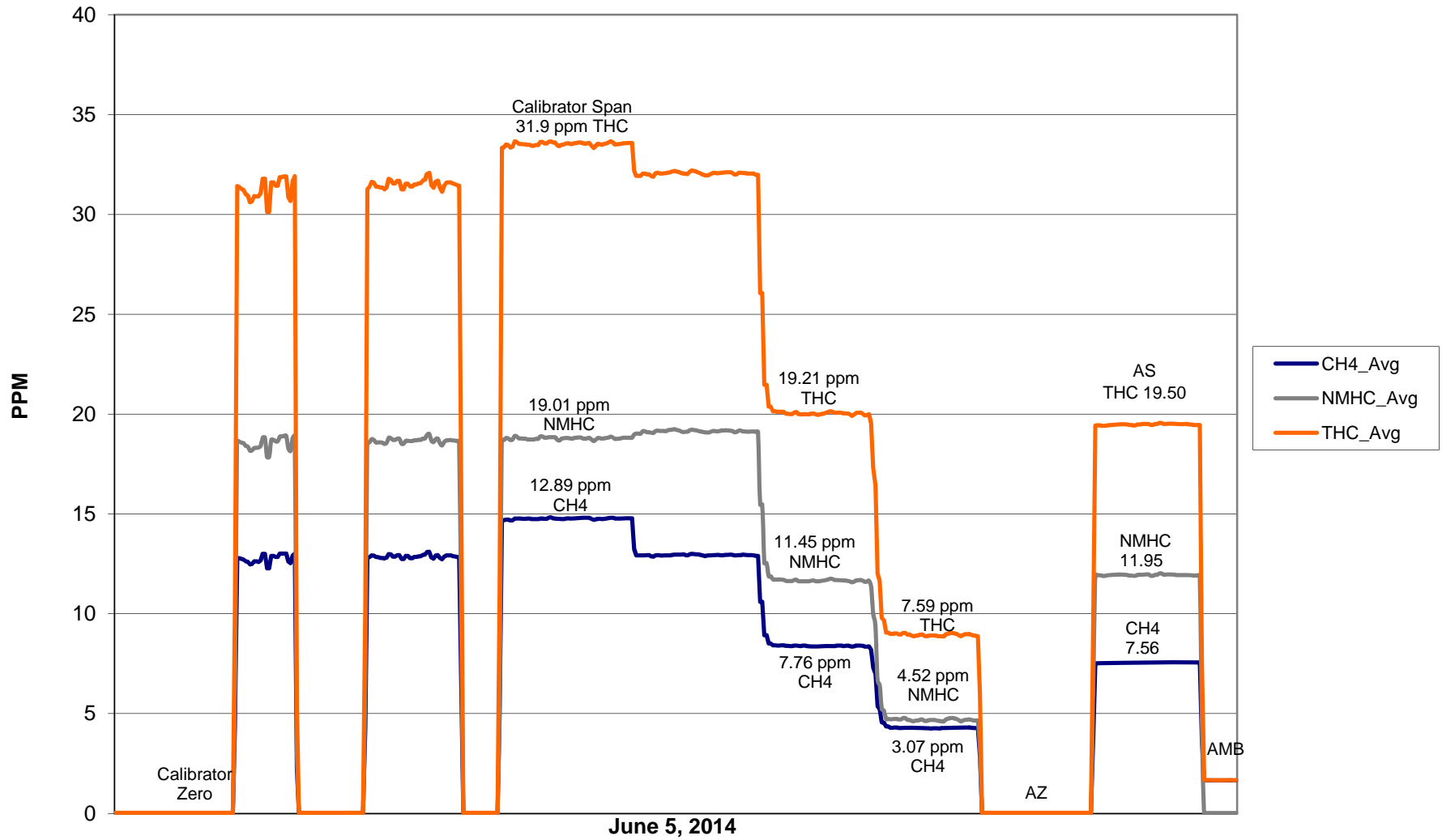
## Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.031	N/A	Correlation Coefficient	0.998107
31.901	32.058	0.9951		
19.209	20.012	0.9598	Slope	1.004366
7.592	8.936	0.8496		
			Intercept	-0.650813

## THC Calibration Data



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



# Calibration Report



Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA

## Station Information

Calibration Date	June 26, 2014	Previous Calibration	June 5, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	<input type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	7:59	End Time (MST)	11:15
Barometric Pressure	NA inches Hg	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	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	27.9	PSI
Fuel pressure	42.1	PSI	42.1	PSI
Carrier pressure	30.3	PSI	30.3	PSI
CH4 cal factor	5.68		5.68	E <sup>-4</sup>
NMHC cal factor	1.64		1.64	E <sup>-4</sup>
Rt	12.60	Sec	12.60	Sec
Pk Index	23.00		23.00	

## CH4 Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1996	0.00	0.00	0.02	N/A
1996	68.96	12.89	12.88	1.0011
1996	40.96	7.76	7.71	1.0069
1996	15.99	3.07	3.01	1.0200
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	12.89	11.31	As Found Span
Average Correction Factor				1.0094

Calculated value of As Found Response: 10.879 ppm Percent Change of As Found: 15.6%

	Before		After
Calculated slope	1.012644	Calculated slope	1.001390
Calculated intercept	-0.554212	Calculated intercept	0.019210

## Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	9.11	ppm	8.47	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	18.88	1.0069
1996	40.96	11.45	11.46	0.9992
1996	15.99	4.52	4.44	1.0193
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	19.00	19.17	As Found Span
Average Correction Factor				1.0085

Calculated value of As Found Response: 18.969 ppm      Percent Change of As Found: 0.2%

	<u>Before</u>		<u>After</u>
Calculated slope	0.994818	Calculated slope	1.005379
Calculated intercept	-0.081654	Calculated intercept	0.000611

**Final Zero/Span Data**

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	12.55	ppm	11.65	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	31.73	1.0054
1996	40.96	19.21	19.15	1.0033
1996	15.99	7.59	7.43	1.0211
1996	0.00	0.00	0.03	As Found Zero
1996	68.93	31.89	30.45	As Found Span
Average Correction Factor				1.0099

Calculated value of As Found Response: 29.903 ppm      Percent Change of As Found: 6.2%

	<u>Before</u>		<u>After</u>
Calculated slope	1.004366	Calculated slope	1.004443
Calculated intercept	-0.650813	Calculated intercept	0.025695

**Final Zero/Span Data**

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	21.66	ppm	20.12	ppm

Notes: Analyzer seems to be reading low values in sample since last cal. Suspect zero air supply.  
 Recalibrate THC using site zero air supply & perform span adjust. Ambient values now reading expected background. New H2 cylinder installed 23rd- new quarter inch teflon tubing to analyzer.

Calibration Performed By: Dmytro Dolotii, Grover Christiansen



# Calibration Summary

Parameter CH4

Air Monitoring Network PAZA



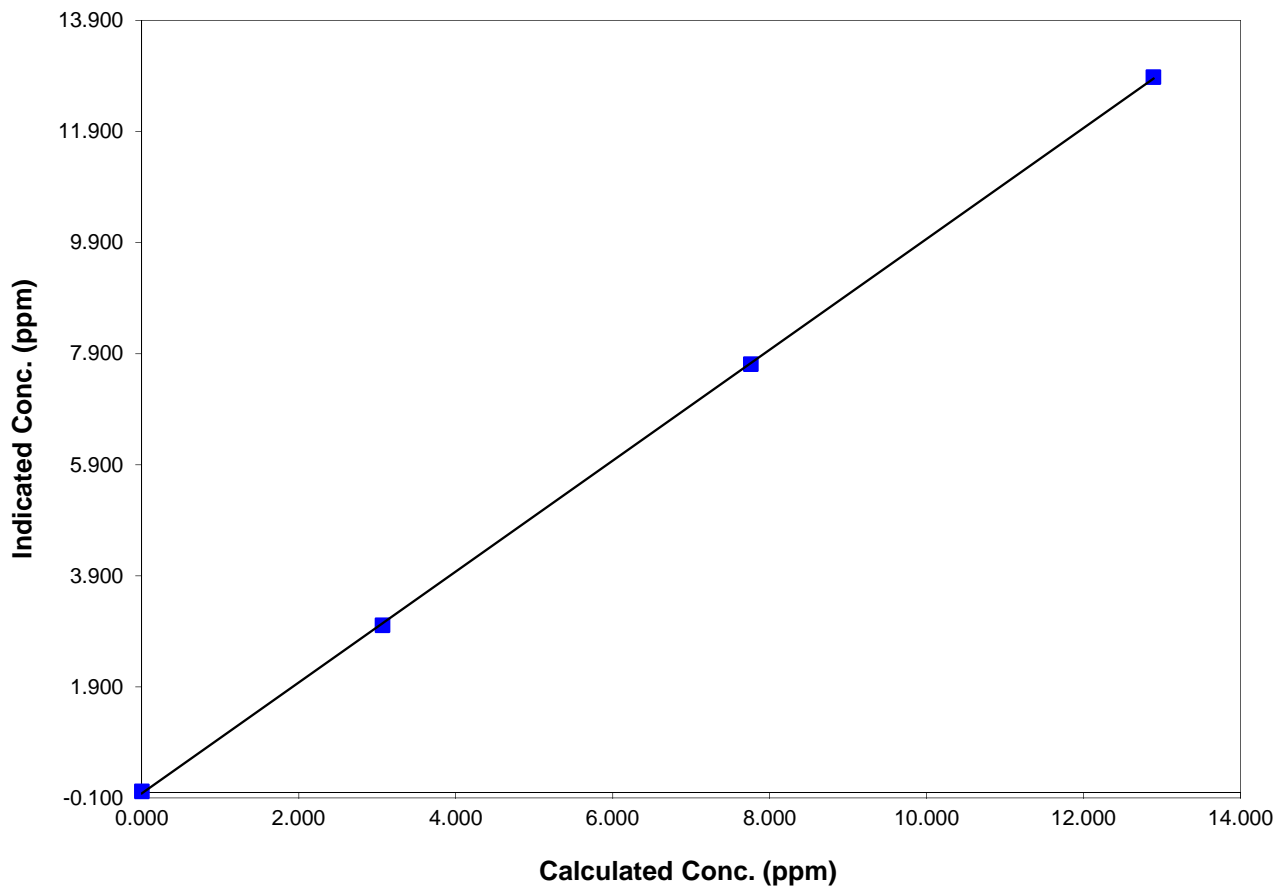
## Station Information

Calibration Date	June 26, 2014	Previous Calibration	June 5, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:59	End Time (MST)	11:15
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

## Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.018	N/A		
12.891	12.876	1.0011	Correlation Coefficient	0.999960
7.762	7.708	1.0069		
3.068	3.008	1.0200	Slope	1.001390
			Intercept	0.019210

## CH4 Calibration Data



# Calibration Summary

Parameter                  **NMHC**

Air Monitoring Network    **PAZA**



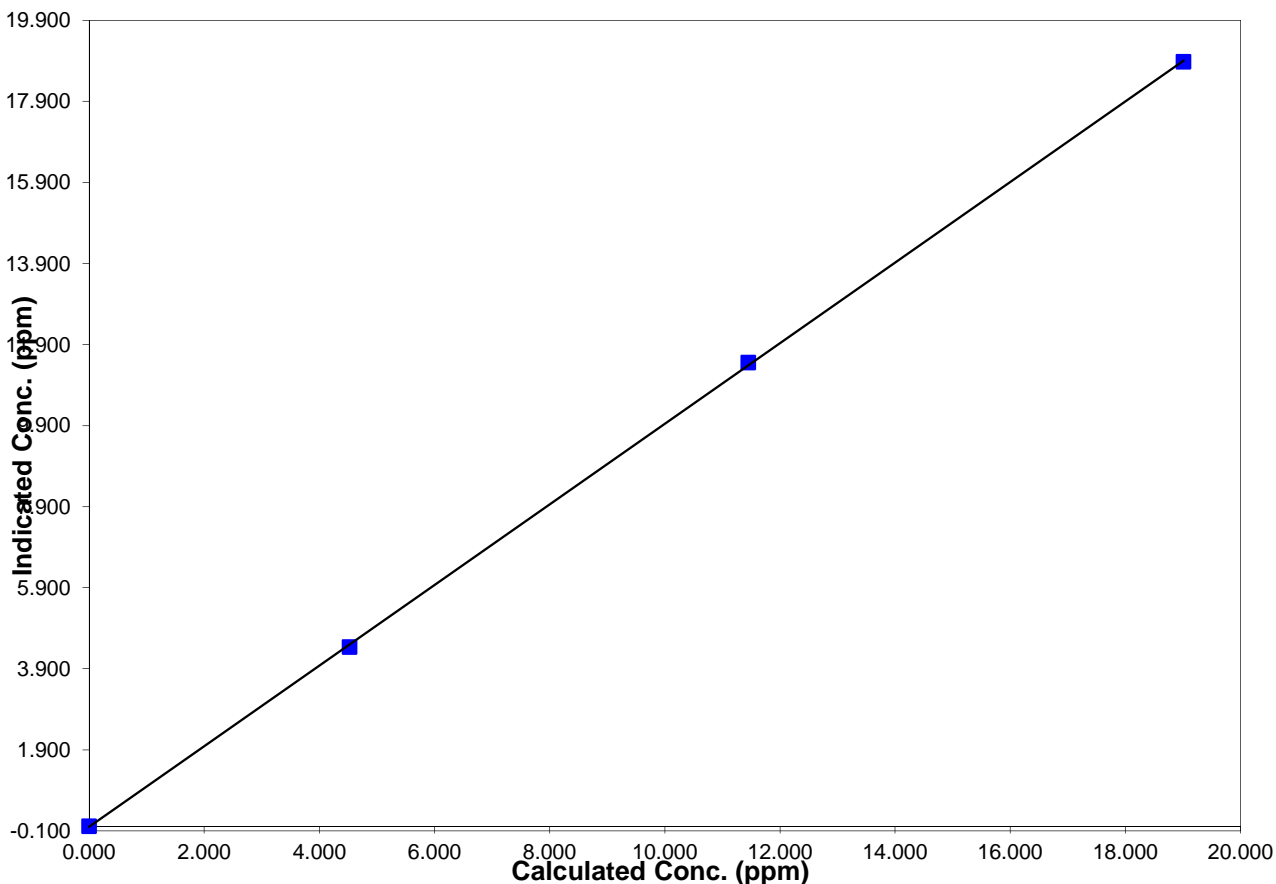
## Station Information

Calibration Date	<u>                </u> June 26, 2014	Previous Calibration	<u>                </u> June 5, 2014
Station Number	<u>                </u> 1	Station Location	<u>                </u> Henry Pirker
Start Time (MST)	<u>                </u> 7:59	End Time (MST)	<u>                </u> 11:15
Analyzer make/model	<u>                </u> TEI 55I	Analyzer serial #	<u>                </u> 1134650658

## Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
			Correlation Coefficient	
0.000	0.018	N/A	0.999952	
19.010	18.879	1.0069		
11.447	11.456	0.9992		
4.524	4.438	1.0193	Slope	1.005379
			Intercept	0.000611

**NMHC Calibration Data**



# Calibration Summary

Parameter THC

Air Monitoring Network PAZA



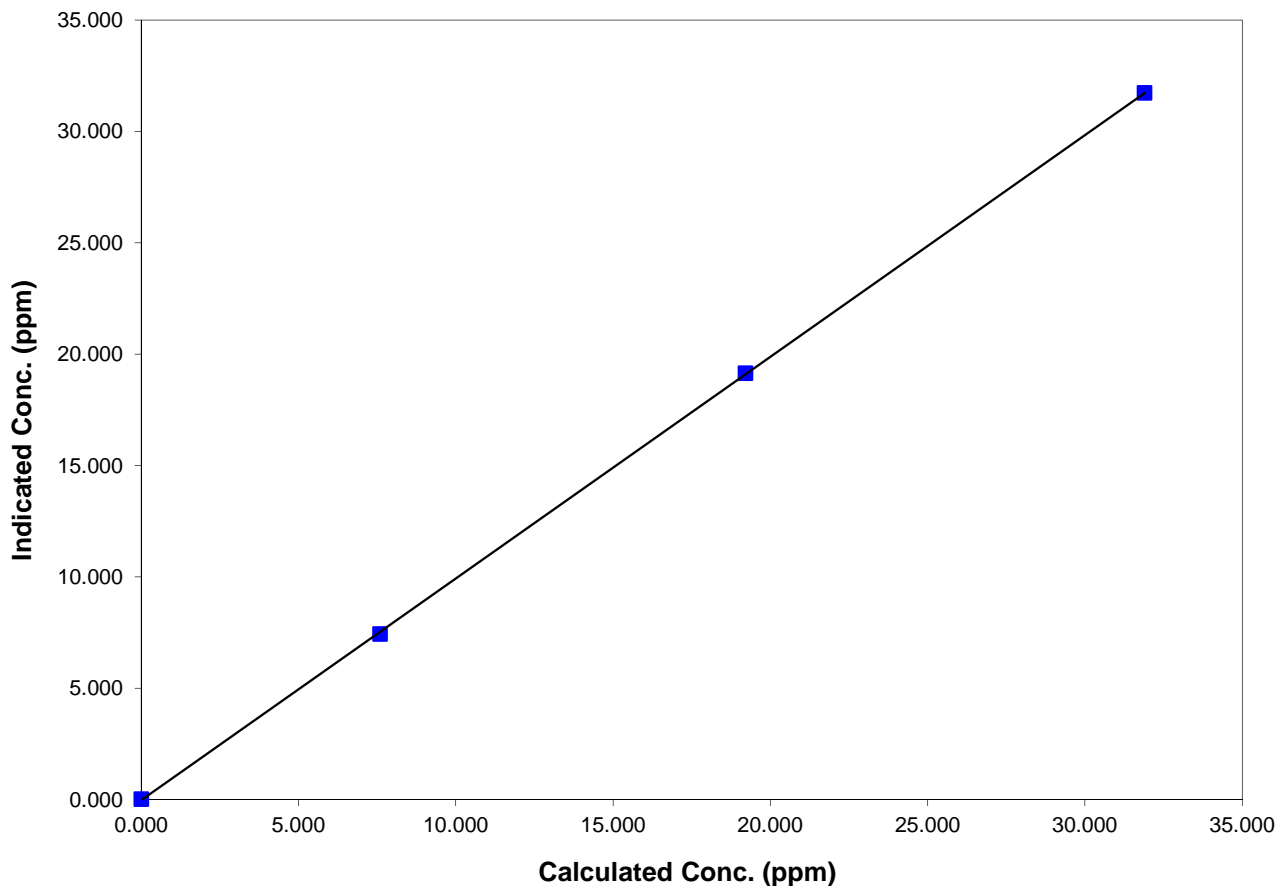
## Station Information

Calibration Date	June 26, 2014	Previous Calibration	June 5, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:59	End Time (MST)	11:15
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

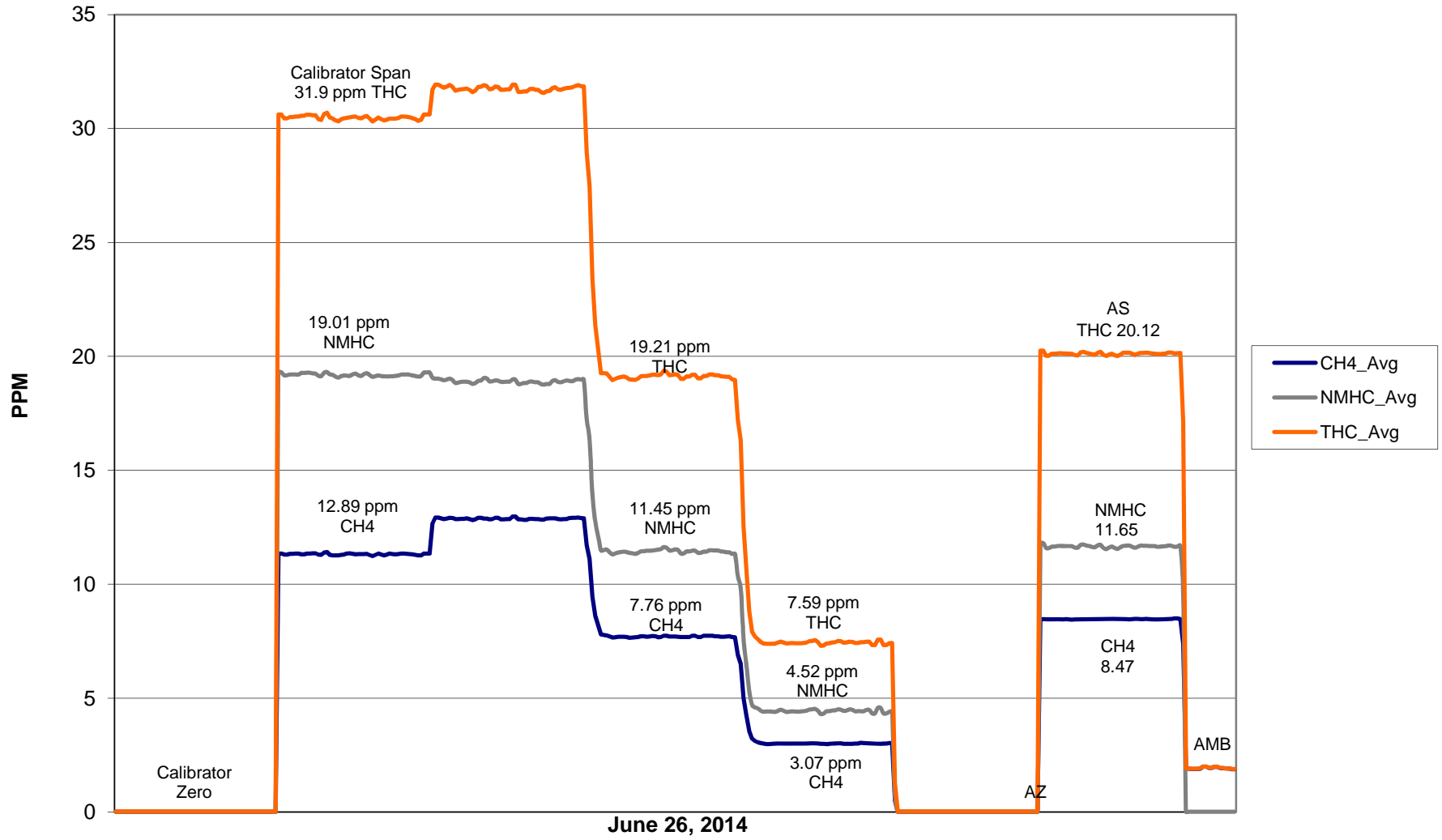
## Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.031	N/A	Correlation Coefficient	0.999974
31.901	31.728	1.0054		
19.209	19.145	1.0033	Slope	1.004443
7.592	7.435	1.0211		
			Intercept	0.025695

## THC Calibration Data



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



# Calibration Report



Parameter                                                                 
 Air Monitoring Network                                                               

## Station Information

Calibration Date	June 5, 2014	Previous Calibration	May 1, 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)	7:25	End Time (MST)	12:55
Barometric Pressure	704.00 mm/Hg	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Conc	10.4 ppb	Cal Gas Expiry Date	08/07/2016
		Cal Gas Cylinder #	LL110781
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.024703	Calculated slope	0.970619
Calculated intercept	0.371170	Calculated intercept	0.503366
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	0.988		0.988	
Background	17.5		17.5	
Pressure	663.5	mm Hg	665.8	mm Hg
Flow	0.454	ccm	0.454	ccm
Lamp Voltage	880	v	881	v

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	-0.35	N/A
4995	39.93	82.48	84.68	0.9740
4995	19.95	41.37	41.63	0.9938
8995	8.95	10.34	10.21	1.0127
4995	0.00	0.00	-0.35	As Found Zero
4995	39.93	82.48	84.68	As Found Span
Average Correction Factor				0.9935

Calculated value of As Found Response: 87.5 ppb      Percent Change of As Found: -6.1%

	before calibration		after calibration	
Auto zero	-0.92	ppb	0.27	ppb
Auto span	33.06	ppb	36.84	ppb

Notes: No adjustments made.  
Sox scrubber check performed.  
The as found span needed to be restarted 3 times due to line & calibrator conditioning..

Calibration Performed By: Dmytro Dolotii

# Calibration Summary

Parameter                                  **TRS**  
 Air Monitoring Network                                  **PAZA**



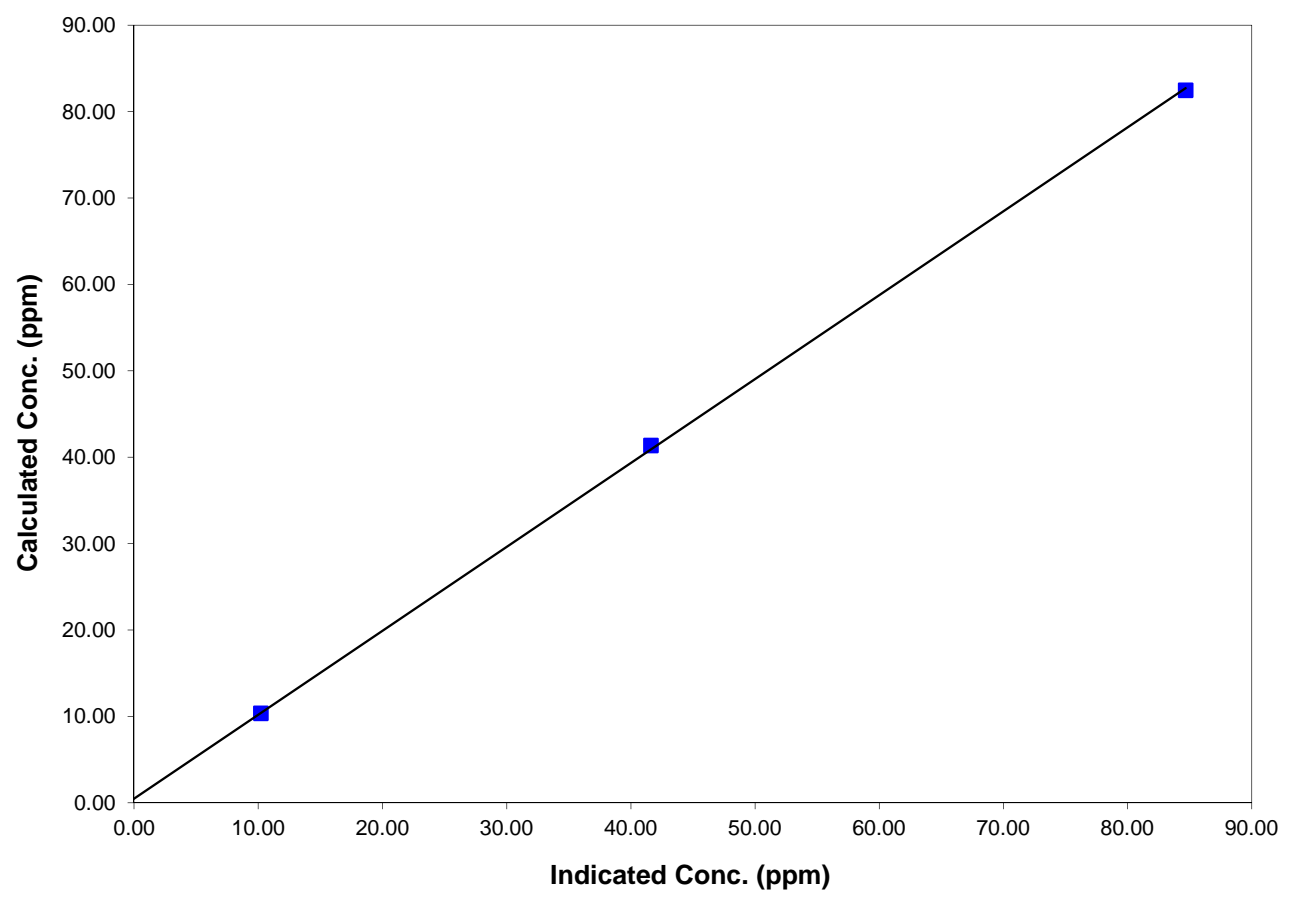
### Station Information

Calibration Date	June 5, 2014	Previous Calibration	May 1, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:25	End Time (MST)	12:55
Analyzer make/model	TEI 45C	Analyzer serial #	630718528

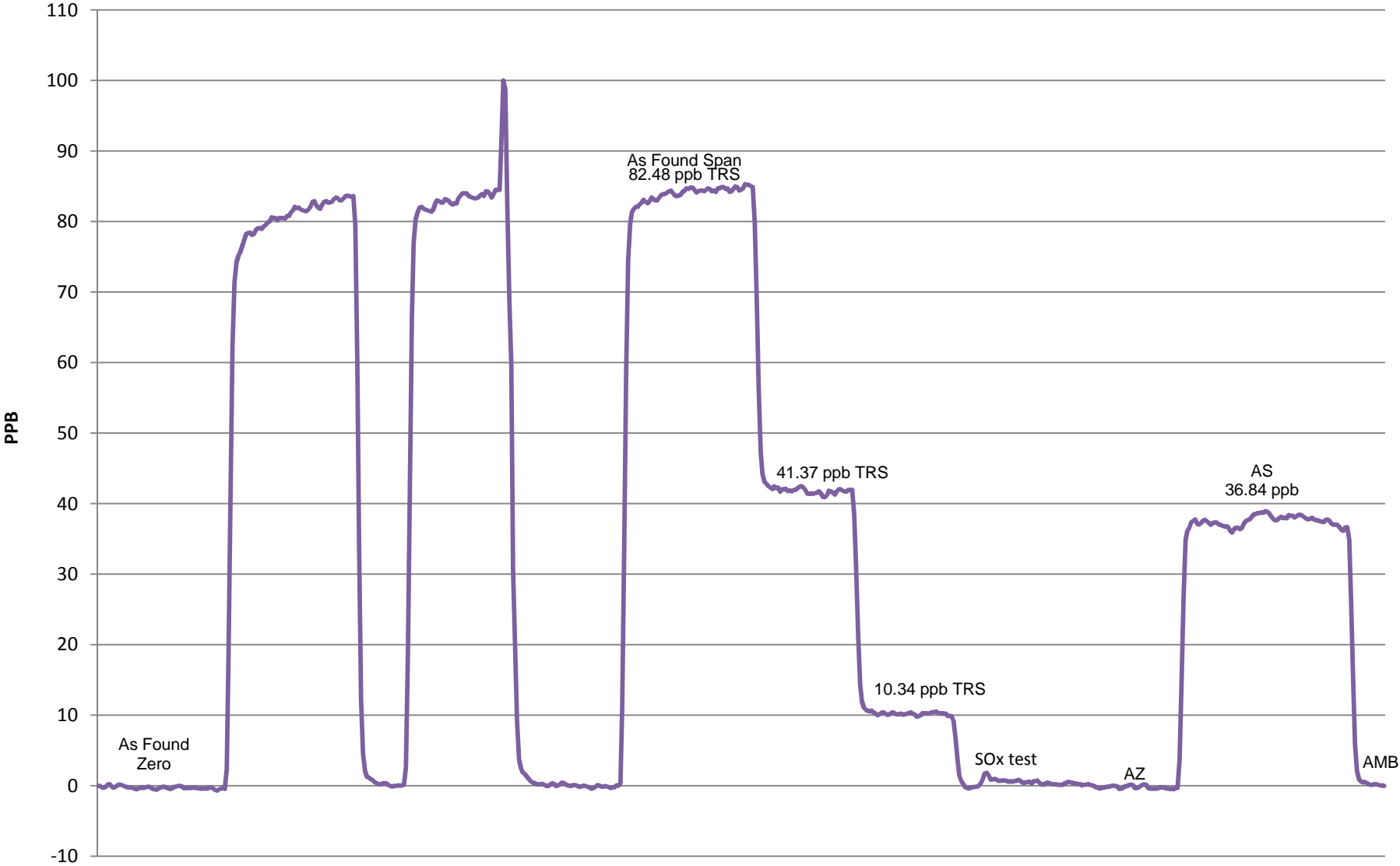
### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.345	N/A		
82.478	84.681	0.9740	Correlation Coefficient	0.999929
41.372	41.632	0.9938		
10.338	10.208	1.0127	Slope	0.970619
			Intercept	0.503366

