



# **Peace Airshed Zone Association**

## **Ambient Air Monitoring Network Summary**

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

**Operations and Reporting**

**FOCUS**  
**AIR QUALITY MONITORING**

May 27<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) – April 2014 Ambient Air Report**

Enclosed is the PAZA Ambient Monitoring Network Report for the month of **April 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: Seven (7) Stations including Henry Pirker (Grande Prairie), Evergreen Park, Smoky Heights, Beaverlodge, Valleyview, Falher and Portable-Reno.**

During the month of **April** 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 April.

**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 April.

**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 April.

**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 April.

**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 April.

**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 April.

**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 April.

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

There were five duplicate sites sampled in the month of April: Bay Tree, Webber Creek, Shaftesbury, 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 0.6 ppb, with a mean of 0.2 ppb.
- Monthly average concentrations for NO<sub>2</sub> passives ranged from 0.1 ppb to 3.2 ppb, with a mean of 0.5 ppb.
- Monthly average concentrations for O<sub>3</sub> passives ranged from 27.4 ppb to 52.2 ppb, with a mean of 40.6 ppb.
- Monthly average concentrations for H<sub>2</sub>S were 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



Shelly Pruden, C. Tech  
Environmental Advisor  
Veresen Inc.

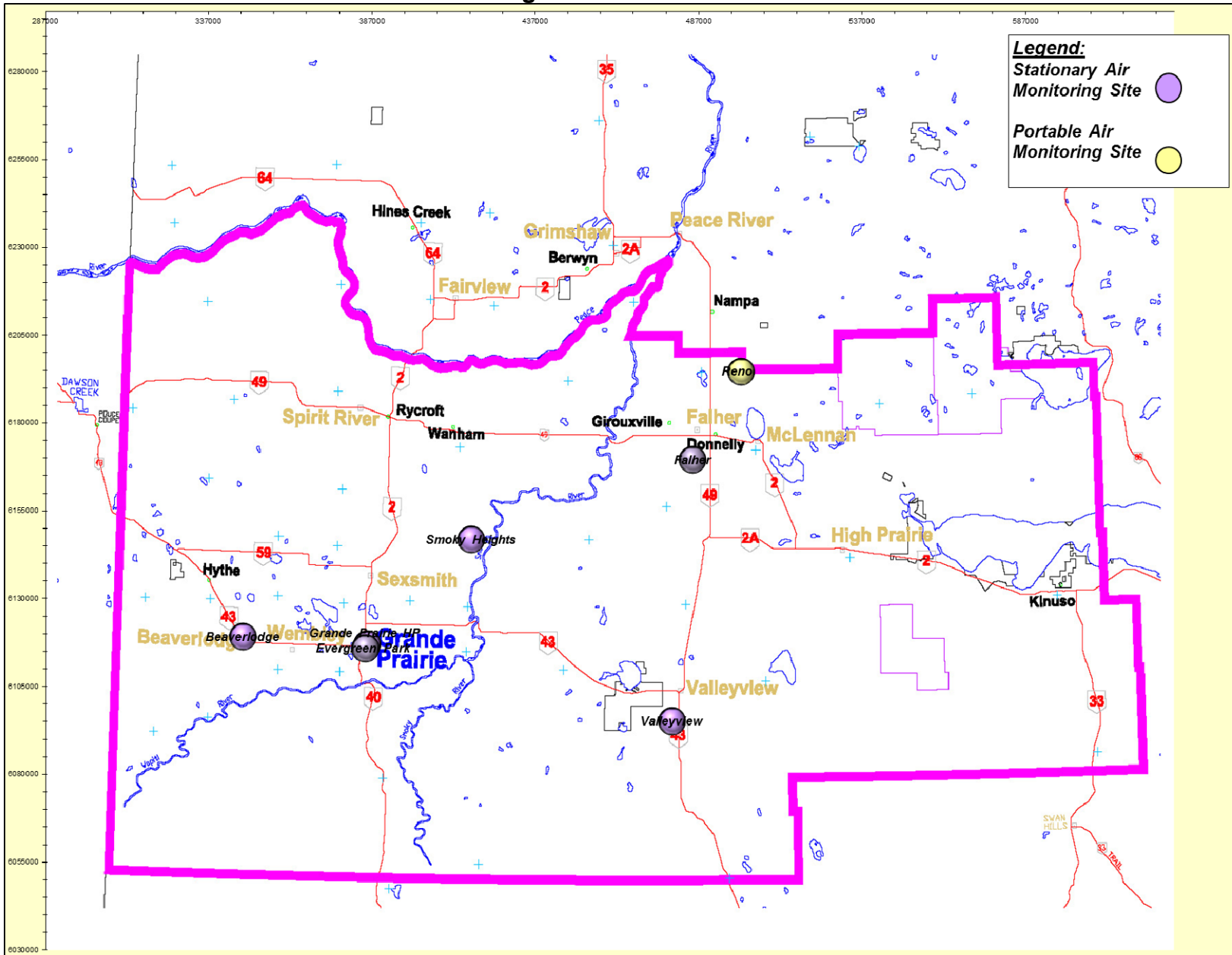


Greg Pippus, MSc., EP.  
Environmental Leader  
Weyerhaeuser - Grande Prairie Operations



Jeff Cooper, C.Tech.  
AQM Operations Manager

# Location of PAZA Continuous Monitoring Stations



## PAZA Monthly Continuous Data Summary

Apr-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	0.3	0	0	5.7	Apr-04 11:00	1.0	Apr-29	100%
SO <sub>2</sub> (ppb)	172	48	Evergreen Park	0.2	0	0	4.5	Apr-30 23:00	0.8	Apr-30	100%
SO <sub>2</sub> (ppb)	172	48	Smoky Heights	0.5	0	0	5.7	Apr-09 03:00	1.2	Apr-06	100%
SO <sub>2</sub> (ppb)	172	48	Beaverlodge	0.3	0	0	2.5	Apr-01 13:00	1.1	Apr-01	100%
SO <sub>2</sub> (ppb)	172	48	Valleyview	0.5	0	0	15.7	Apr-30 18:00	2.4	Apr-09	100%
SO <sub>2</sub> (ppb)	172	48	Reno	0.2	0	0	4.8	Apr-03 18:00	1.0	Apr-03	100%
SO <sub>2</sub> (ppb)	172	48	Falher	0.2	0	0	3.6	Apr-19 19:00	0.7	Apr-03	93%
NO (ppb)			Henry Pirker	1.5	0	0	57.7	Apr-14 09:00	9.5	Apr-30	100%
NO <sub>2</sub> (ppb)	159	106	Henry Pirker	7.3	0	0	40.2	Apr-07 21:00	17.5	Apr-07	100%
NO <sub>x</sub> (ppb)			Henry Pirker	8.9	0	0	95.7	Apr-14 09:00	23.2	Apr-30	100%
NO (ppb)			Beaverlodge	0.3	0	0	15.8	Apr-01 10:00	2.5	Apr-01	100%
NO <sub>2</sub> (ppb)	159	106	Beaverlodge	2.2	0	0	17.4	Apr-01 07:00	6.4	Apr-01	100%
NO <sub>x</sub> (ppb)			Beaverlodge	2.5	0	0	28.5	Apr-01 10:00	8.8	Apr-01	100%
NO (ppb)			Reno	0.2	0	0	3.4	Apr-01 10:00	0.7	Apr-14	100%
NO <sub>2</sub> (ppb)	159	106	Reno	1.4	0	0	10.7	Apr-20 02:00	3.4	Apr-01	100%
NO <sub>x</sub> (ppb)			Reno	1.6	0	0	10.9	Apr-20 02:00	4.1	Apr-01	100%
O <sub>3</sub> (ppb)	82		Henry Pirker	29.0	0	-	52.9	Apr-20 17:00	41.4	Apr-19	98%
O <sub>3</sub> (ppb) - 8-hr			Henry Pirker		0				49.1	Apr-20	
O <sub>3</sub> (ppb)	82		Beaverlodge	39.6	0	-	56.4	Apr-21 17:00	47.5	Apr-22	100%
O <sub>3</sub> (ppb) - 8-hr			Beaverlodge		0				53.5	Apr-20	
O <sub>3</sub> (ppb)	82		Reno	38.3	0	-	54.3	Apr-22 20:00	47.2	Apr-22	100%
O <sub>3</sub> (ppb) - 8-hr			Reno		0				52.3	Apr-01	
CO (ppm)	13		Henry Pirker	0.21	0	-	0.7	Apr-07 22:00	0.3	Apr-07	100%
CO (ppm) - 8-hr	5		Henry Pirker		0				0.5	Apr-30	



## PAZA Monthly Continuous Data Summary – continued

Apr-2014		Peace Airshed Zone Association					Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
THC (ppm)			Henry Pirker	2.1	-	-	4.9	Apr-21 04:00	2.4	Apr-21	100%
CH <sub>4</sub> (ppm)			Henry Pirker	2.1	-	-	4.9	Apr-21 04:00	2.4	Apr-21	100%
NMHC (ppm)			Henry Pirker	0.0	-	-	0.0	Apr-10 11:00	0.0	Apr-29	100%
THC (ppm)			Reno	2.13	-	-	2.7	Apr-14 19:00	2.4	Apr-14	100%
TRS (ppb)			Henry Pirker	0.5	-	-	1.4	Apr-30 10:00	0.8	Apr-30	100%
TRS (ppb)			Evergreen Park	0.3	-	-	1.6	Apr-23 10:00	0.7	Apr-23	100%
TRS (ppb)			Smoky Heights	0.1	-	-	0.8	Apr-04 09:00	0.1	Apr-05	100%
TRS (ppb)			Reno	0.3	-	-	0.6	Apr-01 05:00	0.4	Apr-01	100%
H <sub>2</sub> S (ppb)	10	3	Valleyview	0.2	0	0	1.7	Apr-22 04:00	0.4	Apr-30	100%
H <sub>2</sub> S (ppb)	10	3	Falher	0.1	0	0	1.0	Apr-10 22:00	0.2	Apr-27	93%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Henry Pirker	4.6	0	0	41.2	Apr-14 22:00	10.8	Apr-30	100%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Evergreen Park	2.8	0	0	25.0	Apr-01 08:00	12.0	Apr-01	100%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Smoky Heights	2.7	0	0	33.0	Apr-02 16:00	7.4	Apr-02	100%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Beaverlodge	7.7	0	0	36.5	Apr-12 13:00	14.7	Apr-03	93%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Reno	1.5	0	0	11.1	Apr-01 11:00	4.7	Apr-01	100%
RH (%)			Henry Pirker	57.6	-	-	87.8	Apr-22 23:00	81.6	Apr-23	100%
RH (%)			Evergreen Park	58.3	-	-	95.3	Apr-22 23:00	87.8	Apr-23	100%
RH (%)			Beaverlodge	65.7	-	-	100.0	Apr-04 04:00	93.9	Apr-23	100%
RH (%)			Valleyview	57.8	-	-	97.7	Apr-11 07:00	90.5	Apr-23	100%
SR (W/m <sup>2</sup> )			Henry Pirker	176.4	-	-	752.4	Apr-28 13:00	253.7	Apr-28	100%
Temp (°C)			Henry Pirker	3.5	-	-	21.4	Apr-30 16:00	13.1	Apr-30	100%
Temp (°C)			Evergreen Park	3.6	-	-	21.5	Apr-30 17:00	12.8	Apr-30	100%
Temp (°C)			Smoky Heights	2.6	-	-	21.1	Apr-30 17:00	12.6	Apr-30	100%
Temp (°C)			Beaverlodge	3.2	-	-	20.5	Apr-30 16:00	13.8	Apr-30	100%
Temp (°C)			Valleyview	4.0	-	-	22.7	Apr-30 16:00	14.9	Apr-30	100%
Temp (°C)			Reno	1.9	-	-	20.9	Apr-30 16:00	13.9	Apr-30	100%
Temp (°C)			Falher	2.0	-	-	21.7	Apr-30 16:00	13.5	Apr-30	96%

## PAZA Monthly Continuous Data Summary – continued

Apr-2014 Peace Airshed Zone Association							Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
WSPD s (km/hr)			Henry Pirker	10.1	-	-	34.0	Apr-09 14:00	23.3	Apr-09	100%
WSPD s (km/hr)			Evergreen Park	14.0	-	-	58.0	Apr-08 13:00	38.5	Apr-09	100%
WSPD s (km/hr)			Smoky Heights	12.7	-	-	38.0	Apr-28 13:00	26.6	Apr-09	100%
WSPD s (km/hr)			Beaverlodge	13.0	-	-	48.0	Apr-09 16:00	31.4	Apr-09	100%
WSPD s (km/hr)			Valleyview	6.2	-	-	23.0	Apr-09 11:00	14.2	Apr-09	100%
WSPD s (km/hr)			Reno	14.0	-	-	43.0	Apr-23 00:00	29.1	Apr-22	100%
WSPD s (km/hr)			Falher	14.5	-	-	39.0	Apr-09 11:00	27.7	Apr-22	96%
WSPD v (km/hr)			Henry Pirker	2.9	-	-	33.0	Apr-09 14:00	22.9	Apr-09	100%
WSPD v (km/hr)			Evergreen Park	5.6	-	-	57.0	Apr-08 13:00	37.6	Apr-09	100%
WSPD v (km/hr)			Smoky Heights	4.1	-	-	38.0	Apr-09 13:00	26.3	Apr-09	100%
WSPD v (km/hr)			Beaverlodge	2.5	-	-	48.0	Apr-09 16:00	31.0	Apr-09	100%
WSPD v (km/hr)			Valleyview	2.0	-	-	22.0	Apr-09 11:00	13.4	Apr-09	100%
WSPD v (km/hr)			Reno	3.6	-	-	43.0	Apr-23 00:00	28.6	Apr-22	100%
WSPD v (km/hr)			Falher	0.8	-	-	39.0	Apr-09 11:00	27.2	Apr-22	96%
WDIR			Henry Pirker	WNW	-	-	-	-	-	-	100%
WDIR			Evergreen Park	WNW	-	-	-	-	-	-	100%
WDIR			Smoky Heights	W	-	-	-	-	-	-	100%
WDIR			Beaverlodge	W	-	-	-	-	-	-	100%
WDIR			Valleyview	NW	-	-	-	-	-	-	100%
WDIR			Reno	SSE	-	-	-	-	-	-	100%
WDIR			Falher	S	-	-	-	-	-	-	96%

# Continuous Network Equipment Summary

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## PAZA – Henry Pirker Station

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### General Station Issues

Routine monthly calibrations were performed on April 9<sup>th</sup> (SO<sub>2</sub>, NO<sub>x</sub>), 10<sup>th</sup> (CO, TRS, THC), and 17<sup>th</sup> (O<sub>3</sub>).

Parameter	Make	Model	Notes
SO <sub>2</sub>	TEI	43C	No operational issues observed.
NO <sub>x</sub> /NO/NO <sub>2</sub>	TEI	42C	No operational issues observed.
O <sub>3</sub>	TEI	49C	Span solenoid found to be faulty during calibration attempt on April 10 <sup>th</sup> . Calibration on April 17 <sup>th</sup> and analyzer replaced with ministry spare on April 30 <sup>th</sup> , allowed to stabilize and calibrated May 1 <sup>st</sup> .
CO	TEI	48C	Analyzer tested on April 16 <sup>th</sup> .
THC/CH <sub>4</sub> /NMHC	TEI	55I	No operational issues observed.
TRS	TEI	45C/43C	No operational issues observed.
PM <sub>2.5</sub>	Sharp	5030	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.

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**PAZA – Evergreen Park Station**

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**General Station Issues**

Routine monthly calibration performed on April 1<sup>st</sup> (SO<sub>2</sub>, TRS).

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<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	Glassware cleaned during calibration period.
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.

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**PAZA – Smoky Heights Station**

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**General Station Issues**

Routine monthly calibration performed on April 2<sup>nd</sup> (SO<sub>2</sub>, TRS).

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<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	Low spans due to unstable station temperature, resolved when heating unit repaired.
PM <sub>2.5</sub>	R&P	1400AB	Glassware cleaned during calibration period. Analyzer failed to capture 1 hour of data April 4 <sup>th</sup> .
ET	Met One	083D	No operational issues observed.
WS / WD	Met One	010C/020C	No operational issues observed.

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**PAZA – Beaverlodge Station**

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**General Station Issues**

Routine monthly calibrations performed on April 8<sup>th</sup> (SO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>).

<b>Parameter</b>	<b>Make</b>	<b>Model</b>	<b>Notes</b>
SO <sub>2</sub>	TEI	43CTL	No operational issues observed.
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	Fifty (50) hours flagged invalid due to negative swings. Analyzer undergoing maintenance in May.
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.

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**PAZA – Valleyview Station**

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**General Station Issues**

Routine monthly calibrations were performed on April 14<sup>th</sup> (SO<sub>2</sub> & H<sub>2</sub>S).

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

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**PAZA – Portable-Reno**

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**General Station Issues**

Routine monthly calibrations were performed on April 22<sup>nd</sup> (TRS, THC) and 23<sup>rd</sup> (SO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>).

<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	HVAC malfunction caused shelter temperature variation, affecting span performance from April 5-10.
TRS	TEI	39C	Span tank emptied April 15 <sup>th</sup> , replaced April 19 <sup>th</sup> .
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.

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**PAZA – Falher Station**

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**General Station Issues**

Routine monthly calibrations were performed on April 22<sup>nd</sup> (SO<sub>2</sub> & H<sub>2</sub>S). Power outage April 17<sup>th</sup> damaged transformer feeding the trailer, leaving the station unable to capture SO<sub>2</sub> or H<sub>2</sub>S data until repaired April 19<sup>th</sup> and trailer returned to service.

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<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	No operational issues observed.
ET	Gill	RM Young 5103	No operational issues observed.
WS / WD	Gill	RM Young 5103	No operational issues observed.

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PAZA

Henry Pirker Station

Monthly Summary Tables, Graphs and  
Roses

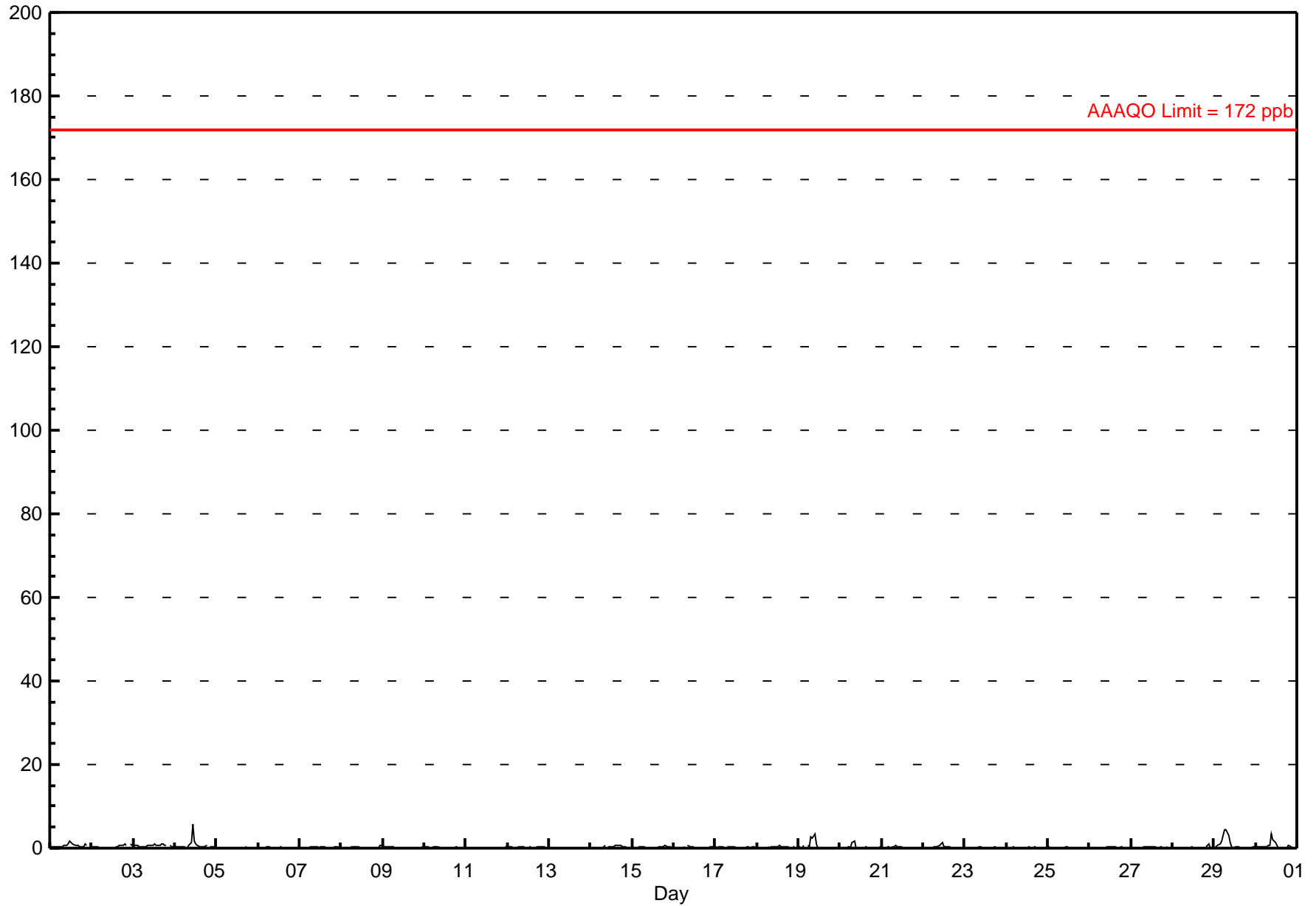
## Hourly Averages

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

Henry Pirker - April 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 5.7 ppb on Apr 4 11:00      Maximum Daily Average: 1.0 ppb on Apr 29		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 Apr 5 13:00 Maximum Diurnal Average: 0.6 ppb at hour 11 Monthly Average: 0.27 ppb		Minimum Daily Average: 0.0 ppb on Apr 13 Minimum Diurnal Average: 0.2 ppb at hour 2 Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 0.1 Q <sub>3</sub> = 0.3 P <sub>90</sub> = 0.6 P <sub>99</sub> = 3.0																								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	0	0	0	0	0	0	0	0	1	1	1	2	1	1	1	1	1	0	0	0	1	1	A	0	0.6	1.7
2-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	A	1	1	0.3	0.9
3-Apr	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	0	0.6	0.9
4-Apr	0	0	0	0	0	0	0	0	1	1	6	2	1	1	0	0	0	0	1	A	0	0	0	0	0.7	5.7
5-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.4
6-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.4
7-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.5
8-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.2	0.7
9-Apr	1	0	0	0	0	0	0	C	C	C	C	C	0	0	A	A	0	0	0	0	0	0	0	0	0.2	0.7
10-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.5
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
12-Apr	1	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	0.5
13-Apr	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
14-Apr	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	1	1	1	1	0	0	0	0	0	0.3	0.7
15-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.2	0.5
16-Apr	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
17-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
18-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.3	0.6
19-Apr	0	0	0	1	A	1	0	3	2	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.5
20-Apr	0	0	0	A	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.7
21-Apr	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
22-Apr	0	A	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4
23-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
24-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.4
25-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.5
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.5
27-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.5
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.2	1.0
29-Apr	0	0	1	1	2	3	5	4	3	1	0	0	0	0	0	0	0	0	A	A	0	0	0	0	1.0	4.5
30-Apr	0	0	0	0	0	0	0	1	1	3	2	1	1	0	0	0	A	0	0	0	1	0	0	0	0.5	3.3
																								Diurnal Average	Diurnal Maximum	
																								0.2	0.7	
																								0.2	0.5	
																								0.2	0.7	
																								0.2	1.0	
																								0.2	1.6	
																								0.2	3.0	
																								0.3	4.5	
																								0.5	4.4	
																								0.5	3.0	
																								0.5	3.5	
																								0.6	5.7	
																								0.4	1.7	
																								0.3	1.5	
																								0.2	1.2	
																								0.2	0.8	
																								0.2	0.8	
																								0.2	0.9	
																								0.2	0.9	
																								0.2	0.8	
																								0.2	0.9	
																								0.2	1.0	
																								0.2	1.0	
																								0.2	0.9	
																								0.2	0.6	

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



## Hourly Maximums

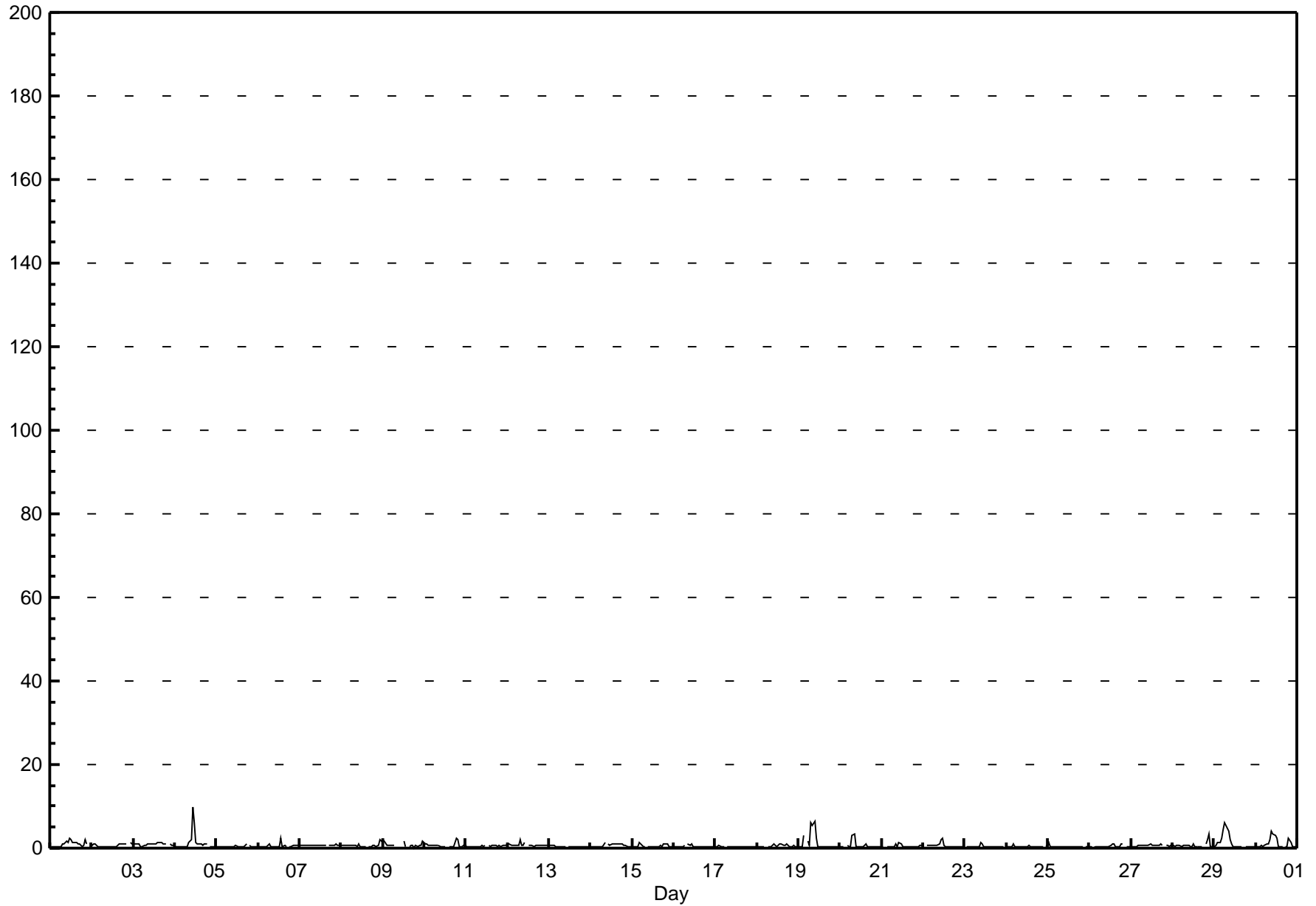
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Henry Pirker - April 2014

Maximum Value: 10.0 ppb on Apr 4 11:00		Maximum Daily Average: 1.5 ppb on Apr 29		Hours in Service: 720																							
Minimum Value: 0 ppb on Apr 9 19:00		Minimum Daily Average: 0.5 ppb on Apr 13		Hours of Data: 684																							
Maximum Diurnal Average: 1.3 ppb at hour 11		Minimum Diurnal Average: 0.6 ppb at hour 3		Hours of Missing Data: 36																							
Monthly Average: 0.72 ppb		Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 0.5 Median = 0.5 Q <sub>3</sub> = 0.6 P <sub>90</sub> = 1.0 P <sub>99</sub> = 5.2		Hours of Calibration: 36																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	0	0	0	0	0	0	0	1	1	2	1	2	2	1	1	1	1	1	0	1	2	1	A	1	1.0	2.5	
2-Apr	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	A	1	1	0.7	1.5	
3-Apr	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.5	
4-Apr	0	0	0	0	0	0	0	0	1	2	10	6	1	1	1	1	1	1	1	A	0	0	0	0	1.4	10.0	
5-Apr	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	A	1	0	0	0	0	0.5	1.0	
6-Apr	0	0	0	0	0	0	1	0	0	0	1	0	0	3	0	1	0	A	0	0	1	1	1	1	0.6	2.5	
7-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.6	1.1	
8-Apr	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	A	1	0	1	1	0	1	2	2	0.6	2.1	
9-Apr	2	2	1	1	1	1	1	C	C	C	C	C	2	0	A	0	1	1	0	1	0	1	1	2	0.8	2.2	
10-Apr	1	1	1	1	1	1	1	1	1	1	0	0	0	A	0	0	0	0	2	2	0	1	1	1	0.7	2.5	
11-Apr	1	1	1	1	1	1	1	0	1	1	0	1	A	1	0	1	1	1	0	1	0	1	1	1	0.5	0.5	
12-Apr	1	1	1	1	1	1	1	2	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	0.7	2.0	
13-Apr	1	1	1	1	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.5	
14-Apr	0	0	0	0	0	0	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0.6	1.2	
15-Apr	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0.6	1.2	
16-Apr	0	0	0	0	0	0	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.0	
17-Apr	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.8	
18-Apr	0	0	0	0	0	A	0	0	0	1	0	1	1	1	1	1	1	1	0	0	1	0	0	0	0.6	1.0	
19-Apr	0	0	0	3	A	2	1	6	5	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1.4	6.4	
20-Apr	0	0	0	A	1	0	0	3	3	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0.7	3.4	
21-Apr	0	0	A	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	1	1	1	0.5	1.4	
22-Apr	1	A	1	1	1	1	1	1	1	1	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0.7	2.4	
23-Apr	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0.5	1.5	
24-Apr	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0.5	0.9	
25-Apr	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.5	1.5	
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	1	A	0	0	0	0.5	1.0	
27-Apr	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	0.6	1.1	
28-Apr	1	0	1	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	A	1	2	3	0	0	0.7	3.4	
29-Apr	0	1	1	1	2	4	6	5	4	2	1	0	0	0	0	0	0	A	0	0	0	0	0	0	1.5	6.0	
30-Apr	0	0	0	1	0	1	1	1	2	4	3	3	2	0	0	0	A	0	0	0	2	1	0	0	1.2	3.9	
		0.6	0.6	0.6	0.6	0.6	0.7	0.7	1.0	1.1	1.1	1.3	0.9	0.7	0.7	0.6	0.6	0.6	0.7	0.7	0.6	0.7	0.6	0.6	Diurnal Average		
		2.2	1.7	1.4	2.9	2.5	4.4	6.0	5.9	5.3	6.4	10.0	6.0	2.4	2.5	1.3	1.4	1.5	1.1	2.5	2.4	2.0	3.4	2.1	1.8	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

# Hourly Maximums

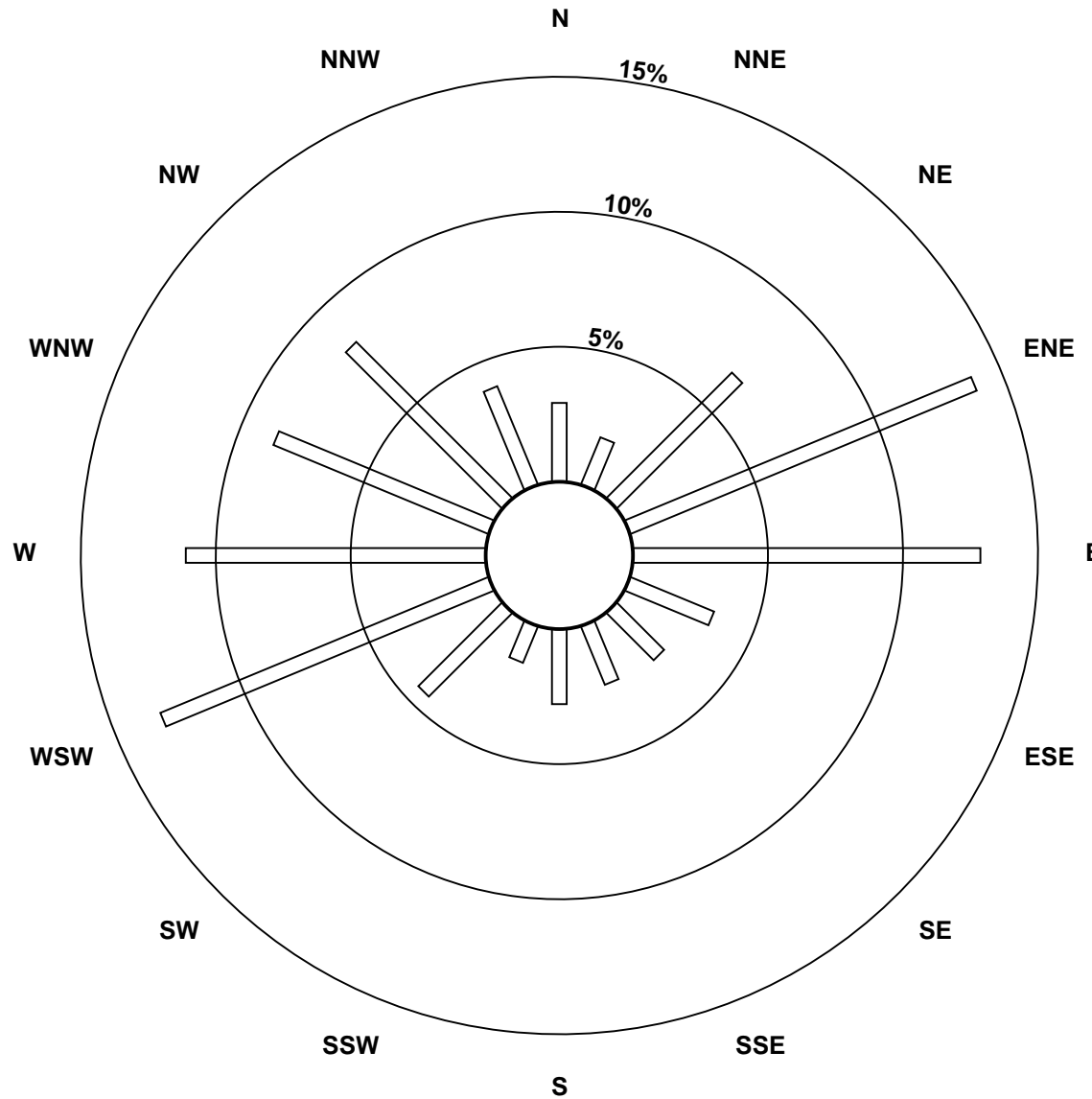
Sulphur Dioxide (SO<sub>2</sub>) - ppb  
Henry Pirker - April 2014



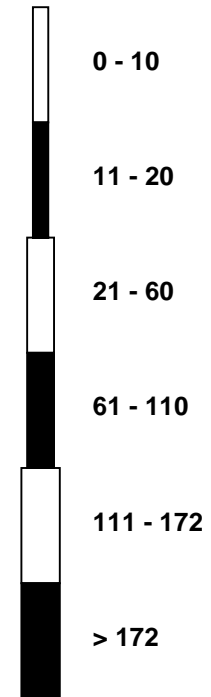
**Pollutant Rose**

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

**Henry Pirker - April 2014**

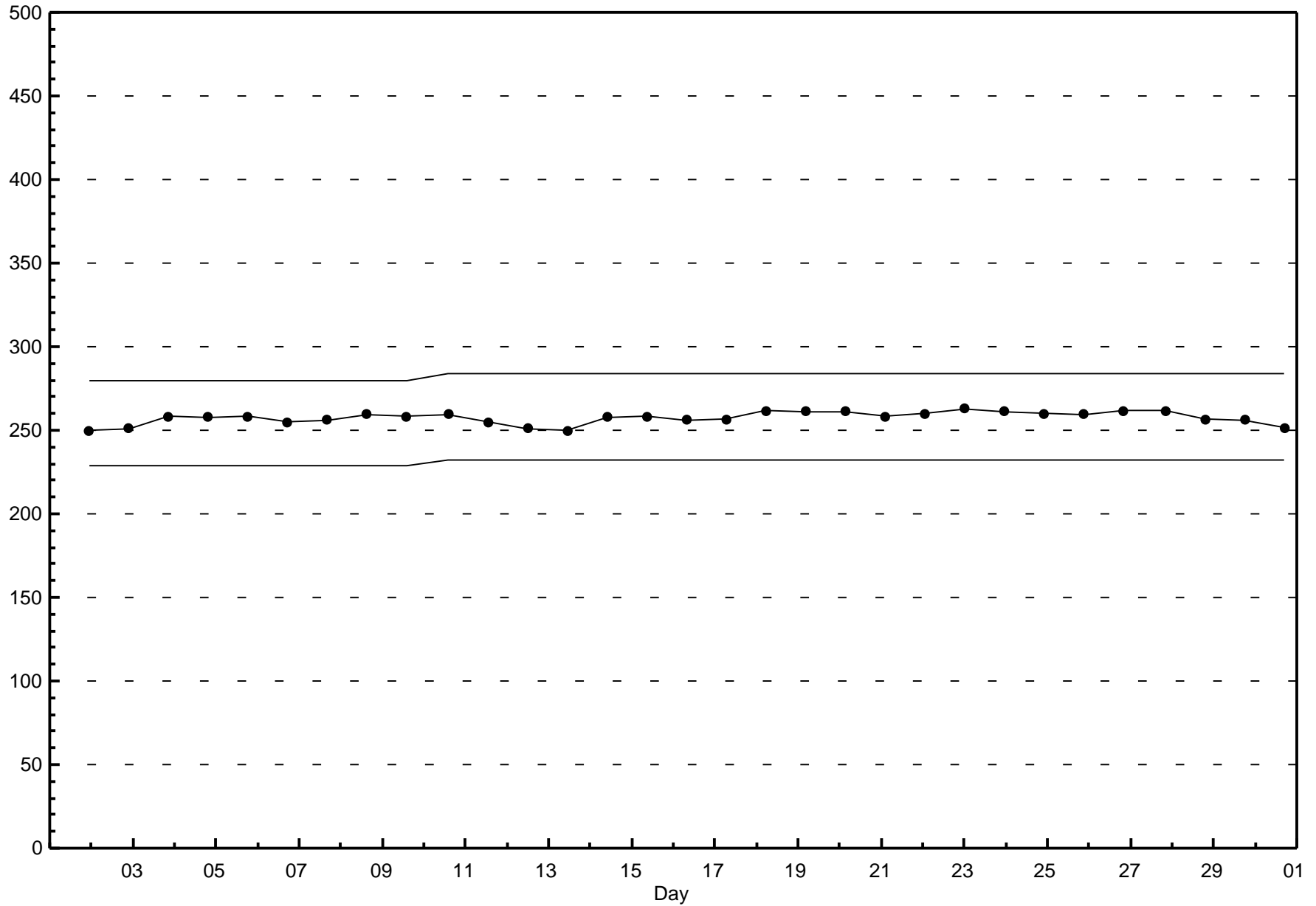


**Pollutant Classes (ppb)**



### Span Responses

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





## Hourly Averages

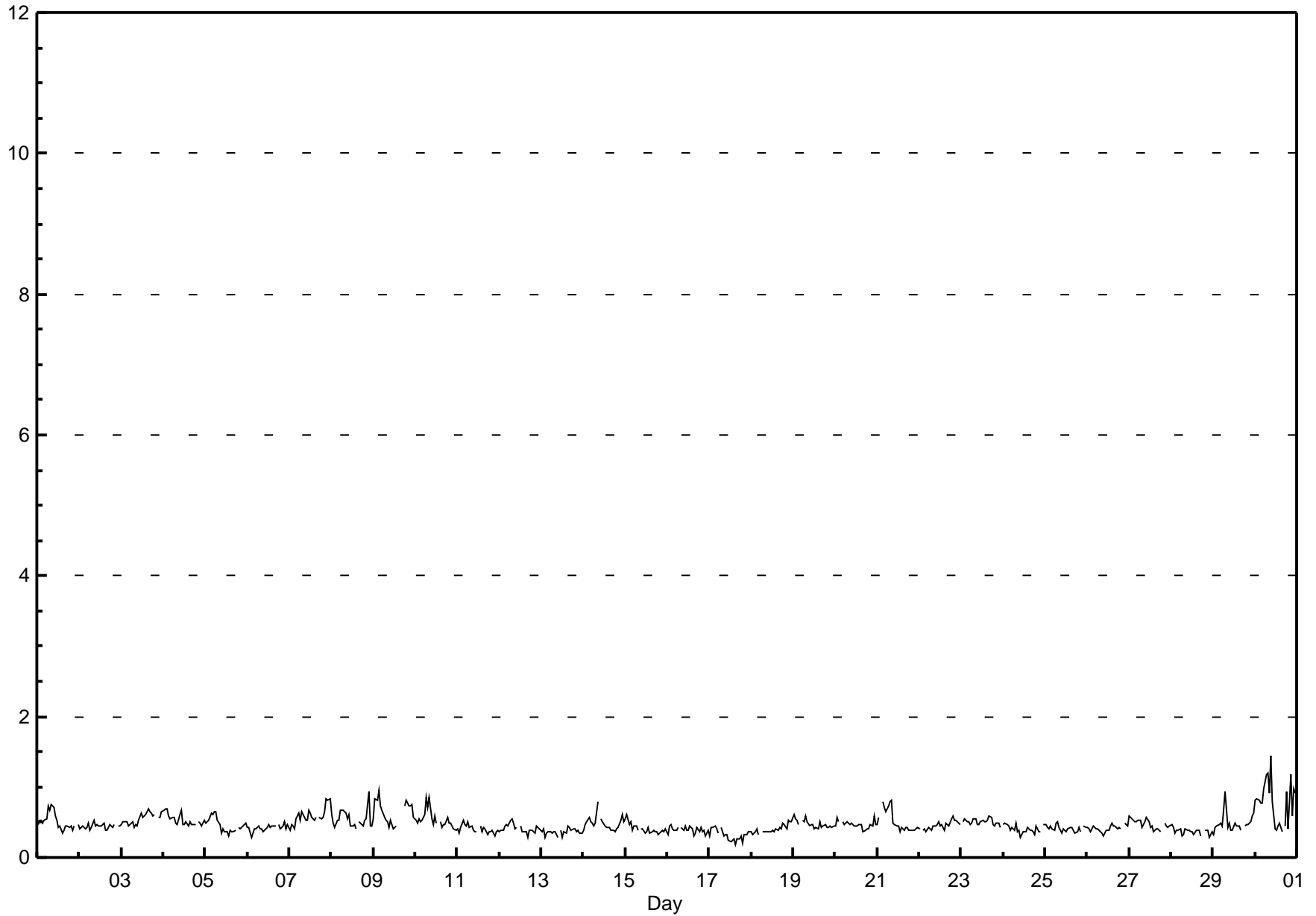
## Total Reduced Sulphur (TRS) - ppb

### Henry Pirker - April 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 1.4 ppb on Apr 30 10:00	Maximum Daily Average: 0.8 ppb on Apr 30		Hours of Data:	686
Minimum Value: 0 ppb on Apr 17 16:00	Minimum Daily Average: 0.3 ppb on Apr 17		Hours of Missing Data:	34
Maximum Diurnal Average: 0.5 ppb at hour 8	Minimum Diurnal Average: 0.4 ppb at hour 17		Hours of Calibration:	34
Monthly Average: 0.47 ppb	Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 0.4 Median = 0.4 Q <sub>3</sub> = 0.5 P <sub>90</sub> = 0.6 P <sub>99</sub> = 1.0		Percent Operational Time:	100.0

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

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



## Hourly Maximums

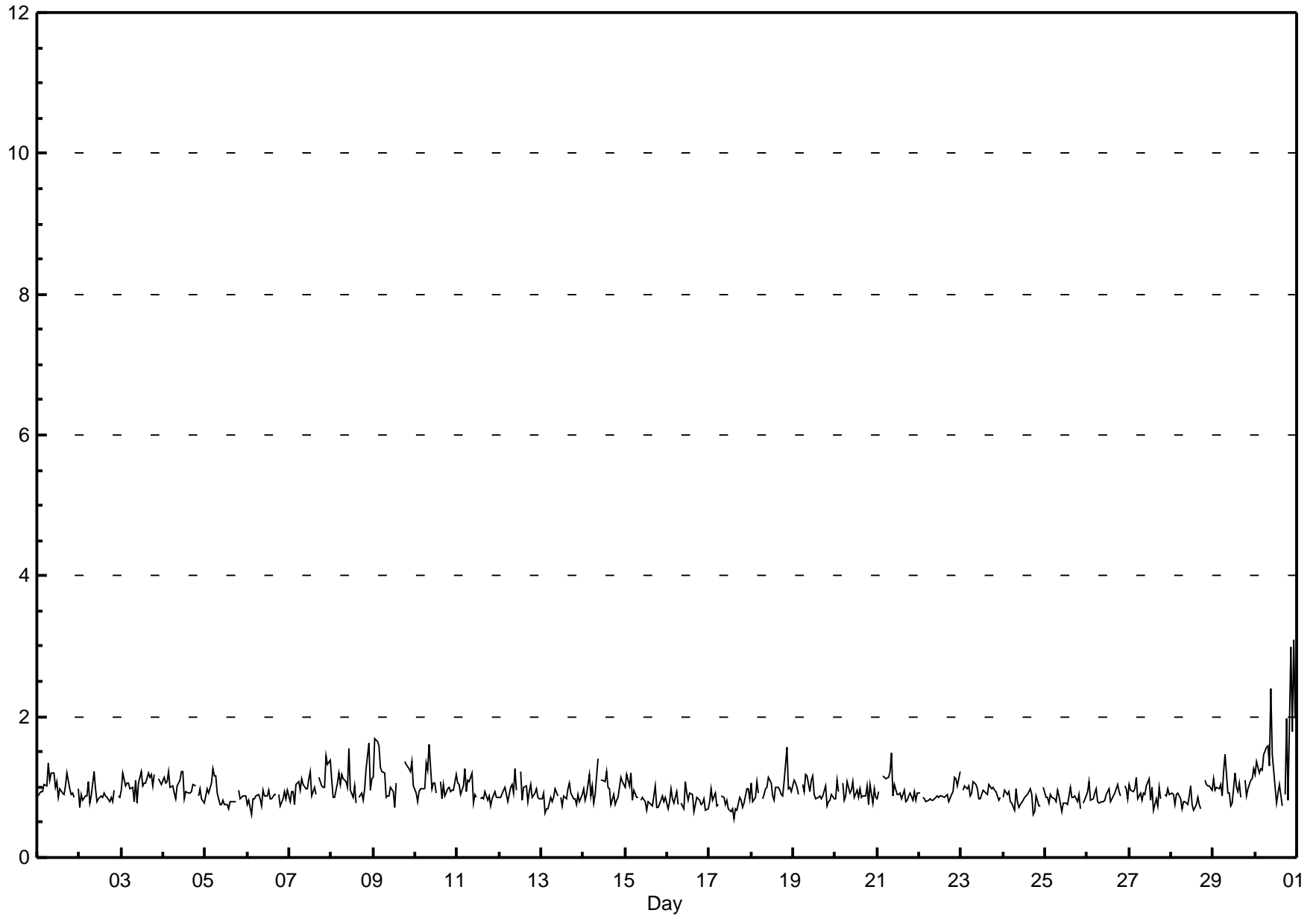
Total Reduced Sulphur (TRS) - ppb

Henry Pirker - April 2014

Maximum Value: 3.1 ppb on Apr 30 23:00		Maximum Daily Average: 1.5 ppb on Apr 30		Hours in Service: 720																																																																				
Minimum Value: 1 ppb on Apr 17 15:00		Minimum Daily Average: 0.8 ppb on Apr 17		Hours of Data: 686																																																																				
Maximum Diurnal Average: 1.0 ppb at hour 23		Minimum Diurnal Average: 0.9 ppb at hour 17		Hours of Missing Data: 34																																																																				
Monthly Average: 0.95 ppb		Percentiles: P <sub>1</sub> = 0.6 P <sub>10</sub> = 0.8 Q <sub>1</sub> = 0.8 Median = 0.9 Q <sub>3</sub> = 1.0 P <sub>90</sub> = 1.2 P <sub>99</sub> = 1.6		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-Apr	1	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	1.3																																														
2-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.2																																														
3-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.1	1.2																																														
4-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.0	1.2																																														
5-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.9	1.3																																														
6-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.8	1.0																																														
7-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.0	1.4																																														
8-Apr	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	A	1	1	1	1	1	2	1	1	1.1	1.6																																														
9-Apr	1	2	2	2	1	1	1	1	1	1	1	1	1	1	C	C	C	C	1	1	1	1	1	1	1.2	1.7																																														
10-Apr	1	1	1	1	1	1	1	1	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.0	1.6																																														
11-Apr	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3																																														
12-Apr	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3																																														
13-Apr	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1																																														
14-Apr	1	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	1.4																																														
15-Apr	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2																																														
16-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1																																														
17-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0																																														
18-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1.0	1.6																																														
19-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2																																														
20-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1																																														
21-Apr	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5																																														
22-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2																																														
23-Apr	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.1																																														
24-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.0																																														
25-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.0																																														
26-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.1																																														
27-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.1																																														
28-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.1																																														
29-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5																																														
30-Apr	1	1	1	1	1	1	2	2	1	2	1	1	1	1	1	1	A	1	2	1	3	2	3	2	1.5	3.1																																														
																								Diurnal Average		Diurnal Maximum																																														
																								0.9	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	0.9	1.0	1.0	1.0	1.0	1.2	1.7	1.7	1.6	1.3	1.5	1.6	1.6	1.6	1.6	2.4	1.5	1.2	1.2	1.2	1.1	1.2	1.1	1.2	2.0	1.3	3.0	1.8	3.1	2.0

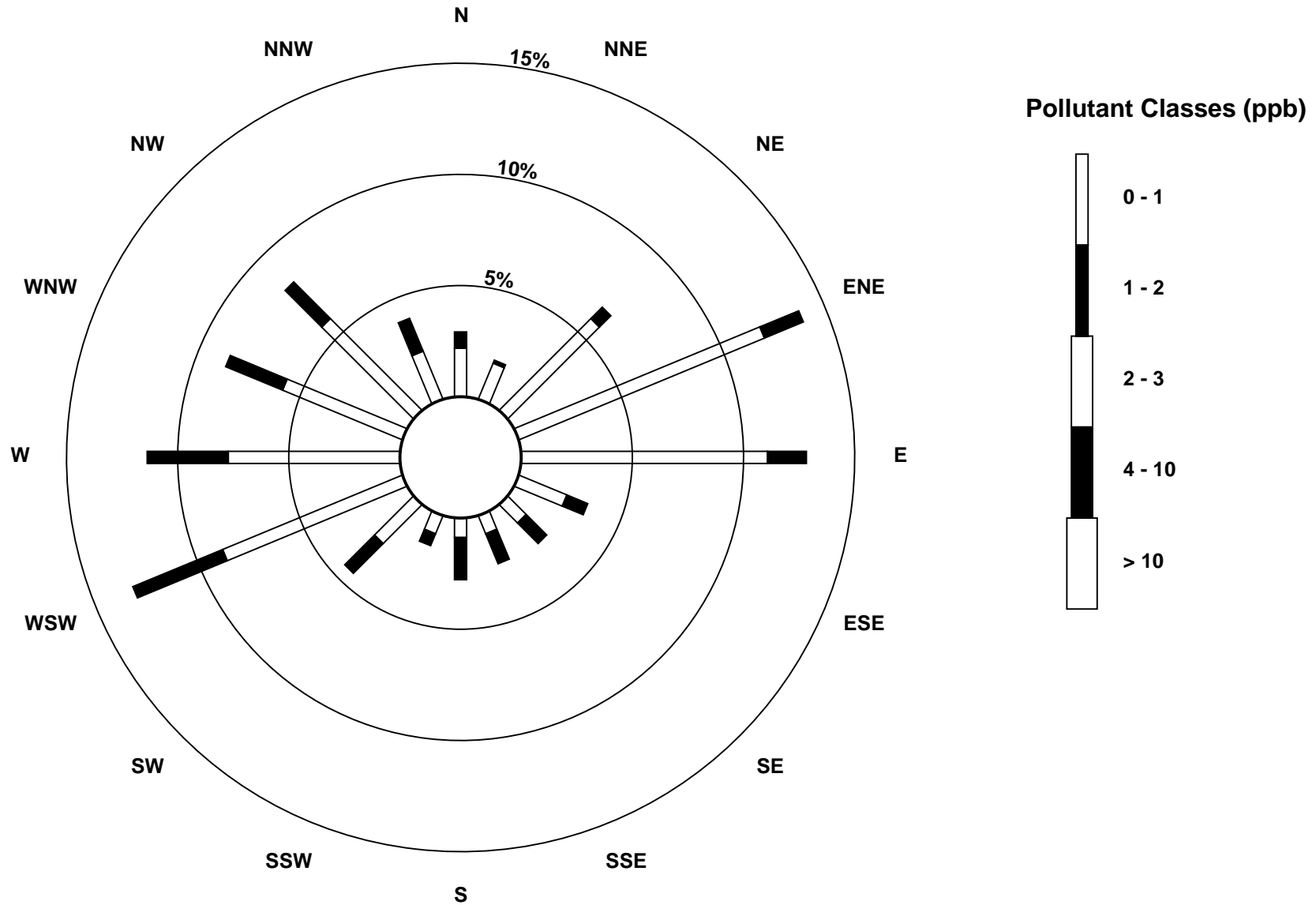
C - Calibration

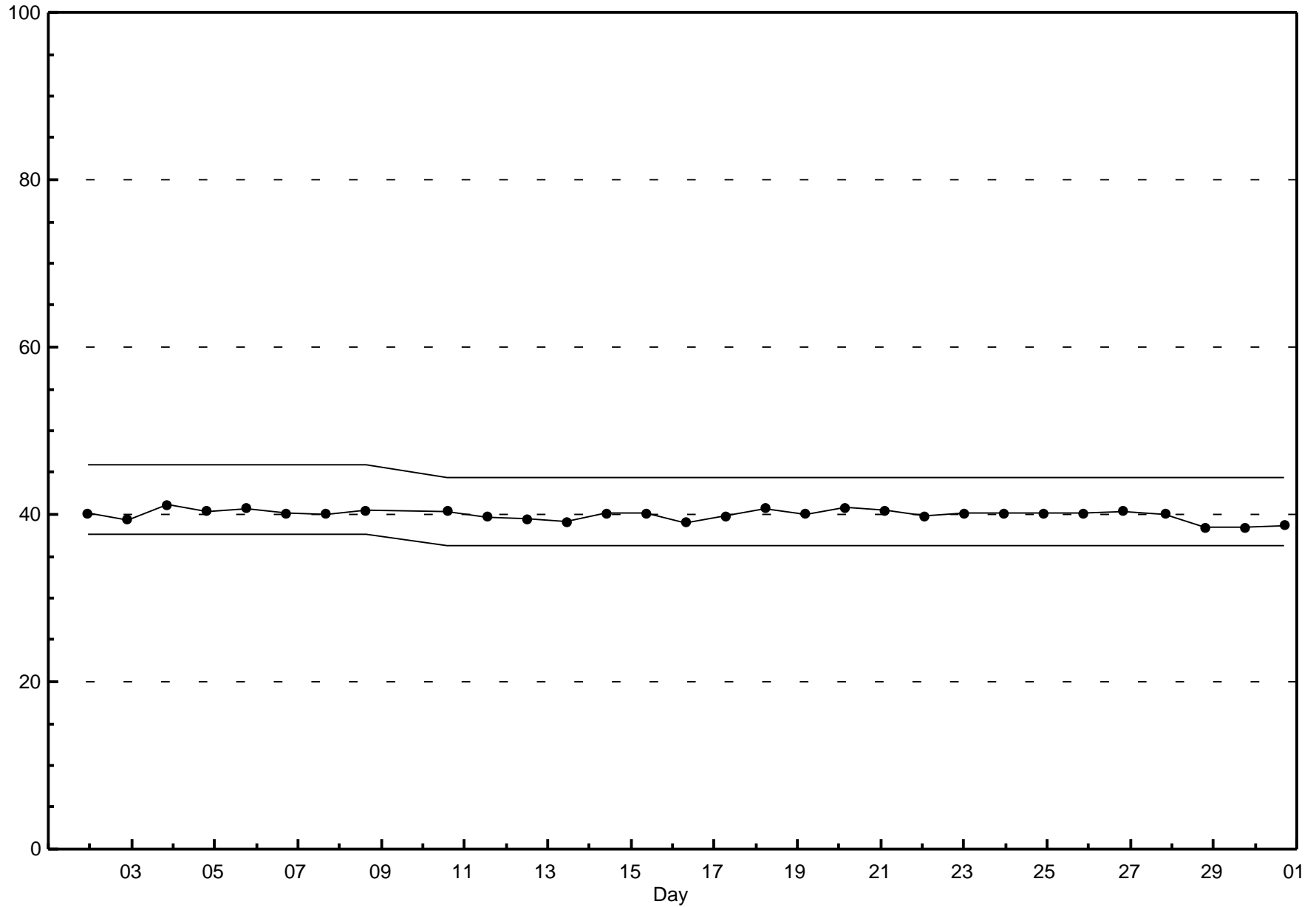
A - Automated Daily Zero Span



**Pollutant Rose**

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





## Hourly Averages

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

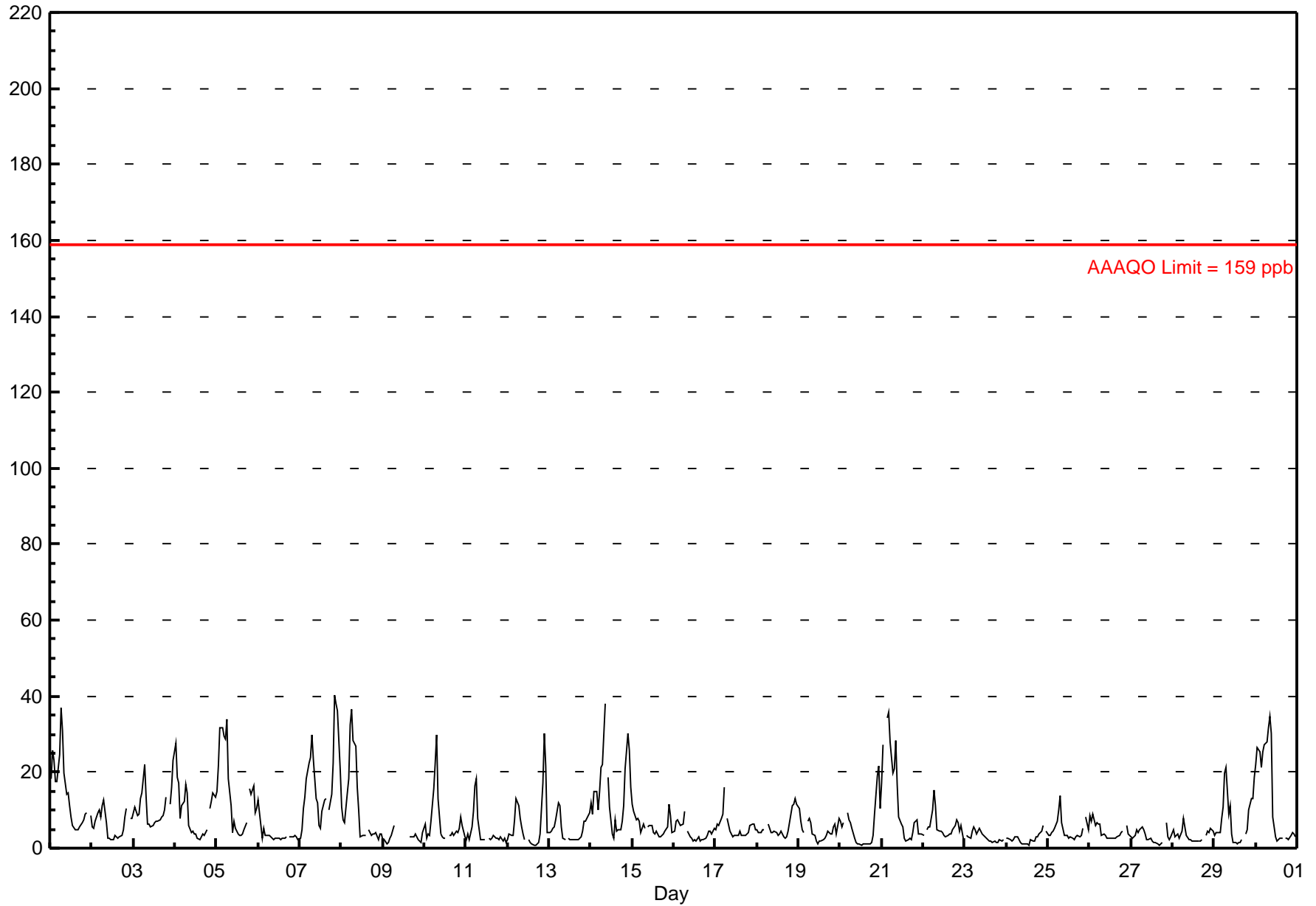
### Henry Pirker - April 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 40.2 ppb on Apr 7 21:00	Maximum Daily Average: 17.5 ppb on Apr 7		Hours of Data:	682
Minimum Value: 1 ppb on Apr 27 17:00	Minimum Daily Average: 2.5 ppb on Apr 24		Hours of Missing Data:	38
Maximum Diurnal Average: 14.9 ppb at hour 7	Minimum Diurnal Average: 2.9 ppb at hour 14		Hours of Calibration:	38
Monthly Average: 7.33 ppb	Percentiles: P <sub>1</sub> = 1.0 P <sub>10</sub> = 2.1 Q <sub>1</sub> = 2.9 Median = 4.4 Q <sub>3</sub> = 8.7 P <sub>90</sub> = 16.8 P <sub>99</sub> = 35.6		Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	18	26	23	17	17	25	37	31	20	14	14	11	8	6	5	5	5	6	7	8	9	9	A	9	14.3	37.0
2-Apr	6	5	7	9	10	8	11	13	7	2	2	2	2	3	3	3	3	3	5	8	10	A	8	8	6.1	12.8
3-Apr	9	11	9	9	13	14	22	13	6	6	5	6	7	7	7	7	8	9	10	13	A	12	16	23	10.6	23.0
4-Apr	27	19	17	8	11	12	17	14	6	4	5	4	4	3	2	3	4	3	5	A	10	12	15	13	9.5	27.4
5-Apr	15	21	32	32	30	29	34	18	11	4	7	5	4	3	3	4	5	7	A	15	14	16	9	11	14.3	34.0
6-Apr	13	9	3	5	3	3	3	3	3	2	3	3	2	2	3	3	A	3	3	3	3	3	3	2	3.6	12.7
7-Apr	2	5	11	13	18	22	24	30	24	13	12	6	5	10	13	13	A	10	14	22	40	38	36	20	17.5	40.2
8-Apr	11	8	7	15	18	33	37	28	27	16	10	3	3	3	A	5	4	4	4	4	4	2	4	4	10.9	36.7
9-Apr	2	2	1	2	3	3	6	C	C	C	C	C	C	C	A	3	3	3	3	4	2	2	2	4	--	5.9
10-Apr	6	3	4	3	7	15	22	30	13	4	3	3	3	A	3	3	4	3	4	4	5	8	6	3	7.0	29.8
11-Apr	2	4	2	5	10	16	18	8	2	2	2	2	A	2	2	3	3	3	3	2	3	2	2	2	4.4	18.2
12-Apr	2	4	3	3	7	13	11	8	6	4	2	A	2	1	1	1	1	1	1	4	17	30	22	4	6.5	30.3
13-Apr	4	5	5	6	8	12	11	6	3	2	A	3	2	2	2	2	2	2	3	4	7	7	8	9	5.0	11.9
14-Apr	12	9	15	15	10	15	21	22	38	A	19	11	4	3	8	4	5	5	7	11	21	30	26	16	14.2	38.0
15-Apr	11	10	7	8	7	4	6	5	A	5	6	6	4	4	5	3	3	3	4	4	5	12	9	4	5.9	11.6
16-Apr	4	7	8	7	6	7	10	A	4	3	3	2	2	2	3	2	2	2	3	3	4	4	4	5	4.2	9.8
17-Apr	5	6	6	8	9	16	A	8	4	4	3	4	3	3	4	3	3	3	4	4	6	6	6	5	5.4	16.0
18-Apr	5	4	4	5	5	A	6	5	4	4	5	4	3	4	4	3	3	3	4	7	11	12	13	12	5.6	12.9
19-Apr	10	7	5	4	A	7	8	7	4	3	2	1	2	2	2	2	3	4	4	4	5	6	4	8	4.6	10.3
20-Apr	7	6	7	A	9	8	7	5	3	1	1	1	1	1	1	1	1	1	1	3	9	19	22	10	5.4	21.7
21-Apr	17	27	A	34	36	28	20	21	28	17	8	6	6	3	2	2	2	2	4	7	8	4	4	4	12.6	35.7
22-Apr	3	A	5	5	6	10	15	11	5	4	4	4	3	3	3	4	4	5	6	7	7	5	6	2	5.6	15.2
23-Apr	A	3	3	3	5	6	5	4	5	4	4	3	3	2	2	2	1	2	2	1	2	2	2	A	3.0	5.7
24-Apr	2	3	2	2	2	3	3	2	1	1	1	1	1	1	2	2	2	3	3	4	4	6	A	5	2.5	6.0
25-Apr	3	3	4	5	5	7	10	14	7	3	3	3	3	3	3	2	3	3	3	3	5	A	8	5	4.8	13.9
26-Apr	9	7	9	6	7	6	6	3	4	3	3	3	3	2	3	2	3	3	4	4	A	6	4	3	4.5	8.9
27-Apr	3	3	3	5	4	5	5	5	4	2	2	3	2	2	1	1	1	1	2	A	7	3	2	3	3.0	6.6
28-Apr	5	3	3	4	3	5	8	6	3	2	2	2	2	2	2	2	2	2	A	3	4	4	5	4	3.4	7.7
29-Apr	3	4	4	4	8	11	20	21	9	11	4	1	1	1	1	1	2	A	4	5	10	13	13	19	7.5	21.4
30-Apr	22	26	25	21	26	27	28	32	35	30	8	3	2	2	3	3	A	3	3	2	3	4	4	3	13.7	34.6

8.3	8.6	8.1	9.1	10.4	12.8	14.9	13.3	10.2	6.2	5.1	3.8	3.2	2.9	3.3	3.1	3.1	3.6	4.2	5.9	8.5	9.9	9.3	7.6	Diurnal Average	
27.4	27.3	31.6	34.5	35.7	32.5	37.0	31.8	38.0	30.3	18.7	11.3	8.2	9.6	12.6	13.1	8.3	10.0	14.2	22.5	40.2	38.0	36.3	23.0	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

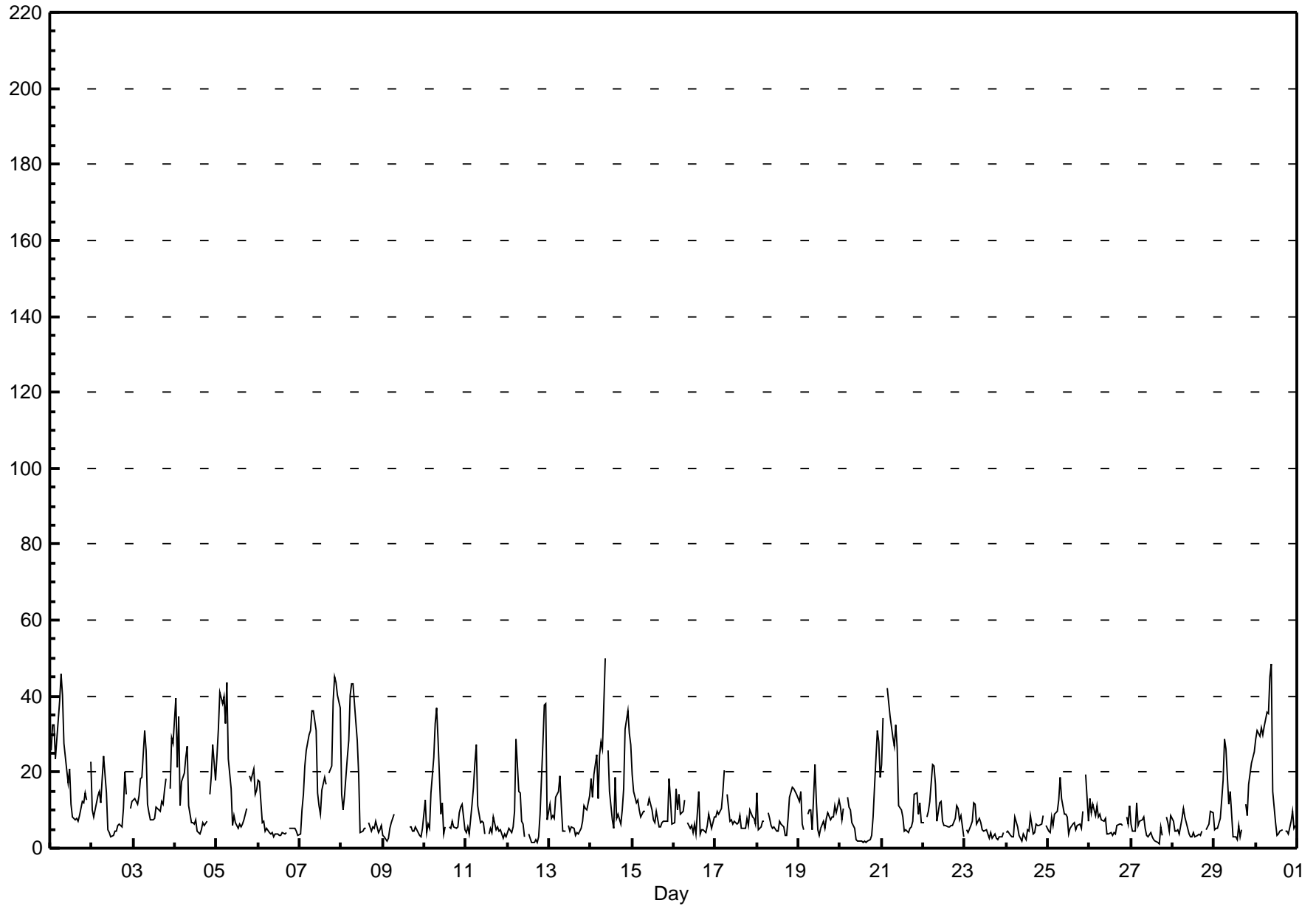
Nitrogen Dioxide (NO<sub>2</sub>) - ppb

Henry Pirker - April 2014

Maximum Value: 49.9 ppb on Apr 14 09:00		Maximum Daily Average: 24.8 ppb on Apr 7		Hours in Service: 720																																												
Minimum Value: 1 ppb on Apr 27 17:00		Minimum Daily Average: 4.8 ppb on Apr 24		Hours of Data: 682																																												
Maximum Diurnal Average: 20.5 ppb at hour 7		Minimum Diurnal Average: 5.2 ppb at hour 14		Hours of Missing Data: 38																																												
Monthly Average: 11.25 ppb		Percentiles: P <sub>1</sub> = 1.9 P <sub>10</sub> = 3.5 Q <sub>1</sub> = 5.0 Median = 7.5 Q <sub>3</sub> = 13.9 P <sub>90</sub> = 27.2 P <sub>99</sub> = 43.5		Hours of Calibration: 38																																												
				Percent Operational Time: 100.0																																												
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Apr	26	32	32	24	29	39	46	40	28	20	17	21	12	8	7	8	7	9	12	12	15	13	A	23	20.8	46.0																						
2-Apr	10	8	10	14	15	12	18	24	14	5	4	3	4	4	5	6	6	6	10	20	14	A	11	12	10.3	24.2																						
3-Apr	13	13	12	14	18	19	31	26	11	9	8	8	8	11	10	10	12	12	15	18	A	16	29	28	15.1	30.9																						
4-Apr	39	21	35	11	18	20	24	27	11	7	7	6	8	5	4	5	7	6	7	A	14	19	27	18	15.0	39.4																						
5-Apr	24	31	41	38	40	33	43	23	16	6	9	7	5	6	6	6	8	11	A	19	18	21	14	15	19.1	43.5																						
6-Apr	18	18	7	7	5	5	4	4	4	3	4	4	3	3	4	4	4	A	5	5	5	5	4	4	5.6	17.7																						
7-Apr	4	10	14	22	26	30	31	36	36	31	15	11	9	15	19	17	A	20	22	39	45	43	40	37	24.8	45.2																						
8-Apr	14	10	14	24	28	40	43	43	33	28	19	4	5	5	5	A	6	5	6	5	7	4	5	6	15.7	43.3																						
9-Apr	4	3	2	2	5	7	9	C	C	C	C	C	C	C	A	6	5	5	5	6	4	3	3	5	--	9.0																						
10-Apr	13	4	6	5	15	24	33	37	29	9	12	4	5	A	5	5	7	6	5	6	9	11	12	5	11.6	37.0																						
11-Apr	4	6	4	12	16	23	27	11	7	7	7	4	A	4	5	4	8	5	6	4	5	3	4	3	7.7	27.2																						
12-Apr	4	5	4	5	10	29	15	14	7	6	3	A	4	3	2	2	2	2	3	9	28	38	38	7	10.4	38.1																						
13-Apr	12	8	8	8	13	15	19	11	4	5	A	6	5	6	5	3	4	4	5	7	11	10	10	14	8.4	18.9																						
14-Apr	18	14	20	25	13	24	28	26	50	A	26	15	8	5	19	8	9	7	10	16	31	36	30	27	20.2	49.9																						
15-Apr	20	15	12	13	10	8	10	10	A	11	13	10	8	7	10	6	6	7	7	7	7	18	13	6	10.1	19.5																						
16-Apr	7	16	10	14	9	10	13	A	7	5	6	4	6	4	15	4	5	5	4	6	9	7	5	8	7.8	15.7																						
17-Apr	8	10	9	10	15	21	A	14	7	7	6	7	7	7	9	5	5	5	8	6	10	8	8	6	8.6	20.6																						
18-Apr	14	5	5	7	7	A	9	8	6	5	5	4	7	7	6	3	4	8	13	16	15	15	14	8.2	16.1																							
19-Apr	12	15	7	5	A	9	10	10	5	22	12	5	3	5	7	5	8	9	7	8	8	11	9	13	9.0	21.9																						
20-Apr	11	8	10	A	14	11	10	7	5	2	2	2	2	2	2	2	2	2	3	8	16	31	28	19	8.6	30.8																						
21-Apr	22	34	A	42	39	35	29	27	33	27	11	10	8	5	5	4	5	6	7	14	14	9	12	7	17.5	42.0																						
22-Apr	7	A	8	10	12	22	21	17	7	12	12	7	6	6	6	6	6	6	8	11	10	7	8	3	9.5	22.0																						
23-Apr	A	5	4	6	7	12	11	6	8	7	5	5	5	4	2	4	2	4	2	2	3	3	4	A	5.1	11.8																						
24-Apr	4	4	4	3	3	8	5	3	3	2	4	2	5	4	9	4	4	6	6	6	6	8	A	6	4.8	8.8																						
25-Apr	5	4	8	6	9	10	13	19	13	9	9	8	4	5	6	7	5	6	6	5	10	A	19	7	8.4	19.3																						
26-Apr	13	9	12	9	11	8	9	7	7	8	4	4	4	3	4	4	6	6	6	6	A	8	6	11	7.2	13.1																						
27-Apr	6	4	5	12	6	7	8	8	5	4	3	4	3	2	2	2	1	6	4	A	8	7	5	8	5.2	12.0																						
28-Apr	7	5	5	5	4	8	11	8	7	4	3	3	4	3	3	4	4	5	A	5	6	6	10	9	5.5	10.6																						
29-Apr	5	5	5	8	13	18	29	26	12	15	9	3	3	2	6	3	5	A	12	9	17	23	24	25	11.9	28.8																						
30-Apr	29	31	30	32	30	32	36	35	45	48	15	7	3	4	5	5	A	5	5	4	7	10	5	6	18.5	48.4																						
																								12.8	12.2	11.8	13.5	15.1	18.5	20.5	18.9	15.0	11.6	8.9	6.3	5.3	5.2	6.7	5.2	5.5	6.2	7.3	9.9	12.7	14.0	14.3	12.2	Diurnal Average
																								39.4	34.2	40.9	42.0	39.9	40.3	46.0	43.3	49.9	48.4	25.7	20.7	11.6	15.2	18.8	16.7	12.2	19.7	21.6	38.8	45.2	43.5	40.2	36.9	Diurnal Maximum
C - Calibration																								A - Automated Daily Zero Span																								