**TRS Calibration Curve**



# TRS Calibration



June 5, 2014

# Calibration Report



Parameter SO<sub>2</sub>

Air Monitoring Network PAZA

## Station Information

Calibration Date	June 7 2014	Previous Calibration	May 5 2014
Station Number	2	Station Location	Evergreen Park
Reason:	<b>Routine</b>	Install	Removal
			Other:
Start Time (MST)	11:05	End Time (MST)	14:00:00 PM
Barometric Pressure	0.924 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	25/02/2025
Correction factor	0.031409	Cal Gas Cylinder #	LL105159
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	0.998149	Calculated slope	0.987344
Calculated intercept	1.437503	Calculated intercept	2.288524
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.4		11.4	
coefficient	1.22		1.22	
Lamp Voltage	828	volts	830	volts
Chamber Temp	45.1	Deg C	45.1	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	670.1	mm Hg	670.7	mm Hg
Sample Flow	0.454	ccm	0.455	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	0.2	N/A
4995	39.93	394.9	399.1	0.9897
4995	19.97	198.3	196.8	1.0079
4995	9.97	99.2	96.1	1.0326
4995	0.0	0.0	0.2	As Found Zero
4995	39.93	408.4	399.0	As Found Span
Average Correction Factor				1.0101

Calculated value of As Found Response: 399.542 ppm      Percent Change of As Found: 2.2%

	before calibration		after calibration	
Auto zero	1.8	ppm	0.2	ppm
Auto span	290.1	ppm	281.0	ppm

Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii



# Calibration Summary



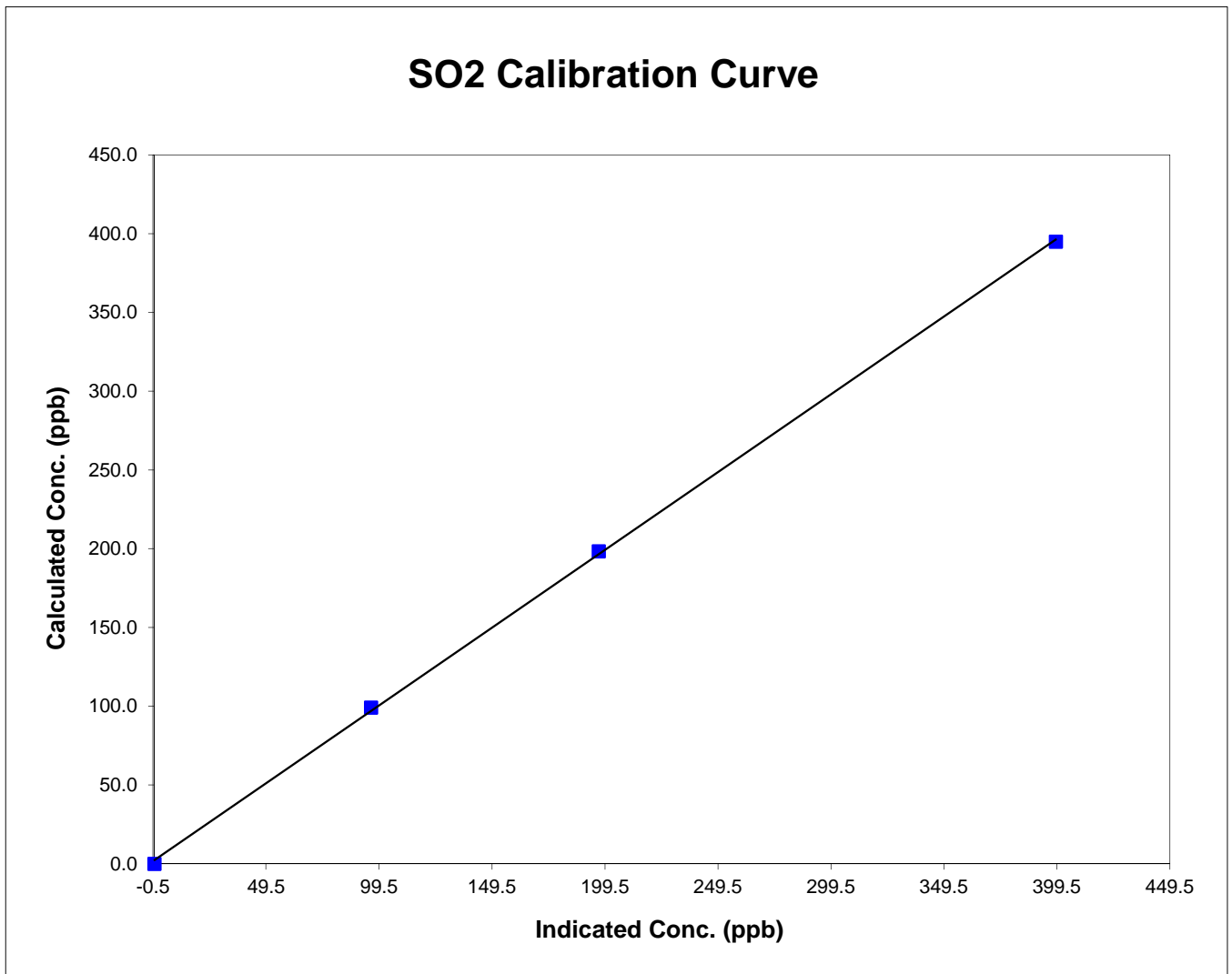
Parameter SO2  
 Air Monitoring Network PAZA

### Station Information

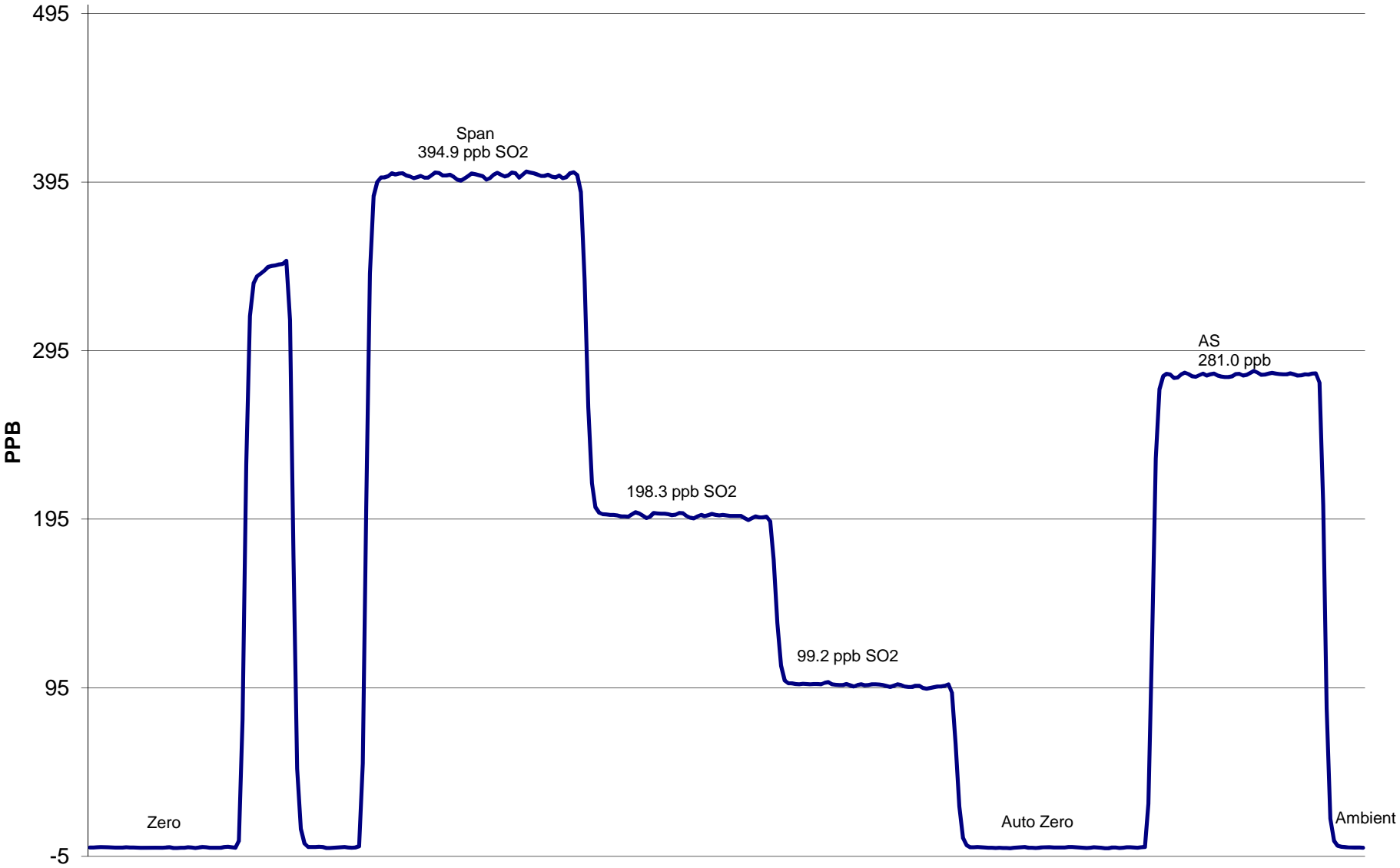
Calibration Date	June 7 2014	Previous Calibration	May 5 2014
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	11:05	End Time (MST)	14:00:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999821
394.9	399.1	0.9897		
198.3	196.8	1.0079	Slope	0.987344
99.2	96.1	1.0326		
			Intercept	2.288524



# SO2 Calibration



June 7 2014



# Calibration Summary



Parameter                    TRS                     
 Air Monitoring Network                    PAZA                   

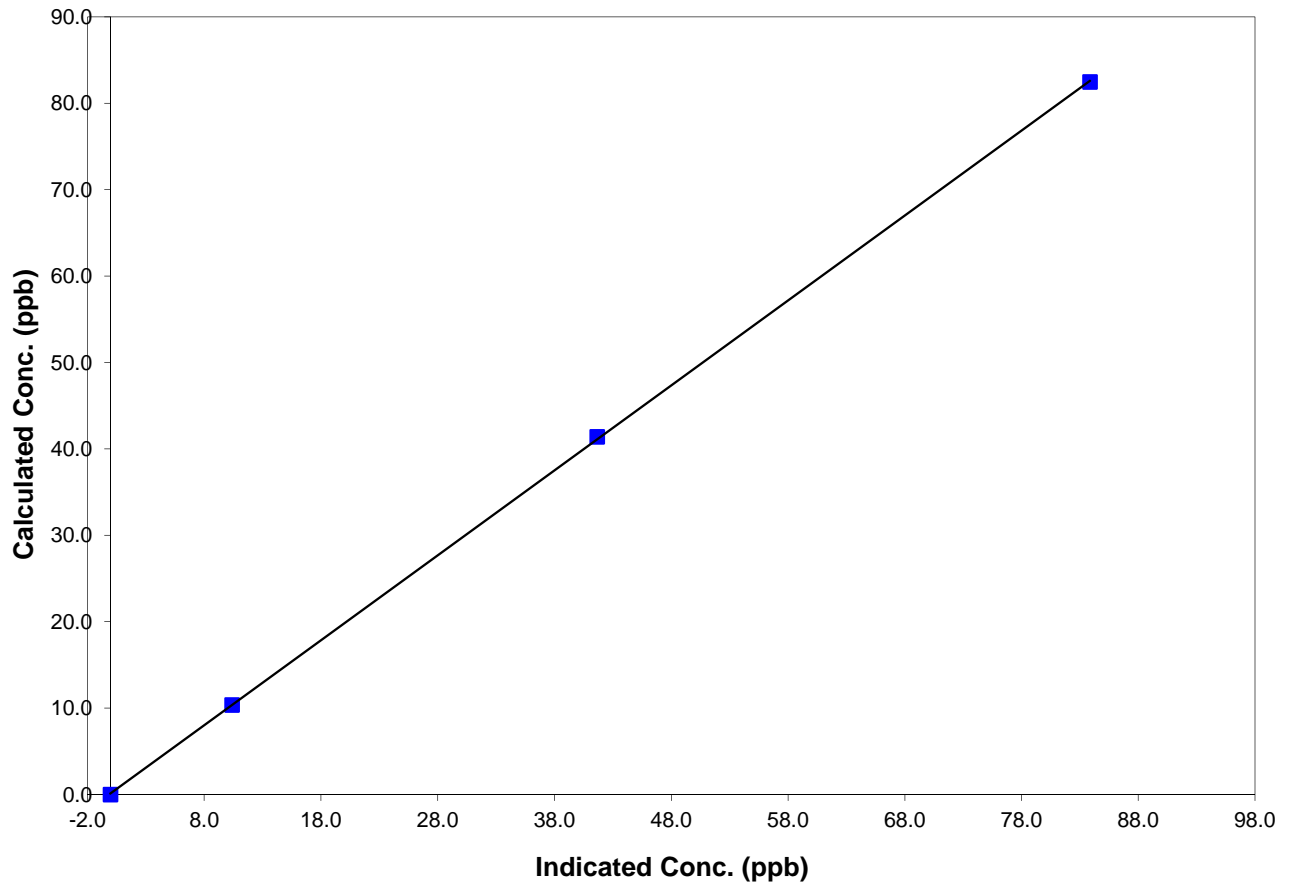
### Station Information

Calibration Date	<u>                  </u> June 7 2014 <u>                  </u>	Previous Calibration	<u>                  </u> May 5 2014 <u>                  </u>
Station Number	<u>                  </u> 2 <u>                  </u>	Station Location	<u>                  </u> Evergreen Park <u>                  </u>
Start Time (MST)	<u>                  </u> 8:25 <u>                  </u>	End Time (MST)	<u>                  </u> 12:00 <u>                  </u>
Analyzer make/model	<u>                  </u> TEI Model 43C <u>                  </u>	Analyzer serial #	<u>                  </u> 3199000000491 <u>                  </u>

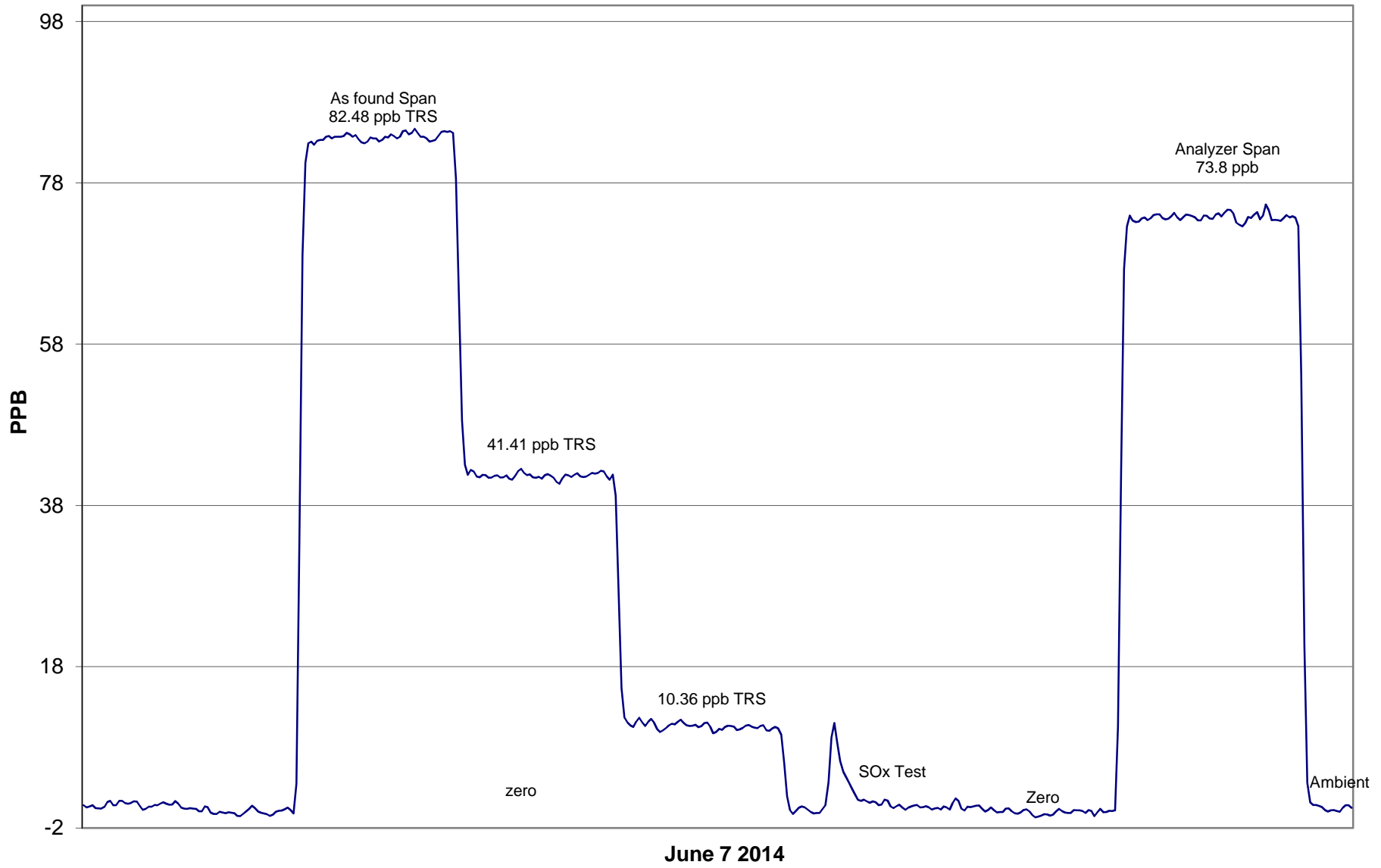
### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
			0.0	0.0
82.5	83.9	0.9835	Correlation Coefficient	0.999970
41.4	41.7	0.9941		
10.4	10.4	0.9973	Slope	0.983226
			Intercept	0.161616

## TRS Calibration Curve



# TRS Calibration



# Calibration Report



Parameter SO<sub>2</sub>

Air Monitoring Network PAZA

## Station Information

Calibration Date	June 6, 2014	Previous Calibration	May 16, 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)	11:44	End Time (MST)	15:05:00 PM
Barometric Pressure	0.935 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	2844
Cal Gas Concentration	49.8 ppm	Cal Gas Cert Date	20/01/2016
Correction factor	0.031783	Cal Gas Cylinder #	LL1105159
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	1.004281	Calculated slope	0.995695
Calculated intercept	-1.999742	Calculated intercept	2.112191
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	10.7		12.1	
coefficient	0.920		0.952	
Lamp Voltage	929	volts	928	volts
Chamber Temp	45.1	Deg C	45	Deg C
Perm Gas Temp	45.1	Deg C	45	Deg C
Pressure	669	mm Hg	668.1	mm Hg
Sample Flow	0.447	lpm	0.447	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	0.5	N/A
4995	39.93	394.94	395.8	0.9979
4995	19.97	198.31	195.7	1.0132
4995	9.97	99.20	95.0	1.0445
4995	0.0	0.00	1.3	As Found Zero
4995	39.93	394.94	381.5	As Found Span
Average Correction Factor				1.0185

Calculated value of As Found Response: 379.772 ppm      Percent Change of As Found: 3.8%

	before calibration		after calibration	
Auto zero	1.6	ppb	0.2	ppb
Auto span	248.2	ppb	253.6	ppb

Notes: Span and zero adjustments made

Calibration Performed By: Dmytro Dolotii

# Calibration Summary



Parameter SO2  
 Air Monitoring Network PAZA

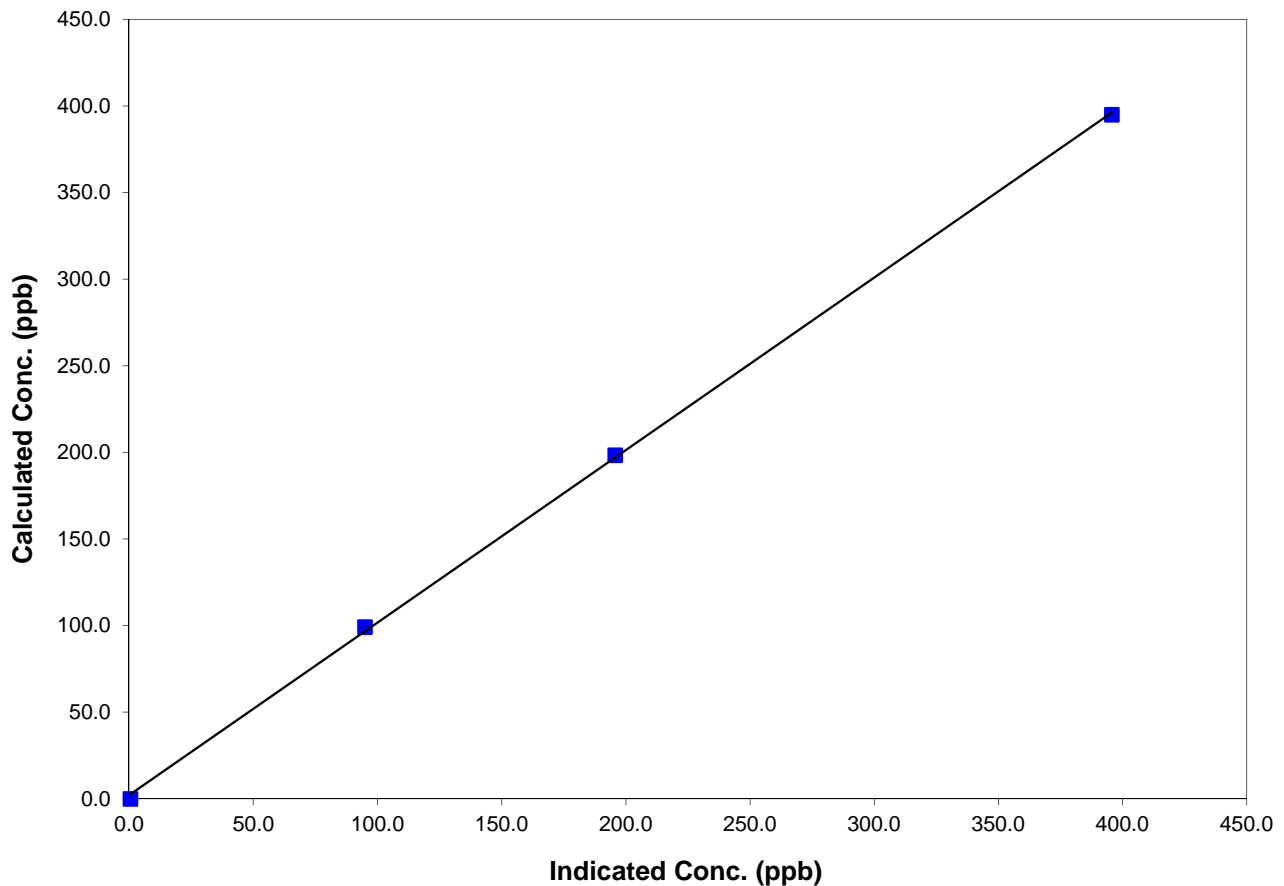
### Station Information

Calibration Date	June 6, 2014	Previous Calibration	May 16, 2014
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	11:44	End Time (MST)	15:05:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

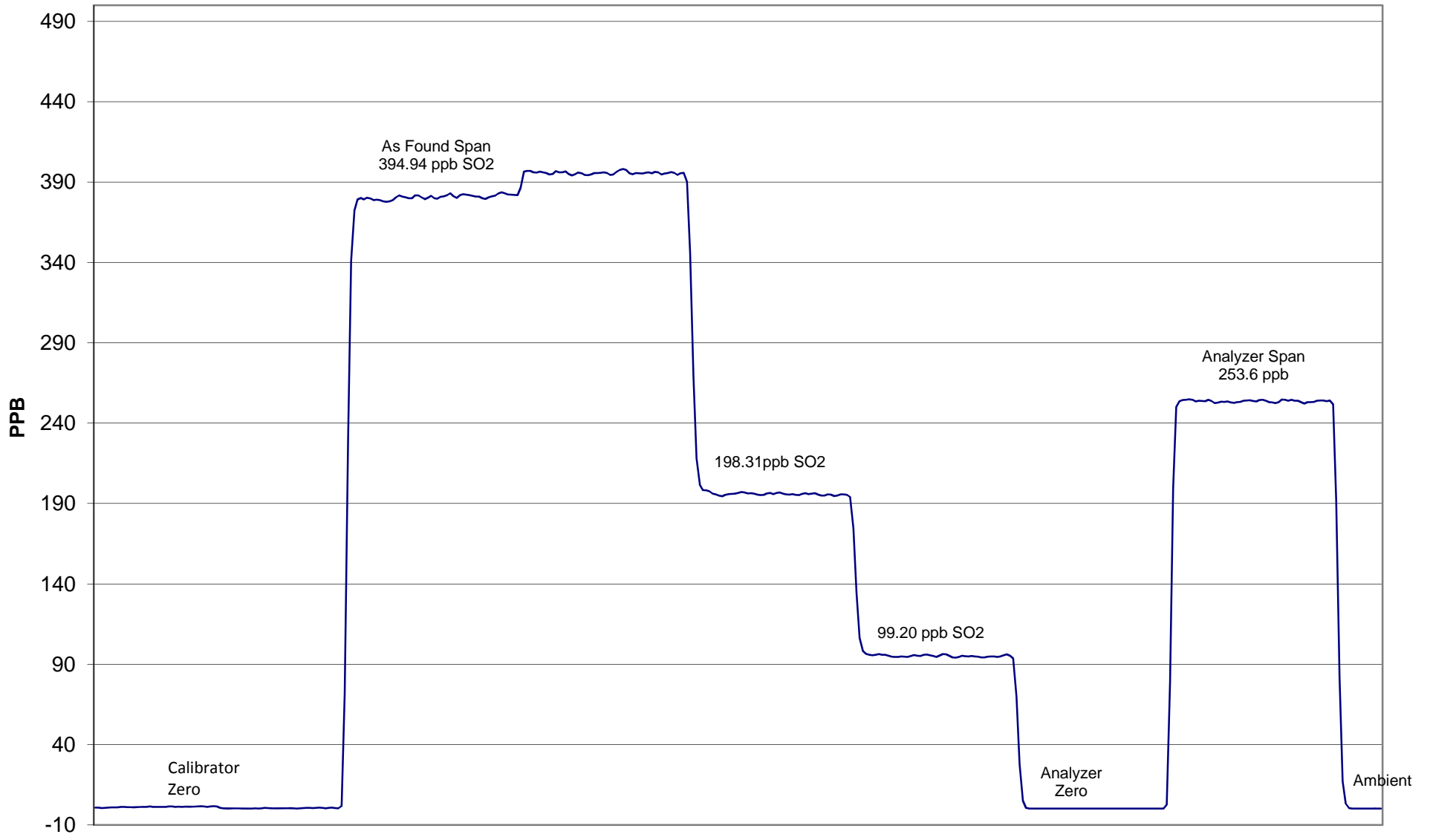
### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A	Correlation Coefficient	0.999808
394.9	395.8	0.9979		
198.3	195.7	1.0132	Slope	0.995695
99.2	95.0	1.0445		
			Intercept	2.112191

## SO2 Calibration Curve



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



June 6, 2014



# Calibration Report



Parameter          **TRS**  
 Air Monitoring Network                                  **PAZA**

## Station Information

Calibration Date	June 6, 2014	Previous Calibration	May 16, 2014
Station Number	3	Station Location	Smokey Heights
Reason:	<b>Routine</b>	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	8:55	End Time (MST)	12:43
Barometric Pressure	0.935 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	2844
Cal Gas Conc	10.4 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031783	Cal Gas Cylinder #	LL110781
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.992241	Calculated slope	0.984828
Calculated intercept	-0.093572	Calculated intercept	0.606017
Analyzer make	TEI Model 43C	Analyzer serial #	0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background coefficient	18.2	ppb	19	ppb
Lamp Voltage	830	volts	830	volts
Chamber Temp	43.8	Deg C	43.8	Deg C
Perm Gas Temp	44.99	Deg C	45	Deg C
Pressure	607.1	mm Hg	606.3	mm Hg
Sample Flow	0.636	lpm	0.637	lpm
Lamp Intensity	34,999	mv	35,521	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	-0.2	N/A
4995	39.91	82.44	83.3	0.9897
4995	19.93	41.33	41.0	1.0078
8995	8.97	10.36	9.6	1.0779
4995	9.97	102	3.6	Sox test
4995	0.0	0.00	-0.2	As Found Zero
4995	39.91	82.44	79.3	As Found Span
Average Correction Factor				1.0252

Calculated value of As Found Response: **78.73 ppm**      Percent Change of As Found: **4.5%**

	before calibration		after calibration	
Auto zero	0.5	ppm	0.6	ppm
Auto span	29.5	ppm	32.3	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

# Calibration Summary



Parameter TRS  
 Air Monitoring Network PAZA

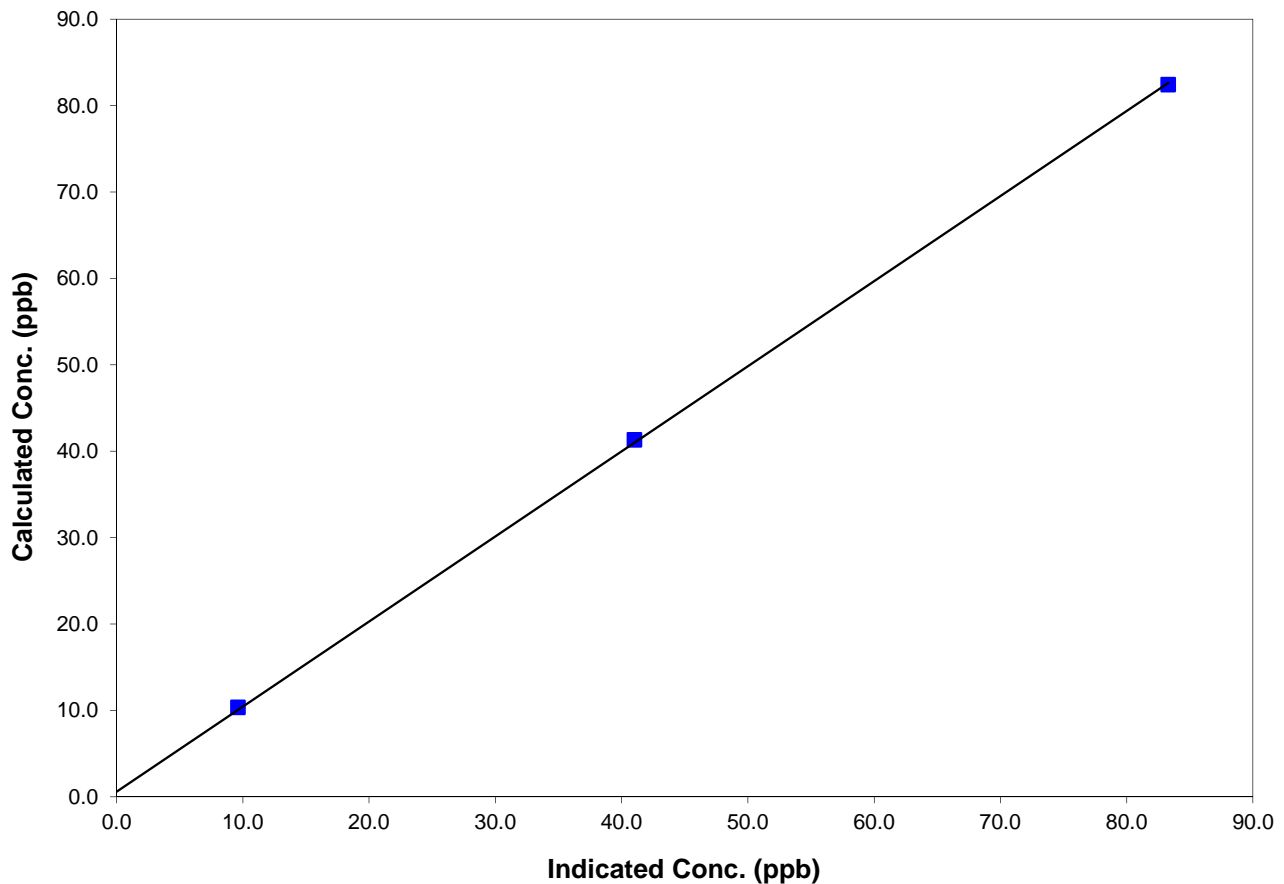
### Station Information

Calibration Date	June 6, 2014	Previous Calibration	May 16, 2014
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	8:55	End Time (MST)	12:43
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

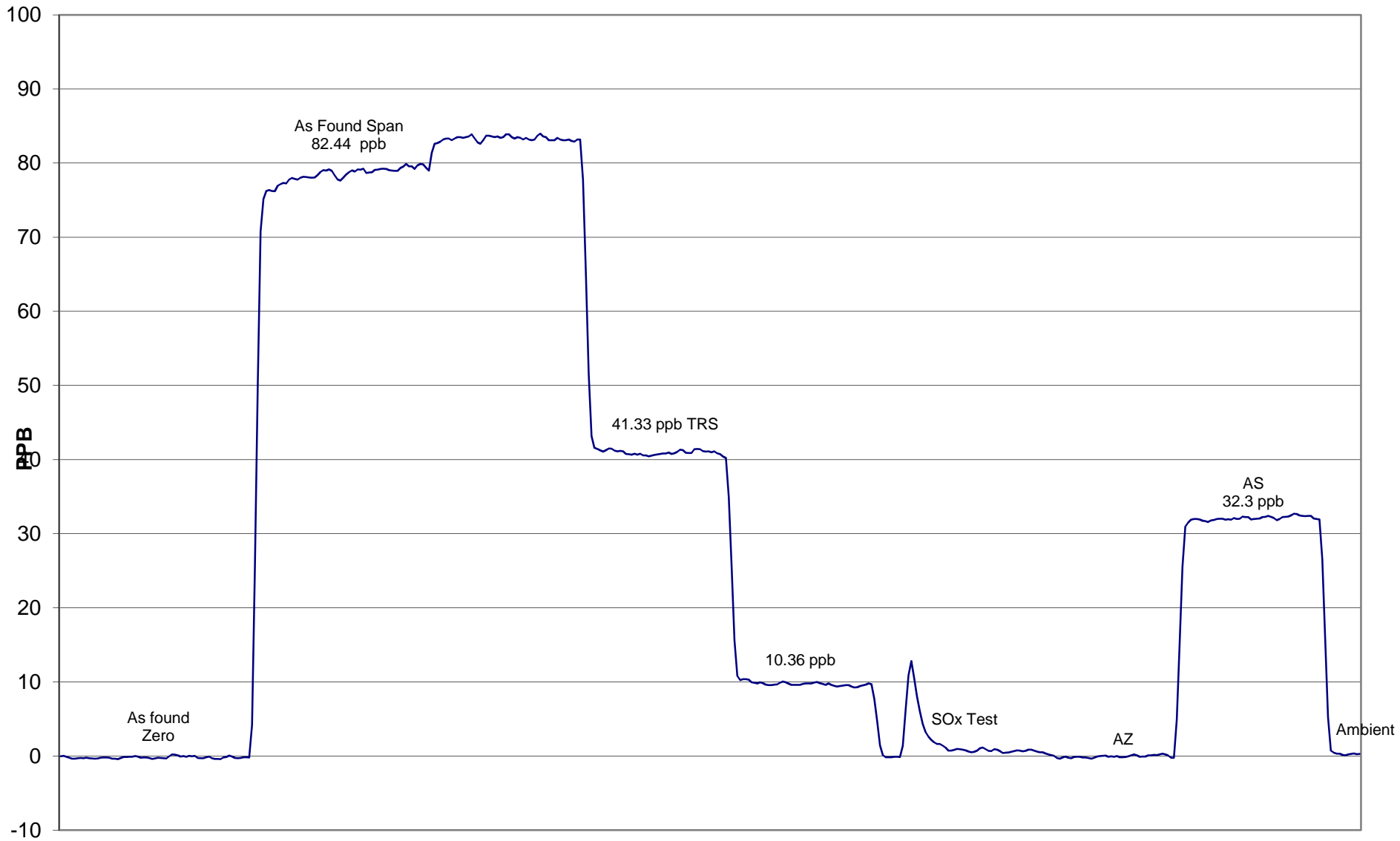
### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
82.4	83.3	0.9897	Correlation Coefficient	0.999898
41.3	41.0	1.0078		
10.4	9.6	1.0779	Slope	0.984828
			Intercept	0.606017

### TRS Calibration Curve



# Smokey Heights TRS Calibration



June 6, 2014

# Calibration Report



Parameter SO2

Air Monitoring Network PAZA

## Station Information

Calibration Date	June 10, 2014	Previous Calibration	May 12, 2014
Station Number	4	Station Location	Beaverlodge
Reason:	<b>Routine</b>	Install	Removal
			Other:
Start Time (MST)	13:50:00 PM	End Time (MST)	16:35:00 PM
Barometric Pressure	0.908 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	2844
Cal Gas Concentration	10.8 ppm	Cal Gas Expiry Date	28/09/2012
Gas Cert Reference	FF14871		
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.009327	Calculated slope	0.995405
Calculated intercept	-0.308235	Calculated intercept	0.219002
	-0.308235		
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.7		2.7	
Coefficient	1.042		1.042	
PMT	-767.8	V	-767.8	V
UV Lamp Voltage	1059	V	1060	V
Chamber Temp	45	Deg C	45	Deg C
Pressure	665.5	mm Hg	662.8	mm Hg
Sample Flow	0.483	LPM	0.481	LPM
Lamp Intensity	97	%	96	%

## Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4994	0.00	0.0	0.0	N/A
4994	39.92	85.6	85.9	0.9969
4994	19.96	43.0	42.9	1.0030
4994	9.96	21.5	21.2	1.0132
4994	0.00	0.0	0.0	As found zero
4994	39.92	85.6	85.9	As found span
Average Correction Factor				1.0044

Calculated value of As Found Response: 86.455 ppm      Percent Change of As Found: -0.9%

	before calibration		after calibration	
Auto zero	0.2	ppb	0.3	ppb
Auto span	59.9	ppb	59.4	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

# Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



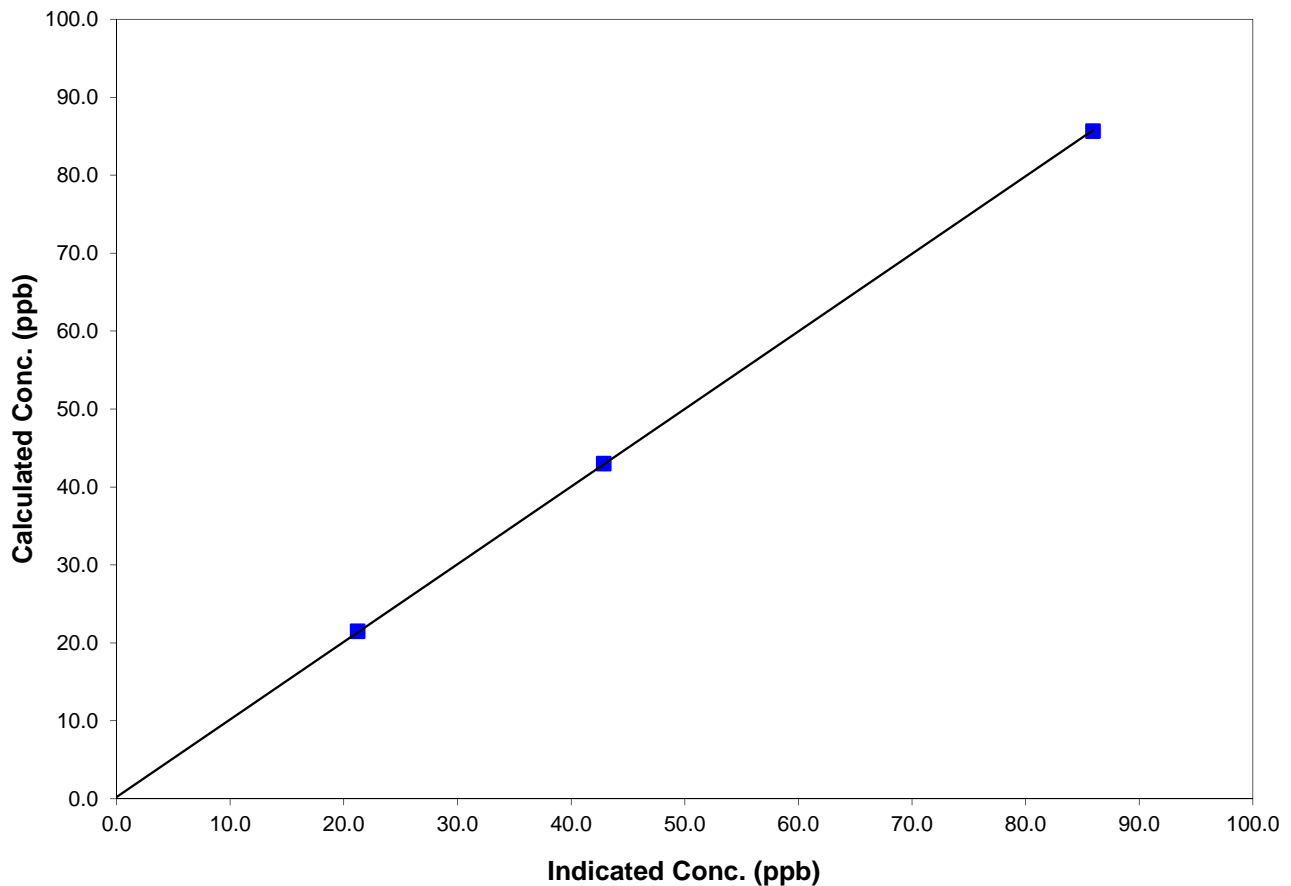
## Station Information

Calibration Date	June 10, 2014	Previous Calibration	May 12, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	13:50:00 PM	End Time (MST)	16:35:00 PM
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

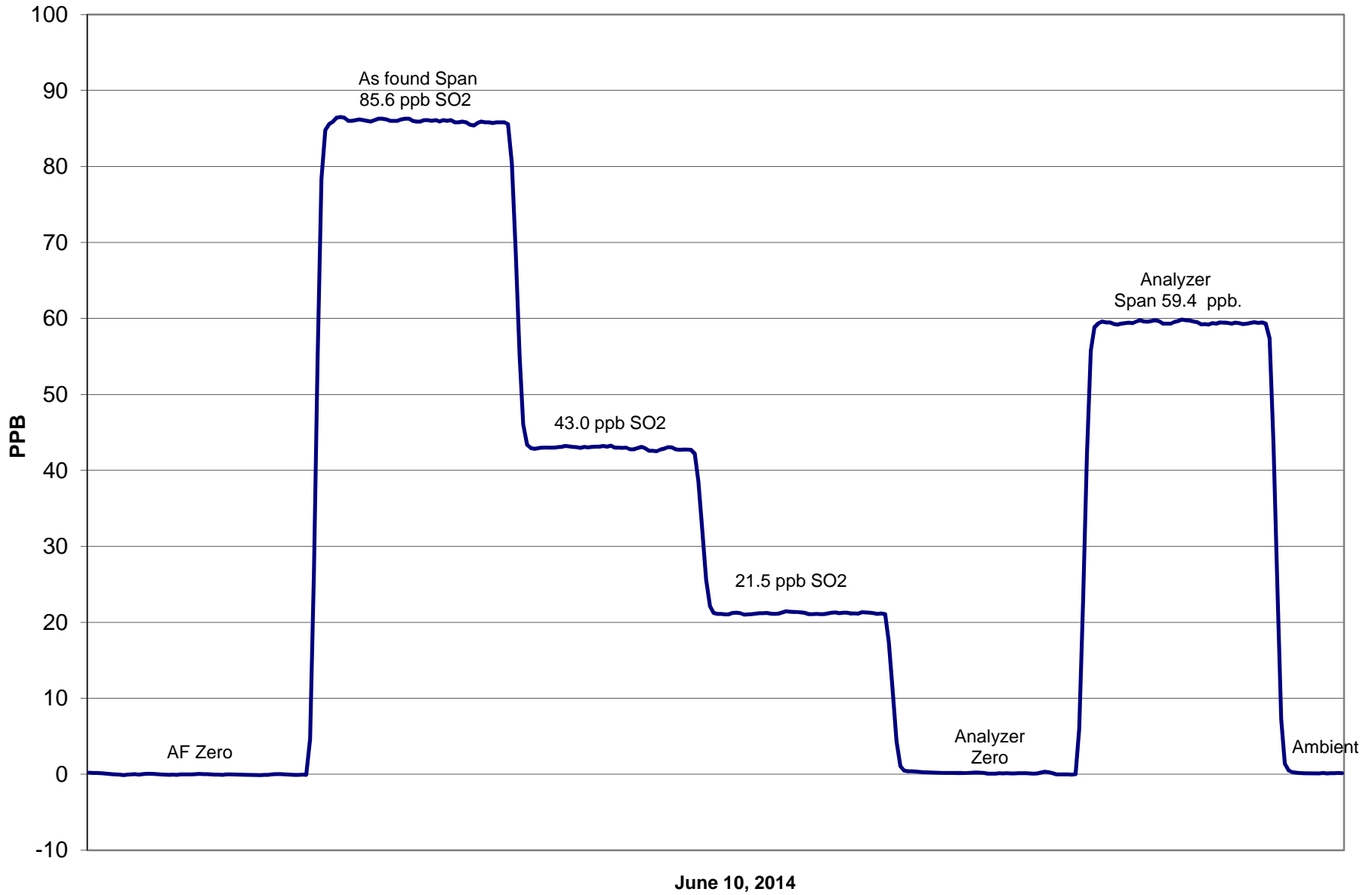
## Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
85.6	85.9	0.9969	Correlation Coefficient	0.999981
43.0	42.9	1.0030		
21.5	21.2	1.0132	Slope	0.995405
			Intercept	0.219002

### SO2 Calibration Curve



# SO2 Calibration



# Calibration Report

Parameter

NO<sub>x</sub>-NO-NO<sub>2</sub>

Air Monitoring Network

PAZA



## Station Information

Calibration Date	June 10, 2014	Previous Calibration	May 13, 2014
Station Number	4	Station Location	Beaverlodge
Reason:	<b>Routine</b>	Installation	Removal
Other:			
Start Time (MST)	8:10	End Time (MST)	13:25:00 AM
Barometric Pressure	0.904 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	2844
NO Cal Gas Conc	52.1 ppm	Cal Gas Expiry Date	March 1, 2017
NOx Cal Gas Conc	52.4 ppm	Cal Gas Serial #	LL105159

## DACS Information

DACS make	CR3000	DACS serial No.	5237	
	Parameter	NO2	NOx	NO
Before	Data Slope	1.002286	1.001610	1.000563
	Data Offset	-0.184543	-1.983296	-1.675587
After	Data Slope	0.999131	0.998657	0.994858
	Data Offset	-0.339346	1.530935	1.915016
	Channel #	8	6	7
	Voltage Range	0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

## Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	906535068	
Test Point	before		after	
Concentration range	0-500	ppb	0-500	ppb
NO offset	2.8	mV	2.8	mV
NOx bkgnd	2.9	mV	3.0	mV
NO coefficient	1.002		1.027	
NOx coefficient	1.000		1.000	
NO2 conv temp	324.7	Deg C	326.3	Deg C
PMT Temp	-2.9	Deg C	-2.9	Deg C
PMT Volt	-740.4	mV	-740.4	mV
R Cell Press	203.4	in Hg	204.6	in Hg
Sample Flow	0.703	LPM	0.704	LPM

Notes: Span adjustment made  
 After span peak climbing gradually, analyzer needs new perm tube soon.

# Calibration Report



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

## Station Information

Calibration Date: June 10, 2014 Station Location: Beaverlodge

## Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	0.1	-0.1	0.1	N/A	N/A
1	4995	39.92	415.5	413.1	2.4	415.2	414.3	0.2	1.0006	0.9971
2	4995	19.96	208.6	207.4	1.2	206.7	205.3	0.5	1.0091	1.0101
3	4995	9.93	104.0	103.4	0.6	100.9	100.4	0.3	1.0307	1.0296
AFZ	4995	0.00	0.0	0.0	0.0	0.1	-0.1	0.1	0.0000	0.0000
AFS	4995	39.92	415.5	413.1	0.8	405.0	404.4	-0.1	1.0257	1.0215
Average Correction Factor									1.0135	1.0123

As Found Concentrations: NO<sub>x</sub>= 403.0 NO= 402.8 As Found Percent Change NO<sub>x</sub>= -3.0% NO= -2.5%

## 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	0.1	-0.1	0.1	N/A	N/A	N/A	N/A
NO point	413.9	413.9	0.0	414.5	413.9	-0.2	0.9986	1.0000	N/A	N/A
300	413.9	105.3	308.5	414.9	105.3	309.0	0.9975	1.0000	0.9983	100.2%
200	413.9	205.8	208.0	415.2	205.8	208.5	0.9969	1.0000	0.9979	100.2%
100	413.9	306.2	107.6	415.2	306.2	108.5	0.9968	1.0000	0.9920	100.8%
Average Correction Factor							0.9971	1.0000	0.9961	100.4%

## AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.1	-0.1	-0.1	ppb	0.0	0.0	-0.1	ppb
Auto span	168.3	166.9	1.1	ppb	184.7	183.3	0.9	ppb

Calibration Performed By: Dmytro Dolotii



# Calibration Summary

Parameter NO<sub>2</sub>

Air Monitoring Network PAZA



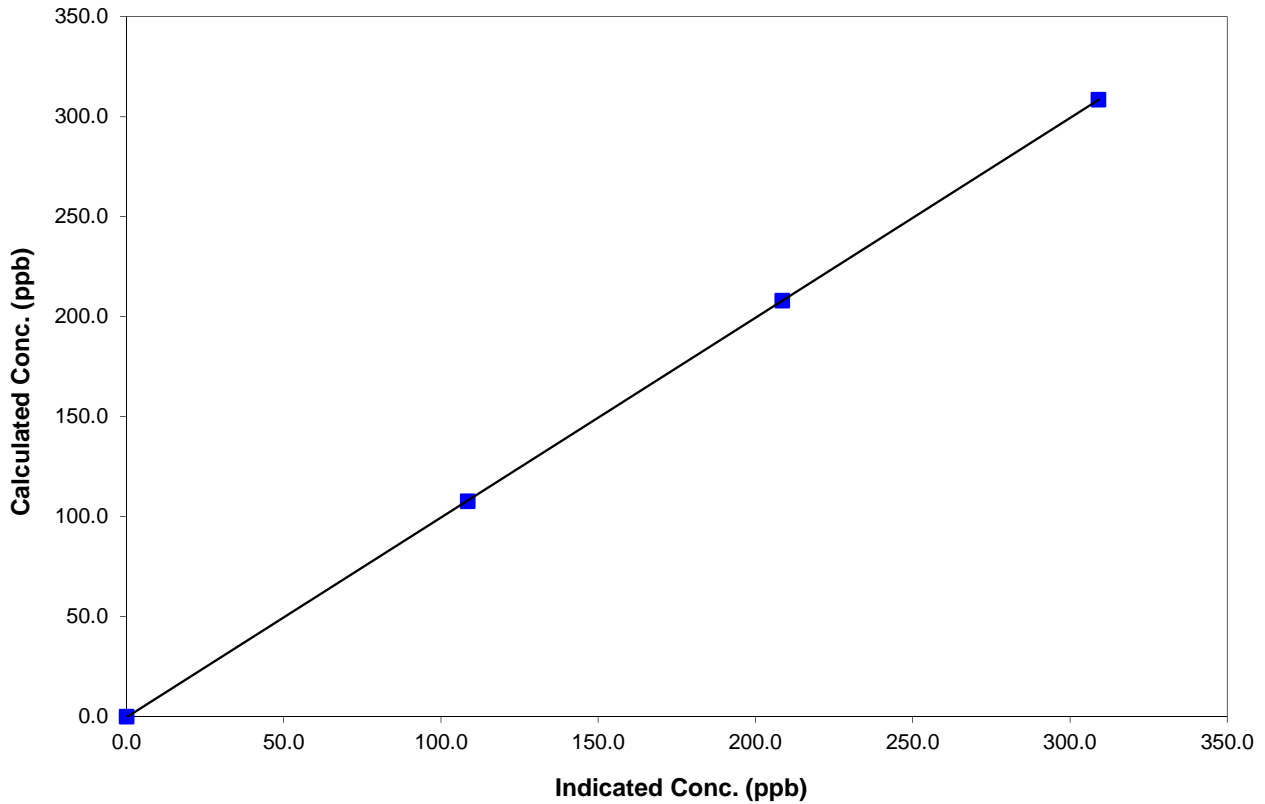
## Station Information

Calibration Date	June 10, 2014	Previous Calibration	May 13, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:10	End Time (MST)	13:25:00 AM
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	0.999995
308.5	309.0	0.9983		
208.0	208.5	0.9979		
107.6	108.5	0.9920	Slope	0.999131
			Intercept	-0.339346

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



# Calibration Summary

Parameter NO<sub>x</sub>

Air Monitoring Network PAZA



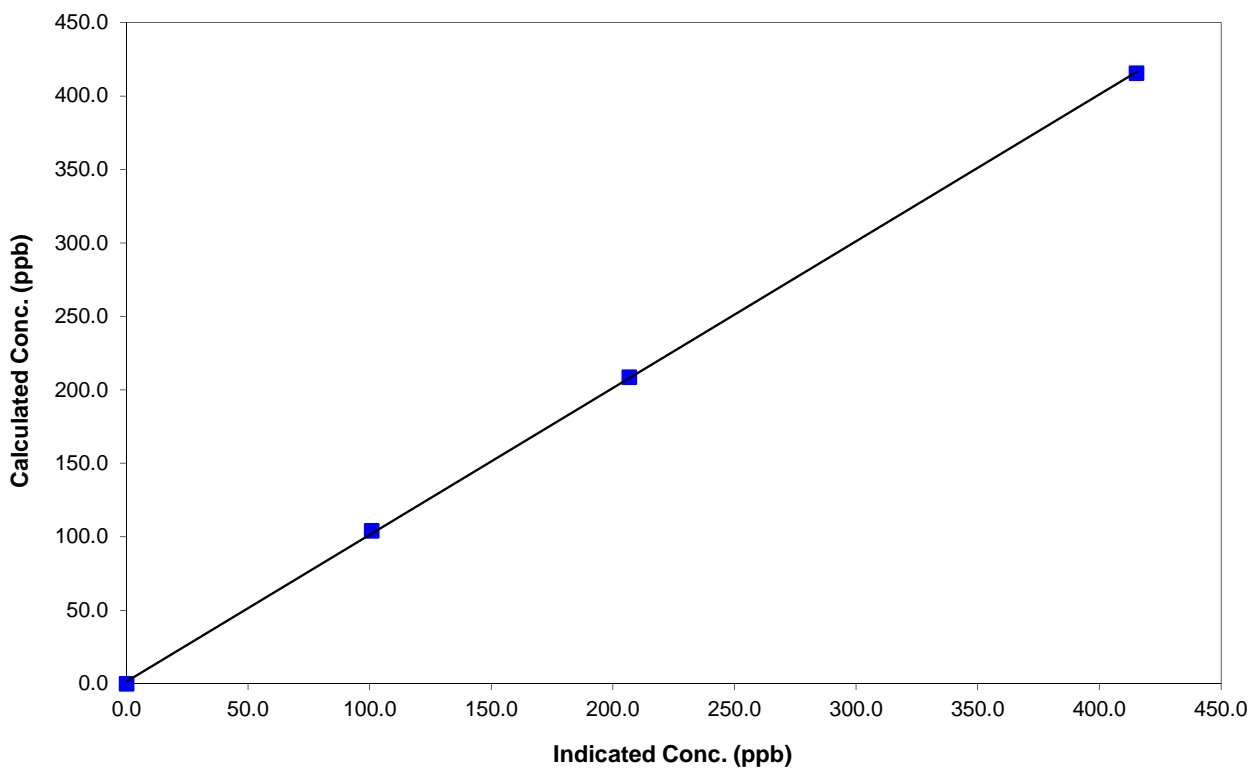
## Station Information

Calibration Date	June 10, 2014	Previous Calibration	May 13, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:10	End Time (MST)	13:25:00 AM
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	0.999933
415.5	415.2	1.0006		
208.6	206.7	1.0091	Slope	0.998657
104.0	100.9	1.0307		
			Intercept	1.530935

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



# Calibration Summary

Parameter NO

Air Monitoring Network PAZA



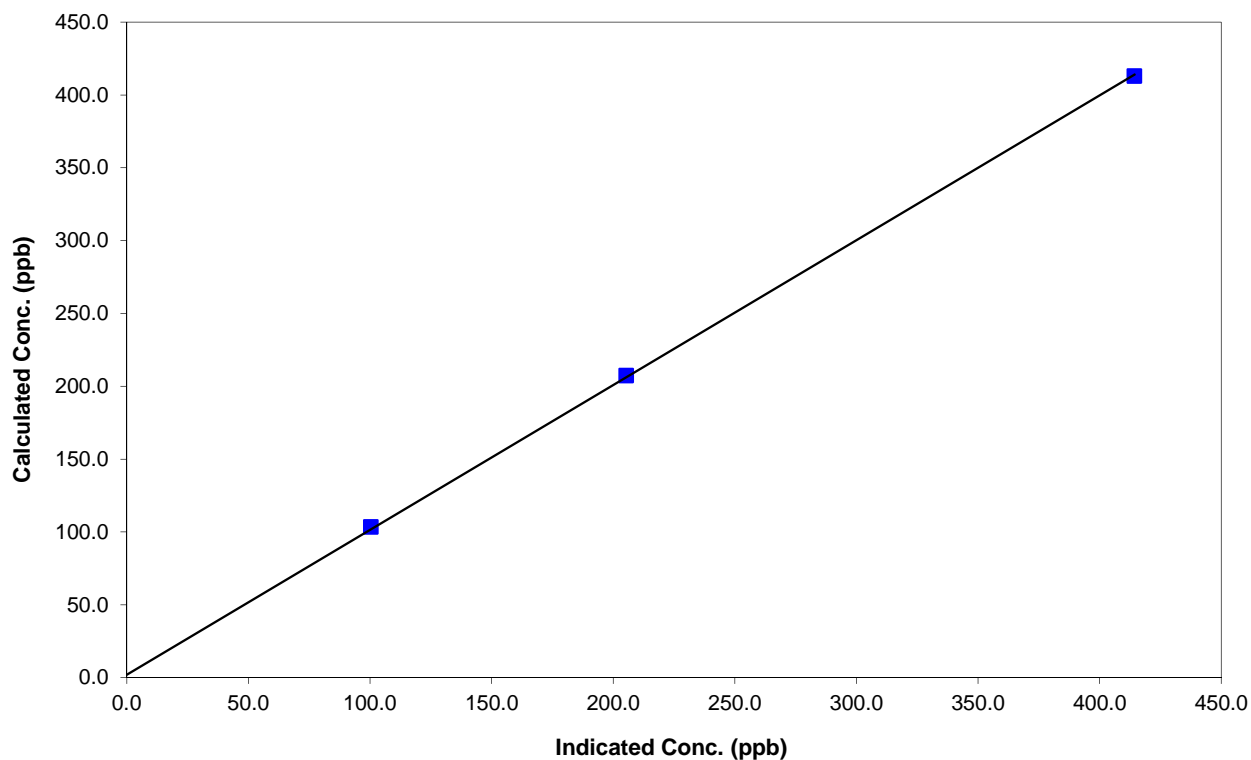
## Station Information

Calibration Date	June 10, 2014	Previous Calibration	May 13, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:10	End Time (MST)	13:25:00 AM
Analyzer make	TEI 42i	Analyzer serial #	906535068