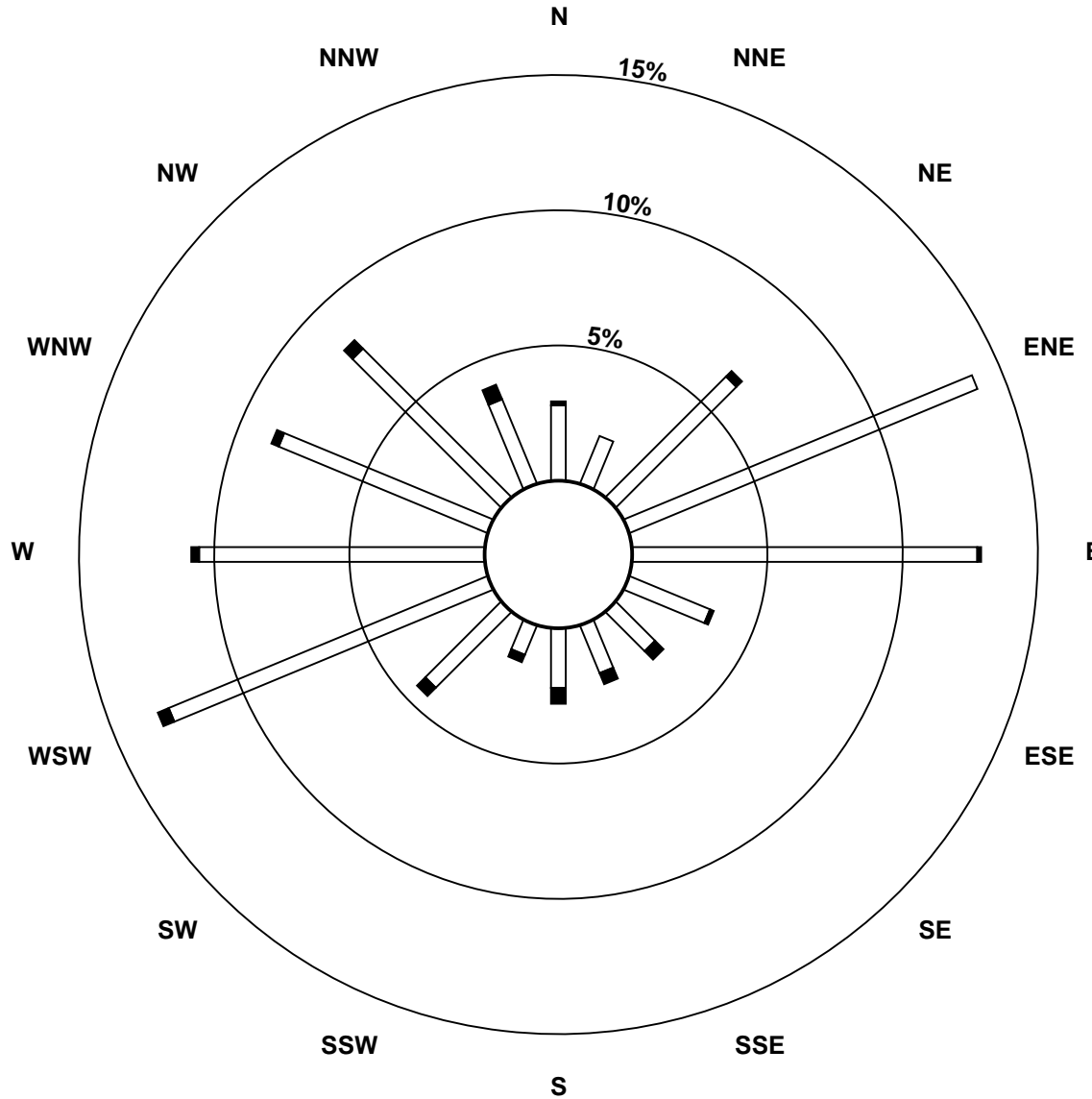
### Hourly Maximums

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

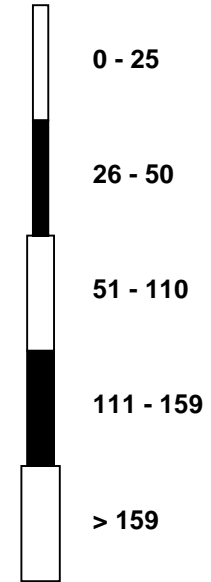


**Pollutant Rose**

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

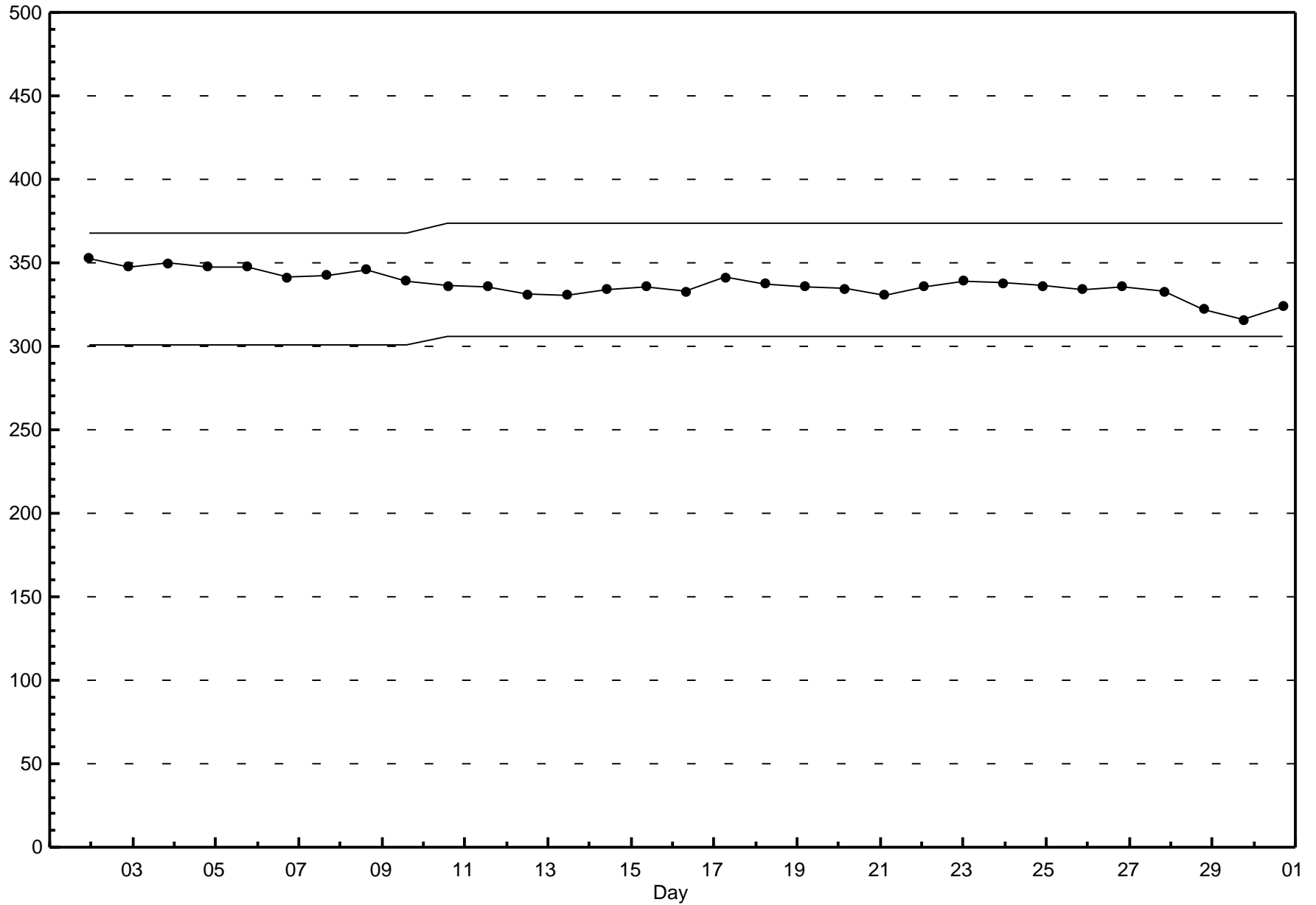


**Pollutant Classes (ppb)**



### Span Responses

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



## Hourly Averages

Nitrogen Oxide (NO) - ppb

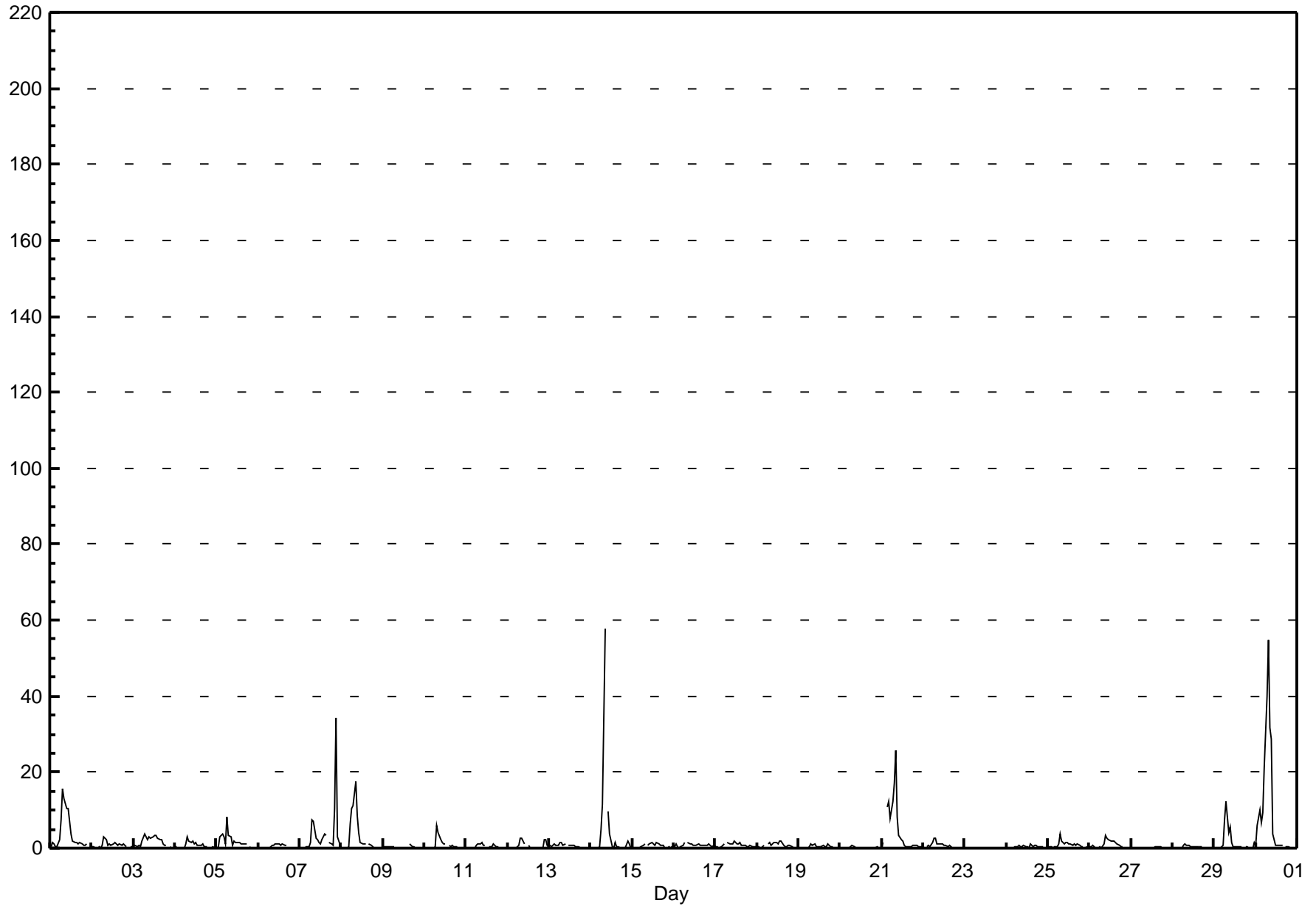
Henry Pirker - April 2014

Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 57.7 ppb on Apr 14 09:00	Maximum Daily Average: 9.5 ppb on Apr 30		Hours of Data:	682
Minimum Value: 0 ppb on Apr 5 01:00	Minimum Daily Average: 0.0 ppb on Apr 23		Hours of Missing Data:	38
Maximum Diurnal Average: 6.6 ppb at hour 9	Minimum Diurnal Average: 0.2 ppb at hour 1		Hours of Calibration:	38
Monthly Average: 1.51 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.5 Q <sub>3</sub> = 1.1 P <sub>90</sub> = 2.5 P <sub>99</sub> = 24.9		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-Apr	0	1	1	0	0	2	7	16	13	10	10	7	4	2	1	1	1	1	1	1	1	1	1	A	1	3.7	15.5
2-Apr	0	0	0	0	0	0	1	3	2	1	1	1	1	2	1	1	1	1	1	1	0	A	0	1	0.9	2.9	
3-Apr	0	1	0	1	0	2	4	3	2	3	3	3	3	3	3	2	2	1	1	1	A	0	0	0	1.7	3.7	
4-Apr	0	0	0	0	0	0	1	3	2	2	2	1	1	1	1	1	1	0	0	A	0	0	0	0	0.7	3.1	
5-Apr	0	0	3	4	3	1	8	3	3	1	2	2	2	1	1	1	1	A	0	0	0	0	0	0	1.7	8.2	
6-Apr	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	A	0	0	0	0	0	0	0.4	1.1	
7-Apr	0	0	0	0	0	0	1	8	7	2	2	1	1	2	4	4	A	2	1	1	10	34	3	1	3.7	34.3	
8-Apr	0	0	0	0	0	7	10	11	17	9	4	1	1	1	1	A	1	1	1	0	0	0	0	0	2.9	17.4	
9-Apr	0	0	0	0	0	0	1	C	C	C	C	C	C	C	A	1	1	1	0	0	0	0	0	0	--	0.9	
10-Apr	0	0	0	0	0	0	0	6	4	2	2	1	1	A	1	1	1	1	0	0	0	0	0	0	0.8	5.9	
11-Apr	0	0	0	0	0	0	1	1	1	2	1	1	A	1	1	1	1	1	0	0	0	0	0	0	0.4	1.5	
12-Apr	0	0	0	0	0	0	1	3	3	2	1	A	1	0	0	0	0	0	0	0	0	2	2	1	0.6	2.6	
13-Apr	1	0	1	1	1	1	1	1	1	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0.5	1.4	
14-Apr	0	0	0	0	0	0	5	12	58	A	10	4	0	0	2	0	0	0	0	0	0	2	1	0	4.1	57.7	
15-Apr	0	0	0	0	0	0	1	1	A	1	1	1	1	1	2	1	1	1	1	0	0	0	0	0	0.6	1.6	
16-Apr	0	1	0	0	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.7	1.4	
17-Apr	0	0	0	0	1	1	A	2	1	1	1	2	1	1	1	1	1	1	0	0	1	1	0	0	0.8	1.7	
18-Apr	0	0	0	0	1	A	1	1	1	1	2	1	1	2	2	1	0	0	1	1	0	0	0	0	0.8	1.8	
19-Apr	0	0	0	0	A	0	0	1	1	1	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0.4	1.2	
20-Apr	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6	
21-Apr	0	1	A	11	12	8	12	17	26	8	3	2	2	1	0	0	0	0	1	1	1	0	0	0	4.8	25.9	
22-Apr	0	A	1	1	0	1	3	3	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.7	2.6	
23-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1	
24-Apr	0	0	0	0	0	0	1	1	1	0	1	0	0	0	1	1	1	1	0	0	0	0	A	0	0.4	1.2	
25-Apr	0	0	0	0	0	0	1	4	2	1	1	1	1	1	1	1	1	1	1	0	0	A	0	0	0.9	3.7	
26-Apr	0	0	1	0	0	0	0	0	1	3	3	2	2	2	2	1	1	1	0	0	A	0	0	0	0.9	3.3	
27-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0.1	0.5	
28-Apr	0	0	0	0	0	0	1	1	1	1	0	1	1	0	0	0	0	0	A	0	0	0	0	0	0.3	1.2	
29-Apr	0	0	0	0	0	1	7	12	4	6	2	0	0	0	1	0	0	A	0	0	0	0	0	1	1.6	12.5	
30-Apr	1	6	10	7	9	21	40	55	32	29	4	1	1	1	1	1	A	1	0	0	0	0	0	0	9.5	54.9	

0.2	0.4	0.6	0.9	1.0	1.6	3.8	6.0	6.6	3.2	2.1	1.4	1.1	0.9	1.0	0.8	0.7	0.6	0.4	0.3	0.6	1.5	0.3	0.2	Diurnal Average	
0.9	5.9	10.1	10.8	12.2	21.3	40.1	54.9	57.7	28.8	10.5	7.1	3.8	3.5	3.7	3.5	2.2	1.5	1.1	0.9	10.4	34.3	3.0	1.3	Diurnal Maximum	

C - Calibration                      A - Automated Daily Zero Span



## Hourly Maximums

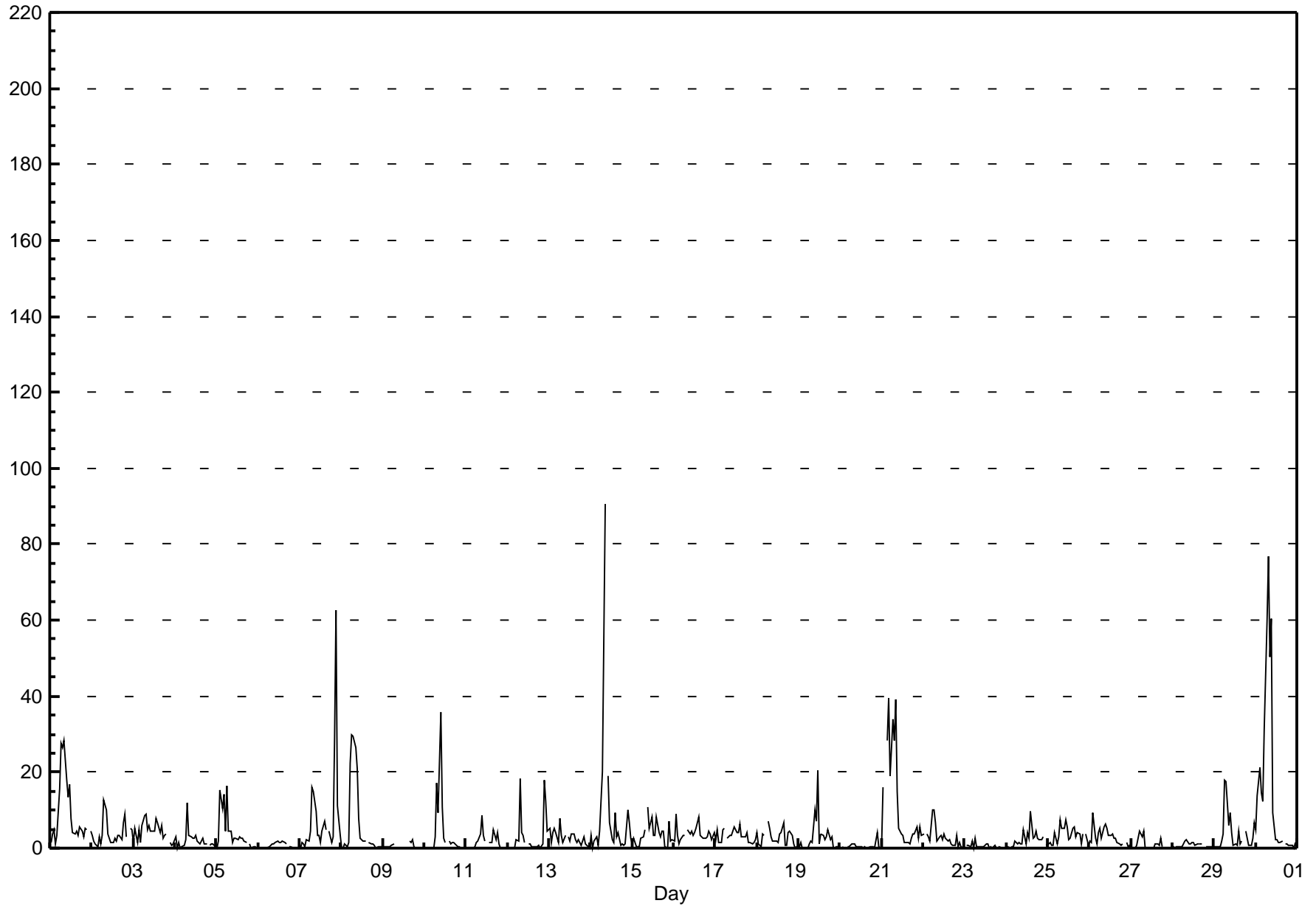
Nitrogen Oxide (NO) - ppb

Henry Pirker - April 2014

Maximum Value: 90.6 ppb on Apr 14 09:00		Maximum Daily Average: 16.1 ppb on Apr 30		Hours in Service: 720																							
Minimum Value: 0 ppb on Apr 20 21:00		Minimum Daily Average: 0.5 ppb on Apr 20		Hours of Data: 682																							
Maximum Diurnal Average: 12.0 ppb at hour 8		Minimum Diurnal Average: 1.5 ppb at hour 1		Hours of Missing Data: 38																							
Monthly Average: 4.13 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.6 Median = 2.0 Q <sub>3</sub> = 4.0 P <sub>90</sub> = 9.0 P <sub>99</sub> = 36.0		Hours of Calibration: 38																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	1	4	5	1	3	16	28	26	28	18	13	17	8	4	4	5	3	5	5	3	5	5	A	4	9.2	28.5	
2-Apr	3	2	1	1	3	1	3	13	10	4	3	1	2	2	2	3	3	2	7	9	3	A	5	5	3.8	12.7	
3-Apr	1	5	2	5	2	6	9	9	5	6	5	5	4	8	7	4	6	2	3	4	A	1	1	1	4.4	9.0	
4-Apr	3	0	2	0	0	1	2	12	3	3	3	2	3	2	1	2	2	1	1	A	1	1	1	1	2.1	11.8	
5-Apr	0	2	15	10	14	4	16	5	5	2	3	3	2	3	2	3	2	2	A	1	0	1	1	0	4.1	16.4	
6-Apr	0	0	0	0	0	0	1	1	1	1	2	2	2	1	2	2	1	A	1	0	0	0	0	0	0.7	2.0	
7-Apr	0	1	1	1	2	2	4	16	15	10	4	4	1	5	7	5	A	4	2	3	29	63	11	3	8.4	62.6	
8-Apr	0	0	1	1	1	22	30	30	27	21	8	2	2	2	2	A	2	2	1	1	1	0	0	0	6.7	29.8	
9-Apr	0	0	0	0	0	1	1	C	C	C	C	C	C	C	A	2	1	2	1	0	0	0	0	0	--	2.3	
10-Apr	0	0	0	0	0	0	3	17	9	36	11	3	2	A	2	1	1	1	1	0	0	0	0	0	3.9	35.9	
11-Apr	0	0	0	0	0	1	1	2	4	8	3	2	A	1	1	1	5	2	4	1	0	0	0	0	1.7	8.5	
12-Apr	0	0	0	0	0	2	2	18	4	3	2	A	1	1	1	1	0	0	1	0	1	18	12	5	3.2	18.1	
13-Apr	5	1	4	5	4	1	8	3	2	3	A	3	2	4	4	2	1	2	1	2	3	1	1	0	2.8	7.9	
14-Apr	3	0	2	3	1	5	12	20	91	A	19	7	2	1	9	3	4	1	1	1	1	10	7	3	8.9	90.6	
15-Apr	1	2	0	0	0	2	3	5	A	11	5	8	3	3	8	4	3	4	4	1	0	7	2	2	3.6	10.6	
16-Apr	2	9	3	1	2	3	3	A	5	4	4	3	4	5	8	3	3	3	2	3	5	4	2	4	3.8	9.0	
17-Apr	2	5	2	1	5	5	A	3	3	3	5	6	4	4	6	3	3	3	4	1	2	1	1	2	3.2	6.4	
18-Apr	4	1	1	4	3	A	7	5	3	2	2	2	4	4	7	1	1	4	5	3	1	0	1	1	2.8	7.2	
19-Apr	0	2	0	0	A	0	1	2	1	10	7	21	1	4	3	2	3	5	2	3	0	0	1	1	3.0	20.5	
20-Apr	0	0	0	A	0	0	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	4	0	0	0.5	4.2	
21-Apr	0	16	A	28	40	19	34	28	39	15	5	4	3	1	2	2	1	3	4	4	6	3	6	3	11.5	39.5	
22-Apr	4	A	4	3	2	10	10	7	2	3	3	2	4	3	2	2	1	1	1	3	0	2	0	0	3.0	10.2	
23-Apr	A	1	1	0	2	0	3	0	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	A	0.5	2.5	
24-Apr	0	0	0	1	1	2	1	1	1	1	5	1	4	2	10	3	3	4	3	2	2	3	A	1	2.2	9.5	
25-Apr	1	1	1	1	4	1	3	7	5	5	7	5	2	3	5	6	3	4	4	1	4	A	4	1	3.4	7.5	
26-Apr	2	2	9	3	1	4	5	3	6	6	5	3	3	4	3	3	2	1	1	1	A	1	0	1	3.0	9.3	
27-Apr	0	0	0	1	3	5	3	4	0	0	0	0	0	0	1	1	1	3	0	A	0	0	0	0	0.9	4.5	
28-Apr	0	0	0	0	0	0	1	2	2	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.8	2.3	
29-Apr	0	0	0	0	2	4	18	17	6	9	4	1	1	1	4	1	2	A	5	2	1	1	3	7	3.9	17.9	
30-Apr	5	14	21	14	12	31	60	77	51	60	9	2	2	1	1	2	A	1	1	1	1	1	0	1	16.1	76.9	
		1.5	2.4	2.6	2.9	3.7	5.2	9.4	12.0	11.7	8.8	5.0	4.0	2.4	2.6	3.6	2.5	2.1	2.2	2.2	1.9	2.4	4.6	2.1	1.6	Diurnal Average	
		5.2	16.1	21.4	28.2	39.5	31.4	59.6	76.9	90.6	60.4	18.9	20.5	7.8	7.8	9.5	6.8	5.9	5.5	6.7	8.8	29.2	62.6	12.3	6.6	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

### Hourly Maximums

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



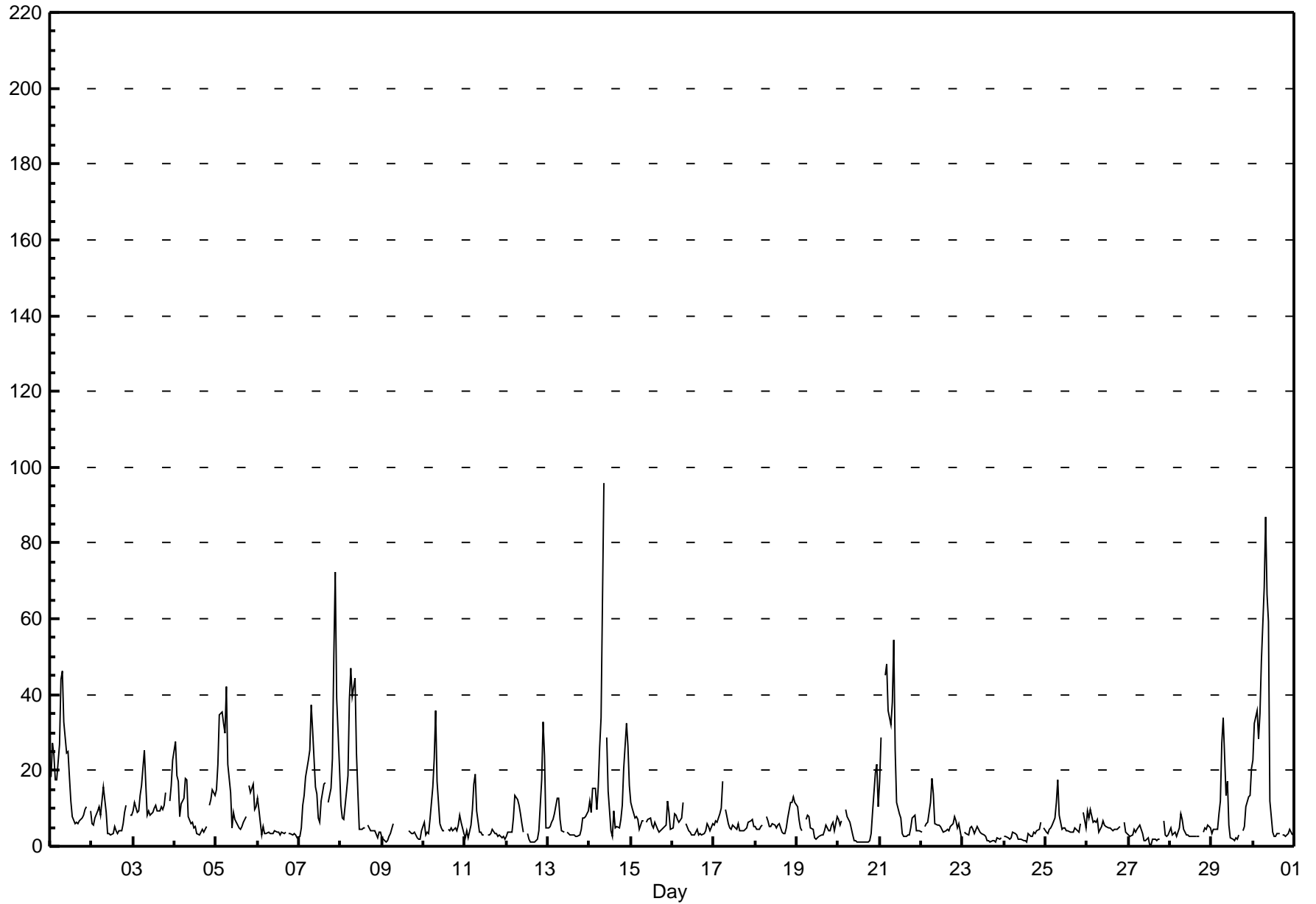


## Hourly Averages

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

Henry Pirker - April 2014

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 95.7 ppb on Apr 14 09:00      Maximum Daily Average: 23.2 ppb on Apr 30		Hours in Service: 720 Hours of Data: 682 Hours of Missing Data: 38 Hours of Calibration: 38 Percent Operational Time: 100.0																									
Minimum Value: 0 ppb on Apr 27 14:00 Maximum Diurnal Average: 19.4 ppb at hour 8 Monthly Average: 8.91 ppb		Minimum Daily Average: 2.8 ppb on Apr 27 Minimum Diurnal Average: 3.9 ppb at hour 17 Percentiles: P <sub>1</sub> = 1.0 P <sub>10</sub> = 2.4 Q <sub>1</sub> = 3.5 Median = 5.1 Q <sub>3</sub> = 9.5 P <sub>90</sub> = 18.1 P <sub>99</sub> = 52.8																									
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-Apr	18	27	24	17	18	27	44	46	33	25	25	18	12	8	6	6	6	7	8	8	10	10	A	9	18.0	46.3	
2-Apr	6	6	7	9	10	8	12	16	9	3	3	3	3	5	4	3	4	4	6	9	11	A	8	8	6.9	15.6	
3-Apr	9	12	9	9	13	16	26	16	8	9	8	9	10	11	9	9	10	10	11	14	A	12	16	23	12.2	25.5	
4-Apr	28	19	17	8	11	13	18	18	8	6	6	5	5	3	3	4	5	4	5	A	11	12	15	13	10.2	27.7	
5-Apr	15	22	35	35	32	30	42	22	14	5	9	7	5	5	5	5	6	8	A	16	14	16	10	11	16.0	42.1	
6-Apr	13	10	3	5	3	3	4	3	3	3	4	4	4	3	4	3	4	A	3	3	3	3	3	2	4.1	12.8	
7-Apr	2	5	11	13	18	23	25	37	31	16	14	7	6	12	16	17	A	12	15	23	50	72	39	21	21.2	72.2	
8-Apr	11	8	7	15	19	39	47	40	25	14	4	4	5	5	A	4	6	4	4	4	4	2	4	4	13.8	46.8	
9-Apr	2	2	1	2	3	3	6	C	C	C	C	C	C	C	A	5	4	4	3	3	4	2	2	2	4	--	6.0
10-Apr	6	3	4	3	7	16	23	36	17	6	5	4	4	A	5	4	5	4	5	4	6	8	6	3	8.0	35.9	
11-Apr	2	4	2	6	10	17	19	9	4	4	3	3	A	3	3	4	3	3	3	3	3	2	3	2	5.0	19.1	
12-Apr	2	4	4	4	8	13	12	11	9	6	4	A	3	2	1	1	1	1	2	4	18	33	24	5	7.4	32.7	
13-Apr	5	5	6	7	9	13	13	7	4	4	A	4	3	3	3	3	3	3	3	5	7	7	8	9	5.8	12.8	
14-Apr	12	9	15	15	10	16	26	34	96	A	29	15	4	3	9	5	5	5	7	11	21	32	27	16	18.2	95.7	
15-Apr	12	10	7	8	7	4	7	7	A	6	7	8	6	5	6	4	4	4	4	5	5	12	9	4	6.6	12.0	
16-Apr	5	8	8	7	6	7	11	A	6	4	4	3	3	3	5	3	3	3	3	4	6	5	4	6	5.2	11.4	
17-Apr	6	7	6	9	10	17	A	10	6	5	4	5	5	5	6	4	4	4	4	5	6	7	7	5	6.4	17.1	
18-Apr	5	4	5	5	6	A	8	7	5	5	6	5	5	6	6	4	3	3	5	8	12	12	13	12	6.4	12.9	
19-Apr	10	7	5	4	A	7	8	8	5	4	2	2	2	3	3	3	4	5	4	4	6	6	4	8	5.0	10.4	
20-Apr	7	6	7	A	10	8	7	6	3	2	1	1	1	1	1	1	1	1	1	3	9	19	22	10	5.6	21.7	
21-Apr	17	29	A	45	48	36	32	38	54	25	11	8	7	3	2	3	3	3	5	7	8	4	4	4	17.3	54.3	
22-Apr	4	A	5	6	6	12	18	14	6	6	6	5	4	4	4	4	4	5	6	8	7	5	6	2	6.4	17.9	
23-Apr	A	4	3	3	5	5	4	3	5	4	4	3	3	3	2	1	1	1	1	1	2	2	2	A	2.9	5.3	
24-Apr	3	3	2	2	2	4	4	3	2	2	2	2	2	1	3	2	3	4	3	4	5	6	A	5	2.9	6.2	
25-Apr	4	4	4	5	5	8	11	18	8	4	5	5	4	4	4	4	4	5	4	4	6	A	9	5	5.7	17.6	
26-Apr	9	8	10	6	7	6	7	4	5	7	6	5	5	5	5	4	4	4	5	5	A	6	4	3	5.6	9.7	
27-Apr	3	2	3	4	4	4	5	4	3	2	2	2	1	0	2	2	1	2	2	A	7	3	2	3	2.8	6.7	
28-Apr	5	3	4	4	3	5	9	7	5	3	3	3	3	3	3	3	2	3	A	4	5	4	5	5	3.9	8.7	
29-Apr	4	4	4	4	9	12	27	34	14	17	6	2	2	2	2	2	3	A	4	5	10	13	13	20	9.3	34.1	
30-Apr	23	33	36	28	35	49	68	87	66	59	12	4	3	3	3	3	A	3	3	3	3	4	4	3	23.2	86.8	
																								Diurnal Average	Diurnal Maximum		
8.6 9.1 8.8 10.0 11.5 14.5 18.7 19.4 16.9 9.5 7.3 5.2 4.3 3.9 4.5 4.0 3.9 4.2 4.7 6.3 9.2 11.5 9.7 7.8 27.7 32.6 35.7 45.2 48.0 48.8 68.1 86.8 95.7 59.2 28.6 18.4 12.0 11.9 16.3 16.6 10.4 11.6 15.3 23.3 50.4 72.2 39.1 22.9																								Diurnal Average	Diurnal Maximum		
C - Calibration      A - Automated Daily Zero Span																											

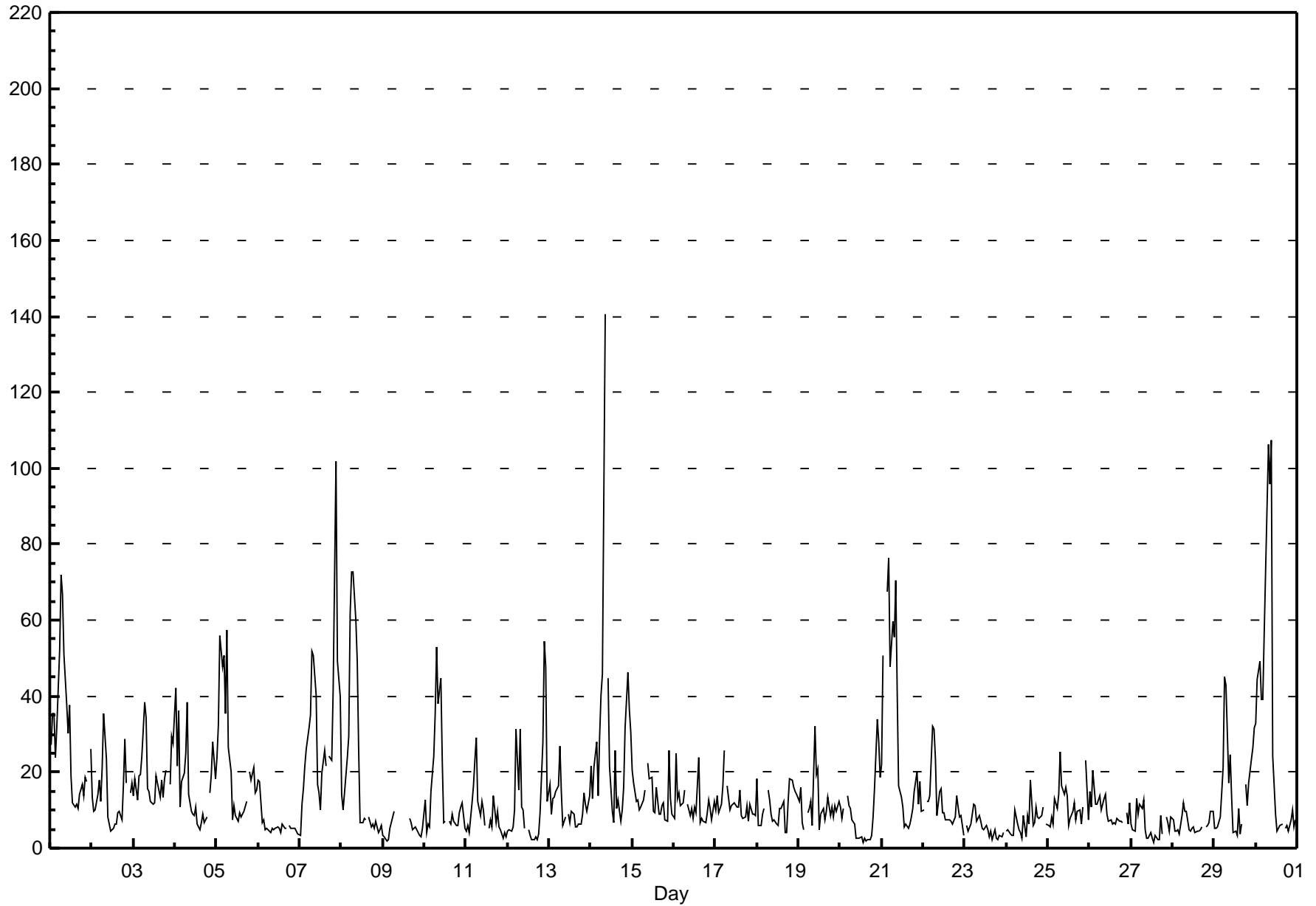


## Hourly Maximums

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

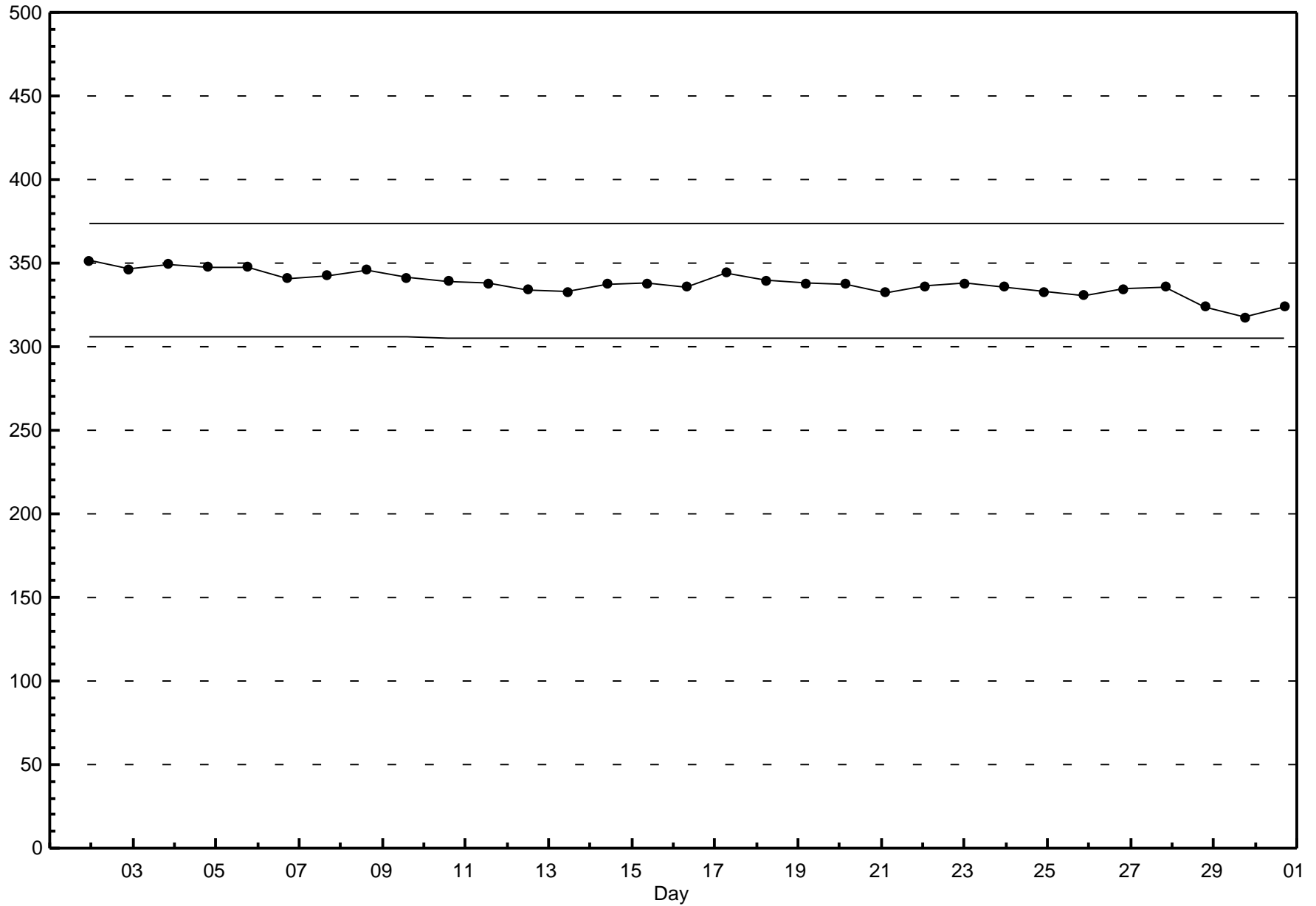
Henry Pirker - April 2014

Maximum Value: 140.5 ppb on Apr 14 09:00		Maximum Daily Average: 33.1 ppb on Apr 30		Hours in Service: 720																																												
Minimum Value: 1 ppb on Apr 27 14:00		Minimum Daily Average: 5.5 ppb on Apr 23		Hours of Data: 682																																												
Maximum Diurnal Average: 30.3 ppb at hour 8		Minimum Diurnal Average: 7.5 ppb at hour 17		Hours of Missing Data: 38																																												
Monthly Average: 15.08 ppb		Percentiles: P <sub>1</sub> = 2.3 P <sub>10</sub> = 4.4 Q <sub>1</sub> = 6.4 Median = 10.1 Q <sub>3</sub> = 16.9 P <sub>90</sub> = 31.8 P <sub>99</sub> = 72.0		Hours of Calibration: 38																																												
Percent Operational Time: 100.0																																																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Apr	27	36	36	24	32	52	72	67	51	38	30	38	19	12	11	12	10	14	17	14	19	17	A	26	29.2	72.1																						
2-Apr	14	10	10	14	18	12	21	35	23	8	6	4	5	6	7	9	10	7	17	29	17	A	15	17	13.7	35.3																						
3-Apr	14	18	13	19	20	24	38	34	16	15	12	12	12	19	17	13	18	13	18	21	A	17	29	28	19.1	38.2																						
4-Apr	42	22	36	11	18	20	25	38	14	10	9	9	11	6	5	7	9	7	8	A	15	19	28	18	16.8	42.1																						
5-Apr	24	33	56	48	51	36	57	26	20	8	11	9	7	9	8	9	10	12	A	20	18	21	15	15	22.7	57.5																						
6-Apr	18	18	7	7	5	5	4	4	5	5	5	6	5	4	6	5	5	A	6	5	5	5	5	4	6.3	17.8																						
7-Apr	4	11	16	22	26	32	35	52	51	40	17	14	10	20	26	22	A	24	23	42	72	102	49	40	32.6	101.9																						
8-Apr	14	10	14	24	29	62	73	73	60	49	26	7	7	8	7	A	8	6	6	5	7	4	5	6	22.2	72.8																						
9-Apr	3	3	2	2	5	7	10	C	C	C	C	C	C	C	A	7	8	7	5	5	6	4	3	3	5	--	9.8																					
10-Apr	13	4	6	5	15	24	36	53	38	45	23	7	7	A	7	6	9	7	6	6	9	11	12	5	15.4	53.1																						
11-Apr	4	6	4	12	16	23	29	12	8	12	10	6	A	5	7	5	14	7	10	5	5	2	4	3	9.2	28.9																						
12-Apr	4	5	4	6	10	31	15	31	11	10	5	A	5	3	2	2	3	2	4	9	28	55	48	12	13.4	54.6																						
13-Apr	17	9	13	13	15	16	27	15	6	8	A	9	7	10	9	6	6	6	6	9	15	11	10	14	11.2	26.8																						
14-Apr	22	13	21	28	14	29	40	46	141	A	45	22	10	7	26	10	13	7	10	16	32	46	36	30	28.8	140.5																						
15-Apr	20	17	12	13	10	11	13	15	A	22	18	19	10	9	16	9	9	11	12	8	7	26	13	9	13.4	25.7																						
16-Apr	8	25	13	15	11	12	15	A	12	8	11	8	11	9	24	7	8	7	7	9	13	10	7	12	11.4	24.8																						
17-Apr	10	14	9	12	16	26	A	17	10	11	12	12	11	11	15	8	8	8	11	7	12	9	9	9	11.6	25.9																						
18-Apr	18	6	6	9	10	A	15	13	9	7	8	7	6	10	11	12	4	4	12	18	18	16	15	14	10.8	18.4																						
19-Apr	12	16	7	5	A	9	11	12	6	32	19	21	5	9	10	7	10	13	9	11	8	11	10	12	11.6	32.1																						
20-Apr	11	8	11	A	14	11	10	7	6	3	3	3	3	2	3	2	2	2	3	8	16	34	28	19	9.0	33.9																						
21-Apr	22	51	A	67	76	48	60	55	71	41	16	13	11	5	6	5	6	8	10	15	20	12	18	10	28.1	76.4																						
22-Apr	10	A	12	12	14	32	31	24	8	15	16	9	9	7	7	8	7	6	8	14	11	8	9	3	12.2	32.1																						
23-Apr	A	6	5	6	9	12	11	7	9	7	5	5	6	5	3	4	2	5	3	2	3	3	4	A	5.5	11.6																						
24-Apr	4	5	4	4	4	10	6	5	4	3	9	3	9	6	18	6	7	11	8	8	9	11	A	7	6.9	18.0																						
25-Apr	6	5	8	6	13	10	14	25	16	14	16	14	6	8	10	12	8	10	10	6	11	A	23	8	11.3	25.2																						
26-Apr	15	11	21	12	12	13	14	10	13	14	9	7	7	6	7	6	8	7	7	7	A	9	6	12	10.1	20.6																						
27-Apr	6	5	5	13	9	11	10	13	5	3	2	4	3	1	3	2	2	8	4	A	8	7	5	8	6.0	12.9																						
28-Apr	7	5	4	5	4	8	12	10	10	5	5	6	4	4	5	5	6	A	A	5	6	7	10	10	6.4	12.0																						
29-Apr	5	5	6	8	15	21	45	43	17	24	14	4	3	11	4	6	A	17	11	17	24	26	32	15.8	45.2																							
30-Apr	33	44	49	39	39	57	90	106	96	107	24	9	4	5	6	6	A	5	6	4	7	10	5	7	33.1	107.5																						
																								14.1	14.5	14.1	15.9	18.2	23.0	29.0	30.3	26.3	20.2	13.8	10.1	7.7	7.6	10.1	7.6	7.5	8.2	9.4	11.5	14.7	18.2	16.0	13.6	Diurnal Average
																								42.1	50.6	56.0	67.4	76.4	62.1	90.0	106.1	140.5	107.5	44.6	37.6	19.2	19.7	25.7	21.7	17.9	24.2	23.1	41.6	72.1	101.9	49.4	40.1	Diurnal Maximum
C - Calibration																								A - Automated Daily Zero Span																								



### Span Responses

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



## Hourly Averages

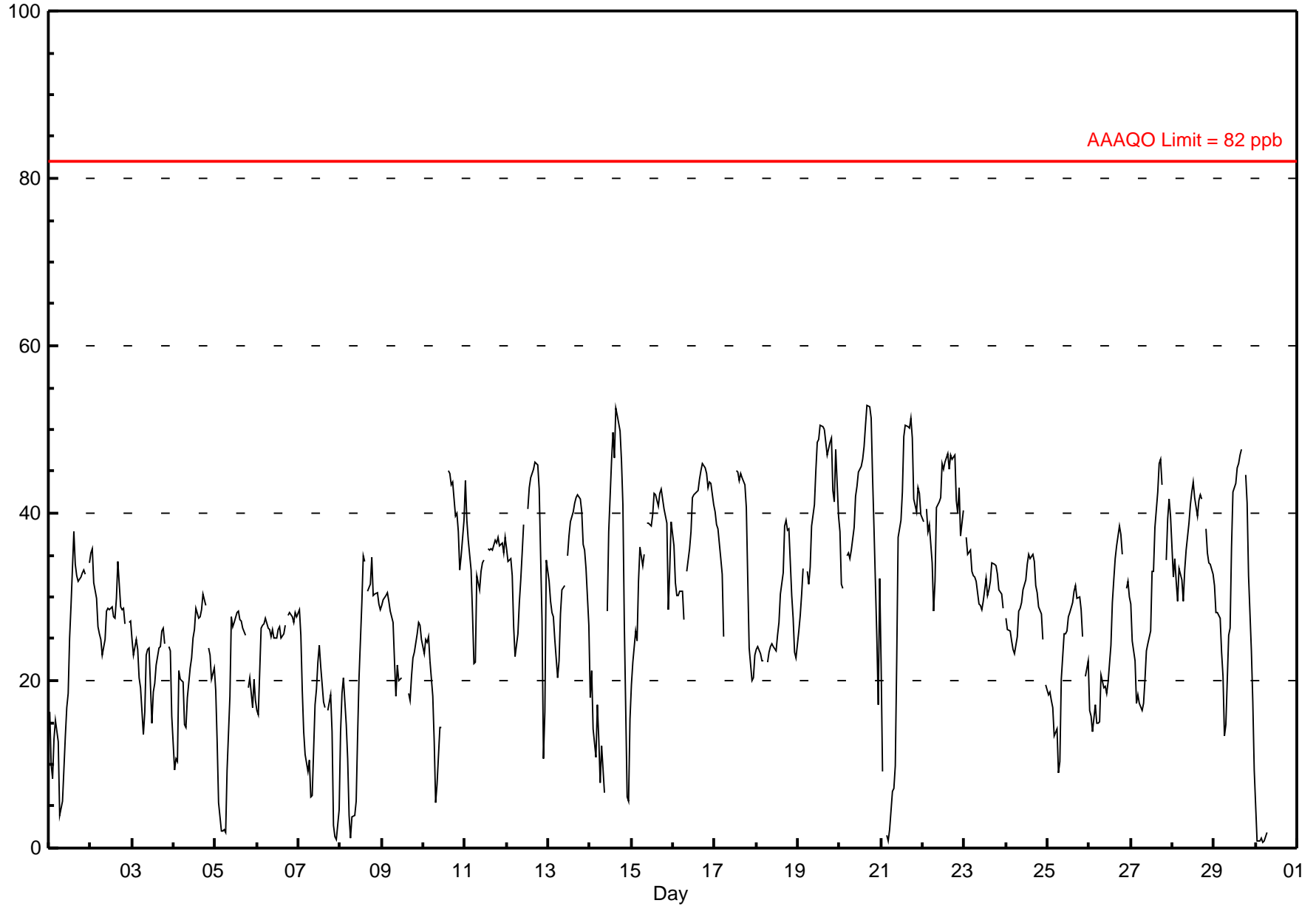
Ozone (O<sub>3</sub>) - ppb

Henry Pirker - April 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 52.9 ppb on Apr 20 17:00	Maximum Daily Average: 41.4 ppb on Apr 19		Hours of Data:	665
Minimum Value: 1 ppb on Apr 30 05:00	Minimum Daily Average: 14.2 ppb on Apr 7		Hours of Missing Data:	55
Maximum Diurnal Average: 38.5 ppb at hour 17	Minimum Diurnal Average: 18.7 ppb at hour 7		Hours of Calibration:	37
Monthly Average: 28.96 ppb	Percentiles: P <sub>1</sub> = 1.1 P <sub>10</sub> = 13.9 Q <sub>1</sub> = 22.3 Median = 29.0 Q <sub>3</sub> = 37.7 P <sub>90</sub> = 43.8 P <sub>99</sub> = 50.5		Percent Operational Time:	97.5

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-Apr	16	10	8	13	15	13	4	5	6	13	17	18	25	29	38	34	33	32	32	33	33	33	A	34	21.5	37.8																						
2-Apr	35	36	32	30	26	26	25	23	25	28	29	28	29	28	27	30	34	29	29	29	27	A	27	27	28.6	35.8																						
3-Apr	25	23	25	24	20	19	14	16	23	24	24	15	19	20	22	24	24	26	26	24	A	24	24	16	21.7	26.3																						
4-Apr	9	11	10	21	20	20	15	14	18	22	23	25	26	29	27	28	28	30	29	A	24	23	20	22	21.5	30.3																						
5-Apr	19	13	5	2	2	2	2	9	18	28	26	27	28	28	27	27	26	25	A	19	20	17	20	18	17.8	28.3																						
6-Apr	16	16	26	27	27	27	26	26	25	26	25	25	26	26	25	26	27	A	28	28	28	27	28	28	25.6	28.2																						
7-Apr	28	25	19	14	11	9	11	6	6	17	19	22	24	22	17	17	A	16	18	14	3	1	1	5	14.2	28.5																						
8-Apr	14	18	20	15	11	4	1	4	4	6	13	20	29	35	34	A	31	32	35	30	30	31	29	29	20.6	35.0																						
9-Apr	29	30	30	30	30	28	27	22	18	22	20	20	M	M	A	19	18	20	23	20	23	26	27	27	25	24.5	30.5																					
10-Apr	23	25	25	25	22	18	13	5	8	14	14	C	C	C	A	45	45	43	44	40	40	38	33	35	39	28.3	45.0																					
11-Apr	44	39	37	33	28	22	22	33	31	33	34	34	A	36	36	36	36	37	37	37	36	36	35	37	34.3	43.9																						
12-Apr	36	34	35	32	26	23	26	29	32	35	39	A	41	43	44	45	46	46	46	43	27	11	16	34	34.3	46.0																						
13-Apr	32	29	28	28	25	20	22	28	31	31	A	35	37	39	40	41	42	42	42	40	36	36	33	27	33.3	42.1																						
14-Apr	18	21	14	11	17	13	8	12	7	A	28	38	46	50	47	53	52	50	46	41	27	6	6	15	27.2	52.6																						
15-Apr	19	22	26	25	32	36	34	35	A	39	39	38	40	42	42	41	42	43	42	40	39	28	33	39	35.5	42.8																						
16-Apr	36	32	30	30	31	31	27	A	33	36	38	42	42	42	43	44	45	46	45	45	43	44	44	41	38.7	46.0																						
17-Apr	40	39	38	35	33	25	A	34	C	C	C	C	45	45	44	45	44	43	41	32	24	20	20	23	35.3	45.0																						
18-Apr	24	24	23	22	22	A	22	23	24	24	24	24	25	27	30	33	39	39	38	38	30	27	23	23	27.4	39.1																						
19-Apr	26	28	30	33	A	33	32	34	38	41	45	48	49	51	50	50	48	47	48	49	43	41	48	40	41.4	50.6																						
20-Apr	38	32	31	A	35	35	35	36	38	42	43	45	46	47	48	51	53	53	51	44	38	25	17	32	39.7	52.9																						
21-Apr	22	9	A	2	1	2	7	7	10	22	37	39	43	49	51	50	50	51	49	42	40	43	42	40	30.8	51.4																						
22-Apr	39	A	40	38	39	34	28	32	41	41	42	46	45	46	47	45	47	46	47	41	40	43	37	40	41.1	47.2																						
23-Apr	A	37	35	36	33	32	32	32	29	29	28	30	32	30	31	32	34	34	34	33	31	30	29	A	32.0	37.1																						
24-Apr	28	26	26	25	24	23	25	28	29	29	31	32	34	35	34	35	34	31	30	29	28	25	A	19	28.7	35.1																						
25-Apr	18	19	18	17	13	14	9	10	20	26	26	26	28	28	29	31	31	30	30	29	25	A	21	22	22.6	31.4																						
26-Apr	16	16	14	17	15	15	15	21	19	19	18	20	24	29	32	35	36	38	38	35	A	31	32	30	24.6	38.5																						
27-Apr	29	25	22	17	18	17	16	17	20	24	24	26	33	33	38	43	46	47	43	A	34	39	42	40	30.2	46.5																						
28-Apr	32	35	32	30	33	32	29	33	36	39	41	43	44	42	40	41	42	42	A	38	35	34	34	33	36.5	43.7																						
29-Apr	31	28	28	27	23	20	13	15	25	26	36	43	43	45	46	47	48	A	45	41	32	24	18	9	31.1	47.5																						
30-Apr	5	1	1	1	1	1	2	M	M	M	M	M	M	M	M	M	M	M	R	M	M	M	M	M	--	5.1																						
																								25.8	24.2	24.5	22.7	21.9	20.6	18.7	21.1	22.7	27.3	29.0	31.1	34.7	36.1	37.0	37.3	38.5	37.8	37.4	34.8	31.0	28.1	27.4	28.1	Diurnal Average
																								43.9	39.2	40.5	37.8	38.6	36.0	34.5	35.6	40.6	42.0	45.1	48.4	48.8	50.6	50.5	52.6	52.9	52.7	51.4	49.0	43.1	43.7	47.6	41.0	Diurnal Maximum

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



## Hourly Maximums

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

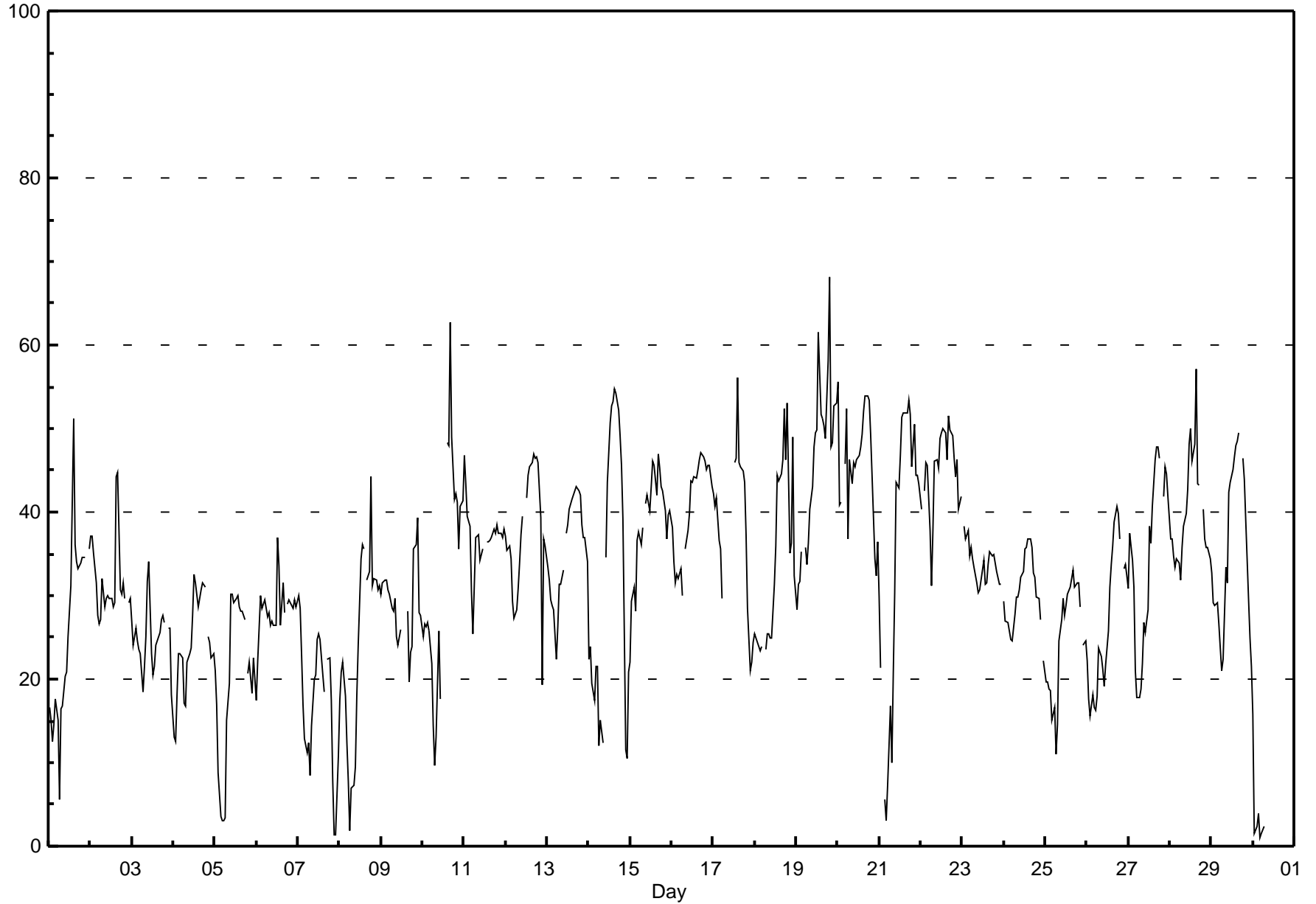
Henry Pirker - April 2014

Maximum Value: 68.2 ppb on Apr 19 20:00		Maximum Daily Average: 45.9 ppb on Apr 19		Hours in Service: 720																							
Minimum Value: 1 ppb on Apr 30 05:00		Minimum Daily Average: 17.2 ppb on Apr 7		Hours of Data: 665																							
Maximum Diurnal Average: 41.5 ppb at hour 17		Minimum Diurnal Average: 21.6 ppb at hour 7		Hours of Missing Data: 55																							
Monthly Average: 32.33 ppb		Percentiles: P <sub>1</sub> = 2.0 P <sub>10</sub> = 17.6 Q <sub>1</sub> = 24.9 Median = 31.9 Q <sub>3</sub> = 41.1 P <sub>90</sub> = 46.8 P <sub>99</sub> = 55.5		Hours of Calibration: 37																							
				Percent Operational Time: 97.5																							
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-Apr	17	15	13	15	18	15	6	16	17	20	21	25	28	31	51	36	34	33	34	35	35	35	A	36	25.4	51.2	
2-Apr	37	37	35	32	28	27	27	32	29	30	30	30	30	29	29	44	45	31	30	32	30	A	29	30	31.7	44.7	
3-Apr	27	24	26	25	24	23	19	22	25	32	34	23	21	22	24	25	26	27	28	27	A	26	26	18	24.8	34.1	
4-Apr	13	13	18	23	23	23	17	17	22	23	24	28	33	32	29	30	31	32	31	A	25	24	23	23	24.1	32.6	
5-Apr	21	17	9	3	3	3	3	15	20	30	30	29	30	30	29	28	28	27	A	21	22	18	23	20	19.9	30.2	
6-Apr	18	22	30	29	29	30	28	28	27	27	26	26	37	34	26	31	28	A	29	29	29	28	29	29	28.2	37.0	
7-Apr	30	28	23	17	13	11	12	8	14	20	20	25	25	25	20	18	A	22	23	17	8	1	1	11	17.2	30.0	
8-Apr	17	21	22	18	12	8	2	7	7	9	18	24	34	36	36	A	32	33	44	31	32	32	31	31	23.4	44.3	
9-Apr	30	31	32	32	31	30	28	28	30	25	24	26	M	M	A	28	20	23	24	36	36	39	28	28	29.0	39.4	
10-Apr	25	27	26	27	26	22	14	10	13	26	18	C	C	C	48	48	63	49	42	42	41	36	41	41	32.5	62.7	
11-Apr	47	43	39	38	31	25	31	37	37	34	35	36	A	36	36	37	37	38	37	38	37	37	37	38	36.7	46.8	
12-Apr	37	35	36	34	29	27	28	31	34	37	40	A	42	44	45	46	47	46	47	46	39	19	37	36	37.5	46.9	
13-Apr	33	32	30	29	28	22	26	31	31	33	A	37	38	40	41	42	43	43	43	42	39	37	37	34	35.3	43.0	
14-Apr	22	24	19	17	22	22	12	15	12	A	35	44	51	53	53	55	54	52	49	46	39	12	10	21	32.1	54.7	
15-Apr	22	29	31	28	37	38	36	38	A	41	42	40	43	46	46	42	47	45	43	43	40	37	40	40	38.8	47.0	
16-Apr	38	34	32	33	32	33	30	A	36	38	40	44	44	44	44	45	46	47	47	46	45	46	46	43	40.5	47.1	
17-Apr	42	41	42	37	36	30	A	39	C	C	C	C	46	46	56	46	45	45	44	37	28	21	22	24	38.3	56.1	
18-Apr	25	25	24	23	24	A	24	25	25	25	31	36	44	44	45	46	52	46	53	35	36	49	32	34.6	53.0		
19-Apr	28	31	32	35	A	36	34	36	40	43	48	49	50	62	52	51	50	49	58	68	48	48	53	53	45.9	68.2	
20-Apr	56	41	41	A	46	52	37	46	43	46	45	46	47	48	49	52	54	54	53	49	44	34	32	36	45.8	55.6	
21-Apr	30	21	A	6	3	7	17	10	21	30	44	43	47	51	52	52	52	53	52	45	50	44	44	43	35.6	53.3	
22-Apr	40	A	43	46	46	38	31	38	46	46	45	49	49	50	50	46	51	50	49	46	44	46	40	42	44.9	51.4	
23-Apr	A	38	37	38	35	36	34	33	32	30	31	32	34	31	32	34	35	35	35	34	33	31	31	A	33.7	38.3	
24-Apr	29	27	27	26	25	25	28	30	30	31	32	33	36	36	37	37	36	33	32	30	30	27	A	22	30.2	36.7	
25-Apr	20	20	19	19	15	17	11	15	25	27	30	28	29	30	31	32	33	31	32	32	29	A	24	25	24.8	33.1	
26-Apr	22	18	16	18	17	16	18	24	23	21	19	22	26	31	34	36	39	41	40	37	A	33	34	32	26.7	40.7	
27-Apr	31	37	34	31	21	18	18	19	22	27	26	28	38	36	41	46	48	48	46	A	42	45	45	42	34.3	47.8	
28-Apr	37	37	35	33	34	34	32	36	38	40	43	48	50	46	48	57	43	43	A	40	37	36	36	34	39.9	57.1	
29-Apr	33	29	29	29	27	24	21	22	33	32	42	44	45	47	48	48	49	A	46	44	39	29	25	21	35.1	49.5	
30-Apr	16	2	2	4	1	1	2	M	M	M	M	M	M	M	M	M	M	M	R	M	M	M	M	M	--	15.8	
		29.1	27.6	27.6	25.6	24.6	23.8	21.6	25.3	27.1	30.5	32.1	34.2	38.0	39.3	40.4	40.6	41.5	40.1	38.8	35.4	31.9	32.3	31.7	Diurnal Average		
		55.6	43.4	42.6	45.9	45.8	52.3	36.8	46.3	46.1	46.3	47.8	49.4	50.7	61.6	56.1	57.1	62.7	53.8	58.1	68.2	50.5	48.3	52.8	53.1	Diurnal Maximum	
C - Calibration		R - Recovery					M - Maintenance					A - Automated Daily Zero Span															



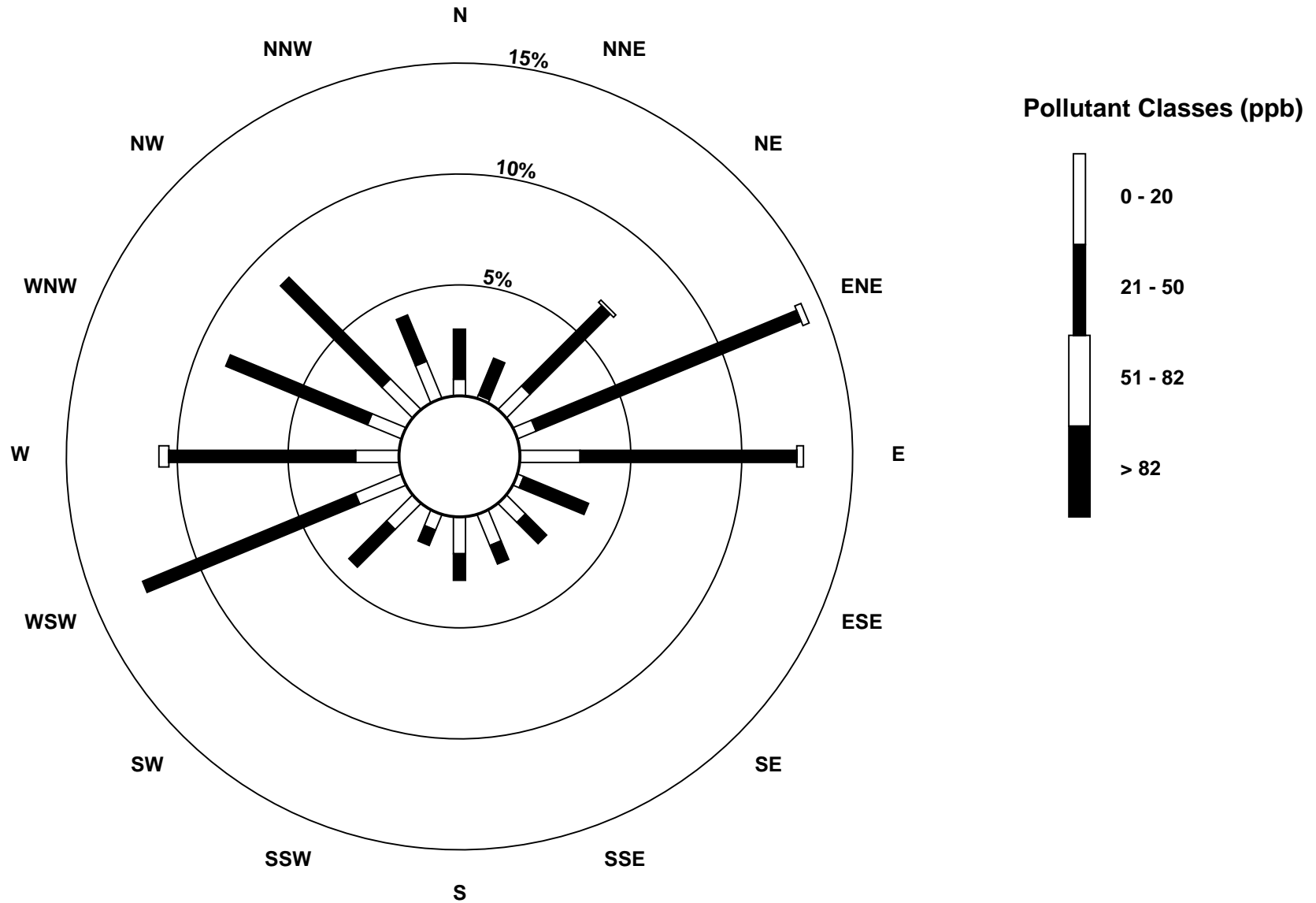
### Hourly Maximums

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



**Pollutant Rose**

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



## Eight Hour Running Averages

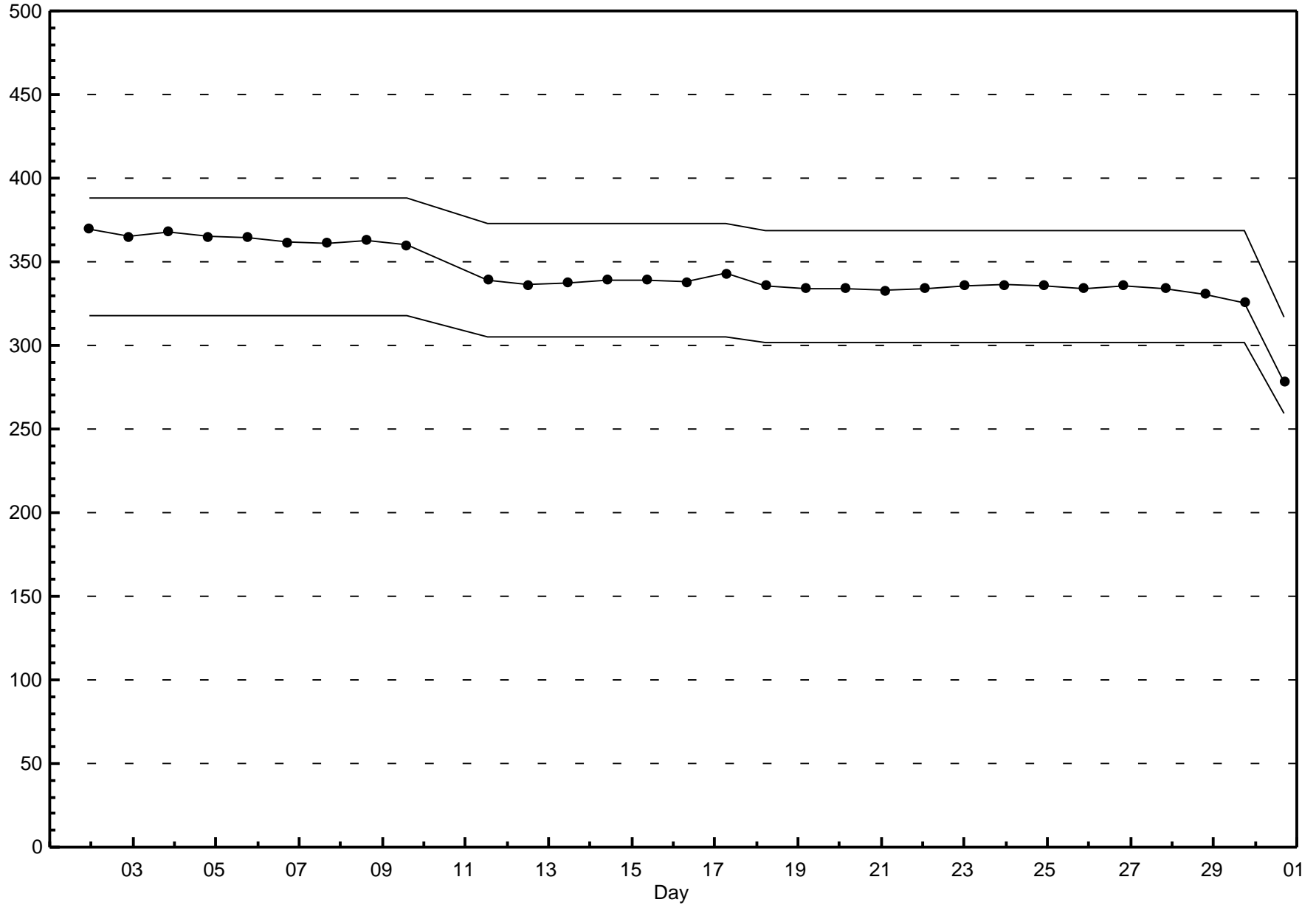
Ozone (O<sub>3</sub>) - ppb

Henry Pirker - April 2014

Maximum Value: 49.1 ppb on Apr 20 19:00																					Hours in Service:	720				
Minimum Value: 1.0 ppb on Apr 30 09:00																					Hours of Data:	685				
Percentiles: P <sub>1</sub> = 7.0 P <sub>10</sub> = 15.4 Q <sub>1</sub> = 22.5 Median = 29.2 Q <sub>3</sub> = 36.2 P <sub>90</sub> = 42.0 P <sub>99</sub> = 48.0																					Hours of Missing Data:	35				
																					Hours of Calibration:	14				
																					Percent Operational Time:	97.1				
Day	Hourly Period Ending At (MST)																								Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	15	15	14	14	14	13	11	11	9	10	11	11	13	15	19	22	26	28	30	32	33	33	33	33	33	33.4
2-Apr	33	34	34	33	32	31	30	29	28	27	26	26	27	27	27	28	29	29	29	29	29	29	29	29	29	33.7
3-Apr	27	27	26	25	24	24	22	21	21	21	20	19	19	19	20	21	21	22	22	23	24	24	25	23	27.4	
4-Apr	21	19	17	16	17	16	15	15	16	18	19	20	20	21	23	25	26	27	28	28	28	27	26	25	28.2	
5-Apr	24	21	18	16	13	11	8	7	7	9	11	14	18	21	24	26	27	27	27	26	25	23	22	21	27.3	
6-Apr	19	18	19	20	21	22	23	24	25	26	26	26	26	26	26	26	26	26	26	27	27	27	27	28	27.5	
7-Apr	28	28	26	25	23	20	18	15	13	12	12	13	14	16	17	18	20	20	20	18	15	12	10	8	27.8	
8-Apr	9	9	9	10	11	11	11	11	10	8	7	8	10	14	18	20	24	28	31	32	32	31	31	31	32.4	
9-Apr	30	30	30	30	30	29	29	28	27	26	25	23	23	22	N	N	N	N	N	N	N	21	22	23	24	30.5
10-Apr	24	25	25	25	25	24	22	20	18	16	15	14	12	N	N	N	N	N	N	N	43	42	41	40	39	42.8
11-Apr	39	38	38	37	36	35	33	32	31	30	30	30	30	32	34	34	35	35	36	36	36	36	36	36	39.0	
12-Apr	36	36	36	35	34	32	31	30	30	30	30	30	32	35	38	40	42	43	44	44	43	38	35	34	44.4	
13-Apr	32	30	28	26	25	27	27	27	26	27	26	27	29	32	34	36	38	40	40	40	40	40	39	37	40.4	
14-Apr	34	32	28	25	22	19	16	14	13	12	14	18	22	27	33	38	45	45	48	48	46	40	35	30	48.0	
15-Apr	26	23	20	18	19	23	26	29	30	32	34	36	37	38	39	40	40	41	41	42	41	40	39	38	41.6	
16-Apr	38	36	35	33	32	33	32	31	31	31	32	34	36	37	39	40	41	43	44	44	44	44	44	44	44.5	
17-Apr	43	43	42	40	39	37	36	35	34	N	N	N	N	N	N	N	N	44	44	42	40	37	34	31	44.4	
18-Apr	28	26	24	23	22	23	23	23	23	23	23	24	24	24	25	26	28	30	32	34	34	34	33	32	34.3	
19-Apr	31	29	28	28	27	28	29	31	33	34	37	39	40	42	45	47	48	49	49	49	48	47	47	46	49.0	
20-Apr	44	42	40	39	38	37	35	34	34	36	38	39	40	41	43	45	47	48	49	49	48	45	42	39	49.1	
21-Apr	35	30	27	21	15	12	11	7	5	7	11	16	21	27	32	38	43	46	48	48	48	47	46	45	48.1	
22-Apr	43	42	41	40	40	39	37	36	36	37	37	38	39	40	43	44	45	46	46	46	45	45	43	43	46.2	
23-Apr	42	41	39	38	37	36	35	34	33	32	31	31	31	30	30	30	31	31	32	32	32	32	32	32	42.2	
24-Apr	31	30	29	28	27	26	25	26	26	26	27	28	29	30	32	32	33	33	33	33	32	31	30	28	33.4	
25-Apr	26	24	22	21	18	17	16	15	15	16	17	18	20	22	24	27	28	29	29	29	29	29	28	27	29.4	
26-Apr	25	23	20	19	17	17	16	16	16	17	17	18	19	21	23	25	27	29	32	33	35	35	35	34	35.0	
27-Apr	33	31	29	27	26	24	22	20	19	19	19	20	22	24	27	30	33	36	39	40	41	41	42	42	41.9	
28-Apr	40	38	36	35	35	34	33	32	32	33	34	36	37	38	40	41	41	42	42	41	40	39	38	37	41.9	
29-Apr	35	33	33	31	30	28	26	23	23	22	23	25	28	31	35	39	42	44	45	45	43	40	36	31	45.2	
30-Apr	25	22	16	11	7	5	3	2	1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	24.8	
<div style="display: flex; justify-content: space-between;"> <span>44.2</span><span>42.5</span><span>41.6</span><span>40.4</span><span>40.1</span><span>38.9</span><span>36.8</span><span>35.7</span><span>36.0</span><span>36.6</span><span>37.7</span><span>38.7</span><span>40.0</span><span>42.2</span><span>44.5</span><span>46.6</span><span>47.8</span><span>48.5</span><span>49.1</span><span>49.0</span><span>48.3</span><span>47.1</span><span>46.8</span><span>45.5</span> </div> <p style="text-align: center;">Diurnal Maximums</p>																										
N - Not Valid																										

**Span Responses**

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



## Hourly Averages

## Carbon Monoxide (CO) - ppm

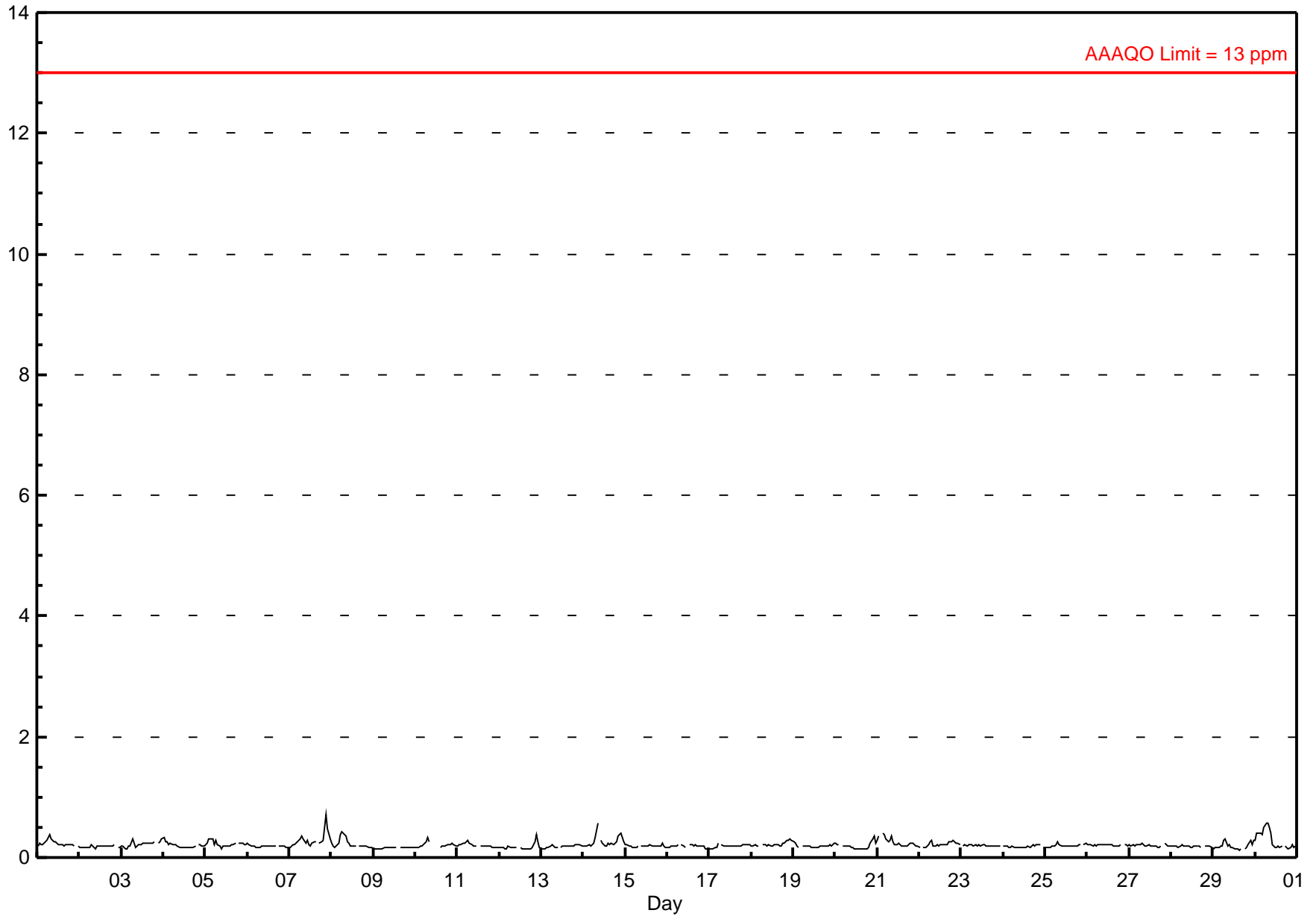
### Henry Pirker - April 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 0.71 ppm on Apr 7 22:00	Maximum Daily Average: 0.29 ppm on Apr 7		Hours of Data:	683
Minimum Value: 0.1 ppm on Apr 29 16:00	Minimum Daily Average: 0.16 ppm on Apr 9		Hours of Missing Data:	37
Maximum Diurnal Average: 0.25 ppm at hour 8	Minimum Diurnal Average: 0.19 ppm at hour 13		Hours of Calibration:	35
Monthly Average: 0.209 ppm	Percentiles: P <sub>1</sub> = 0.15 P <sub>10</sub> = 0.16 Q <sub>1</sub> = 0.18 Median = 0.20 Q <sub>3</sub> = 0.22 P <sub>90</sub> = 0.27 P <sub>99</sub> = 0.49		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-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.24	0.39
2-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.18	0.21
3-Apr	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.2	0.3	0.3	0.22	0.31
4-Apr	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.20	0.33
5-Apr	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.23	0.32
6-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.24
7-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.3	A	0.2	0.3	0.3	0.5	0.7	0.5	0.3	0.2	0.29	0.71
8-Apr	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.4	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	0.23	0.42
9-Apr	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	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.17
10-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	C	C	C	C	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.33
11-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.29
12-Apr	0.2	0.2	0.2	0.2	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	0.3	0.4	0.3	0.2	0.18	0.39
13-Apr	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	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.22
14-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.6	A	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.26	0.57
15-Apr	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.23
16-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	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	0.19	0.22
17-Apr	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	0.2	0.19	0.24
18-Apr	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.22	0.30
19-Apr	0.3	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	0.27
20-Apr	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.2	0.19	0.35
21-Apr	0.3	0.3	A	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25	0.40
22-Apr	0.2	A	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.22	0.28
23-Apr	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	0.2	A	0.20	0.22
24-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.18	0.20
25-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.20	0.26
26-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.21	0.22
27-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.20	0.24
28-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.19	0.20
29-Apr	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	A	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.19	0.30
30-Apr	0.3	0.4	0.4	0.4	0.4	0.5	0.6	0.6	0.5	0.4	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	0.29	0.57

0.20	0.21	0.20	0.20	0.21	0.22	0.25	0.25	0.23	0.20	0.20	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.20	0.21	0.23	0.25	0.22	0.21	Diurnal Average	
0.33	0.41	0.40	0.40	0.39	0.49	0.57	0.57	0.57	0.41	0.29	0.25	0.23	0.24	0.26	0.26	0.24	0.26	0.27	0.28	0.51	0.71	0.48	0.31	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 Maximums