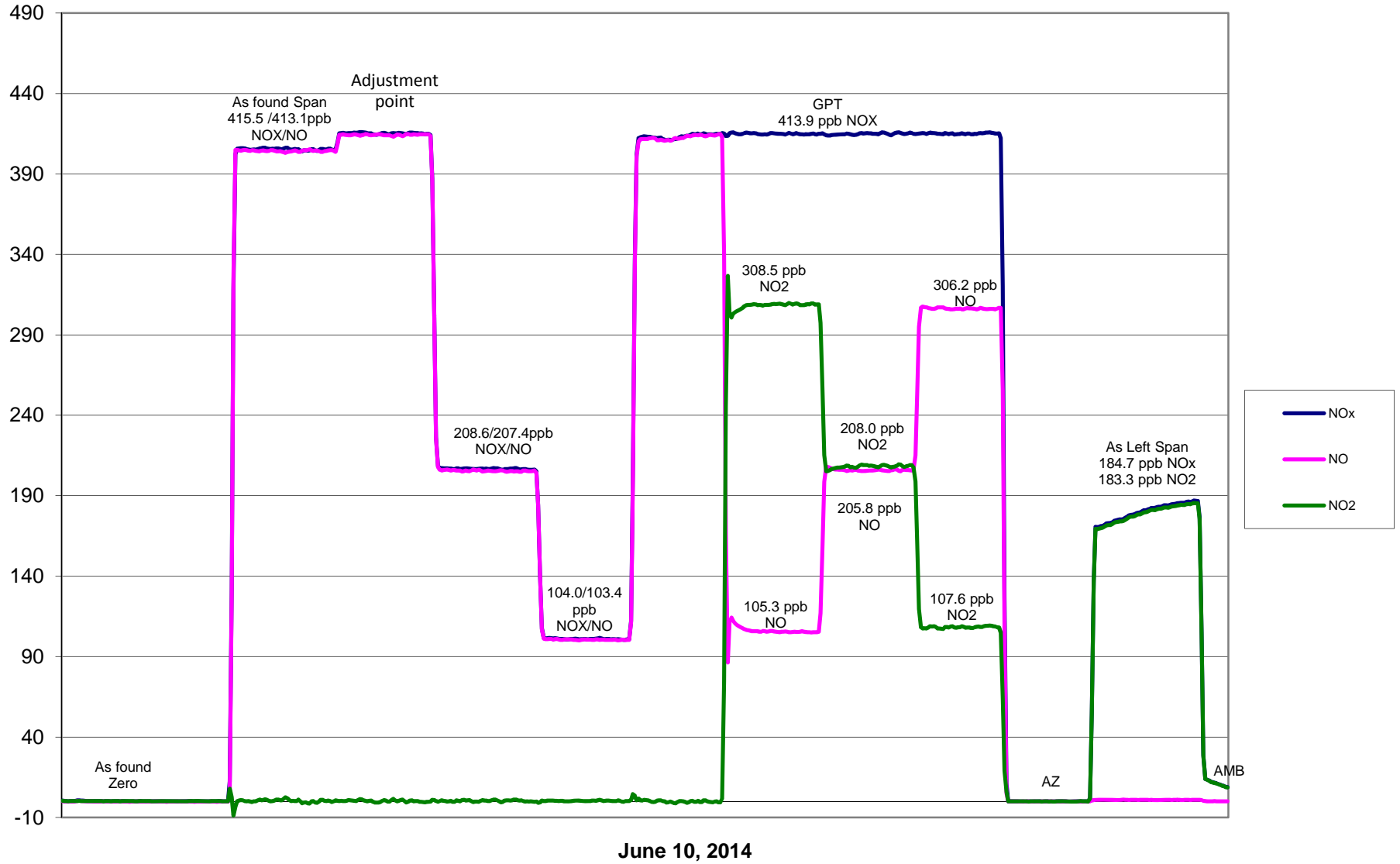
## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999913
413.1	414.3	0.9971		
207.4	205.3	1.0101	Slope	0.994858
103.4	100.4	1.0296		
			Intercept	1.915016

## NO Calibration Curve



# PAZA Beaverlodge NO<sub>x</sub> Calibration



# Calibration Report



Parameter 03

Air Monitoring Network PAZA

## Station Information

Calibration Date	June 10, 2014	Previous Calibration	May 13, 2014
Station Number	4	Station Location	Beaverlodge
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	12:18	End Time (MST)	15:05:00 PM
Barometric Pressure	0.904 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.004788	Calculated slope	1.001277
Calculated intercept	-0.024794	Calculated intercept	-0.389607
Analyzer make	Teco 49i	Analyzer serial #	1136451236

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	0.00	ppb	-0.60	ppb
slope	1.028		1.028	
Lamp temp	53.8	mV	53.9	mV
Lamp Intensity A/B	83155/84265	mV	83130/84218	mV
Pressure	674.5	mm Hg	684.8	mm Hg
Flow A	0.755	LPM	0.763	LPM
Flow B	0.738	LPM	0.744	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	0.5	N/A
5035	0.30	308.5	308.9	0.9985
5035	0.20	208.0	207.4	1.0031
5035	0.10	107.6	108.0	0.9961
5035	0.00	0.0	0.1	As found zero
5035	0.30	308.5	308.9	As found span
Average Correction Factor				0.9992

Calculated value of As Found Response: 310.3 ppm Percent Change of As Found: 0.6%

	before calibration		after calibration	
Auto zero	-1.2	ppb	0.2	ppb
Auto span	277.9	ppb	273.0	ppb

Notes: Slight zero adjustment made. From 0.8 ppb to 0.0 ppb.  
Because of the MDS offset, zero after adjustment look higher than it was before adjustment

Calibration Performed By: Dmytro Dolotii

# Calibration Summary

Parameter           03          

Air Monitoring Network                                   PAZA                                  

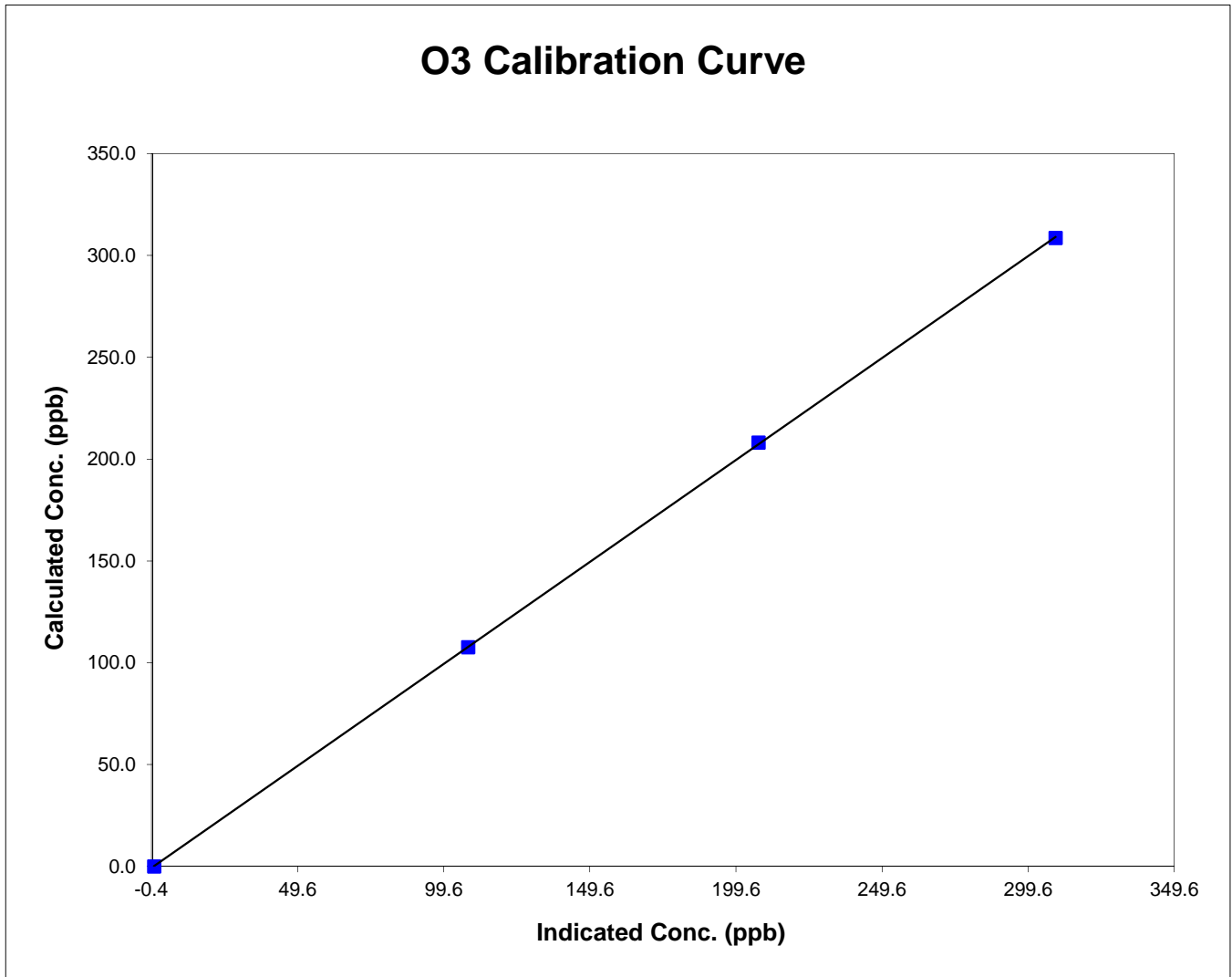


## Station Information

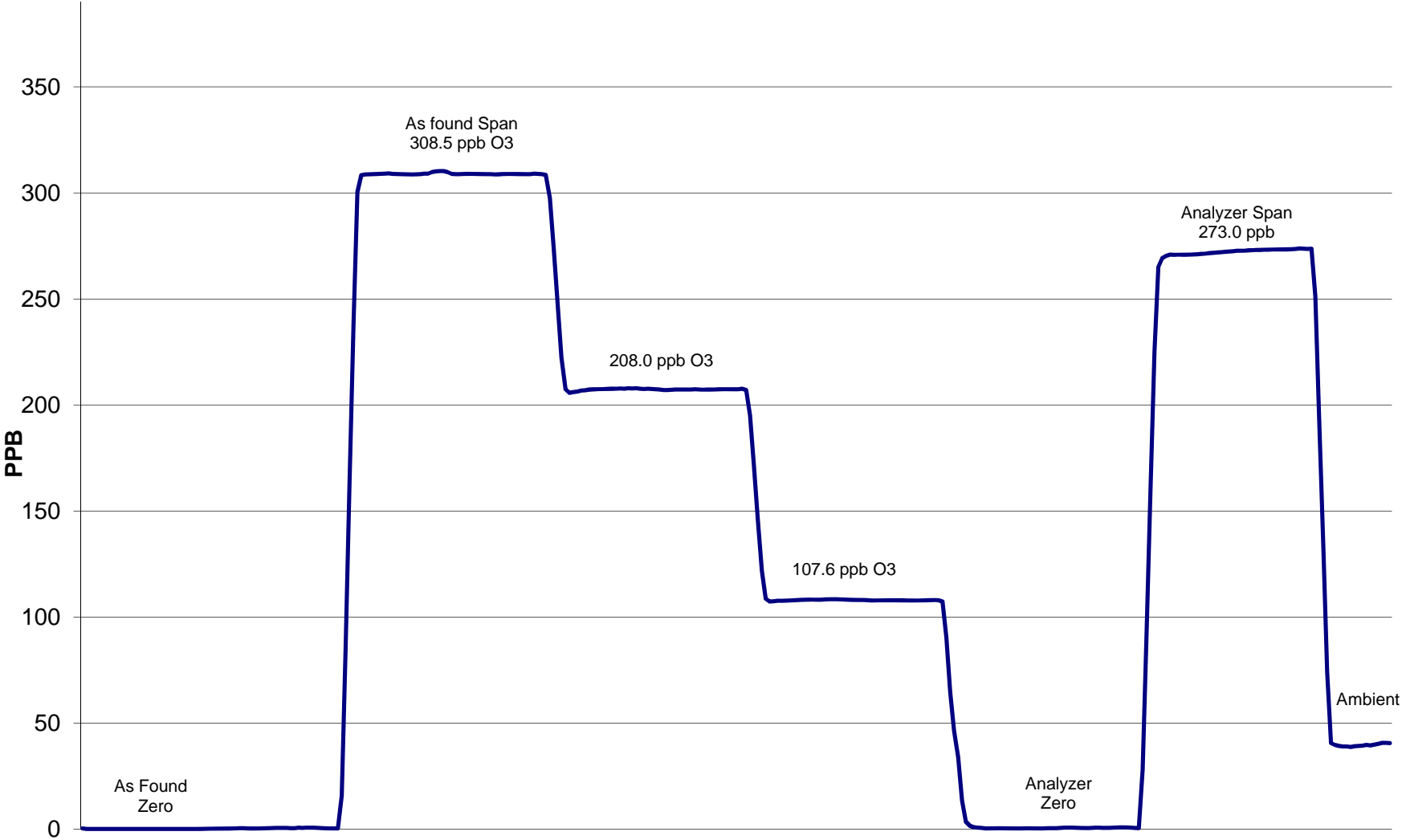
Calibration Date	June 10, 2014	Previous Calibration	May 13, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	12:18	End Time (MST)	15:05:00 PM
Analyzer make/model	Teco 49i	Analyzer serial #	1136451236

## Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	NA		
308.5	308.9	0.9985	Correlation Coefficient	0.999984
208.0	207.4	1.0031		
107.6	108.0	0.9961	Slope	1.001277
			Intercept	-0.389607



# O3 Calibration



June 10, 2014

# FDMS TEOM PM2.5 AUDIT



STATION: BeaverLodge  
 LOCATION: PASZA - Grande Prairie

OPERATOR: Grover Christiansen  
 DATE: 24-Jun-14

MONITOR INFO / PARAMETER VALUES:

RECENT CALIBRATION AND AUDIT HISTORY

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	1.050
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

Previous Audit	26-Mar-14
Previous Calibration	

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

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 )	20.2	0.908	<del>15818</del>	13.68	2.99
MEASURED ( AF )	20.4	0.911	<del>15818</del>	13.30	3.02
MEASURED ( M )	20.4	0.911	15968	13.66	3.03
DIFFERENCE (M-I)	0.2	0.003	0.9%	-0.02	0.04
<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  
 See service report.

**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	June 2 2014	Previous Calibration	May 15 2014
Station Number	6	Station Location	Valleyview
Reason:	<b>Routine</b>	Install	Removal
Start Time (MST)	12:50	End Time (MST)	14:35:00 PM
Barometric Pressure	702.00 mmHg	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	2844
Cal Gas Concentration	51.5 ppm	Cal Gas Exp Date	February 25, 2021
Gas Cylinder Num.	LL105159		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	4
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.002425	Calculated slope	0.994556
Calculated intercept	-1.950266	Calculated intercept	1.499521
Analyzer make	TEI 45C	Analyzer serial #	45C-57531-313

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	59.8		64.5	
Coefficient	0.996		1.073	
UV Lamp Voltage	834	LPM	833	LPM
Chamber Temp	44.4	V	43.9	V
Perm Gas Temp	37	C	37	C
Pressure	604.3	in Hg	603.5	in Hg
Sample Flow	0.534	LPM	0.526	LPM
Lamp Intensity	41804	Hz	41878	Hz

## Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.0	N/A
4995	39.91	408.2	409.9	0.9959
4995	19.97	205.1	203.4	1.0084
4995	9.95	102.4	100.3	1.0210
4995	0.00	0.0	0.0	As found zero
4995	39.91	408.2	379.5	As found span
Average Correction Factor				1.0084

Calculated value of As Found Response: 378.4 ppm      Percent Change of As Found: 7.3%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.0	ppm
Auto span	150.2	ppm	136.3	ppm

Notes: Internal span box adjustment and maintenance made  
Span adjustment made 80% point.

Calibration Performed By: Dmytro Dolotii, Grover Christiansen

# Calibration Summary

Parameter SO2  
 Air Monitoring Network PAZA

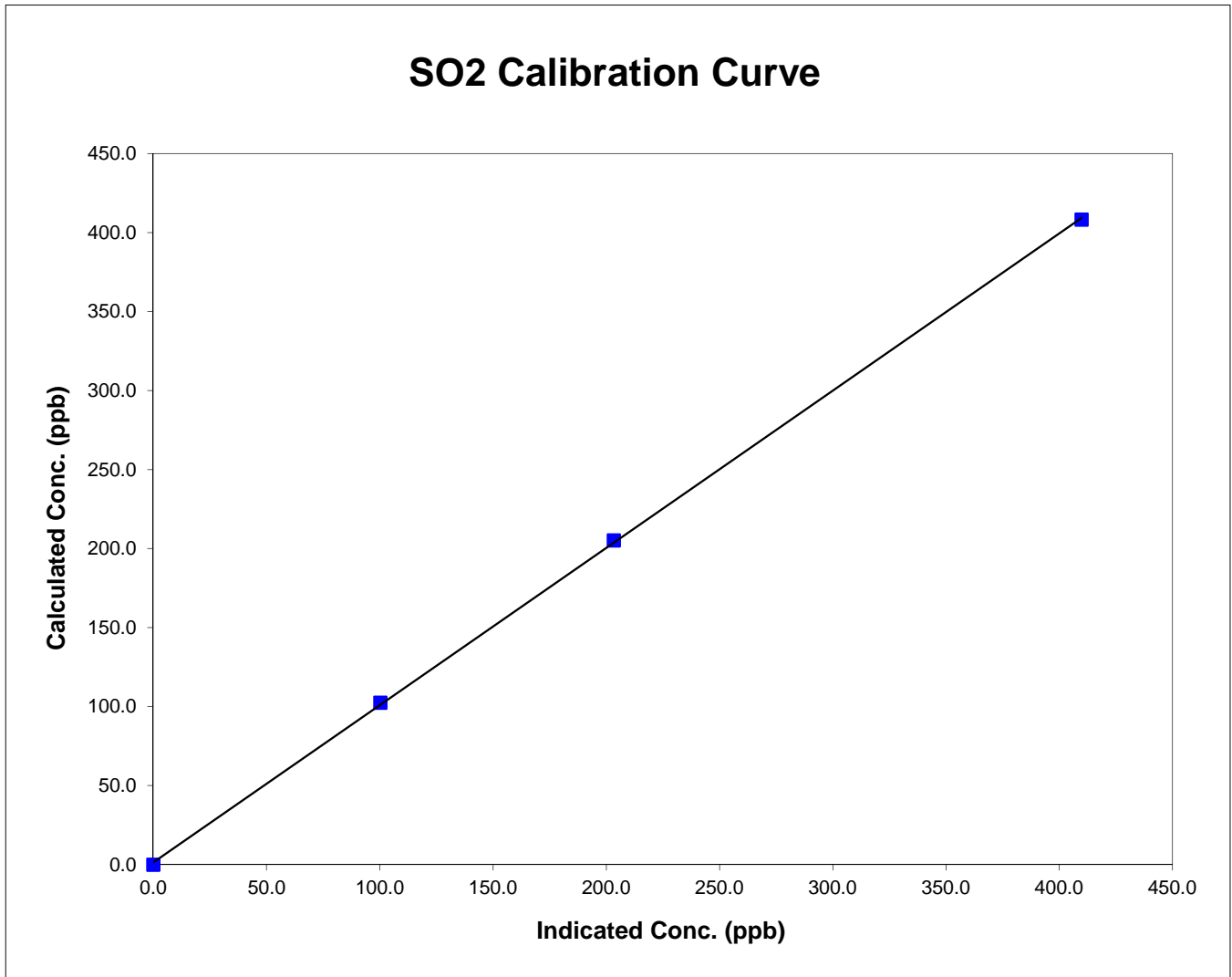


### Station Information

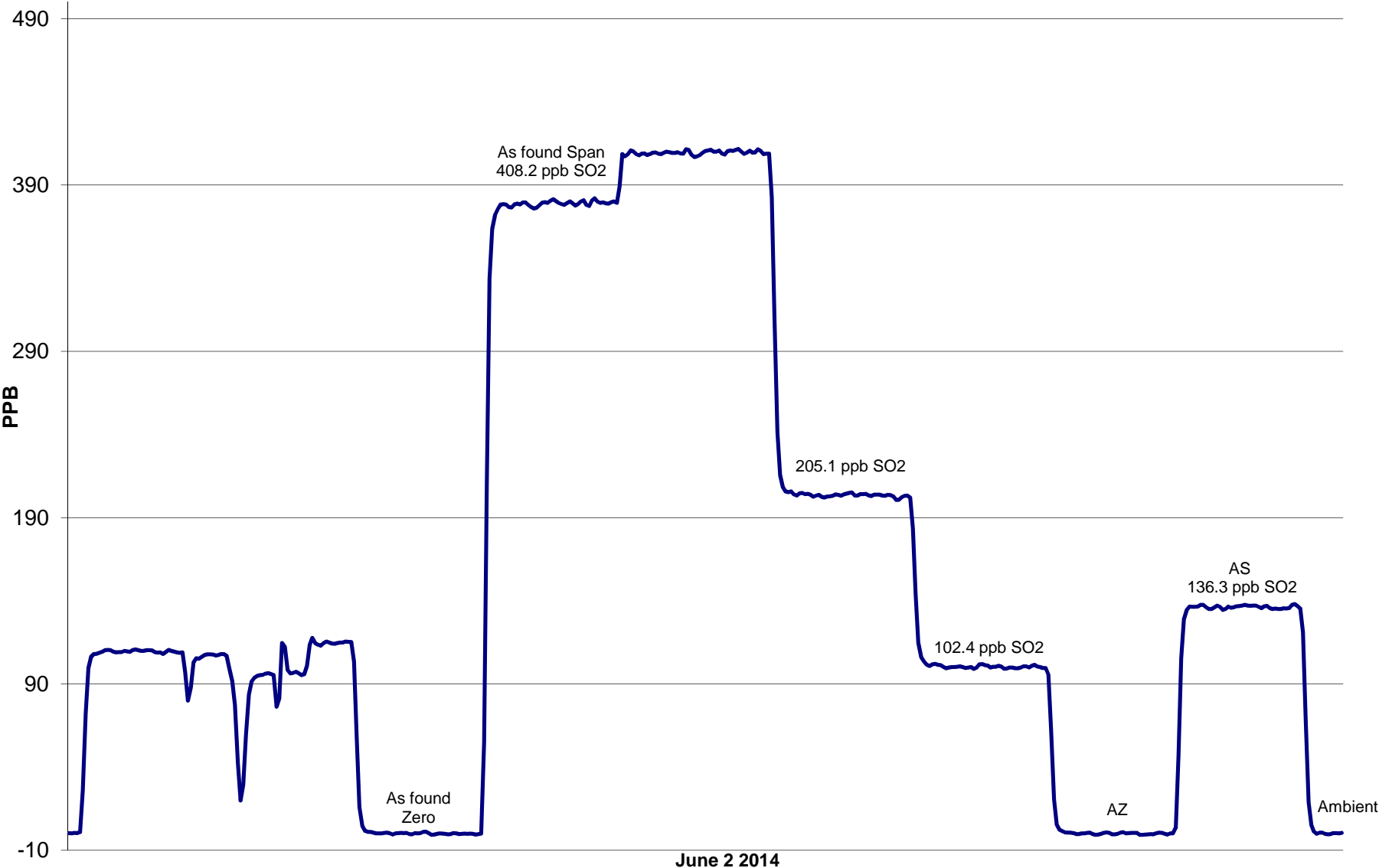
Calibration Date	June 2 2014	Previous Calibration	May 15 2014
Station Number	6	Station Location	Valleyview
Start Time (MST)	12:50	End Time (MST)	14:35:00 PM
Analyzer make/model	TEI 45C	Analyzer serial #	45C-57531-313

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
408.2	409.9	0.9959	Correlation Coefficient	0.999932
205.1	203.4	1.0084		
102.4	100.3	1.0210	Slope	0.994556
			Intercept	1.499521



# SO2 Calibration





# Calibration Summary



Parameter                     H2S                      
 Air Monitoring Network   PAZA  

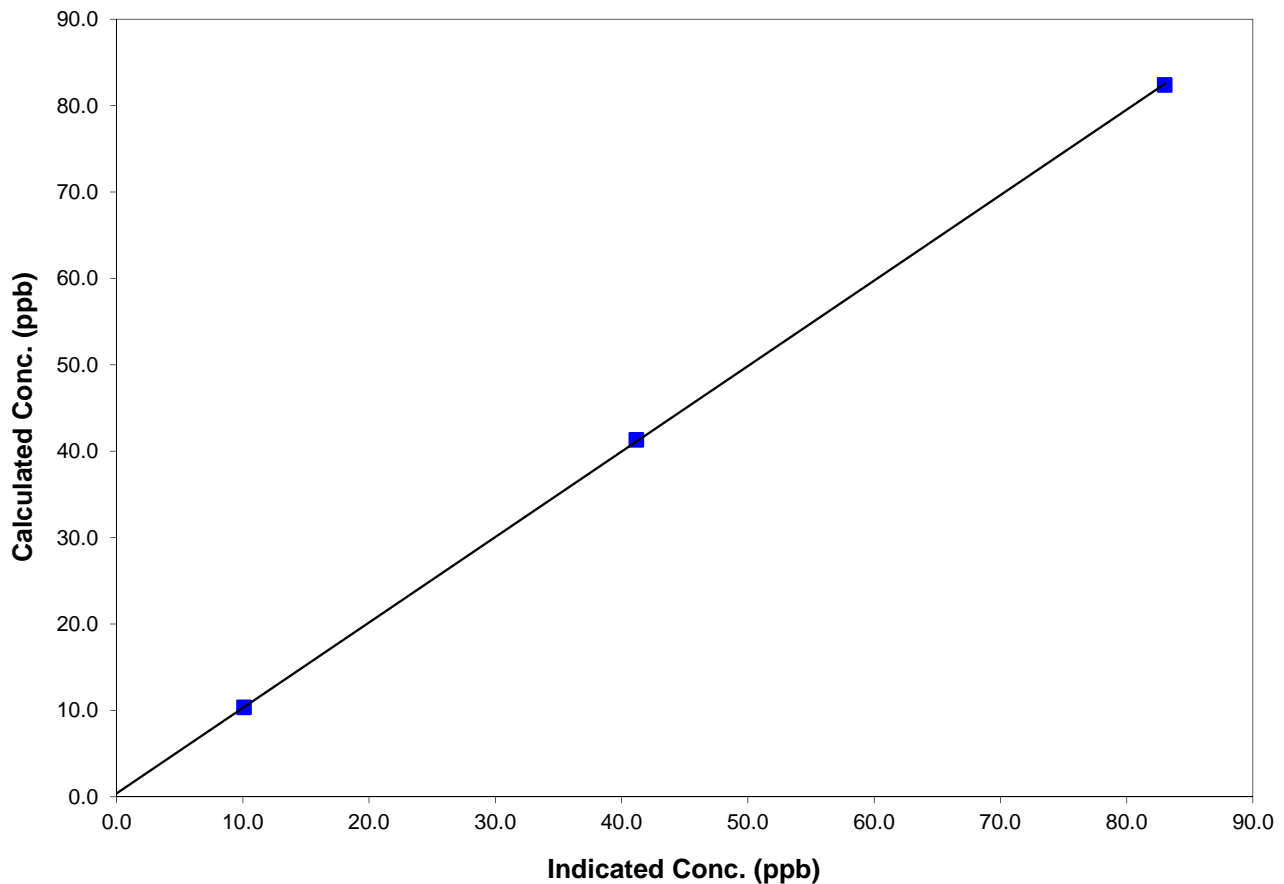
### Station Information

Calibration Date	<u>                    June 2 2014                    </u>	Previous Calibration	<u>                    May 15 2014                    </u>
Station Number	<u>                    6                    </u>	Station Location	<u>                    Valleyview                    </u>
Start Time (MST)	<u>                    9:05                    </u>	End Time (MST)	<u>                    12:35                    </u>
Analyzer make/model	<u>                    TEI Model 43i - APSCB                    </u>	Analyzer serial #	<u>                    701120010                    </u>

### Calibration Data

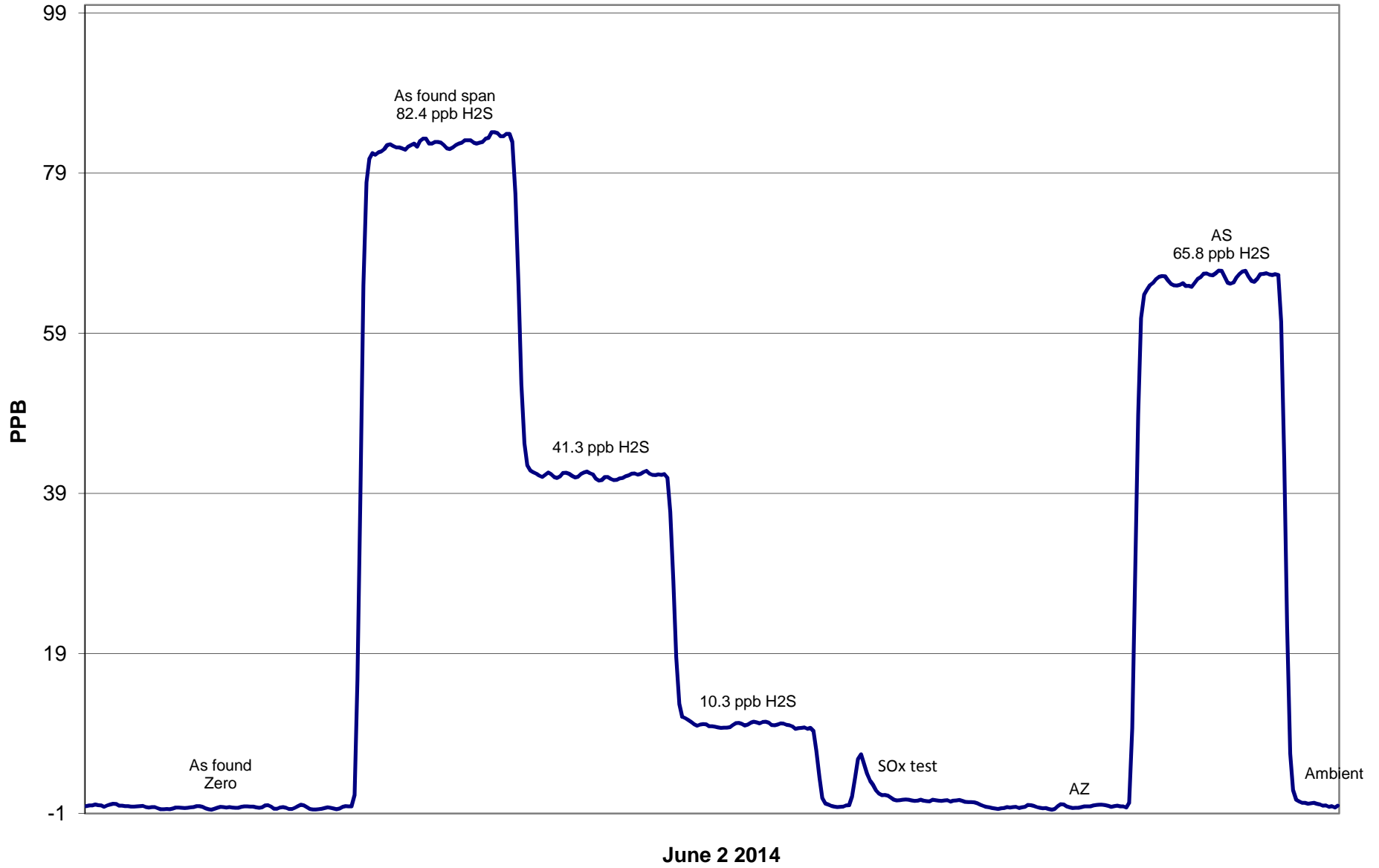
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
			0.0	-0.3
82.4	83.0	0.9927	Correlation Coefficient	0.999982
41.3	41.2	1.0040		
10.3	10.1	1.0257	Slope	0.989497
			Intercept	0.375073

## H2S Calibration Curve



10.4 ppb H2S

### H2S Calibration



# Calibration Report



Parameter SO2  
 Air Monitoring Network PAZA

### Station Information

Calibration Date	June 18, 2014	Previous Calibration	May 22, 2014
Station Number	10	Station Location	Reno
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	7:40	End Time (MST)	10:40
Barometric Pressure	0.926 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	01/03/2017
Gas Cert Reference	LL105159		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	2
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.999064	Calculated slope	0.987662
Calculated intercept	2.333932	Calculated intercept	2.196273
Analyzer make	TEI 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	21.2		21.2	
Coefficient	1.059		1.059	
UV Lamp Voltage	864	V	864	V
Chamber Temp	44.9	C	44.9	C
Perm Gas Temp	45	C	45	C
Pressure	671.8	mm Hg	672	mm Hg
Sample Flow	0.465	LPM	0.465	LPM
Lamp Intesity	30663	Hz	30623	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	394.9	398.7	0.9906
4995	19.97	198.3	197.4	1.0044
4995	9.97	99.2	96.1	1.0320
4995	0.00	0.0	-0.1	As found zero
4995	39.93	394.9	398.7	As found span
Average Correction Factor				1.0090

Calculated value of As Found Response: 400.747 ppm      Percent Change of As Found: -1.5%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	259.1	ppm	240.9	ppm

Notes: No adjustments made

Calibration Performed By: Grover Christiansen, Dmytro Dolotii.