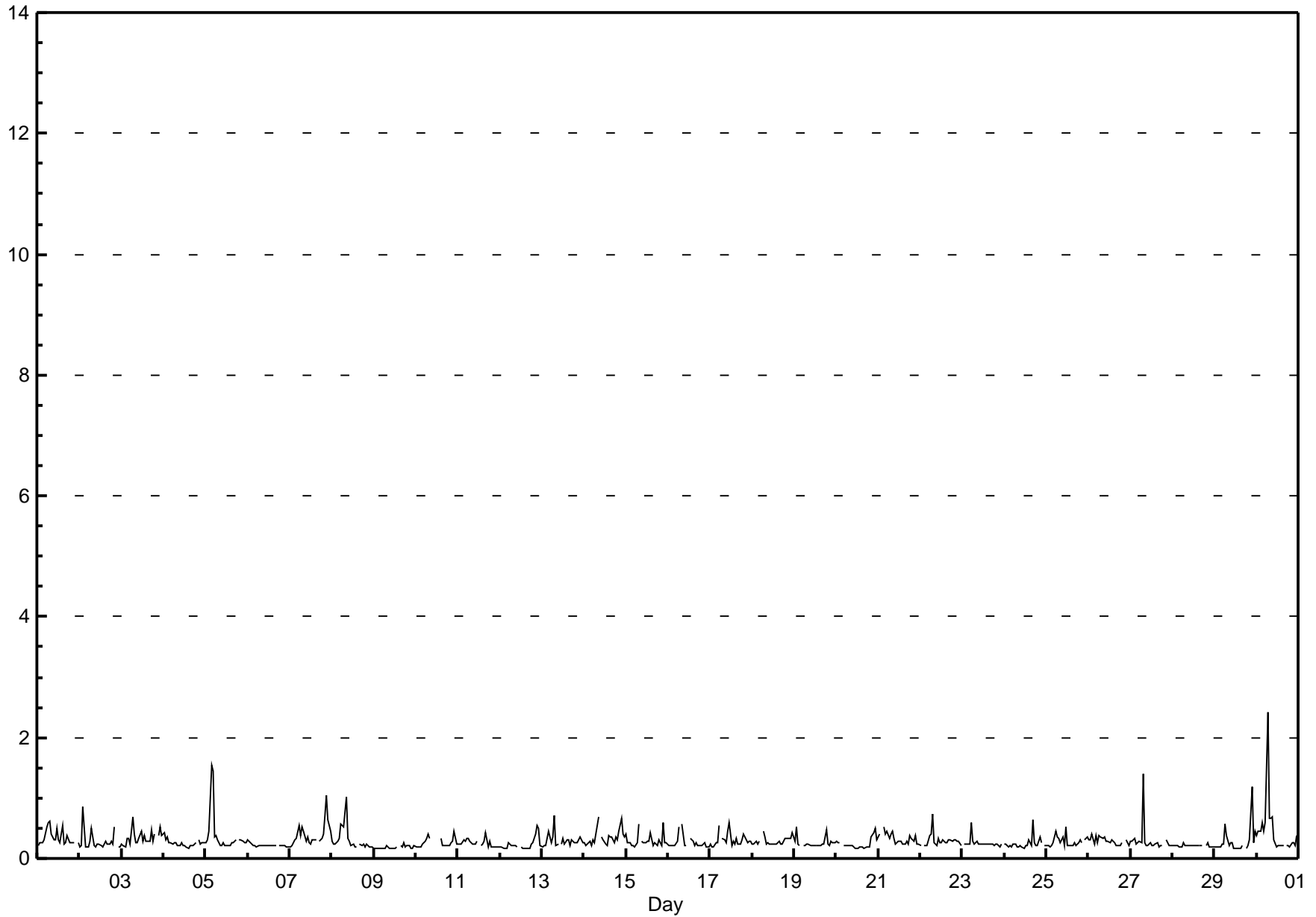
Carbon Monoxide (CO) - ppm

Henry Pirker - April 2014

Maximum Value: 2.43 ppm on Apr 30 07:00		Maximum Daily Average: 0.45 ppm on Apr 30		Hours in Service: 720																																												
Minimum Value: 0.2 ppm on Apr 29 19:00		Minimum Daily Average: 0.19 ppm on Apr 9		Hours of Data: 683																																												
Maximum Diurnal Average: 0.42 ppm at hour 8		Minimum Diurnal Average: 0.23 ppm at hour 13		Hours of Missing Data: 37																																												
Monthly Average: 0.288 ppm		Percentiles: P <sub>1</sub> = 0.16 P <sub>10</sub> = 0.19 Q <sub>1</sub> = 0.21 Median = 0.25 Q <sub>3</sub> = 0.30 P <sub>90</sub> = 0.43 P <sub>99</sub> = 1.03		Hours of Calibration: 35																																												
				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-Apr	0.2	0.3	0.3	0.3	0.3	0.5	0.6	0.6	0.4	0.3	0.3	0.5	0.3	0.3	0.5	0.2	0.3	0.4	0.3	0.3	0.3	0.3	A	0.2	0.34	0.62																						
2-Apr	0.2	0.2	0.9	0.2	0.2	0.2	0.3	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.5	A	0.2	0.2	0.28	0.86																						
3-Apr	0.2	0.2	0.2	0.3	0.3	0.2	0.7	0.4	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.5	0.3	0.4	A	0.4	0.5	0.4	0.34	0.69																						
4-Apr	0.4	0.3	0.4	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.3	0.2	0.3	0.3	0.25	0.42																					
5-Apr	0.3	0.3	0.5	1.5	1.4	0.3	0.4	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	A	0.3	0.3	0.3	0.3	0.3	0.38	1.53																						
6-Apr	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.30																						
7-Apr	0.2	0.2	0.3	0.3	0.3	0.5	0.4	0.5	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.3	A	0.3	0.3	0.4	0.7	1.0	0.6	0.5	0.40	1.04																						
8-Apr	0.3	0.2	0.2	0.3	0.3	0.6	0.5	0.5	1.0	0.3	0.3	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.31	1.03																						
9-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.27																						
10-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	C	C	C	C	A	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.2	0.26	0.44																						
11-Apr	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	A	0.2	0.2	0.3	0.4	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.25	0.42																						
12-Apr	0.2	0.2	0.2	0.2	0.2	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	0.3	0.4	0.5	0.5	0.2	0.23	0.54																						
13-Apr	0.2	0.2	0.2	0.3	0.5	0.3	0.4	0.7	0.2	0.2	A	0.2	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.29	0.70																						
14-Apr	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.4	0.7	A	0.4	0.3	0.2	0.2	0.4	0.3	0.4	0.3	0.3	0.3	0.5	0.7	0.4	0.3	0.34	0.70																						
15-Apr	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.6	A	0.3	0.2	0.3	0.3	0.3	0.4	0.2	0.3	0.2	0.2	0.3	0.2	0.6	0.3	0.3	0.29	0.58																						
16-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.5	A	0.6	0.2	0.2	M	M	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26	0.57																						
17-Apr	0.2	0.2	0.2	0.2	0.3	0.6	A	0.3	0.3	0.3	0.5	0.6	0.2	0.3	0.2	0.3	0.2	0.2	0.3	0.4	0.4	0.3	0.3	0.3	0.31	0.60																						
18-Apr	0.2	0.2	0.3	0.2	0.3	A	0.4	0.4	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.29	0.44																							
19-Apr	0.3	0.5	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	0.5	0.2	0.2	0.3	0.3	0.3	0.26	0.53																						
20-Apr	0.3	0.3	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.3	0.24	0.50																						
21-Apr	0.3	0.4	A	0.5	0.4	0.4	0.3	0.4	0.4	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.4	0.3	0.3	0.4	0.2	0.2	0.33	0.52																						
22-Apr	0.2	A	0.2	0.2	0.2	0.4	0.4	0.7	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	0.2	0.30	0.74																						
23-Apr	A	0.2	0.2	0.2	0.2	0.6	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	0.25	0.59																						
24-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.6	0.3	0.2	0.2	0.4	0.3	A	0.2	0.24	0.63																						
25-Apr	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.3	0.4	0.2	0.5	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3	A	0.3	0.3	0.3	0.27	0.52																						
26-Apr	0.3	0.3	0.4	0.2	0.4	0.3	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	A	0.3	0.3	0.2	0.29	0.40																						
27-Apr	0.3	0.3	0.3	0.2	0.3	0.3	0.3	1.4	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	A	0.3	0.3	0.2	0.2	0.29	1.40																						
28-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.21	0.25																						
29-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.6	0.4	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	1.2	0.3	0.5	0.28	1.17																						
30-Apr	0.4	0.5	0.5	0.6	0.5	0.6	2.4	0.7	0.7	0.7	0.3	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.2	0.2	0.4	0.45	2.43																						
																								0.25	0.26	0.27	0.30	0.31	0.33	0.42	0.42	0.33	0.26	0.26	0.27	0.23	0.24	0.26	0.24	0.26	0.25	0.26	0.26	0.31	0.36	0.30	0.27	Diurnal Average
																								0.42	0.53	0.86	1.53	1.45	0.60	2.43	1.40	1.03	0.70	0.46	0.60	0.32	0.38	0.54	0.35	0.63	0.48	0.48	0.41	0.71	1.17	0.65	0.46	Diurnal Maximum
C - Calibration																								M - Maintenance						A - Automated Daily Zero Span																		

**Hourly Maximums**

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

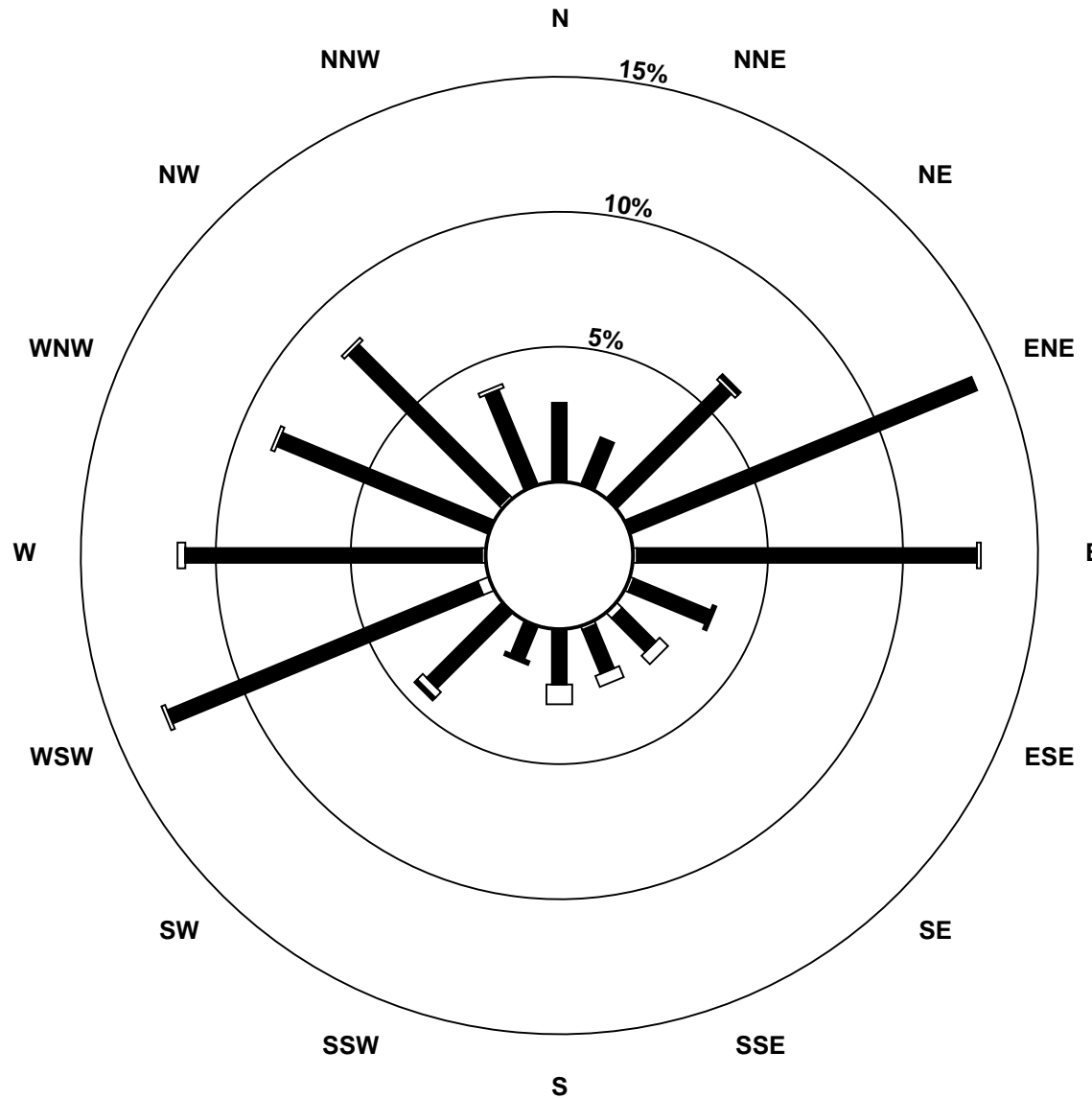




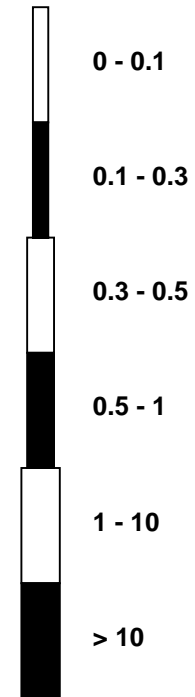
**Pollutant Rose**

**Carbon Monoxide (CO) - ppm**

**Henry Pirker - April 2014**



**Pollutant Classes (ppm)**



## Eight Hour Running Averages

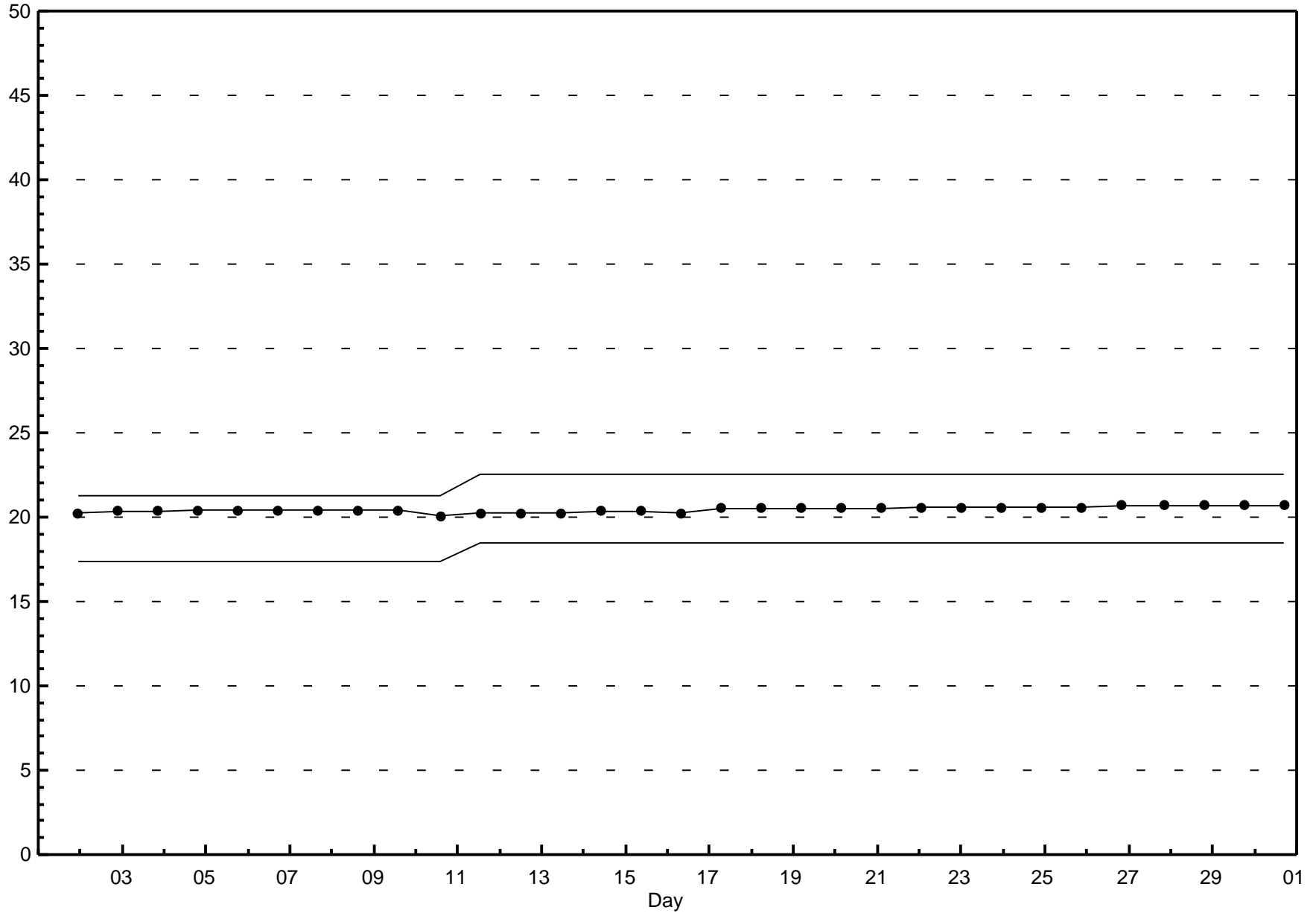
Carbon Monoxide (CO) - ppm

Henry Pirker - April 2014

Number of Exceedences (AAAQO): 8-hr: 0 Maximum Value: 0.46 ppm on Apr 30 09:00		Hours in Service: 720 Hours of Data: 709																							
Minimum Value: 0.14 ppm on Apr 29 19:00		Hours of Missing Data: 11 Hours of Calibration: 11																							
Percentiles: P <sub>1</sub> = 0.15 P <sub>10</sub> = 0.17 Q <sub>1</sub> = 0.18 Median = 0.20 Q <sub>3</sub> = 0.22 P <sub>90</sub> = 0.27 P <sub>99</sub> = 0.39		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-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29
2-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
3-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.26
4-Apr	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.28
5-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26
6-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
7-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.40
8-Apr	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.38
9-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17
10-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	N	N	N	N	N	N	N	N	0.2	0.2	0.2	0.2	0.2	0.24
11-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
12-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
13-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
14-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.30
15-Apr	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29
16-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	N	N	N	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
17-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
18-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.26
19-Apr	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27
20-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
21-Apr	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.33
22-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
23-Apr	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
24-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
25-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
26-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
27-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
28-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
29-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.21
30-Apr	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.46
0.38 0.37 0.36 0.35 0.33 0.36 0.40 0.44 0.46 0.46 0.44 0.41 0.38 0.35 0.30 0.28 0.24 0.24 0.24 0.25 0.29 0.36 0.39 0.40																								Diurnal Maximums	
N - Not Valid Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm																									

## Span Responses

Carbon Monoxide (CO)  
Henry Pirker - April 2014

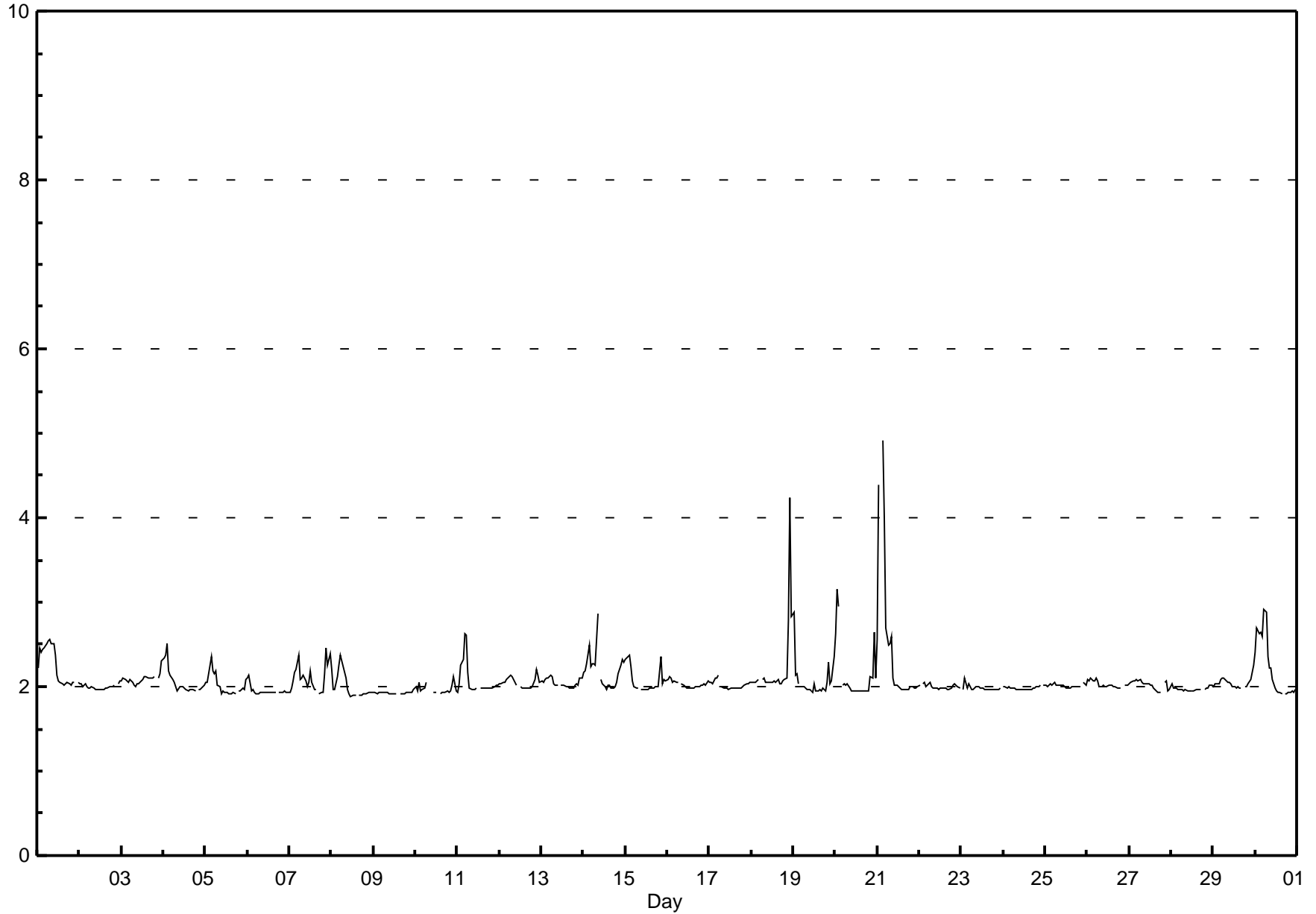


## Hourly Averages

## Total Hydrocarbons (THC) - ppm

Henry Pirker - April 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.91 ppm on Apr 21 04:00 Maximum Daily Average: 2.44 ppm on Apr 21		Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0																									
Minimum Value: 1.9 ppm on Apr 8 12:00 Maximum Diurnal Average: 2.22 ppm at hour 4 Monthly Average: 2.066 ppm		Minimum Daily Average: 1.93 ppm on Apr 9 Minimum Diurnal Average: 1.97 ppm at hour 18 Percentiles: P <sub>1</sub> = 1.91 P <sub>10</sub> = 1.93 Q <sub>1</sub> = 1.97 Median = 2.00 Q <sub>3</sub> = 2.07 P <sub>90</sub> = 2.23 P <sub>99</sub> = 2.89																									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	2.2	2.5	2.4	2.4	2.5	2.5	2.5	2.6	2.5	2.5	2.4	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	A	2.1	2.24	2.56	
2-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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	2.06	
3-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.2	2.3	2.09	2.30	
4-Apr	2.3	2.4	2.5	2.2	2.1	2.1	2.1	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.06	2.50	
5-Apr	2.1	2.1	2.2	2.3	2.2	2.1	2.2	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.0	2.1	2.02	2.35	
6-Apr	2.1	2.1	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	A	1.9	1.9	1.9	1.9	1.9	1.9	1.95	2.14	
7-Apr	1.9	2.0	2.1	2.2	2.2	2.4	2.1	2.1	2.1	2.1	2.0	2.1	2.2	2.1	2.0	2.0	A	1.9	1.9	1.9	2.2	2.5	2.2	2.4	2.10	2.46	
8-Apr	2.2	2.0	2.0	2.1	2.3	2.4	2.3	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.01	2.37	
9-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.93	1.96	
10-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.1	C	C	C	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.0	1.97	2.12	
11-Apr	1.9	2.0	2.3	2.3	2.6	2.6	2.2	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.08	2.63	
12-Apr	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.05	2.20
13-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	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	2.1	2.1	2.04	2.14	
14-Apr	2.2	2.2	2.3	2.5	2.2	2.3	2.3	2.3	2.9	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.3	2.3	2.3	2.18	2.87	
15-Apr	2.3	2.3	2.4	2.2	2.1	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	2.4	2.0	2.1	2.1	2.07	2.37	
16-Apr	2.1	2.1	2.1	2.1	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.03	2.12	
17-Apr	2.0	2.1	2.0	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	2.0	2.0	2.0	2.0	2.1	2.02	2.13	
18-Apr	2.0	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.8	4.2	2.8	2.22	4.23		
19-Apr	2.9	2.1	2.2	2.0	A	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.3	2.0	2.1	2.3	2.07	2.88	
20-Apr	2.6	3.1	3.0	A	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.6	2.1	2.14	3.15	
21-Apr	2.6	4.4	A	4.9	4.0	2.7	2.5	2.5	2.6	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	2.44	4.91	
22-Apr	2.0	A	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	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.05	
23-Apr	A	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	2.0	2.0	A	1.98	2.11	
24-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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	2.01	
25-Apr	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	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.01	2.05	
26-Apr	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	2.0	2.0	A	2.0	2.0	2.0	2.03	2.11	
27-Apr	2.0	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	1.9	1.9	1.9	1.9	A	2.1	2.1	2.0	2.0	2.02	2.09	
28-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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	1.97	2.03	
29-Apr	2.0	2.0	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	A	2.0	2.0	2.0	2.1	2.2	2.2	2.05	2.25	
30-Apr	2.4	2.7	2.6	2.6	2.6	2.9	2.9	2.4	2.2	2.2	2.1	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.21	2.91	
																								Diurnal Average			
																								Diurnal Maximum			
2.15 2.22 2.15 2.22 2.18 2.16 2.12 2.08 2.08 2.02 2.00 1.99 1.99 1.98 1.98 1.98 1.98 1.97 1.98 1.99 2.04 2.07 2.15 2.10 2.88 4.39 2.96 4.91 3.98 2.91 2.87 2.56 2.87 2.51 2.37 2.13 2.19 2.11 2.11 2.10 2.10 2.10 2.10 2.12 2.36 2.78 4.23 2.83																											
C - Calibration                      A - Automated Daily Zero Span																											



## Hourly Maximums

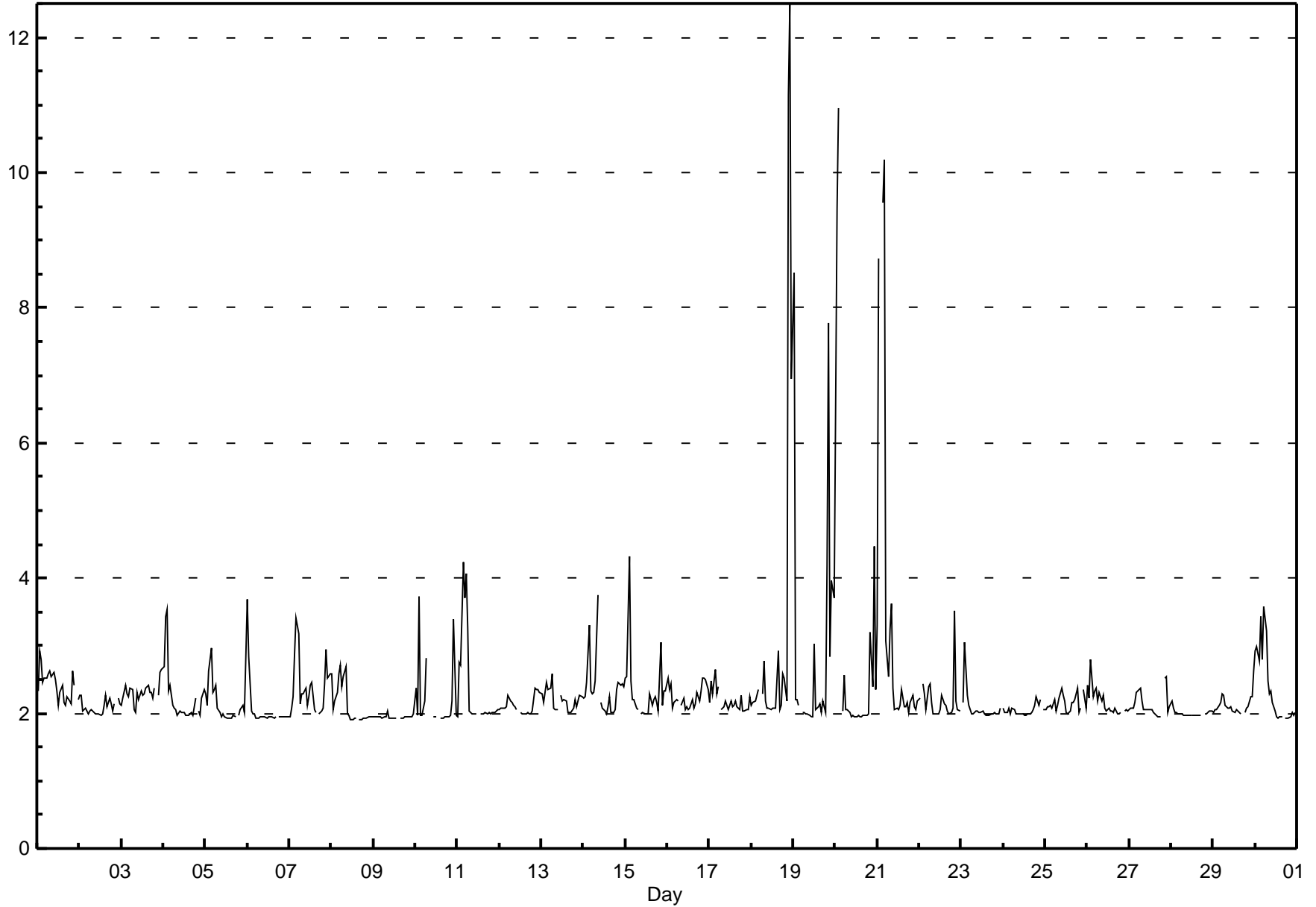
## Total Hydrocarbons (THC) - ppm

Henry Pirker - April 2014

Maximum Value: 12.49 ppm on Apr 18 23:00		Maximum Daily Average: 3.32 ppm on Apr 21		Hours in Service: 720																																												
Minimum Value: 1.9 ppm on Apr 8 12:00		Minimum Daily Average: 1.94 ppm on Apr 9		Hours of Data: 686																																												
Maximum Diurnal Average: 2.79 ppm at hour 3		Minimum Diurnal Average: 2.04 ppm at hour 17		Hours of Missing Data: 34																																												
Monthly Average: 2.322 ppm		Percentiles: P <sub>1</sub> = 1.92 P <sub>10</sub> = 1.94 Q <sub>1</sub> = 2.00 Median = 2.08 Q <sub>3</sub> = 2.30 P <sub>90</sub> = 2.61 P <sub>99</sub> = 8.46		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-Apr	2.3	2.9	2.8	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.5	2.3	2.1	2.3	2.4	2.2	2.1	2.3	2.2	2.1	2.6	2.4	A	2.2	2.2	2.42	2.93																					
2-Apr	2.3	2.3	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.1	2.2	2.1	2.0	2.1	A	2.2	2.1	2.09	2.28																						
3-Apr	2.1	2.2	2.4	2.3	2.2	2.4	2.3	2.1	2.0	2.3	2.2	2.3	2.3	2.3	2.4	2.4	2.3	2.3	2.2	2.4	A	2.3	2.6	2.7	2.30	2.66																						
4-Apr	2.7	3.4	3.5	2.3	2.4	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	2.2	A	2.0	2.0	2.2	2.4	2.24	3.54																						
5-Apr	2.3	2.1	2.6	3.0	2.3	2.4	2.4	2.1	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	A	2.0	2.1	2.1	2.0	2.8	2.16	2.97																						
6-Apr	3.7	2.8	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	A	1.9	1.9	1.9	2.0	2.0	2.0	2.07	3.69																						
7-Apr	2.0	2.1	2.2	2.9	3.4	3.2	2.1	2.3	2.3	2.4	2.1	2.2	2.4	2.5	2.1	2.0	A	2.0	2.0	2.1	2.4	2.9	2.5	2.6	2.38	3.40																						
8-Apr	2.6	2.1	2.2	2.3	2.6	2.7	2.4	2.6	2.7	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.14	2.72																						
9-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.94	2.04																						
10-Apr	2.4	2.0	3.7	2.0	2.0	2.2	2.8	C	C	C	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.2	3.4	2.0	2.20	3.72																						
11-Apr	2.0	2.8	2.7	4.2	3.7	4.1	3.3	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.38	4.23																						
12-Apr	2.1	2.1	2.1	2.1	2.1	2.3	2.2	2.2	2.1	2.1	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.4	2.4	2.3	2.3	2.12	2.37																						
13-Apr	2.3	2.2	2.3	2.5	2.3	2.4	2.6	2.1	2.0	2.0	A	2.3	2.2	2.2	2.2	2.0	2.0	2.0	2.1	2.2	2.1	2.2	2.3	2.2	2.20	2.59																						
14-Apr	2.2	2.2	2.5	3.3	2.3	2.3	2.3	2.5	3.8	A	2.2	2.1	2.0	2.0	2.1	2.2	2.0	2.0	2.1	2.3	2.5	2.4	2.4	2.4	2.35	3.75																						
15-Apr	2.5	2.6	4.3	2.5	2.2	2.2	2.1	2.1	A	2.0	2.0	2.0	2.0	2.0	2.3	2.1	2.2	2.2	2.2	2.0	3.1	2.1	2.3	2.3	2.32	4.33																						
16-Apr	2.5	2.4	2.4	2.1	2.2	2.2	2.2	A	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.3	2.2	2.3	2.5	2.5	2.5	2.4	2.25	2.53																						
17-Apr	2.2	2.5	2.3	2.7	2.3	2.4	A	2.0	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.2	2.1	2.0	2.3	2.0	2.0	2.0	2.1	2.2	2.18	2.66																						
18-Apr	2.1	2.2	2.2	2.3	2.3	A	2.3	2.8	2.2	2.1	2.1	2.1	2.1	2.1	2.9	2.1	2.1	2.1	2.6	2.5	2.2	11.2	12.5	7.0	3.29	12.49																						
19-Apr	8.5	2.2	2.2	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	3.0	2.0	2.1	2.1	2.0	2.2	2.0	4.2	7.8	2.8	4.0	3.7	2.91	8.53																							
20-Apr	6.6	9.5	11.0	A	2.0	2.6	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	3.2	2.4	4.5	2.3	3.12	10.96																						
21-Apr	3.3	8.7	A	9.6	10.2	3.1	2.5	3.2	3.6	2.4	2.1	2.1	2.1	2.1	2.3	2.1	2.1	2.2	2.0	2.2	2.3	2.1	2.1	2.2	3.32	10.20																						
22-Apr	2.2	A	2.4	2.3	2.1	2.4	2.4	2.2	2.0	2.0	2.0	2.0	2.1	2.3	2.1	2.1	2.0	2.0	2.0	2.1	3.5	2.2	2.1	2.0	2.19	3.53																						
23-Apr	A	2.2	3.0	2.3	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	2.08	3.05																						
24-Apr	2.1	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.3	2.1	2.2	A	2.0	2.04	2.25																						
25-Apr	2.0	2.1	2.1	2.1	2.1	2.2	2.0	2.1	2.2	2.4	2.3	2.2	2.0	2.0	2.0	2.2	2.2	2.2	2.4	2.0	2.1	A	2.4	2.1	2.14	2.37																						
26-Apr	2.4	2.2	2.8	2.2	2.3	2.4	2.2	2.3	2.2	2.3	2.1	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	A	2.0	2.1	2.0	2.16	2.80																						
27-Apr	2.0	2.1	2.1	2.2	2.3	2.3	2.4	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	2.0	A	2.5	2.5	2.0	2.1	2.13	2.55																						
28-Apr	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.00	2.19																						
29-Apr	2.0	2.0	2.0	2.1	2.2	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.1	2.2	2.2	2.6	2.12	2.62																						
30-Apr	2.9	3.0	2.8	3.4	2.8	3.6	3.2	2.5	2.3	2.3	2.2	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.37	3.57																						
																								2.70	2.78	2.79	2.66	2.59	2.42	2.30	2.21	2.22	2.11	2.06	2.05	2.07	2.05	2.07	2.09	2.04	2.06	2.08	2.16	2.48	2.54	2.73	2.44	Diurnal Average
																								8.53	9.47	10.96	9.56	10.20	4.07	3.25	3.24	3.75	2.60	2.49	2.34	3.04	2.45	2.41	2.92	2.30	2.31	2.57	4.20	7.77	11.15	12.49	6.95	Diurnal Maximum
C - Calibration																								A - Automated Daily Zero Span																								

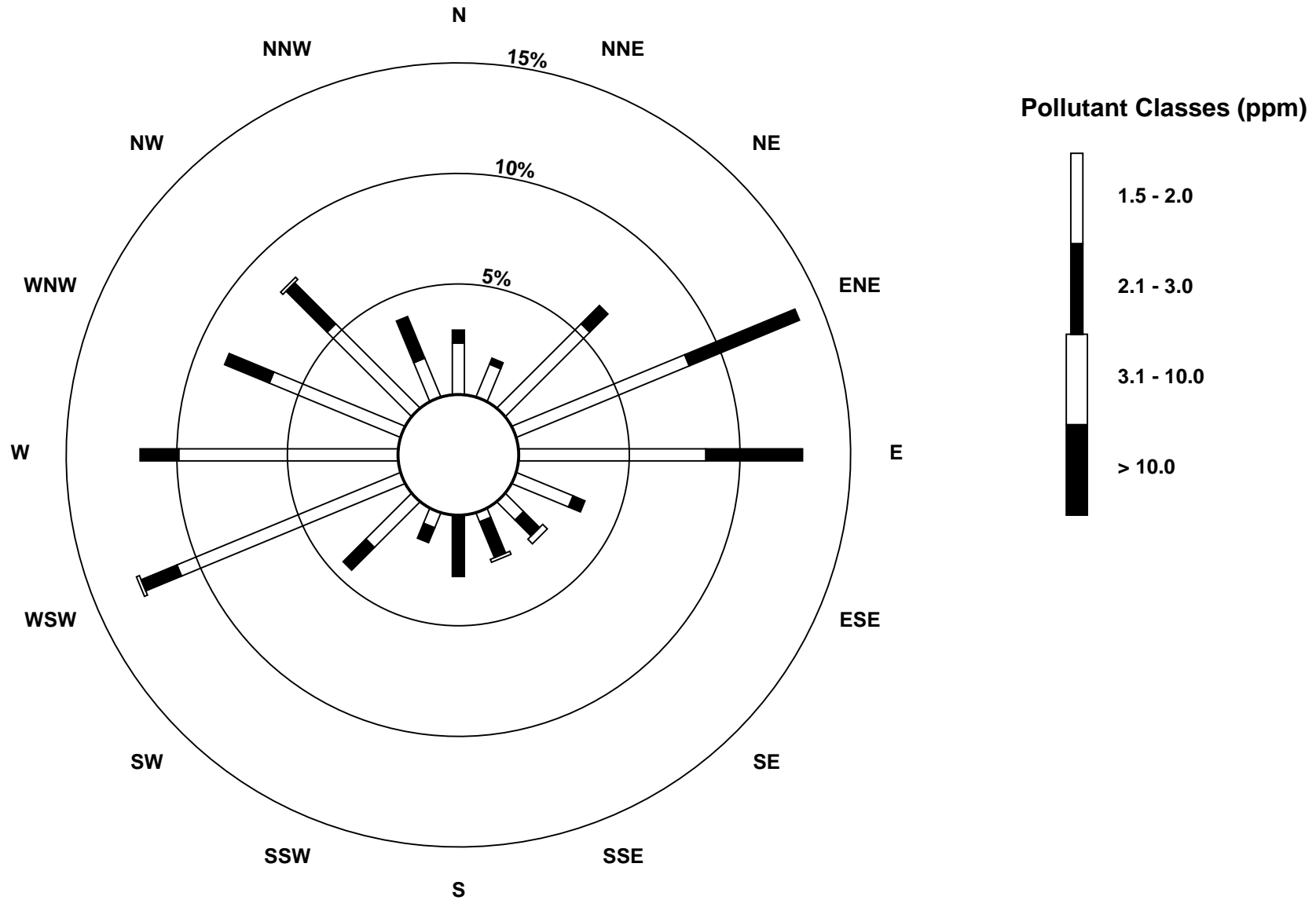
**Hourly Maximums**

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



**Pollutant Rose**

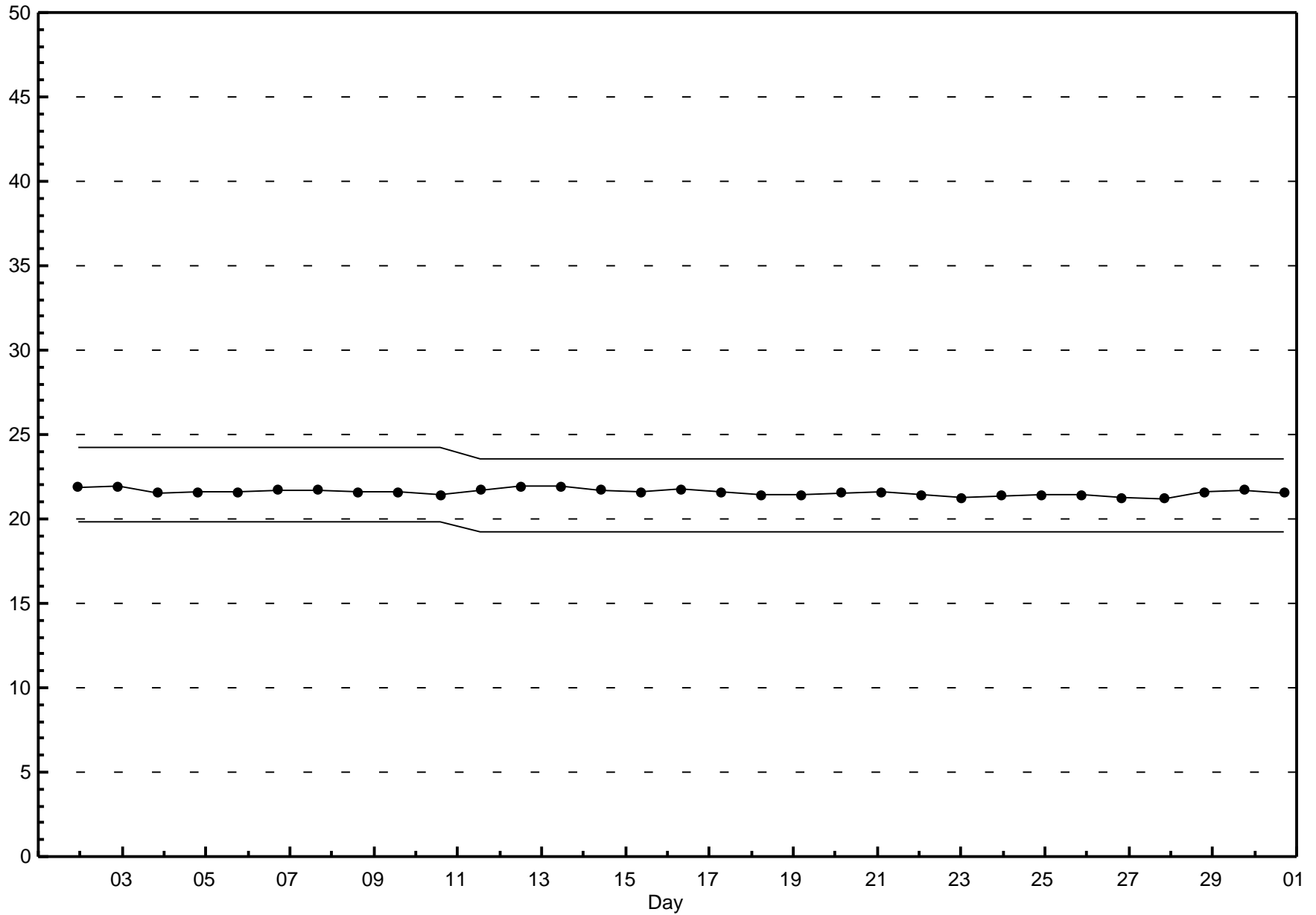
**Total Hydrocarbons (THC) - ppm**  
**Henry Pirker - April 2014**





### Span Responses

Total Hydrocarbons (THC)  
Henry Pirker - April 2014



## Hourly Averages

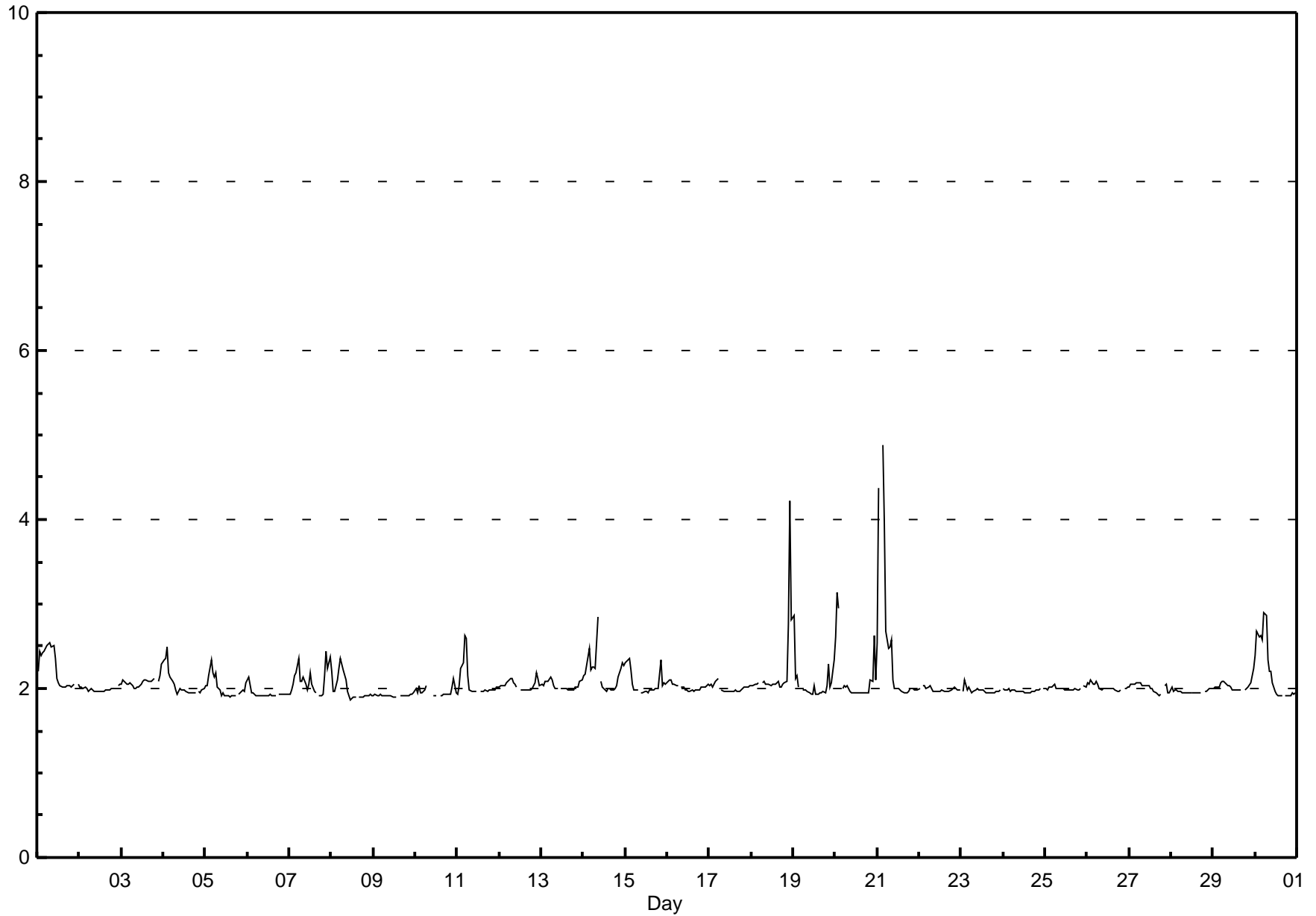
Methane (CH<sub>4</sub>) - ppm

Henry Pirker - April 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.89 ppm on Apr 21 04:00 Maximum Daily Average: 2.43 ppm on Apr 21		Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0																									
Minimum Value: 1.9 ppm on Apr 8 12:00 Maximum Diurnal Average: 2.21 ppm at hour 4 Monthly Average: 2.056 ppm		Minimum Daily Average: 1.92 ppm on Apr 9 Minimum Diurnal Average: 1.96 ppm at hour 18 Percentiles: P <sub>1</sub> = 1.90 P <sub>10</sub> = 1.93 Q <sub>1</sub> = 1.96 Median = 1.99 Q <sub>3</sub> = 2.06 P <sub>90</sub> = 2.22 P <sub>99</sub> = 2.87																									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	2.2	2.4	2.4	2.4	2.4	2.5	2.5	2.6	2.5	2.5	2.4	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.23	2.55	
2-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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	1.99	2.05	
3-Apr	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.3	2.08	2.29	
4-Apr	2.3	2.4	2.5	2.2	2.1	2.1	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.9	A	2.0	2.0	2.0	2.0	2.05	2.49	
5-Apr	2.0	2.0	2.2	2.3	2.2	2.1	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	2.0	2.1	2.01	2.34	
6-Apr	2.1	2.1	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	A	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.13	
7-Apr	1.9	2.0	2.1	2.2	2.2	2.4	2.1	2.1	2.1	2.1	2.0	2.0	2.2	2.0	2.0	2.0	A	1.9	1.9	1.9	2.1	2.4	2.2	2.4	2.09	2.44	
8-Apr	2.2	2.0	2.0	2.1	2.2	2.4	2.3	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.01	2.36	
9-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.92	1.95	
10-Apr	2.0	1.9	2.0	1.9	1.9	2.0	2.0	C	C	C	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	1.9	1.96	2.11	
11-Apr	1.9	2.0	2.2	2.3	2.6	2.6	2.2	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.07	2.62	
12-Apr	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.0	2.04	2.19
13-Apr	2.1	2.0	2.1	2.1	2.1	2.1	2.1	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	2.1	2.1	2.03	2.13	
14-Apr	2.1	2.2	2.3	2.5	2.2	2.3	2.3	2.2	2.9	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.3	2.17	2.85	
15-Apr	2.3	2.3	2.4	2.2	2.1	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	2.3	2.0	2.1	2.1	2.06	2.35	
16-Apr	2.1	2.1	2.1	2.0	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.02	2.10	
17-Apr	2.0	2.0	2.0	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	2.0	2.0	2.0	2.0	2.0	2.01	2.12	
18-Apr	2.0	2.0	2.0	2.1	2.1	A	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.8	4.2	2.8	2.8	2.21	4.21	
19-Apr	2.9	2.1	2.1	2.0	A	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.3	2.0	2.1	2.3	2.06	2.87	
20-Apr	2.6	3.1	2.9	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	2.1	2.1	2.6	2.1	2.13	3.13	
21-Apr	2.5	4.4	A	4.9	4.0	2.7	2.5	2.5	2.6	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	2.43	4.89	
22-Apr	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	2.0	2.0	2.0	1.99	2.04	
23-Apr	A	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	2.0	2.0	A	1.98	2.10	
24-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	1.97	2.00	
25-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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	2.00	2.04	
26-Apr	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	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.02	2.10	
27-Apr	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	1.9	1.9	1.9	1.9	1.9	A	2.0	2.1	1.9	2.0	2.01	2.08	
28-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	1.96	2.02	
29-Apr	2.0	2.0	2.0	2.0	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	A	2.0	2.0	2.0	2.1	2.2	2.2	2.04	2.24	
30-Apr	2.4	2.7	2.6	2.6	2.6	2.9	2.9	2.3	2.2	2.2	2.1	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.20	2.89	
		2.14	2.21	2.14	2.21	2.17	2.15	2.11	2.07	2.07	2.01	1.99	1.98	1.98	1.97	1.97	1.97	1.97	1.96	1.97	1.98	2.03	2.06	2.14	2.09	Diurnal Average	
		2.87	4.37	2.94	4.89	3.96	2.89	2.86	2.55	2.85	2.50	2.36	2.12	2.18	2.10	2.10	2.09	2.09	2.09	2.09	2.11	2.34	2.77	4.21	2.82	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

### Hourly Averages

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



## Hourly Maximums

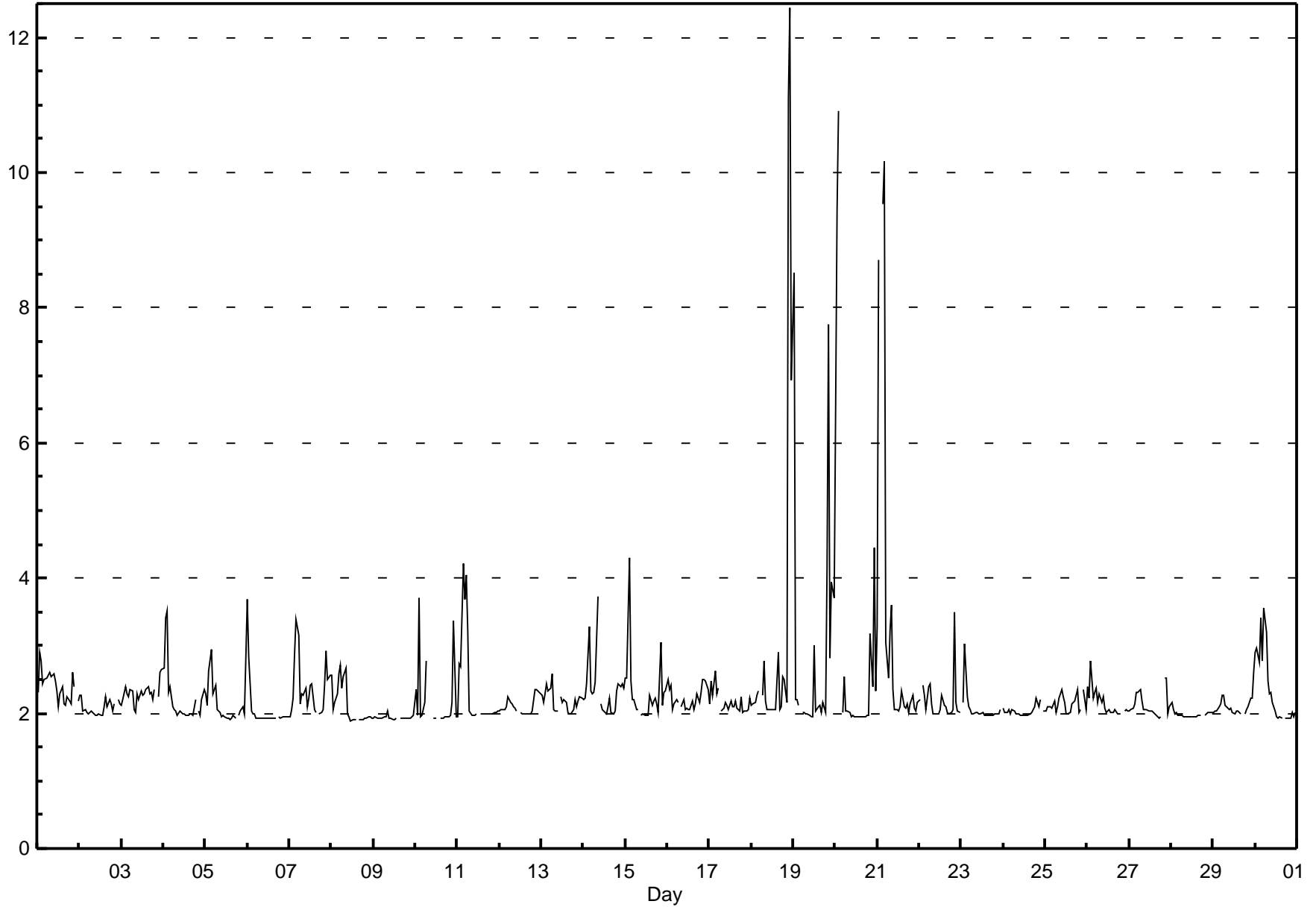
Methane (CH<sub>4</sub>) - ppm

Henry Pirker - April 2014

Maximum Value: 12.43 ppm on Apr 18 23:00		Maximum Daily Average: 3.30 ppm on Apr 21		Hours in Service: 720																																													
Minimum Value: 1.9 ppm on Apr 8 12:00		Minimum Daily Average: 1.94 ppm on Apr 9		Hours of Data: 686																																													
Maximum Diurnal Average: 2.77 ppm at hour 3		Minimum Diurnal Average: 2.03 ppm at hour 17		Hours of Missing Data: 34																																													
Monthly Average: 2.310 ppm		Percentiles: P <sub>1</sub> = 1.92 P <sub>10</sub> = 1.94 Q <sub>1</sub> = 1.99 Median = 2.06 Q <sub>3</sub> = 2.29 P <sub>90</sub> = 2.60 P <sub>99</sub> = 8.43		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-Apr	2.3	2.9	2.8	2.4	2.5	2.5	2.6	2.6	2.5	2.6	2.5	2.3	2.1	2.3	2.4	2.1	2.1	2.3	2.2	2.1	2.6	2.4	A	2.2	2.2	2.41	2.91																						
2-Apr	2.3	2.3	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.1	2.2	2.1	2.0	2.1	A	2.2	2.1	2.08	2.27																							
3-Apr	2.1	2.2	2.4	2.3	2.2	2.4	2.3	2.0	2.0	2.3	2.2	2.3	2.3	2.3	2.4	2.4	2.3	2.3	2.2	2.4	A	2.2	2.6	2.6	2.29	2.65																							
4-Apr	2.7	3.4	3.5	2.3	2.4	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	2.2	A	2.0	2.0	2.2	2.4	2.23	3.53																							
5-Apr	2.3	2.1	2.6	3.0	2.3	2.3	2.4	2.1	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	A	2.0	2.0	2.1	2.0	2.8	2.15	2.95																							
6-Apr	3.7	2.8	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	A	1.9	1.9	1.9	1.9	1.9	2.0	2.06	3.68																							
7-Apr	2.0	2.1	2.2	2.9	3.4	3.2	2.1	2.3	2.3	2.4	2.1	2.2	2.4	2.4	2.1	2.0	A	2.0	2.0	2.1	2.4	2.9	2.5	2.6	2.37	3.38																							
8-Apr	2.6	2.0	2.2	2.3	2.6	2.7	2.4	2.5	2.7	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.13	2.70																							
9-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.94	2.03																							
10-Apr	2.4	2.0	3.7	2.0	2.0	2.2	2.8	C	C	C	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	3.4	2.0	2.19	3.70																							
11-Apr	1.9	2.7	2.7	4.2	3.7	4.1	3.2	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.37	4.21																							
12-Apr	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.4	2.3	2.3	2.3	2.10	2.36																							
13-Apr	2.3	2.2	2.3	2.4	2.3	2.4	2.6	2.1	2.0	2.0	A	2.3	2.2	2.2	2.2	2.0	2.0	2.0	2.1	2.2	2.1	2.2	2.3	2.2	2.19	2.58																							
14-Apr	2.2	2.2	2.4	3.3	2.3	2.3	2.3	2.5	3.7	A	2.1	2.1	2.0	2.0	2.1	2.2	2.0	2.0	2.0	2.3	2.4	2.4	2.4	2.4	2.34	3.73																							
15-Apr	2.5	2.5	4.3	2.5	2.2	2.2	2.1	2.1	A	2.0	2.0	2.0	2.0	2.0	2.3	2.1	2.2	2.2	2.1	2.0	3.0	2.1	2.3	2.3	2.30	4.31																							
16-Apr	2.5	2.3	2.4	2.1	2.1	2.2	2.2	A	2.1	2.2	2.0	2.1	2.0	2.1	2.2	2.1	2.1	2.3	2.2	2.3	2.5	2.5	2.5	2.3	2.23	2.50																							
17-Apr	2.1	2.5	2.3	2.6	2.3	2.4	A	2.0	2.1	2.2	2.1	2.0	2.2	2.1	2.1	2.2	2.1	2.0	2.2	2.0	2.0	2.0	2.2	2.2	2.17	2.64																							
18-Apr	2.1	2.1	2.2	2.3	2.3	A	2.3	2.8	2.2	2.1	2.1	2.0	2.1	2.1	2.9	2.0	2.1	2.6	2.5	2.2	11.1	12.4	6.9	3.28	12.43																								
19-Apr	8.5	2.2	2.2	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	1.9	3.0	2.0	2.1	2.1	2.0	2.2	2.0	4.2	7.7	2.8	3.9	3.7	2.90	8.51																							
20-Apr	6.5	9.4	10.9	A	2.0	2.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.2	2.4	4.4	2.3	3.11	10.92																							
21-Apr	3.3	8.7	A	9.5	10.2	3.1	2.5	3.2	3.6	2.4	2.0	2.1	2.0	2.1	2.3	2.1	2.1	2.1	2.0	2.1	2.3	2.1	2.0	2.2	3.30	10.16																							
22-Apr	2.2	A	2.4	2.3	2.0	2.4	2.4	2.1	2.0	2.0	2.0	2.0	2.1	2.3	2.1	2.1	2.0	2.0	2.0	2.1	3.5	2.2	2.0	2.0	2.18	3.50																							
23-Apr	A	2.2	3.0	2.3	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	A	2.07	3.04																							
24-Apr	2.1	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.2	A	2.0	2.03	2.23																							
25-Apr	2.0	2.1	2.1	2.1	2.1	2.2	2.0	2.1	2.2	2.4	2.3	2.2	2.0	2.0	2.0	2.1	2.2	2.2	2.3	2.0	2.1	A	2.3	2.1	2.13	2.36																							
26-Apr	2.4	2.2	2.8	2.2	2.3	2.4	2.2	2.3	2.2	2.2	2.1	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.15	2.78																							
27-Apr	2.0	2.1	2.1	2.1	2.3	2.3	2.3	2.2	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	A	2.5	2.5	2.0	2.1	2.12	2.53																							
28-Apr	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	1.99	2.17																							
29-Apr	2.0	2.0	2.0	2.1	2.1	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.1	2.2	2.2	2.6	2.11	2.60																							
30-Apr	2.9	3.0	2.8	3.4	2.8	3.6	3.2	2.5	2.3	2.3	2.2	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.36	3.56																							
																								2.69	2.77	2.77	2.65	2.57	2.40	2.29	2.20	2.21	2.10	2.05	2.04	2.06	2.04	2.06	2.08	2.03	2.05	2.07	2.15	2.46	2.53	2.72	2.43	Diurnal Average	
																								8.51	9.45	10.92	9.53	10.16	4.06	3.24	3.23	3.73	2.58	2.47	2.33	3.01	2.44	2.39	2.90	2.29	2.31	2.55	4.17	7.75	11.11	12.43	6.92	Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span																									

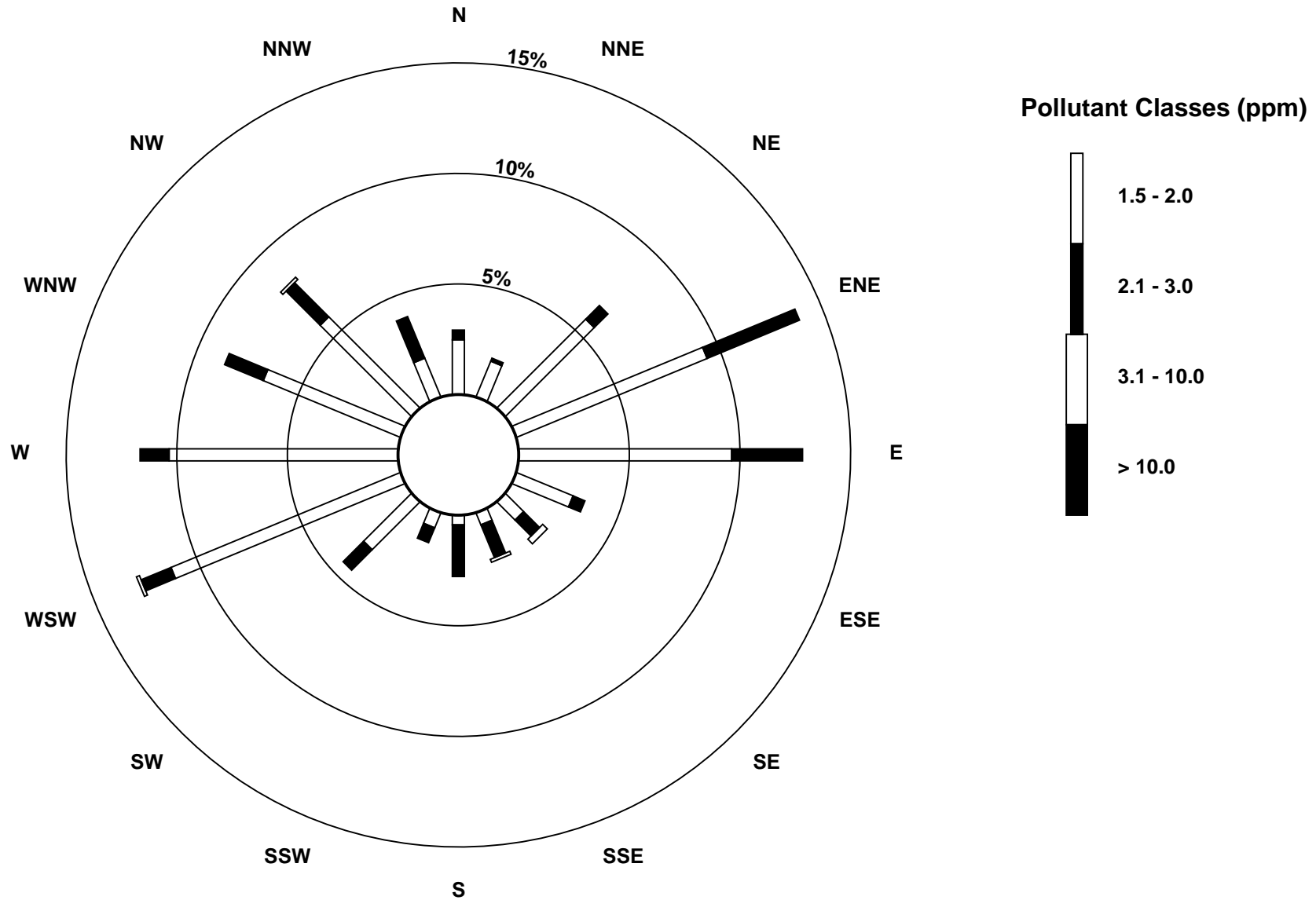
### Hourly Maximums

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



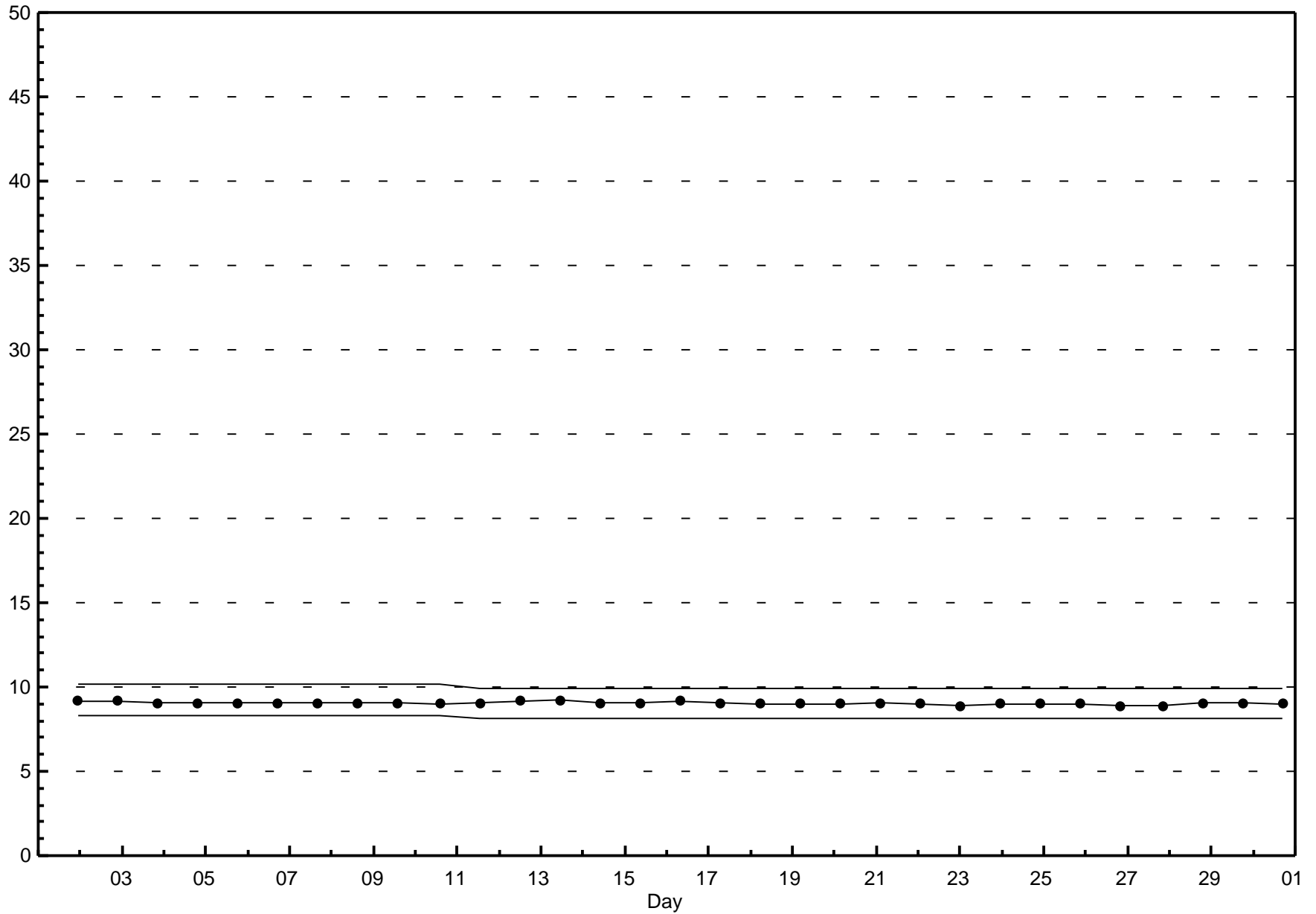
**Pollutant Rose**

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



### Span Responses

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



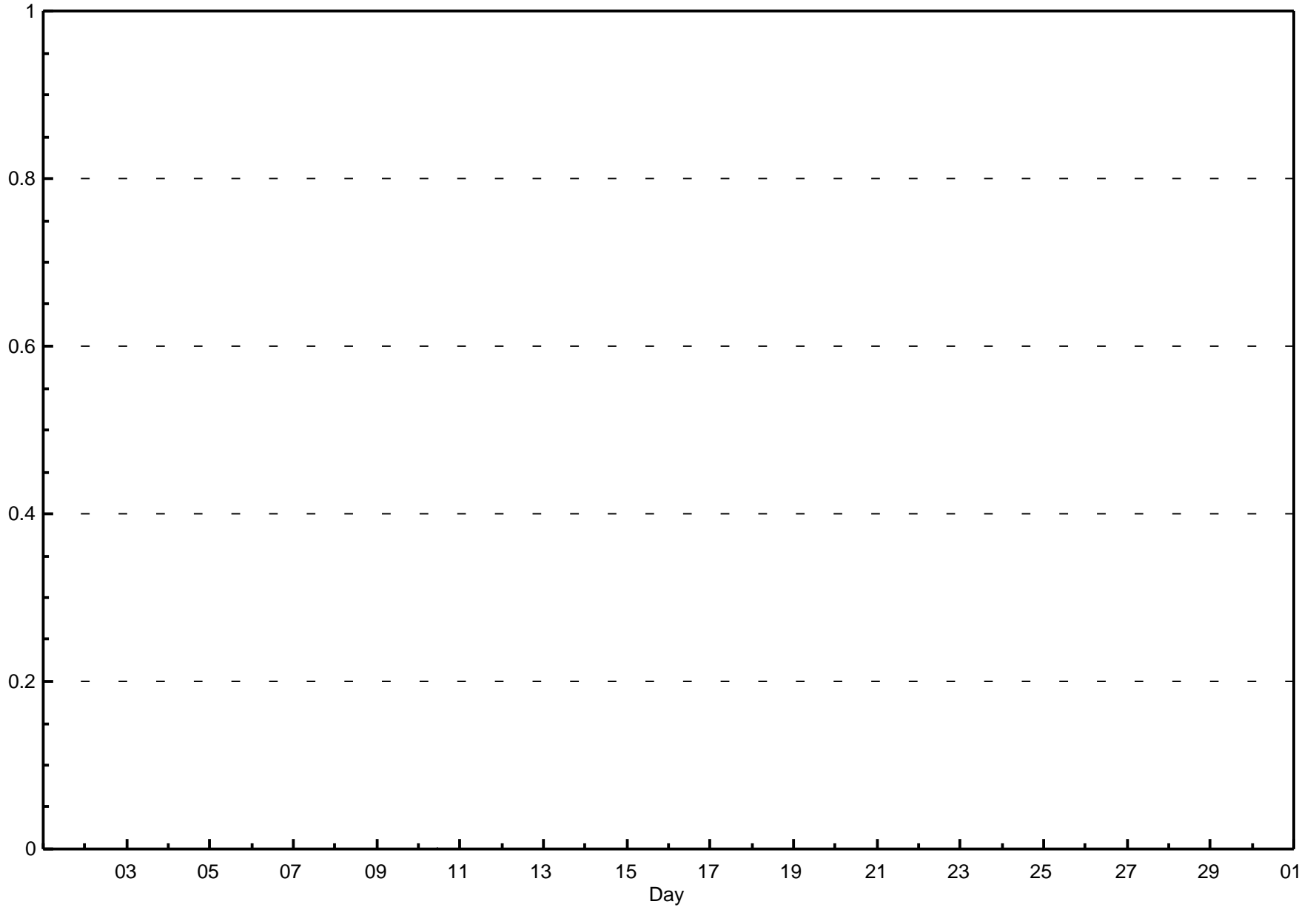
## Hourly Averages

## Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - April 2014

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0		Hours in Service: 720																																															
Maximum Value: 0.00 ppm on Apr 10 11:00		Maximum Daily Average: 0.00 ppm on Apr 29																																															
Minimum Value: 0.0 ppm on Apr 1 01:00		Hours of Data: 686																																															
Maximum Diurnal Average: 0.00 ppm at hour 11		Hours of Missing Data: 34																																															
Monthly Average: 0.000 ppm		Hours of Calibration: 34																																															
Minimum Daily Average: 0.00 ppm on Apr 4		Percent Operational Time: 100.0																																															
Minimum Diurnal Average: 0.00 ppm at hour 15																																																	
Percentiles: P <sub>1</sub> = 0.00 P <sub>10</sub> = 0.00 Q <sub>1</sub> = 0.00 Median = 0.00 Q <sub>3</sub> = 0.00 P <sub>90</sub> = 0.00 P <sub>99</sub> = 0.00																																																	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00																							
2-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00																							
3-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00																							
4-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00																							
5-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																							
6-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																							
7-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																							
8-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																							
9-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																							
10-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	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																							
11-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																							
12-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																							
13-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																							
14-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																							
15-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																							
16-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																							
17-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																							
18-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																							
19-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																							
24-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																							
27-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	Diurnal Average		
																								0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span																									





## Hourly Maximums

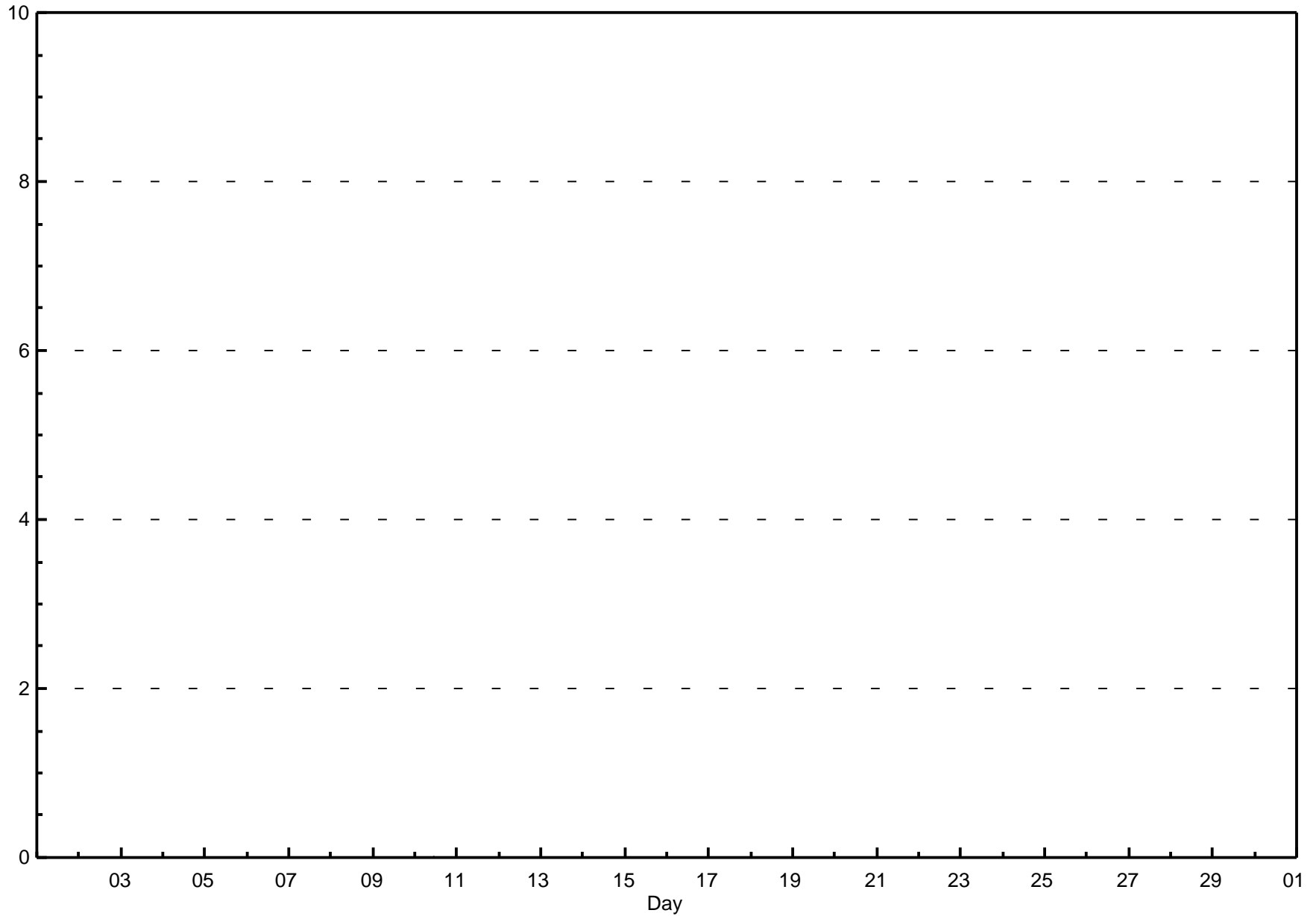
## Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - April 2014

Maximum Value: 0.01 ppm on Apr 10 11:00		Maximum Daily Average: 0.00 ppm on Apr 10		Hours in Service: 720																						
Minimum Value: 0.0 ppm on Apr 23 23:00		Minimum Daily Average: 0.00 ppm on Apr 23		Hours of Data: 686																						
Maximum Diurnal Average: 0.00 ppm at hour 11		Minimum Diurnal Average: 0.00 ppm at hour 22		Hours of Missing Data: 34																						
Monthly Average: 0.001 ppm		Percentiles: P <sub>1</sub> = 0.00 P <sub>10</sub> = 0.00 Q <sub>1</sub> = 0.00 Median = 0.00 Q <sub>3</sub> = 0.00 P <sub>90</sub> = 0.00 P <sub>99</sub> = 0.00		Hours of Calibration: 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-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00
2-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00
3-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
4-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00
5-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
6-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
7-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
8-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
9-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
10-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	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	0.01
11-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
12-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
13-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
14-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
15-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
16-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
17-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
18-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
19-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
24-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
27-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	

C - Calibration

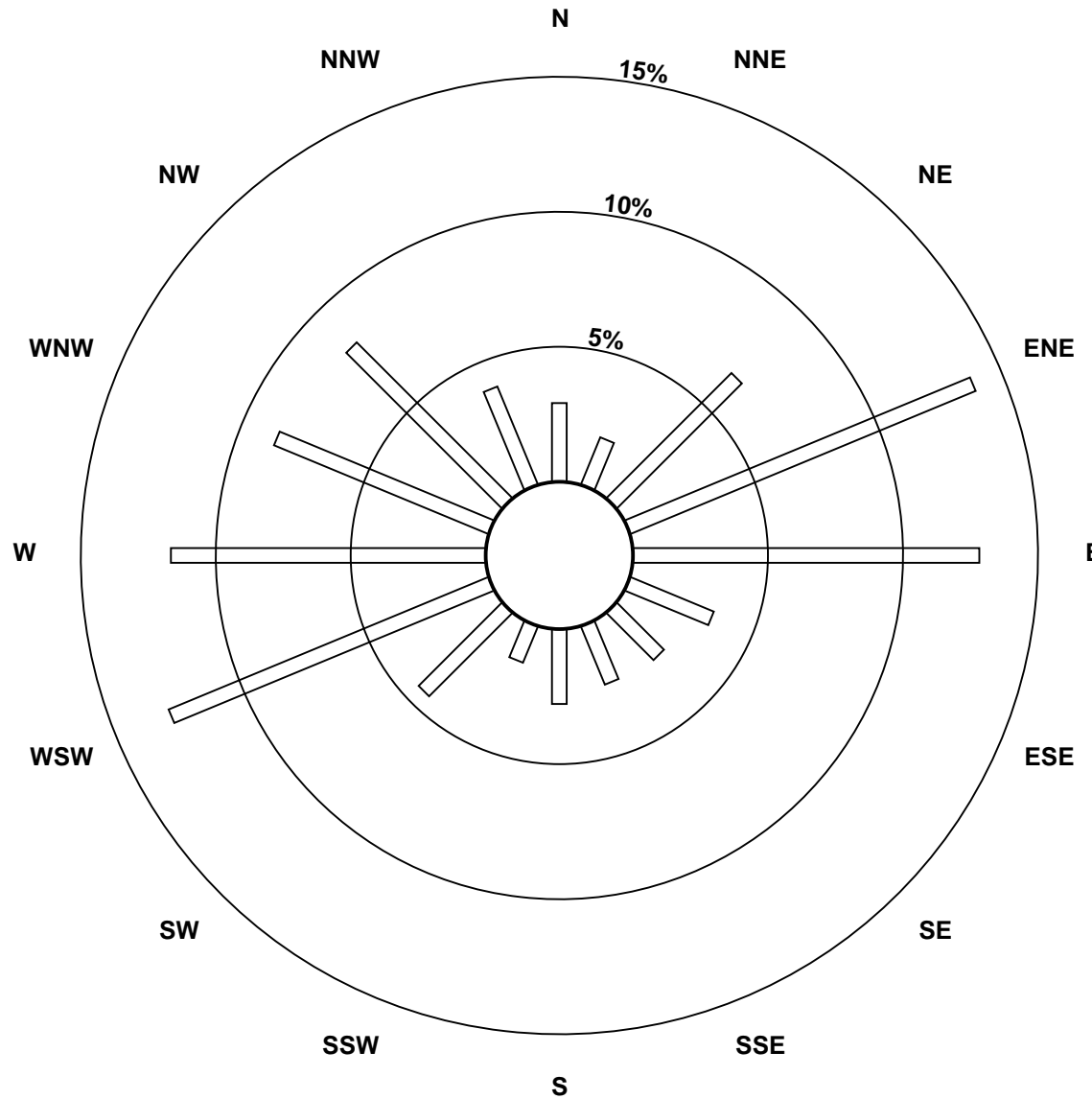
A - Automated Daily Zero Span



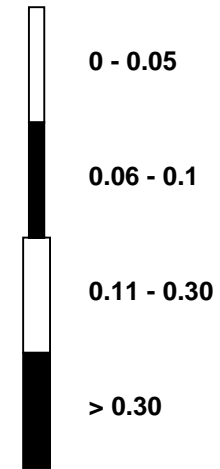
**Pollutant Rose**

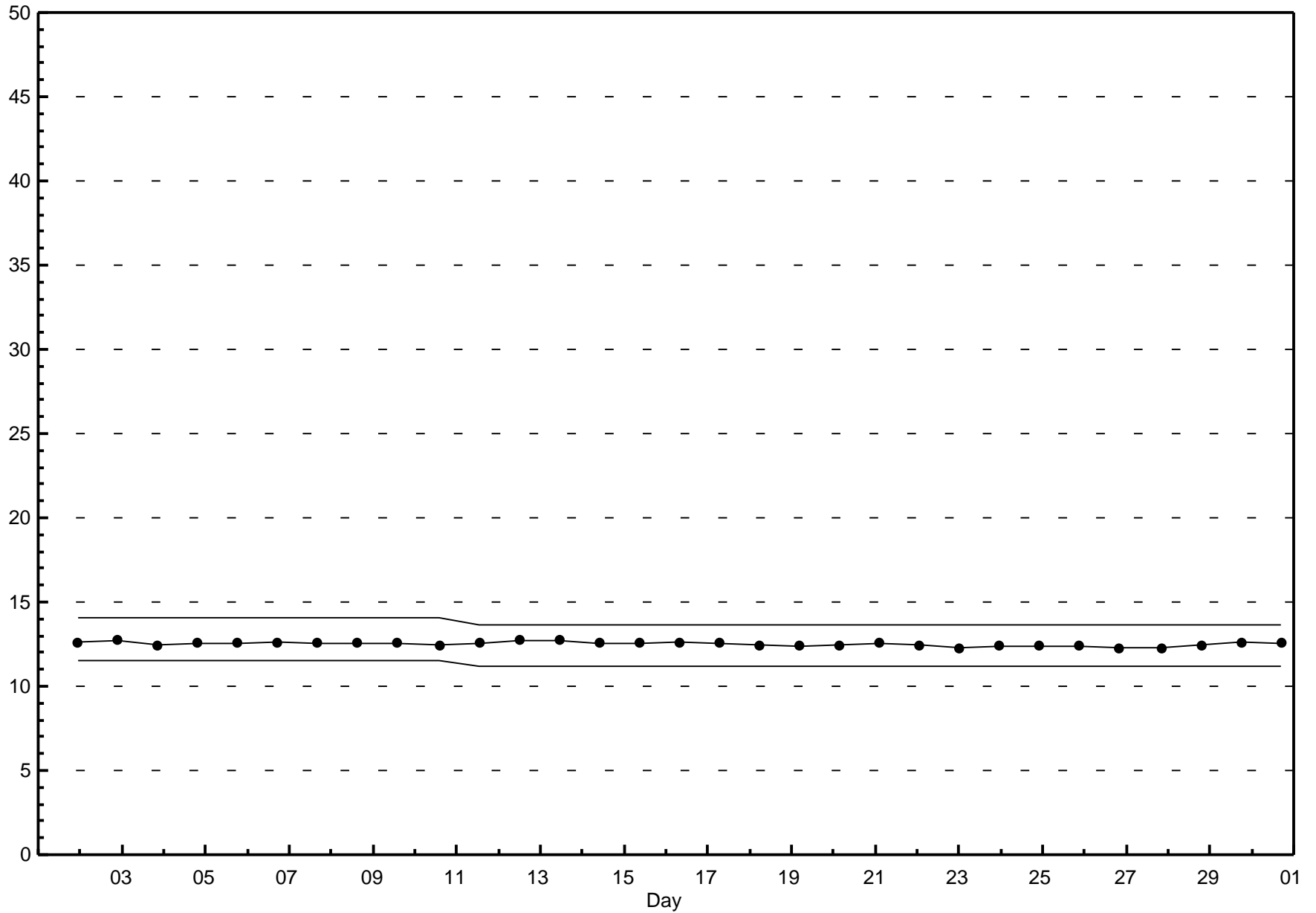
**Non Methane Hydrocarbon (NMHC) - ppm**

**Henry Pirker - April 2014**



**Pollutant Classes (ppm)**



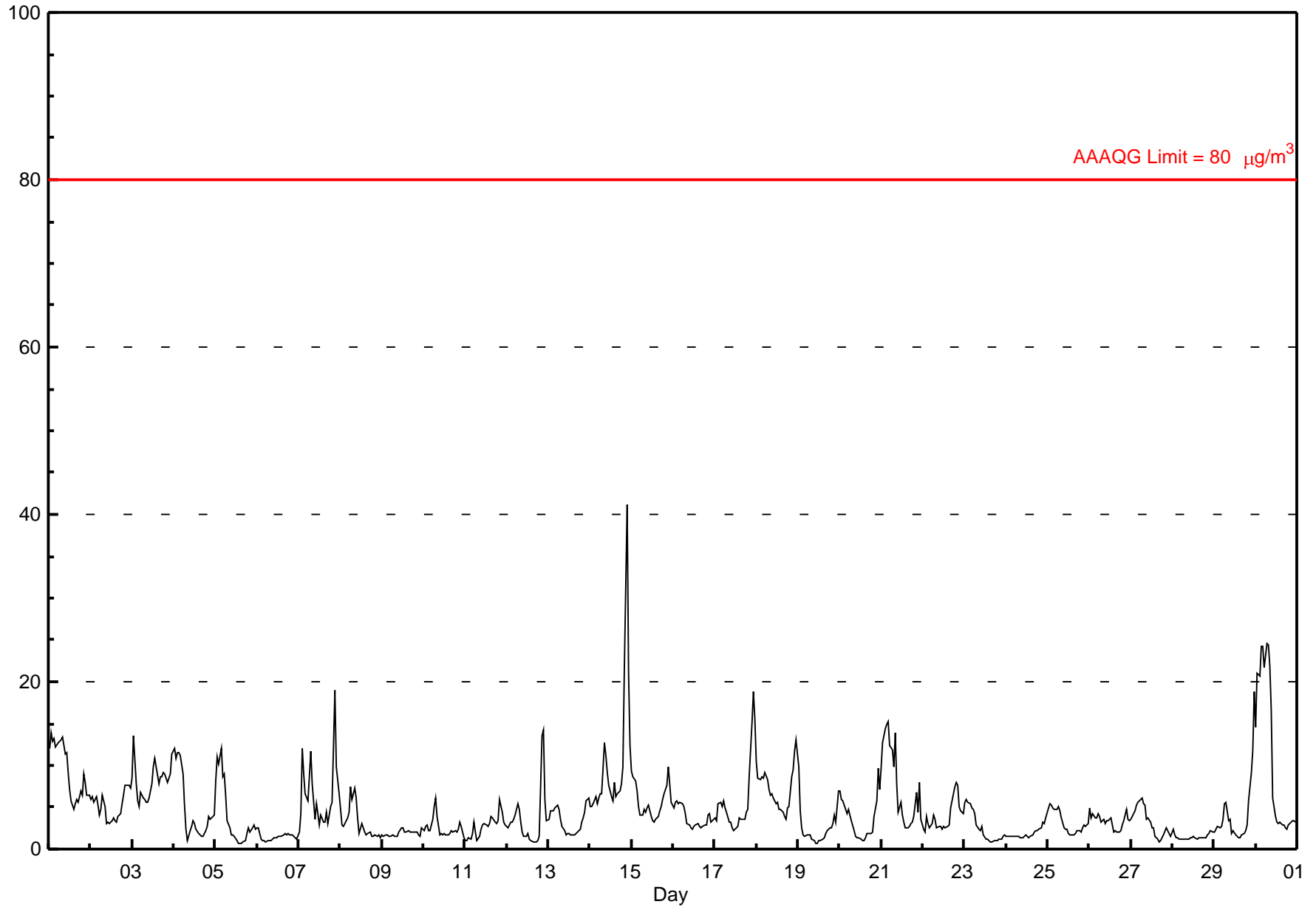


## Hourly Averages

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

Henry Pirker - April 2014

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 41.2 µg/m <sup>3</sup> on Apr 14 22:00      Maximum Daily Average: 10.8 µg/m <sup>3</sup> on Apr 30																			Hours in Service: 720 Hours of Data: 720							
Minimum Value: 1 µg/m <sup>3</sup> on Apr 5 15:00 Maximum Diurnal Average: 6.9 µg/m <sup>3</sup> at hour 22 Monthly Average: 4.58 µg/m <sup>3</sup>																			Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0							
Minimum Daily Average: 1.5 µg/m <sup>3</sup> on Apr 6 Minimum Diurnal Average: 2.6 µg/m <sup>3</sup> at hour 16 Percentiles: P <sub>1</sub> = 0.8 P <sub>10</sub> = 1.4 Q <sub>1</sub> = 1.9 Median = 3.3 Q <sub>3</sub> = 5.7 P <sub>90</sub> = 9.2 P <sub>99</sub> = 21.5																										
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-Apr	12	14	13	13	12	13	13	13	13	11	12	9	7	6	5	5	6	6	7	6	9	8	6	6	9.4	13.9
2-Apr	6	6	6	6	5	4	5	7	5	3	3	3	3	4	3	3	4	4	5	6	8	8	8	7	5.1	7.7
3-Apr	8	14	8	6	5	7	6	6	6	6	6	8	10	11	10	8	9	9	9	9	8	8	9	11	8.1	13.5
4-Apr	12	11	12	12	11	9	5	2	1	2	3	3	3	2	2	2	2	2	2	3	4	4	4	4	4.8	12.1
5-Apr	8	11	10	12	9	9	6	3	2	2	2	2	1	1	1	1	1	1	2	3	2	3	3	2	4.0	12.0
6-Apr	2	2	1	1	1	1	1	1	1	1	1	1	2	1	2	2	2	2	2	2	2	2	1	1	1.5	2.5
7-Apr	2	4	12	9	7	6	9	12	8	4	5	4	3	4	3	3	4	3	5	6	12	19	10	7	6.7	18.9
8-Apr	5	3	3	3	4	4	8	6	7	6	4	2	3	3	2	2	2	2	2	1	2	2	2	1	3.2	7.5
9-Apr	2	1	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	1	2	1.9	2.6
10-Apr	2	3	3	2	2	4	5	6	4	2	2	2	2	2	2	2	2	2	2	2	2	3	3	1	2.6	6.0
11-Apr	1	1	1	1	2	3	2	1	1	2	3	3	3	3	3	4	4	3	3	3	6	4	3	3	2.7	5.9
12-Apr	3	3	3	3	4	4	5	5	3	2	2	2	2	1	1	1	1	1	1	1	14	14	6	3	3.5	14.2
13-Apr	4	5	5	5	5	5	5	4	3	2	2	2	2	2	2	2	2	2	2	3	4	4	6	6	3.4	6.1
14-Apr	5	5	5	6	6	6	7	7	13	11	9	8	6	6	8	6	7	7	8	10	21	41	21	12	10.0	41.2
15-Apr	9	9	8	7	5	4	4	5	4	5	5	4	3	3	4	4	5	5	6	7	8	10	8	6	5.7	9.8
16-Apr	5	6	6	6	6	5	5	4	3	3	3	2	3	3	3	3	3	3	3	3	4	4	3	4	3.8	5.7
17-Apr	4	3	5	6	5	6	5	4	3	3	3	2	2	3	4	4	3	4	4	5	9	15	19	16	5.7	18.7
18-Apr	10	9	8	9	9	9	8	7	6	7	6	5	6	5	5	4	4	4	5	5	9	9	12	13	7.2	13.1
19-Apr	10	4	2	2	2	2	2	2	1	1	1	1	1	1	1	2	2	2	3	3	3	4	3	7	2.5	9.9
20-Apr	7	6	6	5	4	5	4	3	2	2	1	1	1	1	1	2	2	2	2	2	4	6	10	7	3.5	9.6
21-Apr	10	13	14	15	15	12	12	10	14	8	4	6	4	3	3	2	3	3	3	4	7	4	8	4	7.5	15.2
22-Apr	2	2	4	3	3	3	4	4	3	3	3	2	3	3	3	3	5	6	7	8	8	5	5	4	3.9	8.0
23-Apr	6	6	6	5	5	5	4	3	2	2	3	2	1	1	1	1	1	1	1	1	1	1	2	2	2.6	6.0
24-Apr	1	2	2	1	1	1	1	1	1	1	1	2	2	1	2	2	2	2	2	2	3	3	3	4	1.9	3.6
25-Apr	5	5	5	5	5	5	5	5	4	3	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3.2	5.4
26-Apr	5	4	4	4	4	4	4	3	4	3	3	3	4	3	2	2	2	2	2	3	3	5	4	3	3.4	5.0
27-Apr	4	4	5	5	6	6	6	5	5	4	4	3	2	2	2	1	1	1	1	2	2	2	2	2	3.2	6.0
28-Apr	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1.5	2.4
29-Apr	2	2	3	3	3	3	5	6	3	4	2	2	2	1	1	1	2	2	2	3	6	9	12	19	4.1	18.8
30-Apr	15	21	21	24	24	22	25	24	22	17	6	4	3	3	3	3	3	3	2	3	3	3	3	3	10.8	24.5
																								Diurnal Average		
																								Diurnal Maximum		
5.6 6.0 6.1 6.0 5.7 5.7 5.8 5.4 5.0 4.0 3.5 3.2 3.0 2.8 2.7 2.6 2.8 2.9 3.4 3.7 5.6 6.9 6.0 5.5																								18.8		
14.6 21.0 20.6 24.3 24.2 21.7 24.5 24.3 21.9 16.5 11.6 9.2 9.8 10.8 9.8 7.8 8.6 8.7 9.1 9.8 21.4 41.2 21.1 18.8																										
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>																										



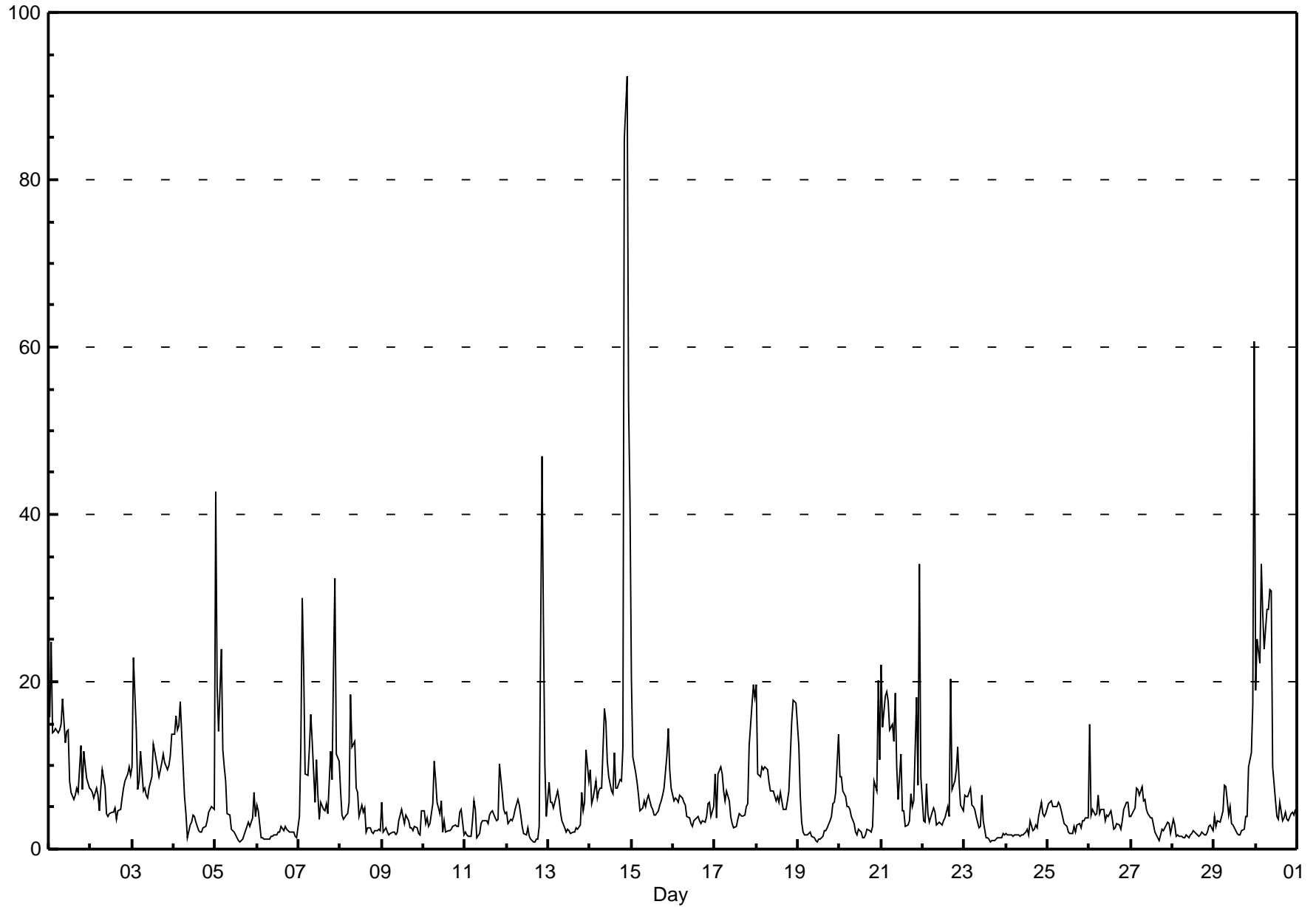
## Hourly Maximums

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

Henry Pirker - April 2014

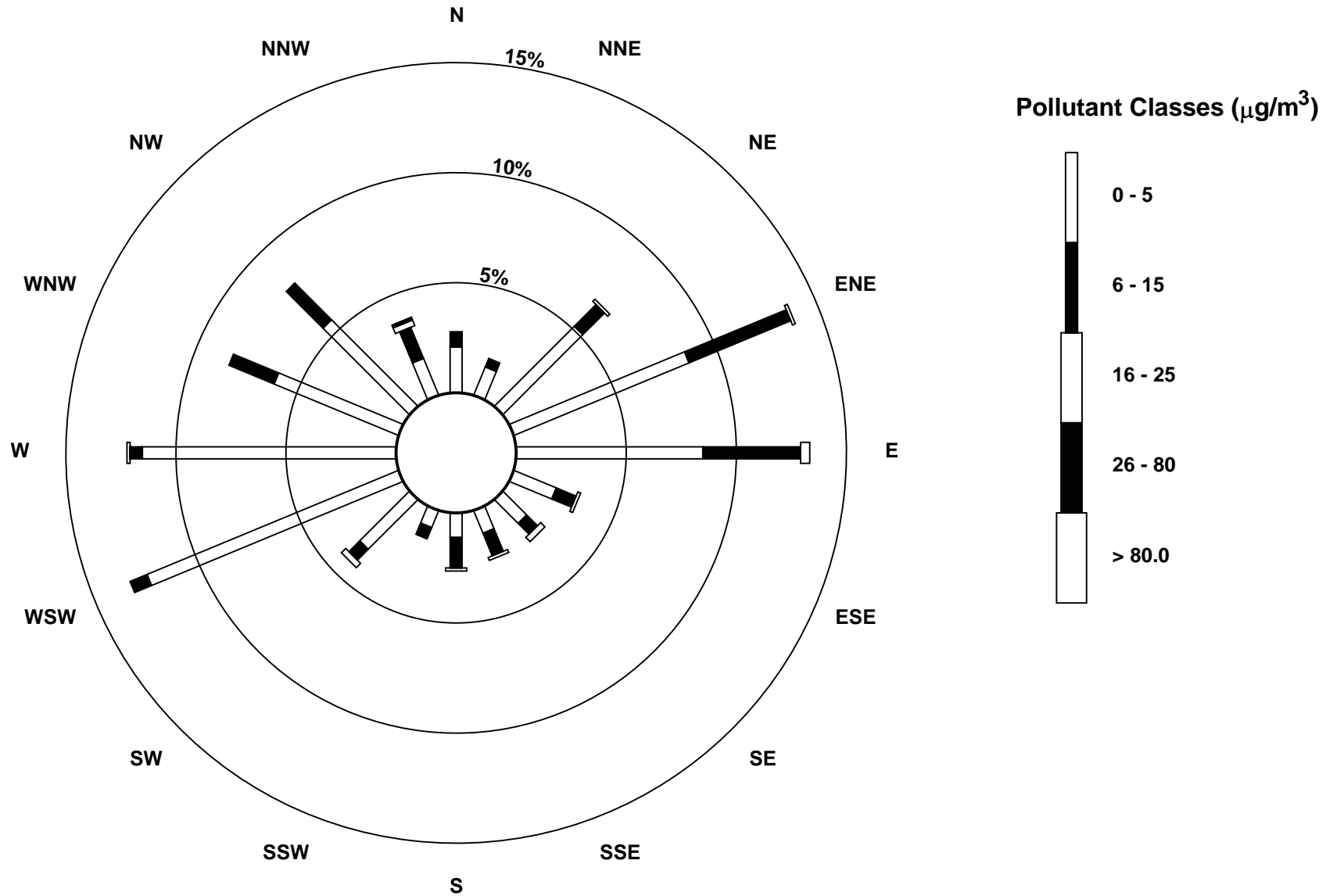
Maximum Value: 92.4 µg/m <sup>3</sup> on Apr 14 22:00		Maximum Daily Average: 18.7 µg/m <sup>3</sup> on Apr 14		Hours in Service: 720																							
Minimum Value: 1 µg/m <sup>3</sup> on Apr 5 15:00		Minimum Daily Average: 1.9 µg/m <sup>3</sup> on Apr 28		Hours of Data: 720																							
Maximum Diurnal Average: 11.2 µg/m <sup>3</sup> at hour 21		Minimum Diurnal Average: 3.1 µg/m <sup>3</sup> at hour 16		Hours of Missing Data: 0																							
Monthly Average: 6.53 µg/m <sup>3</sup>		Percentiles: P <sub>1</sub> = 1.0 P <sub>10</sub> = 1.8 Q <sub>1</sub> = 2.6 Median = 4.4 Q <sub>3</sub> = 7.2 P <sub>90</sub> = 13.8 P <sub>99</sub> = 40.6		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-Apr	16	25	14	14	14	14	14	15	18	13	14	14	8	7	6	6	7	7	12	7	12	10	8	7	11.8	24.7	
2-Apr	7	7	6	7	6	5	7	10	7	4	4	4	4	4	5	4	5	5	6	7	8	9	10	9	6.3	9.8	
3-Apr	10	23	14	7	8	12	7	7	7	6	7	9	12	12	11	9	10	10	11	10	9	10	11	14	10.3	22.9	
4-Apr	14	16	14	15	18	10	6	4	1	3	3	4	4	3	2	2	2	2	3	3	4	5	5	5	6.2	17.6	
5-Apr	43	19	14	24	12	10	8	4	4	2	2	2	1	1	1	1	1	2	3	3	3	4	7	4	7.3	42.7	
6-Apr	5	5	1	1	1	1	1	1	2	2	2	2	2	2	3	2	3	2	2	2	2	2	2	1	2.0	5.3	
7-Apr	4	12	30	21	9	9	12	16	13	6	11	6	4	6	5	5	5	4	12	8	22	32	11	11	11.4	32.4	
8-Apr	7	4	4	4	4	6	18	12	13	7	7	4	5	4	5	2	2	3	2	2	2	2	2	2	5.2	18.4	
9-Apr	6	2	2	2	2	2	2	2	2	2	3	5	4	3	4	3	3	3	2	3	3	2	2	5	2.8	5.5	
10-Apr	5	3	4	3	3	5	11	8	6	4	6	2	3	2	2	2	2	3	3	3	3	4	5	2	3.9	10.5	
11-Apr	2	2	2	2	3	6	5	1	2	3	3	3	3	3	4	4	5	4	3	4	10	7	5	4	3.7	10.1	
12-Apr	4	3	4	3	4	5	6	5	4	3	2	2	2	1	1	1	1	1	1	3	47	27	10	4	6.0	46.9	
13-Apr	8	6	6	5	6	7	6	4	3	2	2	2	2	2	2	2	3	2	3	7	5	6	12	8	4.6	11.9	
14-Apr	10	5	6	8	6	7	7	7	17	15	11	9	7	7	12	7	7	8	8	12	85	92	53	41	18.7	92.4	
15-Apr	20	11	9	8	6	5	5	6	5	6	6	5	5	4	4	5	5	6	7	7	11	14	10	7	7.4	20.3	
16-Apr	6	6	6	6	6	6	6	5	4	4	3	3	3	4	4	3	3	3	3	4	5	6	4	5	4.5	6.5	
17-Apr	9	4	9	10	9	7	6	7	6	4	3	2	3	4	4	4	4	4	5	5	12	17	20	18	7.3	19.7	
18-Apr	20	9	9	10	10	10	9	8	7	7	7	6	6	6	7	5	5	5	6	7	15	18	18	17	9.3	19.7	
19-Apr	12	6	3	2	2	2	2	2	2	1	1	1	1	1	2	2	2	3	3	4	5	6	7	14	3.6	13.7	
20-Apr	9	9	7	6	5	5	5	4	3	2	2	2	2	1	1	2	2	2	2	3	8	7	20	11	5.0	20.3	
21-Apr	22	15	18	19	18	14	15	13	19	10	6	11	5	5	3	3	3	7	5	6	18	8	34	9	11.8	34.0	
22-Apr	3	3	8	4	3	4	5	4	3	3	3	3	3	4	5	4	20	7	8	10	12	8	5	5	5.8	20.4	
23-Apr	6	6	6	7	5	5	5	4	3	3	6	3	1	1	1	1	1	1	1	1	1	1	2	2	3.2	7.3	
24-Apr	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	3	2	4	6	4	4	4	2.5	5.5	
25-Apr	5	6	6	5	5	5	6	5	5	3	3	3	2	2	2	3	2	3	3	2	3	3	4	4	3.7	5.8	
26-Apr	15	4	5	4	4	6	4	5	5	3	4	4	5	4	2	2	3	3	2	3	5	6	6	4	4.5	14.9	
27-Apr	4	4	5	7	7	7	7	6	6	5	4	4	4	3	2	1	1	2	2	2	3	3	3	2	3.9	7.5	
28-Apr	4	3	2	2	2	2	1	1	2	1	2	2	2	2	2	2	2	2	2	2	2	3	3	2	1.9	3.6	
29-Apr	4	3	3	3	4	5	8	7	4	5	3	3	2	2	2	2	2	2	4	4	10	12	17	61	7.1	60.7	
30-Apr	19	25	22	34	28	24	29	29	31	31	10	6	4	4	6	3	4	4	4	3	4	4	4	5	14.0	34.2	
		10.0	8.2	8.0	8.2	7.1	6.8	7.5	6.9	6.7	5.4	4.7	4.3	3.8	3.5	3.7	3.1	3.9	3.8	4.4	4.7	11.2	11.0	10.1	9.5	Diurnal Average	
		42.7	25.0	30.0	34.2	28.2	23.9	28.7	28.7	31.1	30.9	14.0	14.3	12.5	11.7	11.6	8.7	20.4	10.4	12.3	12.2	84.9	92.4	53.4	60.7	Diurnal Maximum	





**Pollutant Rose**

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

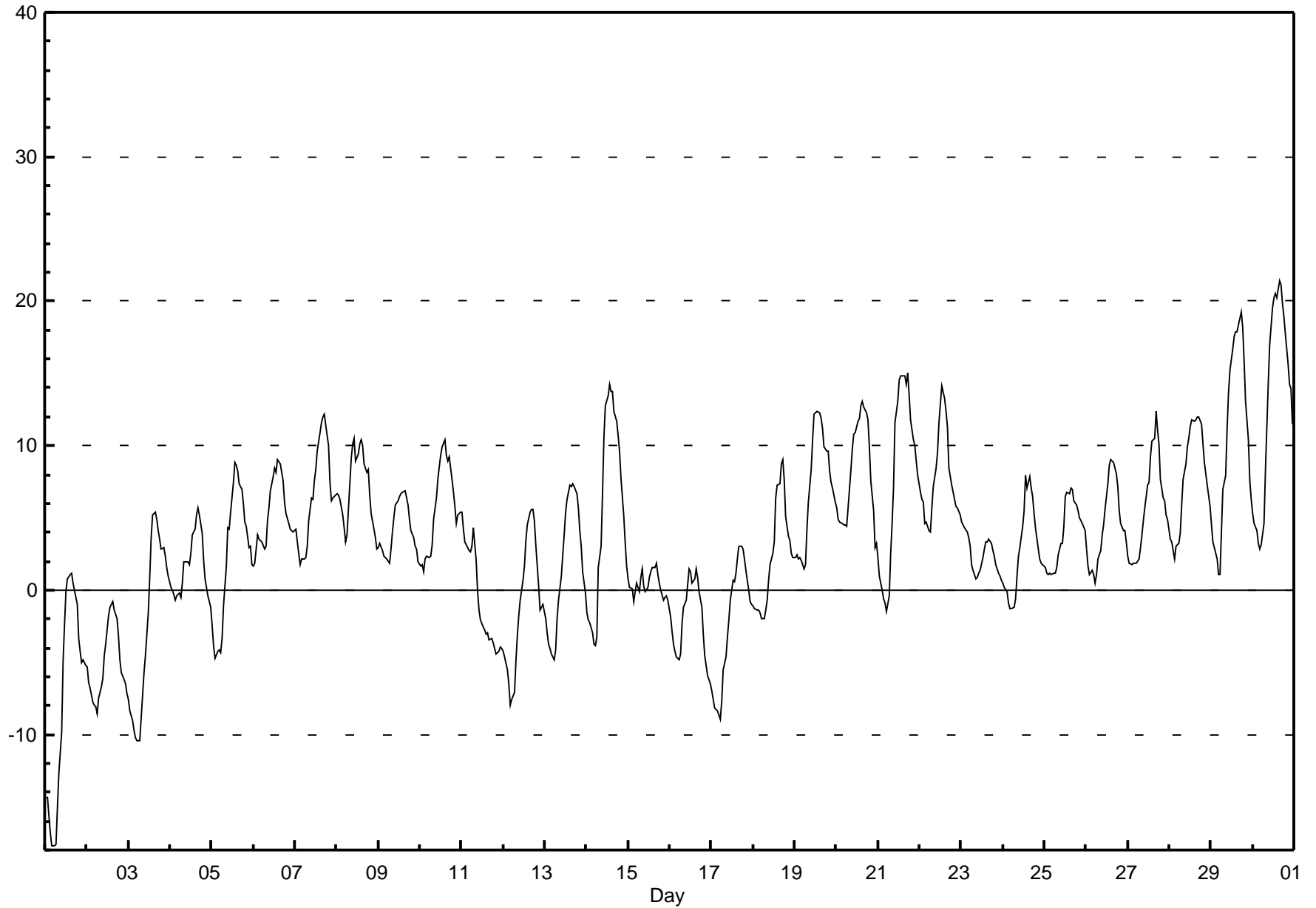


## Hourly Averages

External Temperature (ET) - °C

Henry Pirker - April 2014

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 21.4 °C on Apr 30 16:00 Maximum Daily Average: 13.1 °C on Apr 30		Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																									
Minimum Value: -18 °C on Apr 1 05:00 Maximum Diurnal Average: 8.1 °C at hour 16 Monthly Average: 3.46 °C		Minimum Daily Average: -7.5 °C on Apr 1 Minimum Diurnal Average: -1.2 °C at hour 6 Percentiles: P <sub>1</sub> = -14.9 P <sub>10</sub> = -4.3 Q <sub>1</sub> = 0.1 Median = 3.2 Q <sub>3</sub> = 7.1 P <sub>90</sub> = 11.3 P <sub>99</sub> = 19.4																									
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-Apr	-14	-14	-16	-17	-18	-18	-18	-15	-13	-10	-5	-2	0	1	1	1	0	0	-1	-3	-4	-5	-5	-5	-7.5	1.1	
2-Apr	-5	-6	-7	-8	-8	-8	-9	-7	-7	-6	-5	-4	-2	-1	-1	-1	-1	-2	-3	-5	-6	-6	-6	-7	-5.0	-0.8	
3-Apr	-8	-8	-9	-10	-10	-10	-10	-9	-7	-6	-5	-2	1	4	5	5	5	4	4	3	3	2	2	1	-2.3	5.4	
4-Apr	0	0	0	-1	0	0	0	0	2	2	2	2	3	4	4	5	6	5	4	2	1	0	0	-1	1.6	5.7	
5-Apr	-2	-4	-5	-4	-4	-4	-3	-1	2	4	4	5	7	9	9	8	7	7	6	5	4	3	3	2	2.4	8.8	
6-Apr	2	2	4	4	3	3	3	3	5	6	7	8	8	8	9	9	8	8	6	5	5	4	4	4	5.3	9.1	
7-Apr	4	3	3	2	2	2	2	3	5	6	6	8	8	10	11	12	12	12	11	10	7	6	6	7	6.6	12.1	
8-Apr	7	7	6	5	4	3	4	6	9	10	11	9	9	10	10	10	9	8	8	7	5	4	4	3	7.0	10.5	
9-Apr	3	3	3	2	2	2	2	3	4	5	6	6	7	7	7	7	6	6	5	4	4	3	3	2	4.2	6.9	
10-Apr	2	2	1	2	2	2	2	3	5	6	8	9	9	10	10	9	9	9	8	7	6	5	5	5	5.7	10.5	
11-Apr	5	4	3	3	3	3	3	4	2	0	-1	-2	-3	-3	-3	-3	-3	-3	-4	-4	-4	-4	-4	-4	-0.6	5.4	
12-Apr	-4	-5	-6	-6	-8	-8	-7	-5	-3	-2	-1	1	2	3	5	5	6	6	5	3	0	-1	-1	-1	-0.9	5.6	
13-Apr	-2	-3	-4	-4	-4	-5	-4	-2	-1	1	2	4	5	6	7	7	7	7	7	6	4	3	1	0	1.6	7.3	
14-Apr	-2	-2	-2	-3	-4	-4	-3	2	3	7	11	13	13	14	14	14	12	12	11	10	8	5	3	2	5.5	14.3	
15-Apr	1	0	0	-1	0	0	0	1	2	0	0	0	1	1	2	2	2	1	0	0	-1	-1	0	-1	0.4	1.9	
16-Apr	-2	-3	-4	-4	-5	-5	-4	-2	-1	-1	0	1	1	0	1	1	1	0	-1	-3	-5	-5	-6	-7	-2.1	1.4	
17-Apr	-7	-8	-8	-8	-9	-9	-8	-6	-5	-3	-2	-1	1	1	1	2	3	3	3	2	1	0	-1	-1	-2.4	3.1	
18-Apr	-1	-1	-1	-1	-2	-2	-2	-1	-1	1	2	3	3	6	7	7	9	9	8	5	4	3	3	2	2.5	9.1	
19-Apr	2	2	2	2	2	1	2	4	6	8	10	12	12	12	12	12	11	10	10	10	8	8	7	6	7.2	12.3	
20-Apr	6	5	5	5	4	4	4	6	8	10	11	11	12	12	13	13	13	12	12	10	8	6	3	3	8.1	13.1	
21-Apr	2	1	0	-1	-1	-2	0	3	5	7	12	13	15	15	15	15	14	15	14	12	10	10	9	8	7.9	15.0	
22-Apr	7	6	6	5	5	4	4	6	7	8	9	12	13	14	13	12	11	8	7	7	6	6	6	5	7.8	14.2	
23-Apr	5	5	4	4	4	3	2	1	1	1	1	1	2	3	3	3	4	3	3	2	2	1	1	1	2.5	4.7	
24-Apr	0	0	0	-1	-1	-1	-1	-1	1	2	3	4	6	8	7	8	7	6	5	4	3	2	2	2	2.8	8.0	
25-Apr	2	1	1	1	1	1	1	2	2	3	3	4	6	7	7	7	7	6	6	5	5	5	5	4	3.9	7.0	
26-Apr	3	2	1	1	1	0	1	2	3	4	5	6	7	9	9	9	9	8	7	5	5	4	4	3	4.5	9.1	
27-Apr	2	2	2	2	2	2	2	3	4	5	6	7	7	9	10	11	12	11	10	8	6	6	5	5	5.8	12.3	
28-Apr	3	3	3	2	3	3	4	6	8	9	10	10	11	12	12	12	12	12	12	10	9	8	7	6	7.8	12.0	
29-Apr	4	3	3	2	1	1	4	7	8	11	14	15	17	18	18	18	18	18	19	18	16	13	10	8	6	10.5	19.2
30-Apr	5	5	4	3	3	3	5	8	11	14	17	20	20	21	20	21	21	20	19	18	16	14	14	11	13.1	21.4	
																								Diurnal Average			
																								Diurnal Maximum			



# Hourly Averages

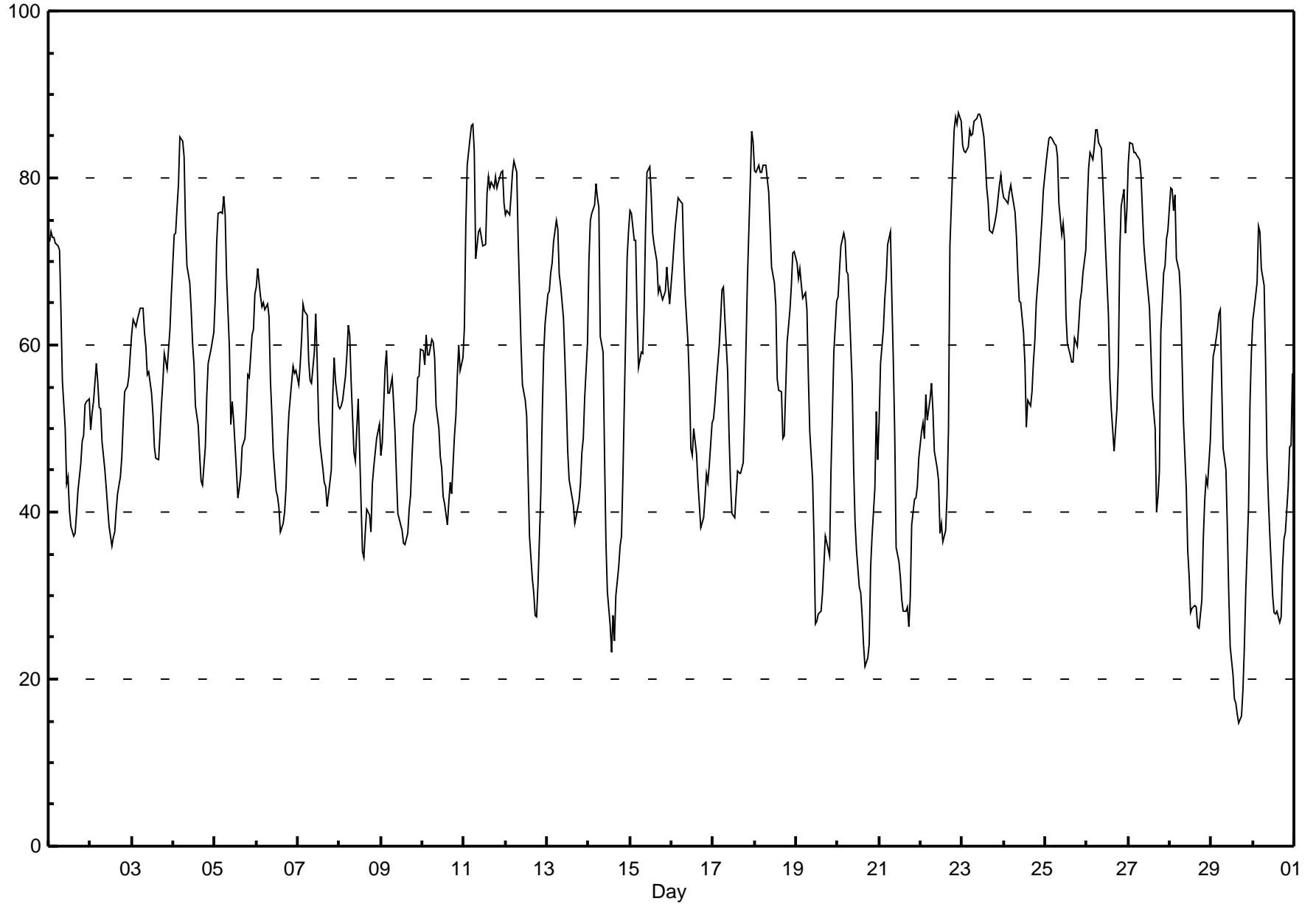
Relative Humidity (RH) - %

Henry Pirker - April 2014

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 87.8 % on Apr 22 23:00 Maximum Daily Average: 81.6 % on Apr 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: 15 % on Apr 29 17:00 Maximum Diurnal Average: 71.3 % at hour 6 Monthly Average: 57.55 %		Minimum Daily Average: 38.7 % on Apr 29 Minimum Diurnal Average: 42.8 % at hour 17 Percentiles: P <sub>1</sub> = 21.2 P <sub>10</sub> = 36.4 Q <sub>1</sub> = 44.8 Median = 57.9 Q <sub>3</sub> = 71.8 P <sub>90</sub> = 79.7 P <sub>99</sub> = 86.6																								
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-Apr	72	73	73	73	72	72	71	64	56	50	43	44	40	38	37	38	40	43	46	48	49	53	53	54	54.3	73.5
2-Apr	50	52	53	58	56	53	52	49	45	43	41	38	36	37	38	40	42	44	47	51	54	55	56	59	47.8	59.0
3-Apr	61	63	62	63	64	64	64	62	60	56	57	54	52	48	46	46	49	53	56	59	57	60	62	66	57.7	66.1
4-Apr	73	73	76	79	85	84	83	74	70	68	64	60	58	53	50	47	44	43	48	54	58	59	60	62	63.5	85.0
5-Apr	66	72	76	76	76	78	76	68	60	51	53	51	45	42	43	44	48	49	52	56	56	61	62	66	59.4	77.7
6-Apr	67	69	66	65	65	64	65	63	56	52	47	43	42	41	38	39	40	43	48	52	56	57	57	57	53.7	69.1
7-Apr	55	58	61	65	64	64	58	56	55	59	64	58	51	48	45	43	43	41	44	45	54	58	56	53	54.1	64.9
8-Apr	52	53	53	56	59	62	61	56	47	46	50	54	41	35	35	38	40	40	38	43	45	49	50	51	48.1	62.5
9-Apr	47	48	57	59	54	54	56	53	50	44	40	38	38	36	36	37	40	42	47	50	52	56	56	59	48.0	59.5
10-Apr	59	58	61	59	59	61	60	58	53	50	47	45	42	41	38	41	44	42	49	51	56	60	57	59	52.1	61.2
11-Apr	62	74	82	85	86	87	83	70	74	74	73	72	78	80	79	80	79	80	79	79	79	81	81	77	77.8	86.5
12-Apr	76	76	76	78	81	82	81	73	66	60	55	53	51	44	37	32	30	28	27	31	42	52	59	63	56.4	82.1
13-Apr	66	67	69	70	72	75	74	68	67	63	58	53	47	44	42	41	39	39	41	43	47	49	54	60	56.2	75.0
14-Apr	70	75	76	77	79	78	76	61	59	47	36	31	27	23	28	25	30	33	36	37	44	62	70	74	52.2	79.3
15-Apr	76	76	73	72	64	57	59	59	64	74	81	81	78	73	72	70	66	67	66	65	66	69	67	65	69.3	81.3
16-Apr	69	72	74	76	78	77	77	70	66	60	55	48	47	50	47	44	41	38	39	42	45	43	46	51	56.4	77.6
17-Apr	51	53	56	60	63	67	67	63	57	49	44	40	39	42	45	45	45	46	52	60	68	80	86	84	56.7	85.7
18-Apr	81	81	82	81	81	82	82	80	78	74	69	67	65	56	55	54	49	49	55	60	64	67	71	71	68.9	81.6
19-Apr	70	68	69	67	66	66	64	56	50	44	37	27	27	28	28	30	34	37	36	35	45	52	59	65	48.3	69.8
20-Apr	66	69	72	73	73	69	68	64	55	45	39	35	31	30	28	24	22	23	24	33	37	43	52	46	46.7	73.4
21-Apr	51	58	62	66	68	72	74	66	58	50	36	34	32	29	28	28	29	26	30	38	42	42	43	46	46.1	73.5
22-Apr	50	51	49	54	51	54	55	52	47	45	44	37	39	36	38	42	50	72	81	86	87	86	88	87	57.6	87.8
23-Apr	84	83	83	84	86	85	85	87	87	88	88	87	85	82	79	77	74	73	74	75	76	79	80	79	81.6	87.7
24-Apr	78	77	77	78	79	78	76	73	69	65	65	62	58	50	53	53	54	58	61	65	69	72	75	78	67.7	79.1
25-Apr	82	83	85	85	85	84	84	83	77	73	74	72	64	60	59	58	58	61	60	62	65	66	69	71	71.7	84.9
26-Apr	77	81	83	82	84	86	86	84	84	80	76	71	64	56	52	50	47	52	58	71	77	79	73	76	72.0	85.7
27-Apr	82	84	84	83	83	83	82	80	76	72	70	66	64	59	54	50	40	42	45	62	69	69	73	74	68.6	84.3
28-Apr	79	79	76	78	70	69	66	58	51	43	35	32	28	29	29	26	26	29	37	41	44	43	49	47.7	78.8	
29-Apr	54	59	59	62	64	64	55	48	45	38	30	24	21	18	17	16	15	16	19	24	30	41	53	59	38.7	64.2
30-Apr	63	64	67	74	74	69	67	58	47	42	37	30	28	28	28	27	27	33	37	38	43	48	48	57	47.2	74.3
																								Diurnal Average		
																								Diurnal Maximum		
66.3 68.3 69.7 71.2 71.3 71.3 70.3 65.2 60.9 56.8 53.6 50.3 47.0 44.5 43.5 42.9 42.8 44.6 47.4 51.8 55.9 59.7 61.9 63.9																								84.0 84.3 84.7 84.9 86.3 86.5 85.7 86.8 87.2 87.6 87.7 87.2 84.8 82.1 80.2 78.9 79.6 78.9 81.4 85.8 87.3 86.4 87.8 86.8		

**Hourly Averages**

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

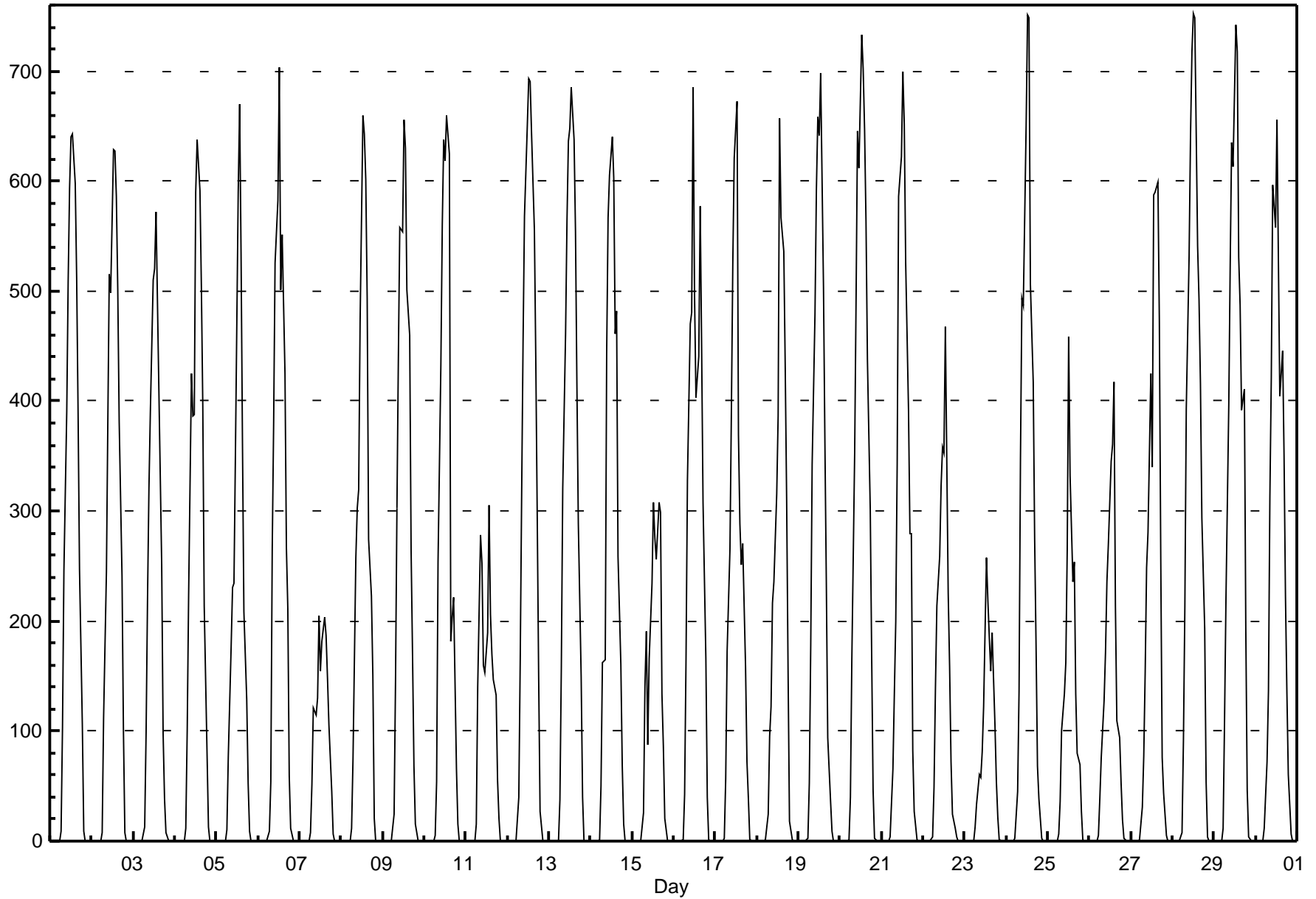


## Hourly Averages

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

Henry Pirker - April 2014

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 752.4 W/m <sup>2</sup> on Apr 28 13:00      Maximum Daily Average: 253.7 W/m <sup>2</sup> on Apr 28		Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																								
Minimum Value: 0 W/m <sup>2</sup> on Apr 1 01:00 Maximum Diurnal Average: 550.7 W/m <sup>2</sup> at hour 13 Monthly Average: 176.43 W/m <sup>2</sup>		Minimum Daily Average: 64.8 W/m <sup>2</sup> on Apr 23 Minimum Diurnal Average: 0.0 W/m <sup>2</sup> at hour 1 Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 52.4 Q <sub>3</sub> = 313.0 P <sub>90</sub> = 566.7 P <sub>99</sub> = 706.5																								
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-Apr	0	0	0	0	0	0	9	103	246	391	509	594	640	642	598	511	389	247	106	9	0	0	0	0	208.1	642.2
2-Apr	0	0	0	0	0	0	8	113	245	382	515	499	628	628	586	501	382	241	101	8	0	0	0	0	201.5	628.3
3-Apr	0	0	0	0	0	0	13	100	220	321	390	511	520	571	490	331	251	98	38	8	0	0	0	0	160.9	571.4
4-Apr	0	0	0	0	0	0	12	100	222	425	387	388	589	637	591	503	396	214	80	13	0	0	0	0	189.9	637.1
5-Apr	0	0	0	0	0	0	10	78	176	231	235	349	590	670	535	362	208	128	53	9	0	0	0	0	151.5	669.6
6-Apr	0	0	0	0	0	0	9	54	265	380	525	582	703	501	551	425	266	211	59	12	0	0	0	0	189.3	702.8
7-Apr	0	0	0	0	0	0	7	52	122	114	131	205	154	182	204	187	148	106	45	6	0	0	0	0	69.3	204.9
8-Apr	0	0	0	0	0	0	12	75	258	302	320	472	660	642	602	493	274	222	150	20	0	0	0	0	187.6	659.7
9-Apr	0	0	0	0	0	0	25	145	303	438	558	554	656	630	501	460	264	170	68	16	0	0	0	0	199.5	658.8
10-Apr	0	0	0	0	0	0	5	54	254	432	560	637	619	659	625	182	203	222	65	16	0	0	0	0	189.0	659.3
11-Apr	0	0	0	0	0	0	16	141	278	252	159	153	190	305	207	170	147	133	56	21	0	0	0	0	92.7	305.1
12-Apr	0	0	0	0	0	0	40	164	314	453	569	651	692	691	642	555	436	295	151	27	0	0	0	0	236.7	692.4
13-Apr	0	0	0	0	0	1	37	157	320	461	564	636	648	685	637	554	413	288	149	40	0	0	0	0	232.9	684.7
14-Apr	0	0	0	0	0	1	51	162	165	443	567	606	640	603	461	482	258	162	68	15	0	0	0	0	195.1	639.7
15-Apr	0	0	0	0	0	1	26	140	191	88	166	235	308	276	257	308	299	134	87	21	0	0	0	0	105.6	308.3
16-Apr	0	0	0	0	0	1	42	166	328	470	481	685	497	404	441	577	449	308	166	39	1	0	0	0	210.7	685.1
17-Apr	0	0	0	0	0	3	57	173	265	390	524	620	672	369	288	251	270	158	72	39	1	0	0	0	173.0	672.4
18-Apr	0	0	0	0	0	1	25	95	123	216	236	315	386	656	567	536	431	310	156	18	1	0	0	0	169.7	656.3
19-Apr	0	0	0	0	0	3	53	178	343	479	592	658	641	698	503	361	236	94	36	9	0	0	0	0	203.5	697.7
20-Apr	0	0	0	0	0	2	40	165	353	493	645	611	733	702	647	563	437	301	169	46	2	0	0	0	246.3	733.3
21-Apr	0	0	0	0	0	4	66	134	200	343	587	622	699	652	525	391	280	279	82	28	2	0	0	0	203.9	699.1
22-Apr	0	0	0	0	0	4	49	140	213	259	323	358	353	467	225	159	73	24	11	3	0	0	0	0	110.9	467.2
23-Apr	0	0	0	0	0	0	12	33	60	58	81	122	258	219	186	154	189	105	54	22	2	0	0	0	64.8	258.2
24-Apr	0	0	0	0	0	3	45	136	347	494	487	650	751	748	506	417	275	178	68	39	3	0	0	0	214.5	751.0
25-Apr	0	0	0	0	0	0	6	36	100	134	163	266	459	333	236	254	134	80	70	27	2	0	0	0	95.8	458.7
26-Apr	0	0	0	0	0	5	39	75	128	171	236	269	345	361	417	213	109	95	53	19	3	0	0	0	105.8	417.0
27-Apr	0	0	0	0	0	1	31	77	153	249	281	425	340	588	590	599	473	257	75	44	6	0	0	0	174.6	599.2
28-Apr	0	0	0	0	0	8	92	212	393	531	642	718	752	749	540	492	416	294	193	54	4	0	0	0	253.7	752.4
29-Apr	0	0	0	0	0	11	110	219	396	525	634	613	742	717	530	487	391	411	195	46	4	0	0	0	251.3	741.7
30-Apr	0	0	0	0	0	11	72	136	313	421	597	558	655	530	404	446	350	223	135	60	7	0	0	0	205.0	655.2
		0.0	0.0	0.0	0.0	0.0	2.0	33.9	120.4	243.1	344.9	422.1	485.3	550.7	550.5	469.8	397.5	295.0	199.6	93.8	24.5	1.2	0.0	0.0	0.0	Diurnal Average
		0.0	0.0	0.0	0.0	0.0	11.4	110.0	218.7	396.1	531.5	645.0	717.5	752.4	748.5	646.7	599.2	473.1	411.0	194.5	60.3	6.9	0.0	0.0	0.0	Diurnal Maximum





## Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	2	4	4	4	5	3	2	4	5	5	4	3	5	6	7	8	10	11	8	8	7	7	8	7	4.0	10.9
Dir	335	354	339	322	304	331	339	326	316	306	299	52	64	57	60	64	62	72	64	53	58	60	71	63	38.0	72.3
2 Spd	8	8	8	6	8	7	7	5	8	9	8	6	6	5	6	7	8	8	8	9	6	5	5	4	5.1	9.3
Dir	57	54	23	356	17	349	6	333	341	343	348	351	325	342	29	76	68	84	86	89	90	74	77	71	31.5	343.1
3 Spd	4	4	5	4	3	5	5	8	9	5	9	8	8	7	9	11	11	11	8	6	6	6	4	3	6.5	11.1
Dir	78	66	79	71	84	70	81	94	110	85	85	87	80	76	75	72	75	80	73	76	89	91	121	149	83.1	80.0
4 Spd	1	0	5	7	9	10	12	12	16	15	15	15	16	14	14	9	7	6	9	8	7	7	6	4	5.0	16.2
Dir	303	137	296	295	228	245	244	252	297	303	307	315	323	319	317	291	285	287	98	96	115	126	138	124	292.5	297.4
5 Spd	2	2	1	1	2	1	3	7	11	22	13	12	14	16	15	15	11	12	9	5	6	5	6	1	7.4	22.4
Dir	159	297	211	311	320	188	237	234	246	264	255	260	245	264	284	286	287	279	274	239	249	234	277	169	263.4	264.1
6 Spd	2	7	13	13	17	19	21	21	21	25	21	22	24	19	22	22	24	26	24	19	15	12	12	12	18.2	26.0
Dir	236	232	269	238	245	245	250	256	256	259	265	263	255	258	272	271	252	255	257	259	256	250	246	241	255.7	257.2
7 Spd	11	3	1	2	2	4	4	3	5	5	7	8	7	5	9	4	5	7	3	6	1	3	3	4	3.8	11.4
Dir	231	196	97	219	174	157	159	171	186	150	151	175	175	183	232	233	255	221	241	234	46	108	153	170	193.5	231.0
8 Spd	7	8	6	5	5	6	5	6	2	3	15	30	30	31	30	28	26	27	20	22	22	20	17	13	14.4	31.1
Dir	202	211	203	141	157	147	189	177	299	302	265	276	253	248	249	252	246	250	247	257	256	257	249	239	247.3	248.2
9 Spd	15	22	23	23	23	23	20	18	24	24	27	32	32	33	32	31	27	23	22	18	24	18	16	6	22.9	33.3
Dir	254	262	259	255	256	259	260	271	269	267	270	273	263	272	274	277	268	266	271	265	260	264	257	228	265.4	272.3
10 Spd	6	10	8	10	6	4	4	3	9	23	29	28	29	29	27	27	23	23	19	18	12	2	8	11	15.0	29.4
Dir	231	241	242	239	242	254	262	244	254	261	256	260	267	262	257	274	272	266	260	262	256	204	220	238	258.2	262.3
11 Spd	16	6	5	3	4	4	8	15	28	28	28	26	26	24	21	15	15	11	10	8	6	7	7	9	11.1	28.4
Dir	243	237	176	133	147	172	252	263	314	314	320	313	314	313	317	338	354	351	350	335	312	304	309	315	310.9	313.9
12 Spd	10	8	9	5	3	4	6	10	11	12	12	10	9	8	8	8	8	7	6	4	2	2	4	7	5.8	12.3
Dir	306	313	308	320	312	256	262	247	245	247	251	280	289	291	289	285	282	305	332	319	325	262	8	63	286.3	250.6
13 Spd	7	5	6	7	5	4	5	7	8	6	7	9	9	11	12	14	13	13	10	8	8	6	1	1	7.5	13.7
Dir	71	82	70	73	79	84	90	95	108	95	86	91	83	81	81	87	87	85	84	79	91	99	88	317	85.3	87.0
14 Spd	2	4	4	3	3	3	2	1	1	3	3	4	6	7	6	7	10	9	6	4	1	2	2	4	1.5	9.7
Dir	312	307	328	328	316	321	290	259	197	284	286	282	310	313	30	69	91	98	93	89	61	333	340	291	1.0	91.1
15 Spd	4	5	5	5	4	7	8	12	12	12	10	11	12	10	8	9	8	8	8	4	0	3	3	7	6.5	12.2
Dir	335	1	335	332	12	49	43	48	39	33	39	22	26	32	49	60	63	68	77	93	267	343	45	72	38.6	33.4
16 Spd	6	5	4	5	6	6	5	8	10	10	9	9	8	10	8	8	9	11	11	11	9	9	7	6	7.8	11.3
Dir	74	63	57	49	51	52	50	59	66	67	47	42	36	38	60	36	72	68	63	62	63	69	81	73	58.5	61.8
17 Spd	5	3	4	4	4	3	5	8	11	11	11	11	12	12	12	11	12	13	11	12	12	13	11	9	9.0	13.0
Dir	67	59	59	72	72	66	80	99	94	94	86	79	71	71	73	69	82	84	87	91	100	106	96	89	83.9	84.4
18 Spd	9	9	8	6	7	7	7	7	5	1	3	4	5	4	5	2	4	3	5	6	4	3	4	1	2.4	9.0
Dir	91	89	91	84	74	80	81	85	93	29	261	294	321	259	312	277	266	271	62	64	84	109	164	159	75.7	91.2
19 Spd	2	5	8	8	10	11	9	6	9	8	8	5	1	8	10	10	6	10	9	3	4	4	2	1	1.9	11.3
Dir	207	276	253	247	249	241	243	279	266	266	277	294	4	42	61	56	50	65	38	77	275	347	142	117	294.5	241.4
20 Spd	2	1	2	5	6	6	9	9	16	25	28	28	32	31	23	25	30	27	20	10	5	2	3	2	13.8	31.8
Dir	183	319	296	262	233	226	229	237	251	259	259	267	268	271	270	276	277	278	280	288	266	287	174	203	265.7	267.7
21 Spd	3	3	3	3	1	2	2	1	1	4	3	4	6	6	7	10	9	9	9	8	6	8	7	6	3.4	9.7
Dir	158	142	142	137	254	327	289	263	222	241	288	10	49	77	83	72	84	70	72	60	57	70	88	55	72.2	71.7
22 Spd	7	6	6	5	6	6	6	9	13	13	14	15	11	13	19	17	19	11	8	3	3	5	7	9	8.6	18.9
Dir	68	79	72	67	81	77	69	88	94	104	102	103	66	66	87	81	87	108	110	80	60	67	351	356	81.7	86.9

## Hourly Averages

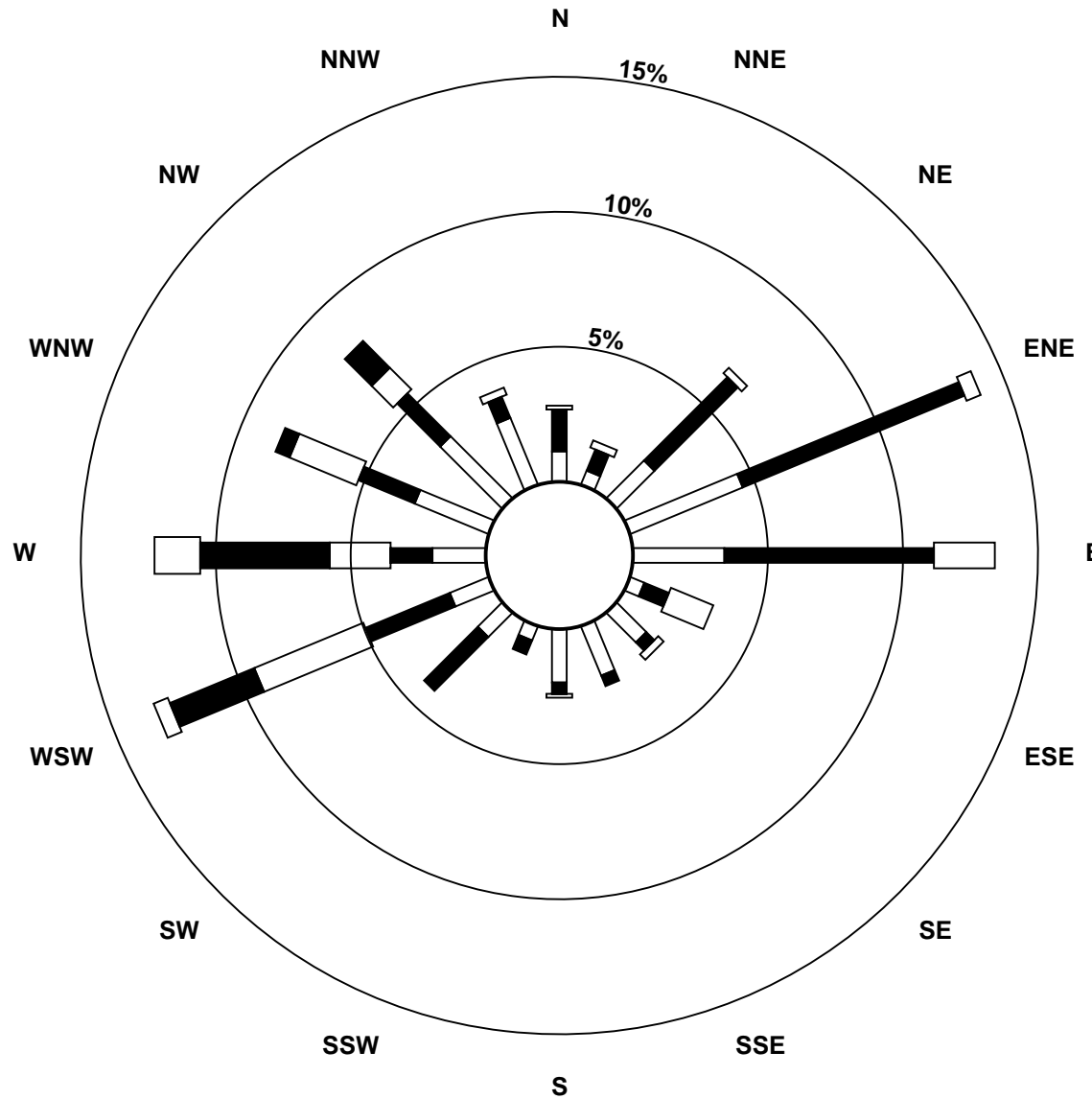
Wind Speed (km/h)  
Wind Direction (deg)  
Henry Pirker - April 2014

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	7	3	4	6	6	9	10	10	13	16	19	27	26	26	22	22	20	17	15	12	11	9	11	12.2	27.3
Dir	40	51	61	29	0	352	336	309	304	295	294	291	291	294	294	307	305	308	306	302	307	302	281	278	304.8	291.2
24 Spd	12	14	15	14	13	15	15	17	14	13	13	11	9	5	7	5	8	10	9	10	8	6	5	5	6.9	16.7
Dir	283	280	280	290	289	283	289	294	292	293	299	301	321	315	3	60	55	42	37	50	49	48	50	45	315.4	294.1
25 Spd	6	5	4	4	3	4	4	3	4	4	4	3	3	3	3	5	5	7	6	8	4	4	5	6	3.6	7.6
Dir	40	46	22	350	333	357	324	11	55	65	79	73	37	16	49	57	67	67	72	99	98	85	91	108	55.8	99.0
26 Spd	5	6	4	4	6	4	4	8	6	8	12	13	13	15	17	16	16	19	18	14	10	8	14	13	9.9	18.6
Dir	84	95	80	54	40	73	88	90	54	60	89	90	94	105	103	106	118	126	126	117	101	97	113	105	100.3	125.6
27 Spd	14	13	11	6	5	5	4	3	4	7	7	6	12	10	14	14	7	10	7	4	5	17	3	4	1.2	16.6
Dir	104	98	100	98	75	79	68	97	304	284	242	261	288	296	315	328	309	325	294	167	176	180	299	296	310.0	180.4
28 Spd	7	9	9	9	14	14	12	14	14	19	25	28	29	27	26	26	23	20	21	22	16	10	10	11	16.8	29.4
Dir	198	226	232	246	255	249	240	248	249	254	258	268	266	256	269	267	264	256	254	250	253	236	218	232	253.5	265.8
29 Spd	11	9	10	4	2	3	1	2	5	4	6	6	5	5	5	8	9	9	8	6	2	4	3	3	1.2	10.8
Dir	236	234	235	259	341	304	242	176	225	222	163	143	136	159	139	105	87	61	54	50	35	298	311	334	169.2	236.5
30 Spd	1	1	2	1	2	1	0	1	2	3	5	6	12	14	17	13	17	26	25	21	15	15	10	3	8.0	25.6
Dir	129	132	170	124	167	80	44	228	224	266	229	238	248	256	244	250	272	283	277	268	282	275	254	281	263.2	283.3
Spd	0.7	0.7	1.5	1.8	1.9	1.9	2.4	2.4	3.9	6.0	6.0	6.7	7.3	6.8	5.4	4.3	3.0	2.9	2.1	1.5	1.5	0.7	0.9	0.2	Diurnal Average	
Dir	219.3	264.8	276.6	283.6	276.3	269.5	268.0	264.5	282.0	281.2	277.1	285.2	285.9	285.6	294.7	307.2	301.3	297.8	307.2	286.8	270.2	237.9	221.0	201.0	Diurnal Maximum	
Spd	16.1	21.7	22.7	23.4	22.6	23.5	20.8	20.7	27.7	28.4	29.3	31.8	31.8	33.3	31.8	30.9	29.6	26.8	26.0	24.1	23.6	20.0	16.6	12.8	Diurnal Maximum	
Dir	242.9	262.0	258.8	255.0	256.3	258.6	249.7	256.2	314.4	313.9	255.8	273.1	267.7	272.3	274.0	277.1	277.2	277.5	257.2	258.8	260.4	257.2	249.1	105.2	Diurnal Maximum	
Maximum Speed Value: 33 km/h on Apr 9 14:00		Minimum Speed Value: 0 km/h on Apr 4 02:00		Hours in Service: 720																						
Maximum Daily Speed Average: 22.9 km/h on Apr 9		Minimum Daily Speed Average: 1.2 km/h on Apr 14		Hours of Data: 720																						
Maximum Diurnal Speed Average: 7.3 km/h at hour 13		Minimum Diurnal Speed Average: 0.2 km/h at hour 24		Hours of Missing Data: 0																						
Monthly Average Velocity: 2.91 km/h 283.49 deg				Speed Percentiles: P <sub>1</sub> = 0.9 P <sub>10</sub> = 2.8 Q <sub>1</sub> = 4.6 Median = 7.7 Q <sub>3</sub> = 12.4 P <sub>90</sub> = 21.8 P <sub>99</sub> = 30.8				Percent Operational Time: 100.0																		
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
	Speed Range (km/h)																									
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	17	17	2	0	0	0	36																			
NorthEast	26	70	7	0	0	0	103																			
East	34	95	36	0	0	0	165																			
SouthEast	18	9	5	0	0	0	32																			
South	24	7	1	0	0	0	32																			
SouthWest	18	36	18	2	0	0	74																			
West	28	28	45	58	18	0	177																			
NorthWest	42	28	19	10	2	0	101																			
Total	207	290	133	70	20	0	720																			

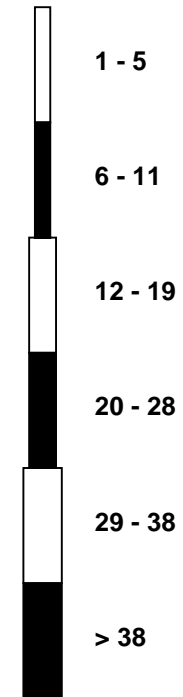
**Wind Rose**

Wind Speed (WS) (km/h)

Henry Pirker - April 2014



Wind Speed Classes (km/h)



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - April 2014

<b>Maximum Speed: 34 km/h on Apr 9 14:00</b>		<b>Maximum Daily Speed Average: 23.3 km/h on Apr 9</b>		Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0																							
<b>Minimum Speed: 1 km/h on Apr 5 06:00</b>		<b>Minimum Daily Speed Average: 4.4 km/h on Apr 14</b>		Percent Operational Time: 100.0																							
<b>Maximum Diurnal Speed Average: 14.8 km/h at hour 15</b>		<b>Minimum Diurnal Speed Average: 6.3 km/h at hour 4</b>		Percentiles: $P_1 = 1.3$ $P_{10} = 3.3$ $Q_1 = 5.1$ Median = 8.1 $Q_3 = 12.8$ $P_{90} = 22.0$ $P_{99} = 31.3$																							
<b>Monthly Average Speed: 10.10 km/h</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-Apr	3	5	4	4	5	3	2	4	5	5	4	6	5	6	7	8	10	11	8	8	7	7	8	7	6.0	11.2	
2-Apr	8	9	8	7	8	7	7	6	9	10	9	7	6	6	7	7	9	8	8	9	7	5	5	4	7.3	9.7	
3-Apr	4	4	5	5	4	5	5	8	9	6	10	8	8	8	9	11	11	11	8	6	6	6	4	4	6.9	11.3	
4-Apr	2	1	7	7	9	10	12	12	17	16	15	15	16	15	14	9	7	6	9	8	7	7	6	5	9.7	16.9	
5-Apr	2	2	1	2	2	1	3	7	12	23	14	12	15	17	15	15	11	12	9	6	6	5	6	2	8.3	22.6	
6-Apr	3	7	14	13	17	19	21	21	21	25	21	22	23	24	19	22	22	24	26	24	19	16	13	12	18.7	26.1	
7-Apr	12	5	2	3	3	4	4	4	6	5	8	8	7	5	9	5	6	7	6	7	2	3	3	5	5.4	11.5	
8-Apr	7	8	7	5	5	6	5	6	3	4	15	30	31	31	31	28	26	27	21	22	22	20	17	13	16.3	31.4	
9-Apr	15	22	23	23	23	24	20	18	24	24	27	32	32	34	32	31	27	23	22	18	24	18	16	6	23.3	33.6	
10-Apr	6	10	8	10	6	4	4	3	9	23	30	28	29	30	27	27	23	24	19	18	13	3	9	11	15.6	29.8	
11-Apr	17	7	5	3	4	4	8	16	28	29	28	26	26	24	21	15	15	11	10	8	6	7	7	9	14.0	28.6	
12-Apr	10	8	9	6	3	4	6	10	11	12	13	11	10	8	9	8	8	8	6	4	2	2	6	8	7.6	12.7	
13-Apr	7	5	6	7	5	5	5	7	9	7	8	9	10	11	12	14	14	13	11	9	8	7	2	3	8.0	13.9	
14-Apr	2	4	4	3	3	3	2	1	1	3	3	4	7	8	8	7	10	9	6	4	2	2	3	4	4.4	9.9	
15-Apr	4	5	5	6	5	8	8	12	12	12	10	11	12	10	8	10	8	8	8	4	1	3	4	7	7.6	12.5	
16-Apr	6	5	4	5	6	6	6	8	10	11	10	9	9	10	9	10	9	11	11	12	9	9	7	6	8.3	11.5	
17-Apr	5	4	4	4	4	3	5	8	11	11	12	12	12	13	13	12	12	13	11	12	12	13	11	9	9.4	13.2	
18-Apr	9	9	8	7	7	7	7	7	5	3	4	5	7	4	6	6	4	4	6	6	4	4	4	2	5.6	9.1	
19-Apr	3	5	8	8	10	11	9	7	9	8	8	6	5	9	10	10	7	10	10	9	6	5	5	3	7.5	11.3	
20-Apr	2	3	3	6	6	6	9	9	17	26	28	29	32	31	24	26	30	27	20	10	5	3	3	3	14.9	32.3	
21-Apr	3	3	3	3	2	3	2	2	2	4	4	6	7	8	8	11	10	9	9	8	6	9	7	6	5.6	10.5	
22-Apr	7	6	6	5	6	6	6	9	13	13	14	15	12	14	19	17	19	11	8	4	3	6	8	9	9.8	19.2	
23-Apr	6	7	5	4	6	7	9	10	10	13	17	19	27	26	26	22	22	20	17	15	12	11	9	11	13.8	27.5	
24-Apr	13	14	15	14	13	15	16	17	14	14	14	12	10	7	8	7	9	10	10	11	8	6	5	6	11.1	16.9	
25-Apr	6	5	5	4	3	4	4	4	4	4	4	4	4	4	5	6	6	7	7	8	4	4	5	6	4.9	7.8	
26-Apr	5	6	4	4	6	4	4	9	7	8	12	14	14	15	17	16	16	19	18	14	11	8	14	13	10.8	19.1	
27-Apr	14	13	12	6	5	5	4	4	5	8	7	7	13	10	15	14	8	10	7	6	5	17	6	7	8.7	16.8	
28-Apr	7	10	9	9	14	14	12	14	15	20	25	29	30	28	27	27	24	21	22	22	17	10	10	11	17.7	30.1	
29-Apr	11	9	10	5	3	4	2	3	6	5	7	7	7	7	8	10	10	10	8	6	2	4	3	3	6.2	10.9	
30-Apr	2	2	2	2	2	2	1	1	2	4	6	7	13	15	17	14	18	26	25	21	15	15	10	3	9.4	25.8	
		6.7	6.8	6.9	6.3	6.6	6.8	7.1	8.2	10.2	11.8	12.9	13.7	14.7	14.6	14.8	14.1	13.7	13.7	12.3	10.6	8.4	7.9	7.2	6.6	Diurnal Average	
		16.6	21.9	22.9	23.5	22.7	23.6	20.9	20.8	28.0	28.6	29.5	32.2	32.3	33.6	32.0	31.3	30.0	27.1	26.1	24.2	23.8	20.1	16.7	12.9	Diurnal Maximum	

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

# Hourly Standard Deviations

Wind Direction (WD) - deg

Henry Pirker - April 2014

Maximum Value: 90.1 deg on Apr 19 13:00																								Hours in Service:	720
Minimum Value: 4.9 deg on Apr 5 16:00																								Hours of Data:	720
Percentiles: P <sub>1</sub> = 5.3 P <sub>10</sub> = 7.1 Q <sub>1</sub> = 9.6 Median = 14.0 Q <sub>3</sub> = 23.2 P <sub>90</sub> = 44.5 P <sub>99</sub> = 80.6																								Hours of Missing Data:	0
																								Hours of Calibration:	0
																								Percent Operational Time:	100.0
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	63	28	27	13	23	37	36	15	15	13	13	61	27	19	21	18	14	13	13	13	14	14	13	14	62.9
2-Apr	15	13	15	15	22	27	17	32	17	17	25	30	21	39	37	26	22	20	12	8	10	13	17	14	38.7
3-Apr	20	16	11	18	21	10	11	9	11	23	12	19	17	23	14	11	10	9	15	10	11	44	25	27	43.6
4-Apr	74	86	63	31	21	7	8	9	17	15	8	7	7	8	8	14	10	9	32	8	6	9	21	54	85.6
5-Apr	44	55	59	48	22	53	56	6	10	9	11	9	8	16	6	5	9	7	8	15	20	21	18	69	68.5
6-Apr	36	14	22	7	6	6	5	5	6	7	9	7	8	8	10	10	7	8	5	6	5	7	12	9	35.7
7-Apr	11	55	62	46	45	21	9	37	34	11	16	11	10	12	14	32	28	14	63	37	51	16	20	20	63.2
8-Apr	13	9	47	14	24	11	14	7	45	27	17	5	7	7	8	7	7	8	7	6	6	7	7	7	46.5
9-Apr	11	8	7	5	6	6	6	7	9	9	9	8	7	8	8	9	8	8	7	8	7	7	11	15	15.1
10-Apr	18	13	15	7	16	20	27	18	12	8	7	7	12	9	9	7	8	9	7	10	17	55	34	9	54.8
11-Apr	15	30	11	22	15	26	19	8	8	6	7	6	6	7	9	12	10	14	11	9	12	10	9	7	29.9
12-Apr	7	16	10	10	15	22	10	9	9	11	14	17	17	15	18	20	12	22	16	13	72	44	43	16	72.4
13-Apr	12	16	14	10	10	9	14	10	13	22	19	20	20	13	15	10	10	8	8	11	7	44	79	81	81.1
14-Apr	37	10	14	21	9	10	24	43	56	17	31	33	30	33	37	16	13	10	13	16	49	86	41	27	86.4
15-Apr	28	23	35	23	30	25	17	12	15	14	14	13	12	17	20	18	23	16	14	19	71	17	29	11	71.5
16-Apr	9	13	14	15	13	16	21	13	14	15	20	22	30	21	30	30	25	18	11	12	13	12	11	9	29.9
17-Apr	14	24	18	13	12	12	16	12	13	15	13	17	16	15	15	16	15	11	10	8	10	8	9	8	24.1
18-Apr	10	9	8	11	12	9	12	14	25	76	30	39	38	39	38	71	38	51	25	13	19	28	35	55	75.7
19-Apr	57	17	8	8	6	7	10	19	14	16	20	47	90	36	20	17	22	18	27	75	72	39	73	63	90.1
20-Apr	50	82	56	18	6	10	7	7	14	12	11	13	10	10	14	10	9	8	6	6	28	65	38	42	81.9
21-Apr	41	18	20	27	65	28	12	55	51	22	31	51	33	48	29	23	18	20	13	11	14	17	21	13	65.2
22-Apr	13	11	12	11	11	12	10	9	7	11	12	12	22	20	11	10	7	12	10	35	32	29	16	18	34.7
23-Apr	34	18	77	38	12	14	11	7	9	6	6	6	7	6	6	9	6	7	8	7	6	6	10	12	77.1
24-Apr	7	6	6	6	6	6	13	9	12	12	13	16	26	44	42	52	26	17	14	14	14	21	16	17	52.2
25-Apr	14	14	23	13	14	19	11	34	31	30	20	39	61	68	55	42	31	16	13	12	15	9	16	13	68.3
26-Apr	12	8	11	12	18	22	21	16	26	16	13	9	11	14	11	11	11	13	12	9	11	11	8	8	25.6
27-Apr	8	7	7	16	13	13	15	59	40	13	19	23	19	18	21	18	25	17	25	44	18	9	83	66	82.6
28-Apr	12	18	8	12	7	9	9	10	16	14	13	10	12	14	13	13	16	12	11	7	7	12	10	7	17.7
29-Apr	5	5	7	47	47	47	87	70	23	22	34	45	52	62	66	36	18	18	15	32	54	35	27	21	86.6
30-Apr	66	34	30	64	29	55	78	57	35	25	36	47	22	19	18	18	18	7	6	10	8	6	12	35	77.6
	74.1	85.6	77.1	63.8	65.2	54.6	86.6	69.9	56.1	75.7	35.9	60.8	90.1	68.3	66.0	70.6	37.7	50.8	63.2	74.9	72.4	86.4	82.6	81.1	

PAZA

Evergreen Park Station

Monthly Summary Tables, Graphs and  
Roses

## Hourly Averages

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

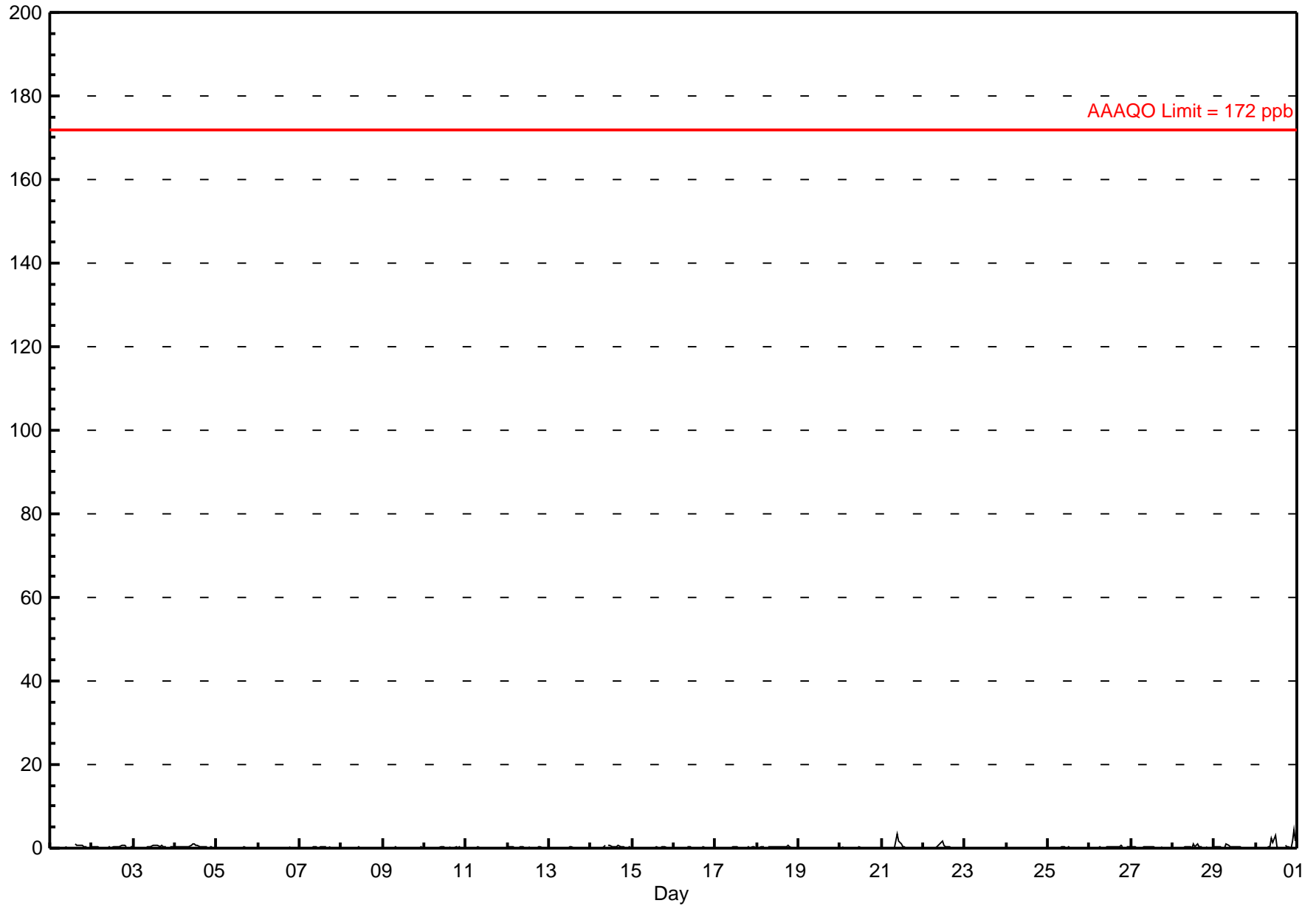
Evergreen Park - April 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0										Hours in Service: 720																	
Maximum Value: 4.5 ppb on Apr 30 23:00										Maximum Daily Average: 0.8 ppb on Apr 30																	
Minimum Value: 0 ppb on Apr 1 02:00										Hours of Data: 685																	
Maximum Diurnal Average: 0.4 ppb at hour 12										Hours of Missing Data: 35																	
Monthly Average: 0.19 ppb										Hours of Calibration: 35																	
Minimum Daily Average: 0.0 ppb on Apr 23										Percent Operational Time: 100.0																	
Minimum Diurnal Average: 0.1 ppb at hour 6										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> = 1.7																	
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-Apr	0	0	0	0	0	0	0	0	0	0	C	C	C	C	1	1	1	1	1	0	0	0	A	0	0.3	1.0	
2-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	A	0	0	0.3	0.8	
3-Apr	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	0	0	A	0	0	0	0.3	0.7	
4-Apr	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	A	0	0	0	0	0.4	1.1	
5-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.2	
6-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.2	
7-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.3	
8-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.2	
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.3	
10-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.4	
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
12-Apr	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	0.5	
13-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2	
14-Apr	0	0	0	0	0	0	0	0	0	1	A	1	1	0	1	0	1	1	0	0	0	0	0	0	0.3	0.8	
15-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
16-Apr	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	
17-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
18-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.3	0.5	
19-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	
20-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
21-Apr	0	0	A	0	0	0	0	0	2	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.4	
22-Apr	0	A	0	0	0	0	0	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.6	
23-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1	
24-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
25-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.3	
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0.2	0.5	
27-Apr	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	
28-Apr	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	A	0	0	0	0	0.2	1.1	
29-Apr	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	1.0	
30-Apr	0	0	0	0	0	0	0	0	0	2	2	3	0	0	0	0	A	1	0	0	0	0	2	5	2	0.8	4.5
																								Diurnal Average	Diurnal Maximum		
																								0.1	0.3		
																								0.1	0.2		
																								0.1	0.5		
																								0.1	0.3		
																								0.1	0.2		
																								0.1	0.2		
																								0.1	1.0		
																								0.2	1.7		
																								0.4	3.4		
																								0.4	1.7		
																								0.4	3.2		
																								0.3	1.1		
																								0.2	0.6		
																								0.2	1.0		
																								0.2	0.8		
																								0.2	0.7		
																								0.2	0.6		
																								0.2	0.8		
																								0.2	0.5		
																								0.1	0.4		
																								0.2	1.6		
																								0.3	4.5		
																								0.2	1.8		

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  
Evergreen Park - April 2014