# Calibration Summary

Parameter SO2  
 Air Monitoring Network PAZA



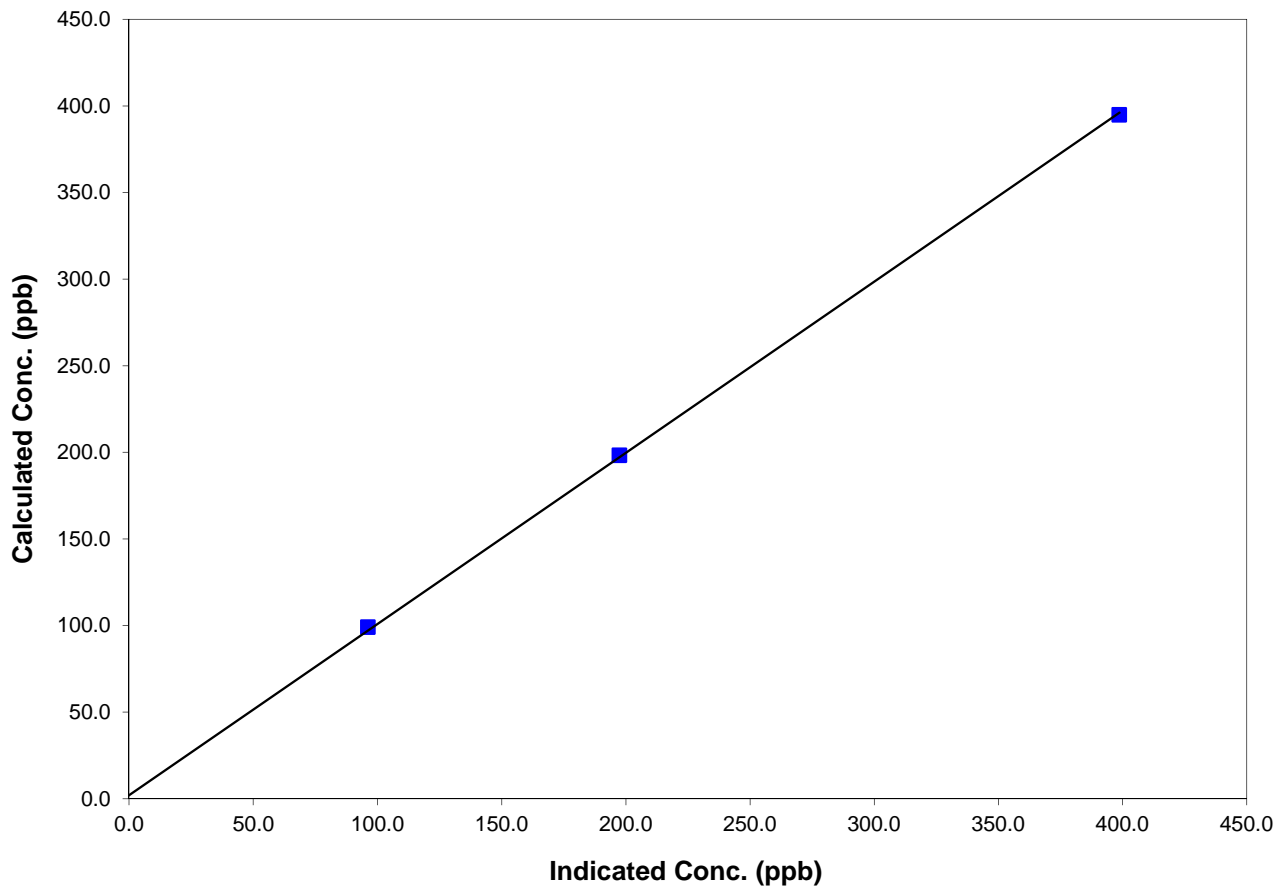
## Station Information

Calibration Date	June 18, 2014	Previous Calibration	May 22, 2014
Station Number	10	Station Location	Reno
Start Time (MST)	7:40	End Time (MST)	10:40
Analyzer make/model	TEI 43C	Analyzer serial #	436610005

## Calibration Data

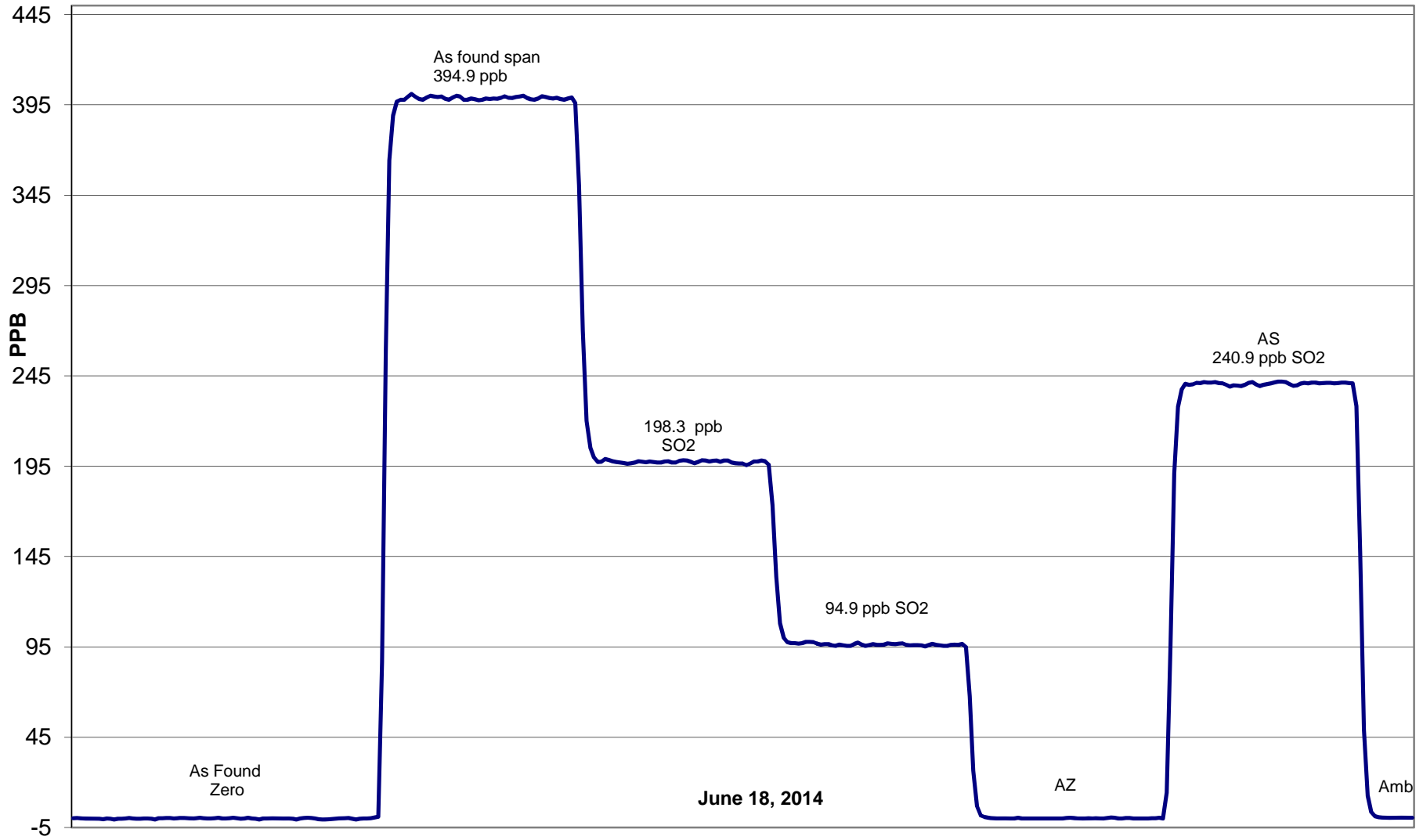
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999870
394.9	398.7	0.9906		
198.3	197.4	1.0044	Slope	0.987662
99.2	96.1	1.0320		
			Intercept	2.196273

### SO2 Calibration Curve





# SO2 Calibration



# Calibration Report

Parameter

NO<sub>x</sub>-NO-NO<sub>2</sub>

Air Monitoring Network

PAZA



### Station Information

Calibration Date	June 18, 2014	Previous Calibration	May 22, 2014		
Station Number	10	Station Location	Reno		
Reason:	<b>Routine</b>	Install	Removal		
Start Time (MST)	7:40	End Time (MST)	12:30		
Barometric Pressure	0.926	Atm	Station Temperature	20.0	Deg C
Calibrator	EnviroNics	Serial Number	3016		
NO Cal Gas Conc	52.1	ppm	Cal Gas Expiry Date	March 12, 2014	
NOx Cal Gas Conc	52.4	ppm	Cal Gas Serial #	LL105159	

### DACS Information

DACS make	CR3000	DACS serial No.	5407	
	Parameter	NO2	NOx	NO
Before	Data Slope	1.002160	0.997785	0.998063
	Data Offset	0.218324	1.315684	1.004530
After	Data Slope	1.001530	1.006212	1.004288
	Data Offset	0.163782	1.473001	1.374317
	Channel #	5	3	4
	Voltage Range	0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

### Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	0701120011	
Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	6.1	mV	6.1	mV
NOx bkgnd	6.3	mV	6.3	mV
NO coefficient	1.077		1.077	
NOx coefficient	0.999		0.999	
NO2 conv temp	323.7	Deg C	323.7	Deg C
Cooler Temp	-2.9	Deg C	-2.9	Deg C
PMT Volt	845.8	mV	846.2	mV
R Cell Press	202.0	in Hg	201.7	in Hg
Sample Flow	0.704	ccm	0.706	ccm

NOTES: No adjustments made

# Calibration Report

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



## Station Information

Calibration Date: June 18, 2014 Station Location: Reno

## Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	
zero	4995	0.00	0.0	0.0	0.0	0.2	0.2	0.1	N/A	N/A	
1	4995	39.93	415.6	413.2	2.4	412.3	410.8	-0.1	1.0079	1.0058	
2	4995	19.97	208.7	207.5	1.2	205.2	204.4	0.0	1.0168	1.0148	
3	4995	9.97	104.4	103.8	0.6	100.6	100.4	0.3	1.0378	1.0336	
AFZ	4995	0.00	0.0	0.0	0.0	0.2	0.2	0.1	0.0000	0.0000	
AFS	4995	39.93	415.6	413.2	2.4	412.3	410.8	-0.1	1.0079	1.0058	
									Average Correction Factor	1.0209	1.0181

As Found Concentrations: NO<sub>x</sub>= 413.4 NO= 411.6 As Found Percent Change NO<sub>x</sub>= -0.5% NO= -0.4%

## GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency	
0	0.2	0.2	0.0	0.2	0.2	0.1	N/A	N/A	N/A	N/A	
NO point	410.7	410.7	0.0	412.2	410.7	-0.5	0.9963	1.0000	N/A	N/A	
300	410.7	104.7	306.0	411.8	104.7	305.5	0.9974	1.0000	1.0014	99.9%	
200	410.7	203.8	206.9	412.2	203.8	206.3	0.9964	1.0000	1.0027	99.7%	
100	410.7	302.7	108.0	411.9	302.7	107.3	0.9971	1.0000	1.0067	99.3%	
							Average Correction Factor	0.9969	1.0000	1.0036	99.6%

## AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.8	0.9	0.0	ppb	0.2	0.1	0.3	ppb
Auto span	166.3	164.3	1.4	ppb	167.6	165.5	1.4	ppb

Calibration Performed By: Grover Christiansen, Dmytro Dolotii.

# Calibration Summary

Parameter NO<sub>2</sub>

Air Monitoring Network PAZA



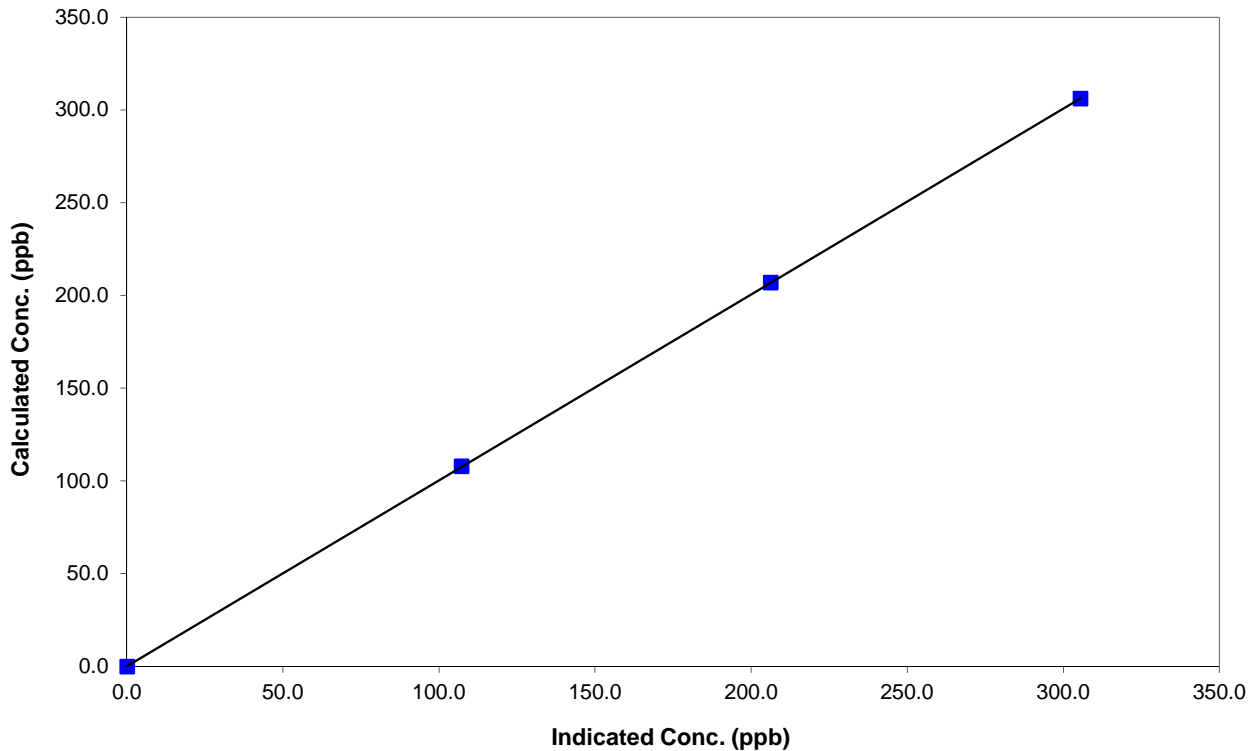
## Station Information

Calibration Date	June 18, 2014	Previous Calibration	May 22, 2014
Station Number	10	Station Location	Reno
Start Time (MST)	7:40	End Time (MST)	12:30
Analyzer make	TEI 42i	Analyzer serial #	0701120011

## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999995
306.0	305.5	1.0014		
206.9	206.3	1.0027	Slope	1.001530
108.0	107.3	1.0067		
			Intercept	0.163782

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



# Calibration Summary



Parameter NO<sub>x</sub>

Air Monitoring Network PAZA

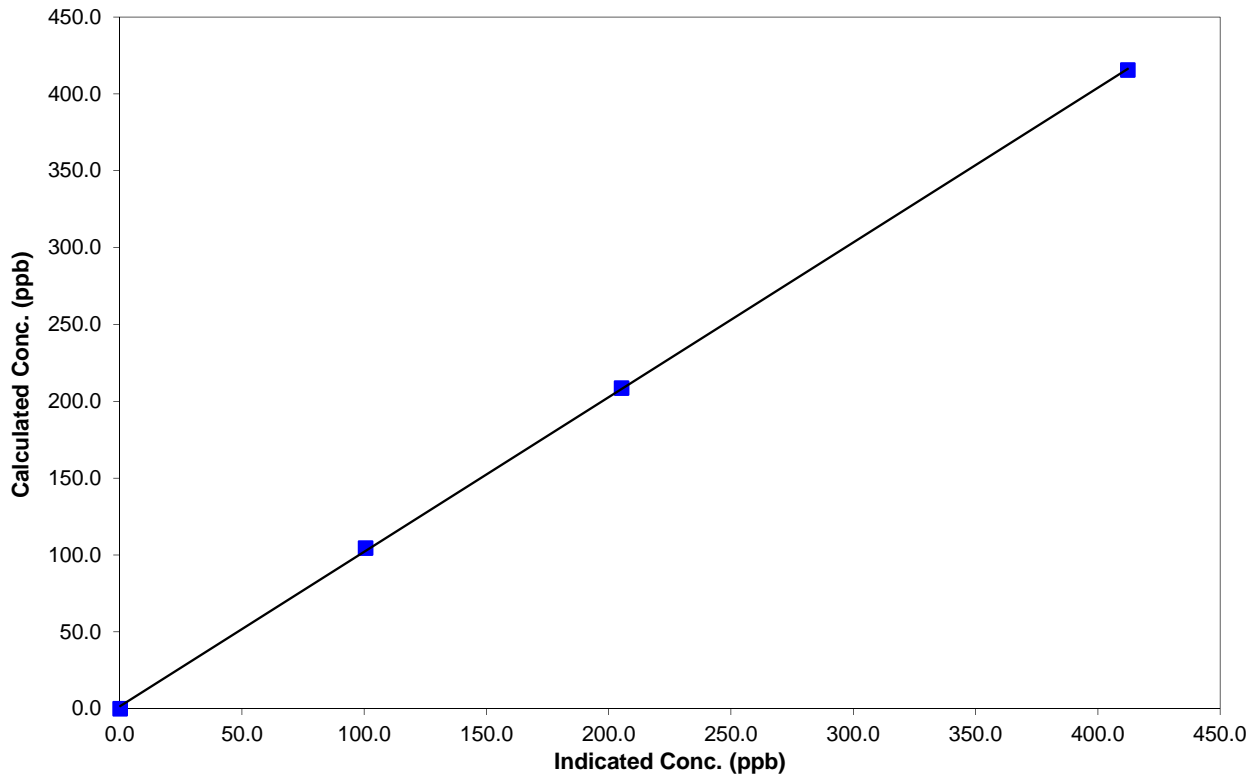
## Station Information

Calibration Date	June 18, 2014	Previous Calibration	May 22, 2014
Station Number	10	Station Location	Reno
Start Time (MST)	7:40	End Time (MST)	12:30
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	0.999929
415.6	412.3	1.0079		
208.7	205.2	1.0168	Slope	1.006212
104.4	100.6	1.0378		
			Intercept	1.473001

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



# Calibration Summary



Parameter NO

Air Monitoring Network PAZA

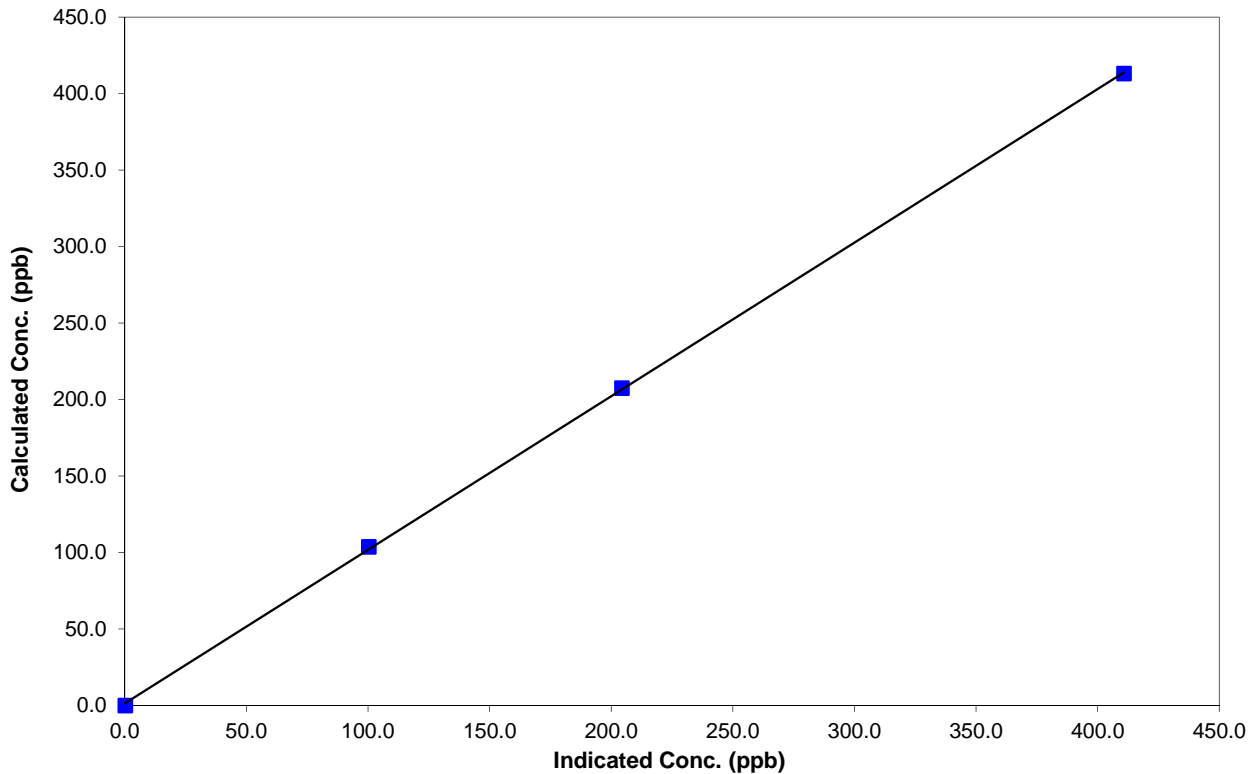
## Station Information

Calibration Date	June 18, 2014	Previous Calibration	May 22, 2014
Station Number	10	Station Location	Reno
Start Time (MST)	7:40	End Time (MST)	12:30
Analyzer make	TEI 42i	Analyzer serial #	0701120011

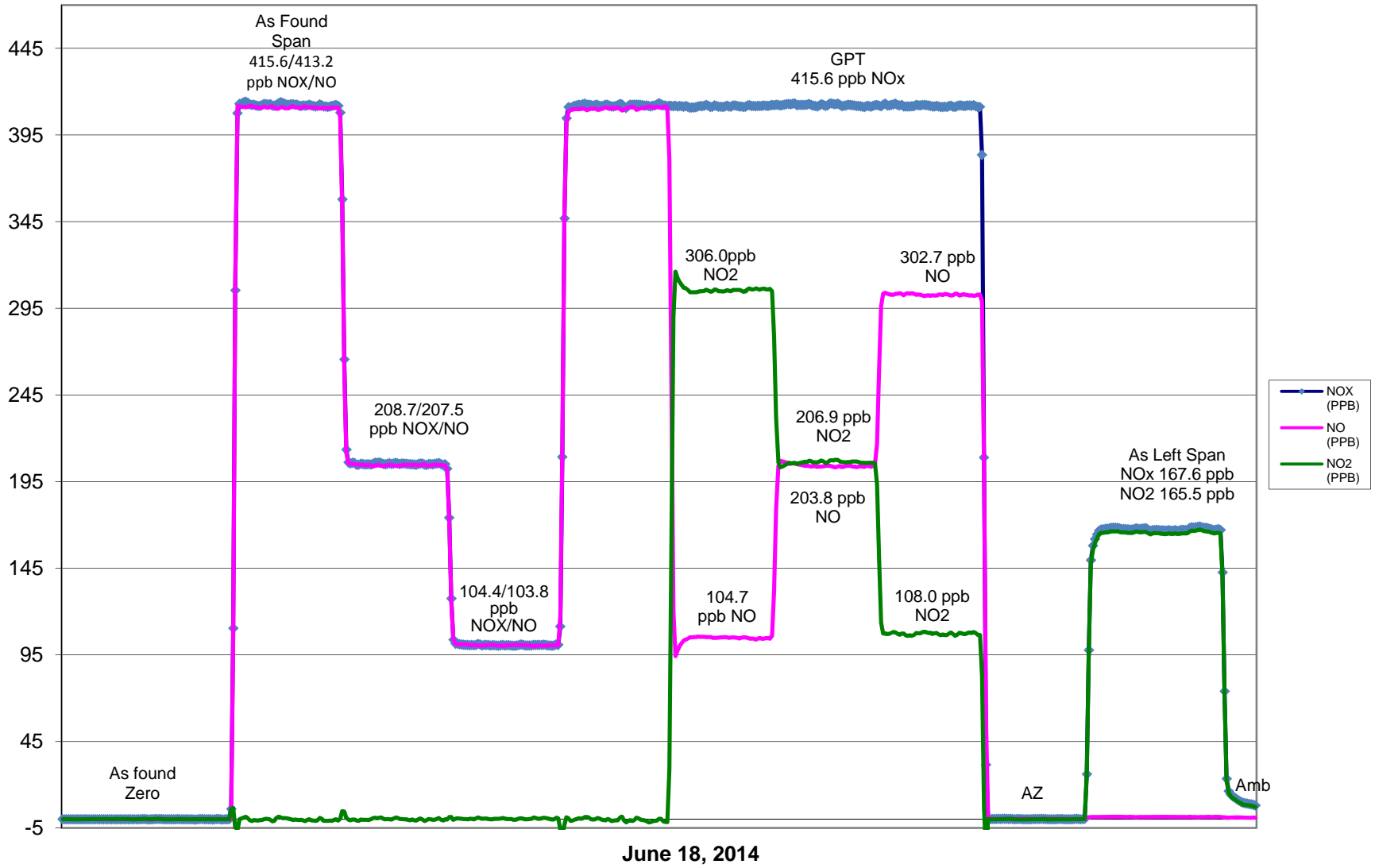
## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999934
413.2	410.8	1.0058		
207.5	204.4	1.0148		
103.8	100.4	1.0336	Slope	1.004288
			Intercept	1.374317

## NO Calibration Curve



# PAZA Reno NO<sub>x</sub> Calibration



# Calibration Report



Parameter 03

Air Monitoring Network PAZA

## Station Information

Calibration Date	June 18 2014	Previous Calibration	May 22 2014
Station Number	10	Station Location	Reno
Reason:	<b>Routine</b>	Install	Removal remove Other:
Start Time (MST)	11:09	End Time (MST)	13:35:00 PM
Barometric Pressure	0.926 atm	Station Temperature	20.0 Deg C
Calibrator	Envionics 6100	Serial Number	3016
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volts	DACS channel #	6
	Before		After
Calculated slope	1.008064	Calculated slope	0.972336
Calculated intercept	1.121873	Calculated intercept	0.418778
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	101710	Hz	101702	Hz
Cell B intensity	98337	Hz	98330	Hz
Pressure	667.40	in Hg	668.10	in Hg
CellA Flow	0.696	ccm	0.702	ccm
Cell B Flow	0.692	cmm	0.696	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	0.2	N/A
5035	0.30	306.0	314.9	0.9717
5035	0.20	206.9	211.8	0.9770
5035	0.10	108.0	109.9	0.9823
5035	0.00	0.0	0.2	As found zero
5035	0.30	307.0	314.9	As found span
Average Correction Factor				0.9770

Calculated value of As Found Response: 318.4 ppm Percent Change of As Found: 3.7%

	before calibration		after calibration	
Auto zero	-0.1	ppb	0.6	ppb
Auto span	403.2	ppb	425.6	ppb

Notes: No adjustments made

Calibration Performed By: Grover Christiansen, Dmytro Dolotii.