## Hourly Maximums

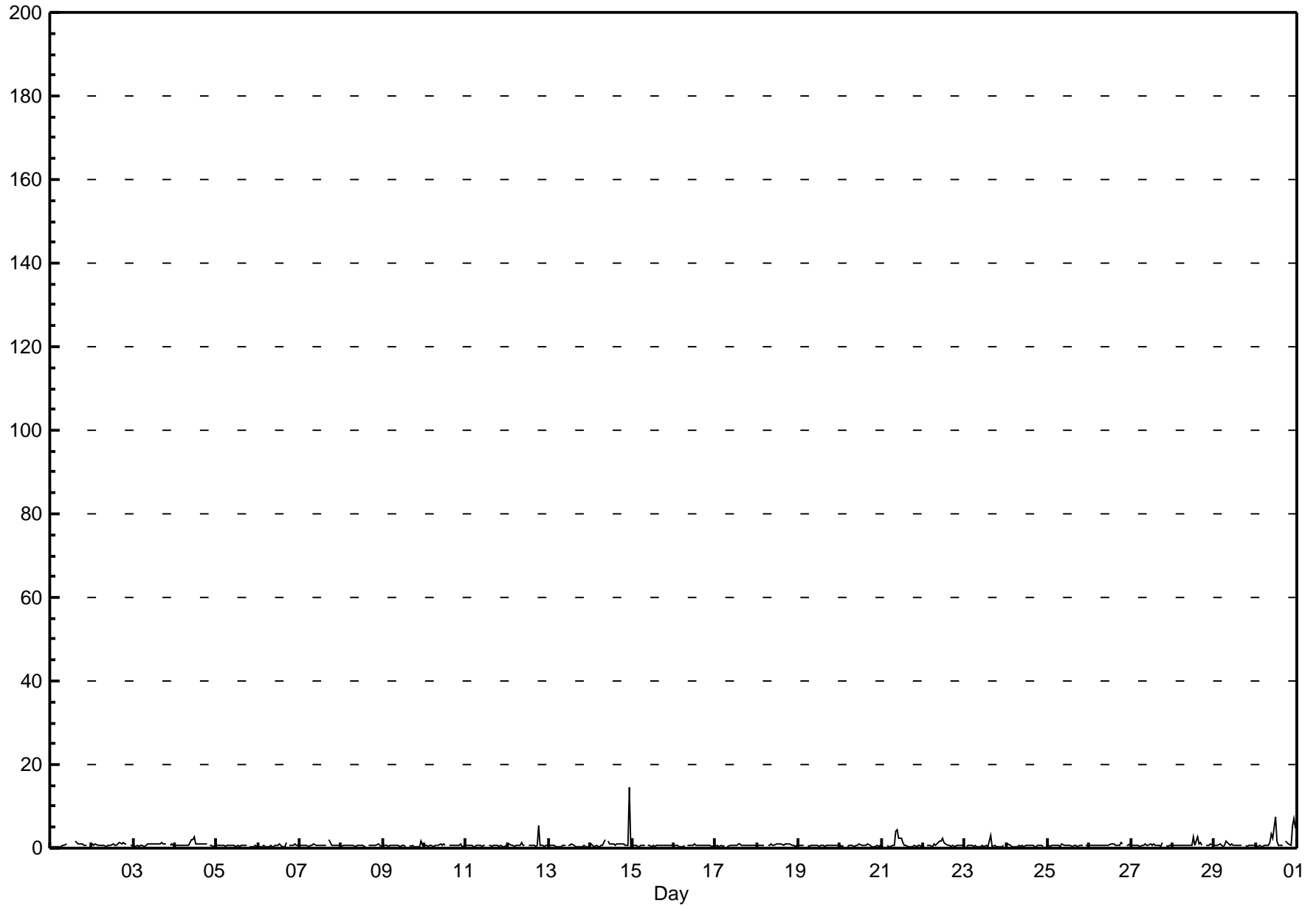
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Evergreen Park - April 2014

Maximum Value: 14.5 ppb on Apr 14 23:00		Maximum Daily Average: 2.0 ppb on Apr 30		Hours in Service: 720																							
Minimum Value: 0 ppb on Apr 17 05:00		Minimum Daily Average: 0.5 ppb on Apr 24		Hours of Data: 685																							
Maximum Diurnal Average: 1.4 ppb at hour 23		Minimum Diurnal Average: 0.5 ppb at hour 5		Hours of Missing Data: 35																							
Monthly Average: 0.77 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> = 0.8 P <sub>90</sub> = 1.0 P <sub>99</sub> = 4.5		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-Apr	0	0	0	0	0	0	0	1	1	1	C	C	C	C	2	1	1	1	1	1	1	1	A	1	0.8	1.6	
2-Apr	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.3	
3-Apr	1	0	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.4	
4-Apr	1	1	1	1	1	1	1	1	1	2	2	3	1	1	1	1	1	1	1	A	1	1	0	1	1.0	2.8	
5-Apr	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	A	0	0	0	1	0	0.5	0.7	
6-Apr	0	0	0	1	0	0	0	1	0	0	1	1	1	1	0	0	1	A	1	1	1	1	1	1	0.6	1.3	
7-Apr	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	0.7	2.1	
8-Apr	0	1	1	1	1	1	1	1	0	1	1	1	1	1	0	A	1	1	1	1	1	1	1	0	0.6	1.0	
9-Apr	0	1	1	0	1	1	1	1	1	1	1	1	1	0	A	1	0	1	0	0	0	0	2	1	0.6	1.6	
10-Apr	1	1	0	1	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	0.7	0.9	
11-Apr	1	1	1	1	0	0	1	1	1	0	1	1	A	1	1	0	1	1	1	0	1	0	0	1	0.6	0.8	
12-Apr	1	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	5	1	1	0	1	0.9	5.3	
13-Apr	1	1	1	1	0	0	0	0	1	1	A	1	1	1	1	0	0	0	0	0	1	0	0	0	0.5	0.9	
14-Apr	1	1	0	1	0	0	1	1	2	A	2	1	1	1	1	1	1	1	1	1	1	1	15	0	1.5	14.5	
15-Apr	0	1	1	0	0	1	1	1	A	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	0.6	0.8	
16-Apr	1	1	1	0	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9	
17-Apr	0	1	0	1	0	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9	
18-Apr	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1	
19-Apr	1	1	1	1	A	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8	
20-Apr	1	0	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	1	0.6	0.9	
21-Apr	0	0	A	1	0	1	1	1	4	5	3	2	1	1	1	1	0	0	0	1	0	1	1	0	1.0	4.5	
22-Apr	1	A	1	1	1	0	1	1	1	2	2	2	1	1	1	1	0	1	1	1	1	1	1	1	0.8	2.3	
23-Apr	A	0	1	1	1	0	1	0	0	0	1	1	1	0	2	3	0	1	0	0	0	0	1	A	0.7	3.1	
24-Apr	0	1	1	0	0	0	0	1	0	1	0	1	1	1	1	1	0	0	1	1	1	0	A	0	0.5	0.9	
25-Apr	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	0	1	1	1	A	1	1	0.6	0.9	
26-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.3	
27-Apr	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1	1	1	0.7	1.2	
28-Apr	1	1	1	1	1	1	1	1	1	1	1	1	3	1	3	1	1	1	1	A	1	1	1	1	0.9	2.8	
29-Apr	1	1	1	1	1	0	1	2	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	0.8	1.6	
30-Apr	1	0	1	0	0	1	1	1	1	3	3	8	2	1	1	1	A	2	1	1	1	1	5	7	2.0	7.5	
		0.6	0.6	0.6	0.6	0.5	0.5	0.6	0.7	0.9	1.0	0.9	1.2	0.9	0.7	0.8	0.8	0.8	0.8	0.9	0.7	0.6	0.8	1.4	0.7	Diurnal Average	
		0.9	0.9	1.0	1.0	0.8	0.8	0.9	1.6	3.9	4.5	2.5	7.5	2.8	1.1	2.8	3.1	1.4	2.1	5.3	1.2	1.0	5.3	14.5	4.6	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

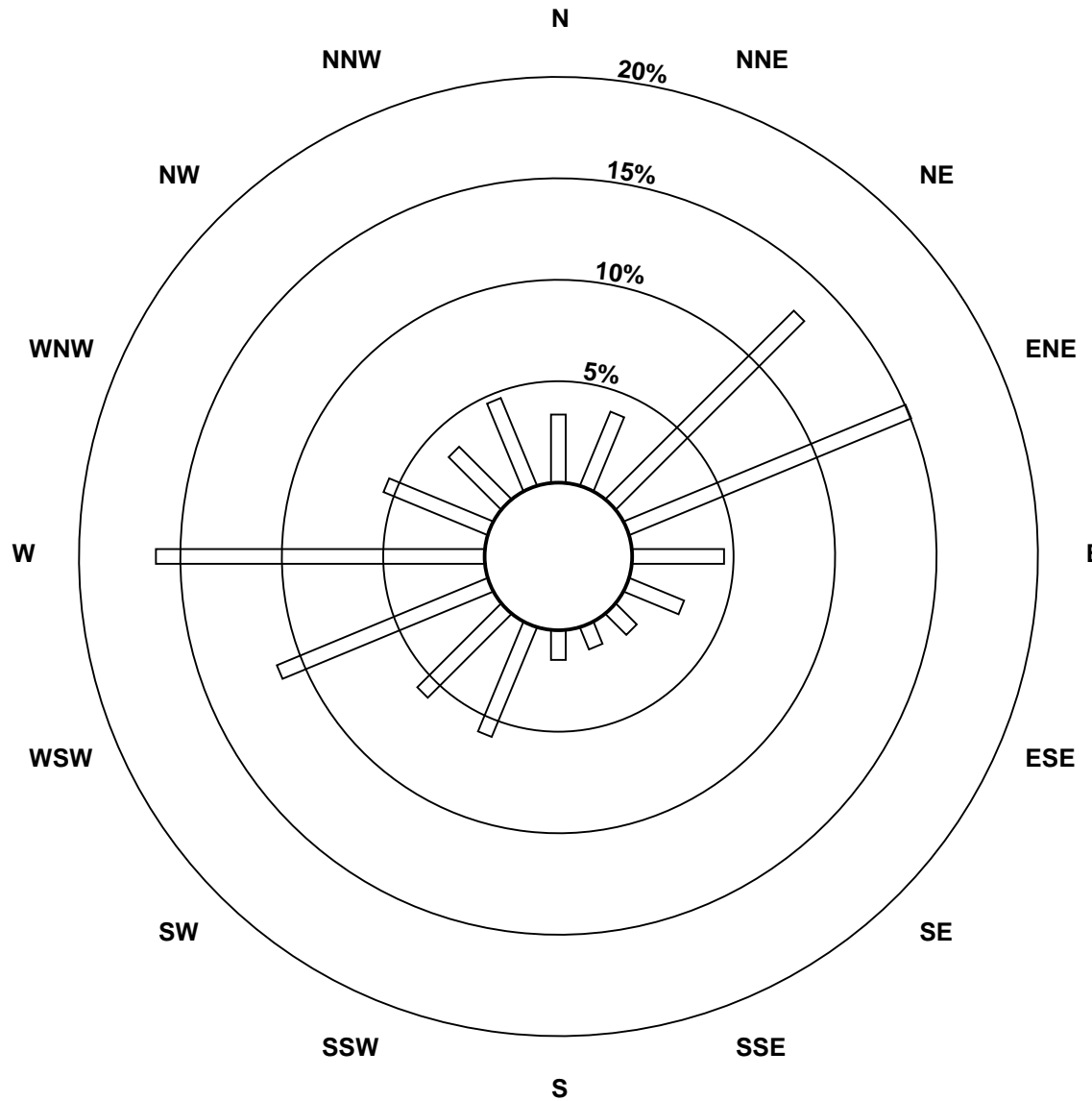
### Hourly Maximums

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

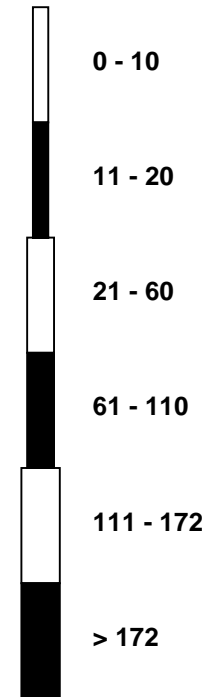


**Pollutant Rose**

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

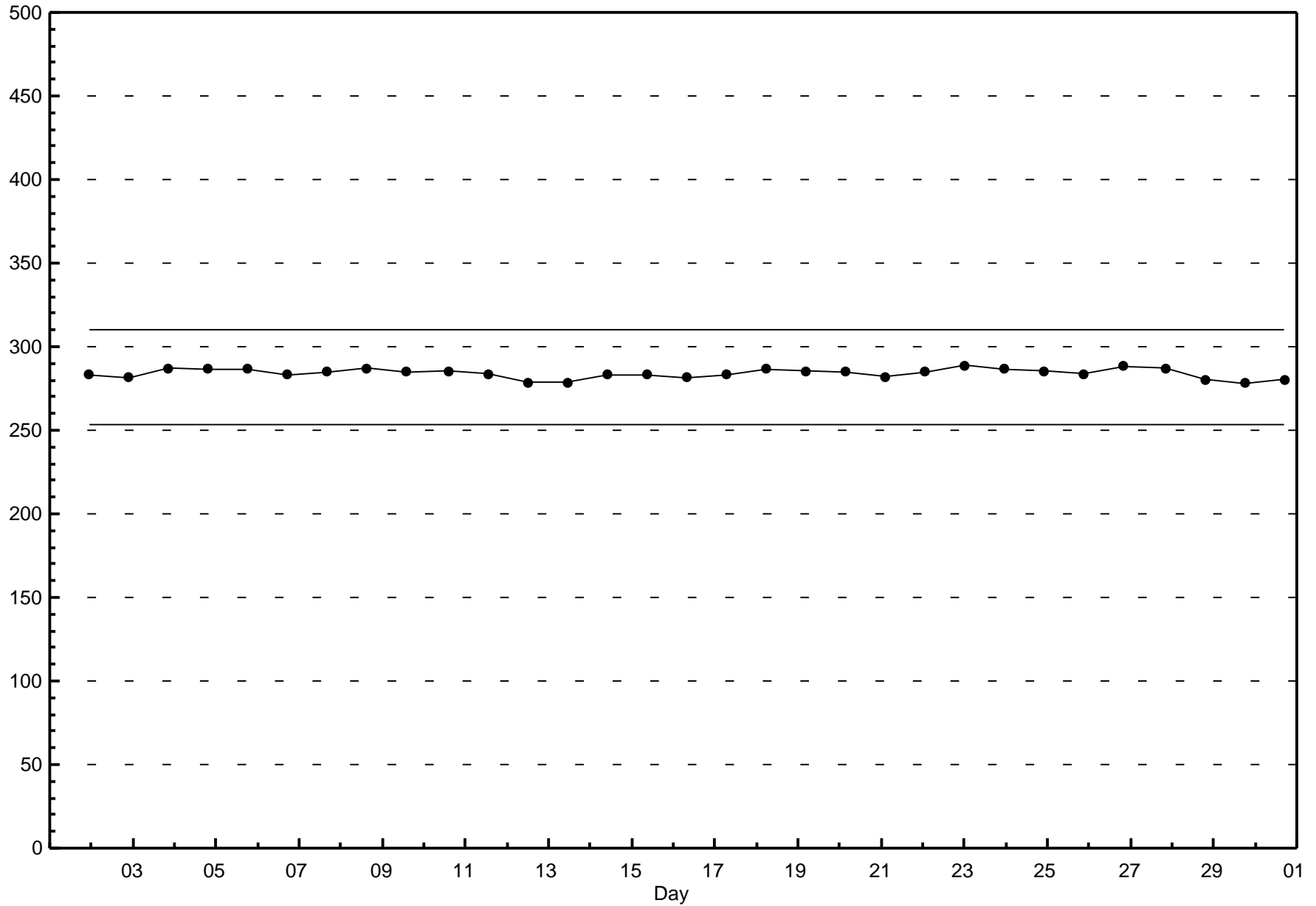


**Pollutant Classes (ppb)**



### Span Responses

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

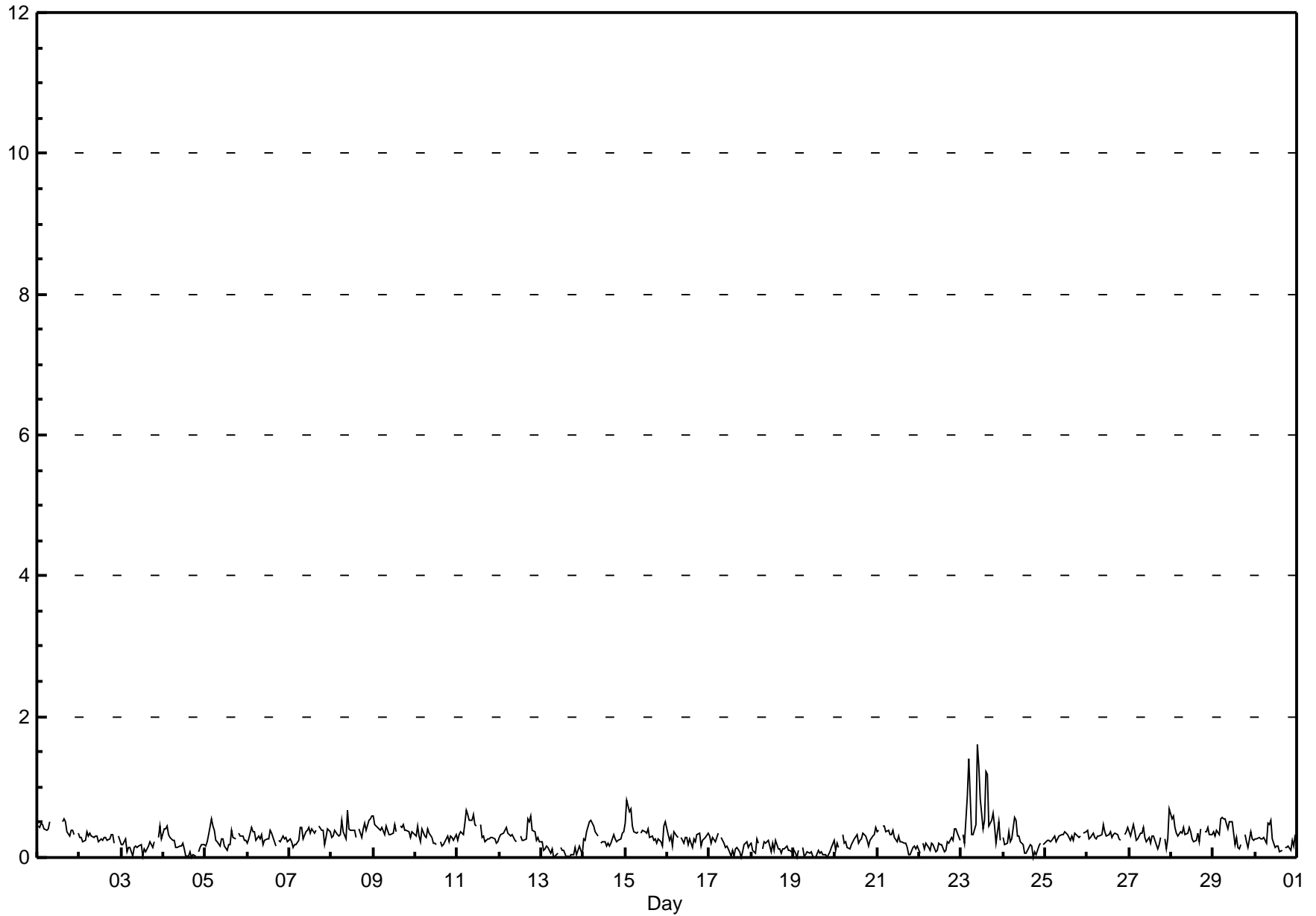


## Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - April 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.6 ppb on Apr 23 10:00      Maximum Daily Average: 0.7 ppb on Apr 23		Hours in Service: 720 Hours of Data: 683 Hours of Missing Data: 37 Hours of Calibration: 37 Percent Operational Time: 100.0																																															
Minimum Value: 0 ppb on Apr 4 17:00 Maximum Diurnal Average: 0.4 ppb at hour 5 Monthly Average: 0.28 ppb		Minimum Daily Average: 0.1 ppb on Apr 19 Minimum Diurnal Average: 0.2 ppb at hour 13 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-Apr	0	0	0	0	0	0	0	1	C	C	C	C	C	C	0	1	1	0	0	0	0	0	0	A	0	--	0.5																						
2-Apr	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	0.3	0.4																						
3-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.4																						
4-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.4																						
5-Apr	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.5																						
6-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.4																						
7-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.5																						
8-Apr	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	1	1	1	0.4	0.7																						
9-Apr	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	0.4	0.6																						
10-Apr	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	0.3	0.4																						
11-Apr	0	0	0	0	0	1	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7																						
12-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0.3	0.6																						
13-Apr	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	0.1	0.2																						
14-Apr	0	0	0	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5																						
15-Apr	0	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	0.8																						
16-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4																						
17-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3																						
18-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3																						
19-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																						
20-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4																						
21-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5																						
22-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4																						
23-Apr	A	0	0	1	1	1	0	0	0	2	1	1	0	1	1	1	0	1	1	0	0	1	0	0	A	0.7	1.6																						
24-Apr	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.6																						
25-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.4																						
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.5																						
27-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0.3	0.7																						
28-Apr	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6																						
29-Apr	0	0	0	0	1	1	1	1	0	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.6																						
30-Apr	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.5																						
																								0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	Diurnal Average
																								0.6	0.8	0.6	0.9	1.4	0.9	0.6	0.5	0.5	1.6	1.3	0.8	0.5	0.5	1.2	1.2	0.6	0.5	0.6	0.5	0.4	0.5	0.5	0.7	0.7	Diurnal Maximum
C - Calibration      A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb    24-hr 3 ppb																																																	



## Hourly Maximums

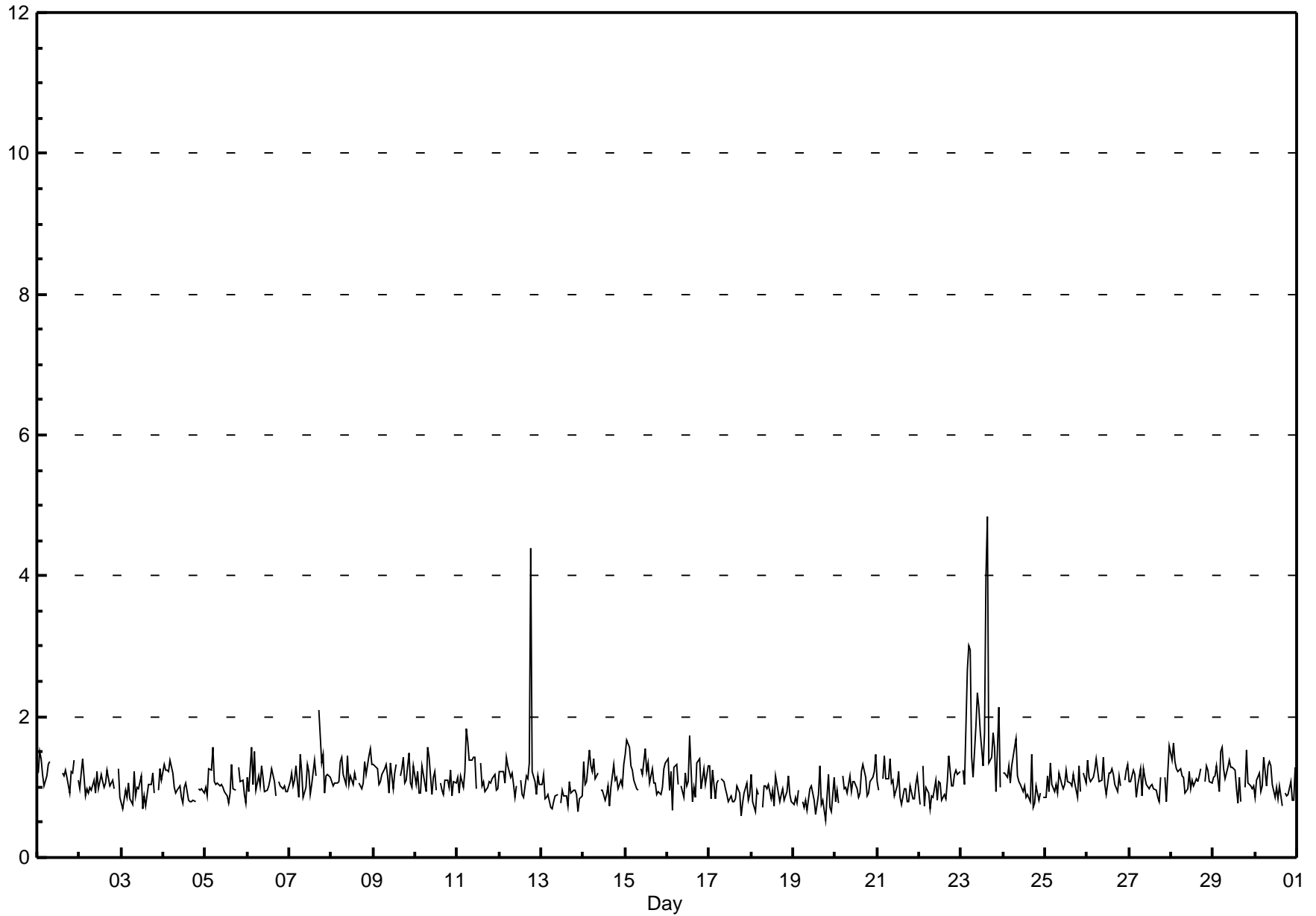
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - April 2014

Maximum Value: 4.8 ppb on Apr 23 16:00		Maximum Daily Average: 2.0 ppb on Apr 23		Hours in Service: 720																																												
Minimum Value: 1 ppb on Apr 19 19:00		Minimum Daily Average: 0.9 ppb on Apr 19		Hours of Data: 683																																												
Maximum Diurnal Average: 1.2 ppb at hour 5		Minimum Diurnal Average: 1.0 ppb at hour 14		Hours of Missing Data: 37																																												
Monthly Average: 1.11 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> = 2.2		Hours of Calibration: 37																																												
				Percent Operational Time: 100.0																																												
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Apr	1	2	1	1	1	1	1	1	C	C	C	C	C	C	1	1	1	1	1	1	1	1	A	1	--	1.5																						
2-Apr	1	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	1.4																						
3-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.0	1.3																						
4-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.0	1.4																						
5-Apr	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.0	1.6																						
6-Apr	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.1	1.6																						
7-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1.2	2.1																						
8-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	2	1	1.2	1.5																						
9-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.2	1.5																						
10-Apr	1	1	1	1	1	1	1	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.1	1.6																						
11-Apr	1	1	1	1	1	2	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.2	1.8																						
12-Apr	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	4	1	1	1	1	1.3	4.4																						
13-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2																						
14-Apr	1	1	1	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5																						
15-Apr	1	2	2	1	1	1	1	1	A	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.7																						
16-Apr	1	1	1	1	1	1	1	A	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1.1	1.7																						
17-Apr	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	1.3																						
18-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2																						
19-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3																						
20-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5																						
21-Apr	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4																						
22-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4																						
23-Apr	A	1	1	3	3	3	1	1	2	2	2	2	1	2	4	5	1	1	2	2	1	2	1	A	2.0	4.8																						
24-Apr	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.1	1.7																						
25-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.1	1.3																						
26-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.2	1.4																						
27-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	1.1	1.6																						
28-Apr	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.2	1.6																						
29-Apr	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	2	1	1	1	1.2	1.6																						
30-Apr	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																						
																								1.1	1.1	1.1	1.1	1.2	1.2	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.1	1.2	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	Diurnal Average	
																								1.5	1.7	1.6	2.7	3.0	2.9	1.6	1.7	1.9	2.3	2.1	1.8	1.3	1.8	4.0	4.8	1.5	2.1	4.4	1.6	1.5	2.1	1.5	1.6	Diurnal Maximum
C - Calibration																								A - Automated Daily Zero Span																								

**Hourly Maximums**

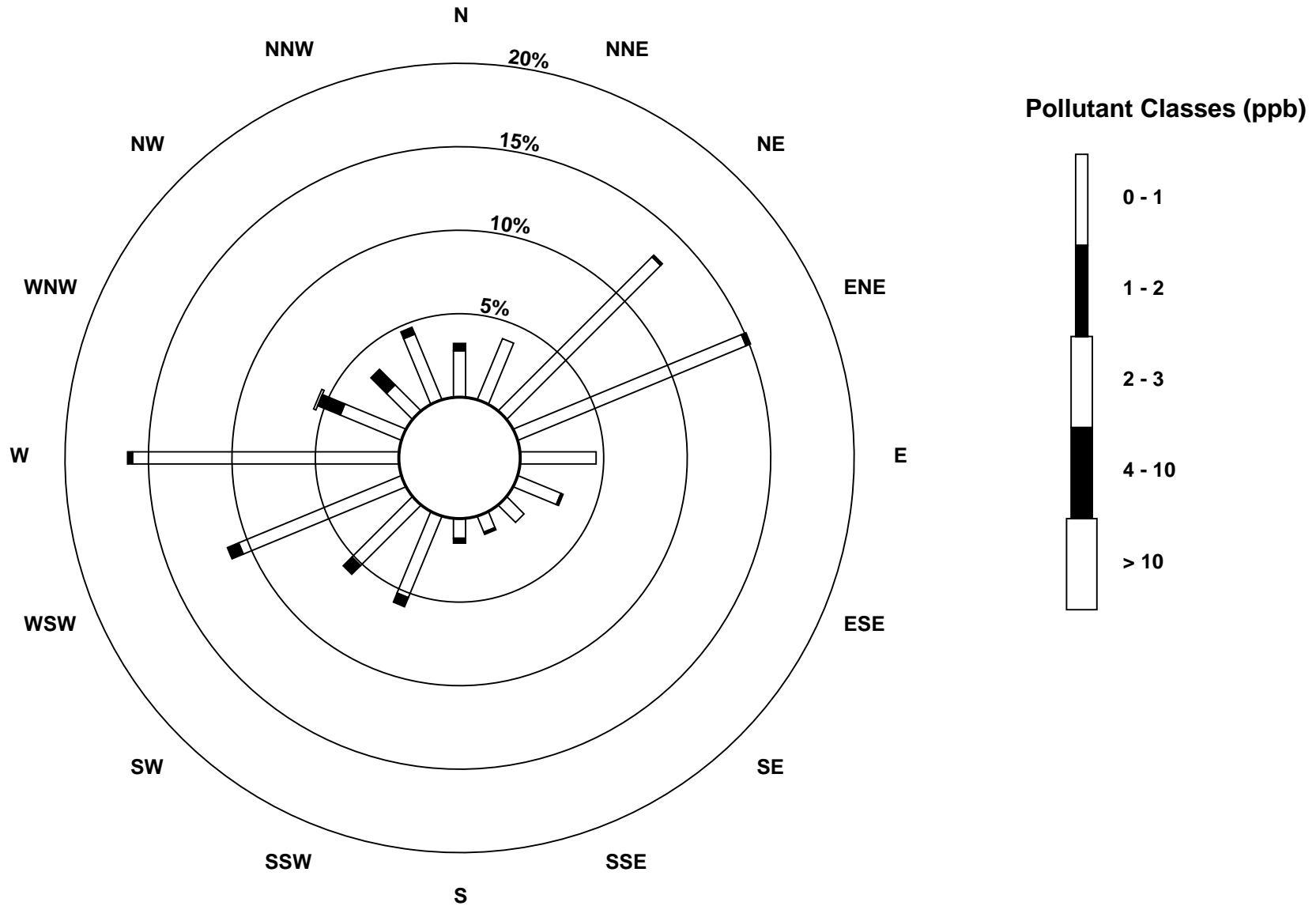
**Total Reduced Sulphur (TRS) - ppb**  
**Evergreen Park - April 2014**

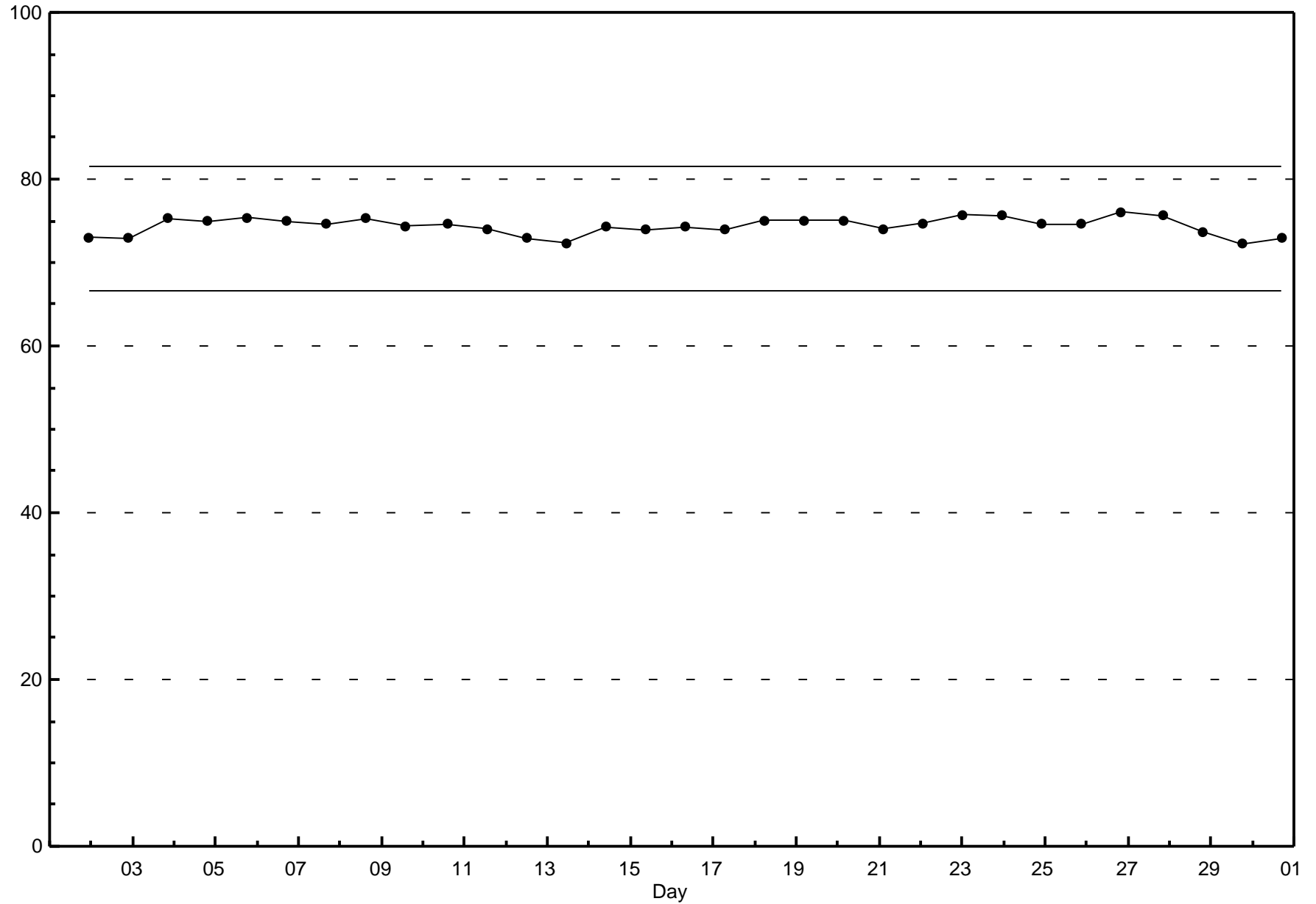




**Pollutant Rose**

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





## Hourly Averages

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

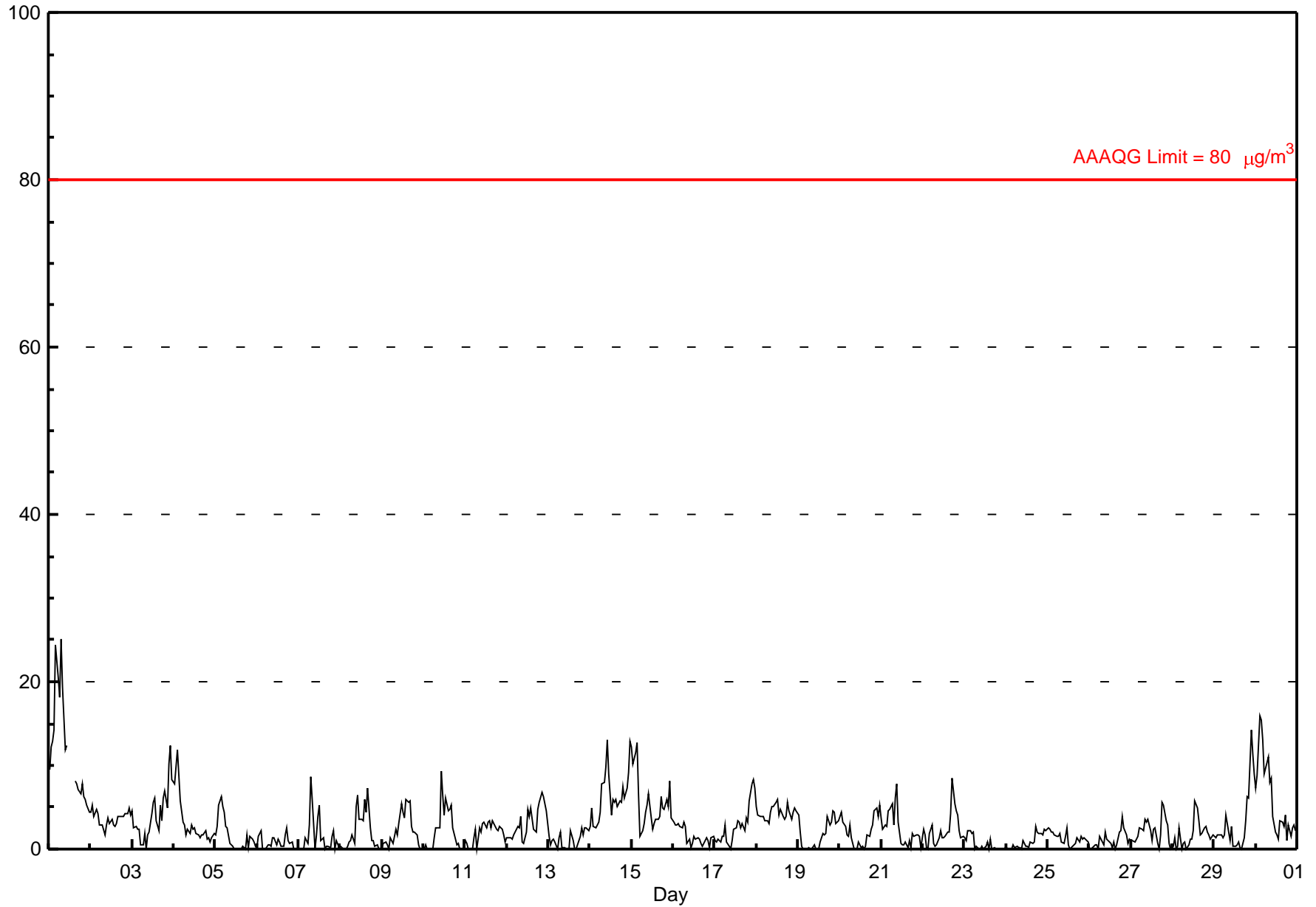
### Evergreen Park - April 2014

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 720
Maximum Value: 25.0 µg/m <sup>3</sup> on Apr 1 08:00	Maximum Daily Average: 12.0 µg/m <sup>3</sup> on Apr 1
Minimum Value: 0 µg/m <sup>3</sup> on Apr 3 09:00	Hours of Data: 716
Maximum Diurnal Average: 3.3 µg/m <sup>3</sup> at hour 22	Hours of Missing Data: 4
Monthly Average: 2.81 µg/m <sup>3</sup>	Hours of Calibration: 2
Minimum Daily Average: 0.6 µg/m <sup>3</sup> on Apr 23	Percent Operational Time: 99.7
Minimum Diurnal Average: 2.2 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> = 0.7 Median = 2.0 Q <sub>3</sub> = 3.9 P <sub>90</sub> = 6.1 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-Apr	10	12	13	14	24	20	18	25	19	12	12	M	M	R	R	8	8	7	7	8	6	6	5	4	12.0	25.0
2-Apr	4	5	4	5	4	3	3	3	2	3	4	3	4	3	3	3	4	4	4	4	4	4	5	4	3.7	5.2
3-Apr	5	3	3	2	2	1	1	2	0	2	2	4	6	6	3	2	5	3	6	7	5	10	12	8	4.2	12.3
4-Apr	8	10	12	9	6	3	3	2	2	2	3	2	3	2	2	1	2	2	2	1	1	1	1	2	3.4	11.8
5-Apr	2	3	5	6	5	4	3	3	1	0	0	0	0	0	0	0	0	0	2	0	1	1	1	0	1.6	6.2
6-Apr	0	2	2	0	0	0	1	1	0	1	1	0	1	1	0	0	2	3	1	1	1	0	0	0	0.8	2.5
7-Apr	0	0	0	0	1	1	3	9	6	0	2	4	5	1	1	0	0	0	0	1	2	0	1	0	1.6	8.6
8-Apr	0	0	0	0	0	1	1	2	1	5	6	4	4	3	6	4	7	3	1	1	0	0	0	0	2.1	7.4
9-Apr	0	1	1	0	0	1	1	1	2	2	3	5	4	4	6	6	6	3	2	2	2	1	0	0	2.2	6.0
10-Apr	0	1	0	0	0	0	1	3	2	3	9	7	4	6	5	5	5	2	1	1	1	0	0	0	2.3	9.3
11-Apr	1	1	0	0	1	2	0	2	2	2	3	3	2	3	3	3	3	3	2	2	3	2	2	1	1.9	3.4
12-Apr	1	1	1	1	2	2	3	3	4	1	1	2	5	4	5	2	2	2	5	6	7	6	6	5	3.1	6.8
13-Apr	2	1	1	1	1	0	1	2	0	0	0	0	0	2	1	0	0	0	1	3	2	3	3	2	1.1	2.6
14-Apr	3	5	3	3	3	3	4	8	8	10	13	9	4	6	6	6	5	6	6	7	6	7	9	13	6.3	13.0
15-Apr	12	10	12	13	7	2	2	3	4	5	7	4	2	3	4	4	4	6	5	5	6	5	8	4	5.6	12.7
16-Apr	3	3	3	3	3	3	3	3	1	1	0	1	2	1	1	1	1	0	1	1	1	0	1	1	1.6	3.3
17-Apr	1	1	1	1	1	1	3	1	0	0	1	2	3	3	3	3	3	2	4	3	6	8	8	7	2.8	8.3
18-Apr	5	4	4	4	4	3	3	3	4	5	5	6	6	4	5	4	4	4	6	5	4	4	5	5	4.4	5.9
19-Apr	4	2	0	0	0	0	0	0	0	0	0	0	0	1	2	2	2	4	3	3	5	4	3	3	1.6	4.6
20-Apr	4	4	3	3	2	2	3	1	0	0	0	1	0	0	0	0	2	2	2	3	4	5	4	5	2.1	5.2
21-Apr	4	2	3	3	5	5	5	3	6	8	3	1	1	1	1	0	1	0	2	1	2	2	1	0	2.4	7.7
22-Apr	2	2	0	0	2	3	1	0	1	1	2	1	1	2	2	2	4	9	5	5	4	2	1	2	2.3	8.5
23-Apr	1	1	2	2	2	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0.6	2.2
24-Apr	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	1	1	3	2	2	2	2	2	2	0.9	2.7
25-Apr	3	2	2	2	2	2	2	2	1	1	2	2	1	0	0	0	1	1	1	2	1	1	1	1	1.3	2.6
26-Apr	0	0	0	0	1	0	2	1	1	2	1	1	1	0	1	0	0	2	2	4	3	2	1	1	1.0	3.9
27-Apr	1	1	1	1	1	3	2	2	4	3	4	2	1	2	3	1	0	2	6	5	3	3	1	0	2.2	5.7
28-Apr	0	1	0	0	3	0	1	1	0	1	1	1	2	6	5	3	2	2	2	3	2	2	1	2	1.7	5.7
29-Apr	1	1	2	2	2	1	2	4	2	1	3	0	0	1	1	0	0	1	3	6	6	14	11	9	3.1	14.2
30-Apr	7	9	16	16	13	9	10	11	8	9	4	2	2	1	3	3	3	4	1	3	2	3	3	2	5.9	15.9

2.8	2.9	3.1	3.0	3.2	2.5	2.8	3.2	2.7	2.7	3.1	2.4	2.2	2.3	2.5	2.2	2.6	2.7	2.9	3.1	3.0	3.3	3.2	2.8		Diurnal Average
12.2	12.2	15.9	15.5	24.4	20.5	18.1	25.0	19.3	11.9	13.0	8.9	5.9	6.0	6.0	8.2	7.9	8.5	6.7	7.8	6.8	14.2	12.3	12.9		Diurnal Maximum

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

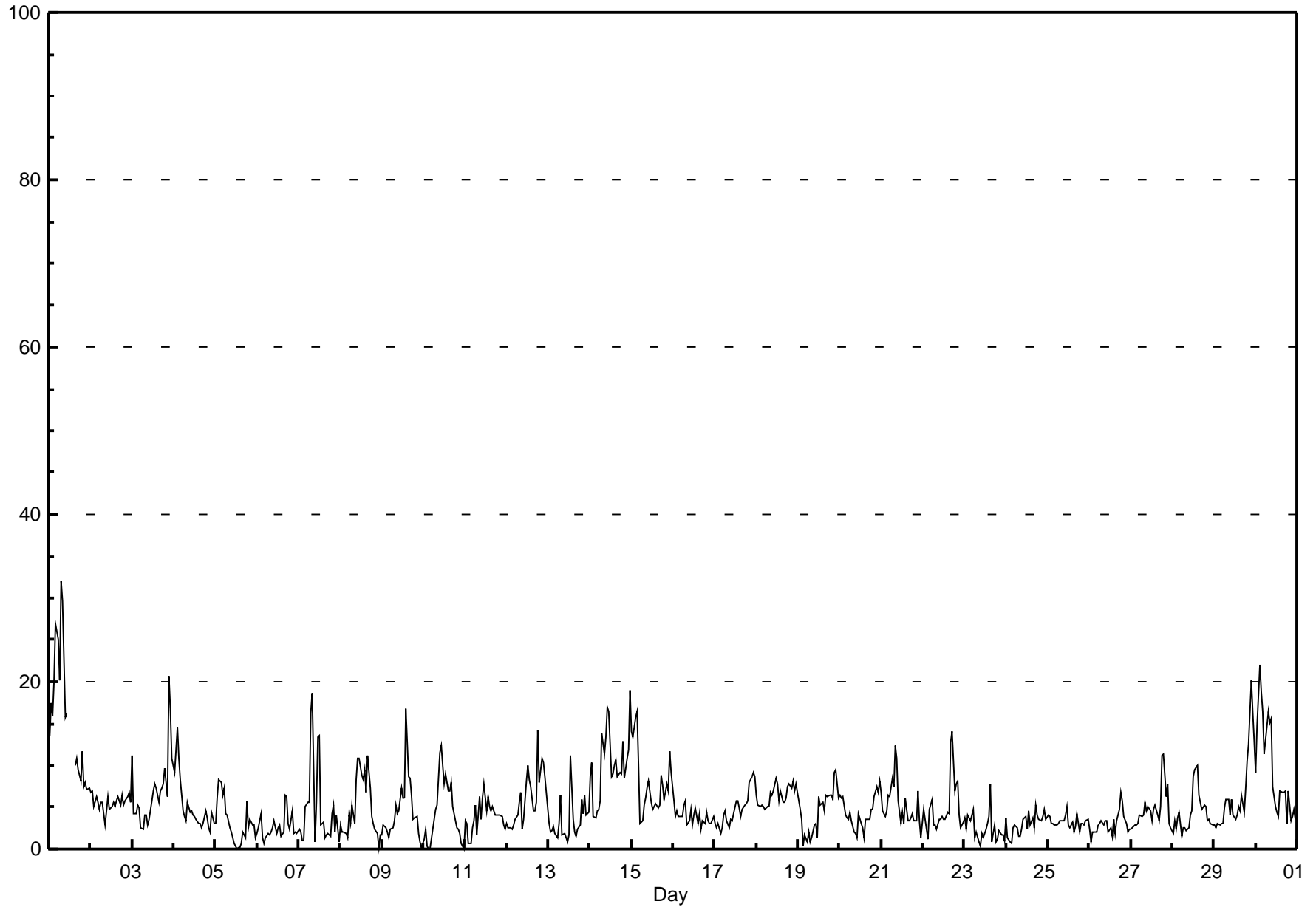


## Hourly Maximums

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

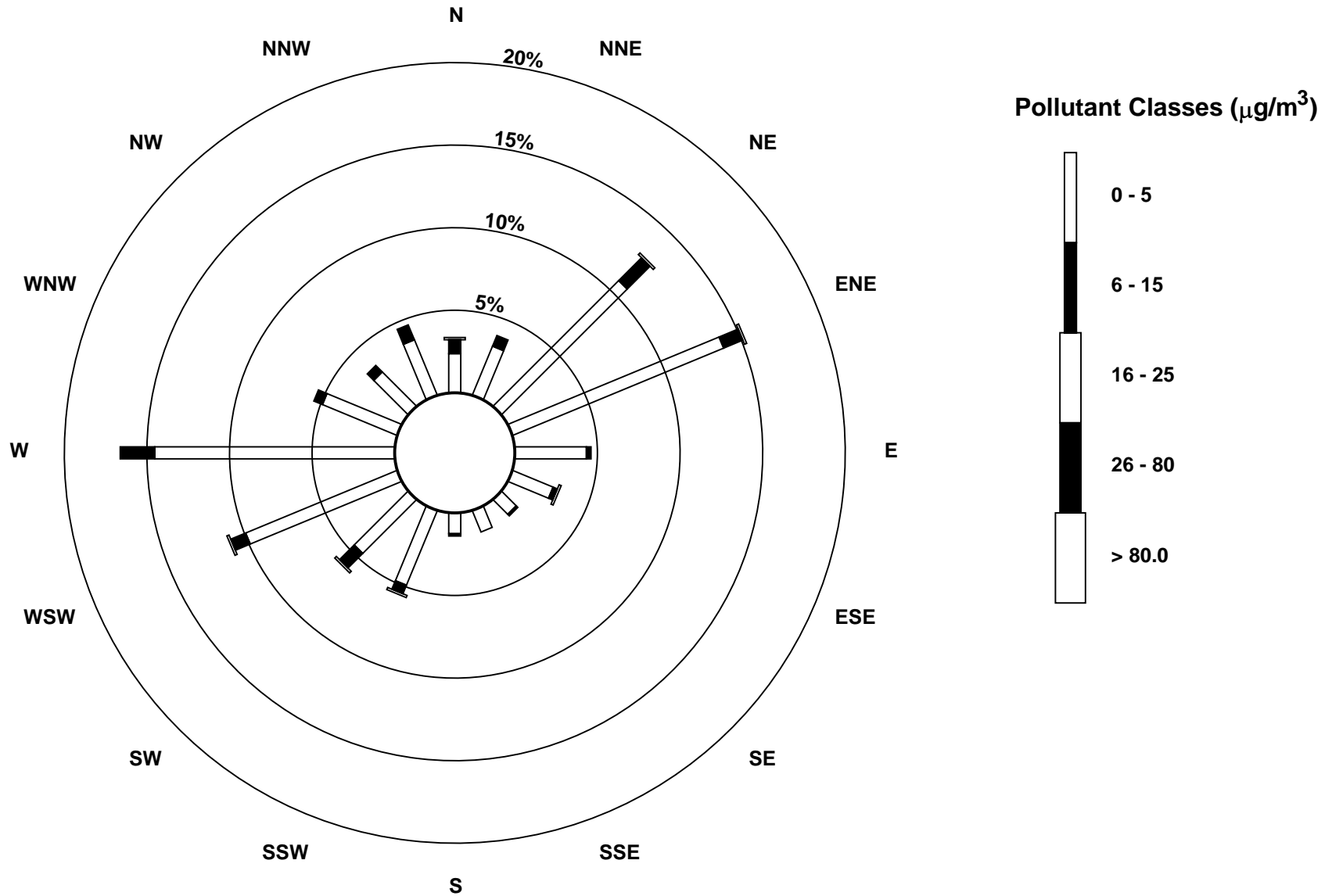
### Evergreen Park - April 2014

Maximum Value: 32.1 µg/m <sup>3</sup> on Apr 1 08:00 Minimum Value: 0 µg/m <sup>3</sup> on Apr 5 13:00 Maximum Diurnal Average: 6.1 µg/m <sup>3</sup> at hour 22 Monthly Average: 5.29 µg/m <sup>3</sup>		Maximum Daily Average: 15.6 µg/m <sup>3</sup> on Apr 1 Minimum Daily Average: 2.5 µg/m <sup>3</sup> on Apr 23 Minimum Diurnal Average: 4.6 µg/m <sup>3</sup> at hour 6 Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 1.8 Q <sub>1</sub> = 2.8 Median = 4.1 Q <sub>3</sub> = 6.5 P <sub>90</sub> = 9.9 P <sub>99</sub> = 19.9		Hours in Service: 720 Hours of Data: 716 Hours of Missing Data: 4 Hours of Calibration: 2 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-Apr	14	17	16	20	27	25	20	32	30	16	16	M	M	R	R	10	11	9	8	12	7	8	7	7	15.6	32.1																							
2-Apr	7	7	5	6	6	5	6	6	3	5	6	5	5	6	5	6	6	5	7	5	6	6	7	6	5.6	7.0																							
3-Apr	11	4	4	5	5	3	2	4	4	3	4	6	7	8	7	6	7	7	8	10	6	21	17	11	7.0	20.6																							
4-Apr	9	12	15	11	8	5	4	3	6	4	5	4	4	4	3	3	3	3	5	4	3	2	4	3	5.2	14.5																							
5-Apr	3	6	8	8	6	7	4	4	3	2	1	1	0	0	0	1	2	1	6	3	4	3	3	1	3.2	8.2																							
6-Apr	2	3	4	1	1	1	2	2	2	3	3	2	3	3	2	2	6	6	3	2	5	2	2	2	2.6	6.5																							
7-Apr	2	2	1	1	5	6	6	16	19	1	6	13	14	3	3	1	2	2	2	4	5	2	4	1	5.0	18.7																							
8-Apr	3	2	2	2	1	4	3	5	3	8	11	11	9	8	9	7	11	7	4	3	2	2	0	2	5.0	11.2																							
9-Apr	2	3	3	2	1	2	3	3	5	4	5	7	6	6	17	9	8	6	4	4	4	2	1	0	4.4	16.7																							
10-Apr	1	2	0	0	0	2	4	5	5	12	12	10	8	9	7	7	8	5	3	3	2	2	1	0	4.5	12.3																							
11-Apr	3	3	1	1	3	3	5	2	6	4	6	8	5	6	5	5	5	4	4	4	4	4	3	2	3.9	7.7																							
12-Apr	3	3	3	2	3	4	4	6	7	2	4	8	10	8	7	5	5	6	14	8	11	10	9	7	6.1	14.3																							
13-Apr	3	2	2	3	2	1	3	7	2	2	1	1	2	11	4	2	2	2	3	6	4	6	4	4	3.3	11.2																							
14-Apr	9	10	4	4	5	5	6	14	11	13	17	17	9	9	10	11	9	9	9	13	8	11	12	19	10.1	18.9																							
15-Apr	14	13	16	16	10	3	3	5	6	7	8	6	5	5	6	5	5	9	8	6	8	7	12	9	8.0	16.5																							
16-Apr	6	4	5	4	4	4	5	6	3	3	5	3	4	5	3	4	2	3	3	4	3	3	3	4	3.9	5.8																							
17-Apr	3	3	3	2	3	4	5	3	3	4	3	4	6	6	5	4	5	5	6	6	8	9	9	9	4.8	9.2																							
18-Apr	7	5	5	5	5	5	5	7	6	7	8	8	6	7	6	6	6	7	8	7	8	7	8	8	6.4	8.5																							
19-Apr	6	5	4	0	2	1	2	1	1	3	3	1	6	5	6	4	7	6	7	7	6	9	9	6	4.4	9.4																							
20-Apr	7	6	6	4	4	4	4	3	2	2	1	4	3	3	1	4	4	4	5	5	6	7	7	8	4.3	8.2																							
21-Apr	7	5	4	5	6	6	8	7	12	11	6	3	4	3	6	3	3	4	4	3	3	7	3	1	5.3	12.4																							
22-Apr	5	4	2	1	5	6	3	3	2	4	4	4	4	4	4	4	13	14	7	8	8	4	3	3	4.9	14.1																							
23-Apr	4	2	4	3	4	5	1	2	1	0	2	1	2	3	4	8	1	3	1	1	2	2	2	1	2.5	7.7																							
24-Apr	4	1	1	1	3	3	3	2	2	2	4	4	2	5	3	4	3	5	4	4	3	4	5	4	3.0	5.2																							
25-Apr	4	4	3	3	3	3	3	3	3	3	4	5	3	3	3	2	3	4	2	3	3	3	3	4	3.2	5.1																							
26-Apr	2	1	2	2	2	3	3	3	3	3	3	2	3	2	3	2	3	5	7	6	4	3	2	2	3.0	6.8																							
27-Apr	2	3	3	3	3	4	4	4	6	5	5	5	3	5	5	4	3	5	11	11	6	8	3	3	4.7	11.4																							
28-Apr	2	3	2	4	4	2	3	3	2	3	4	5	9	9	10	7	6	5	5	5	3	4	3	3	4.3	9.9																							
29-Apr	3	3	3	3	3	3	5	6	6	4	6	4	4	4	5	5	6	4	7	10	13	20	16	13	6.5	20.2																							
30-Apr	9	15	22	19	16	11	15	17	15	16	7	5	4	4	7	7	7	7	3	7	3	4	5	4	9.5	22.0																							
																								5.2	5.1	5.1	4.7	5.0	4.6	4.8	6.0	6.0	5.1	5.6	5.4	5.1	5.2	5.4	4.8	5.3	5.5	5.5	5.8	5.3	6.1	5.5	4.8	Diurnal Average	
																								14.1	17.5	22.0	19.9	27.0	25.0	20.2	32.1	29.7	15.8	17.0	16.5	13.6	11.2	16.7	10.7	12.6	14.1	14.3	12.8	12.6	20.6	16.7	18.9	Diurnal Maximum	
R - Recovery																								M - Maintenance																									



**Pollutant Rose**

**Particulate Matter 2.5 (PM<sub>2.5</sub>) - μg/m<sup>3</sup>**  
**Evergreen Park - April 2014**



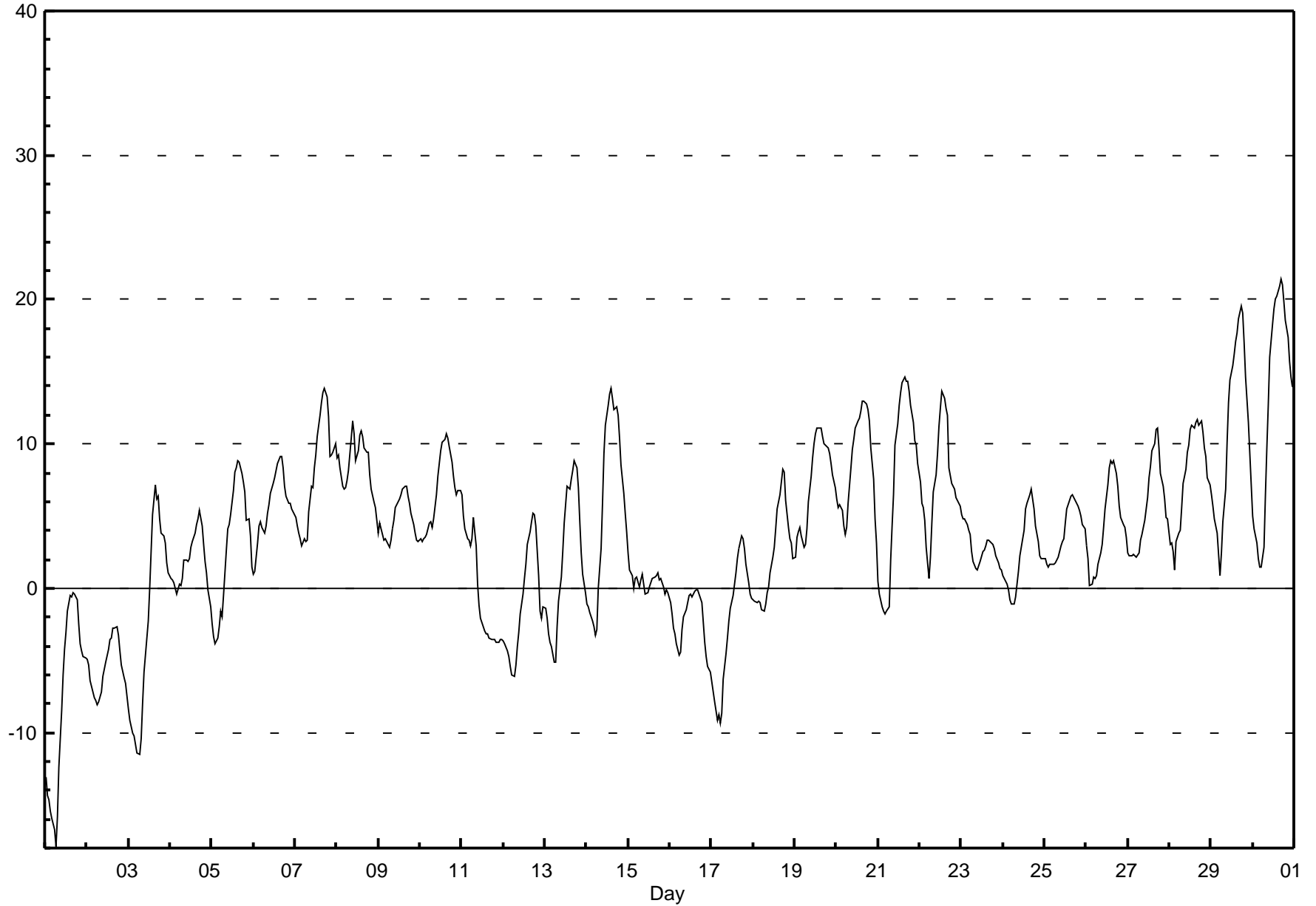
## Hourly Averages

External Temperature (ET) - °C

Evergreen Park - April 2014

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0		Hours in Service: 720																																															
Maximum Value: 21.5 °C on Apr 30 17:00		Maximum Daily Average: 12.8 °C on Apr 30																																															
Minimum Value: -18 °C on Apr 1 07:00		Hours of Data: 720																																															
Maximum Diurnal Average: 7.9 °C at hour 17		Hours of Missing Data: 0																																															
Monthly Average: 3.63 °C		Hours of Calibration: 0																																															
Minimum Daily Average: -7.6 °C on Apr 1		Percent Operational Time: 100.0																																															
Minimum Diurnal Average: -0.7 °C at hour 6																																																	
Percentiles: P <sub>1</sub> = -13.3 P <sub>10</sub> = -3.8 Q <sub>1</sub> = -0.1 Median = 3.7 Q <sub>3</sub> = 7.3 P <sub>90</sub> = 11.1 P <sub>99</sub> = 19.3																																																	
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-Apr	-13	-14	-15	-15	-16	-17	-18	-16	-12	-8	-6	-4	-3	-2	-1	-1	0	0	-1	-2	-4	-4	-5	-5	-7.6	-0.3																							
2-Apr	-5	-5	-6	-7	-8	-8	-8	-8	-7	-6	-6	-5	-4	-4	-3	-3	-3	-3	-3	-4	-5	-6	-7	-7	-5.5	-2.7																							
3-Apr	-8	-9	-10	-10	-11	-11	-11	-10	-8	-6	-5	-2	0	3	5	7	6	6	5	4	4	3	2	1	-2.4	7.2																							
4-Apr	1	1	0	0	0	0	0	1	2	2	2	2	3	3	4	4	5	5	4	3	2	1	0	-1	1.8	5.4																							
5-Apr	-2	-3	-4	-3	-3	-2	-2	-1	3	4	4	5	7	8	8	9	9	8	7	7	5	5	4	1	3.1	8.9																							
6-Apr	1	1	3	4	5	4	4	4	5	6	7	7	8	8	9	9	9	8	7	6	6	6	6	5	5.8	9.1																							
7-Apr	5	4	4	3	3	3	3	3	5	7	7	8	9	10	12	13	14	14	13	12	9	9	9	10	8.0	13.8																							
8-Apr	9	9	8	7	7	7	7	8	10	12	11	9	10	11	11	10	10	9	9	8	7	6	6	5	8.6	11.6																							
9-Apr	4	5	4	3	3	3	3	3	4	5	6	6	6	7	7	7	6	6	5	4	4	3	3	3	4.8	7.1																							
10-Apr	3	3	3	4	4	4	5	4	5	6	8	9	10	10	10	11	10	10	9	8	7	6	7	7	6.8	10.7																							
11-Apr	6	5	4	3	3	3	3	5	3	0	-1	-2	-3	-3	-3	-3	-3	-4	-4	-4	-4	-4	-4	-4	-0.3	6.5																							
12-Apr	-4	-4	-4	-5	-5	-6	-6	-5	-4	-3	-2	0	1	2	3	4	5	5	5	4	1	-2	-2	-1	-1.0	5.2																							
13-Apr	-1	-2	-3	-4	-4	-5	-5	-3	-1	1	3	4	6	7	7	8	8	9	8	7	5	2	1	0	2.0	8.8																							
14-Apr	-1	-1	-2	-2	-3	-3	-3	0	3	6	9	11	13	13	14	13	12	13	12	10	9	7	5	4	5.8	13.9																							
15-Apr	2	1	1	0	1	1	0	1	1	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0.5	2.5																							
16-Apr	-1	-2	-3	-3	-4	-5	-4	-3	-2	-1	-1	-1	0	-1	0	0	0	0	-1	-2	-4	-5	-5	-6	-2.3	-0.1																							
17-Apr	-6	-7	-8	-9	-9	-9	-9	-6	-5	-3	-2	-1	0	0	1	2	3	4	3	3	2	0	0	-1	-2.5	3.7																							
18-Apr	-1	-1	-1	-1	-1	-1	-2	-1	0	0	1	2	3	4	6	6	7	8	8	6	4	3	3	2	2.3	8.2																							
19-Apr	2	4	4	4	4	3	3	4	6	8	9	10	11	11	11	11	10	10	10	10	9	9	8	7	7.4	11.1																							
20-Apr	6	6	6	5	4	4	4	6	8	10	10	11	12	12	12	13	13	13	12	12	10	8	5	3	8.5	12.9																							
21-Apr	0	0	-1	-2	-2	-2	-1	2	4	6	10	11	13	14	14	15	14	14	14	13	11	10	10	9	7.4	14.6																							
22-Apr	7	6	6	5	3	1	2	5	7	8	9	11	12	14	13	12	12	8	7	7	7	6	6	6	7.5	13.7																							
23-Apr	5	5	5	4	4	4	3	2	1	1	2	2	3	3	3	3	3	3	3	3	2	2	1	1	2.8	5.1																							
24-Apr	1	1	0	0	-1	-1	-1	-1	0	1	2	3	4	5	6	6	7	6	6	4	3	2	2	2	2.5	6.9																							
25-Apr	2	2	1	2	2	2	2	2	2	3	3	3	5	5	6	6	6	6	6	6	5	5	4	4	3.8	6.4																							
26-Apr	3	2	0	0	1	1	1	2	2	3	4	6	7	8	9	9	9	8	7	6	5	4	4	4	4.3	8.9																							
27-Apr	2	2	2	2	2	2	2	3	4	4	5	6	8	8	9	10	11	11	10	8	7	6	5	5	5.7	11.1																							
28-Apr	3	3	3	1	3	4	4	6	7	8	9	10	11	11	11	11	12	11	12	11	10	9	8	7	7.7	11.7																							
29-Apr	6	6	5	4	2	1	2	5	7	10	13	14	15	16	17	18	19	20	19	17	15	12	9	7	10.8	19.5																							
30-Apr	5	4	3	2	2	1	3	6	10	13	16	18	19	20	20	21	21	21	20	19	17	16	15	14	12.8	21.5																							
																								1.1	0.6	0.2	-0.2	-0.4	-0.7	-0.6	0.6	2.0	3.2	4.2	5.2	6.1	6.9	7.4	7.8	7.9	7.7	7.2	6.2	5.0	4.0	3.3	2.7	Diurnal Average	
																								9.0	9.3	8.3	7.1	6.9	7.0	7.5	8.1	10.4	12.7	16.0	18.3	19.3	20.1	20.3	20.9	21.5	21.0	19.9	18.6	17.4	15.7	14.7	14.0	Diurnal Maximum	





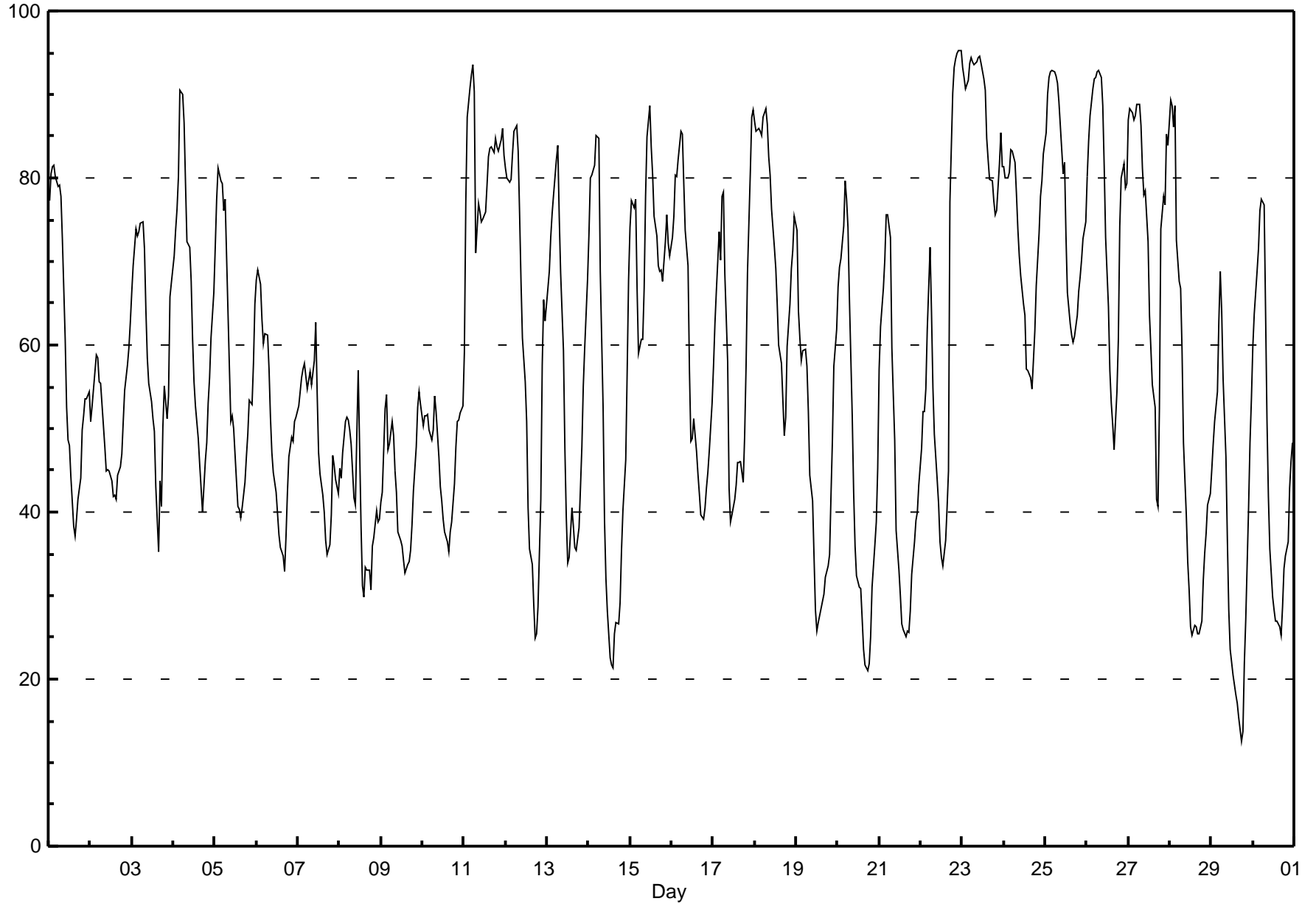
# Hourly Averages

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

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 95.3 % on Apr 22 23:00 Maximum Daily Average: 87.8 % on Apr 23																			Hours in Service: 720 Hours of Data: 720							
Minimum Value: 12 % on Apr 29 18:00 Minimum Daily Average: 37.2 % on Apr 29 Maximum Diurnal Average: 74.8 % at hour 6 Minimum Diurnal Average: 41.5 % at hour 17 Monthly Average: 58.31 % Percentiles: P <sub>1</sub> = 21.0 P <sub>10</sub> = 33.0 Q <sub>1</sub> = 42.3 Median = 55.9 Q <sub>3</sub> = 75.7 P <sub>90</sub> = 85.3 P <sub>99</sub> = 94.0																			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-Apr	77	81	81	82	80	79	79	78	73	61	53	49	48	44	38	37	39	42	44	50	52	53	54	54	59.4	81.5
2-Apr	51	53	55	59	59	56	55	53	48	45	45	45	44	42	42	42	44	46	47	51	55	58	60	63	50.6	62.7
3-Apr	66	70	74	73	74	75	75	71	64	59	55	53	51	50	43	35	44	41	50	55	51	54	66	67	59.0	74.8
4-Apr	71	74	76	80	91	90	87	79	72	72	68	61	56	53	49	46	43	40	46	48	53	56	61	66	64.0	90.5
5-Apr	72	77	81	80	79	76	77	71	57	51	52	50	44	41	40	39	40	43	47	49	53	53	58	65	58.2	81.1
6-Apr	68	69	67	63	60	61	61	57	51	47	45	42	40	37	36	35	33	37	42	47	49	48	51	51	49.9	68.9
7-Apr	53	54	56	57	58	55	56	57	55	58	63	54	47	44	42	40	37	35	36	40	47	46	44	42	49.0	62.7
8-Apr	45	44	47	51	51	51	50	48	42	41	49	57	38	31	30	33	33	33	31	36	37	40	39	39	41.5	57.0
9-Apr	41	42	52	54	47	48	51	49	45	42	38	37	36	34	33	34	34	35	38	42	48	53	54	53	43.4	54.4
10-Apr	50	52	52	52	50	49	50	54	52	47	43	41	39	38	36	35	38	39	43	48	51	51	52	53	46.4	53.8
11-Apr	59	77	87	91	92	93	90	71	77	76	75	75	76	79	83	84	84	83	85	84	83	85	86	83	81.6	93.5
12-Apr	81	80	79	80	83	86	86	83	76	68	61	56	51	40	36	34	29	25	25	29	42	58	65	63	58.9	86.4
13-Apr	67	69	73	76	78	82	84	75	69	59	48	39	34	35	40	38	36	35	38	43	48	55	60	68	56.2	83.9
14-Apr	73	80	80	82	85	85	85	69	53	39	32	28	23	22	21	25	27	27	29	35	40	46	57	68	50.4	85.1
15-Apr	74	77	76	77	67	59	61	61	67	78	85	89	84	80	75	73	69	69	69	68	72	76	72	71	72.9	88.6
16-Apr	73	75	80	80	82	86	85	79	74	69	57	48	49	51	47	45	42	40	39	41	43	45	47	53	59.6	85.7
17-Apr	57	63	66	74	70	78	78	69	58	43	39	40	42	43	46	46	46	44	49	57	69	81	87	88	59.7	88.2
18-Apr	87	86	86	86	85	87	88	86	82	80	76	72	69	65	60	58	53	49	51	60	65	69	71	75	72.8	88.2
19-Apr	74	64	61	58	59	59	57	52	44	41	35	28	26	27	28	29	30	32	34	35	42	49	57	62	45.2	73.8
20-Apr	67	69	70	74	80	77	74	66	52	42	36	32	31	31	27	24	22	21	22	25	31	36	39	45	45.6	79.7
21-Apr	57	62	67	70	76	76	73	60	54	49	38	33	30	27	26	25	26	26	28	33	36	39	40	43	45.5	75.5
22-Apr	48	52	52	55	62	72	64	55	49	44	41	36	35	34	37	41	45	77	90	93	94	95	95	95	60.8	95.3
23-Apr	93	92	91	92	94	94	94	94	94	94	95	94	92	91	85	82	80	80	77	76	76	82	85	81	87.8	94.6
24-Apr	81	80	80	81	83	83	82	78	74	71	68	65	64	57	57	56	55	58	62	67	73	78	80	83	71.5	83.5
25-Apr	85	90	92	93	93	93	92	91	89	83	80	82	73	66	63	61	60	61	63	66	68	70	73	75	77.7	92.8
26-Apr	80	84	87	91	92	92	93	93	92	89	81	73	65	57	53	50	48	54	61	74	80	82	79	79	76.2	92.9
27-Apr	87	88	88	87	88	89	89	86	81	78	79	72	64	60	55	53	41	41	52	74	78	77	85	84	73.9	88.9
28-Apr	89	89	86	89	73	68	67	59	48	40	34	31	26	25	26	26	25	25	27	32	35	37	41	42	47.6	89.4
29-Apr	45	48	51	54	63	69	64	56	47	37	28	24	20	19	18	17	15	12	14	22	27	40	48	54	37.2	68.8
30-Apr	60	64	69	71	76	77	77	64	51	42	36	30	28	27	27	26	25	29	33	35	36	43	46	48	46.7	77.4
																			67.7 70.2 72.2 73.6 74.3 74.8 74.1 68.8 63.0 58.1 54.4 51.2 47.4 45.0 43.3 42.3 41.5 42.6 45.8 50.4 54.5 58.4 61.7 63.8		Diurnal Average					
																			93.3 92.1 92.1 92.7 93.8 94.4 93.9 93.6 94.0 94.4 94.6 93.8 91.9 90.6 84.8 83.6 83.7 83.1 90.2 93.2 94.2 94.9 95.3 95.3		Diurnal Maximum					

**Hourly Averages**

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



# Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Evergreen Park - April 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	3	1	1	1	3	1	1	1	5	3	8	10	11	11	11	18	18	20	15	10	9	7	8	8	6.2	19.8
Dir	210	11	264	238	244	207	34	220	351	324	352	17	10	30	37	50	61	59	54	48	56	53	66	53	41.3	59.4
2 Spd	8	5	10	7	8	9	7	8	14	7	10	11	10	11	12	13	13	10	11	8	5	5	2	3	8.2	13.9
Dir	64	31	47	25	38	39	23	7	40	27	21	45	19	19	27	48	63	57	71	74	70	63	56	62	42.2	40.0
3 Spd	2	3	3	5	4	7	7	6	6	4	11	11	10	11	7	12	11	8	6	3	4	1	3	1	5.3	12.3
Dir	59	65	62	74	60	69	74	76	86	3	57	45	27	4	44	84	54	78	30	41	79	38	224	169	55.5	83.9
4 Spd	0	1	4	10	12	14	16	22	20	22	24	27	21	22	19	17	18	14	10	6	5	2	1	2	8.5	26.8
Dir	324	346	270	301	230	249	256	255	275	323	333	337	346	344	351	346	340	348	73	82	113	128	138	51	320.4	336.7
5 Spd	0	0	3	1	1	1	5	7	14	26	24	23	27	28	24	19	15	19	11	2	4	8	0	1	10.3	28.0
Dir	71	254	205	283	352	246	223	230	251	263	262	265	269	271	278	286	273	267	266	274	202	236	194	57	264.7	270.7
6 Spd	2	3	3	17	29	27	33	39	44	48	44	43	45	39	32	36	47	45	42	35	30	26	30	27	31.4	48.4
Dir	181	206	261	247	247	246	253	262	266	264	265	265	264	269	282	275	267	264	263	264	260	251	246	243	261.3	264.4
7 Spd	18	9	3	3	3	5	1	3	7	5	7	12	13	9	11	12	23	24	13	7	3	2	9	13	8.4	24.0
Dir	229	211	209	199	180	175	163	221	214	178	157	194	201	206	225	211	225	238	233	207	199	127	195	199	211.4	238.2
8 Spd	12	22	12	6	9	8	13	8	15	8	28	43	57	47	52	48	54	49	43	49	39	29	32	28	27.8	57.2
Dir	219	221	214	198	202	195	201	199	207	301	274	273	260	263	263	269	264	259	258	260	262	256	253	247	255.4	260.3
9 Spd	30	32	33	33	39	40	33	26	46	42	43	48	48	41	44	41	51	47	40	42	41	34	25	17	37.6	51.4
Dir	245	262	266	260	259	260	263	269	269	271	274	268	268	277	281	277	267	264	263	262	268	265	248	237	265.8	267.2
10 Spd	23	22	27	18	20	21	15	6	17	40	54	53	45	45	46	43	41	36	30	22	9	14	24	22	28.0	53.7
Dir	245	246	246	233	229	245	254	288	257	265	264	265	271	268	269	266	268	270	267	266	244	221	232	233	258.4	263.6
11 Spd	22	7	2	2	1	4	11	26	35	43	45	34	34	34	32	24	17	13	11	7	9	6	5	8	14.4	44.8
Dir	242	213	189	60	135	217	255	264	326	336	336	329	333	329	332	338	8	26	30	4	335	316	289	327	326.0	335.5
12 Spd	7	9	9	8	8	8	8	13	13	16	16	11	13	13	11	11	13	15	11	3	1	4	2	9	7.6	16.2
Dir	309	295	306	314	267	254	258	254	274	268	265	276	283	283	295	286	327	351	350	24	222	217	53	56	291.4	268.3
13 Spd	7	5	6	7	4	3	3	3	7	8	6	5	8	4	18	18	16	11	7	6	5	1	1	2	5.4	17.7
Dir	75	78	59	68	78	65	61	79	128	151	151	141	156	58	53	57	62	60	54	64	30	35	243	75.5	56.5	
14 Spd	1	2	0	1	2	2	1	6	7	8	3	8	11	12	14	13	12	9	5	3	2	1	2	2.0	13.5	
Dir	295	238	32	192	207	213	219	207	228	282	244	275	333	357	16	47	55	66	61	55	57	51	334	246	2.7	16.2
15 Spd	1	2	2	2	6	13	15	18	21	21	18	15	19	15	15	18	15	11	12	3	1	2	2	6	10.1	21.0
Dir	333	6	338	318	16	40	48	54	50	45	41	42	37	52	56	62	60	74	52	46	253	29	44	60	48.1	44.6
16 Spd	6	4	5	6	6	8	6	10	13	13	12	16	14	14	14	15	14	15	15	16	17	11	6	5	10.8	16.8
Dir	68	64	57	57	44	47	51	59	55	69	52	47	43	46	43	40	48	47	60	62	58	64	76	59	53.5	58.5
17 Spd	3	1	0	3	2	0	3	6	9	13	12	18	20	18	17	13	14	7	6	9	13	11	8	7	8.4	20.1
Dir	61	42	52	56	59	245	76	82	92	112	89	56	56	55	56	59	57	80	109	96	100	105	86	75	74.6	56.0
18 Spd	7	9	6	4	6	6	6	5	1	6	4	5	7	5	5	8	5	5	6	5	5	1	1	1	2.3	9.0
Dir	80	82	83	65	60	68	64	70	182	257	273	348	321	318	330	354	211	342	63	61	81	144	251	219	38.2	82.0
19 Spd	1	5	9	15	9	13	13	17	15	13	9	4	2	11	15	19	20	15	12	3	13	6	1	1	2.3	19.7
Dir	254	248	250	251	249	237	246	256	263	272	288	339	214	70	52	52	59	59	51	49	255	214	282	219	287.9	58.9
20 Spd	1	1	5	4	1	2	5	11	27	40	44	40	39	34	30	29	32	29	26	13	7	3	4	2	17.2	44.4
Dir	242	231	272	231	200	202	217	240	260	267	267	271	276	284	273	268	281	285	288	284	258	224	196	207	270.6	267.0
21 Spd	1	1	0	0	1	1	3	4	3	5	4	6	3	9	2	10	10	10	11	9	5	9	7	6	2.7	10.5
Dir	53	221	102	66	239	225	216	210	270	272	318	20	351	162	164	95	70	82	68	61	65	63	60	65	73.0	67.5
22 Spd	2	2	5	6	1	0	7	9	7	16	13	13	15	19	21	20	20	13	4	2	2	4	5	9	8.1	20.8
Dir	45	53	66	73	69	36	74	73	74	110	104	96	76	66	77	69	94	107	76	45	357	48	13	353	77.4	76.8

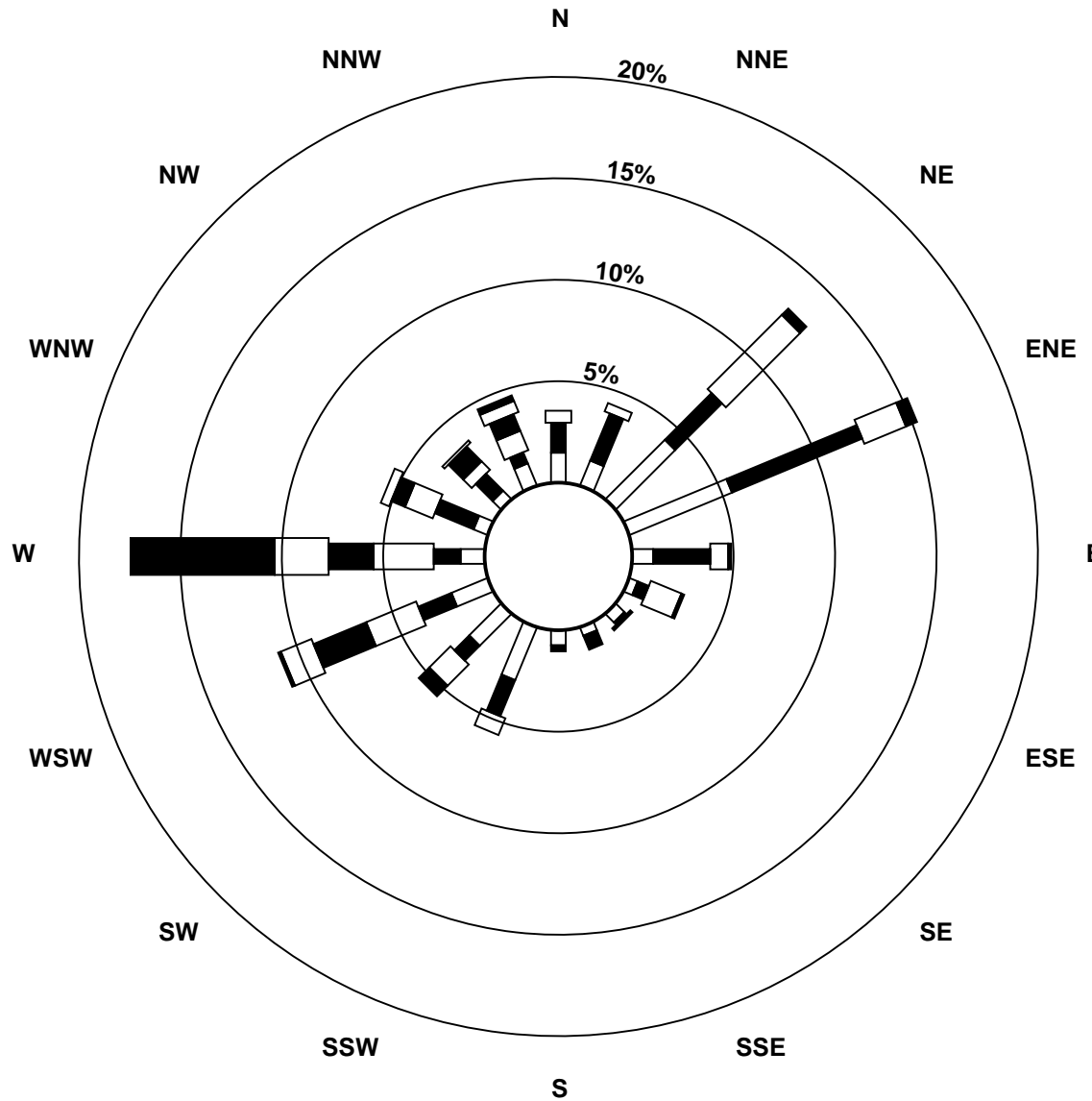
## Hourly Averages

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

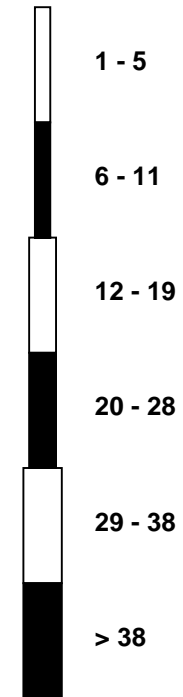
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	6	5	4	7	7	9	13	11	11	11	16	19	25	22	24	23	24	20	21	16	18	13	10	13	13.8	24.7
Dir	22	14	283	310	299	295	334	322	314	302	305	287	309	304	301	309	314	310	311	323	311	284	267	306.7	287.5	
24 Spd	16	17	15	12	12	14	14	15	17	17	13	10	12	7	10	11	14	17	18	15	11	6	5	4	6.8	17.9
Dir	276	277	277	293	278	271	293	295	274	280	289	300	341	349	34	35	48	51	40	49	50	50	44	55	325.0	39.6
25 Spd	4	5	3	1	2	2	2	3	7	4	3	7	6	5	6	7	7	7	7	6	2	2	3	4	4.1	7.4
Dir	46	42	14	10	358	11	16	34	59	80	48	52	29	40	16	48	92	76	78	67	64	70	68	80	53.1	52.5
26 Spd	4	4	1	5	4	1	4	7	10	11	11	13	14	15	22	18	16	20	14	11	8	10	14	17	10.0	21.8
Dir	100	102	56	47	60	77	71	73	58	68	86	90	102	119	109	103	109	130	121	120	110	94	101	109	101.0	108.9
27 Spd	13	11	8	4	4	3	3	1	7	13	10	11	18	20	20	19	10	5	4	2	7	18	3	2	3.4	20.0
Dir	98	97	90	81	45	44	52	61	273	273	269	270	284	310	328	345	355	5	224	166	200	215	347	262	306.2	309.9
28 Spd	8	11	7	2	20	25	22	22	27	34	33	36	38	40	38	39	30	28	32	32	24	19	17	19	24.2	40.2
Dir	206	230	212	121	248	248	239	238	250	253	254	255	261	271	267	266	276	277	264	259	256	238	225	236	255.0	270.5
29 Spd	17	14	11	9	1	1	1	3	5	7	7	4	1	6	4	11	8	16	13	6	3	3	3	1	3.8	17.3
Dir	243	248	252	256	281	119	188	234	220	223	188	157	161	179	145	85	83	222	243	347	350	251	242	205	227.8	242.8
30 Spd	0	1	0	0	1	1	0	0	1	4	9	13	19	27	26	22	30	27	24	31	19	11	13	8	11.6	30.9
Dir	66	205	105	69	223	43	145	340	249	291	289	269	268	248	265	263	253	293	284	274	270	279	271	276	270.0	274.3
Spd	3.0	3.1	3.1	2.7	4.1	4.4	4.2	5.1	7.3	9.8	10.4	10.4	11.8	10.5	9.5	7.5	6.7	6.4	5.4	4.9	3.9	3.5	3.5	2.8	Diurnal Average	
Dir	238.7	246.6	261.6	273.0	255.0	255.8	262.8	265.1	276.8	281.8	286.4	289.7	290.8	297.8	308.6	318.5	305.0	297.0	295.0	286.9	275.6	250.5	244.0	242.0	Diurnal Maximum	
Spd	29.6	31.8	33.0	32.7	38.8	40.4	33.1	38.5	46.3	48.4	53.7	52.6	57.2	47.3	52.1	48.1	53.9	48.8	42.7	48.7	40.6	33.7	31.6	27.7	Diurnal Maximum	
Dir	245.0	262.3	265.8	259.9	259.3	260.4	263.2	262.0	268.9	264.4	263.6	265.2	260.3	263.1	263.4	268.7	263.5	259.3	258.2	260.5	268.2	264.6	252.9	246.8	Diurnal Maximum	
Maximum Speed Value: 57 km/h on Apr 8 13:00		Minimum Speed Value: 0 km/h on Apr 17 06:00		Hours in Service: 720																						
Maximum Daily Speed Average: 37.6 km/h on Apr 9		Minimum Daily Speed Average: 2.0 km/h on Apr 25		Hours of Data: 720																						
Maximum Diurnal Speed Average: 11.8 km/h at hour 13		Minimum Diurnal Speed Average: 2.7 km/h at hour 4		Hours of Missing Data: 0																						
Monthly Average Velocity: 5.63 km/h 283.06 deg				Speed Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 1.6 Q <sub>1</sub> = 4.5 Median = 9.5 Q <sub>3</sub> = 17.8 P <sub>90</sub> = 31.8 P <sub>99</sub> = 47.0				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	18	22	11	4	0	0	55																			
NorthEast	60	54	54	7	0	0	175																			
East	20	47	21	4	0	0	92																			
SouthEast	10	7	3	1	0	0	21																			
South	20	9	4	0	0	0	33																			
SouthWest	43	19	19	17	3	0	101																			
West	20	22	37	27	29	51	186																			
NorthWest	8	16	14	12	5	2	57																			
Total	199	196	163	72	37	53	720																			

**Wind Rose**

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



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



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - April 2014

Maximum Speed: 58 km/h on Apr 8 13:00	Maximum Daily Speed Average: 38.5 km/h on Apr 9	Hours in Service: 720
Minimum Speed: 0 km/h on Apr 17 06:00	Minimum Daily Speed Average: 5.1 km/h on Apr 25	Hours of Data: 720
Maximum Diurnal Speed Average: 22.1 km/h at hour 13	Minimum Diurnal Speed Average: 7.1 km/h at hour 3	Hours of Missing Data: 0
Monthly Average Speed: 14.01 km/h	Percentiles: $P_1 = 0.8$ $P_{10} = 2.3$ $Q_1 = 5.4$ Median = 10.9 $Q_3 = 18.6$ $P_{90} = 32.3$ $P_{99} = 47.3$	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-Apr	3	2	2	2	3	2	1	3	6	5	8	11	13	12	12	19	18	20	15	11	9	7	8	8	8.3	20.2
2-Apr	8	5	10	8	8	10	7	9	14	8	12	12	11	12	14	15	14	12	11	8	5	5	3	3	9.4	14.8
3-Apr	2	3	3	6	4	7	7	6	7	6	12	12	11	12	13	14	12	9	7	3	4	2	3	2	7.0	14.3
4-Apr	1	2	5	11	12	14	16	23	21	24	25	27	22	23	20	18	19	15	10	7	5	3	2	2	13.6	27.5
5-Apr	1	1	3	2	1	1	6	7	14	27	24	23	27	29	24	20	15	19	11	3	4	8	3	2	11.5	28.7
6-Apr	3	4	4	17	30	27	33	39	44	49	44	43	45	40	32	37	47	45	42	35	30	27	30	27	32.3	48.7
7-Apr	18	9	4	4	4	6	1	5	8	5	7	12	13	10	11	13	24	25	13	7	3	2	10	13	9.5	24.7
8-Apr	12	22	13	7	9	8	13	8	15	10	29	44	58	48	53	49	54	49	43	49	39	29	32	28	30.0	57.7
9-Apr	30	32	33	33	39	41	33	26	47	42	44	49	49	42	44	42	52	47	40	42	41	34	25	17	38.5	51.9
10-Apr	23	22	27	19	21	21	16	6	17	41	54	53	46	45	46	44	41	36	31	22	9	14	24	22	29.2	54.3
11-Apr	23	7	2	2	1	4	11	26	37	43	45	35	34	34	33	25	19	14	11	8	10	7	5	8	18.5	45.4
12-Apr	8	9	10	9	8	8	8	13	14	17	17	13	14	15	14	13	16	15	12	4	1	4	4	9	10.7	17.1
13-Apr	7	5	6	8	4	3	3	4	8	10	8	8	10	10	18	18	17	11	7	7	5	2	2	3	7.7	18.3
14-Apr	2	2	1	2	2	2	1	6	7	8	4	10	13	13	15	14	13	9	5	3	2	3	2	3	5.9	15.5
15-Apr	2	3	4	4	6	13	15	19	21	21	19	16	19	16	16	19	16	12	13	3	1	2	2	6	11.1	21.4
16-Apr	6	4	5	7	6	8	6	10	14	15	14	18	15	16	16	17	15	16	16	16	17	11	6	5	11.5	17.5
17-Apr	3	2	1	3	2	0	4	7	10	14	14	19	21	19	18	13	15	9	8	10	13	12	8	7	9.7	20.7
18-Apr	7	9	6	4	6	6	6	6	3	6	6	7	11	9	8	12	7	8	7	5	5	4	3	2	6.4	11.7
19-Apr	1	5	9	15	9	13	13	17	16	13	12	11	10	14	17	20	20	15	13	10	14	7	7	2	11.8	20.2
20-Apr	2	2	6	4	1	3	6	11	27	41	45	41	40	35	31	30	33	30	26	14	7	3	4	2	18.6	45.4
21-Apr	1	1	1	1	3	1	3	5	4	5	6	9	11	13	14	12	12	11	11	10	5	10	8	6	6.8	13.8
22-Apr	2	3	5	6	2	1	7	9	8	17	14	14	16	20	22	21	22	14	4	3	2	5	6	10	9.7	22.1
23-Apr	6	5	5	7	8	9	14	11	12	12	16	19	26	23	25	24	24	21	21	17	19	13	10	14	15.0	25.7
24-Apr	16	17	15	12	12	14	15	16	17	18	16	13	13	12	11	13	15	18	18	15	11	6	5	4	13.5	18.2
25-Apr	4	5	3	2	2	3	2	3	7	5	4	8	9	8	7	9	8	8	7	6	2	2	3	4	5.1	8.6
26-Apr	4	5	1	5	5	1	5	8	10	11	12	14	16	17	23	19	17	21	15	12	9	10	14	17	11.2	23.0
27-Apr	14	11	8	4	4	3	3	2	8	14	11	12	21	23	22	20	11	7	10	4	8	20	6	5	10.4	22.7
28-Apr	8	11	8	4	20	25	22	22	27	35	35	38	39	41	39	39	32	29	32	32	24	20	17	19	25.8	41.1
29-Apr	17	14	11	9	2	2	1	4	6	7	10	9	10	12	10	14	14	19	15	7	4	3	3	1	8.5	19.2
30-Apr	2	2	1	1	1	1	1	0	2	6	10	14	21	29	28	24	31	29	24	31	19	12	13	10	13.0	31.2
	8.0	7.5	7.1	7.2	7.9	8.6	9.3	11.0	15.1	17.9	19.2	20.4	22.1	21.7	21.9	21.5	21.8	19.8	16.7	13.5	10.9	9.5	8.9	8.7	Diurnal Average	
	30.0	32.5	33.5	32.9	39.0	40.7	33.3	38.8	46.7	48.7	54.3	53.2	57.7	48.1	52.8	48.6	54.4	49.2	43.1	49.0	40.9	34.0	31.8	27.9	Diurnal Maximum	

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

# Hourly Standard Deviations

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

Maximum Value: 97.3 deg on Apr 30 04:00																						Hours in Service:	720		
Minimum Value: 4.4 deg on Apr 16 06:00																						Hours of Data:	720		
Percentiles: P <sub>1</sub> = 5.6 P <sub>10</sub> = 8.1 Q <sub>1</sub> = 12.2 Median = 19.6 Q <sub>3</sub> = 37.0 P <sub>90</sub> = 67.9 P <sub>99</sub> = 92.7																						Hours of Missing Data:	0		
																						Hours of Calibration:	0		
																						Percent Operational Time:	100.0		
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	59	57	69	73	22	69	53	71	38	51	36	31	31	27	33	16	21	12	13	13	8	10	15	7	72.8
2-Apr	14	25	11	25	14	18	20	21	18	43	35	27	30	31	32	26	25	29	19	15	12	17	24	15	42.5
3-Apr	28	25	45	30	14	6	17	19	33	75	20	18	25	25	61	33	15	28	26	31	21	85	35	88	88.1
4-Apr	84	79	47	20	17	8	8	6	10	24	15	14	21	18	24	20	20	23	19	15	15	56	77	56	84.1
5-Apr	84	86	52	76	76	72	42	24	13	8	8	9	13	12	13	19	12	8	14	29	39	20	78	59	86.2
6-Apr	72	47	37	11	7	6	6	6	6	6	7	7	8	11	11	12	8	7	7	6	6	8	8	7	71.8
7-Apr	7	12	81	61	40	32	67	52	33	26	19	16	11	13	19	24	8	13	12	23	73	38	12	15	80.5
8-Apr	15	5	36	44	10	13	6	13	13	34	11	9	8	10	9	8	8	7	8	7	5	6	6	6	43.8
9-Apr	9	12	10	6	6	6	7	9	8	12	11	11	10	10	11	11	8	7	7	6	7	7	6	8	11.9
10-Apr	7	5	6	7	6	8	11	28	12	9	8	9	11	10	9	10	11	10	9	8	15	9	7	8	27.6
11-Apr	13	24	55	44	78	48	27	8	21	10	10	15	11	11	12	13	26	20	18	27	11	18	16	19	78.1
12-Apr	22	15	19	21	26	10	9	8	15	18	22	33	29	28	38	37	44	21	29	43	89	20	84	7	89.0
13-Apr	16	24	19	10	12	13	25	37	40	43	55	66	57	86	16	15	16	18	16	14	14	33	60	73	86.5
14-Apr	75	58	79	89	24	31	37	19	21	19	60	36	29	28	28	18	18	16	13	16	37	57	54	70	89.4
15-Apr	63	71	61	56	21	9	12	14	14	12	11	15	14	17	18	16	17	28	17	29	46	35	24	12	71.1
16-Apr	13	10	6	7	6	4	8	13	20	26	28	28	26	25	33	24	24	20	19	13	11	14	16	19	32.5
17-Apr	13	40	81	25	33	75	21	27	32	25	35	24	17	24	17	22	22	43	47	28	18	21	20	19	80.7
18-Apr	20	16	26	17	18	18	21	37	86	26	56	65	55	85	58	59	83	66	48	12	15	81	90	96	95.6
19-Apr	66	16	7	6	12	10	6	7	14	18	48	89	96	46	25	16	14	15	16	91	19	38	81	94	95.9
20-Apr	73	75	50	52	65	87	49	16	12	10	12	14	14	15	18	15	15	14	13	16	10	28	12	86	86.8
21-Apr	60	44	75	84	83	87	47	10	44	29	61	47	86	62	90	41	39	23	18	11	13	18	17	17	90.0
22-Apr	42	34	12	7	86	85	8	12	27	17	27	27	23	20	15	15	22	26	17	40	49	43	30	34	86.1
23-Apr	15	26	44	18	12	15	11	15	17	17	14	15	17	16	14	15	15	17	14	15	14	18	15	13	43.8
24-Apr	11	8	11	14	13	10	24	19	19	23	34	44	39	68	35	36	25	20	11	11	9	7	12	13	68.1
25-Apr	9	12	30	24	29	23	24	25	18	40	50	28	45	57	44	51	38	22	18	14	15	10	24	29	57.4
26-Apr	17	36	41	6	21	66	20	27	21	28	28	21	27	29	20	16	21	24	21	20	17	16	13	14	65.8
27-Apr	14	17	19	32	13	28	24	83	34	17	28	37	28	28	27	23	33	54	95	86	17	53	74	62	94.9
28-Apr	32	11	60	70	14	7	8	9	13	12	17	16	15	13	14	11	17	16	12	9	6	14	7	6	69.6
29-Apr	5	5	6	8	61	72	68	40	29	27	53	78	97	85	80	40	62	55	30	38	48	54	37	61	97.3
30-Apr	82	79	79	97	86	56	93	54	77	48	37	25	21	21	19	21	14	21	16	9	10	17	12	40	97.3
84.4	86.2	80.7	97.3	86.1	87.4	93.2	82.7	86.0	74.8	61.5	88.8	97.3	86.5	90.0	59.2	82.7	65.8	94.9	91.2	89.0	85.2	90.3	95.6		



PAZA

## Smoky Heights Station

Monthly Summary Tables, Graphs and  
Roses

## Hourly Averages

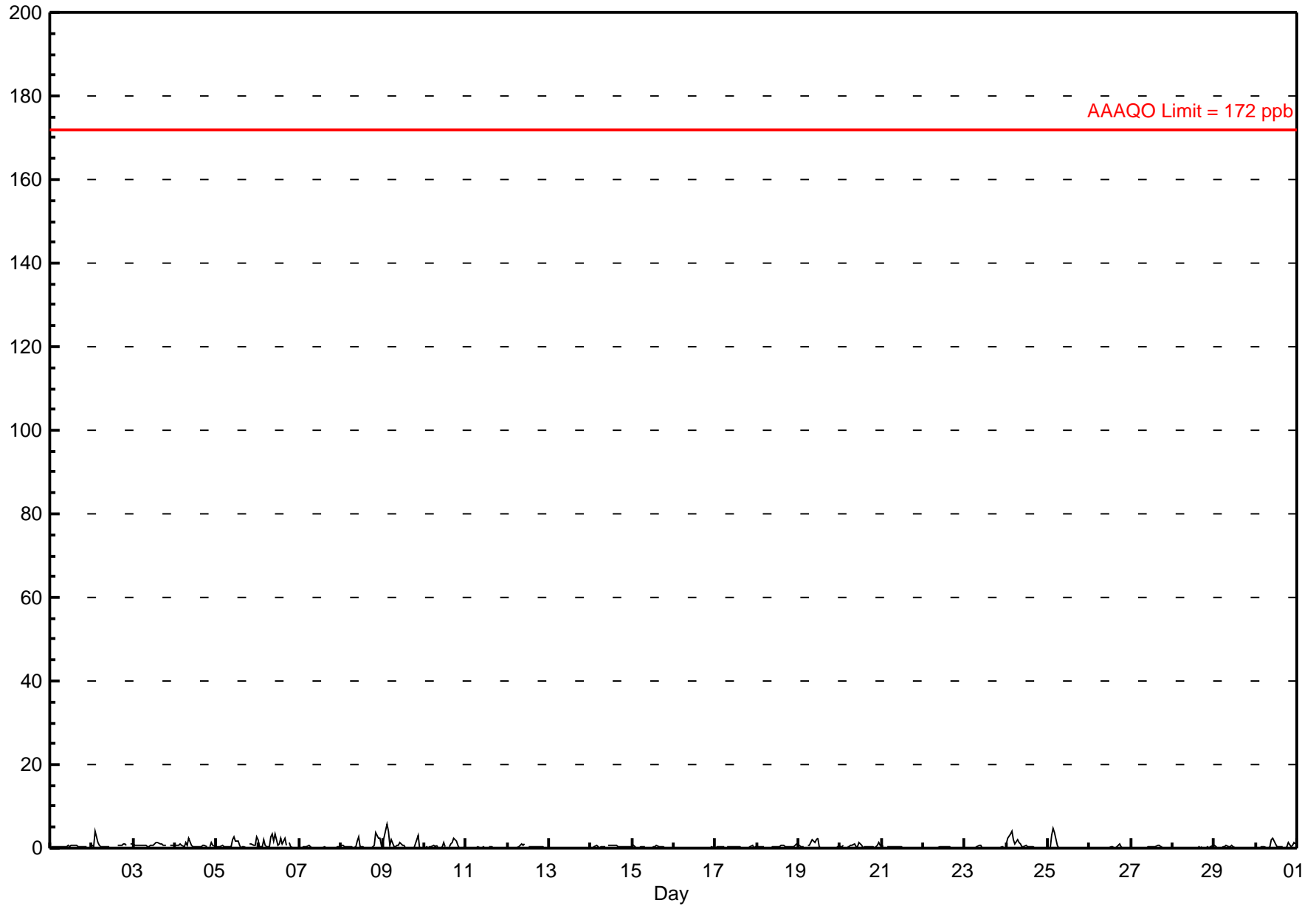
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Smoky Heights - April 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 5.7 ppb on Apr 9 03:00	Maximum Daily Average: 1.2 ppb on Apr 6		Hours of Data:	685
Minimum Value: 0 ppb on Apr 11 03:00	Minimum Daily Average: 0.1 ppb on Apr 16		Hours of Missing Data:	35
Maximum Diurnal Average: 0.8 ppb at hour 4	Minimum Diurnal Average: 0.3 ppb at hour 15		Hours of Calibration:	35
Monthly Average: 0.45 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 0.2 Q <sub>3</sub> = 0.5 P <sub>90</sub> = 1.0 P <sub>99</sub> = 3.5		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-Apr	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	1	0	A	1	0.5	0.6	
2-Apr	1	0	4	1	1	0	0	0	0	0	0	C	C	C	C	1	1	1	1	1	1	A	1	1	0.8	4.2	
3-Apr	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.3	
4-Apr	1	1	1	1	1	1	2	1	2	1	1	0	0	0	0	0	1	1	0	A	0	1	1	0	0.7	2.5	
5-Apr	0	0	0	1	0	0	0	0	0	2	3	2	2	1	0	0	0	0	A	1	1	1	1	3	0.8	2.8	
6-Apr	2	0	0	2	1	0	0	3	3	2	3	1	1	2	1	3	1	A	1	0	0	0	0	0	1.2	3.4	
7-Apr	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.6	
8-Apr	1	1	0	0	0	0	0	0	0	2	3	0	0	0	0	A	0	0	0	0	1	4	3	2	1	0.8	3.6
9-Apr	1	3	6	4	1	2	0	0	1	1	1	1	1	0	A	0	0	0	0	1	3	0	0	0	1.2	5.7	
10-Apr	0	0	0	0	0	1	0	1	0	0	0	1	0	A	0	1	2	2	2	1	0	0	0	0	0.5	2.3	
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5	
12-Apr	0	0	0	0	0	0	0	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0	
13-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
14-Apr	0	0	0	1	0	0	0	0	0	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.3	0.8	
15-Apr	0	1	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.2	0.6	
16-Apr	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	
17-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	0.5	
18-Apr	0	0	0	0	0	A	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	1	0.4	0.9	
19-Apr	1	0	0	0	A	1	1	1	2	1	2	2	1	0	0	0	0	0	0	0	0	0	0	1	0.6	2.5	
20-Apr	0	0	1	A	0	1	1	1	1	0	0	1	1	0	0	1	0	0	0	0	0	1	1	1	0.5	1.5	
21-Apr	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	1.1	
22-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
23-Apr	A	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.7	
24-Apr	1	2	3	4	2	1	2	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0.9	4.1	
25-Apr	0	0	3	5	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.6	4.7	
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	A	0	0	0	0.1	1.0	
27-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0.2	0.5	
28-Apr	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	0.6	
29-Apr	1	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.7	
30-Apr	0	0	0	0	0	0	0	0	0	2	2	1	0	0	0	A	0	0	0	1	0	1	1	1	0.6	2.4	
	0.4	0.4	0.8	0.8	0.4	0.3	0.3	0.5	0.6	0.5	0.8	0.5	0.4	0.4	0.3	0.4	0.3	0.4	0.3	0.3	0.4	0.3	0.4	0.4	Diurnal Average		
	2.1	2.8	5.7	4.7	3.8	1.9	2.1	2.8	3.2	2.1	3.4	2.5	1.7	2.2	1.2	2.5	1.5	2.3	1.9	1.3	3.6	2.5	2.4	2.8	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

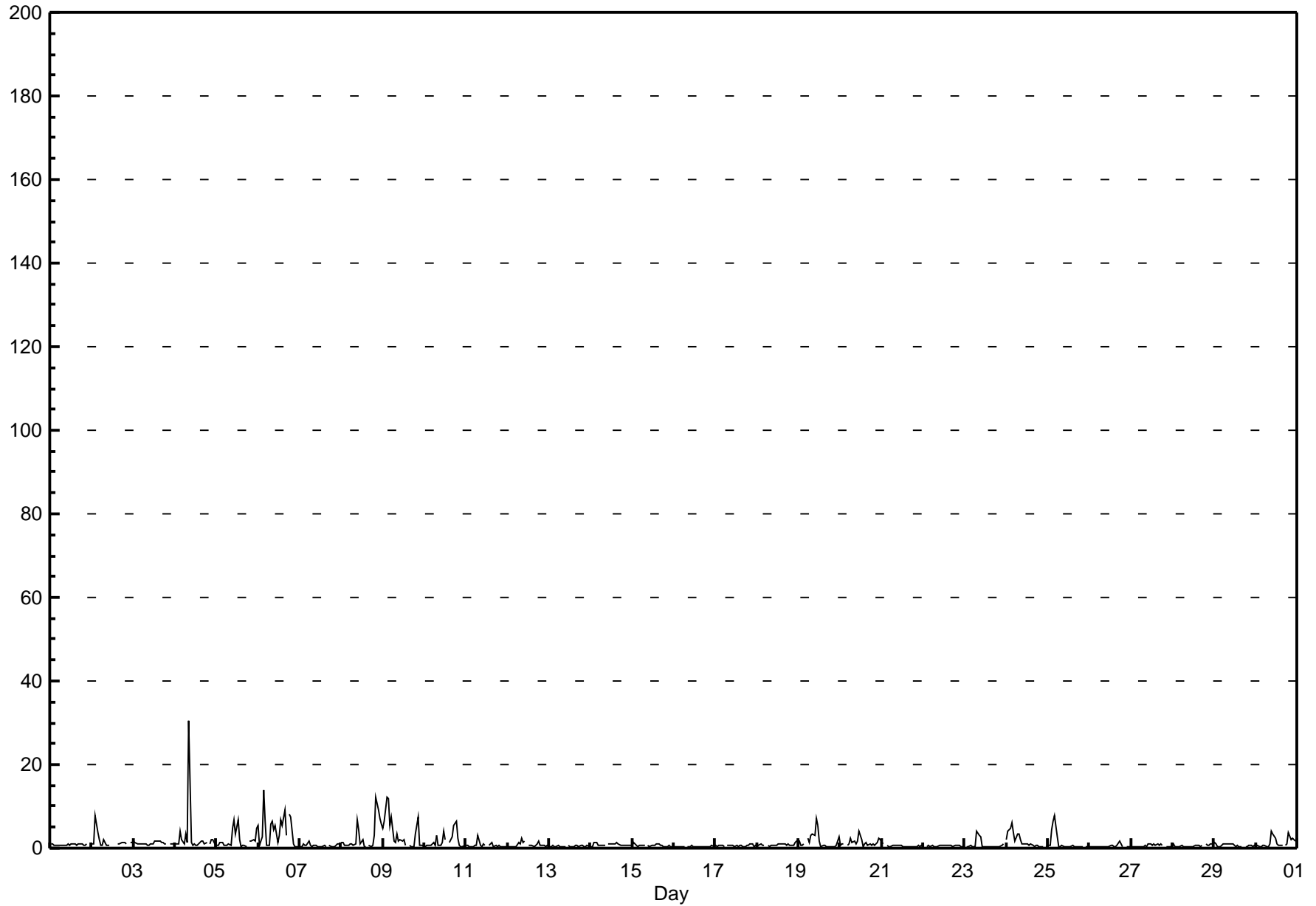
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Smoky Heights - April 2014

Maximum Value: 30.6 ppb on Apr 4 09:00		Maximum Daily Average: 4.3 ppb on Apr 6		Hours in Service: 720																							
Minimum Value: 0 ppb on Apr 26 23:00		Minimum Daily Average: 0.4 ppb on Apr 16		Hours of Data: 685																							
Maximum Diurnal Average: 2.3 ppb at hour 9		Minimum Diurnal Average: 0.8 ppb at hour 17		Hours of Missing Data: 35																							
Monthly Average: 1.26 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> = 1.1 P <sub>90</sub> = 2.6 P <sub>99</sub> = 9.1		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-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1	
2-Apr	1	1	8	4	2	1	1	2	1	1	1	C	C	C	C	1	1	1	1	2	1	A	1	1	1.6	7.9	
3-Apr	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	A	1	1	1.2	1.6	
4-Apr	1	1	1	4	2	1	3	1	31	1	1	1	1	1	2	2	1	1	1	A	1	2	2	1	2.7	30.6	
5-Apr	1	1	1	1	1	1	1	1	1	5	7	3	7	2	0	1	1	0	A	2	2	2	2	5	2.0	6.9	
6-Apr	5	1	3	14	6	1	1	6	6	4	5	1	3	7	5	9	3	A	8	7	1	0	0	0	4.3	13.9	
7-Apr	0	0	1	1	1	2	1	0	1	1	0	0	0	0	1	0	A	1	0	0	0	1	1	1	0.6	1.7	
8-Apr	1	1	1	1	1	1	1	1	1	7	4	1	2	0	0	A	1	0	1	3	12	9	7	6	2.7	12.1	
9-Apr	5	6	12	12	6	7	2	1	3	2	2	2	2	1	A	1	0	0	0	3	8	1	1	1	3.4	12.2	
10-Apr	0	1	1	1	1	1	1	3	1	1	1	4	2	A	1	2	3	5	6	2	1	0	0	1	1.7	6.5	
11-Apr	1	1	0	0	0	1	1	3	1	0	1	1	A	1	1	1	0	1	0	1	0	0	0	0	0.7	2.9	
12-Apr	0	0	0	0	0	0	1	1	2	2	2	A	1	1	1	0	1	1	2	1	1	1	0	1	0.8	2.4	
13-Apr	0	0	1	0	0	1	0	0	0	0	A	1	0	0	0	1	1	0	1	1	0	0	1	0	0.5	0.6	
14-Apr	0	0	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3	
15-Apr	1	1	1	0	1	1	1	1	A	1	0	1	1	1	1	1	1	1	1	1	0	0	1	0	0.6	1.3	
16-Apr	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	1	0.4	0.6	
17-Apr	1	0	1	1	1	0	A	1	1	1	1	0	1	0	1	1	0	0	1	1	1	1	0	1	0.6	1.2	
18-Apr	0	1	1	1	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	0.8	1.6	
19-Apr	2	1	1	1	A	2	1	3	3	3	7	5	2	1	1	1	0	0	0	0	0	0	1	3	1.7	7.0	
20-Apr	1	1	1	A	1	1	2	1	2	1	2	4	2	0	1	2	1	1	1	1	1	1	2	2	1.3	4.0	
21-Apr	2	1	A	1	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	0.6	1.8	
22-Apr	1	A	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	0.5	0.7	
23-Apr	A	0	0	1	0	0	0	4	3	3	0	0	0	0	0	1	0	0	0	0	0	1	1	A	0.8	3.9	
24-Apr	2	4	5	6	4	2	3	4	2	1	1	1	1	1	1	1	0	1	1	0	0	0	A	0	1.8	6.2	
25-Apr	1	1	5	7	8	3	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	1.3	7.6	
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	2	1	0	A	0	0	0	0.5	1.7	
27-Apr	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	A	0	0	0	0	0.6	1.1	
28-Apr	1	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	1	1	1	A	1	1	1	1	0.6	1.1	
29-Apr	1	1	0	0	1	1	1	1	1	1	1	1	0	1	0	0	0	0	1	1	1	1	1	1	0.7	1.2	
30-Apr	0	1	1	1	1	1	0	0	1	4	4	2	1	1	1	1	A	1	1	4	2	2	2	2	1.3	4.0	
		1.1	1.0	1.7	2.1	1.4	1.1	0.9	1.4	2.3	1.5	1.6	1.3	1.2	0.9	0.9	1.1	0.8	0.9	1.2	1.3	1.4	1.1	1.1	1.1	Diurnal Average	
		5.5	6.4	12.2	13.9	7.6	7.4	3.5	5.6	30.6	6.9	7.0	5.4	6.9	6.9	5.3	9.1	2.9	5.3	8.2	7.4	12.1	9.3	7.2	5.6	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

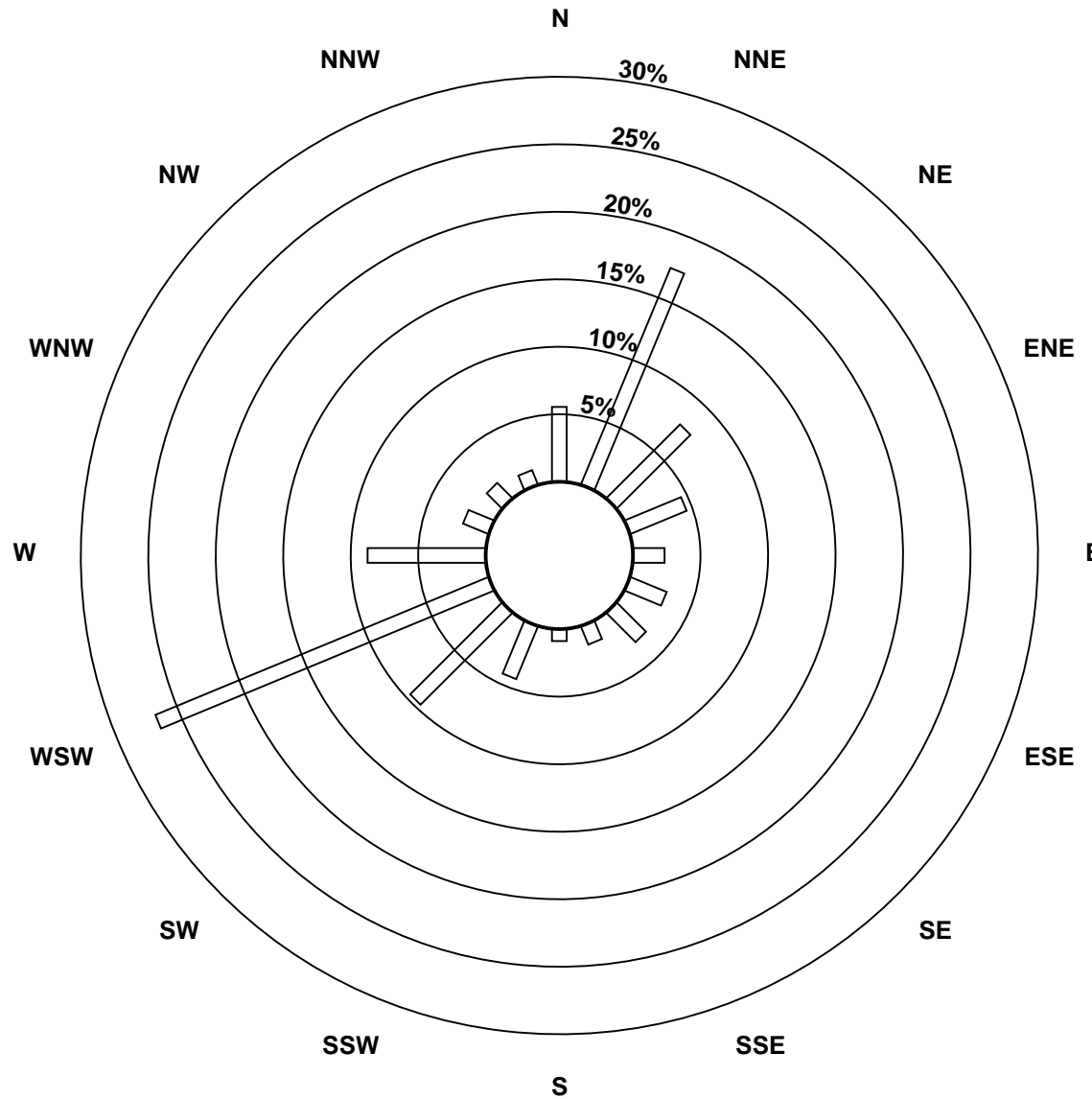
### Hourly Maximums

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

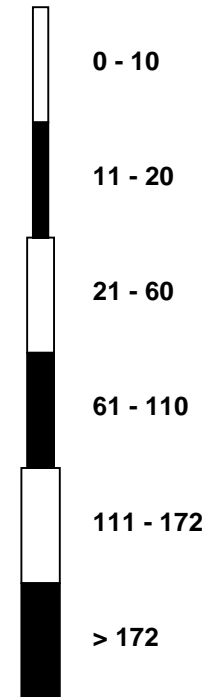


**Pollutant Rose**

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

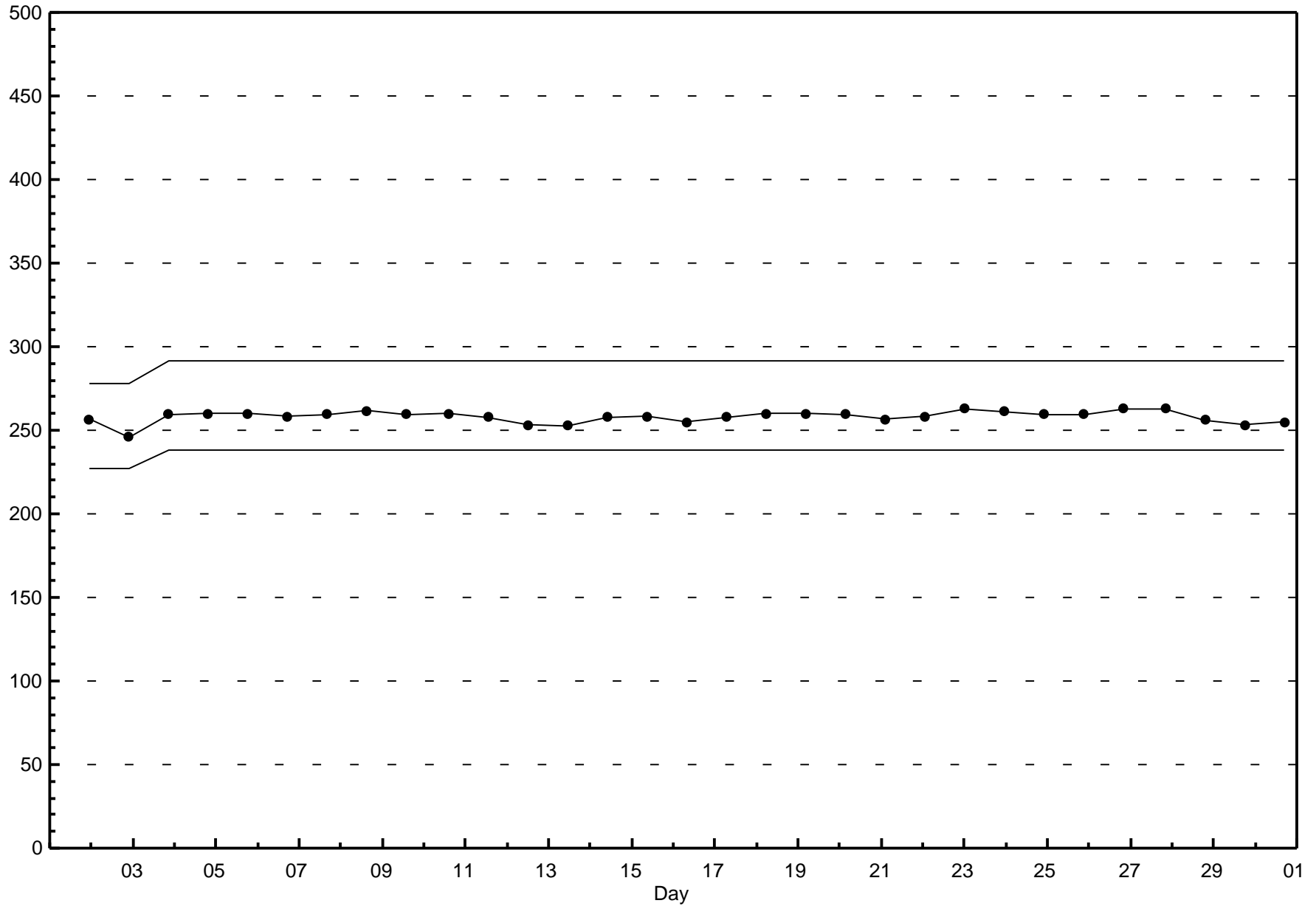


**Pollutant Classes (ppb)**



### Span Responses

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

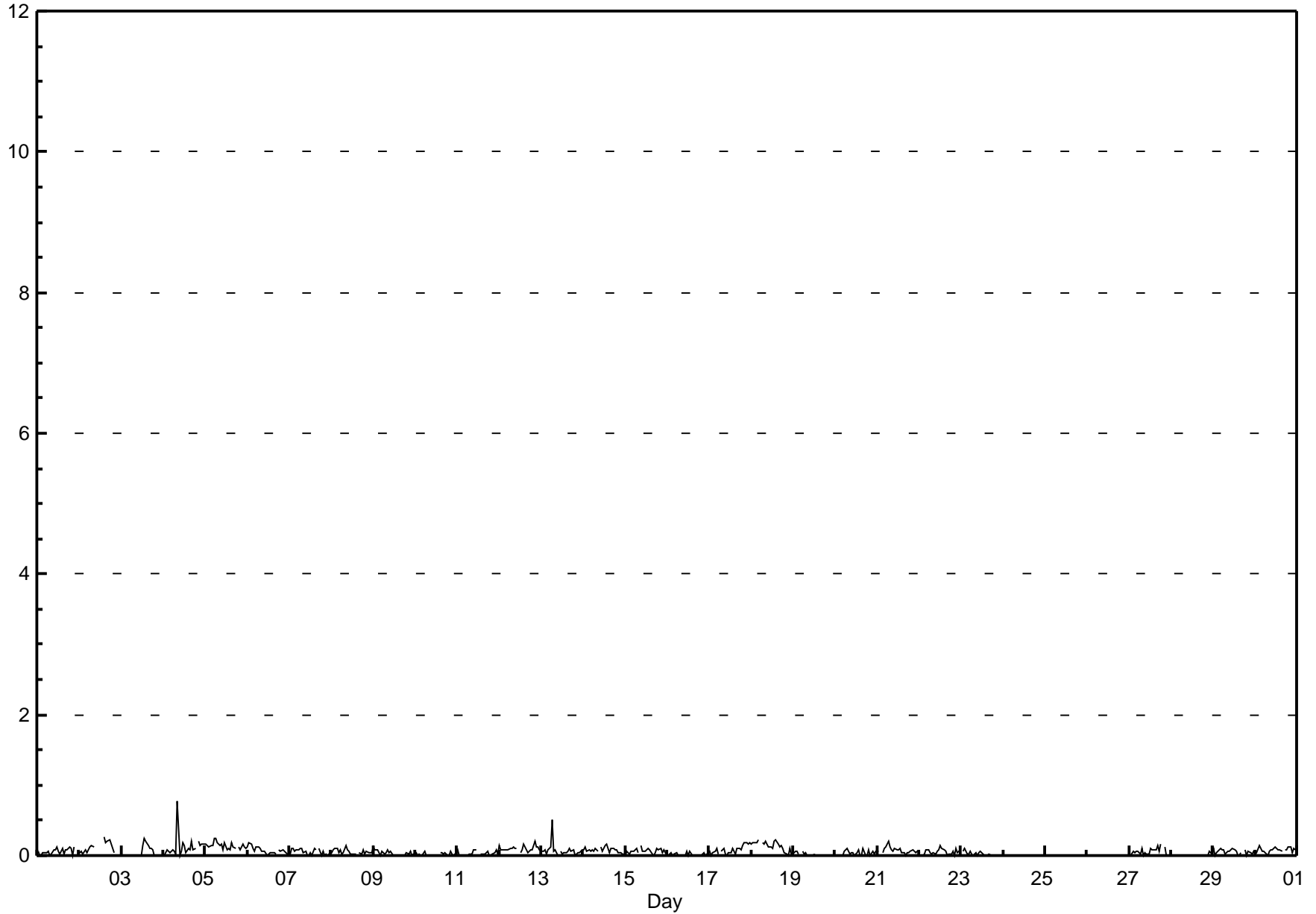


## Hourly Averages

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

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.8 ppb on Apr 4 09:00      Maximum Daily Average: 0.1 ppb on Apr 5		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 Apr 1 03:00 Maximum Diurnal Average: 0.1 ppb at hour 9 Monthly Average: 0.05 ppb		Minimum Daily Average: 0.0 ppb on Apr 24 Minimum Diurnal Average: 0.0 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> = 0.1 P <sub>99</sub> = 0.2																									
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-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.1	
2-Apr	0	0	0	0	0	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	A	0	0	0.1	0.3
3-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.0	0.2
4-Apr	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.8
5-Apr	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	0.3
6-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2
7-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.1
8-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.1
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.1
10-Apr	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	0.1
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
12-Apr	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	0.1	0.2
13-Apr	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
14-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
15-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
16-Apr	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	0.1
17-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
18-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
19-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
20-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
21-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
22-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
23-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
24-Apr	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
25-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.0	0.0
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.0	0.0
27-Apr	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	0.2
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
29-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	A	0	0	0	0	0	0.1	0.1
30-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.1
																								Diurnal Average			
																								Diurnal Maximum			
C - Calibration      A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb    24-hr 3 ppb																											



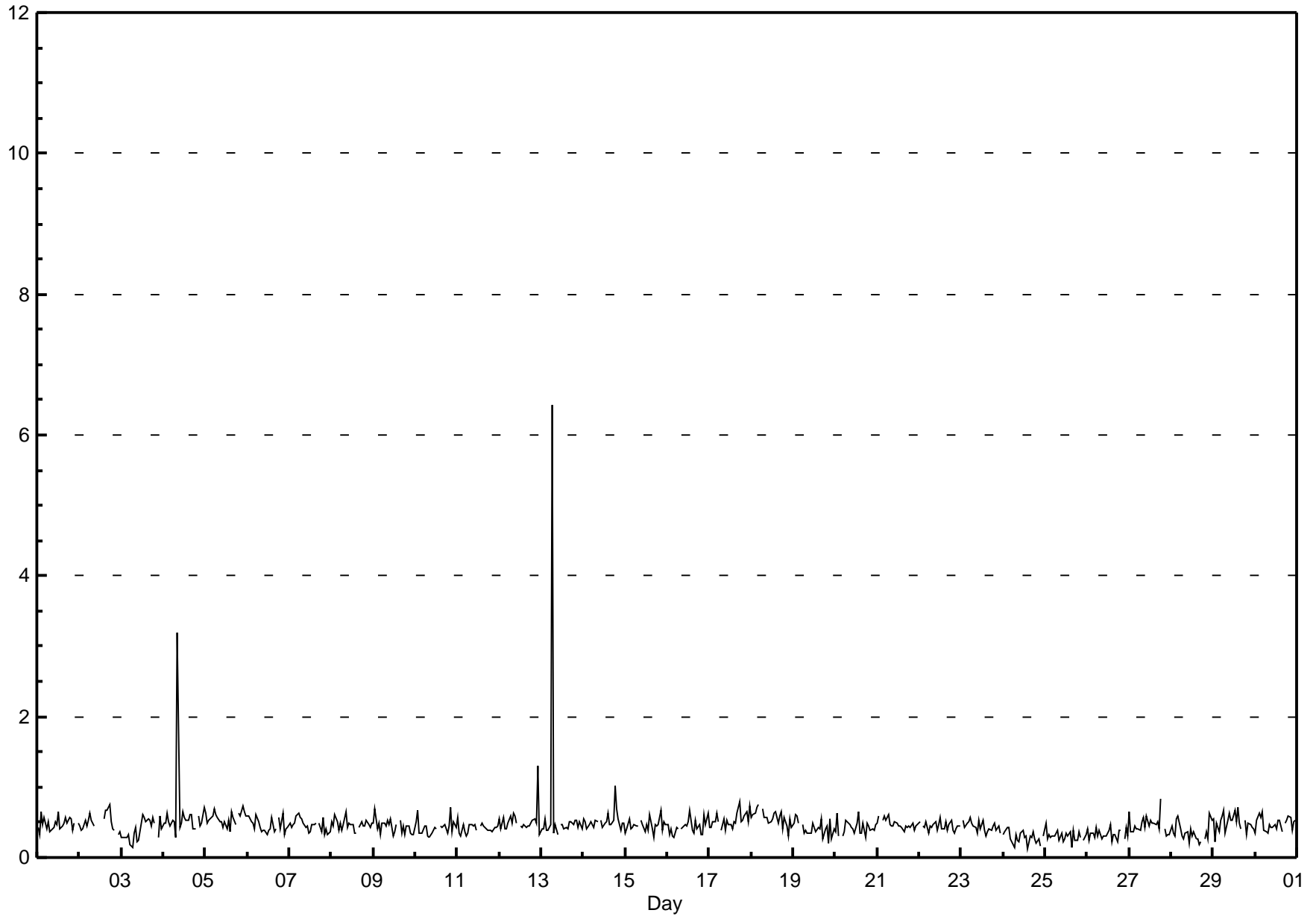


## Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

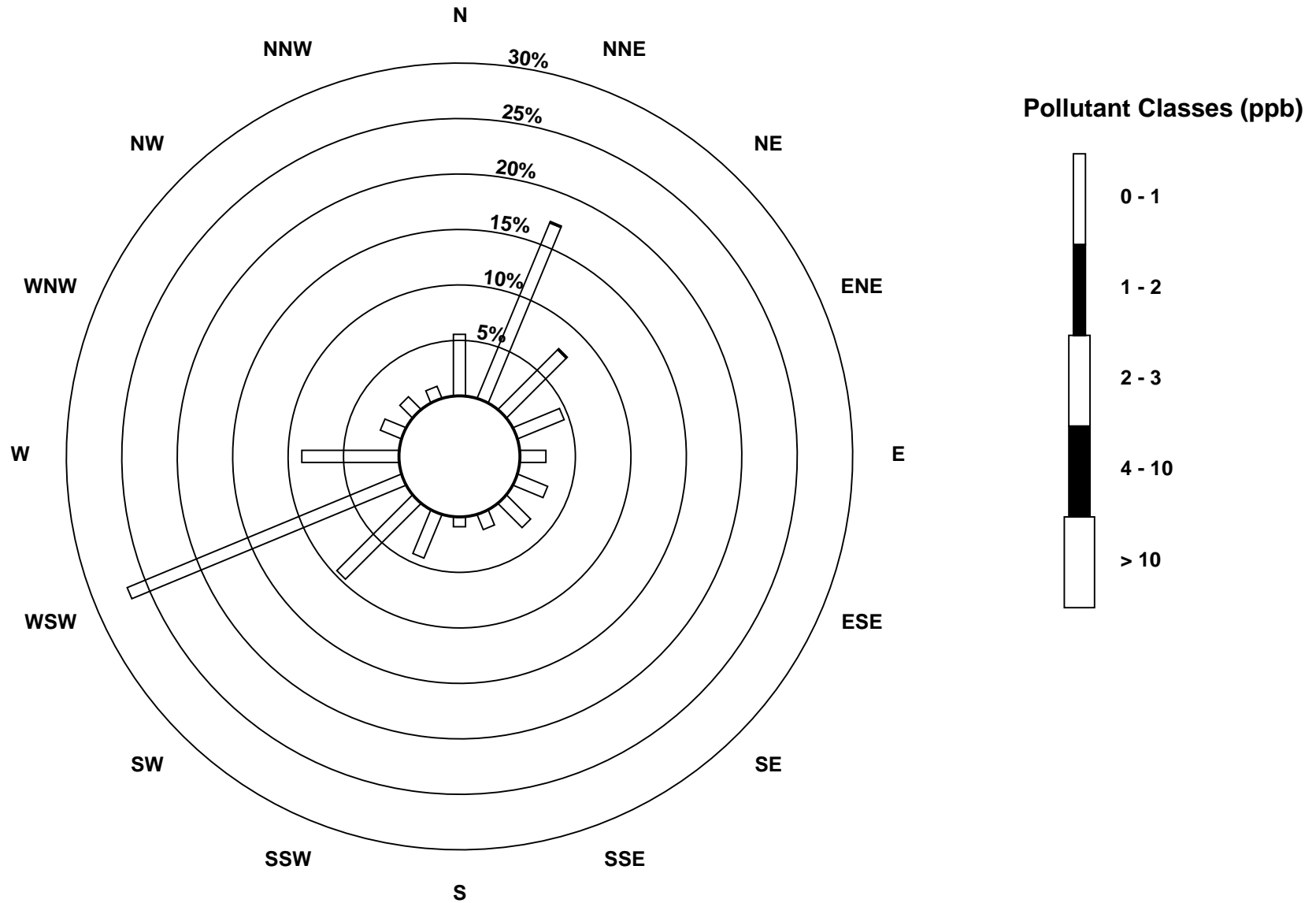
Smoky Heights - April 2014

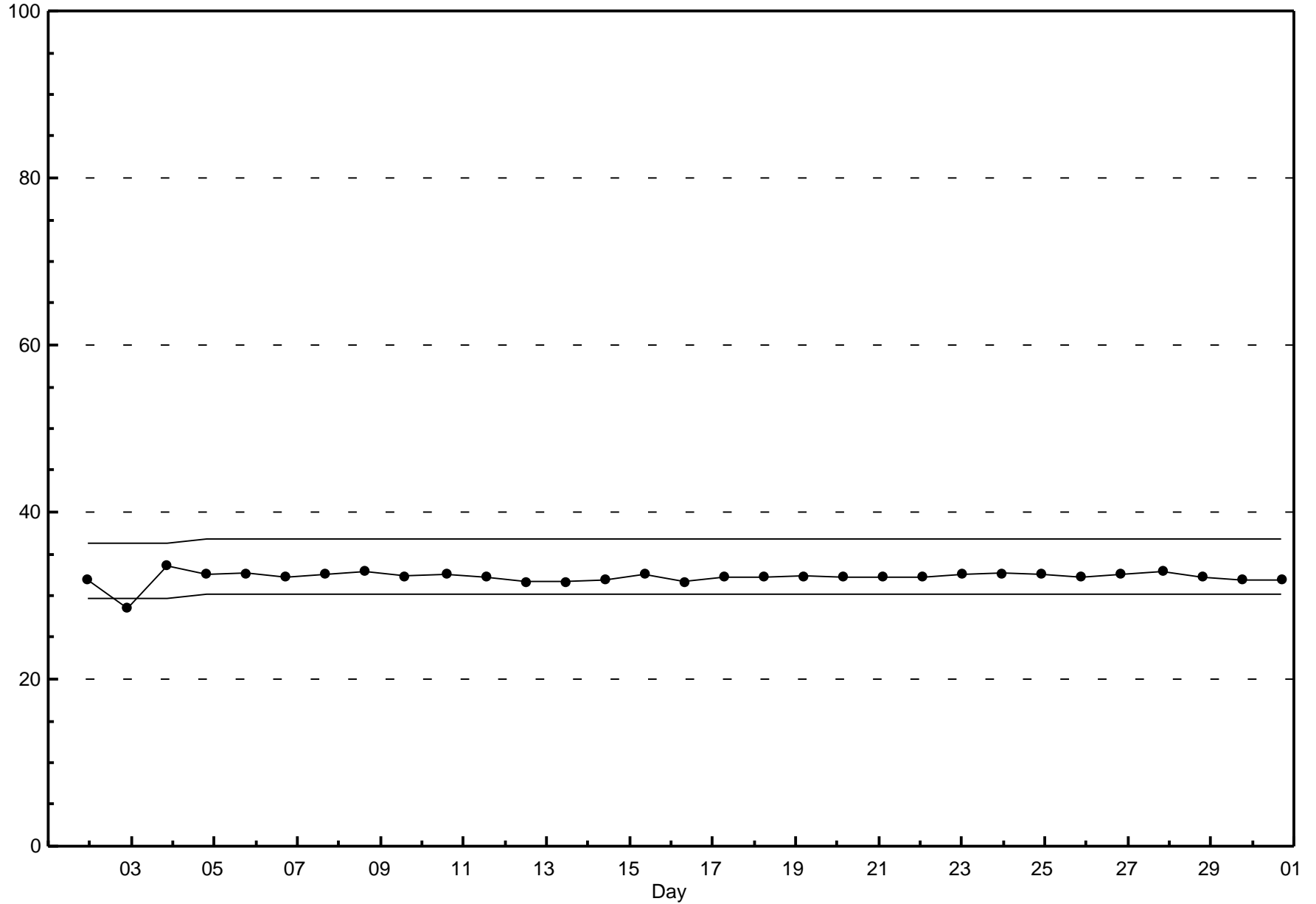
Maximum Value: 6.4 ppb on Apr 13 07:00		Maximum Daily Average: 0.7 ppb on Apr 13		Hours in Service: 720																																													
Minimum Value: 0 ppb on Apr 24 15:00		Minimum Daily Average: 0.3 ppb on Apr 24		Hours of Data: 684																																													
Maximum Diurnal Average: 0.7 ppb at hour 7		Minimum Diurnal Average: 0.4 ppb at hour 22		Hours of Missing Data: 36																																													
Monthly Average: 0.46 ppb		Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.3 Q <sub>1</sub> = 0.4 Median = 0.4 Q <sub>3</sub> = 0.5 P <sub>90</sub> = 0.6 P <sub>99</sub> = 0.7		Hours of Calibration: 36																																													
				Percent Operational Time: 100.0																																													
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Apr	0	0	1	0	1	0	1	0	0	0	1	0	1	0	0	0	1	0	1	1	0	0	A	0	0.5	0.6																							
2-Apr	0	0	0	1	0	1	1	1	0	C	C	C	C	C	1	1	1	1	1	0	0	A	0	0	0.5	0.7																							
3-Apr	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	1	0	A	0	1	0	0.4	0.6																							
4-Apr	0	0	1	0	0	1	1	0	3	0	0	1	1	1	1	1	1	0	0	A	1	0	0	1	0.6	3.2																							
5-Apr	1	0	1	1	1	1	1	1	0	1	0	1	0	1	0	1	1	0	A	1	1	1	1	1	0.6	0.7																							
6-Apr	1	1	1	0	0	1	1	0	0	0	0	0	0	0	1	0	0	A	1	0	1	0	0	0	0.5	0.6																							
7-Apr	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0.5	0.6																							
8-Apr	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	A	0	1	0	0	1	0	0	0	0.5	0.7																							
9-Apr	0	1	0	0	0	0	0	0	1	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0.4	0.7																							
10-Apr	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	1	0	0.4	0.7																							
11-Apr	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6																							
12-Apr	1	0	1	0	0	0	1	0	1	1	0	A	0	0	0	0	0	0	0	1	1	0	1	0	0.5	1.3																							
13-Apr	0	0	1	0	0	0	6	0	0	0	0	A	0	0	0	0	1	1	0	1	1	0	1	0	0.7	6.4																							
14-Apr	1	1	0	0	1	0	0	1	1	A	1	0	0	1	1	0	0	1	1	1	1	0	0	0	0.5	1.0																							
15-Apr	0	0	1	0	0	0	0	0	A	1	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0.5	0.7																							
16-Apr	0	0	0	0	0	0	0	A	0	0	0	0	1	1	0	0	1	0	0	0	0	1	0	1	0.4	0.7																							
17-Apr	0	0	1	1	1	1	A	0	1	0	1	0	0	0	1	0	1	1	1	1	1	1	1	1	0.5	0.8																							
18-Apr	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	0	1	1	0	1	0	0	1	0	0.6	0.8																							
19-Apr	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0.4	0.6																							
20-Apr	0	1	0	A	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.4	0.6																							
21-Apr	0	1	A	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.6																							
22-Apr	1	A	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0.4	0.6																							
23-Apr	A	1	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	A	0.4	0.6																							
24-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.4																							
25-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.5																							
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.5																							
27-Apr	1	0	0	0	0	0	0	1	1	0	1	0	1	0	0	1	0	1	A	0	0	0	0	0	0.5	0.8																							
28-Apr	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	0.4	0.6																							
29-Apr	1	0	0	0	1	1	1	0	1	1	1	1	1	1	1	0	A	1	0	0	0	0	0	0	0.5	0.7																							
30-Apr	0	1	1	1	1	0	0	0	0	0	0	0	1	1	0	A	0	1	1	1	1	0	1	1	0.5	0.7																							
																								0.5	0.4	0.5	0.5	0.5	0.5	0.7	0.4	0.5	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.4	0.5	0.4	Diurnal Average
																								0.6	0.7	0.6	0.7	0.8	0.7	6.4	0.6	3.2	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.8	1.0	0.7	0.7	0.7	1.3	0.7	0.4	Diurnal Maximum
C - Calibration																								A - Automated Daily Zero Span																									



**Pollutant Rose**

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





## Hourly Averages

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

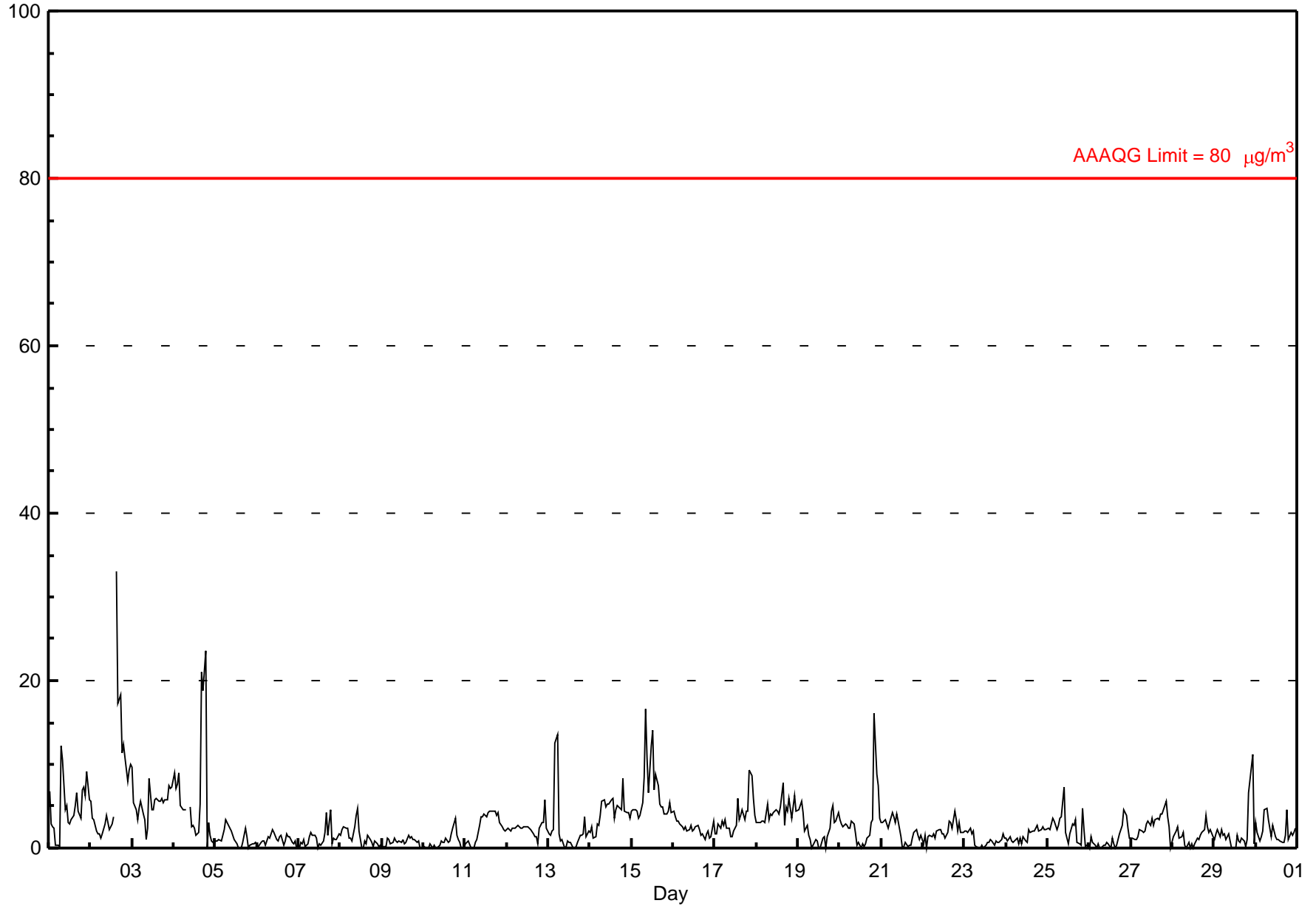
### Smoky Heights - April 2014

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 720
Maximum Value: 33.0 µg/m <sup>3</sup> on Apr 2 16:00	Maximum Daily Average: 7.4 µg/m <sup>3</sup> on Apr 2
Minimum Value: 0 µg/m <sup>3</sup> on Apr 4 20:00	Hours of Data: 718
Maximum Diurnal Average: 3.9 µg/m <sup>3</sup> at hour 21	Hours of Missing Data: 2
Monthly Average: 2.72 µg/m <sup>3</sup>	Hours of Calibration: 0
Minimum Daily Average: 0.7 µg/m <sup>3</sup> on Apr 10	Percent Operational Time: 99.7
Minimum Diurnal Average: 2.0 µg/m <sup>3</sup> at hour 13	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.3 Q <sub>1</sub> = 0.9 Median = 2.0 Q <sub>3</sub> = 3.5 P <sub>90</sub> = 5.5 P <sub>99</sub> = 16.1	

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	7	3	3	2	0	0	0	12	10	5	5	3	3	3	4	5	7	4	4	7	7	6	9	6	4.8	12.2
2-Apr	6	4	3	2	2	2	1	2	3	4	3	2	3	4	M	33	17	18	11	12	11	8	9	10	7.4	33.0
3-Apr	10	5	5	3	5	6	4	3	1	2	8	4	4	6	6	6	6	6	5	6	6	7	7	7	5.4	9.7
4-Apr	9	7	8	9	5	5	5	5	N	5	3	3	2	2	2	5	21	19	24	0	3	2	1	1	6.2	23.6
5-Apr	1	1	1	1	2	2	3	3	2	2	2	1	1	0	0	0	1	2	1	0	0	0	0	1	1.2	3.5
6-Apr	0	0	1	1	1	0	1	1	2	2	2	1	1	1	2	0	1	2	1	1	1	1	1	0	1.0	2.2
7-Apr	0	1	0	1	0	1	1	2	1	1	1	0	0	0	1	2	4	2	4	1	1	1	1	2	1.2	4.5
8-Apr	2	2	3	2	2	1	1	1	2	4	5	2	0	0	1	1	1	1	1	0	1	1	0	0	1.4	4.8
9-Apr	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.7	1.5
10-Apr	0	0	0	0	1	0	0	0	0	0	1	1	1	1	1	1	2	2	4	2	1	1	0	0	0.7	3.5
11-Apr	0	1	1	0	0	0	1	1	3	4	4	4	4	4	4	4	4	4	4	4	3	3	2	2	2.6	4.5
12-Apr	2	2	2	2	2	2	3	3	2	2	3	3	2	2	2	2	1	1	0	2	3	3	6	2	2.4	5.8
13-Apr	2	2	2	2	13	14	2	1	1	0	0	1	1	1	0	0	0	1	2	1	2	4	1	2	2.2	13.6
14-Apr	2	3	1	1	3	3	4	6	6	5	5	5	6	6	4	5	5	5	5	8	4	4	4	4	4.3	8.3
15-Apr	4	5	5	4	4	4	5	8	17	11	7	12	14	7	9	7	5	5	5	4	4	4	5	4	6.7	16.6
16-Apr	4	4	3	3	3	3	2	3	2	2	3	2	2	3	3	2	2	2	1	2	2	1	1	3	2.4	4.4
17-Apr	2	2	3	2	3	3	3	2	2	1	1	2	3	6	3	4	5	3	4	4	9	9	6	4	3.6	9.2
18-Apr	3	3	3	3	3	3	5	3	4	4	4	5	4	4	5	8	3	5	4	6	4	5	6	4	4.3	7.8
19-Apr	5	5	6	4	2	3	1	1	0	1	1	1	0	0	1	1	0	1	2	4	5	3	3	4	2.3	5.5
20-Apr	3	3	3	3	3	2	2	3	3	2	0	1	0	1	0	0	1	1	3	3	16	9	7	4	3.1	16.1
21-Apr	3	3	3	3	2	3	4	4	3	4	3	1	0	0	1	0	0	0	1	2	2	2	1	2	2.0	4.2
22-Apr	1	2	0	1	2	1	2	1	2	2	2	2	2	1	2	3	3	2	4	3	2	3	2	2	2.0	4.5
23-Apr	2	2	2	2	2	2	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1	2	1	0.9	2.4
24-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	3	2	2	3	2	2	1.5	2.7
25-Apr	2	2	3	4	3	2	3	4	4	7	2	1	1	2	3	3	3	1	1	0	5	2	0	1	2.4	7.3
26-Apr	0	1	1	0	0	0	0	0	0	0	1	1	0	1	1	0	0	2	2	3	5	4	2	1	1.1	4.5
27-Apr	1	1	1	1	1	2	2	2	2	3	3	3	4	3	3	4	3	4	4	5	6	4	2	0	2.7	5.6
28-Apr	1	2	2	2	1	1	2	0	0	1	0	0	0	0	1	1	1	2	2	4	3	2	2	1	1.4	3.9
29-Apr	1	2	2	1	2	1	2	1	2	1	0	0	0	2	1	1	1	1	0	1	7	10	11	0	2.0	11.1
30-Apr	3	2	1	1	2	5	5	3	2	1	3	1	1	1	1	1	1	2	5	1	2	1	2	2	2.0	4.8

2.6	2.3	2.2	2.2	2.3	2.4	2.3	2.6	2.7	2.6	2.5	2.1	2.0	2.1	2.1	3.4	3.5	3.4	3.7	3.1	3.9	3.4	3.3	2.4	Diurnal Average	
9.7	7.0	7.7	9.0	12.6	13.6	5.4	12.2	16.6	10.9	8.4	12.2	14.1	6.9	8.8	33.0	21.0	18.9	23.6	12.4	16.1	9.7	11.1	10.0	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>

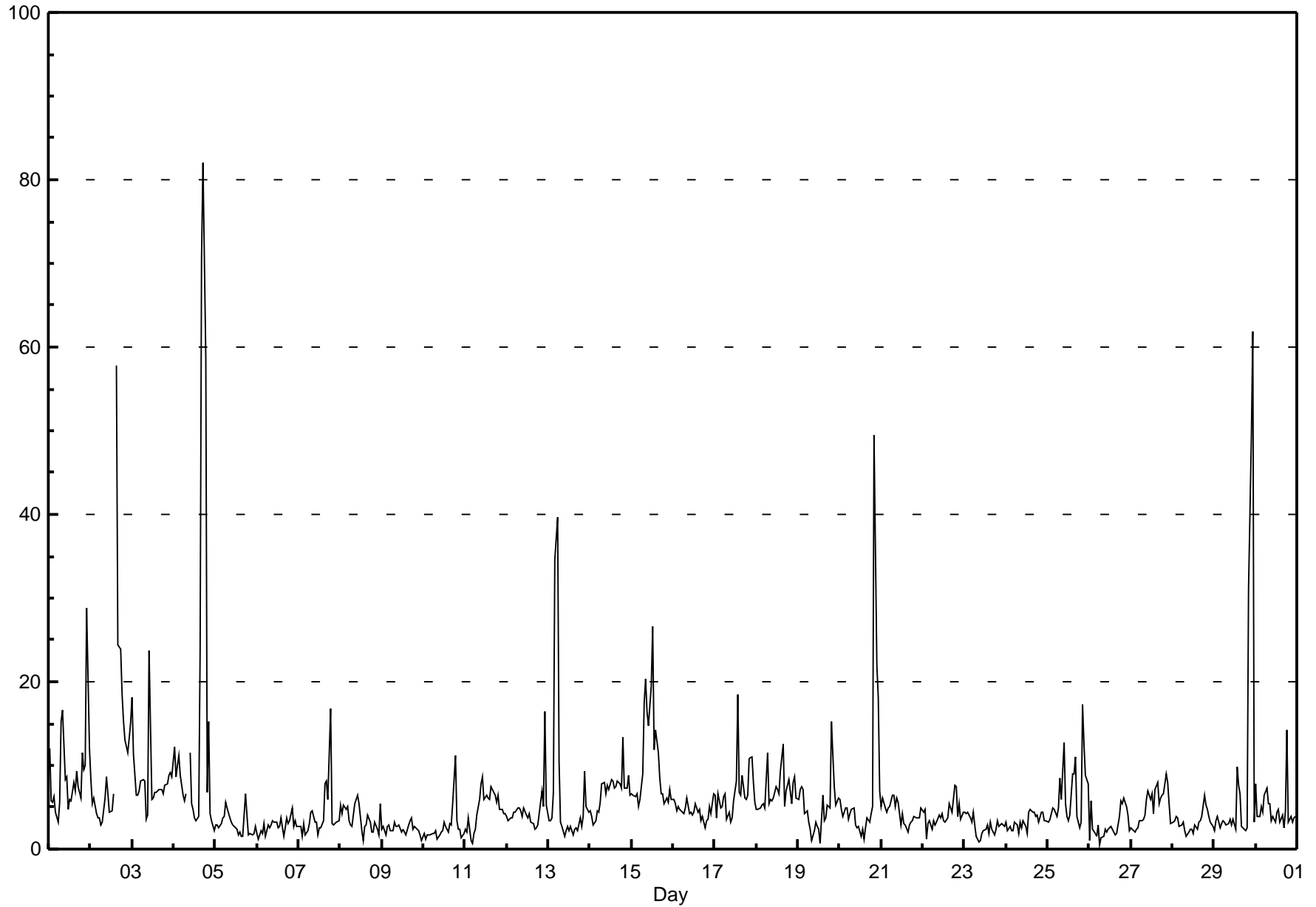


## Hourly Maximums

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

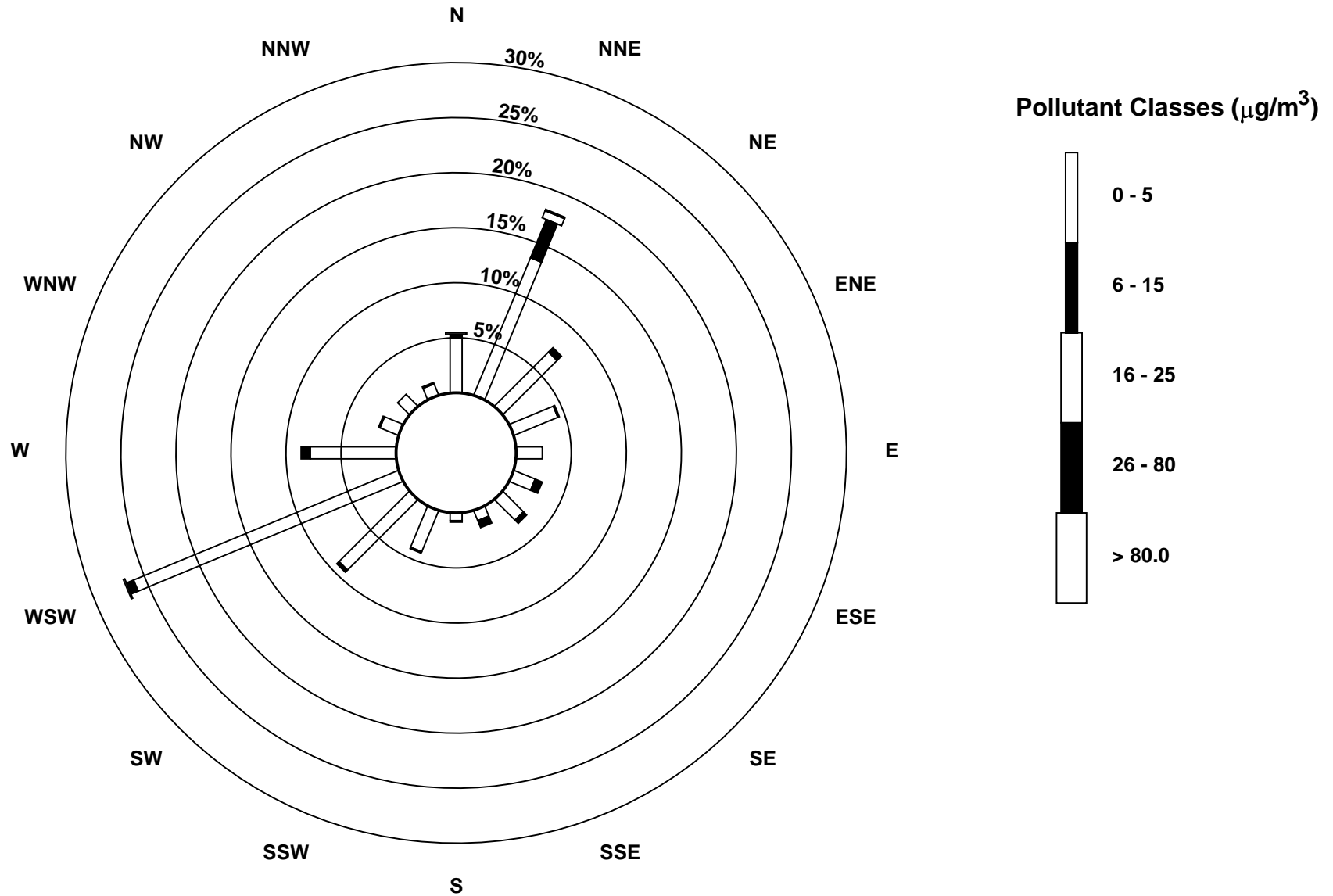
Maximum Value: 82.1 µg/m <sup>3</sup> on Apr 4 18:00 Minimum Value: 1 µg/m <sup>3</sup> on Apr 26 07:00 Maximum Diurnal Average: 8.7 µg/m <sup>3</sup> at hour 21 Monthly Average: 5.77 µg/m <sup>3</sup>		Maximum Daily Average: 16.1 µg/m <sup>3</sup> on Apr 4 Minimum Daily Average: 2.5 µg/m <sup>3</sup> on Apr 9 Minimum Diurnal Average: 4.2 µg/m <sup>3</sup> at hour 3 Percentiles: P <sub>1</sub> = 1.0 P <sub>10</sub> = 2.1 Q <sub>1</sub> = 2.9 Median = 4.2 Q <sub>3</sub> = 6.4 P <sub>90</sub> = 8.9 P <sub>99</sub> = 49.3		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	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Apr	12	6	6	6	4	3	6	15	17	8	9	5	6	6	8	7	9	7	6	12	10	10	29	12	9.1	28.8																						
2-Apr	8	5	6	4	4	4	3	3	6	9	7	4	5	7	M	58	24	24	18	15	13	12	13	15	11.6	57.9																						
3-Apr	18	11	6	6	7	8	8	8	4	4	24	6	6	7	7	7	7	7	8	8	9	9	9	9	8.4	23.8																						
4-Apr	12	9	10	11	9	6	6	7	N	12	5	5	4	3	4	24	71	82	59	7	15	4	3	2	16.1	82.1																						
5-Apr	3	3	2	3	4	4	6	5	4	3	3	3	2	2	2	1	2	7	4	2	2	2	2	3	3.0	6.7																						
6-Apr	2	1	2	2	3	1	3	3	3	3	3	3	3	3	4	1	2	4	3	3	5	3	3	3	2.8	4.9																						
7-Apr	3	3	1	3	2	2	3	4	5	3	3	2	2	3	3	8	8	6	17	3	3	3	3	3	4.0	16.9																						
8-Apr	5	4	5	5	5	3	3	3	5	6	6	5	2	1	3	3	4	3	2	2	3	2	2	5	3.7	6.4																						
9-Apr	2	3	2	3	3	2	2	3	3	3	3	2	2	2	2	3	3	4	2	3	2	2	2	1	2.5	3.7																						
10-Apr	2	1	2	2	2	2	2	2	1	2	2	2	3	3	2	3	3	6	11	3	2	2	1	2	2.6	11.2																						
11-Apr	2	2	4	1	1	2	2	4	6	8	9	6	6	6	6	7	7	6	6	6	5	5	4	4	4.8	8.6																						
12-Apr	4	3	4	4	4	4	5	5	5	4	5	4	4	4	3	3	2	2	3	4	7	5	16	5	4.6	16.4																						
13-Apr	3	3	4	7	35	40	11	3	3	2	2	3	2	3	2	2	3	2	4	3	4	9	5	4	6.6	39.6																						
14-Apr	5	4	3	3	5	4	6	8	8	7	8	7	8	8	7	7	8	8	7	13	7	7	9	6	6.9	13.5																						
15-Apr	7	6	6	7	5	6	9	17	20	16	15	19	27	12	14	12	8	7	7	5	6	6	7	6	10.4	26.7																						
16-Apr	6	5	5	5	5	4	4	5	6	4	4	4	4	5	4	5	3	4	2	3	4	5	4	7	4.6	6.6																						
17-Apr	6	4	7	5	5	6	7	4	4	3	4	6	8	18	7	6	9	6	6	6	11	11	8	6	6.8	18.4																						
18-Apr	5	5	5	5	5	5	12	5	6	6	6	7	7	7	9	13	5	7	8	8	5	8	9	6	6.8	12.5																						
19-Apr	6	7	7	7	4	5	3	2	1	2	3	3	2	1	6	3	4	5	5	15	11	7	5	6	5.1	15.3																						
20-Apr	6	5	4	5	5	4	4	5	5	3	2	3	2	2	1	3	4	3	4	5	49	22	18	7	7.1	49.4																						
21-Apr	5	6	5	4	5	5	6	6	5	6	6	3	4	3	3	2	3	3	3	4	4	4	4	5	4.4	6.4																						
22-Apr	4	5	1	3	3	2	3	3	3	4	4	4	3	3	4	5	5	4	8	7	4	5	4	4	4.1	7.6																						
23-Apr	4	4	4	4	3	4	3	1	1	1	2	2	2	3	2	3	2	2	2	3	3	3	3	3	2.8	4.5																						
24-Apr	3	2	3	2	2	3	3	2	3	2	3	3	2	4	5	4	4	4	4	3	4	4	3	3	3.3	4.7																						
25-Apr	3	3	4	5	5	4	5	8	6	13	5	4	3	4	9	9	11	4	2	3	17	13	9	8	6.6	17.4																						
26-Apr	1	6	2	2	1	3	1	1	1	2	2	2	3	2	2	2	2	4	6	5	6	5	4	2	2.9	6.1																						
27-Apr	2	2	2	2	2	3	3	4	4	6	7	6	7	4	7	8	5	6	6	7	9	8	6	3	5.0	8.9																						
28-Apr	3	3	4	4	3	3	3	2	1	2	2	2	2	3	2	3	3	4	6	5	5	4	3	3	3.2	6.4																						
29-Apr	2	3	4	3	3	3	3	3	3	4	3	3	2	10	8	7	3	2	2	3	31	49	62	3	9.2	61.9																						
30-Apr	8	4	4	5	4	6	7	5	5	3	4	3	4	5	3	4	3	5	14	3	4	3	4	4	4.8	14.2																						
																								5.2	4.4	4.2	4.3	4.9	5.2	4.7	4.9	5.0	5.0	5.4	4.4	4.7	4.8	4.8	7.5	7.6	7.9	7.9	5.7	8.7	7.8	8.5	5.0	Diurnal Average
																								18.2	11.3	10.0	11.3	34.5	39.6	11.5	17.5	20.3	16.5	23.8	19.4	26.7	18.4	14.3	57.9	70.6	82.1	58.8	15.3	49.4	49.4	61.9	15.0	Diurnal Maximum
M - Maintenance																								N - Not Valid																								