# Calibration Summary



Parameter                   O3                  

Air Monitoring Network   PAZA  

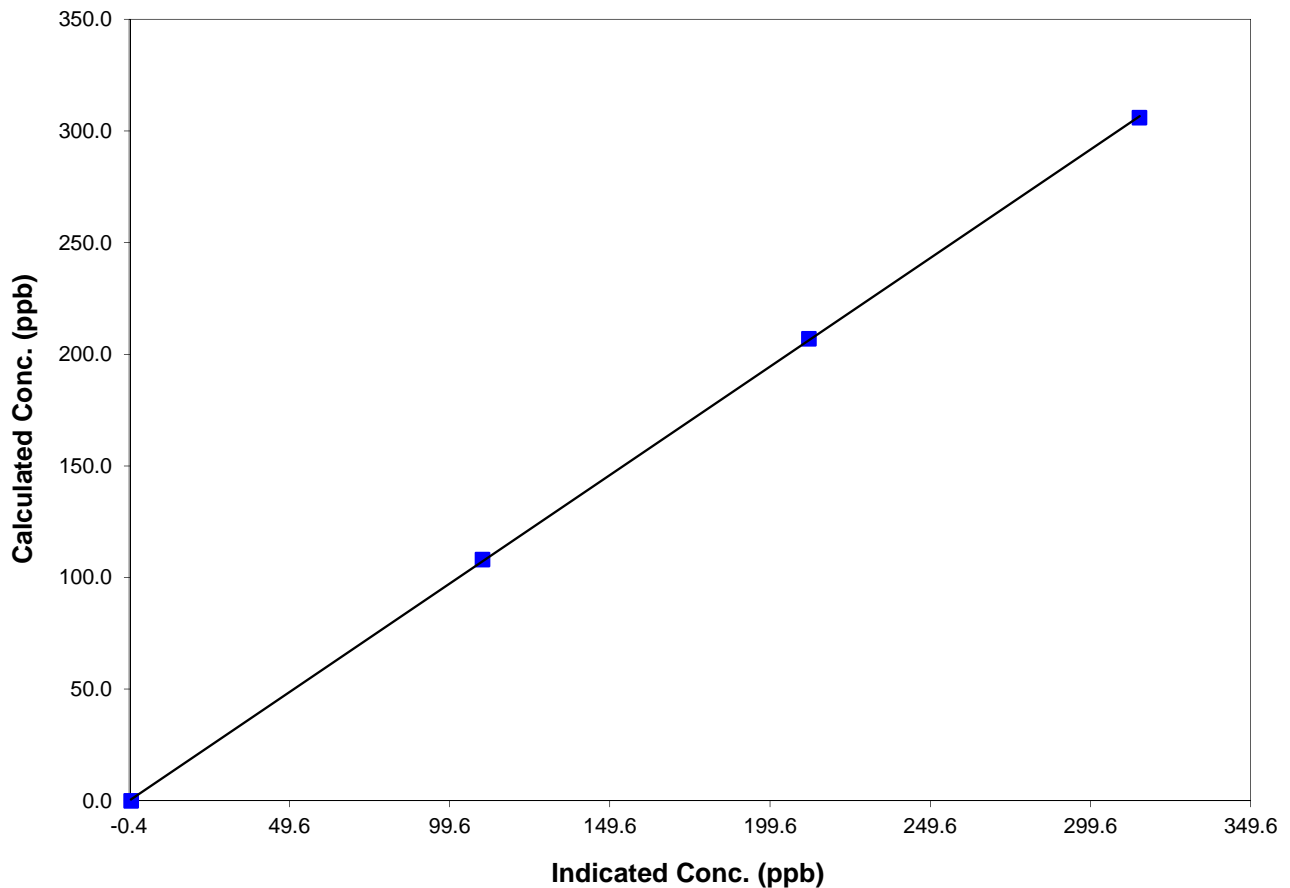
## Station Information

Calibration Date	<u>                  June 18 2014                  </u>	Previous Calibration	<u>                  May 22 2014                  </u>
Station Number	<u>                  10                  </u>	Station Location	<u>                  Reno                  </u>
Start Time (MST)	<u>                  11:09                  </u>	End Time (MST)	<u>                  13:35:00 PM                  </u>
Analyzer make/model	<u>                  TEI Model 49C                  </u>	Analyzer serial #	<u>                  49C-0609716240                  </u>

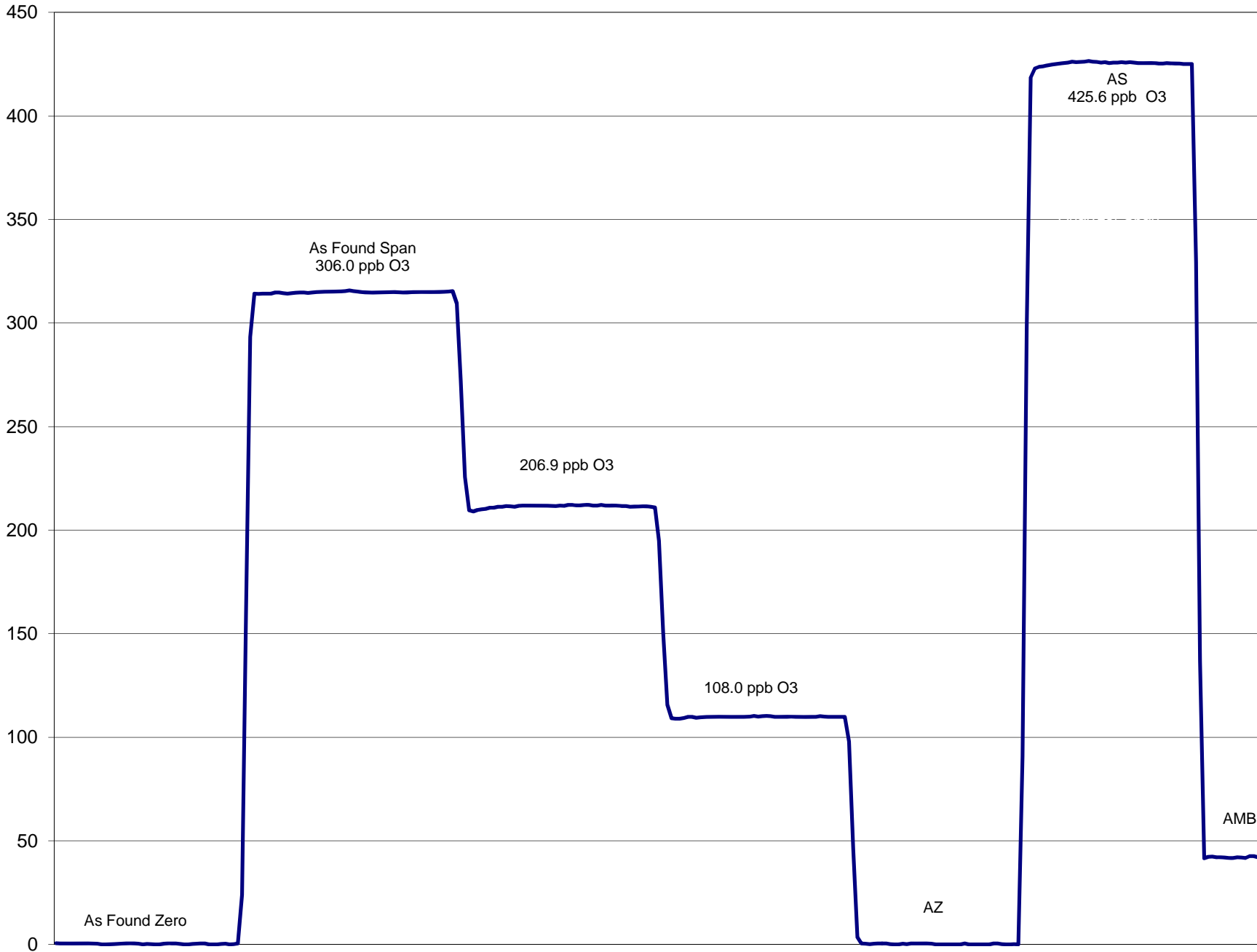
## Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	NA	Correlation Coefficient	0.999970
306.0	314.9	0.9717		
206.9	211.8	0.9770	Slope	0.972336
108.0	109.9	0.9823		
			Intercept	0.418778

### O3 Calibration Curve



# O3 (PPB)



June 18 2014

# Calibration Report

Parameter THC

Air Monitoring Network PASZA



## Station Information

Calibration Date	June 18, 2014	Previous Calibration	May 23, 2014
Station Number	10	Station Location	Rover Reno
Reason:	<input type="checkbox"/> Routine	<input checked="" type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	14:05:00 PM	End Time (MST)	16:45:00 PM
Barometric Pressure	0.926 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	404 ppm CH4/ 201 ppm C3H8	Cal Gas Expiry Date	28/03/2014
Cal Gas CH4 equiv	956.75 ppm	Cal Gas Cylinder #	LL34989
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 1 volt	DACS channel #	12
	<u>Before</u>		<u>After</u>
Calculated slope	0.981408	Calculated slope	0.973456
Calculated intercept	0.134140	Calculated intercept	0.114860
Analyzer make	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.52	psi	6.52	psi
THC span counts	2370	capture	2370	capture
THC zero counts	908	capture	908	capture

## Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
2996	0.00	0.00	-0.05	N/A
2996	69.93	21.82	22.33	0.9772
2996	29.96	9.47	9.55	0.9917
2996	9.97	3.17	3.11	1.0215
2996	0.00	0.00	-0.05	As Found Zero
2996	69.93	21.82	22.33	As Found Span
Average Correction Factor				0.9968

Calculated value of As Found Response: 22.101 ppm      Percent Change of As Found: -1.3%

	before calibration		after calibration	
Auto zero	0.10	ppm	0.09	ppm
Auto span	21.83	ppm	22.73	ppm

Notes: No adjustments made

---



---

Calibration Performed By: Dmytro Dolotii, Grover Christiansen

# Calibration Summary



Parameter THC  
 Air Monitoring Network PASZA

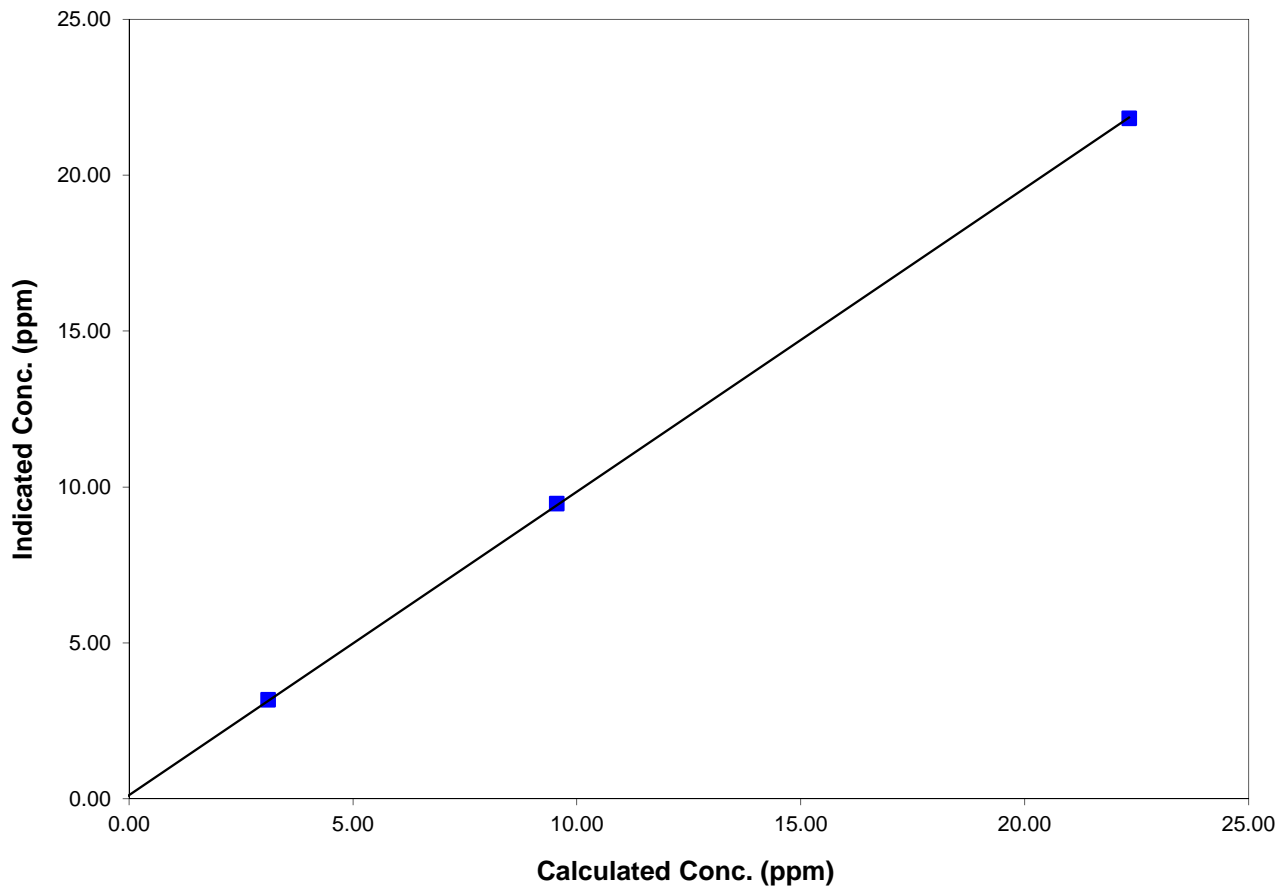
### Station Information

Calibration Date	June 18, 2014	Previous Calibration	May 23, 2014
Station Number	10	Station Location	Rover Reno
Start Time (MST)	14:05:00 PM	End Time (MST)	16:45:00 PM
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

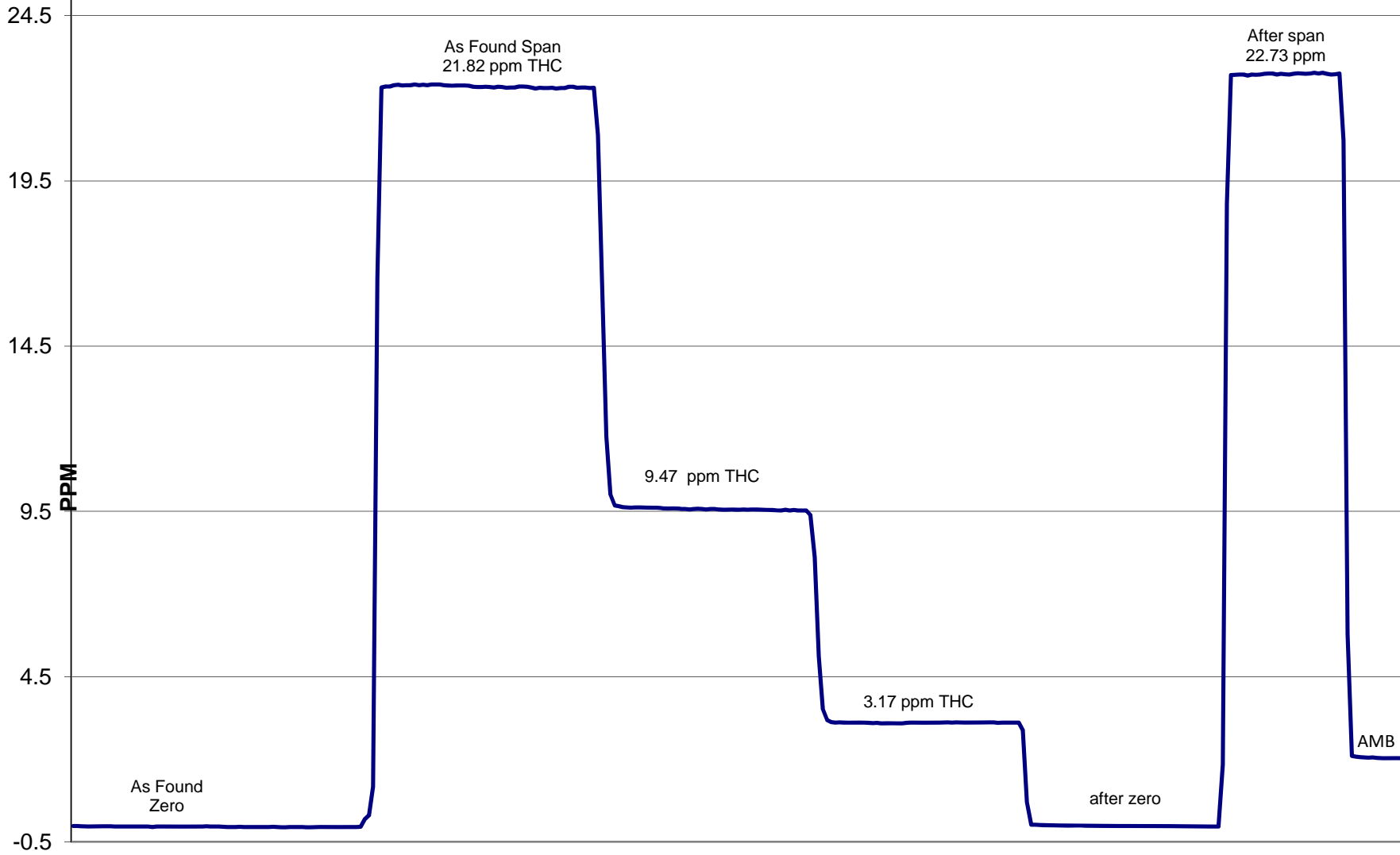
### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.053	N/A	Correlation Coefficient	0.999966
21.82	22.33	0.9772		
9.47	9.55	0.9917	Slope	0.973456
3.17	3.11	1.0215		
			Intercept	0.114860

## THC Calibration Curve



# THC Calibration



June 18, 2014

# Calibration Report



Parameter                                                                                      
 Air Monitoring Network                                                                                    

### Station Information

Calibration Date	June 18 2014	Previous Calibration	May 22 2014
Station Name	PAZA Rover	Station Location	Reno
Reason:	<b>Routine</b>	Install	Removal
Start Time (MST)	12:30 PM	End Time (MST)	15:45:00 PM
Barometric Pressure	0.923 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	10.44 ppm	Cal Gas Expiry Date	July/08/2016
Gas Cert Reference	LL110781		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	1
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.983216	Calculated slope	0.996017
Calculated intercept	-0.170628	Calculated intercept	-0.124251
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	15.9	ppb	15.9	ppb
Coefficient	0.935		0.935	
Lamp Voltage	802	V	803	V
Chamber Temp	43.9	C	44	C
Perm gas Temp	45	C	45	C
Pressure	653.7	mmHg	655.9	mmHg
Sample Flow	0.442	lpm	0.442	lpm
Lamp Intensity	38984	Hz	43448	Hz

### Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.0	0.1	N/A
4995	39.93	82.8	83.2	0.9946
4995	19.97	41.6	41.9	0.9932
8995	8.97	10.4	10.6	0.9776
4995	9.97			<b>Sox Test</b>
4995	0.00	0.0	0.1	As found zero
4995	39.93	82.8	83.2	As found span
Average Correction Factor				0.9885

Calculated value of As Found Response: **81.61 ppm**      Percent Change of As Found: **1.4%**

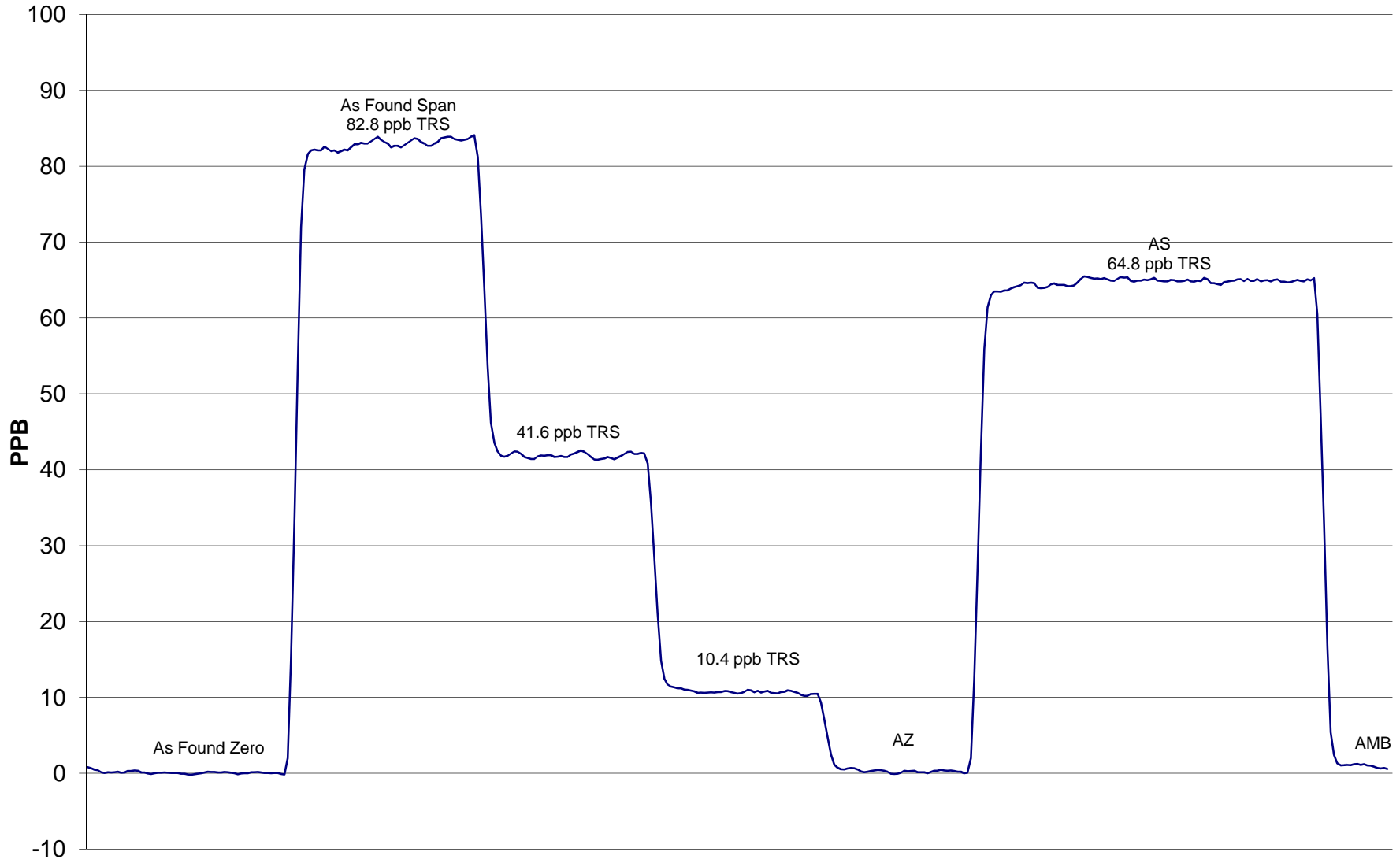
	before calibration		after calibration	
Auto zero	0.1	ppm	0.1	ppm
Auto span	65.4	ppm	64.8	ppm

Notes: Intensity is moving around from 38984 HZ to 43448 HZ,so as lamp voltage from +/-5V.  
Lamp and socket ordered,will be put into analyzer after the station moving on the install cal.  
No adjustments made  
Scrubber check wasn't performed on the previous calibration.Due to the lamp and socket issues wasn't done this time. Will do it after the new parts instalation.

Calibration Performed By: Grover Christiansen,Dmytro Dolotii



# TRS Calibration



June 18 2014



# Calibration Report



Parameter SO<sub>2</sub>

Air Monitoring Network PAZA

## Station Information

Calibration Date	June 12, 2014	Previous Calibration	May 21, 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)	12:00	End Time (MST)	15:25:00 PM
Barometric Pressure	0.931 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3474
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	01/02/2017
Correction factor	0.031647	Cal Gas Cylinder #	LL105159
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	0.953558	Calculated slope	0.991830
Calculated intercept	2.155036	Calculated intercept	2.231596
Analyzer make	Teco 43i	Analyzer serial #	1207452008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	7.1		7.2	
coefficient	0.892		0.922	
Lamp Voltage	843	volts	844	volts
Chamber Temp	45.3	Deg C	45	Deg C
Perm Gas Temp	45.01	Deg C	45	Deg C
Pressure	676.4	mm Hg	680.9	mm Hg
Sample Flow	0.411	ccm	0.415	ccm
Lamp Intensity	97	%	97	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.3	N/A
4995	39.93	394.9	397.1	0.9946
4995	19.96	198.2	196.6	1.0081
4995	9.97	99.2	95.1	1.0435
4995	0.0	0.0	0.3	As Found Zero
4995	39.93	394.9	408.7	As Found Span
Average Correction Factor				1.0154

Calculated value of As Found Response: 391.552 ppm      Percent Change of As Found: **0.9%**

	before calibration		after calibration	
Auto zero	0.5	ppm	-0.3	ppm
Auto span	359.4	ppm	351.4	ppm

Notes: PMT and span adjustment made

Calibration Performed By: Dmytro Dolotii

# Calibration Summary



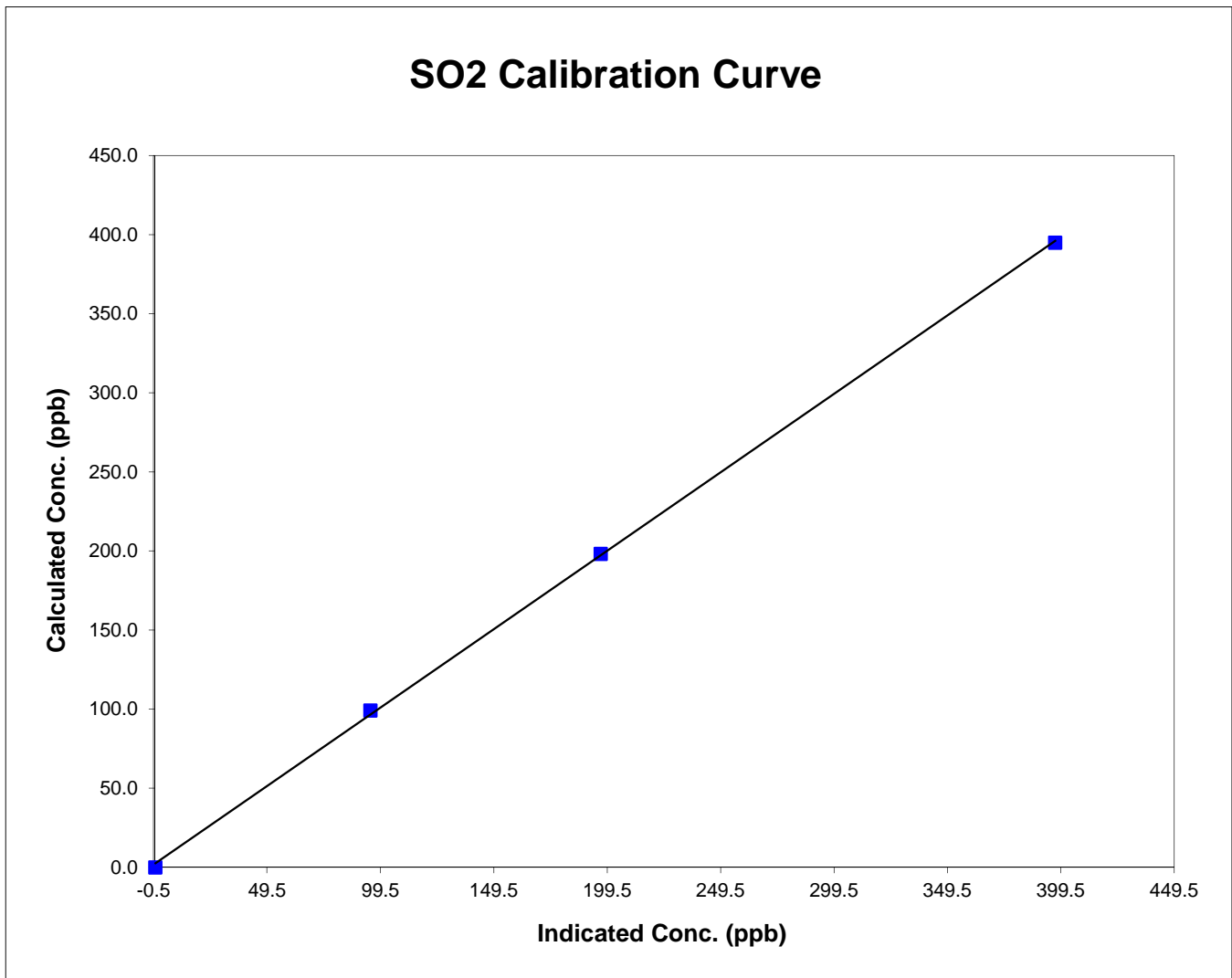
Parameter SO2  
 Air Monitoring Network PAZA

### Station Information

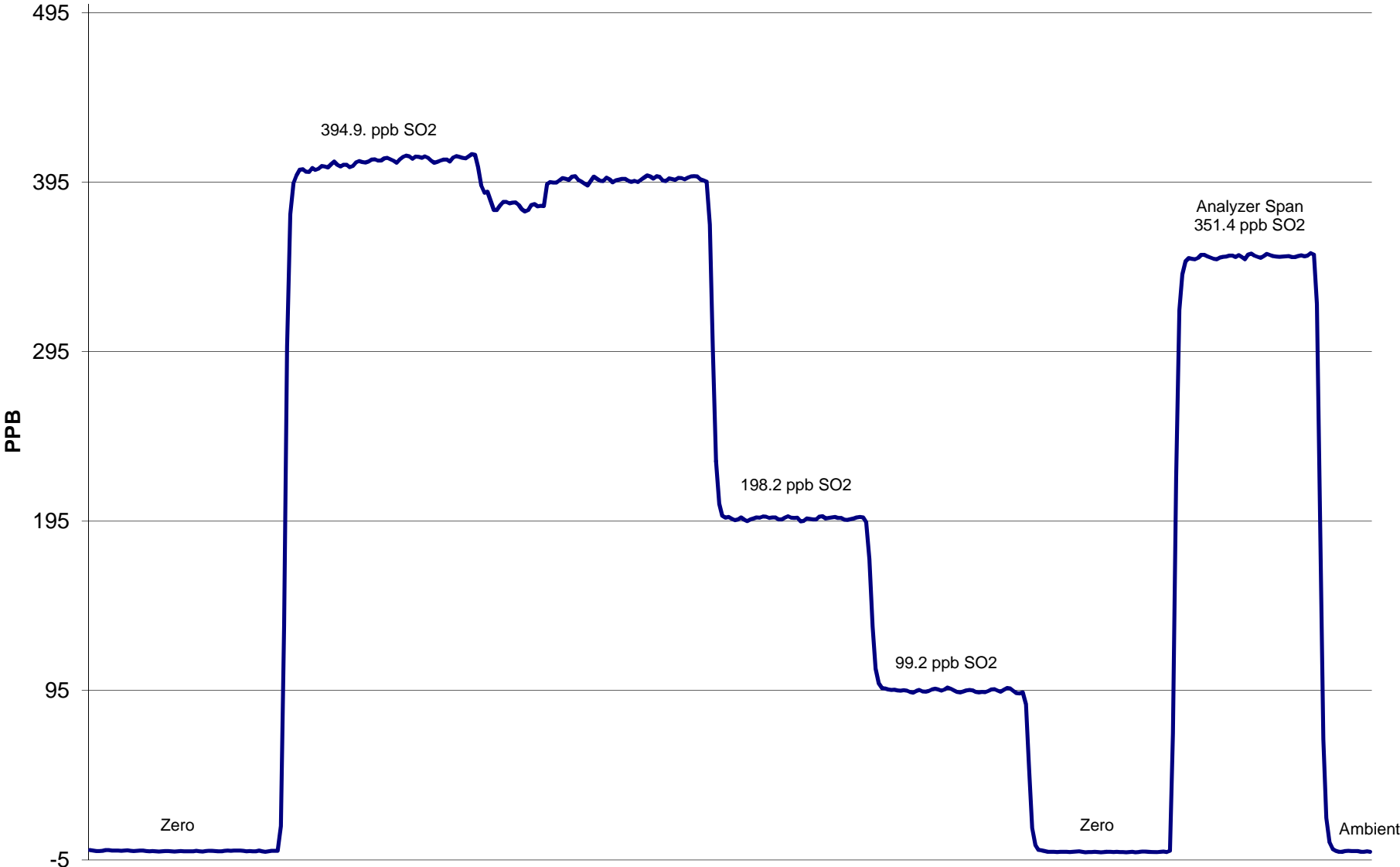
Calibration Date	June 12, 2014	Previous Calibration	May 21, 2014
Station Number	1	Station Location	Falher
Start Time (MST)	12:00	End Time (MST)	15:25:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	1207452008

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999815
394.9	397.1	0.9946		
198.2	196.6	1.0081	Slope	0.991830
99.2	95.1	1.0435		
			Intercept	2.231596



# SO2 Calibration



June 12, 2014

# Calibration Report



Parameter H2S

Air Monitoring Network PAZA

## Station Information

Calibration Date	June 12, 2014	Previous Calibration	May 21, 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)	9:35	End Time (MST)	13:20:00 PM
Barometric Pressure	0.931 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Conc	10.4 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031647	Cal Gas Cylinder #	LL110781
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	1.004667	Calculated slope	1.005005
Calculated intercept	-0.296249	Calculated intercept	-0.346665
Analyzer make	Thermo 450i	Analyzer serial #	1207452006

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	12.9	ppb	13	ppb
coefficient	1.112		1.129	
Lamp Voltage	800	volts	800	volts
Chamber Temp	45.2	Deg C	44.9	Deg C
Perm Gas Temp	45	Deg C	45.1	Deg C
Pressure	566.7	mm Hg	561.6	mm Hg
Sample Flow	0.885	lpm	0.881	lpm
Lamp Intensity	90	mv	90	mv

## Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	0.7	N/A
4995	39.93	82.48	82.5	0.9995
4995	19.96	41.39	41.4	1.0002
8994	8.97	10.36	10.4	0.9971
4995	0.00	0.00	0.7	As Found Zero
4995	39.93	82.48	80.9	As Found Span
Average Correction Factor				0.9989

Calculated value of As Found Response: 80.38 ppm      Percent Change of As Found: 2.5%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.3	ppm
Auto span	51.2	ppm	54.2	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

# Calibration Summary



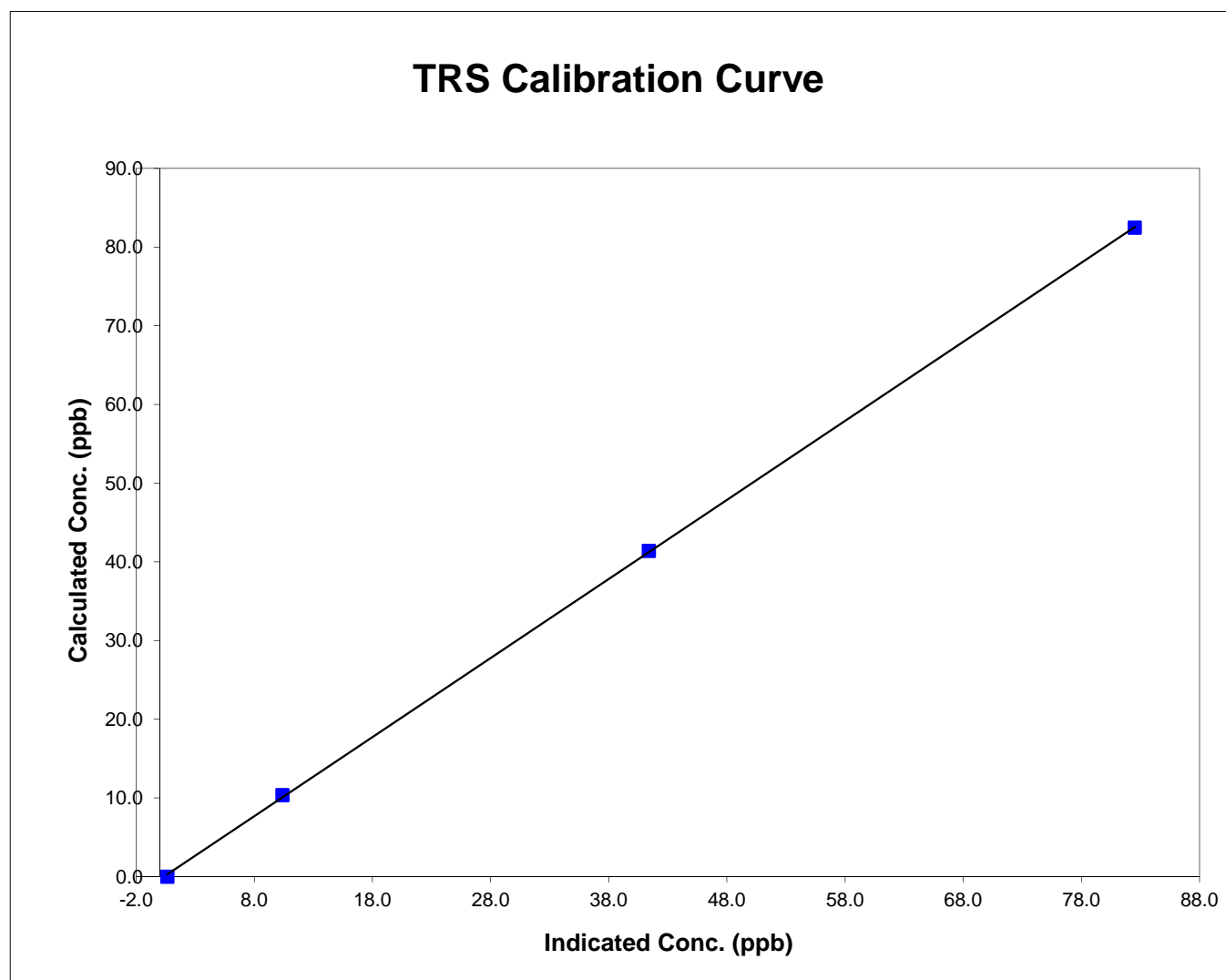
Parameter                         H2S                          
 Air Monitoring Network   PAZA  

## Station Information

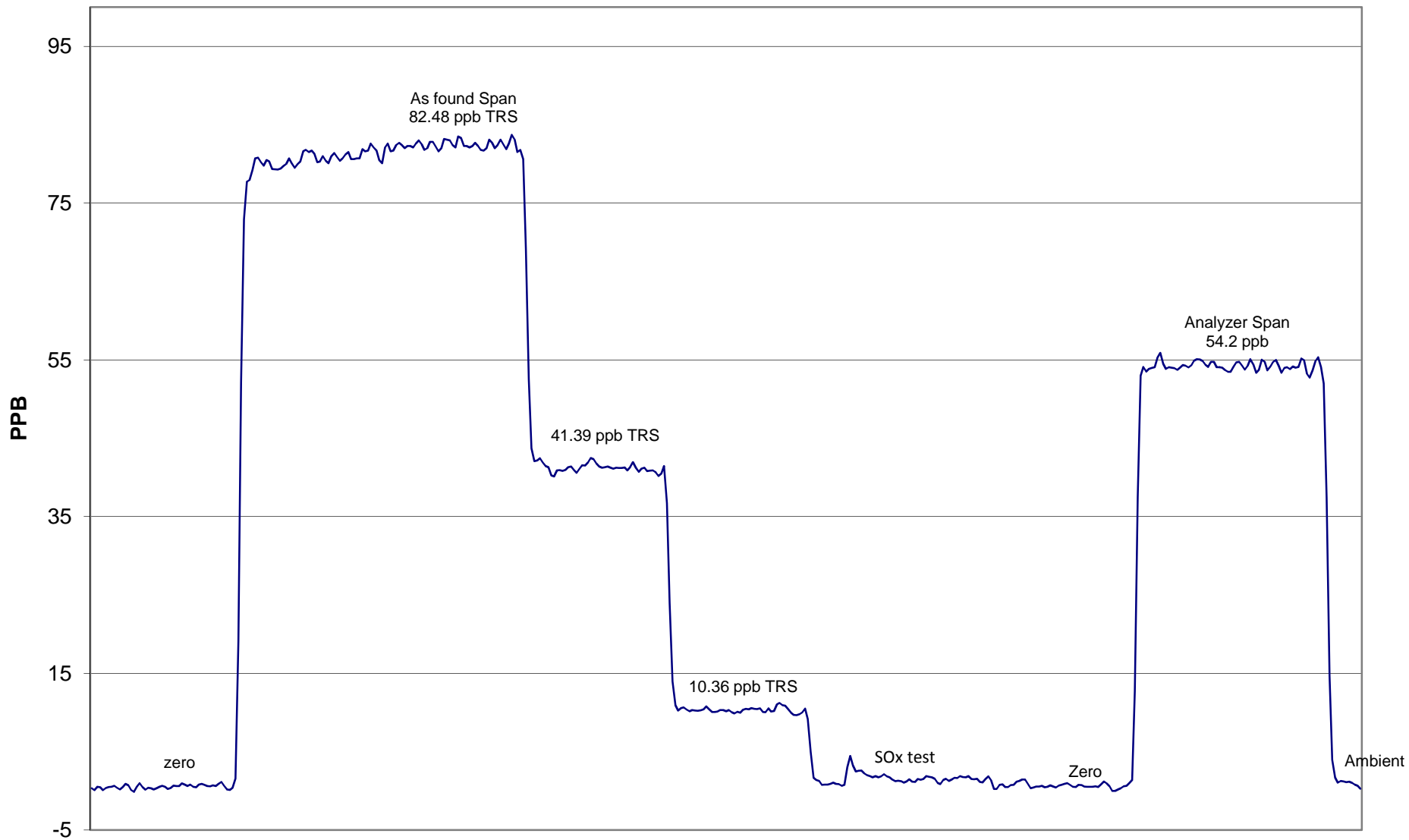
Calibration Date	June 12, 2014	Previous Calibration	May 21, 2014
Station Number	1	Station Location	Falher
Start Time (MST)	9:35	End Time (MST)	13:20:00 PM
Analyzer make/model	Thermo 450i	Analyzer serial #	1207452006

## Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.7	N/A	Correlation Coefficient	0.999952
82.5	82.5	0.9995		
41.4	41.4	1.0002	Slope	1.005005
10.4	10.4	0.9971		
			Intercept	-0.346665



# H2S Calibration



June 12, 2014

# Calibration Report



Parameter SO2  
 Air Monitoring Network PAZA

### Station Information

Calibration Date	June 20, 2014	Previous Calibration	June 18, 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)	12:10	End Time (MST)	14:45:00 PM
Barometric Pressure	0.926 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	01/03/2017
Gas Cert Reference	LL105159		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	2
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.987662	Calculated slope	0.983252
Calculated intercept	2.196273	Calculated intercept	2.430027
Analyzer make	TEI 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	21.2		21.2	
Coefficient	1.059		1.059	
UV Lamp Voltage	863	V	864	V
Chamber Temp	44.5	C	44.5	C
Perm Gas Temp	45.06	C	45	C
Pressure	668.9	mm Hg	668.7	mm Hg
Sample Flow	0.464	LPM	0.464	LPM
Lamp Intesity	30655	Hz	30639	Hz

### Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.0	N/A
4995	39.93	394.9	400.4	0.9863
4995	19.97	198.3	197.8	1.0024
4995	9.97	99.2	96.1	1.0324
4995	0.00	0.0	0.0	As found zero
4995	39.93	394.9	400.4	As found span
Average Correction Factor				1.0070

Calculated value of As Found Response: 397.697 ppm      Percent Change of As Found: -0.7%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	259.1	ppm	243.7	ppm

Notes: No adjustments made

Calibration Performed By: Grover Christiansen, Dmytro Dolotii.

# Calibration Summary

Parameter SO2  
 Air Monitoring Network PAZA



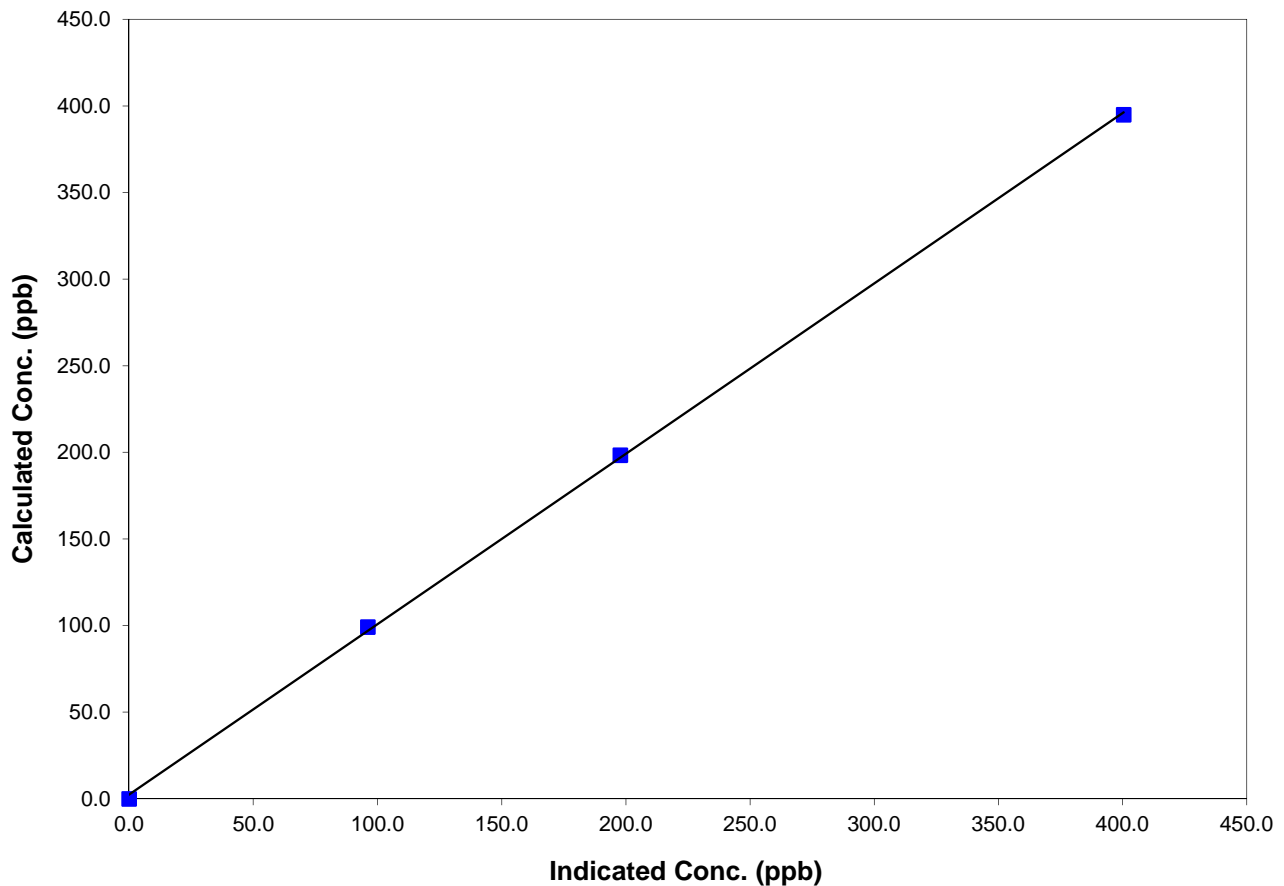
## Station Information

Calibration Date	June 20, 2014	Previous Calibration	June 18, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	12:10	End Time (MST)	14:45:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	436610005

## Calibration Data

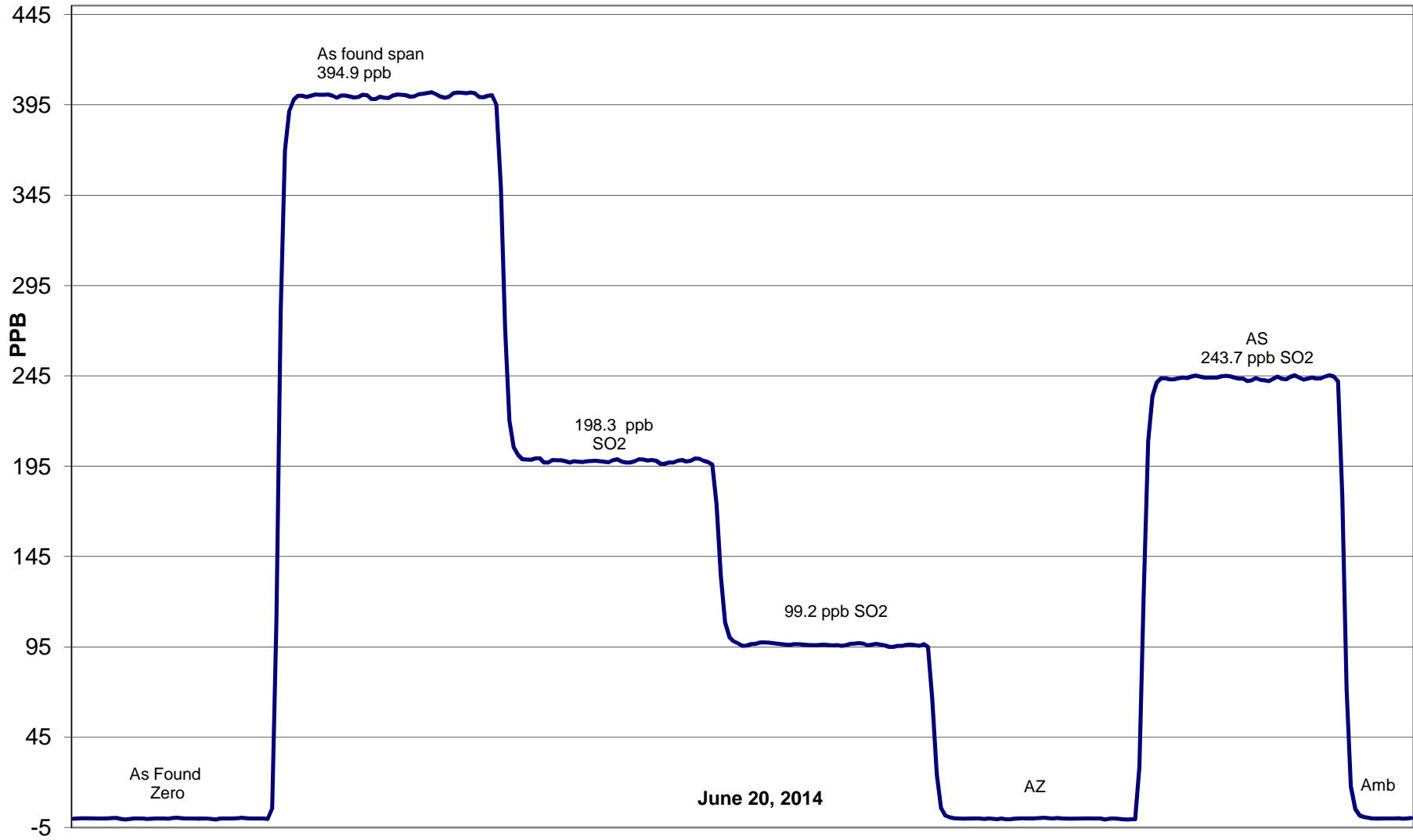
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999830
394.9	400.4	0.9863		
198.3	197.8	1.0024	Slope	0.983252
99.2	96.1	1.0324		
			Intercept	2.430027

### SO2 Calibration Curve





# SO2 Calibration



# Calibration Report

Parameter

NO<sub>x</sub>-NO-NO<sub>2</sub>

Air Monitoring Network

PAZA



## Station Information

Calibration Date	June 20, 2014	Previous Calibration	June 18, 2014
Station Number	10	Station Location	Clairmont
Reason:	<b>Routine</b>	Install	Removal Other: _____
Start Time (MST)	11:55	End Time (MST)	16:20:00 PM
Barometric Pressure	0.926 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
NO Cal Gas Conc	52.1 ppm	Cal Gas Expiry Date	March 12, 2014
NO <sub>x</sub> Cal Gas Conc	52.4 ppm	Cal Gas Serial #	LL105159

## DACS Information

DACS make	CR3000	DACS serial No.	5407	
Parameter		NO2	NOx	NO
Before	Data Slope	1.001530	1.006212	1.004288
	Data Offset	0.163782	1.473001	1.374317
After	Data Slope	1.005498	1.001345	0.998323
	Data Offset	0.411797	2.334894	1.601071
Channel #		5	3	4
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

## Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	0701120011	
Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	6.1	mV	6.3	mV
NO <sub>x</sub> bkgnd	6.3	mV	7.8	mV
NO coefficient	1.077		1.077	
NO <sub>x</sub> coefficient	0.999		0.999	
NO <sub>2</sub> conv temp	323.4	Deg C	323.7	Deg C
Cooler Temp	-2.9	Deg C	-2.9	Deg C
PMT Volt	-846.2	mV	-846.2	mV
R Cell Press	201.1	in Hg	201.1	in Hg
Sample Flow	0.703	ccm	0.703	ccm

NOTES:

Slight zero adjustment

# Calibration Report

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



## Station Information

Calibration Date: June 20, 2014 Station Location: Clairmont

## Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	
zero	4995	0.00	0.0	0.0	0.0	-0.1	0.1	0.0	N/A	N/A	
1	4995	39.93	415.6	413.2	2.4	413.7	413.1	-1.0	1.0046	1.0002	
2	4995	19.97	208.7	207.5	1.2	205.1	205.3	-0.9	1.0171	1.0104	
3	4995	9.97	104.4	103.8	0.6	99.6	100.7	-0.9	1.0479	1.0303	
AFZ	4995	0.00	0.0	0.0	0.0	1.9	0.2	1.8	0.0000	0.0000	
AFS	4995	39.93	415.6	413.2	2.4	413.7	413.1	-1.0	1.0046	1.0002	
									Average Correction Factor	1.0232	1.0136

As Found Concentrations: NO<sub>x</sub>= 413.2 NO= 414.2 As Found Percent Change NO<sub>x</sub>= -0.6% NO= 0.3%

## 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	0.2	0.2	0.0	-0.1	0.1	0.0	N/A	N/A	N/A	N/A	
NO point	412.8	412.8	0.0	413.3	412.8	-1.5	0.9989	1.0000	N/A	N/A	
300	412.8	103.0	309.8	412.6	103.0	308.1	1.0006	1.0000	1.0055	99.4%	
200	412.8	204.0	208.9	413.0	204.0	207.0	0.9996	1.0000	1.0092	99.1%	
100	412.8	303.8	109.1	413.3	303.8	107.6	0.9989	1.0000	1.0135	98.7%	
							Average Correction Factor	0.9997	1.0000	1.0094	99.1%

## AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.8	0.9	0.0	ppb	-0.8	-0.8	0.2	ppb
Auto span	166.3	164.3	1.4	ppb	167.8	165.7	1.5	ppb

Calibration Performed By: Grover Christiansen, Dmytro Dolotii.

# Calibration Summary

Parameter NO<sub>2</sub>

Air Monitoring Network PAZA



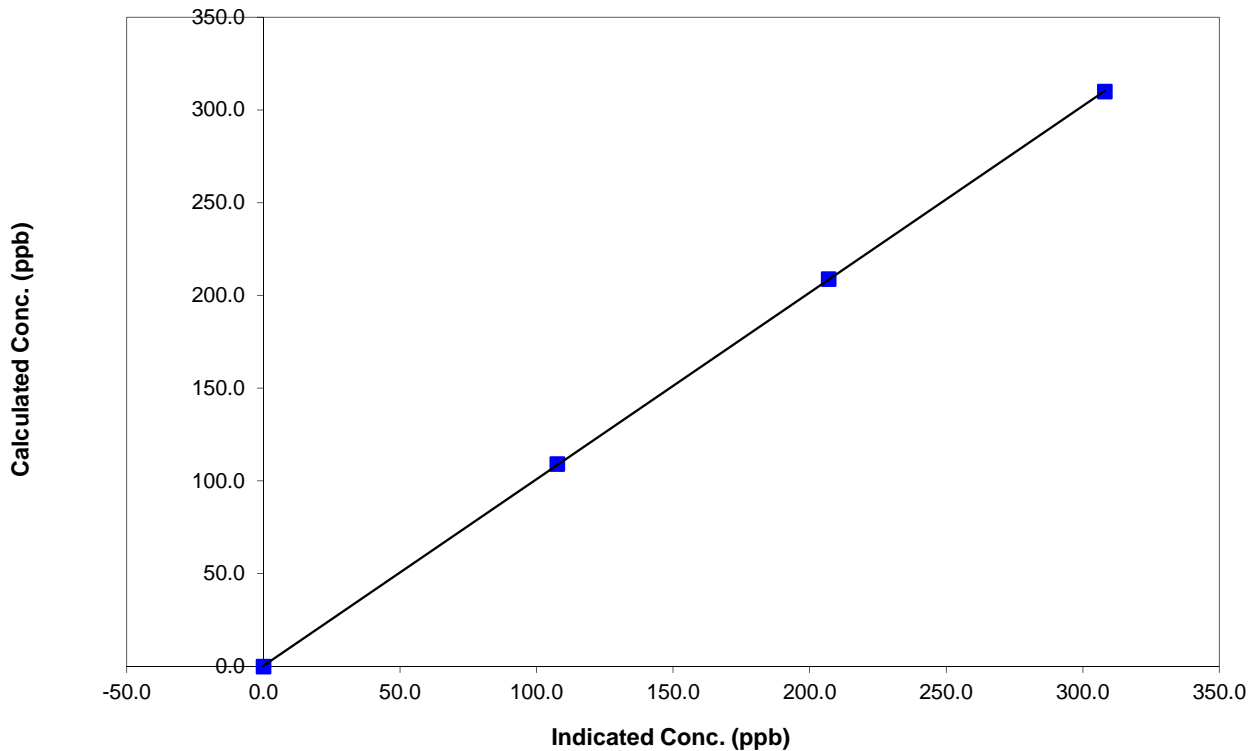
## Station Information

Calibration Date	June 20, 2014	Previous Calibration	June 18, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	11:55	End Time (MST)	16:20:00 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	0.0	N/A	Correlation Coefficient	0.999988
309.8	308.1	1.0055		
208.9	207.0	1.0092		
109.1	107.6	1.0135	Slope	1.005498
			Intercept	0.411797

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



# Calibration Summary



Parameter NO<sub>x</sub>

Air Monitoring Network PAZA

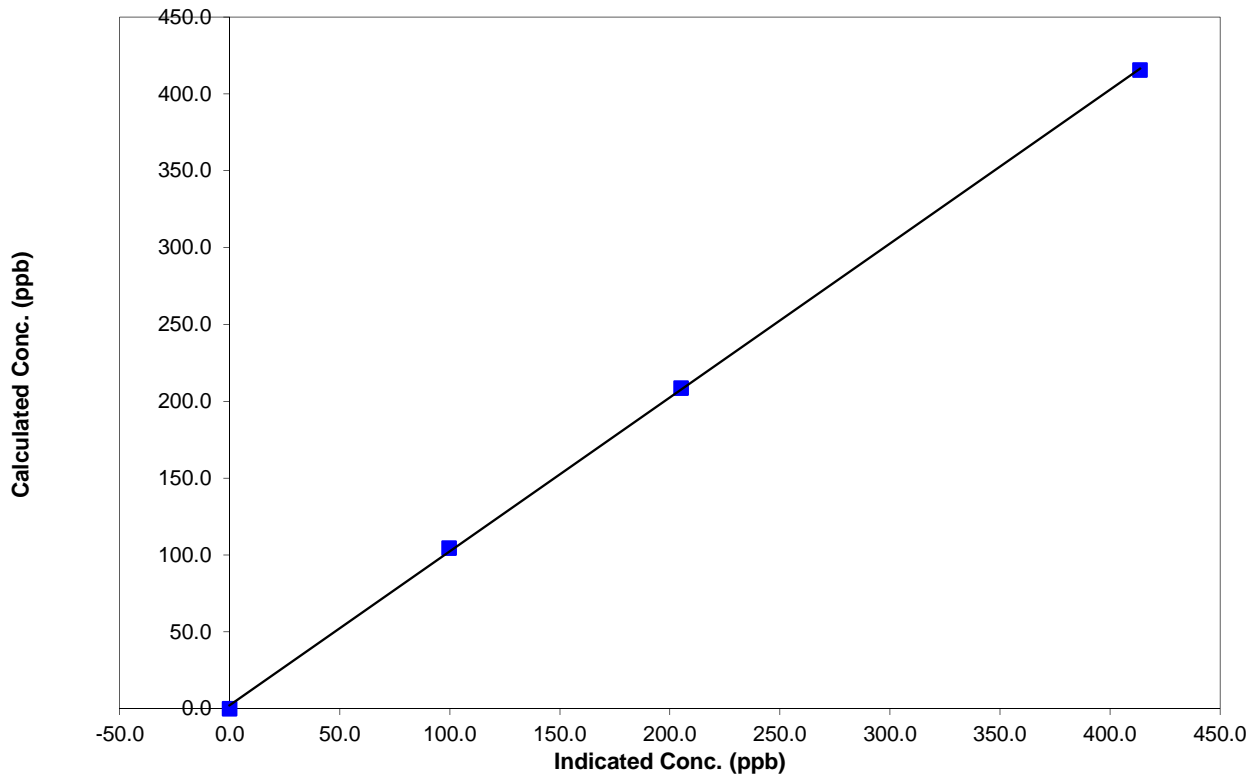
## Station Information

Calibration Date	June 20, 2014	Previous Calibration	June 18, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	11:55	End Time (MST)	16:20:00 PM
Analyzer make	TEI 42i	Analyzer serial #	0701120011

## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999873
415.6	413.7	1.0046		
208.7	205.1	1.0171	Slope	1.001345
104.4	99.6	1.0479		

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



# Calibration Summary

Parameter NO

Air Monitoring Network PAZA



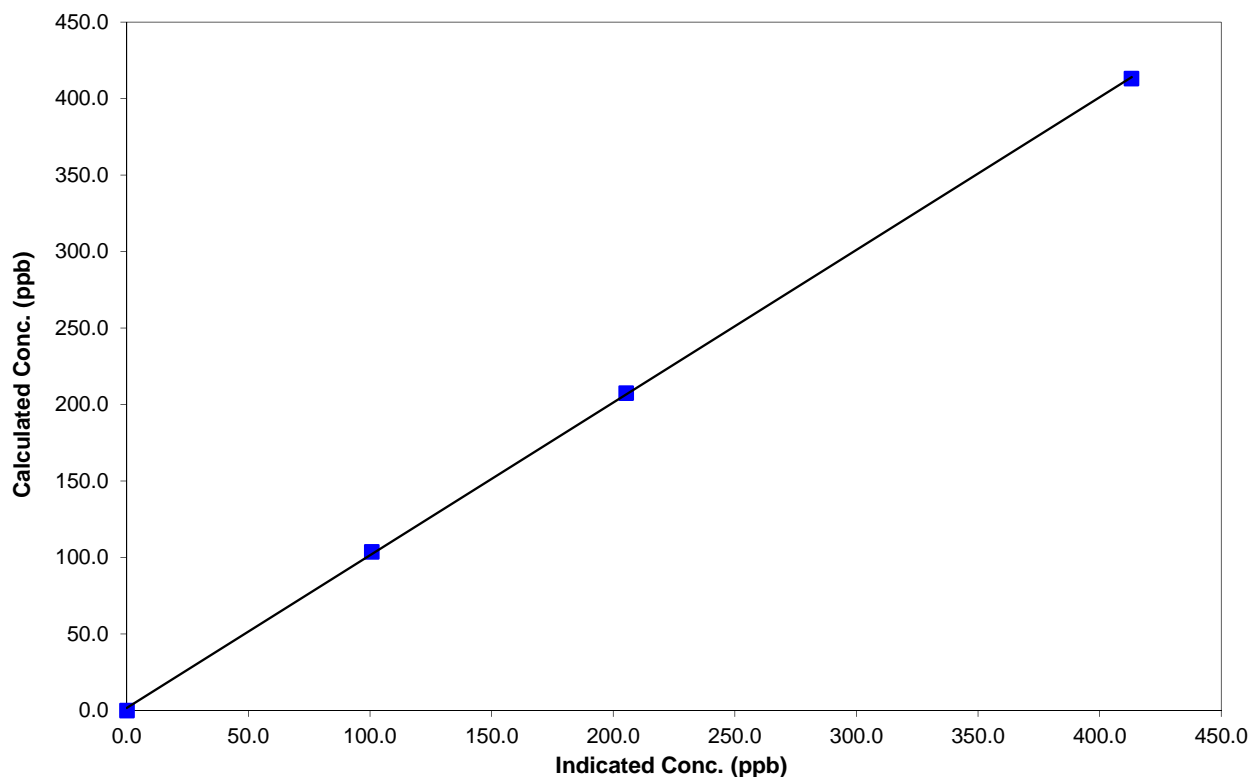
## Station Information

Calibration Date	June 20, 2014	Previous Calibration	June 18, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	11:55	End Time (MST)	16:20:00 PM
Analyzer make	TEI 42i	Analyzer serial #	0701120011

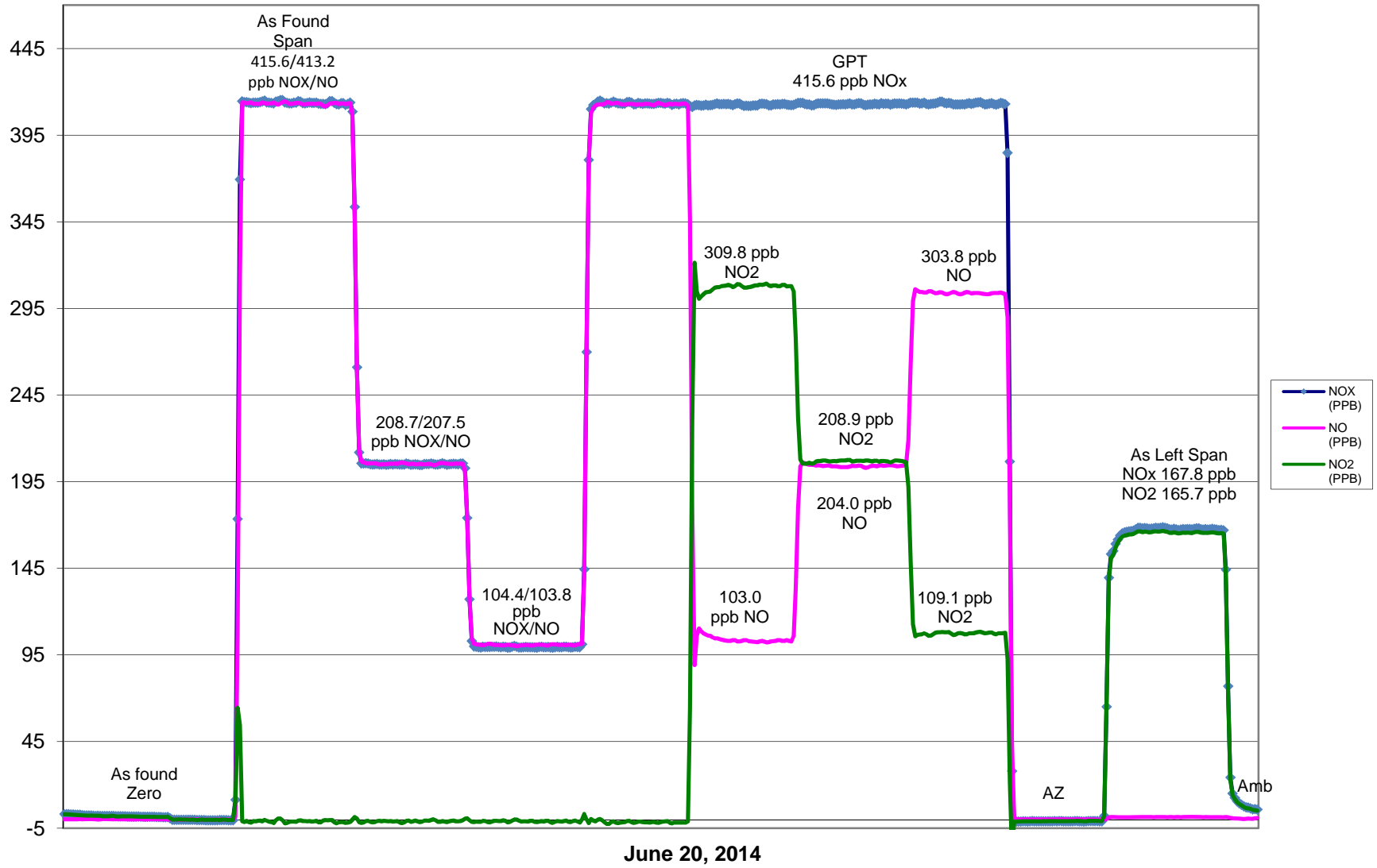
## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999927
413.2	413.1	1.0002		
207.5	205.3	1.0104		
103.8	100.7	1.0303	Slope	0.998323
			Intercept	1.601071

## NO Calibration Curve



### PAZA Clairmont NO<sub>x</sub> Calibration



# Calibration Report



Parameter 03

Air Monitoring Network PAZA

### Station Information

Calibration Date	June 20 2014	Previous Calibration	June 18 2014
Station Number	10	Station Location	Clairmont
Reason:	<b>Routine</b>	Install	Removal remove Other:
Start Time (MST)	15:13:00 PM	End Time (MST)	18:00:00 PM
Barometric Pressure	0.926 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	0.972336	Calculated slope	1.008898
Calculated intercept	0.418778	Calculated intercept	0.106076
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		0.984	
Cell A intensity	100662	Hz	100677	Hz
Cell B intensity	98160	Hz	98105	Hz
Pressure	664.90	in Hg	665.30	in Hg
Cell A Flow	0.700	ccm	0.701	ccm
Cell B Flow	0.694	cmm	0.694	cmm

### Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5035	0.00	0.0	0.0	N/A
5035	0.30	309.8	307.2	1.0084
5035	0.20	208.9	206.6	1.0113
5035	0.10	109.1	108.0	1.0100
5035	0.00	0.0	0.0	As found zero
5035	0.30	309.8	314.3	As found span
Average Correction Factor				1.0099

Calculated value of As Found Response: 306.0 ppm      Percent Change of As Found: -1.2%

	before calibration		after calibration	
Auto zero	-0.1	ppb	0.2	ppb
Auto span	403.2	ppb	408.1	ppb

Notes: Span adjustment made

Calibration Performed By: Grover Christiansen, Dmytro Dolotii.



# Calibration Summary



Parameter           03            
 Air Monitoring Network                         PAZA                        

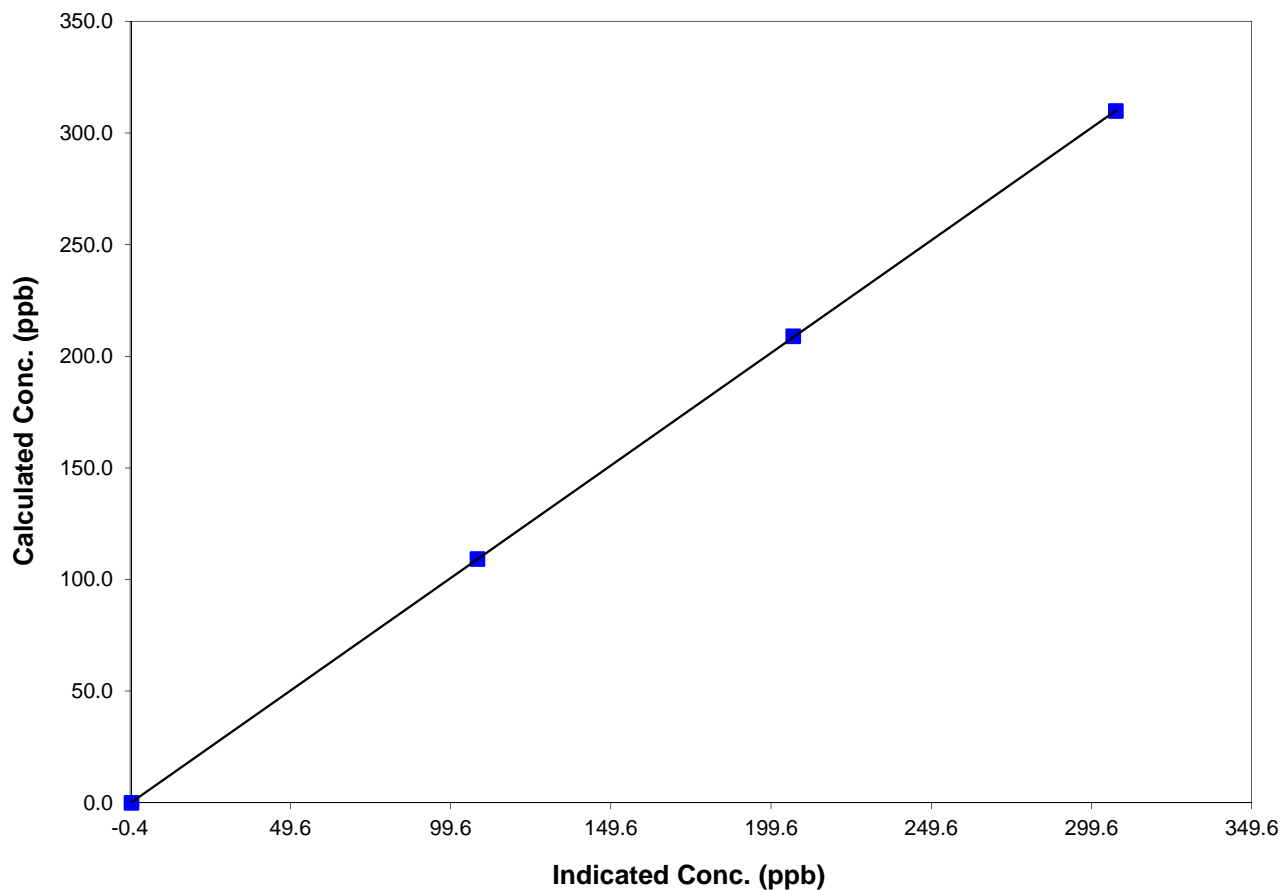
## Station Information

Calibration Date	<u>        June 20 2014        </u>	Previous Calibration	<u>        June 18 2014        </u>
Station Number	<u>               10              </u>	Station Location	<u>            Clairmont            </u>
Start Time (MST)	<u>          15:13:00 PM          </u>	End Time (MST)	<u>          18:00:00 PM          </u>
Analyzer make/model	<u>        TEI Model 49C        </u>	Analyzer serial #	<u>        49C-0609716240        </u>

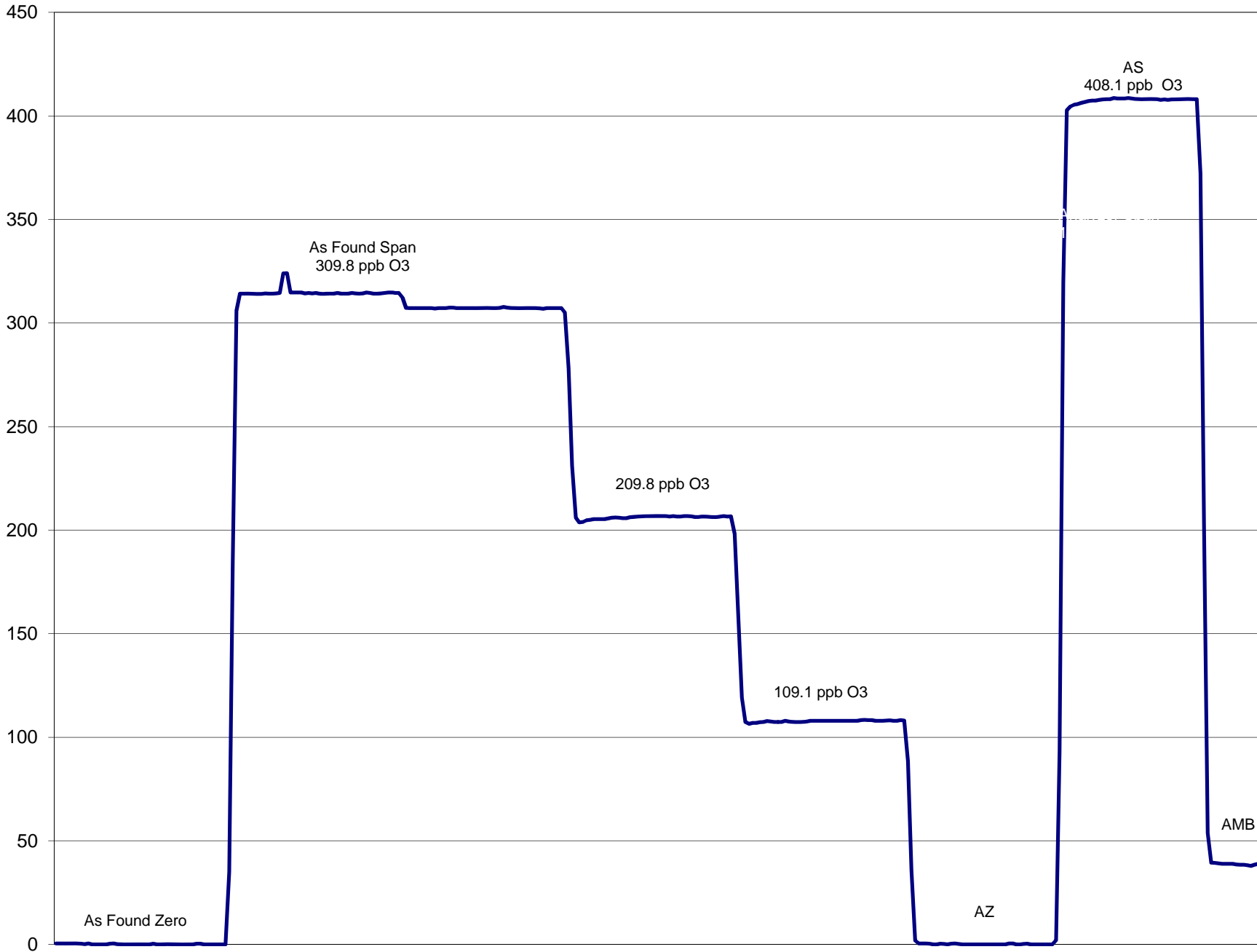
## Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	NA		
309.8	307.2	1.0084	Correlation Coefficient	0.999996
208.9	206.6	1.0113		
109.1	108.0	1.0100	Slope	1.008898
			Intercept	0.106076

### O3 Calibration Curve



# O3 (PPB)



June 20 2014

# Calibration Report



Parameter THC  
 Air Monitoring Network PASZA

## Station Information

Calibration Date	June 21, 2014	Previous Calibration	June 18, 2014
Station Number	10	Station Location	Clairmont
Reason:	<input type="checkbox"/> Routine	<input checked="" type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	10:20	End Time (MST)	14:20:00 PM
Barometric Pressure	0.926 ATM	Station Temperature	20.0 Deg C
Calibrator	Enviroics 6100	Serial Number	3474
Cal Gas Concentration	404 ppm CH4/ 201 ppm C3H8	Cal Gas Expiry Date	28/03/2014
Cal Gas CH4 equiv	956.75 ppm	Cal Gas Cylinder #	LL34989
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 1 volt	DACS channel #	12
	<u>Before</u>		<u>After</u>
Calculated slope	0.973456	Calculated slope	0.994022
Calculated intercept	0.114860	Calculated intercept	0.057086
Analyzer make	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.52	psi	6.52	psi
THC span counts	2370	capture	2370	capture
THC zero counts	908	capture	908	capture

## Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
2996	0.00	0.00	0.01	N/A
2996	69.93	21.82	21.92	0.9955
2996	29.96	9.47	9.43	1.0045
2996	9.97	3.17	3.08	1.0301
2996	0.00	0.00	0.01	As Found Zero
2996	69.93	21.82	21.92	As Found Span
Average Correction Factor				1.0100

Calculated value of As Found Response: 21.442 ppm      Percent Change of As Found: 1.7%

	before calibration		after calibration	
Auto zero	0.10	ppm	0.05	ppm
Auto span	21.83	ppm	22.33	ppm

Notes: Had problems with zero air supply to calibrator. Switch to site zero air supply & restart.  
No adjustments made to the analyzer.

Calibration Performed By: Dmytro Dolotii

# Calibration Summary



Parameter THC  
 Air Monitoring Network PASZA

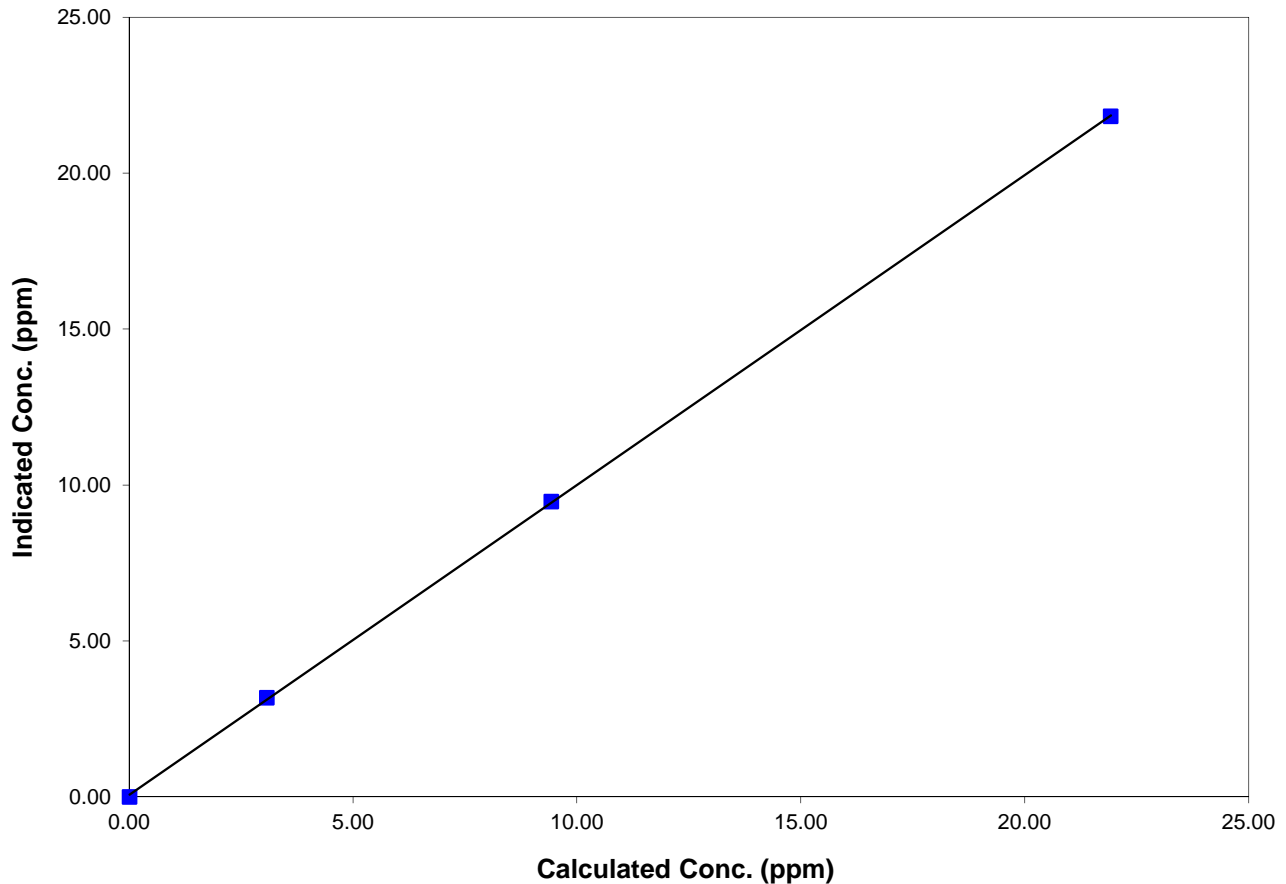
### Station Information

Calibration Date	June 21, 2014	Previous Calibration	June 18, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	10:20	End Time (MST)	14:20:00 PM
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

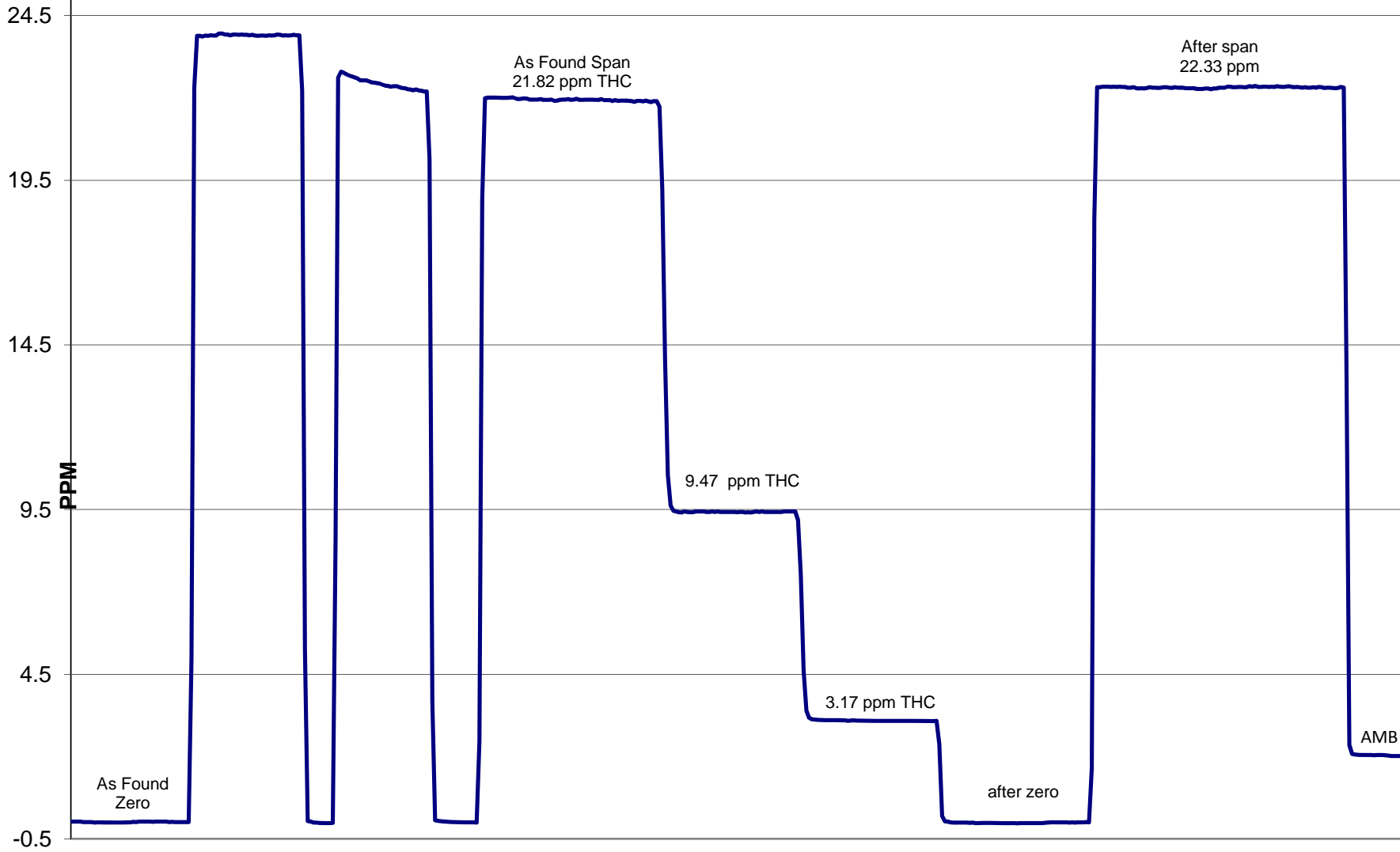
### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.013	N/A	Correlation Coefficient	0.999963
21.82	21.92	0.9955		
9.47	9.43	1.0045	Slope	0.994022
3.17	3.08	1.0301		
			Intercept	0.057086

## THC Calibration Curve



# THC Calibration



June 21, 2014



# Calibration Summary



Parameter TRS  
 Air Monitoring Network PAZA

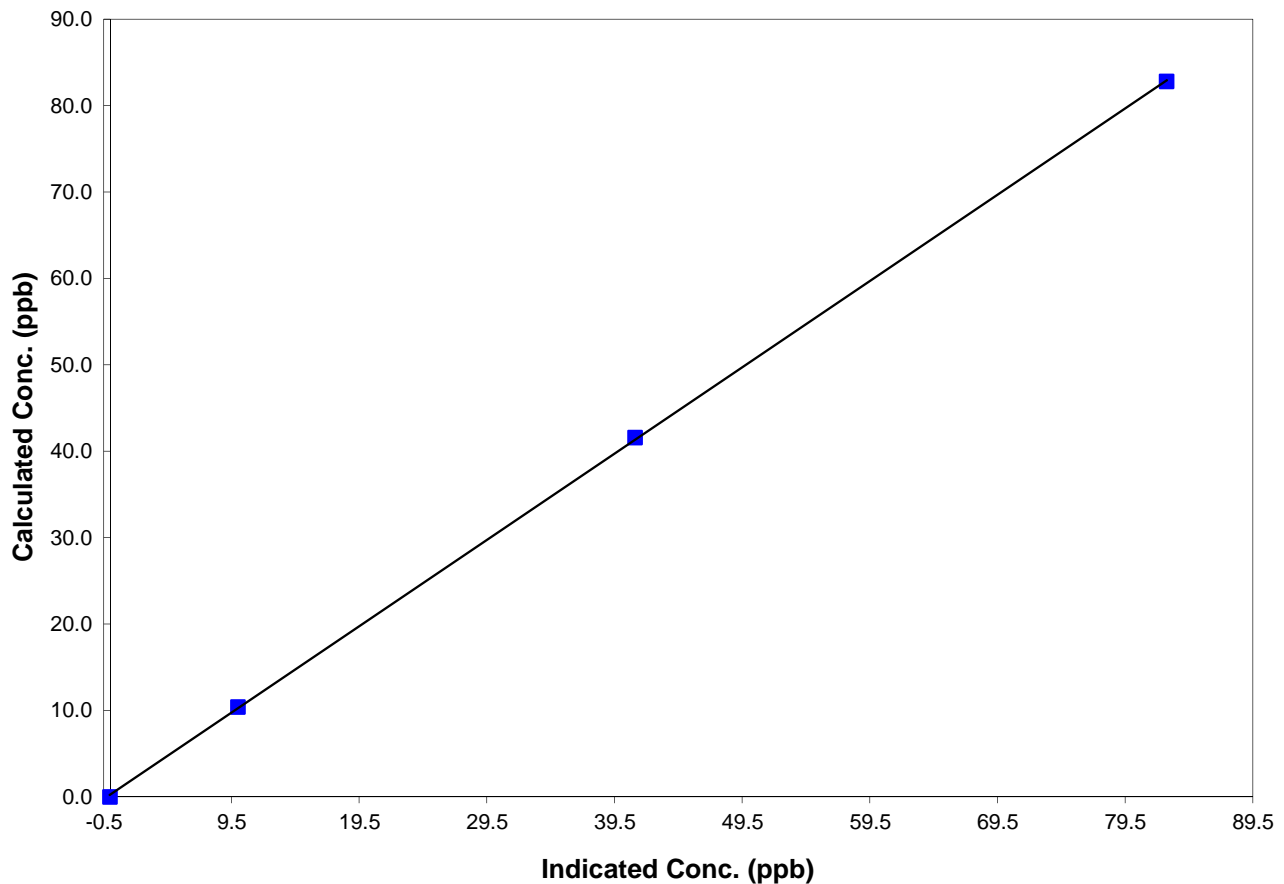
### Station Information

Calibration Date	June 21 2014	Previous Calibration	June 18 2014
Station Number	PAZA Rover	Station Location	Clairmont
Start Time (MST)	13:16:00 PM	End Time (MST)	17:05:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

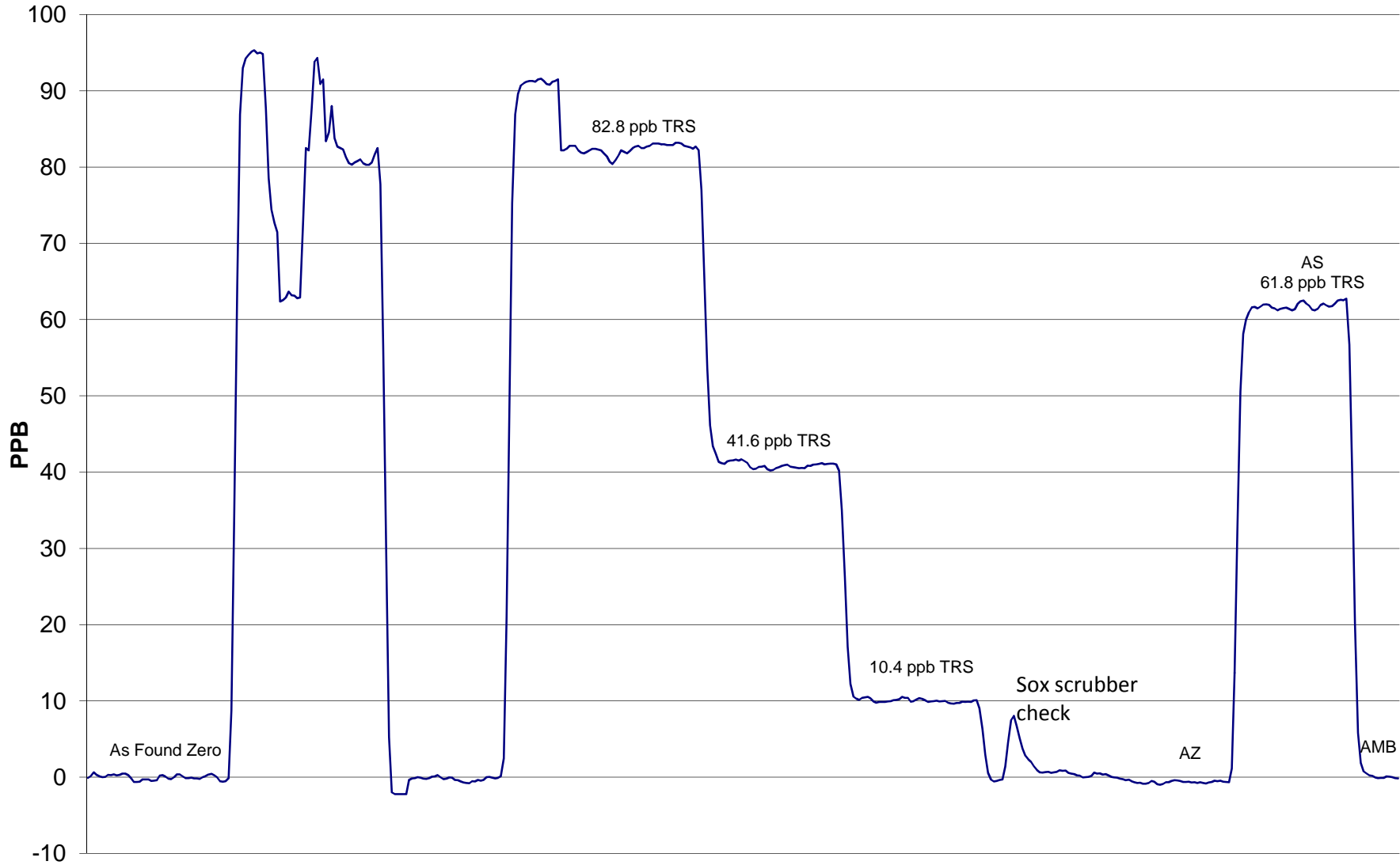
### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
82.8	82.7	1.0006	Correlation Coefficient	0.999964
41.6	41.1	1.0113		
10.4	10.0	1.0393	Slope	0.999015

### TRS Calibration Curve



# TRS Calibration



June 21 2014