**Pollutant Rose**

**Particulate Matter 2.5 (PM<sub>2.5</sub>) -  $\mu\text{g}/\text{m}^3$**   
**Smoky Heights - April 2014**



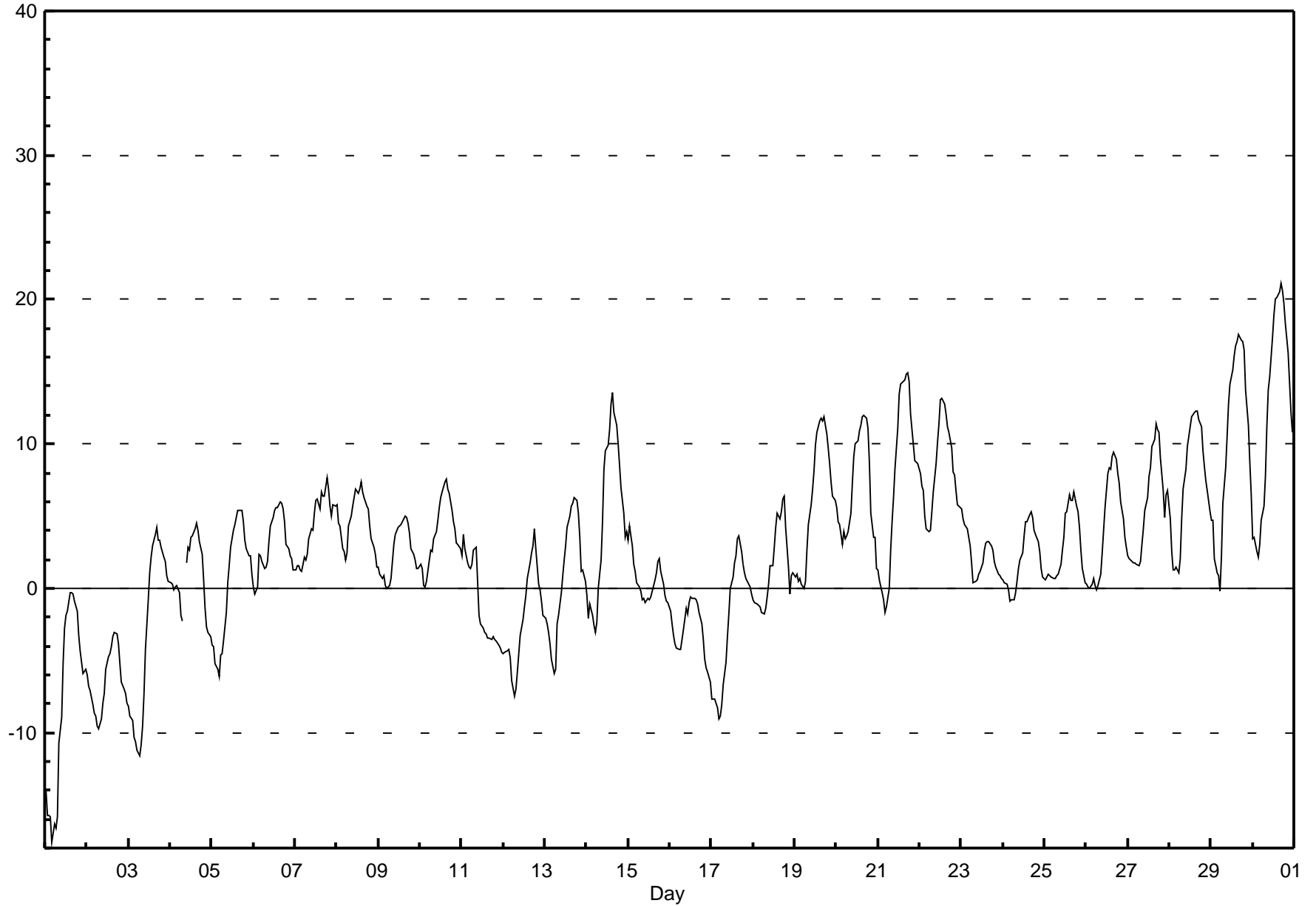
## Hourly Averages

External Temperature (ET) - °C

Smoky Heights - April 2014

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 21.1 °C on Apr 30 17:00      Maximum Daily Average: 12.6 °C on Apr 30		Hours in Service: 720 Hours of Data: 719 Hours of Missing Data: 1 Hours of Calibration: 0 Percent Operational Time: 99.9																								
Minimum Value: -18 °C on Apr 1 05:00 Maximum Diurnal Average: 6.8 °C at hour 17 Monthly Average: 2.59 °C		Minimum Daily Average: -7.8 °C on Apr 1 Minimum Diurnal Average: -1.5 °C at hour 6 Percentiles: P <sub>1</sub> = -14.8 P <sub>10</sub> = -4.5 Q <sub>1</sub> = -0.4 Median = 2.3 Q <sub>3</sub> = 5.7 P <sub>90</sub> = 10.5 P <sub>99</sub> = 18.4																								
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-Apr	-14	-16	-16	-16	-18	-16	-17	-16	-11	-9	-5	-3	-2	-2	0	0	0	-1	-2	-3	-4	-5	-6	-6	-7.8	-0.3
2-Apr	-6	-7	-7	-8	-9	-9	-10	-10	-9	-8	-7	-6	-5	-4	-4	-3	-3	-3	-4	-5	-7	-7	-7	-8	-6.5	-3.1
3-Apr	-8	-9	-9	-10	-11	-11	-12	-11	-10	-7	-4	-1	1	2	3	4	4	3	3	3	2	2	1	1	-3.1	4.2
4-Apr	0	0	0	0	0	0	-2	-2	N	2	3	3	4	4	4	4	4	3	2	1	-1	-3	-3	-3	0.8	4.5
5-Apr	-4	-4	-5	-6	-6	-5	-5	-4	-2	0	2	3	4	4	5	5	5	5	5	3	3	2	2	1	0.5	5.4
6-Apr	0	0	0	2	2	2	1	1	2	3	4	5	5	6	6	6	6	5	5	3	3	2	2	1	3.1	6.0
7-Apr	1	2	2	1	1	2	2	2	3	4	4	5	6	6	5	7	6	6	8	7	6	5	6	6	4.3	7.7
8-Apr	6	5	4	3	3	2	2	4	5	6	6	7	7	7	7	7	6	6	5	4	3	3	2	2	4.7	7.4
9-Apr	1	1	1	1	0	0	0	1	2	3	4	4	4	4	5	5	5	4	4	3	2	2	1	1	2.5	5.0
10-Apr	2	1	0	0	0	2	3	3	3	4	5	6	6	7	7	8	7	7	5	5	4	3	3	3	3.9	7.6
11-Apr	2	4	3	2	1	1	2	3	3	1	-2	-2	-3	-3	-3	-3	-3	-4	-3	-4	-4	-4	-4	-4	-1.1	3.7
12-Apr	-4	-4	-4	-4	-5	-6	-7	-7	-6	-5	-3	-2	-1	0	1	2	2	3	4	3	0	0	-1	-2	-2.0	4.1
13-Apr	-2	-2	-3	-4	-5	-6	-6	-2	-2	0	1	2	3	4	5	6	6	6	6	5	4	1	1	1	0.8	6.3
14-Apr	-1	-2	-1	-2	-3	-3	-2	0	2	5	8	9	10	11	13	14	12	11	10	9	7	5	4	4	5.0	13.6
15-Apr	3	4	3	2	1	0	0	0	-1	-1	-1	-1	-1	-1	0	1	1	2	2	1	0	-1	-1	-1	0.6	4.3
16-Apr	-2	-3	-3	-4	-4	-4	-4	-4	-3	-1	-2	-1	-1	-1	-1	-1	-1	-2	-2	-4	-5	-5	-6	-7	-2.9	-0.6
17-Apr	-8	-8	-8	-8	-9	-9	-8	-7	-5	-3	-2	0	1	2	2	3	4	3	2	1	1	0	0	0	-2.4	3.7
18-Apr	-1	-1	-1	-1	-1	-2	-2	-1	-1	0	2	2	3	4	5	5	5	6	6	4	1	0	1	1	1.5	6.4
19-Apr	1	1	0	1	0	0	0	3	4	6	7	8	10	11	12	12	12	12	11	10	9	7	6	6	6.2	11.9
20-Apr	6	5	4	3	4	3	4	4	5	7	9	10	10	11	11	12	12	12	11	9	5	3	4	1	6.9	12.0
21-Apr	1	1	0	-1	-2	-1	0	3	5	6	8	11	14	14	14	14	15	15	14	12	10	9	9	9	7.5	14.9
22-Apr	8	7	7	5	4	4	4	5	7	9	10	11	13	13	13	12	11	11	10	8	8	7	6	6	8.2	13.1
23-Apr	5	5	4	4	4	3	2	0	0	1	1	1	2	3	3	3	3	3	3	2	1	1	1	1	2.3	5.5
24-Apr	1	0	0	0	-1	-1	-1	0	0	1	2	2	4	5	5	5	5	5	4	4	3	3	1	1	2.0	5.3
25-Apr	1	1	1	1	1	1	1	1	1	2	3	3	5	5	6	6	6	7	6	5	4	3	1	0	2.9	6.7
26-Apr	0	0	0	0	1	0	0	0	1	2	4	6	8	8	8	9	9	9	8	7	6	5	4	3	4.1	9.5
27-Apr	2	2	2	2	2	2	2	2	3	4	5	6	8	8	10	10	11	11	11	9	7	5	7	7	5.7	11.4
28-Apr	5	3	1	1	1	1	2	5	7	8	10	10	11	12	12	12	12	12	11	9	8	7	7	5	7.3	12.3
29-Apr	5	5	2	1	1	0	2	6	8	11	13	14	15	16	17	17	18	17	17	17	14	11	9	6	10.0	17.6
30-Apr	3	4	3	2	3	5	6	8	11	14	15	17	19	20	20	21	21	21	20	18	16	14	12	11	12.6	21.1
																								Diurnal Average	Diurnal Maximum	
																								0.2	8.0	
																								-0.2	7.1	
																								-0.7	6.8	
																								-1.1	5.0	
																								-1.4	4.1	
																								-1.5	4.7	
																								-1.4	5.7	
																								-0.4	7.8	
																								0.9	11.2	
																								2.1	13.7	
																								3.3	14.6	
																								4.4	17.4	
																								5.3	18.9	
																								5.9	20.0	
																								6.4	20.2	
																								6.7	20.5	
																								6.8	21.1	
																								6.5	20.6	
																								6.0	19.7	
																								4.9	18.3	
																								3.6	16.3	
																								2.5	14.3	
																								2.0	12.2	
																								1.5	10.8	

N - Not Valid



## Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	2	2	4	4	1	2	3	7	3	2	2	5	3	3	5	9	11	11	13	10	10	10	10	11	4.3	12.8
Dir	47	288	301	308	180	201	237	268	269	133	70	45	350	293	6	24	23	26	32	19	19	16	21	22	11.5	31.9
2 Spd	13	14	15	16	17	17	16	15	17	24	19	18	16	14	18	9	12	23	20	21	11	10	5	6	15.1	23.7
Dir	14	12	6	360	4	6	7	7	16	20	19	29	27	24	29	25	23	21	8	15	20	23	22	18	16.0	19.8
3 Spd	8	7	10	12	15	12	11	12	15	14	10	11	14	22	21	19	18	24	25	25	23	21	20	11	9.3	25.3
Dir	16	15	18	23	17	20	20	25	28	31	32	35	120	132	134	125	120	106	121	147	149	158	156	159	100.3	147.5
4 Spd	6	10	8	13	15	24	24	23	12	21	24	18	19	16	15	11	12	11	7	2	0	2	5	4	8.6	24.1
Dir	191	200	244	273	229	243	262	267	38	294	304	291	309	303	314	349	6	12	23	6	3	227	258	236	288.5	262.5
5 Spd	8	8	7	10	10	14	10	10	14	12	14	14	12	15	14	14	10	5	11	14	11	12	14	12	11.1	14.8
Dir	265	252	243	250	250	261	260	229	234	239	240	254	253	234	233	234	248	286	258	258	244	259	249	267	248.6	234.4
6 Spd	11	10	12	18	14	19	19	21	24	25	29	29	27	23	22	21	23	22	21	16	16	15	15	14	19.3	29.3
Dir	261	252	253	249	250	244	246	261	260	256	255	255	254	248	256	246	247	256	254	241	257	247	237	225	251.0	255.0
7 Spd	16	14	13	9	8	8	6	7	5	9	12	14	21	13	10	9	8	14	8	6	6	5	11	9	9.1	20.8
Dir	235	244	238	242	213	232	186	195	192	202	198	185	203	240	244	243	266	243	246	231	252	273	230	258	227.8	202.7
8 Spd	11	7	7	1	4	4	10	13	10	14	14	26	25	36	34	26	28	28	25	20	21	22	23	23	17.8	35.9
Dir	264	274	241	225	264	258	230	246	252	261	263	262	255	240	240	244	240	245	252	259	256	250	248	255	250.0	240.4
9 Spd	22	21	26	28	24	26	23	27	30	32	32	29	38	36	29	32	29	26	22	19	20	21	22	21	26.3	37.5
Dir	251	254	258	258	262	261	258	259	255	255	256	247	257	264	261	265	267	259	264	255	255	250	245	237	256.9	257.2
10 Spd	20	20	17	16	15	18	25	31	24	19	17	24	25	22	25	21	18	19	16	8	5	12	11	10	18.1	31.5
Dir	233	236	236	237	233	242	247	257	250	249	255	259	247	245	259	249	250	258	258	273	215	251	255	248	248.5	257.2
11 Spd	10	21	21	9	7	7	11	16	22	24	18	19	19	21	20	19	18	16	13	9	7	7	7	5	8.1	24.0
Dir	235	230	238	232	217	231	250	268	306	318	1	353	348	348	357	353	1	6	13	21	37	52	61	82	327.6	317.6
12 Spd	4	5	4	3	6	6	8	12	14	18	16	20	19	20	19	17	18	14	10	10	7	13	12	8	7.7	19.8
Dir	125	140	159	210	202	242	256	251	241	233	241	242	238	238	241	246	244	244	304	309	339	37	35	31	248.5	241.5
13 Spd	9	9	7	4	4	3	3	2	7	12	11	11	9	7	9	11	12	12	9	6	6	2	3	5	5.2	12.0
Dir	46	55	45	44	30	29	20	93	136	145	141	140	133	138	140	133	138	143	144	123	99	163	207	240	122.3	143.0
14 Spd	6	5	8	10	9	3	5	5	5	5	2	3	3	3	1	4	9	7	5	5	7	5	4	5	1.3	9.6
Dir	235	231	224	204	200	198	224	218	233	241	231	246	266	243	223	40	39	48	21	4	20	3	354	355	259.6	203.8
15 Spd	7	12	13	14	14	17	17	18	20	20	16	18	16	17	16	12	9	10	11	13	9	8	6	6	13.0	20.4
Dir	17	3	11	22	16	23	26	21	28	33	14	21	24	34	31	26	27	25	30	42	59	59	39	60	27.1	33.1
16 Spd	7	9	8	7	9	9	8	11	10	7	11	11	12	11	11	11	12	15	15	11	8	10	14	4	9.9	15.1
Dir	36	41	27	8	9	14	12	30	29	34	13	18	33	21	16	26	27	31	35	38	15	24	34	27	25.6	31.4
17 Spd	4	6	8	5	4	6	5	9	10	8	9	7	7	6	5	1	9	16	13	13	16	12	14	12	6.8	16.3
Dir	338	5	20	17	342	18	31	48	57	69	72	79	90	54	22	8	66	68	74	81	121	118	120	118	71.0	121.4
18 Spd	10	10	6	5	7	6	8	7	5	3	1	4	3	4	4	13	8	4	2	6	3	0	5	5	0.1	13.4
Dir	111	107	81	65	73	62	35	47	36	50	226	260	263	205	232	255	249	246	265	288	319	271	243	254	347.0	254.8
19 Spd	6	10	12	17	14	11	11	14	16	17	13	11	9	10	3	7	4	3	4	2	4	10	11	16	8.0	16.6
Dir	247	222	254	261	258	226	218	207	224	230	239	238	244	251	347	99	149	61	65	253	248	231	267	267	239.1	229.6
20 Spd	5	5	8	7	9	11	12	11	16	21	23	26	25	26	25	23	24	21	16	11	5	7	10	8	14.7	26.3
Dir	247	257	258	239	235	255	249	254	244	244	249	252	246	242	243	256	268	261	262	262	247	262	269	243	251.7	242.1
21 Spd	9	9	7	6	6	7	8	7	7	6	6	5	2	5	9	7	7	5	4	8	10	9	11	10	1.4	11.4
Dir	249	268	200	228	224	225	233	208	185	196	244	258	77	154	140	152	135	111	88	41	35	25	22	27	190.2	22.4
22 Spd	11	10	13	12	12	12	10	11	16	16	15	15	20	21	24	25	21	20	18	10	9	9	18	17	14.0	24.7
Dir	28	34	36	35	24	20	21	32	30	31	39	47	59	68	77	77	68	70	91	92	88	59	27	25	51.8	76.9

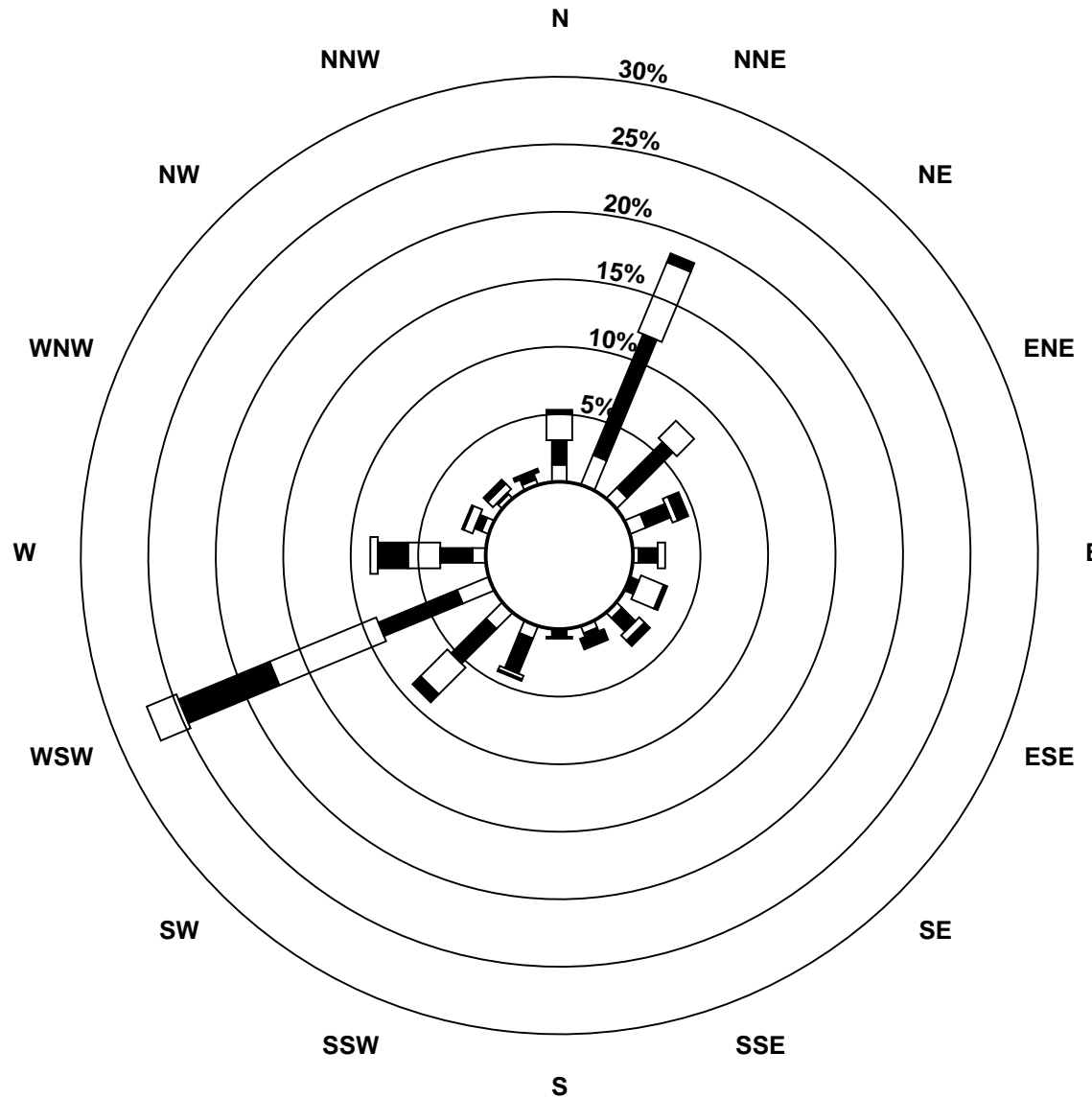
## Hourly Averages

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

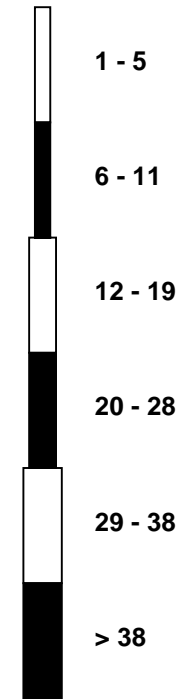
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	17	14	13	10	10	10	8	8	9	7	5	7	10	11	13	12	13	15	13	13	15	14	12	11	7.9	17.0
Dir	30	28	27	13	30	29	2	357	349	329	308	269	285	303	304	315	306	301	293	278	274	274	264	257	320.3	29.8
24 Spd	11	12	12	14	11	11	9	11	10	14	13	7	4	3	10	9	9	11	11	10	9	9	8	9	3.3	13.6
Dir	252	249	251	249	251	237	251	247	229	229	231	223	215	65	37	44	22	32	34	28	8	14	15	5	284.1	229.3
25 Spd	8	7	7	7	7	7	9	11	10	10	8	5	4	8	6	6	6	3	7	5	5	3	3	4	6.2	10.6
Dir	0	0	356	356	13	20	21	19	18	19	53	40	26	36	29	40	34	63	51	65	40	24	7	21	24.5	18.8
26 Spd	6	7	3	4	8	9	11	11	11	12	12	14	12	18	17	17	20	16	13	15	21	22	19	16	9.3	21.9
Dir	20	27	21	21	13	31	34	35	31	35	33	37	94	123	111	109	132	112	111	150	147	130	117	107	93.3	130.0
27 Spd	12	12	11	9	9	8	7	6	3	5	6	12	12	13	8	7	4	6	8	6	1	9	18	15	0.7	18.3
Dir	86	78	77	66	34	30	33	40	28	241	263	244	245	251	269	1	59	38	44	40	26	209	229	238	342.5	229.0
28 Spd	10	7	9	10	13	12	11	19	31	35	34	36	38	33	31	28	27	26	26	23	22	16	14	13	21.6	37.5
Dir	221	211	238	247	223	256	233	243	243	244	245	243	250	248	256	259	239	242	242	257	234	234	240	241	243.8	250.1
29 Spd	14	17	16	16	13	12	8	8	11	14	10	9	7	5	6	5	8	9	11	7	7	2	1	1	5.1	17.2
Dir	247	246	268	262	256	260	240	205	200	223	209	220	237	255	190	146	119	85	97	80	75	13	348	235	226.7	246.2
30 Spd	4	7	8	8	4	6	6	7	10	13	15	16	19	21	21	20	25	28	26	24	24	18	12	10	14.0	27.7
Dir	229	259	203	209	208	223	194	205	213	231	232	237	245	244	247	236	234	259	264	253	255	255	257	247	242.4	258.7
Spd	2.9	3.2	3.9	4.5	3.7	4.5	4.7	5.4	4.7	6.3	6.3	7.0	6.9	6.7	5.1	3.9	3.2	2.6	2.2	2.2	1.7	2.2	2.9	3.2	Diurnal Average	
Dir	271.1	270.2	275.1	279.2	277.1	278.8	275.6	274.4	276.2	269.1	270.1	266.0	259.4	253.8	264.4	267.3	265.9	299.1	309.1	290.6	250.7	253.7	257.8	260.6	Diurnal Maximum	
Spd	22.1	21.4	26.1	27.7	23.6	25.5	25.3	31.5	30.8	35.0	34.1	36.3	37.5	36.2	34.1	32.5	28.9	28.1	26.5	25.3	24.2	22.1	22.9	22.7	Diurnal Maximum	
Dir	250.6	254.1	257.7	257.7	261.7	260.8	246.6	257.2	243.2	244.5	244.5	243.0	257.2	263.7	239.7	265.2	266.5	244.8	242.0	147.5	254.7	250.2	247.9	254.8	Diurnal Maximum	
Maximum Speed Value: 38 km/h on Apr 9 13:00		Minimum Speed Value: 0 km/h on Apr 4 21:00										Hours in Service: 720														
Maximum Daily Speed Average: 26.3 km/h on Apr 9		Minimum Daily Speed Average: 0.1 km/h on Apr 14										Hours of Data: 720														
Maximum Diurnal Speed Average: 7.0 km/h at hour 12		Minimum Diurnal Speed Average: 1.7 km/h at hour 21										Hours of Missing Data: 0														
Monthly Average Velocity: 4.09 km/h 270.08 deg		Speed Percentiles: P <sub>1</sub> = 1.2 P <sub>10</sub> = 4.3 Q <sub>1</sub> = 7.0 Median = 10.8 Q <sub>3</sub> = 16.1 P <sub>90</sub> = 22.8 P <sub>99</sub> = 33.4										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	18	55	28	9	0	0	110																			
NorthEast	17	74	46	3	0	0	140																			
East	6	16	13	6	0	0	41																			
SouthEast	5	13	14	9	0	0	41																			
South	5	13	4	1	0	0	23																			
SouthWest	26	57	54	34	8	0	179																			
West	15	38	51	46	15	0	165																			
NorthWest	4	5	7	5	0	0	21																			
Total	96	271	217	113	23	0	720																			

**Wind Rose**

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



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



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - April 2014

<b>Maximum Speed: 38 km/h on Apr 28 13:00</b>		<b>Maximum Daily Speed Average: 26.6 km/h on Apr 9</b>		Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0																						
<b>Minimum Speed: 0 km/h on Apr 18 22:00</b>		<b>Minimum Daily Speed Average: 5.2 km/h on Apr 14</b>		Percent Operational Time: 100.0																						
<b>Maximum Diurnal Speed Average: 15.9 km/h at hour 14</b>		<b>Minimum Diurnal Speed Average: 9.8 km/h at hour 1</b>																								
<b>Monthly Average Speed: 12.66 km/h</b>		Percentiles: P <sub>1</sub> = 1.7 P <sub>10</sub> = 4.8 Q <sub>1</sub> = 7.4 Median = 11.1 Q <sub>3</sub> = 16.4 P <sub>90</sub> = 23.2 P <sub>99</sub> = 33.9																								
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-Apr	2	2	4	4	1	2	4	7	4	2	2	6	4	3	6	10	11	11	13	10	10	10	10	11	6.1	12.8
2-Apr	13	14	15	17	17	17	16	16	17	24	20	18	16	14	18	9	12	23	21	21	11	10	5	6	15.4	23.9
3-Apr	8	7	10	12	15	12	11	12	16	14	11	12	16	22	21	19	18	24	26	26	23	21	20	12	16.1	25.8
4-Apr	8	10	9	14	15	24	24	24	15	22	24	18	20	17	16	12	13	11	7	2	1	2	5	4	13.2	24.2
5-Apr	8	8	7	10	10	14	10	10	14	12	14	14	12	15	14	14	11	5	11	15	12	12	14	13	11.5	14.8
6-Apr	11	10	12	18	14	20	19	21	24	26	29	29	27	23	22	22	23	22	21	16	16	15	15	14	19.5	29.4
7-Apr	16	14	13	9	8	8	6	7	5	9	12	14	21	14	10	10	8	14	8	9	7	7	11	10	10.4	21.0
8-Apr	11	7	8	2	4	5	11	13	10	14	14	26	25	36	34	26	28	28	25	20	21	22	23	23	18.2	36.0
9-Apr	22	21	26	28	24	26	23	27	30	32	32	29	38	36	29	33	29	26	22	19	20	21	22	21	26.6	37.6
10-Apr	20	21	17	16	15	19	26	32	24	19	17	24	25	22	25	21	18	19	17	9	6	12	11	10	18.5	31.6
11-Apr	10	21	21	9	7	7	12	16	22	25	19	19	20	21	21	20	19	16	13	9	7	7	7	5	14.7	24.9
12-Apr	4	5	4	4	6	6	8	12	14	18	16	20	20	20	19	17	18	14	11	10	9	13	12	8	12.0	19.9
13-Apr	9	9	7	4	4	3	3	3	7	12	11	11	9	7	9	11	12	12	9	6	6	2	3	5	7.3	12.1
14-Apr	6	5	8	10	9	3	5	5	5	5	2	3	3	3	2	4	9	7	6	5	7	5	4	5	5.2	9.7
15-Apr	7	12	13	14	15	17	17	18	20	20	16	18	16	17	16	12	10	10	11	13	9	8	6	7	13.5	20.5
16-Apr	7	9	8	7	9	9	8	11	10	8	11	11	12	11	12	11	13	15	15	11	8	10	14	5	10.3	15.3
17-Apr	4	6	8	5	4	6	5	9	10	9	9	8	7	7	6	3	11	16	13	13	16	12	14	12	9.0	16.4
18-Apr	10	10	7	6	7	6	8	7	5	3	2	5	4	5	5	14	9	4	3	7	3	0	5	5	5.8	13.7
19-Apr	6	10	12	17	14	13	11	14	16	17	13	11	9	10	7	9	4	3	4	5	5	10	11	16	10.3	16.6
20-Apr	7	6	8	7	10	11	12	11	16	21	23	26	25	26	25	23	25	21	16	11	6	7	10	9	15.2	26.4
21-Apr	9	9	7	6	6	7	8	7	7	6	7	6	4	7	10	9	7	5	4	8	10	9	11	10	7.6	11.5
22-Apr	11	11	13	12	12	12	10	11	16	16	15	16	21	22	24	25	21	20	19	10	9	10	18	17	15.4	25.0
23-Apr	17	14	13	10	10	10	8	8	10	7	6	7	10	11	13	13	13	15	14	13	15	14	12	11	11.4	17.1
24-Apr	11	12	12	14	11	12	9	11	10	14	14	8	4	4	11	9	9	11	11	10	9	9	8	9	10.0	13.8
25-Apr	8	7	7	7	7	7	9	11	10	10	9	6	5	8	7	6	7	4	7	5	5	4	4	4	6.8	10.6
26-Apr	6	7	3	4	8	9	11	11	11	13	12	14	14	19	18	17	20	16	14	16	22	22	19	16	13.4	22.1
27-Apr	12	12	11	9	9	8	7	6	5	5	6	13	13	14	12	8	6	6	8	6	2	9	19	17	9.3	18.5
28-Apr	11	7	9	10	13	12	11	19	31	35	34	37	38	34	32	29	28	26	28	23	22	16	14	13	22.2	38.1
29-Apr	14	17	16	16	13	12	9	9	12	14	11	10	8	8	9	7	9	10	11	7	8	2	2	1	9.9	17.3
30-Apr	4	7	8	8	4	6	6	7	10	13	15	16	20	22	22	20	25	28	27	24	24	18	12	10	14.8	28.2
																								Diurnal Average		
																								Diurnal Maximum		
9.8 10.4 10.6 10.2 10.1 10.8 10.9 12.5 13.5 14.8 14.2 15.2 15.6 15.9 15.8 14.7 14.9 14.9 13.7 12.0 11.0 10.7 11.4 10.2																								22.1 21.5 26.1 27.7 23.6 25.5 25.7 31.6 30.9 35.3 34.4 36.6 38.1 36.3 34.1 32.7 29.2 28.2 27.6 25.8 24.3 22.2 23.0 23.4		

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



# Hourly Standard Deviations

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

Maximum Value: 88.0 deg on Apr 19 20:00																		Hours in Service: 720							
Minimum Value: 1.9 deg on Apr 29 03:00																		Hours of Data: 720							
Percentiles: P <sub>1</sub> = 3.0 P <sub>10</sub> = 4.5 Q <sub>1</sub> = 6.2 Median = 9.3 Q <sub>3</sub> = 15.2 P <sub>90</sub> = 29.4 P <sub>99</sub> = 74.3																		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-Apr	23	68	13	30	86	13	34	9	45	16	29	13	45	15	26	8	6	6	4	7	6	7	4	4	86.4
2-Apr	6	6	8	9	8	7	7	8	7	8	10	8	10	10	10	7	7	6	7	8	5	4	14	6	14.0
3-Apr	4	5	5	4	6	5	4	4	5	6	8	11	34	7	7	7	6	6	13	12	4	6	3	36	36.1
4-Apr	63	17	26	10	16	6	7	27	40	9	8	7	14	18	20	19	20	11	11	27	77	34	8	17	76.9
5-Apr	15	11	9	5	11	7	15	12	8	3	5	5	7	5	5	3	19	24	9	12	12	11	10	11	24.2
6-Apr	8	6	6	6	5	3	4	4	5	4	3	5	4	5	5	6	6	10	10	4	9	9	8	5	10.0
7-Apr	7	4	4	11	18	12	15	9	10	15	17	6	7	18	15	22	16	5	18	50	45	45	13	14	49.7
8-Apr	7	26	42	60	47	22	28	10	12	6	9	3	9	4	3	4	3	4	5	4	7	3	4	15	59.8
9-Apr	5	5	4	3	3	3	4	3	4	4	3	6	3	3	4	7	9	5	3	7	4	5	3	4	8.8
10-Apr	4	4	5	3	4	10	12	5	4	4	5	4	6	6	4	7	6	9	13	33	39	8	5	7	39.3
11-Apr	11	4	3	7	9	18	13	6	13	16	14	12	14	11	12	12	11	11	10	9	11	16	12	14	17.7
12-Apr	14	21	19	24	15	18	10	11	6	5	7	5	7	6	6	6	4	5	29	10	43	5	10	6	42.8
13-Apr	8	9	6	7	7	14	14	32	9	9	11	13	18	17	14	10	11	8	8	9	10	58	30	26	57.9
14-Apr	11	6	15	8	15	11	6	6	8	9	34	12	28	20	75	16	8	9	15	10	5	16	22	14	75.3
15-Apr	11	10	6	7	5	6	5	6	7	5	13	7	8	7	7	12	18	12	9	17	7	10	12	24	24.3
16-Apr	12	5	8	11	6	8	10	7	8	22	17	19	18	20	21	22	18	9	8	7	8	11	3	49	48.9
17-Apr	20	10	5	9	13	5	9	13	9	28	18	29	32	29	36	81	28	12	8	14	7	8	8	9	80.7
18-Apr	6	6	25	8	7	14	6	10	11	32	86	33	69	33	40	10	12	39	33	23	38	85	24	11	86.0
19-Apr	18	7	9	2	5	24	6	10	5	5	8	10	11	12	69	41	46	27	13	88	39	8	10	13	88.0
20-Apr	50	21	8	12	15	4	3	5	5	4	9	7	9	5	7	8	8	8	6	6	30	24	7	15	49.9
21-Apr	17	16	14	16	15	14	11	15	5	15	14	29	85	47	35	37	39	36	25	15	6	5	5	13	85.3
22-Apr	21	7	7	7	4	6	6	8	5	6	11	12	9	12	9	8	9	8	18	11	10	18	5	5	21.0
23-Apr	5	5	7	10	10	8	11	10	7	9	11	5	11	9	9	12	9	7	9	7	4	4	8	5	11.7
24-Apr	6	4	6	6	8	7	9	7	10	10	11	16	43	60	11	14	13	13	9	8	15	7	8	7	60.1
25-Apr	8	9	9	11	11	6	6	8	7	9	18	32	53	15	49	23	29	67	19	14	9	25	18	8	67.1
26-Apr	4	4	26	11	6	10	6	6	6	8	9	11	33	15	15	12	10	18	17	10	7	7	9	8	33.4
27-Apr	9	6	6	9	6	5	4	8	64	38	34	18	19	16	54	28	59	26	11	10	52	12	9	29	63.9
28-Apr	18	13	12	7	10	10	5	4	6	6	8	8	10	11	9	12	11	8	16	13	10	3	4	5	17.7
29-Apr	6	8	2	4	5	3	22	8	13	12	17	33	42	65	47	56	30	28	17	8	15	54	64	41	64.8
30-Apr	19	11	8	11	19	10	27	7	9	14	9	12	12	17	11	10	11	11	7	5	5	5	6	14	27.2
	63.3	67.7	41.7	59.8	86.4	23.6	34.2	31.9	63.9	38.0	86.0	33.1	85.3	64.8	75.3	80.7	59.1	67.1	32.8	88.0	76.9	84.8	63.8	48.9	

PAZA

Beaverlodge Station

Monthly Summary Tables, Graphs and  
Roses

## Hourly Averages

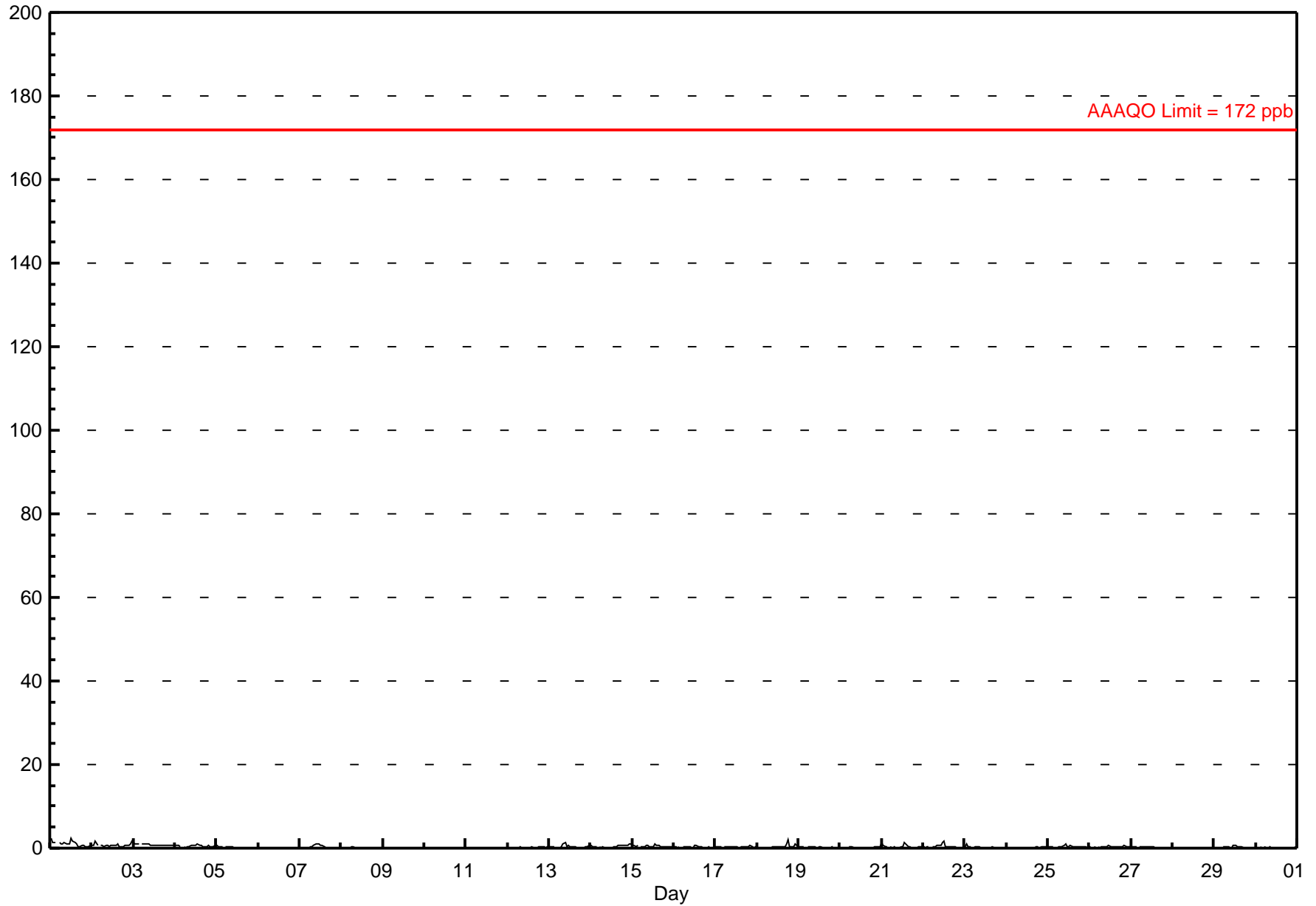
## Sulphur Dioxide (SO<sub>2</sub>) - ppb

### Beaverlodge - April 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 2.5 ppb on Apr 1 13:00	Maximum Daily Average: 1.1 ppb on Apr 1		Hours of Data:	686
Minimum Value: 0 ppb on Apr 8 14:00	Minimum Daily Average: 0.0 ppb on Apr 9		Hours of Missing Data:	34
Maximum Diurnal Average: 0.4 ppb at hour 1	Minimum Diurnal Average: 0.2 ppb at hour 17		Hours of Calibration:	34
Monthly Average: 0.30 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 0.2 Q <sub>3</sub> = 0.4 P <sub>90</sub> = 0.7 P <sub>99</sub> = 1.6		Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	2	1	1	1	A	1	1	1	1	1	1	1	2	2	1	1	0	0	1	1	0	0	0	1	1.1	2.5
2-Apr	1	1	2	1	A	1	1	0	1	1	0	1	1	1	1	1	0	0	0	1	1	1	1	2	0.7	1.7
3-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.5
4-Apr	1	1	1	0	A	0	0	0	0	1	1	1	1	1	1	1	0	0	0	1	0	0	0	1	0.5	1.0
5-Apr	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
6-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
7-Apr	0	0	0	0	A	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	1.0
8-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0.1	0.5
9-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
10-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
11-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
12-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
13-Apr	0	0	0	0	A	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0.3	1.2
14-Apr	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0.4	1.1
15-Apr	1	1	0	1	A	0	0	0	1	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0.4	1.0
16-Apr	0	0	0	0	A	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.2	0.6
17-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.3	0.8
18-Apr	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	1	2	0	0	0	1	1	0.4	1.9
19-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
20-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
21-Apr	1	1	0	0	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0.4	1.5
22-Apr	0	0	0	0	A	0	0	0	1	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0.4	1.8
23-Apr	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
24-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
25-Apr	0	0	0	0	A	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0.4	1.1
26-Apr	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0.3	0.5
27-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
28-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
29-Apr	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
30-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
																								Diurnal Average	Diurnal Maximum	
																								0.4	2.3	
																								0.3	1.4	
																								0.3	1.7	
																								0.3	1.4	
																								--	--	
																								0.3	1.2	
																								0.2	1.0	
																								0.3	1.0	
																								0.3	1.4	
																								0.3	1.2	
																								0.3	1.1	
																								0.3	1.2	
																								0.4	2.5	
																								0.4	1.8	
																								0.3	1.2	
																								0.3	1.0	
																								0.2	0.6	
																								0.2	1.1	
																								0.3	1.9	
																								0.2	0.8	
																								0.3	0.8	
																								0.2	0.7	
																								0.3	1.1	
																								0.3	1.6	

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

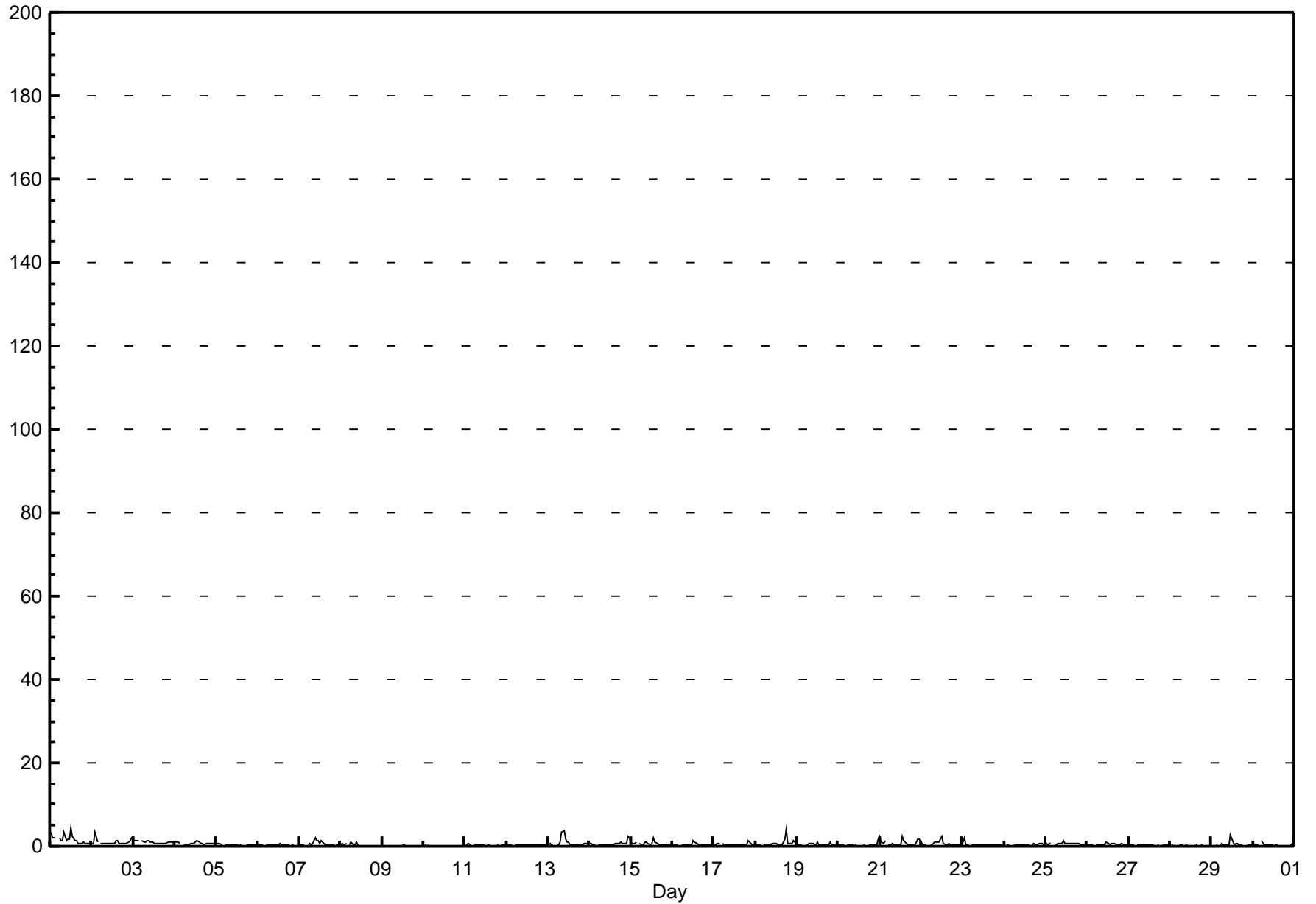
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Beaverlodge - April 2014

Maximum Value: 4.4 ppb on Apr 1 13:00		Maximum Daily Average: 1.6 ppb on Apr 1		Hours in Service: 720																								
Minimum Value: 0 ppb on Apr 8 14:00		Minimum Daily Average: 0.1 ppb on Apr 9		Hours of Data: 686																								
Maximum Diurnal Average: 0.7 ppb at hour 13		Minimum Diurnal Average: 0.4 ppb at hour 17		Hours of Missing Data: 34																								
Monthly Average: 0.50 ppb		Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.2 Median = 0.3 Q <sub>3</sub> = 0.6 P <sub>90</sub> = 1.0 P <sub>99</sub> = 3.1		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-Apr	3	2	2	2	A	2	1	1	3	1	2	2	4	2	2	1	1	1	1	1	1	1	1	1	1.6	4.4		
2-Apr	1	1	3	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.0	3.5		
3-Apr	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.8		
4-Apr	1	1	1	1	A	0	0	0	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.7	1.5		
5-Apr	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7		
6-Apr	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7		
7-Apr	0	0	0	0	A	0	1	0	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.5	2.0		
8-Apr	0	1	0	1	A	0	1	1	0	1	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0.3	0.9		
9-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2		
10-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2		
11-Apr	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5		
12-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4		
13-Apr	0	1	0	0	A	0	0	1	3	4	2	1	1	0	0	0	0	0	0	0	0	1	1	1	0.8	3.7		
14-Apr	1	1	0	0	A	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	2	0.7	2.5		
15-Apr	1	1	1	1	A	1	0	0	1	1	1	0	1	2	1	1	0	0	0	0	0	0	1	0	0.7	2.0		
16-Apr	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0.4	1.2		
17-Apr	0	0	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.4	1.4		
18-Apr	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	1	2	4	1	1	1	2	1	1	0.7	4.0		
19-Apr	1	0	0	0	A	0	0	1	1	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0.4	1.1		
20-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3	1.8		
21-Apr	2	1	1	1	A	0	0	1	0	0	0	0	2	1	1	0	0	0	0	0	0	1	2	2	0.8	2.4		
22-Apr	1	0	0	0	A	0	0	1	1	1	1	2	2	1	0	0	1	0	0	0	0	0	0	0	0.6	2.3		
23-Apr	1	2	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.9		
24-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	0.3	0.8		
25-Apr	1	0	1	1	A	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0.6	1.5		
26-Apr	0	0	0	0	A	0	0	0	0	0	0	1	1	0	1	1	1	0	0	0	1	0	0	0	0.4	0.9		
27-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4		
28-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2		
29-Apr	0	0	0	0	A	0	1	0	0	0	0	3	1	0	1	1	0	0	0	0	0	0	0	0	0.4	2.6		
30-Apr	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	1.5		
		0.6	0.5	0.6	0.5	--	0.4	0.4	0.4	0.6	0.6	0.5	0.6	0.7	0.6	0.5	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.5	0.6	Diurnal Average	
		3.2	1.9	3.5	1.9	--	2.1	1.3	1.2	3.5	3.7	1.6	2.6	4.4	2.5	1.5	1.4	0.9	1.8	4.0	1.1	1.4	0.9	2.5	2.0	Diurnal Maximum		
C - Calibration					A - Automated Daily Zero Span																							

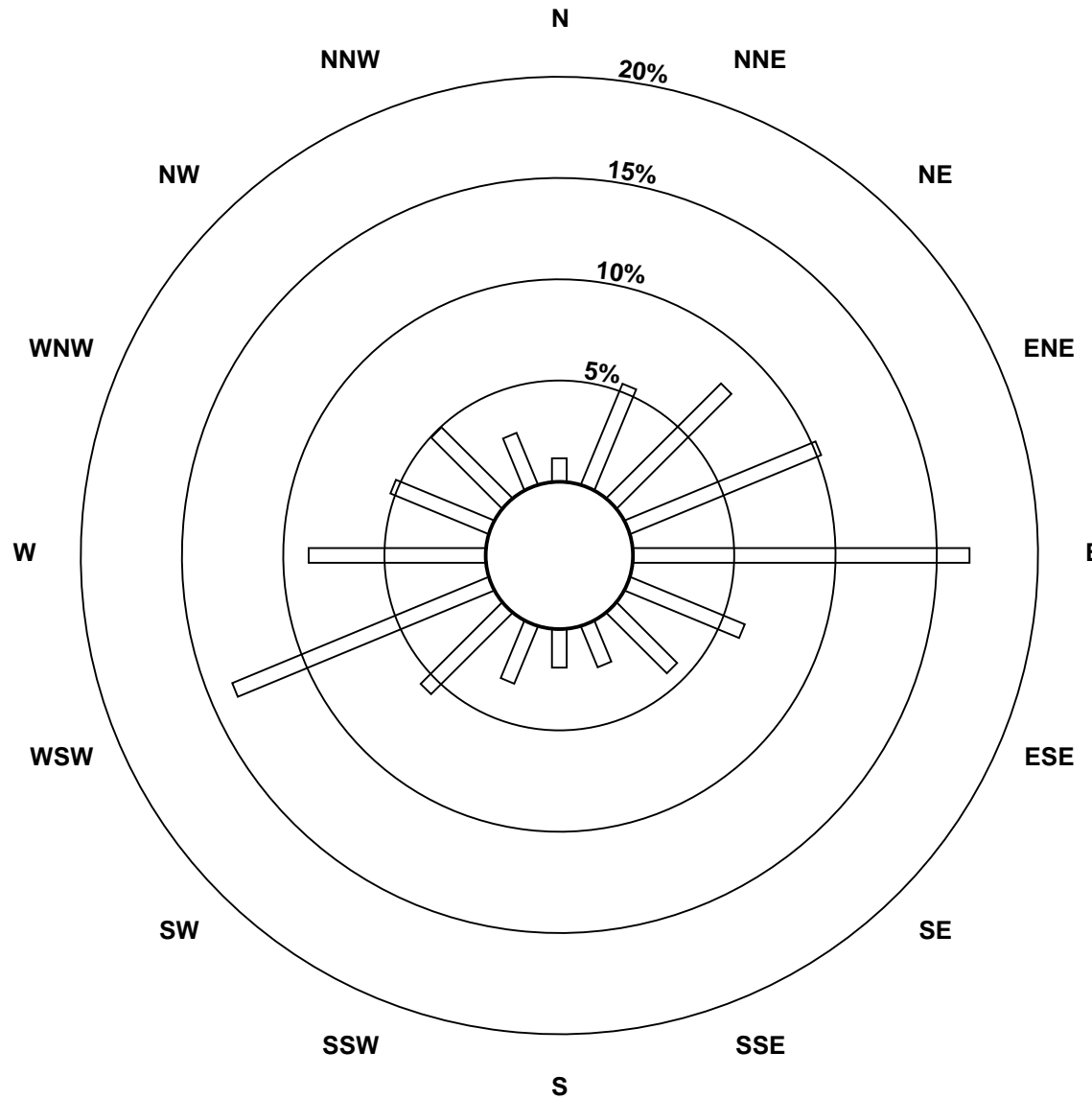
**Hourly Maximums**

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

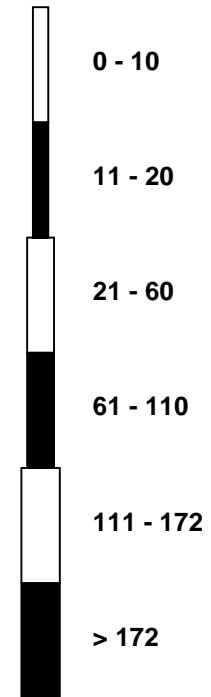


**Pollutant Rose**

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

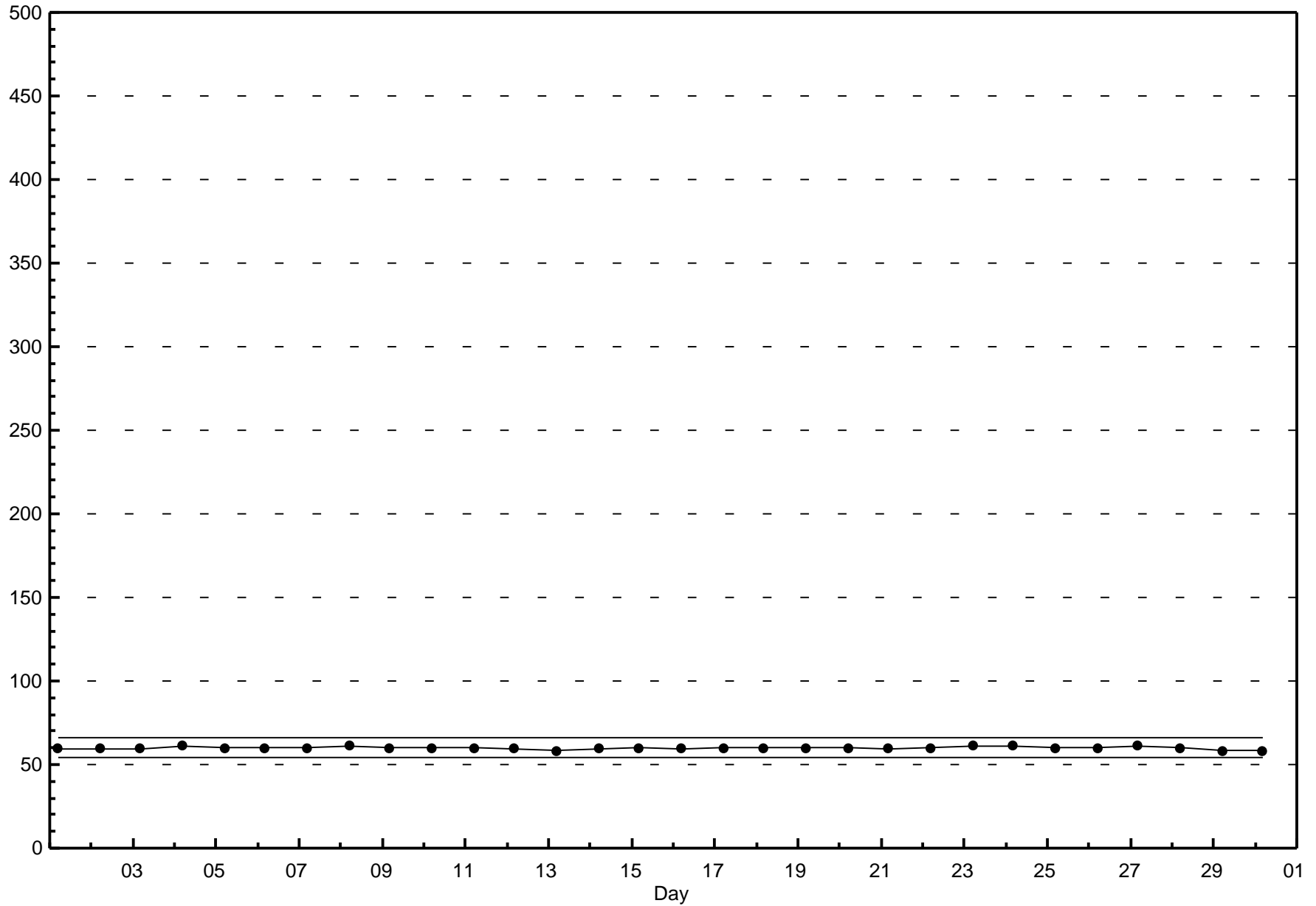


**Pollutant Classes (ppb)**



### Span Responses

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





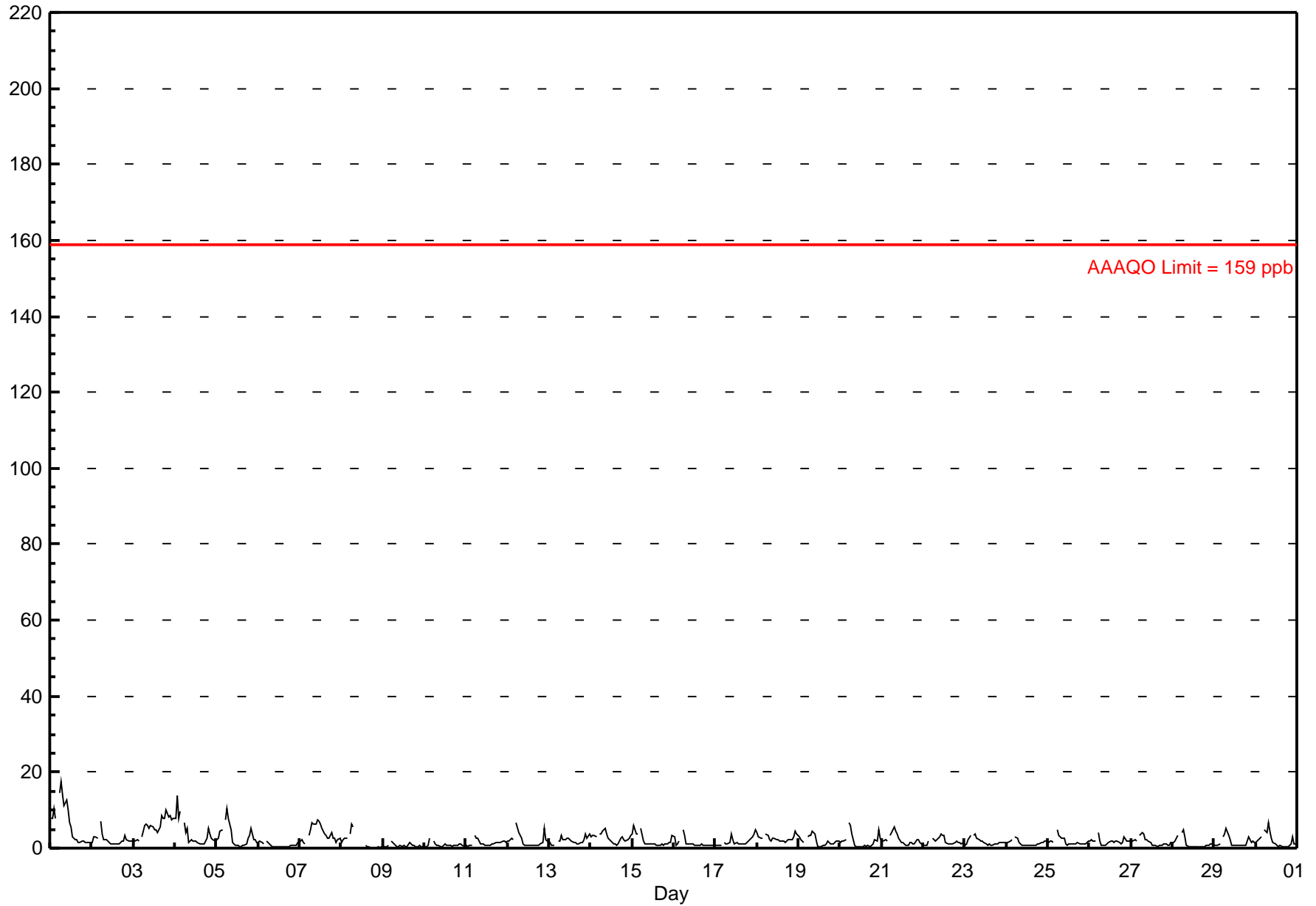
## Hourly Averages

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

Beaverlodge - April 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 17.4 ppb on Apr 1 07:00      Maximum Daily Average: 6.4 ppb on Apr 1																		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 Apr 8 20:00      Minimum Daily Average: 0.7 ppb on Apr 9 Maximum Diurnal Average: 4.3 ppb at hour 6      Minimum Diurnal Average: 1.2 ppb at hour 15 Monthly Average: 2.17 ppb      Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.6 Q <sub>1</sub> = 0.9 Median = 1.5 Q <sub>3</sub> = 2.6 P <sub>90</sub> = 4.7 P <sub>99</sub> = 10.2																										
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-Apr	8	8	10	8	A	15	17	14	11	13	10	7	6	3	2	2	1	1	2	2	1	2	2	1	6.4	17.4
2-Apr	2	3	3	3	A	7	4	2	2	2	1	1	1	1	1	1	1	2	2	3	2	2	2	2	2.2	7.0
3-Apr	2	2	2	2	A	3	6	6	6	5	6	6	5	5	4	6	8	8	8	10	8	8	7	8	5.7	10.1
4-Apr	8	14	8	10	A	7	4	5	2	2	2	2	2	1	1	1	1	1	3	5	4	3	2	2	3.8	13.7
5-Apr	2	3	4	5	A	7	10	8	5	1	1	1	1	0	0	1	1	1	2	3	5	2	2	1	3.0	10.3
6-Apr	2	2	2	1	A	2	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0.8	2.0
7-Apr	2	2	1	1	A	4	5	7	6	6	7	7	6	5	4	3	3	2	4	3	3	2	2	3	3.8	7.5
8-Apr	2	2	3	3	A	4	6	5	C	C	C	C	C	C	1	0	0	0	0	0	0	0	0	0	--	6.2
9-Apr	0	0	0	1	A	2	1	1	0	0	1	0	1	0	1	1	1	1	1	1	1	1	0	0	0.7	1.7
10-Apr	0	0	1	3	A	2	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	2.7
11-Apr	1	1	1	1	A	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1.3	3.3
12-Apr	2	2	3	2	A	7	4	3	2	1	1	1	1	1	1	1	1	1	1	1	2	5	2	2	1.9	6.6
13-Apr	1	1	1	1	A	2	2	3	2	2	3	2	2	2	2	1	1	1	1	1	2	4	3	4	1.9	3.8
14-Apr	3	3	3	3	A	4	4	4	5	4	2	2	1	1	1	1	1	3	3	2	2	2	3	3	2.7	5.2
15-Apr	4	6	4	4	A	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	1.9	5.9
16-Apr	3	1	1	2	A	5	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	5.0
17-Apr	1	1	1	1	A	2	1	1	1	4	2	1	1	1	1	1	1	1	1	2	2	3	4	5	1.7	5.0
18-Apr	4	3	3	3	A	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	5	4	2.6	4.5
19-Apr	3	2	2	1	A	3	3	3	4	4	2	1	0	1	1	1	1	2	2	1	1	1	2	2	1.9	4.4
20-Apr	2	2	2	2	A	7	6	4	1	0	0	1	0	1	1	1	1	1	1	1	2	2	5	3	1.8	6.9
21-Apr	2	2	2	2	A	3	5	6	4	4	3	2	1	1	1	1	1	1	1	1	2	2	2	1	2.2	5.6
22-Apr	1	1	1	2	A	3	2	2	2	3	4	3	3	1	1	1	1	1	1	2	2	1	1	1	1.8	3.6
23-Apr	1	1	2	3	A	4	4	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	2	1	1.7	3.6
24-Apr	2	1	2	2	A	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	2	1.4	3.1
25-Apr	2	2	2	2	A	5	3	3	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.7	4.8
26-Apr	2	2	2	2	A	4	2	1	1	1	1	2	2	2	2	2	2	1	1	2	3	2	2	2	1.8	4.0
27-Apr	2	2	2	2	A	3	4	4	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1.6	4.1
28-Apr	1	2	2	3	A	4	5	3	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1.3	4.9
29-Apr	1	1	1	1	A	3	4	5	4	2	1	1	1	1	1	1	1	1	1	2	3	2	2	1	1.6	5.1
30-Apr	1	2	3	3	A	5	4	7	5	3	2	1	1	1	1	0	0	0	1	0	1	3	1	1	2.0	6.7
																								Diurnal Average	Diurnal Maximum	
																								2.1	7.9	
																								2.4	13.7	
																								2.4	10.4	
																								2.5	9.5	
																								--	--	
																								4.3	14.7	
																								4.1	17.4	
																								3.7	14.2	
																								2.8	11.1	
																								2.5	12.8	
																								2.1	9.9	
																								1.8	7.0	
																								1.6	6.3	
																								1.3	5.1	
																								1.2	4.2	
																								1.2	5.7	
																								1.2	8.4	
																								1.4	7.8	
																								1.5	7.9	
																								1.8	10.1	
																								2.0	8.1	
																								2.0	8.5	
																								2.0	7.4	
																								2.1	7.7	

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



## Hourly Maximums

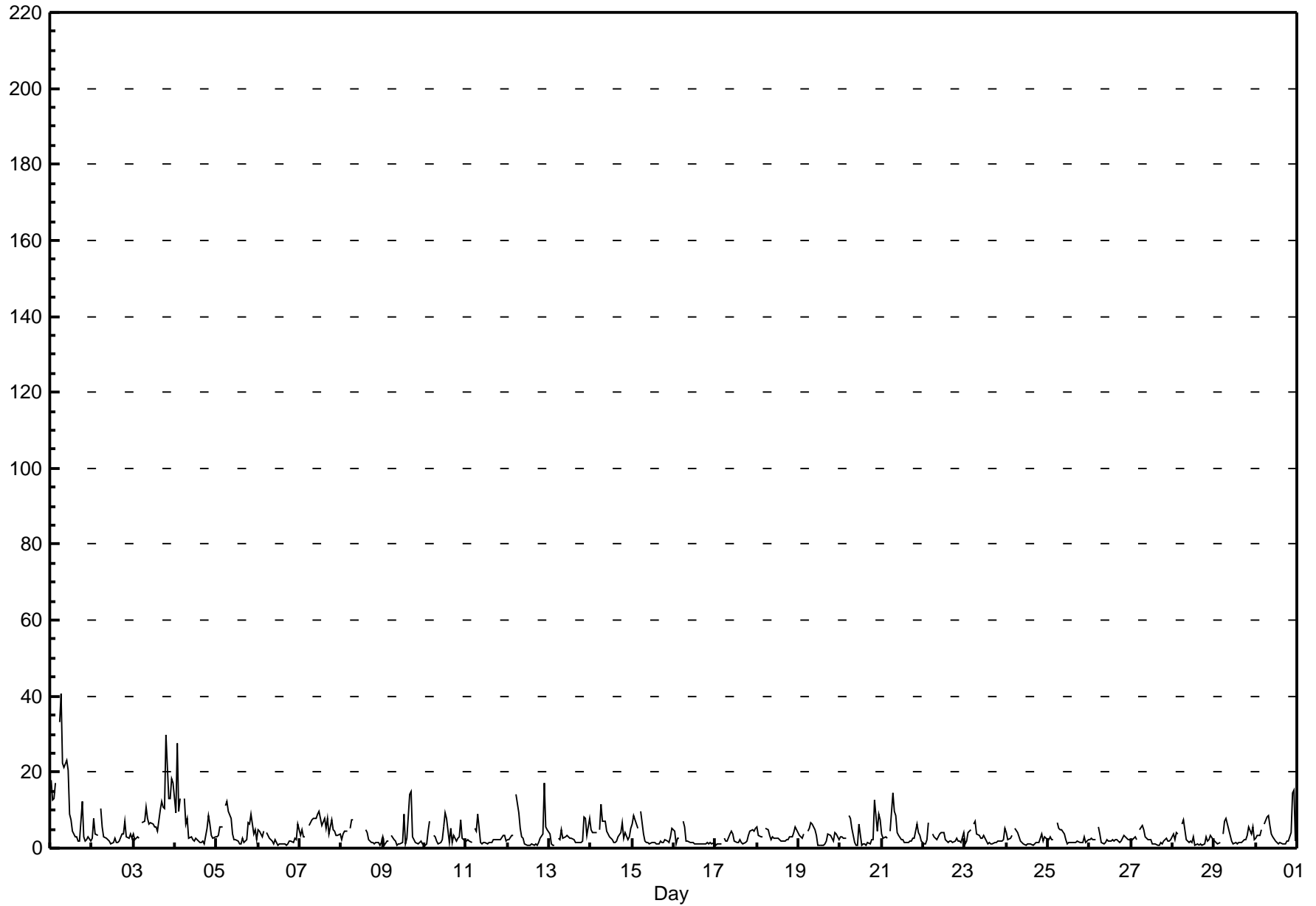
Nitrogen Dioxide (NO<sub>2</sub>) - ppb

Beaverlodge - April 2014

Maximum Value: 40.6 ppb on Apr 1 07:00		Maximum Daily Average: 12.0 ppb on Apr 1		Hours in Service: 720																							
Minimum Value: 1 ppb on Apr 19 13:00		Minimum Daily Average: 2.0 ppb on Apr 16		Hours of Data: 684																							
Maximum Diurnal Average: 7.2 ppb at hour 7		Minimum Diurnal Average: 2.0 ppb at hour 15		Hours of Missing Data: 36																							
Monthly Average: 3.80 ppb		Percentiles: P <sub>1</sub> = 0.7 P <sub>10</sub> = 1.1 Q <sub>1</sub> = 1.6 Median = 2.5 Q <sub>3</sub> = 4.5 P <sub>90</sub> = 7.8 P <sub>99</sub> = 21.0		Hours of Calibration: 36																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	18	13	13	17	A	33	41	22	21	23	20	9	7	4	3	3	2	2	12	3	2	2	3	2	12.0	40.6	
2-Apr	2	8	4	3	A	10	5	3	3	2	2	1	1	3	1	1	2	4	4	7	3	2	4	3	3.5	10.4	
3-Apr	4	2	3	3	A	7	7	11	8	7	7	6	6	6	5	10	12	11	11	30	13	13	18	17	9.4	29.8	
4-Apr	9	28	10	13	A	13	6	8	3	3	2	2	3	2	2	1	2	1	5	8	6	3	3	3	6.0	27.6	
5-Apr	3	4	6	6	A	11	12	10	8	4	2	2	2	1	1	3	2	2	7	6	9	4	5	2	4.7	12.3	
6-Apr	5	4	3	4	A	4	3	2	2	1	2	1	1	1	1	1	1	1	2	2	2	2	2	6	2.4	6.4	
7-Apr	3	5	3	3	A	6	7	8	8	8	9	10	8	6	8	5	8	4	8	5	4	3	3	4	5.8	9.6	
8-Apr	2	4	5	5	A	5	7	7	C	C	C	C	C	C	5	4	2	2	1	1	1	2	1	2	--	7.3	
9-Apr	3	1	2	2	A	3	2	2	1	1	1	1	9	1	3	14	15	3	2	1	1	1	2	1	3.2	14.8	
10-Apr	1	1	5	7	A	3	3	2	1	1	2	6	9	8	1	5	1	3	2	3	3	7	3	2	3.5	9.4	
11-Apr	2	2	2	2	A	5	4	9	1	1	2	2	1	1	1	2	2	2	2	2	2	3	3	2	2.5	8.8	
12-Apr	2	2	3	3	A	14	9	5	3	3	1	1	1	1	1	1	1	1	1	2	4	17	6	5	3.8	17.1	
13-Apr	4	1	1	1	A	3	2	5	3	3	3	3	3	3	2	2	2	1	2	2	8	8	3	8	3.1	8.2	
14-Apr	5	4	4	4	A	5	12	7	7	5	4	3	2	2	2	2	3	4	7	3	4	2	3	5	4.3	11.7	
15-Apr	6	9	6	5	A	10	4	2	2	1	1	2	2	2	1	1	2	2	1	2	2	2	3	5	3.2	9.7	
16-Apr	5	1	2	3	A	7	6	2	2	2	1	2	1	1	1	1	1	1	1	2	1	1	1	1	2.0	7.1	
17-Apr	1	1	1	1	A	3	2	2	4	4	4	2	2	2	2	1	1	2	2	3	5	5	5	5	2.5	5.4	
18-Apr	5	3	3	3	A	5	5	3	2	3	3	3	2	2	2	2	2	2	2	3	3	4	6	5	3.3	5.7	
19-Apr	3	3	3	4	A	4	5	7	6	5	3	1	1	1	1	1	2	4	3	2	2	4	4	2	3.1	6.5	
20-Apr	3	3	2	3	A	9	8	5	1	1	1	6	1	1	1	1	1	1	2	2	13	4	9	8	3.8	12.7	
21-Apr	4	3	3	3	A	5	15	10	8	4	3	2	2	2	1	2	2	3	3	6	4	3	2	2	3.9	14.6	
22-Apr	1	1	2	7	A	4	3	3	2	4	4	4	4	2	2	2	2	2	2	3	2	2	2	4	2.7	6.7	
23-Apr	1	2	4	5	A	6	7	4	3	3	3	3	2	1	2	1	1	2	1	2	2	2	2	5	2.8	7.2	
24-Apr	4	2	2	3	A	5	4	3	2	2	1	1	1	1	1	1	1	1	1	2	4	2	3	2	2.2	5.2	
25-Apr	2	3	2	2	A	7	5	5	5	4	2	1	2	1	2	1	2	2	2	2	1	3	2	2	2.6	6.7	
26-Apr	2	2	2	2	A	5	4	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	2	2	2.3	5.4	
27-Apr	2	2	3	2	A	5	6	5	3	3	2	2	1	1	1	1	1	2	1	2	2	2	2	2	2.3	5.9	
28-Apr	4	2	4	4	A	6	7	5	2	2	2	1	3	1	1	1	1	1	1	3	2	2	4	2	2.7	7.3	
29-Apr	2	1	1	2	A	4	7	8	5	3	2	1	1	1	1	1	1	2	2	3	6	4	6	2	2.9	7.7	
30-Apr	3	3	3	5	A	6	8	9	6	4	3	2	2	1	1	1	1	1	2	2	4	15	15	2	4.3	15.4	
		3.7	4.0	3.6	4.2	--	7.2	7.2	5.7	4.2	3.7	3.3	2.8	2.8	2.1	2.0	2.5	2.6	2.3	3.2	3.8	4.0	4.3	4.2	3.8	Diurnal Average	
		17.8	27.6	13.2	17.3	--	33.3	40.6	22.4	21.3	23.2	20.4	9.6	9.4	7.7	8.0	14.3	14.8	10.8	12.3	29.8	13.2	17.1	18.3	17.3	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

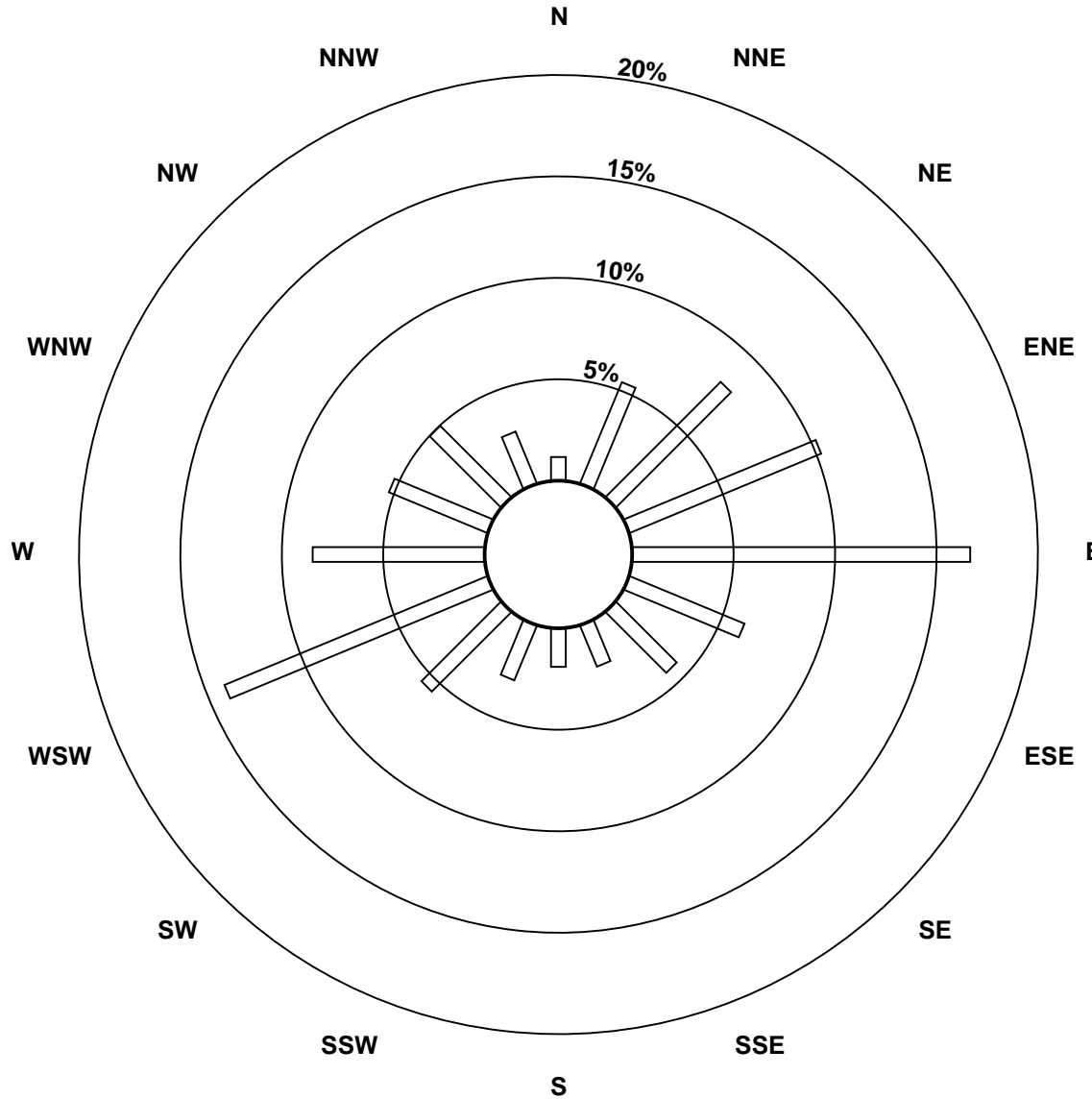
**Hourly Maximums**

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

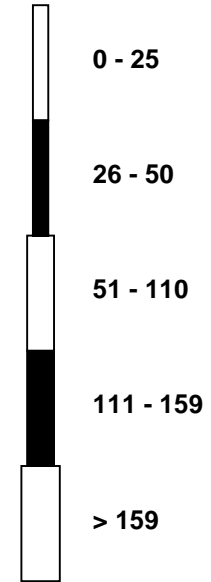


**Pollutant Rose**

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

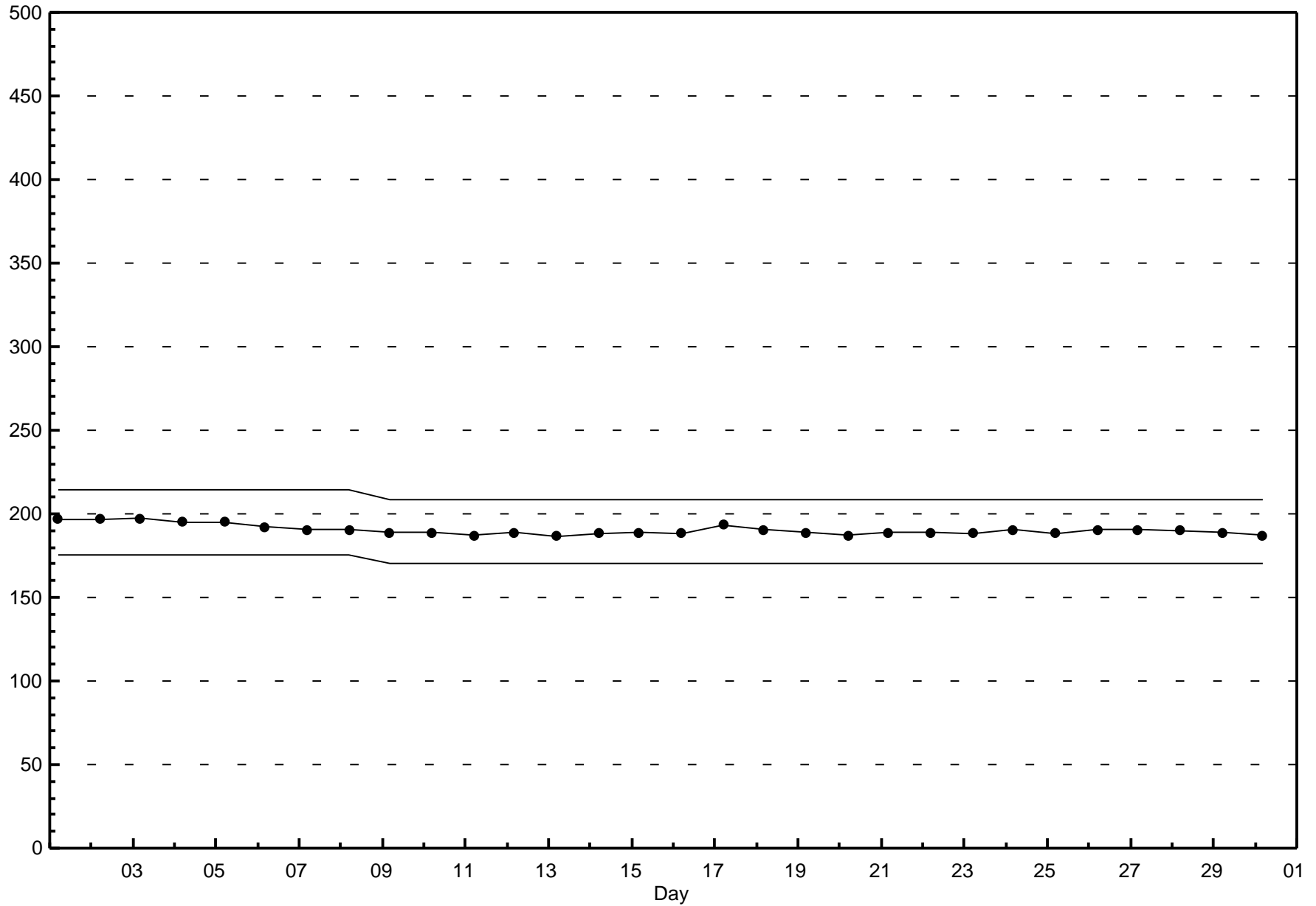


**Pollutant Classes (ppb)**



### Span Responses

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



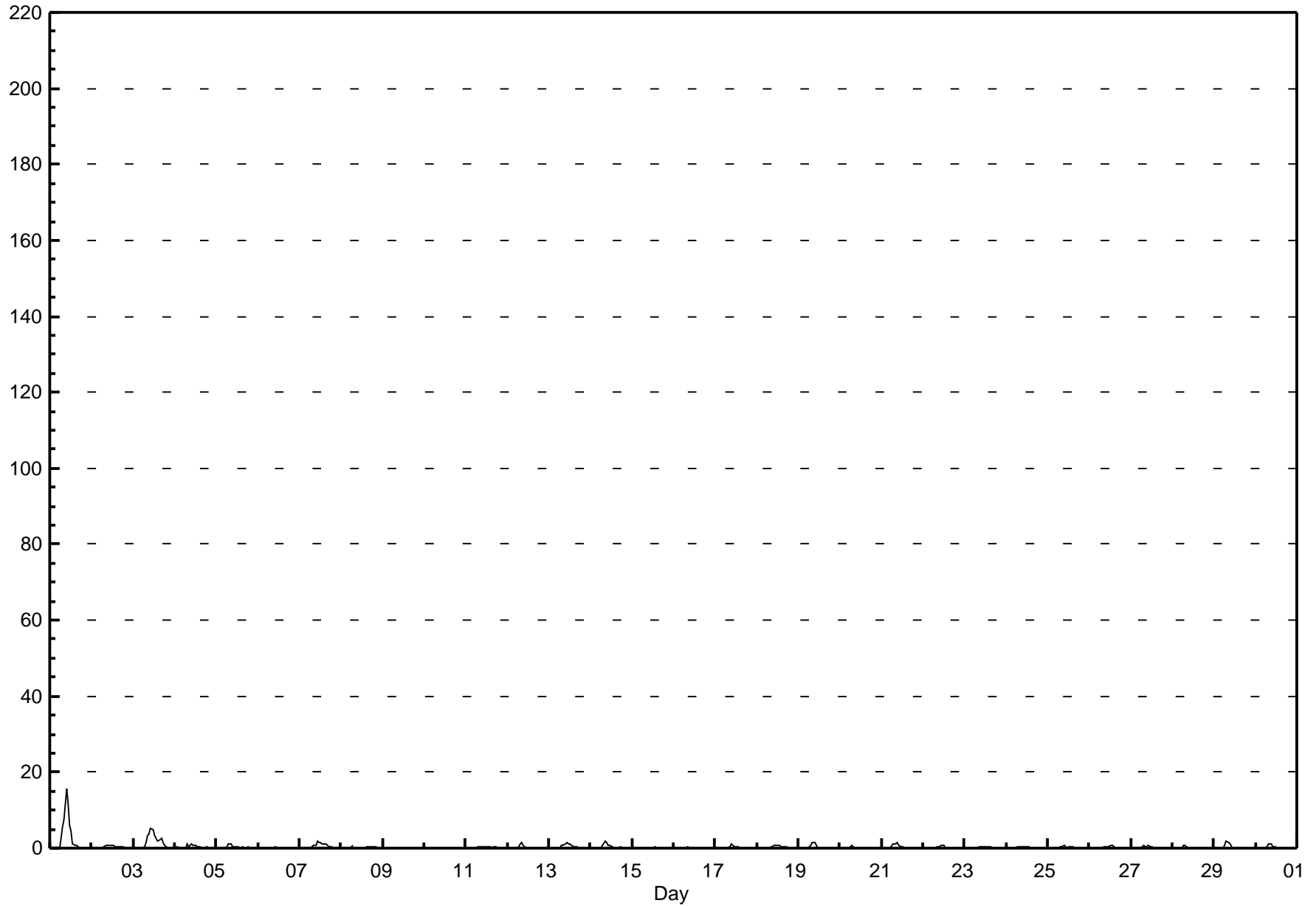
## Hourly Averages

Nitrogen Oxide (NO) - ppb  
Beaverlodge - April 2014

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 15.8 ppb on Apr 1 10:00      Maximum Daily Average: 2.5 ppb on Apr 1																	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 Apr 2 21:00      Minimum Daily Average: 0.1 ppb on Apr 16 Maximum Diurnal Average: 1.2 ppb at hour 10      Minimum Diurnal Average: 0.0 ppb at hour 24 Monthly Average: 0.32 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> = 0.8 P <sub>99</sub> = 4.5																										
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-Apr	0	0	0	0	A	0	2	6	7	16	11	6	4	1	1	1	0	0	0	0	0	0	0	0	2.5	15.8
2-Apr	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
3-Apr	0	0	0	0	A	0	0	2	3	4	5	5	3	3	2	2	3	1	1	1	0	0	0	1.5	5.2	
4-Apr	0	0	0	0	A	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2	
5-Apr	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2	
6-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
7-Apr	0	0	0	0	A	0	0	0	1	1	2	2	1	1	1	1	1	0	0	0	0	0	0	0.5	1.7	
8-Apr	0	0	0	0	A	0	0	1	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	--	0.9	
9-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
10-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
11-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4	
12-Apr	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.4	
13-Apr	0	0	0	0	A	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	1.4	
14-Apr	0	0	0	0	A	0	0	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.8	
15-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
16-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
17-Apr	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2	
18-Apr	0	0	0	0	A	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.3	0.9	
19-Apr	0	0	0	0	A	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.6	
20-Apr	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6	
21-Apr	0	0	0	0	A	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.5	
22-Apr	0	0	0	0	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.2	0.8	
23-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
24-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5	
25-Apr	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7	
26-Apr	0	0	0	0	A	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0.2	0.7	
27-Apr	0	0	0	0	A	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8	
28-Apr	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8	
29-Apr	0	0	0	0	A	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.8	
30-Apr	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1	
																								Diurnal Average		
																								Diurnal Maximum		
0.0 0.0 0.0 0.0 -- 0.1 0.3 0.8 0.9 1.2 1.1 0.8 0.6 0.4 0.3 0.3 0.3 0.2 0.1 0.1 0.0 0.0 0.0 0.1 0.2 0.1 0.1 -- 0.1 2.5 5.7 7.4 15.8 11.5 6.1 4.3 2.8 1.9 2.4 2.6 1.4 0.8 0.5 0.2 0.1 0.1 0.1																										
C - Calibration					A - Automated Daily Zero Span																					

**Hourly Averages**

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





## Hourly Maximums

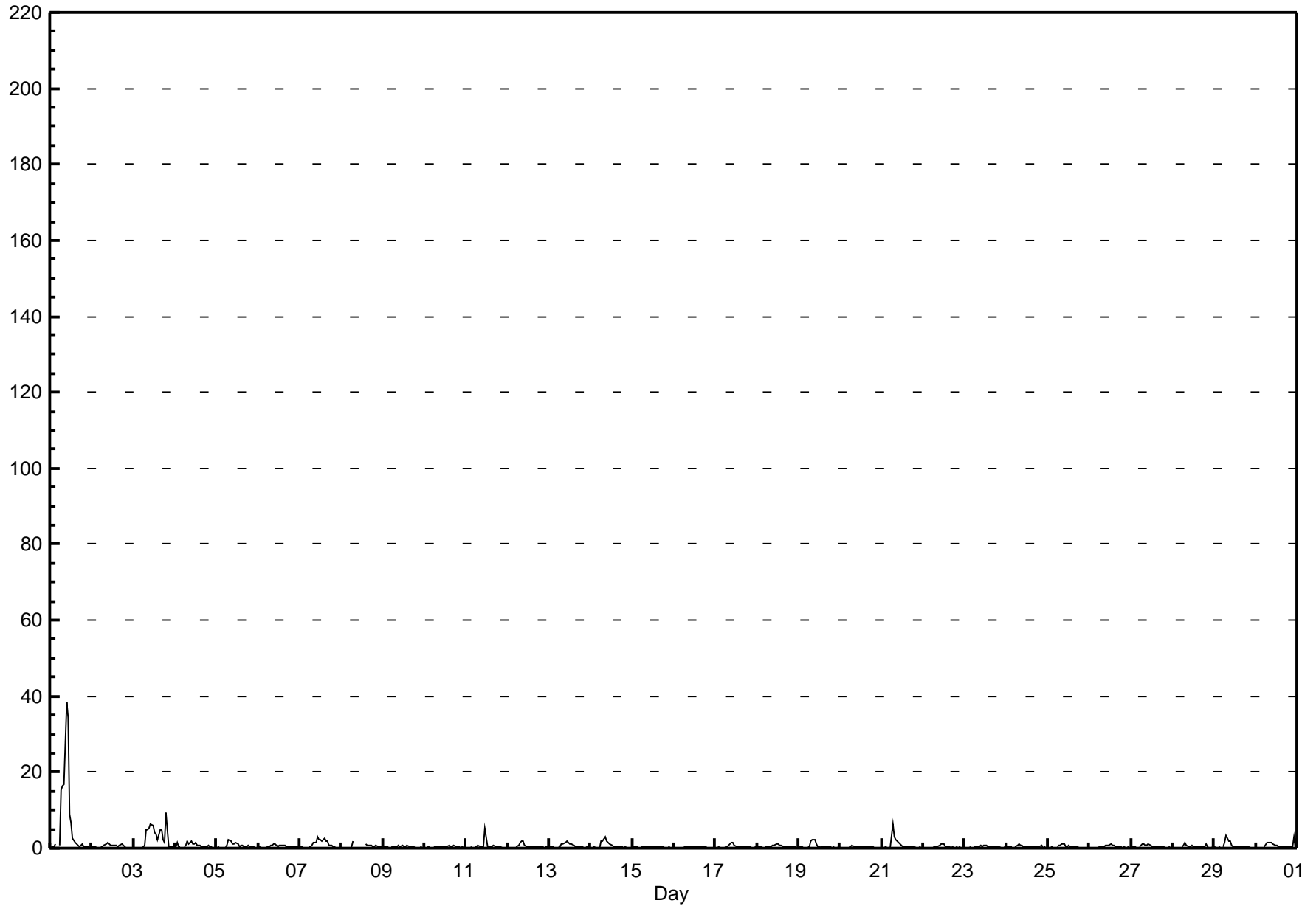
Nitrogen Oxide (NO) - ppb

Beaverlodge - April 2014

Maximum Value: 38.6 ppb on Apr 1 10:00		Maximum Daily Average: 6.4 ppb on Apr 1		Hours in Service: 720																							
Minimum Value: 0 ppb on Apr 3 04:00		Minimum Daily Average: 0.2 ppb on Apr 16		Hours of Data: 684																							
Maximum Diurnal Average: 2.5 ppb at hour 10		Minimum Diurnal Average: 0.2 ppb at hour 24		Hours of Missing Data: 36																							
Monthly Average: 0.77 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> = 0.6 P <sub>90</sub> = 1.4 P <sub>99</sub> = 8.6		Hours of Calibration: 36																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	0	0	0	1	A	1	15	16	17	39	34	9	7	3	1	1	1	0	1	0	0	0	0	0	6.4	38.6	
2-Apr	0	0	0	0	A	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.6	1.4	
3-Apr	0	0	0	0	A	0	1	5	5	5	6	6	4	4	2	5	5	2	2	9	0	0	0	0	2.7	9.4	
4-Apr	0	2	0	0	A	0	1	2	1	2	1	1	2	1	1	0	0	0	0	1	0	0	0	0	0.7	2.1	
5-Apr	0	0	0	0	A	0	1	2	2	1	1	1	1	0	1	1	1	0	1	0	0	0	0	0	0.7	2.1	
6-Apr	0	0	0	0	A	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.5	1.2	
7-Apr	0	0	0	0	A	0	0	1	1	1	3	2	2	2	3	2	2	1	1	0	0	0	0	0	1.0	3.0	
8-Apr	0	0	0	0	A	0	0	2	C	C	C	C	C	C	1	1	1	1	1	0	1	0	0	0	--	1.8	
9-Apr	0	0	0	0	A	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0.4	0.8	
10-Apr	0	0	0	0	A	0	0	0	0	1	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0.4	0.9	
11-Apr	0	0	0	0	A	0	0	1	0	0	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0.6	5.1	
12-Apr	0	0	0	0	A	0	1	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.0	
13-Apr	0	0	0	0	A	0	0	1	1	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0.6	1.7	
14-Apr	0	0	0	0	A	0	2	2	3	2	2	1	1	0	0	0	0	1	0	0	0	0	0	0	0.7	2.9	
15-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5	
16-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
17-Apr	0	0	0	0	A	0	0	0	1	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.6	
18-Apr	0	0	0	0	A	0	0	0	0	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0.4	1.2	
19-Apr	0	0	0	0	A	0	0	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.1	
20-Apr	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8	
21-Apr	0	0	0	0	A	0	6	3	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.8	6.2	
22-Apr	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	1.0	
23-Apr	0	0	0	0	A	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0.4	0.8	
24-Apr	0	0	0	0	A	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0.4	1.0	
25-Apr	0	0	0	0	A	0	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0.4	1.2	
26-Apr	0	0	0	0	A	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	1.2	
27-Apr	0	0	0	0	A	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.2	
28-Apr	0	0	0	0	A	0	1	1	1	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0.4	1.5	
29-Apr	0	0	0	0	A	0	1	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	3.2	
30-Apr	0	0	0	0	A	0	1	2	2	2	1	1	1	0	1	0	0	0	1	0	0	0	3	0	0.7	3.1	
		0.2	0.2	0.2	0.2	--	0.2	1.3	1.8	1.7	2.5	2.3	1.4	1.0	0.7	0.7	0.6	0.6	0.5	0.4	0.6	0.2	0.2	0.3	0.2	Diurnal Average	
		0.4	1.7	0.3	1.2	--	0.6	15.1	16.4	16.9	38.6	34.3	8.8	6.6	3.7	2.7	5.0	4.8	2.3	1.6	9.4	0.7	0.4	3.1	0.4	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

### Hourly Maximums

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

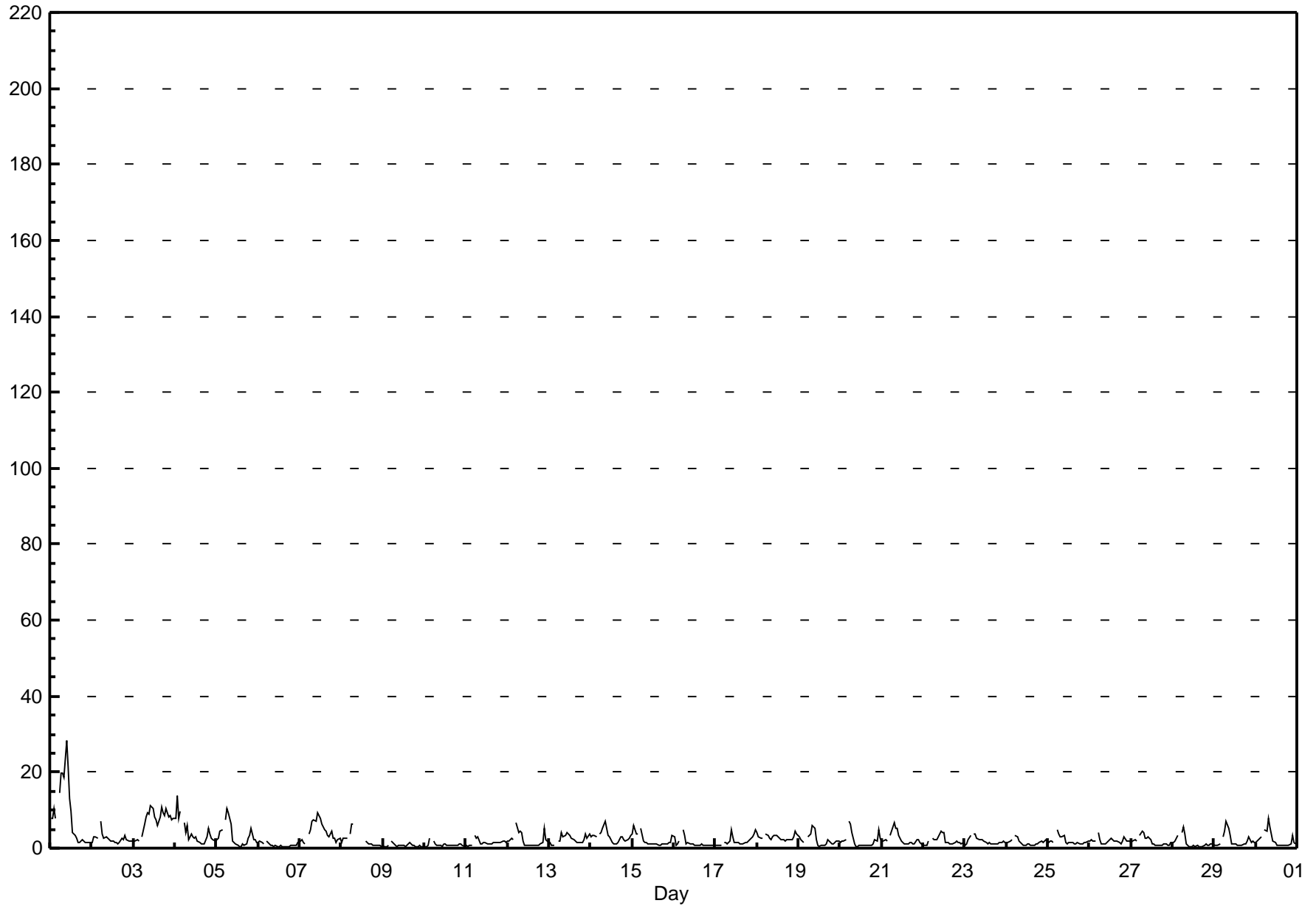


## Hourly Averages

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

Beaverlodge - April 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 28.5 ppb on Apr 1 10:00      Maximum Daily Average: 8.8 ppb on Apr 1		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 Apr 6 12:00 Maximum Diurnal Average: 4.4 ppb at hour 8 Monthly Average: 2.50 ppb		Minimum Daily Average: 0.8 ppb on Apr 9 Minimum Diurnal Average: 1.5 ppb at hour 16 Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 0.7 Q <sub>1</sub> = 1.0 Median = 1.7 Q <sub>3</sub> = 3.0 P <sub>90</sub> = 5.2 P <sub>99</sub> = 13.6																																															
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-Apr	8	8	10	8	A	15	20	20	19	29	21	13	10	4	3	3	2	2	2	2	1	2	2	1	8.8	28.5																							
2-Apr	2	3	3	3	A	7	4	3	3	3	2	2	2	2	1	1	2	2	2	4	2	2	2	2	2.5	7.0																							
3-Apr	2	2	2	2	A	3	6	8	9	9	11	10	8	8	6	8	11	9	9	11	8	9	7	8	7.2	11.2																							
4-Apr	8	14	8	10	A	7	4	6	2	4	3	3	3	2	2	1	1	1	3	5	4	3	2	2	4.2	13.9																							
5-Apr	2	3	4	5	A	7	11	9	6	2	1	1	1	1	1	1	1	1	3	3	5	2	2	1	3.2	10.5																							
6-Apr	2	2	2	1	A	2	1	1	1	0	1	0	0	1	0	0	0	0	0	1	1	1	1	1	0.9	2.0																							
7-Apr	2	2	1	1	A	4	5	7	7	7	9	9	8	6	5	4	3	3	5	3	3	2	2	3	4.3	9.2																							
8-Apr	2	2	3	3	A	4	6	6	C	C	C	C	C	C	2	1	1	1	1	1	1	1	1	1	--	6.2																							
9-Apr	1	0	1	1	A	2	1	1	0	1	1	1	1	1	1	2	1	1	1	1	1	1	0	0	0.8	1.8																							
10-Apr	0	0	1	3	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.7																							
11-Apr	1	1	1	1	A	3	3	3	1	1	2	1	1	1	1	1	1	2	2	1	1	2	2	2	1.5	3.3																							
12-Apr	2	2	3	2	A	7	4	5	4	2	1	1	1	1	1	1	1	1	1	1	2	5	2	2	2.1	6.6																							
13-Apr	1	1	1	1	A	2	2	4	3	3	4	4	3	3	2	2	2	1	1	1	2	4	3	4	2.3	4.1																							
14-Apr	3	3	3	3	A	4	4	5	7	5	3	3	2	1	1	1	1	3	3	2	2	2	3	3	3.0	7.0																							
15-Apr	4	6	4	4	A	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	2.0	5.9																							
16-Apr	3	1	1	2	A	5	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.4	5.0																							
17-Apr	1	1	1	1	A	2	1	1	2	5	3	2	2	1	1	1	1	1	2	2	2	3	4	5	1.9	5.0																							
18-Apr	4	3	3	3	A	4	3	3	2	3	3	3	3	3	2	2	2	2	2	2	2	3	5	4	2.9	4.5																							
19-Apr	3	2	2	1	A	3	4	4	6	5	2	1	0	1	1	1	1	2	1	1	1	1	2	2	2.1	5.9																							
20-Apr	2	2	2	2	A	7	6	4	1	1	1	1	1	1	1	1	1	1	1	1	2	2	5	3	1.9	6.9																							
21-Apr	2	2	2	2	A	3	6	7	5	5	3	2	1	1	1	1	2	2	1	1	2	2	1	2.5	6.7																								
22-Apr	1	1	1	2	A	3	2	2	2	4	4	4	4	2	1	1	1	1	1	2	2	1	1	1	2.0	4.4																							
23-Apr	1	1	2	3	A	4	4	3	2	2	2	2	1	1	1	1	1	1	1	1	1	1	2	2	1.8	3.7																							
24-Apr	2	2	2	2	A	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	2	1.5	3.2																							
25-Apr	2	2	2	2	A	5	4	3	3	3	2	1	1	1	2	1	1	2	1	1	1	1	1	2	1.9	4.8																							
26-Apr	2	2	2	2	A	4	2	1	1	1	2	2	2	2	2	2	2	1	1	2	3	2	2	2	1.9	4.0																							
27-Apr	1	2	2	2	A	3	4	4	3	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1.8	4.5																							
28-Apr	1	2	3	3	A	4	5	4	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.4	5.4																							
29-Apr	1	1	1	1	A	3	4	7	5	3	1	1	1	1	1	1	1	1	1	2	3	2	2	1	1.9	7.0																							
30-Apr	1	2	3	3	A	5	5	8	6	4	2	2	1	1	1	1	1	1	1	1	1	3	1	1	2.2	7.8																							
																								2.2	2.5	2.4	2.6	--	4.3	4.4	4.4	3.7	3.7	3.2	2.5	2.2	1.7	1.5	1.5	1.5	1.6	1.7	1.9	2.0	2.1	2.0	2.1	Diurnal Average	
																								7.9	13.9	10.5	9.5	--	14.7	19.8	19.8	18.5	28.5	21.4	13.0	9.9	7.5	6.1	8.1	11.0	9.2	8.7	10.6	8.2	8.5	7.4	7.7	Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span																									



## Hourly Maximums

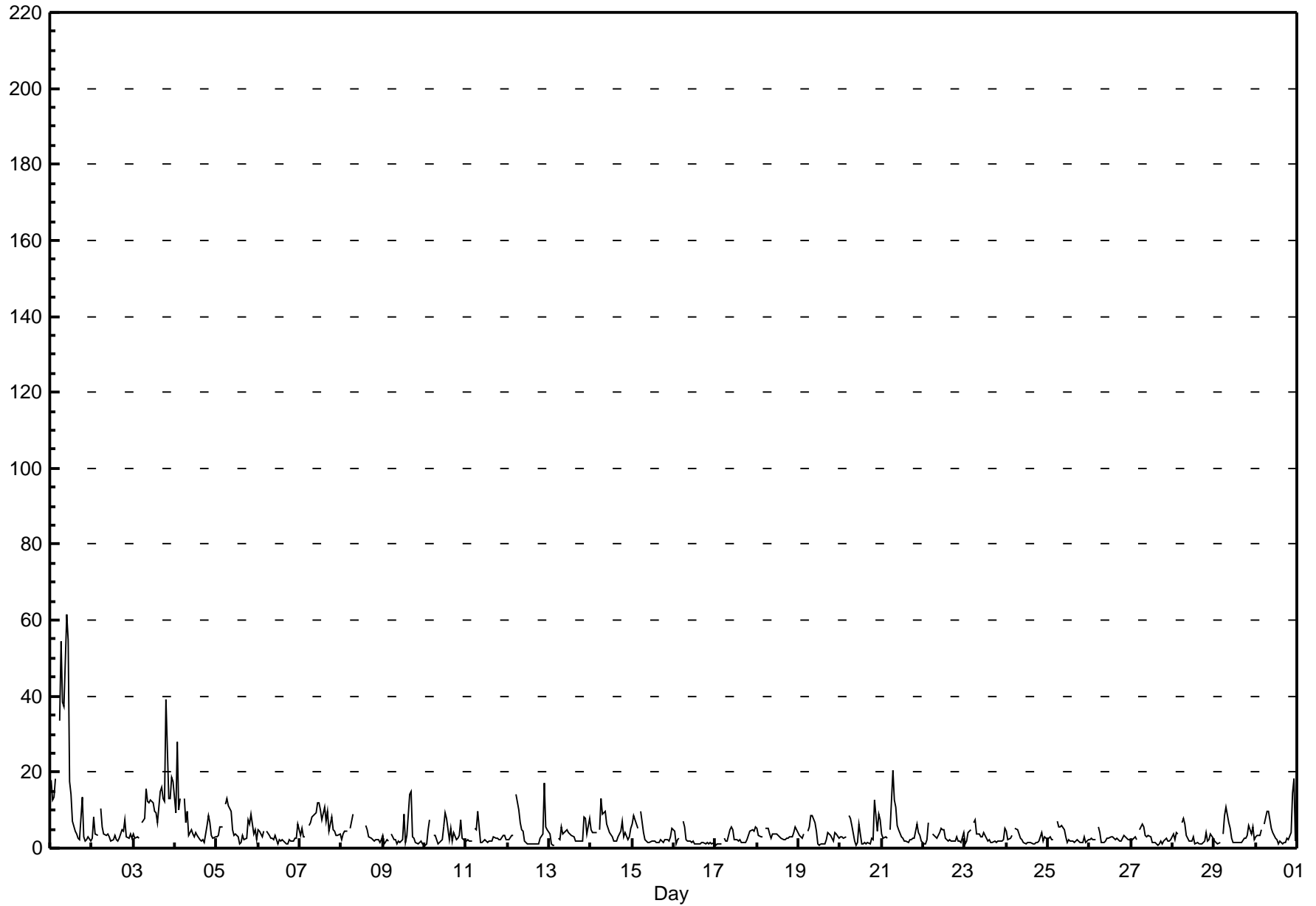
Oxides of Nitrogen (NO<sub>x</sub>) - ppb

Beaverlodge - April 2014

Maximum Value: 61.7 ppb on Apr 1 10:00																			Maximum Daily Average: 18.3 ppb on Apr 1						Hours in Service: 720																			
Minimum Value: 1 ppb on Apr 19 13:00																			Minimum Daily Average: 2.1 ppb on Apr 16						Hours of Data: 684																			
Maximum Diurnal Average: 8.3 ppb at hour 7																			Minimum Diurnal Average: 2.5 ppb at hour 15						Hours of Missing Data: 36																			
Monthly Average: 4.45 ppb																			Percentiles: P <sub>1</sub> = 0.9 P <sub>10</sub> = 1.4 Q <sub>1</sub> = 1.9 Median = 2.8 Q <sub>3</sub> = 4.9 P <sub>90</sub> = 8.8 P <sub>99</sub> = 32.3						Hours of Calibration: 36																			
Percent Operational Time: 100.0																																												
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																				
1-Apr	18	13	13	18	A	34	55	38	37	62	55	18	14	7	5	4	2	2	13	3	2	2	3	2	18.3	61.7																		
2-Apr	2	8	4	4	A	10	6	4	3	4	3	2	2	3	2	2	3	5	5	7	3	3	4	3	4.0	10.5																		
3-Apr	4	3	3	3	A	7	8	16	12	12	13	12	10	9	7	15	16	13	12	39	13	13	19	17	11.9	39.0																		
4-Apr	9	28	10	13	A	13	7	10	3	5	4	3	4	3	2	2	2	2	6	9	7	3	3	3	6.5	28.1																		
5-Apr	3	3	6	6	A	11	13	11	10	5	3	4	3	1	2	4	2	3	7	6	9	4	5	2	5.3	12.9																		
6-Apr	5	5	3	4	A	4	3	3	3	2	3	1	2	2	2	2	1	1	2	2	2	3	2	6	2.8	6.5																		
7-Apr	3	5	3	3	A	6	7	8	9	9	12	12	10	8	11	7	10	4	8	5	4	3	3	4	6.7	11.9																		
8-Apr	2	4	5	4	A	5	7	9	C	C	C	C	C	C	6	5	3	3	2	2	2	1	2	2	--	8.8																		
9-Apr	3	1	2	2	A	4	2	2	1	2	2	2	9	1	3	14	15	3	3	1	1	1	2	1	3.4	14.8																		
10-Apr	1	1	5	7	A	3	3	2	1	2	2	6	9	8	2	5	2	4	2	3	3	8	3	2	3.7	9.4																		
11-Apr	2	2	2	2	A	5	5	10	2	2	2	2	2	2	2	2	3	3	2	2	2	3	3	2	2.7	9.6																		
12-Apr	2	2	3	3	A	14	10	7	5	5	2	1	1	1	1	1	1	1	1	3	4	17	6	5	4.2	17.1																		
13-Apr	4	1	1	1	A	3	2	5	4	4	5	4	4	4	3	2	2	2	2	2	8	8	4	8	3.5	8.2																		
14-Apr	5	4	4	4	A	5	13	9	10	6	5	4	3	2	2	2	3	4	7	3	4	2	3	5	4.8	13.1																		
15-Apr	6	8	6	5	A	10	4	2	2	2	1	2	2	2	1	1	2	2	2	2	2	2	3	5	3.3	9.8																		
16-Apr	5	1	2	3	A	7	6	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2.1	7.0																		
17-Apr	1	1	1	1	A	3	2	2	5	6	5	2	2	2	2	1	1	2	2	4	4	5	5	6	2.8	5.7																		
18-Apr	5	3	3	3	A	5	5	4	3	4	4	4	3	3	3	2	2	3	3	3	3	4	6	5	3.6	5.7																		
19-Apr	3	3	3	4	A	5	5	8	9	7	4	1	1	1	1	1	2	4	3	3	2	4	4	2	3.5	8.5																		
20-Apr	3	3	3	3	A	9	8	6	2	1	1	7	1	1	1	1	2	1	2	2	13	4	9	8	3.9	12.6																		
21-Apr	4	3	3	3	A	5	20	13	11	6	5	3	3	2	2	1	2	2	3	3	6	4	3	2	4.7	20.5																		
22-Apr	1	1	2	7	A	4	3	3	3	4	5	5	5	2	2	2	2	2	2	3	2	2	2	4	2.9	6.8																		
23-Apr	1	2	4	5	A	7	7	4	4	3	3	4	2	2	2	2	2	2	2	2	2	2	2	5	3.1	7.3																		
24-Apr	4	2	2	3	A	5	5	4	3	2	2	1	2	2	1	1	1	2	2	2	4	2	3	3	2.5	5.3																		
25-Apr	2	3	2	2	A	7	6	6	6	5	3	1	2	2	2	2	2	2	2	2	1	3	2	2	2.9	6.9																		
26-Apr	2	3	2	2	A	5	4	2	2	2	3	3	3	3	2	2	3	2	2	3	4	3	2	2	2.6	5.5																		
27-Apr	2	2	3	2	A	5	6	6	3	3	3	3	2	1	1	1	1	2	1	2	3	2	2	2	2.6	6.3																		
28-Apr	4	2	4	4	A	7	8	6	3	2	2	2	3	1	1	1	1	2	4	2	2	4	2	2	3.0	7.9																		
29-Apr	2	1	1	2	A	4	8	11	7	5	3	1	1	1	2	2	2	3	3	3	6	4	6	2	3.4	10.8																		
30-Apr	3	3	3	5	A	7	10	10	7	5	4	3	2	1	2	1	1	1	2	2	4	15	18	2	4.9	18.4																		
																			3.8	4.1	3.6	4.2	--	7.3	8.3	7.4	5.9	6.1	5.5	4.0	3.7	2.7	2.5	3.0	3.1	2.7	3.5	4.2	4.1	4.4	4.4	3.9	Diurnal Average	
																			17.8	28.1	13.3	18.3	--	33.6	54.6	38.2	37.5	61.7	54.7	17.6	14.1	9.3	10.7	15.1	16.0	13.1	13.3	39.0	13.1	17.1	18.7	17.4	Diurnal Maximum	
C - Calibration																			A - Automated Daily Zero Span																									

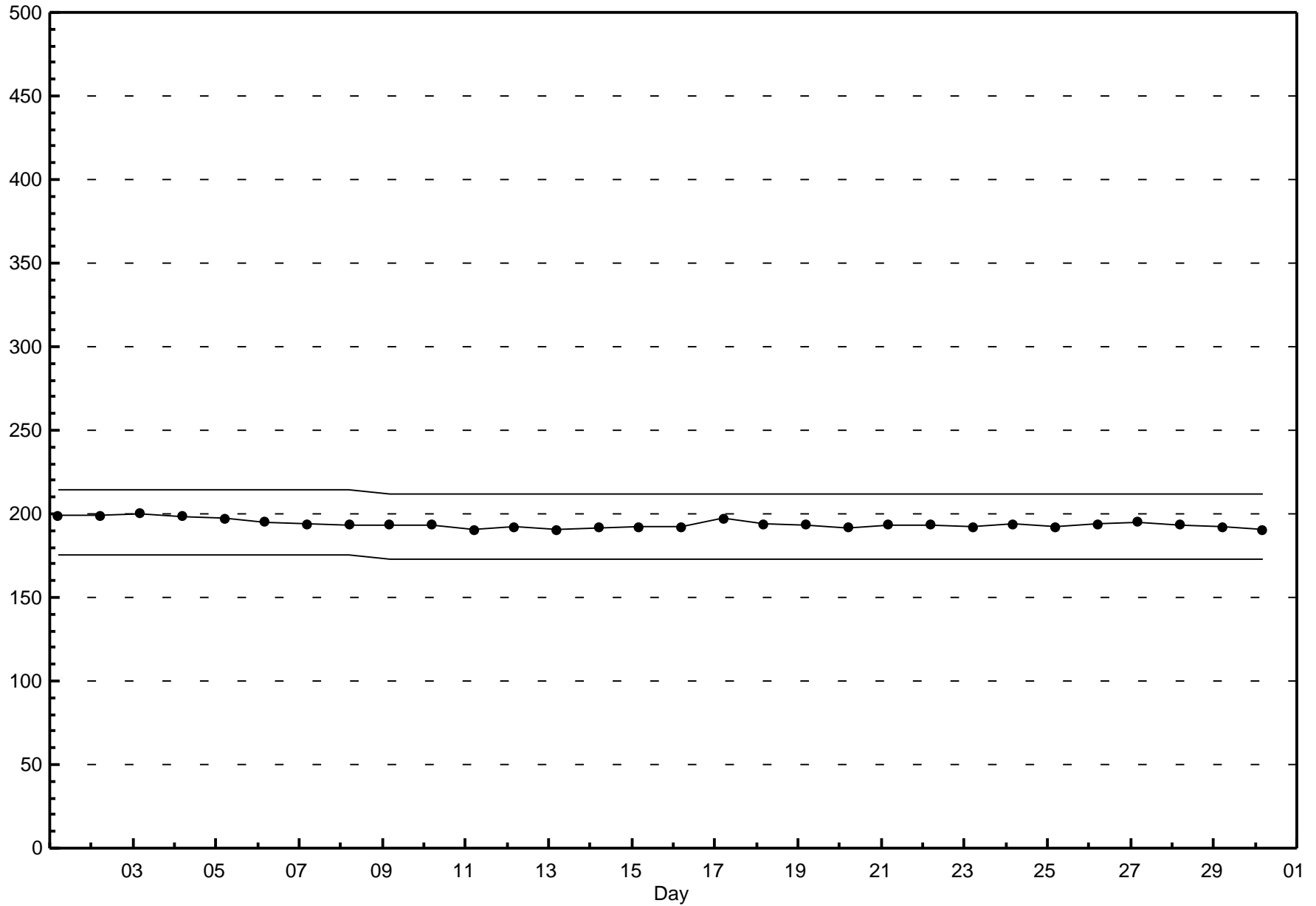
### Hourly Maximums

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



### Span Responses

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



# Hourly Averages

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

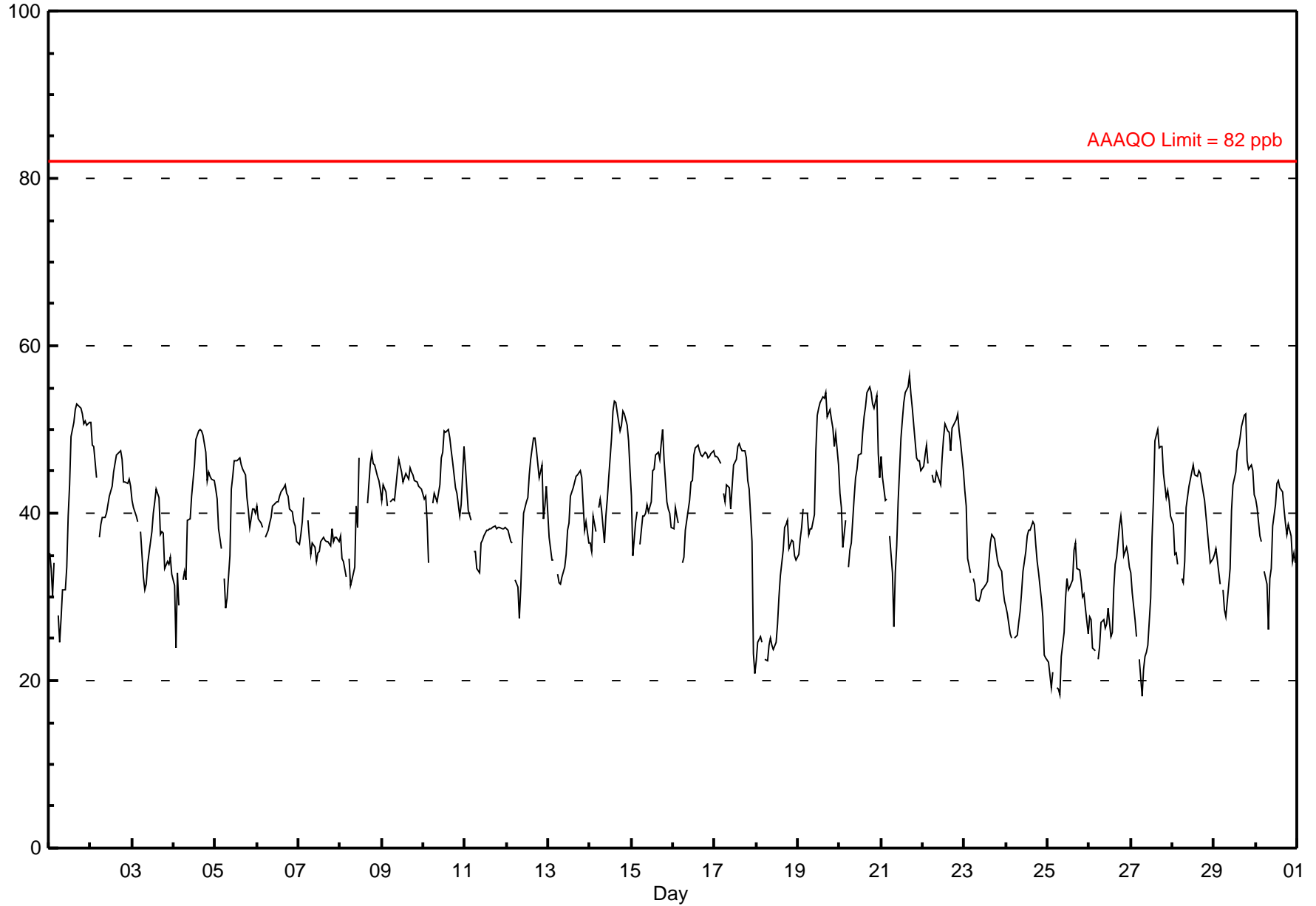
Beaverlodge - April 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 56.4 ppb on Apr 21 17:00      Maximum Daily Average: 47.5 ppb on Apr 22		Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0																								
Minimum Value: 18 ppb on Apr 27 07:00 Maximum Diurnal Average: 45.3 ppb at hour 16 Monthly Average: 39.58 ppb		Minimum Daily Average: 27.3 ppb on Apr 25 Minimum Diurnal Average: 32.8 ppb at hour 8 Percentiles: P <sub>1</sub> = 21.0 P <sub>10</sub> = 29.4 Q <sub>1</sub> = 34.6 Median = 40.0 Q <sub>3</sub> = 45.1 P <sub>90</sub> = 49.2 P <sub>99</sub> = 54.3																								
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-Apr	35	33	30	34	A	28	25	27	31	31	34	40	43	49	51	52	53	53	53	52	51	51	51	51	41.6	53.0
2-Apr	51	48	48	44	A	37	39	40	39	40	41	42	43	45	46	47	47	47	46	44	44	43	44	43	43.9	50.8
3-Apr	42	41	40	39	A	38	32	31	32	34	35	38	40	41	43	42	37	38	38	33	34	34	35	33	36.9	42.9
4-Apr	31	24	33	29	A	32	33	32	39	39	42	44	46	49	50	50	50	49	47	44	45	44	44	44	40.9	50.0
5-Apr	43	42	38	36	A	32	29	30	35	43	44	46	46	46	47	46	45	45	42	40	38	41	41	40	40.6	46.7
6-Apr	41	39	39	38	A	37	38	39	39	41	41	41	41	42	43	43	43	42	42	40	40	39	39	37	40.2	43.3
7-Apr	36	37	39	42	A	39	37	35	36	36	34	35	35	37	37	37	37	37	36	38	37	37	37	37	36.9	41.8
8-Apr	37	35	34	32	A	35	31	32	33	41	38	47	C	C	C	C	41	46	47	46	46	44	44	43	39.6	47.1
9-Apr	42	43	42	41	A	41	42	42	43	45	46	45	44	44	45	44	45	45	45	44	44	43	43	43	43.5	46.4
10-Apr	42	42	39	34	A	41	42	42	41	43	47	47	50	50	50	49	48	46	43	42	41	40	41	48	43.8	50.0
11-Apr	46	43	40	39	A	35	35	33	33	36	37	37	38	38	38	38	38	38	38	38	38	38	38	38	38.0	45.7
12-Apr	38	38	37	36	A	32	31	27	31	36	40	41	42	45	46	49	49	48	46	44	46	39	41	43	40.3	49.0
13-Apr	37	36	34	34	A	33	32	32	32	34	35	38	39	42	43	44	44	45	45	44	41	38	39	36	38.1	45.1
14-Apr	36	35	40	38	A	41	42	40	36	40	42	44	49	52	53	53	52	50	51	52	52	50	49	45	45.3	53.4
15-Apr	42	35	39	40	A	36	40	40	40	41	40	41	45	45	47	47	46	48	50	46	41	40	40	38	42.2	50.0
16-Apr	38	41	40	39	A	34	35	38	39	42	44	44	47	48	48	47	47	47	47	47	47	47	47	47	43.4	48.1
17-Apr	47	47	47	46	A	42	41	43	43	40	43	46	47	48	48	48	47	47	47	44	43	37	23	21	42.8	48.3
18-Apr	22	25	25	25	A	23	22	24	25	24	24	25	27	30	32	36	38	39	39	36	37	37	35	34	29.7	39.1
19-Apr	35	37	38	41	A	40	37	38	38	40	47	52	53	53	54	54	54	51	52	51	50	48	50	46	46.1	54.4
20-Apr	42	41	36	39	A	34	36	36	42	44	45	47	47	50	52	53	54	55	54	53	53	54	47	44	46.0	55.1
21-Apr	47	44	42	42	A	37	33	26	33	36	41	49	51	53	54	55	56	54	52	50	47	46	46	45	45.3	56.4
22-Apr	46	47	48	46	A	45	44	44	45	44	43	47	49	51	50	50	47	50	51	51	52	50	48	45	47.5	51.9
23-Apr	43	41	35	33	A	32	32	30	30	30	31	31	32	32	34	36	38	37	36	34	34	33	31	29	33.5	42.7
24-Apr	29	28	26	25	A	25	25	27	28	31	33	35	37	38	38	39	39	36	34	33	30	28	23	23	30.9	38.9
25-Apr	22	21	19	21	A	19	19	18	23	26	30	32	31	31	32	36	36	33	33	32	30	30	29	26	27.3	36.4
26-Apr	28	27	24	24	A	23	24	27	27	26	27	29	25	26	31	34	35	38	40	38	35	36	35	34	30.0	39.6
27-Apr	33	30	27	25	A	23	18	21	23	23	24	30	37	42	49	50	48	48	48	45	42	43	42	40	35.2	50.0
28-Apr	39	35	35	34	A	32	32	34	41	43	44	45	46	45	44	45	44	42	40	38	36	34	35	35	39.4	45.8
29-Apr	35	36	34	32	A	31	28	28	31	33	40	43	45	47	48	49	50	52	52	46	45	46	45	42	40.9	51.9
30-Apr	42	41	37	37	A	33	31	26	32	33	38	41	44	44	43	43	41	39	37	39	37	34	35	34	37.4	43.9
38.2 37.0 36.2 35.5 -- 33.6 32.8 32.8 34.8 36.5 38.4 40.7 42.0 43.5 44.7 45.3 45.1 44.9 44.4 43.0 41.9 40.9 39.8 38.8																								Diurnal Average		
50.8 48.1 48.2 45.9 -- 44.6 43.7 43.7 45.0 44.8 47.4 51.8 52.5 53.3 54.5 55.0 56.4 55.1 54.5 53.0 52.6 54.1 50.6 50.9																								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 - April 2014



# Hourly Maximums

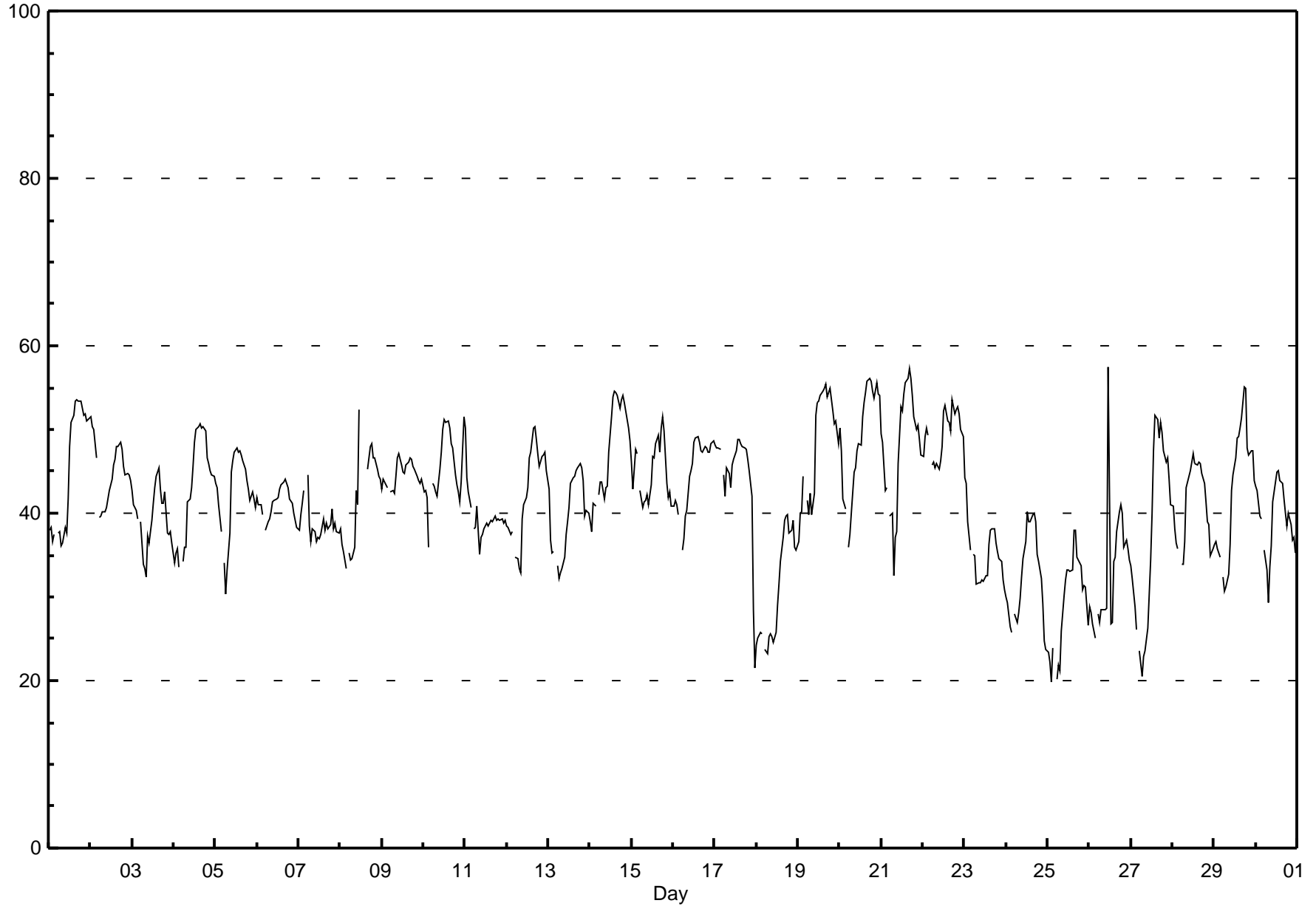
Ozone (O<sub>3</sub>) - ppb

Beaverlodge - April 2014

Maximum Value: 57.4 ppb on Apr 26 12:00		Maximum Daily Average: 49.4 ppb on Apr 22		Hours in Service: 720																							
Minimum Value: 20 ppb on Apr 25 03:00		Minimum Daily Average: 29.2 ppb on Apr 25		Hours of Data: 686																							
Maximum Diurnal Average: 46.6 ppb at hour 16		Minimum Diurnal Average: 35.3 ppb at hour 7		Hours of Missing Data: 34																							
Monthly Average: 41.53 ppb		Percentiles: P <sub>1</sub> = 22.8 P <sub>10</sub> = 31.9 Q <sub>1</sub> = 37.0 Median = 41.8 Q <sub>3</sub> = 47.1 P <sub>90</sub> = 51.1 P <sub>99</sub> = 55.7		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-Apr	38	38	37	37	A	38	38	36	36	38	38	42	48	51	52	53	54	53	53	53	52	52	51	51	45.2	53.6	
2-Apr	51	50	50	47	A	39	40	40	40	41	42	43	44	46	46	48	48	48	48	46	45	45	45	44	45.0	51.5	
3-Apr	43	41	40	39	A	39	34	33	32	37	36	39	41	43	44	45	43	41	41	42	38	37	38	36	39.4	45.3	
4-Apr	34	35	36	34	A	34	36	36	41	42	43	46	48	50	50	51	50	50	50	47	46	45	45	44	43.2	50.6	
5-Apr	44	43	41	38	A	34	30	33	38	45	46	47	48	47	47	47	46	45	44	43	41	43	42	41	42.3	47.8	
6-Apr	42	41	41	40	A	38	39	39	40	41	42	42	42	43	43	44	44	44	43	42	41	40	39	38	41.2	44.1	
7-Apr	38	40	41	43	A	45	38	37	38	38	37	37	37	38	39	38	39	38	39	41	38	39	38	38	38.7	44.5	
8-Apr	38	36	35	33	A	35	34	35	36	43	41	52	C	C	C	C	45	48	48	47	47	45	44	44	41.5	52.4	
9-Apr	43	44	43	43	A	43	43	42	44	47	47	46	45	45	46	46	47	46	46	45	44	44	44	44	44.6	47.2	
10-Apr	43	43	42	36	A	44	43	43	42	45	47	50	51	51	51	50	48	48	45	43	42	41	44	52	45.4	51.6	
11-Apr	50	44	43	41	A	38	38	41	35	37	37	38	39	38	39	39	39	40	39	39	39	39	39	39	39.6	50.1	
12-Apr	39	38	37	38	A	35	35	33	33	39	41	42	43	47	47	50	50	49	47	46	47	47	47	45	42.4	50.3	
13-Apr	43	37	35	35	A	34	32	33	33	35	38	39	41	44	44	44	45	45	46	45	44	40	40	40	39.7	45.9	
14-Apr	39	38	41	41	A	42	44	44	42	43	43	47	52	54	55	54	54	53	54	54	53	51	50	49	47.6	54.6	
15-Apr	46	43	48	47	A	43	41	41	42	42	41	43	47	47	48	49	47	50	51	50	44	42	43	41	45.0	51.5	
16-Apr	41	42	41	40	A	36	37	40	40	44	45	46	48	49	49	48	47	47	48	48	47	47	48	49	44.7	49.1	
17-Apr	48	48	48	48	A	45	42	45	45	43	46	46	47	49	49	48	48	48	48	46	45	42	29	22	44.5	48.9	
18-Apr	24	25	26	26	A	24	23	25	26	25	25	26	29	32	34	37	39	40	40	38	38	39	36	36	30.9	39.8	
19-Apr	37	40	40	44	A	42	40	42	40	42	52	53	53	54	55	55	55	54	55	54	52	51	51	48	48.2	55.5	
20-Apr	50	47	42	40	A	36	37	40	45	45	48	48	48	52	53	54	56	56	56	55	54	56	54	54	49.0	56.1	
21-Apr	49	49	43	43	A	40	40	33	37	38	46	53	52	54	56	56	57	56	54	51	50	50	49	47	48.0	57.3	
22-Apr	47	49	50	49	A	46	46	45	46	45	46	48	52	53	51	51	50	54	52	52	53	52	50	49	49.4	53.6	
23-Apr	44	44	39	36	A	35	35	32	32	32	32	32	32	33	36	38	38	38	36	35	35	34	32	31	35.2	44.2	
24-Apr	30	29	26	26	A	28	27	28	30	32	35	37	40	39	39	40	40	39	35	34	32	29	25	24	32.3	40.1	
25-Apr	23	22	20	24	A	20	22	21	26	30	32	33	33	33	33	38	38	35	34	34	31	31	31	27	29.2	38.0	
26-Apr	29	28	27	25	A	28	27	28	28	29	29	57	27	27	34	35	38	40	41	40	36	37	36	34	33.0	57.4	
27-Apr	34	32	29	26	A	24	21	23	24	25	26	34	40	48	52	51	49	51	50	48	46	47	44	41	37.5	51.6	
28-Apr	41	38	36	36	A	34	34	37	43	44	45	46	47	46	46	46	46	45	44	41	39	39	35	36	41.0	47.1	
29-Apr	36	37	36	35	A	32	31	31	33	36	43	45	47	49	49	50	51	55	55	48	47	47	47	44	42.8	55.0	
30-Apr	43	43	40	39	A	36	33	29	34	36	41	44	45	45	44	43	42	40	38	40	39	37	37	35	39.3	45.1	
		40.2	39.5	38.4	37.6	--	36.1	35.3	35.6	36.7	38.7	40.3	43.4	43.7	45.0	46.0	46.6	46.5	46.6	45.9	44.9	43.5	42.9	41.7	40.8	Diurnal Average	
		51.5	50.3	50.2	49.2	--	45.7	46.2	45.4	45.9	46.5	51.7	57.4	53.5	54.3	55.6	56.2	57.3	56.1	55.7	54.6	53.7	55.6	54.3	54.1	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

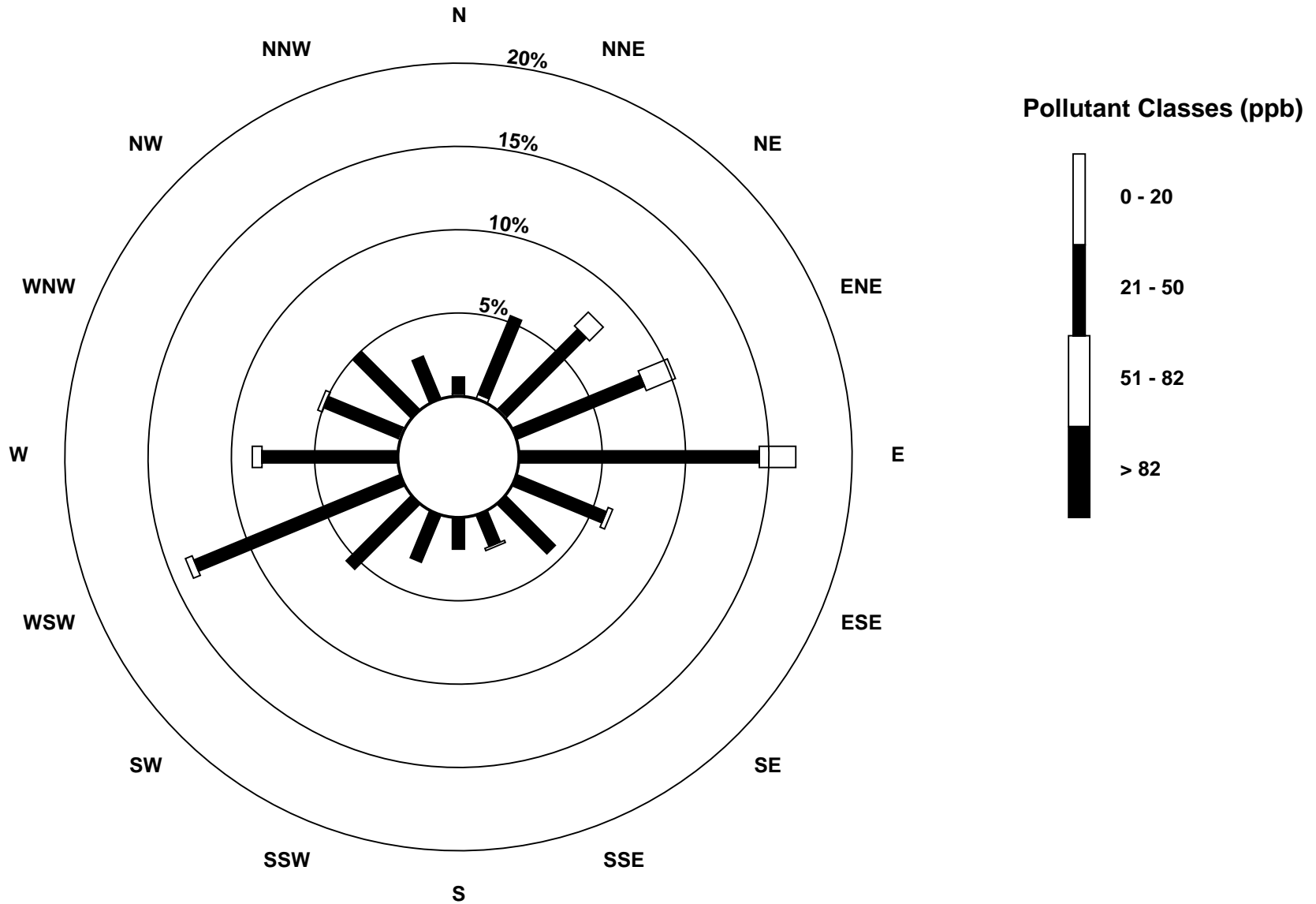
### Hourly Maximums

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



**Pollutant Rose**

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



# Eight Hour Running Averages

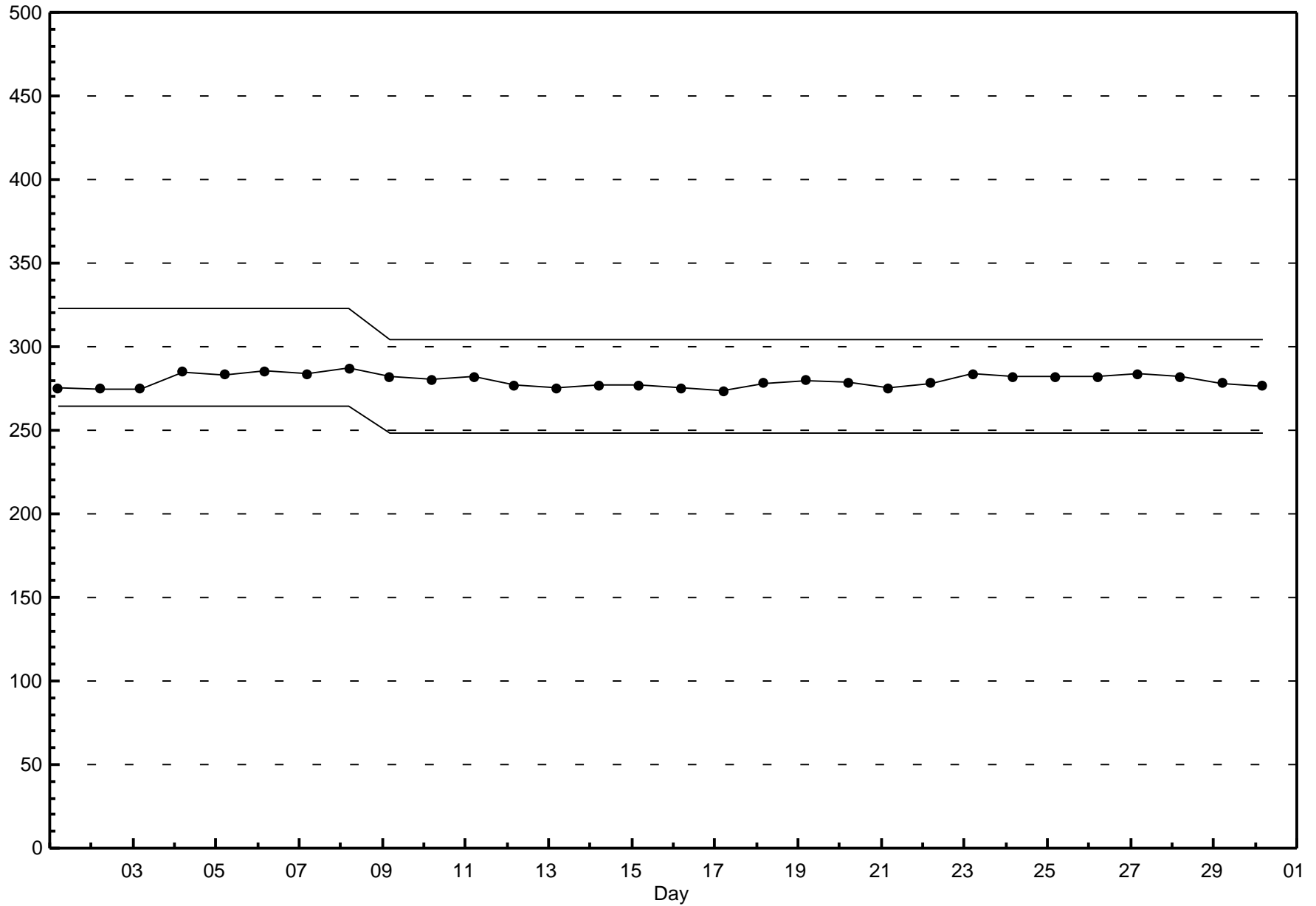
Ozone (O<sub>3</sub>) - ppb

Beaverlodge - April 2014

Maximum Value: 53.5 ppb on Apr 20 22:00																					Hours in Service:	720			
Minimum Value: 19.9 ppb on Apr 25 08:00																					Hours of Data:	713			
Percentiles: P <sub>1</sub> = 22.4 P <sub>10</sub> = 30.4 Q <sub>1</sub> = 35.2 Median = 39.6 Q <sub>3</sub> = 44.6 P <sub>90</sub> = 47.5 P <sub>99</sub> = 52.8																					Hours of Missing Data:	7			
																					Hours of Calibration:	7			
																					Percent Operational Time:	100.0			
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	33	33	32	31	31	30	31	30	30	29	30	31	32	35	38	41	44	47	49	51	52	52	52	52	51.9
2-Apr	51	51	50	49	49	47	45	44	42	41	40	40	40	41	42	43	44	45	46	46	46	46	45	45	51.4
3-Apr	44	43	43	42	42	41	39	37	36	35	34	34	35	35	37	38	39	39	40	39	38	37	36	35	44.2
4-Apr	34	33	32	32	31	31	31	31	32	34	35	37	38	41	43	45	46	47	48	48	48	47	47	46	48.1
5-Apr	45	44	43	42	42	40	38	36	34	35	36	37	38	40	42	44	45	46	45	45	44	43	42	41	45.7
6-Apr	41	40	40	40	40	39	39	39	39	39	39	39	40	40	41	41	42	42	42	42	42	42	41	40	42.2
7-Apr	39	39	38	39	38	38	38	38	38	38	37	36	36	36	36	36	36	36	37	37	37	37	37	37	39.5
8-Apr	37	37	36	36	36	35	34	34	33	34	35	37	37	37	N	N	N	N	N	N	N	45	45	45	45.1
9-Apr	45	44	44	43	43	42	42	42	42	42	43	43	44	44	45	45	45	45	45	44	44	44	44	44	44.8
10-Apr	44	43	42	41	41	41	40	40	40	40	42	43	44	45	46	47	48	48	48	47	46	45	44	44	48.3
11-Apr	43	43	43	42	42	42	41	39	37	36	36	35	36	36	36	37	38	38	38	38	38	38	38	38	43.4
12-Apr	38	38	38	38	38	37	36	34	33	33	33	34	35	37	39	41	44	45	46	46	47	46	45	45	46.6
13-Apr	43	42	40	39	38	37	36	34	33	33	33	34	34	35	37	38	40	41	42	43	44	43	43	42	43.5
14-Apr	41	39	39	38	38	38	38	39	39	39	40	41	42	43	45	46	48	49	51	52	52	52	51	50	51.9
15-Apr	49	47	46	44	43	41	40	39	39	39	40	40	40	42	42	43	44	45	46	47	46	46	45	44	48.9
16-Apr	43	42	41	40	39	39	38	38	38	38	39	39	40	42	44	45	46	46	47	47	47	47	47	47	47.3
17-Apr	47	47	47	47	47	46	45	45	44	43	43	43	43	44	45	45	46	47	47	47	47	45	42	39	47.2
18-Apr	35	33	30	28	25	23	23	24	24	24	24	24	24	25	26	28	29	31	33	35	36	37	37	37	36.9
19-Apr	36	36	36	37	37	37	38	38	39	39	40	42	43	45	47	49	51	52	53	53	53	52	51	50	52.9
20-Apr	49	48	45	44	43	41	39	38	38	38	39	41	41	43	45	47	49	50	51	52	53	53	53	52	53.5
21-Apr	51	50	48	47	46	43	41	39	37	36	36	37	38	40	43	47	50	52	53	53	53	52	51	50	53.4
22-Apr	48	47	47	46	46	46	46	46	45	45	44	44	45	46	47	47	48	48	49	50	50	50	50	49	50.2
23-Apr	49	48	46	43	42	40	37	35	33	31	31	31	31	31	31	32	33	34	34	35	35	35	35	34	48.8
24-Apr	33	32	31	29	29	28	27	26	26	27	28	29	30	32	33	35	36	37	37	37	36	35	33	31	37.1
25-Apr	29	27	25	23	22	21	21	20	20	21	22	24	25	26	28	30	32	33	33	33	33	33	32	31	33.1
26-Apr	30	29	28	27	27	26	25	25	25	25	25	26	26	26	27	28	29	31	32	33	35	36	36	36	36.3
27-Apr	36	35	34	32	31	30	27	25	24	23	23	23	25	27	31	35	38	41	44	46	46	46	46	44	46.5
28-Apr	43	42	40	39	38	37	35	34	35	36	37	39	40	41	43	44	45	45	44	44	43	42	40	39	44.6
29-Apr	38	37	36	35	34	34	33	32	31	31	32	34	35	37	40	42	45	47	48	49	49	49	48	47	48.7
30-Apr	46	45	43	42	41	40	38	35	34	33	33	34	35	36	38	40	41	41	41	41	40	39	38	37	46.2
	Diurnal Maximums																								
N - Not Valid																									

**Span Responses**

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



## Hourly Averages

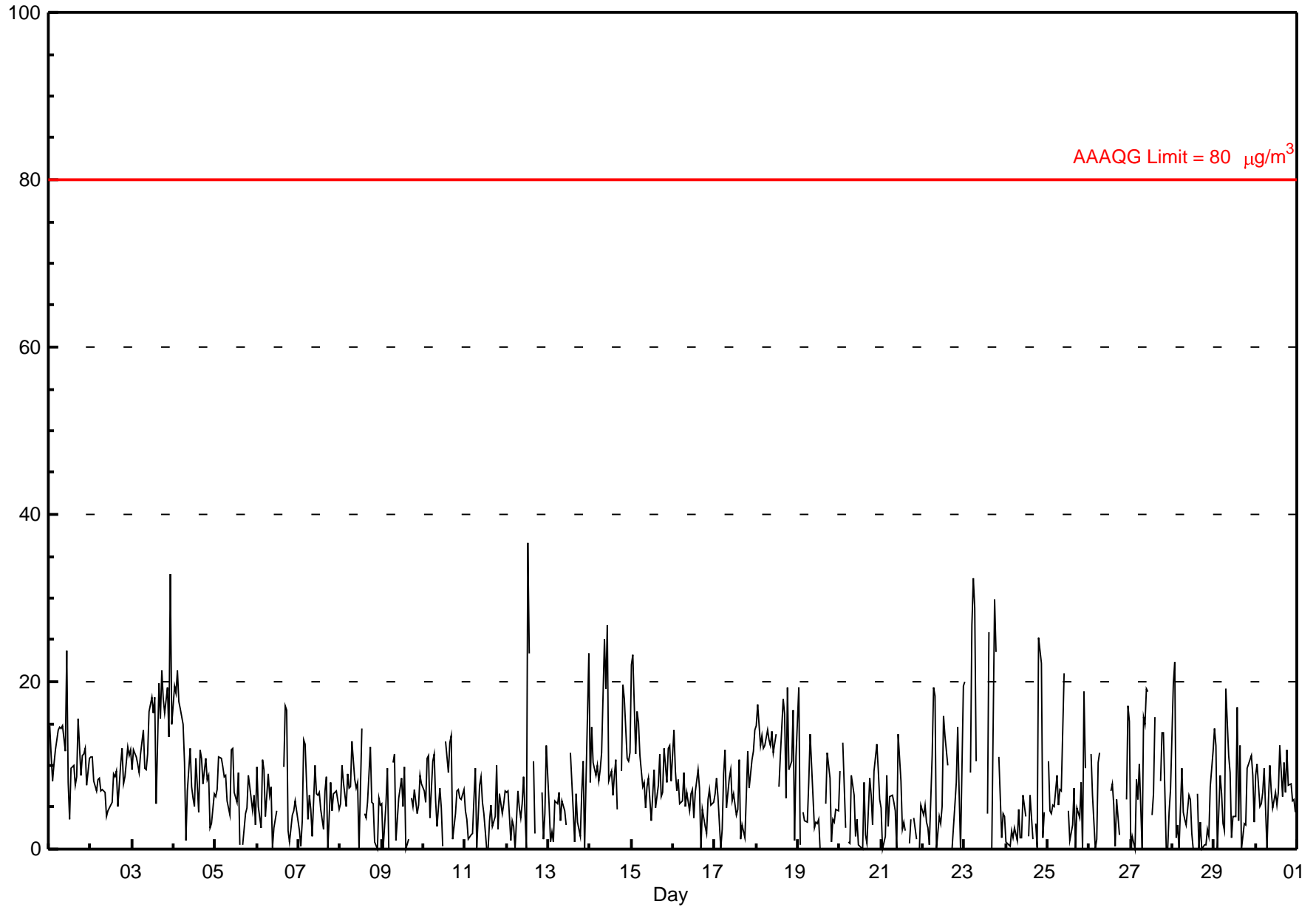
## Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

### Beaverlodge - April 2014

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 720
Maximum Value: 36.5 µg/m <sup>3</sup> on Apr 12 13:00	Maximum Daily Average: 14.7 µg/m <sup>3</sup> on Apr 3
Minimum Value: 0 µg/m <sup>3</sup> on Apr 7 18:00	Hours of Data: 670
Maximum Diurnal Average: 9.8 µg/m <sup>3</sup> at hour 1	Hours of Missing Data: 50
Monthly Average: 7.70 µg/m <sup>3</sup>	Hours of Calibration: 0
Minimum Daily Average: 4.0 µg/m <sup>3</sup> on Apr 21	Percent Operational Time: 93.1
Minimum Diurnal Average: 5.6 µg/m <sup>3</sup> at hour 12	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 1.0 Q <sub>1</sub> = 3.8 Median = 6.8 Q <sub>3</sub> = 10.6 P <sub>90</sub> = 14.8 P <sub>99</sub> = 26.7	

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-Apr	15	11	8	10	12	14	15	14	15	12	24	8	3	10	10	8	9	16	9	11	11	12	8	11	11.4	23.8																							
2-Apr	11	11	8	7	8	8	7	7	7	4	5	5	6	9	9	9	5	10	12	8	9	12	11	12	8.3	12.1																							
3-Apr	10	12	11	10	9	11	14	10	9	11	16	18	16	18	5	20	16	21	18	16	19	13	33	15	14.7	32.9																							
4-Apr	19	19	21	18	17	15	10	1	7	12	8	6	5	11	4	12	11	8	11	8	9	3	3	7	10.1	21.4																							
5-Apr	6	7	11	11	10	9	9	6	4	12	12	7	6	9	1	N	0	4	5	9	7	4	6	3	6.9	12.1																							
6-Apr	10	5	2	11	10	4	9	6	7	0	3	5	N	N	N	10	17	17	2	1	4	5	6	5	6.5	17.2																							
7-Apr	2	0	3	13	12	4	6	5	2	10	7	6	7	5	2	7	9	0	8	5	7	7	7	5	5.7	13.1																							
8-Apr	5	10	8	5	9	7	8	13	8	7	8	0	14	N	4	4	6	12	6	5	1	0	6	5	6.6	14.3																							
9-Apr	5	0	5	10	0	N	10	11	1	4	6	9	5	10	0	1	N	6	5	7	4	5	9	8	5.5	11.4																							
10-Apr	7	6	11	11	4	10	11	6	3	7	5	0	N	13	9	13	14	1	4	7	7	6	6	7	7.3	13.5																							
11-Apr	5	4	1	2	2	6	10	0	8	9	6	4	0	0	3	5	3	4	10	2	7	4	6	7	4.4	9.9																							
12-Apr	7	7	1	3	3	0	7	5	4	5	9	0	37	23	N	11	2	N	N	N	7	1	4	12	7.4	36.5																							
13-Apr	5	1	2	1	6	5	7	3	6	5	3	N	N	12	5	1	7	3	1	7	10	0	8	23	5.5	23.4																							
14-Apr	8	15	10	9	10	8	10	12	25	19	27	8	9	6	9	11	5	N	9	20	18	11	10	12	12.2	26.7																							
15-Apr	22	23	11	16	15	11	7	8	5	7	9	3	6	9	5	8	11	6	7	12	8	12	12	8	10.2	23.1																							
16-Apr	14	9	7	8	5	6	9	5	7	5	7	7	4	7	10	7	0	5	3	2	6	7	5	6	6.3	14.3																							
17-Apr	7	8	6	0	2	9	12	5	8	9	6	7	4	5	11	1	3	1	6	12	7	11	12	14	7.0	14.3																							
18-Apr	15	17	12	14	12	12	14	13	12	14	12	14	N	7	11	18	16	6	19	9	11	17	1	11	12.5	19.3																							
19-Apr	19	0	N	4	3	3	8	14	10	3	3	4	0	N	N	5	11	8	1	4	3	5	5	5	5.6	19.3																							
20-Apr	9	N	13	3	N	1	1	9	6	1	4	1	0	0	8	2	1	9	7	3	9	13	10	6	5.1	12.8																							
21-Apr	5	0	2	9	3	6	6	6	5	0	14	8	2	3	2	N	1	4	N	4	1	N	0	5	4.0	13.7																							
22-Apr	4	5	3	2	0	11	19	18	0	4	3	5	16	14	10	N	0	0	5	8	15	7	0	19	7.4	19.5																							
23-Apr	20	N	N	9	27	32	29	10	N	N	12	N	N	4	26	N	0	30	24	N	11	1	4	4	--	32.4																							
24-Apr	1	1	0	2	1	3	1	5	1	1	6	4	N	1	6	1	N	3	0	25	22	1	4	N	4.4	25.2																							
25-Apr	11	5	4	5	5	9	5	7	7	21	N	N	5	1	3	7	0	5	4	8	0	19	10	N	6.6	21.0																							
26-Apr	N	11	6	0	1	10	12	N	N	0	N	N	7	8	5	0	6	2	N	11	N	6	17	15	--	17.1																							
27-Apr	0	2	0	8	6	10	0	16	15	19	19	N	4	7	16	N	N	8	14	14	0	0	4	7	8.0	19.2																							
28-Apr	20	22	1	3	0	10	4	4	3	6	6	2	0	N	7	0	3	0	0	1	2	2	7	12	5.0	22.4																							
29-Apr	14	12	0	9	7	3	2	19	11	9	1	4	4	17	3	12	0	0	3	3	10	10	11	9	3	7.4	19.2																						
30-Apr	9	10	5	5	7	10	0	6	10	7	5	7	5	7	12	6	10	7	12	8	8	6	6	4	7.1	12.4																							
																								9.8	8.3	6.3	7.3	7.1	8.6	8.8	8.4	7.4	7.7	8.7	5.6	7.0	8.0	7.3	7.2	5.9	7.2	7.9	8.3	8.1	6.9	7.7	8.9	Diurnal Average	
																								22.0	23.1	21.4	17.6	26.7	32.4	28.8	19.2	25.2	21.0	26.7	18.1	36.5	23.4	25.9	19.7	17.2	29.8	23.6	25.2	22.3	18.9	32.9	23.4	Diurnal Maximum	

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



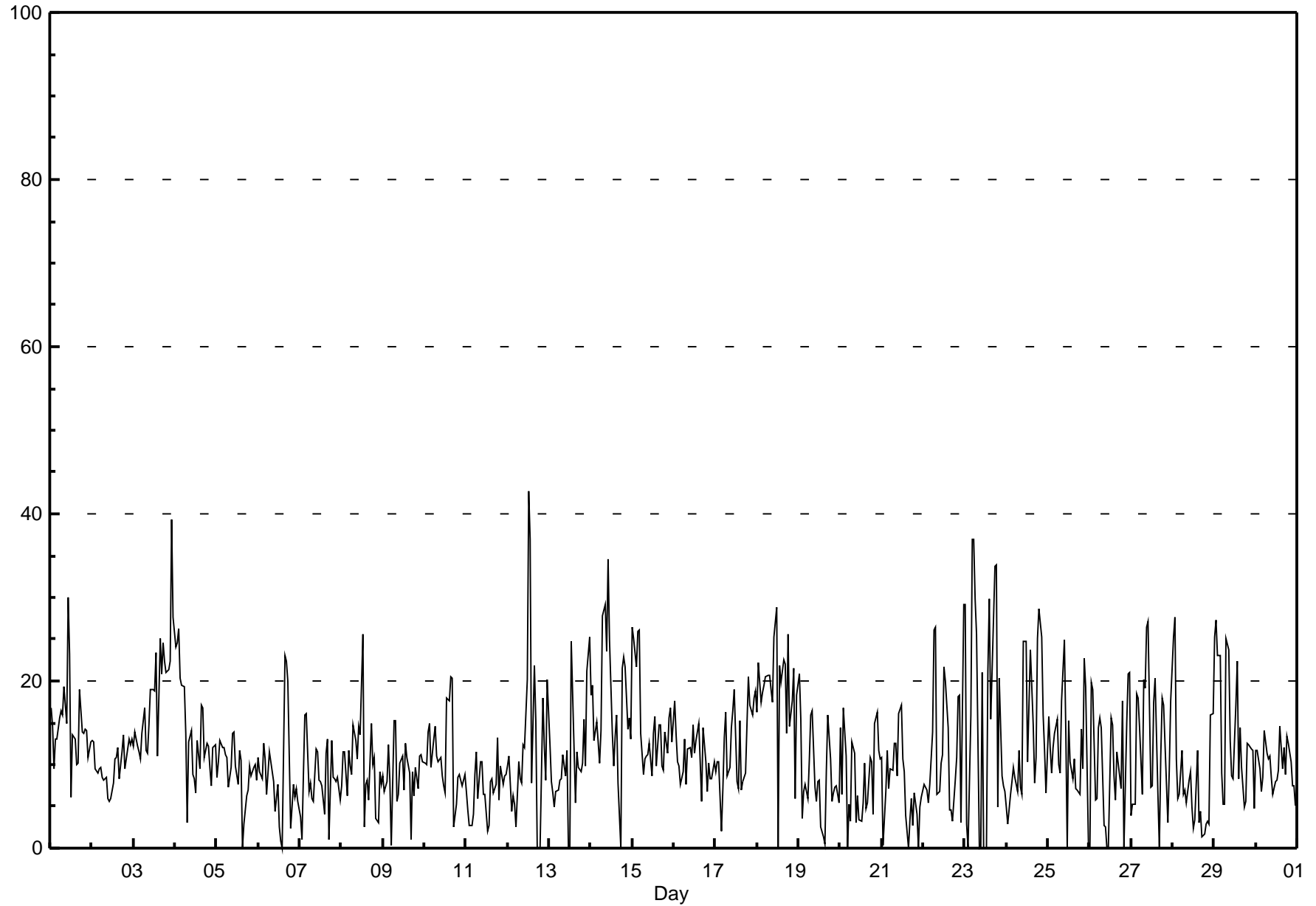


# Hourly Maximums

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

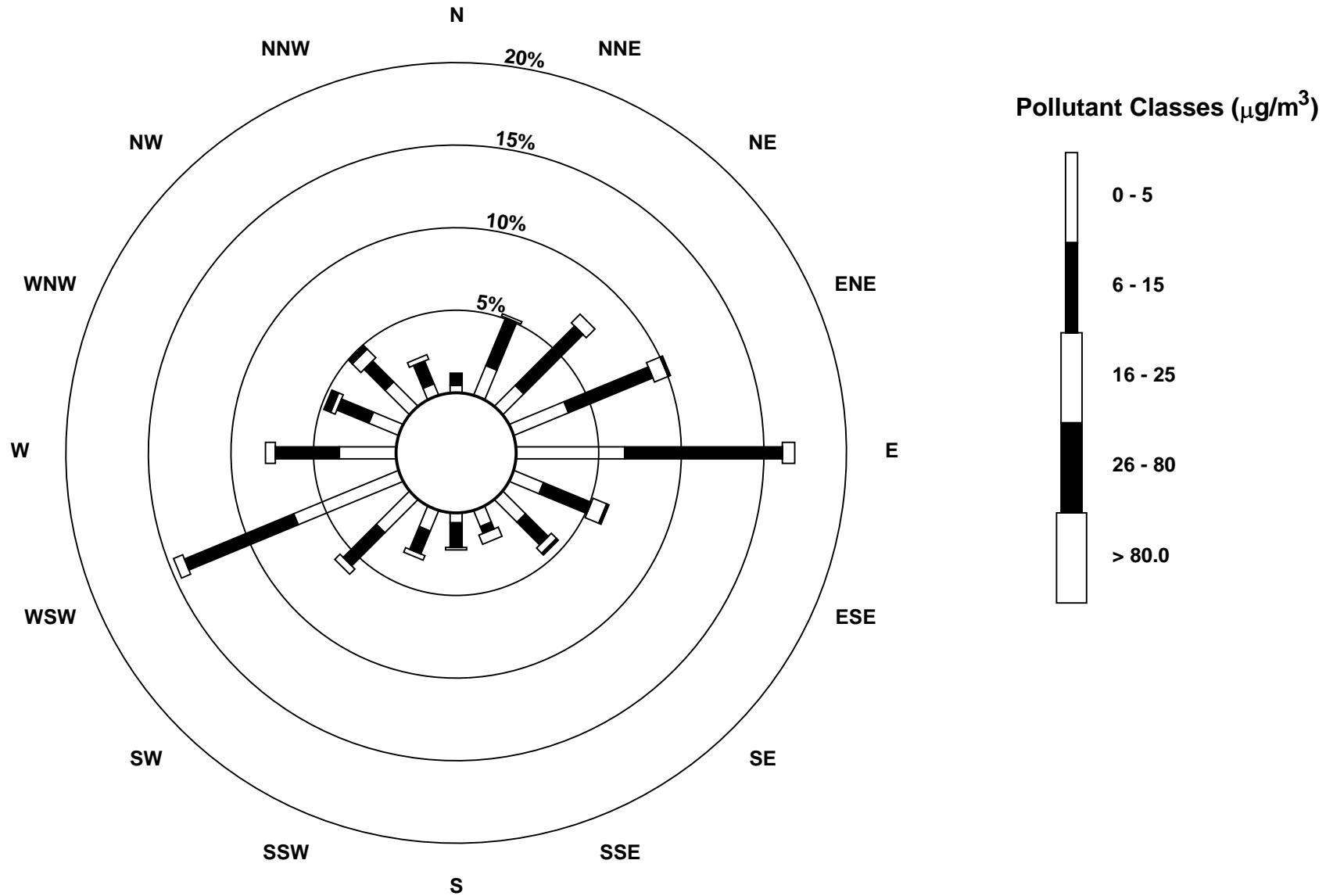
## Beaverlodge - April 2014

<b>Maximum Value: 42.7 µg/m<sup>3</sup> on Apr 12 13:00</b>		<b>Maximum Daily Average: 18.7 µg/m<sup>3</sup> on Apr 18</b>		Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																							
<b>Minimum Value: 0 µg/m<sup>3</sup> on Apr 5 16:00</b> <b>Maximum Diurnal Average: 13.5 µg/m<sup>3</sup> at hour 11</b> <b>Monthly Average: 11.71 µg/m<sup>3</sup></b>		<b>Minimum Daily Average: 7.1 µg/m<sup>3</sup> on Apr 11</b> <b>Minimum Diurnal Average: 10.2 µg/m<sup>3</sup> at hour 18</b> Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 4.0 Q <sub>1</sub> = 7.2 Median = 10.6 Q <sub>3</sub> = 15.1 P <sub>90</sub> = 21.4 P <sub>99</sub> = 33.6																									
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-Apr	17	15	10	13	13	16	16	16	19	15	30	23	6	14	13	10	10	19	14	14	14	14	11	13	14.7	30.1	
2-Apr	13	13	10	9	9	10	9	8	8	6	6	6	8	11	11	12	8	12	14	9	11	13	12	13	10.0	13.5	
3-Apr	12	14	12	12	11	14	17	12	11	15	19	19	19	23	11	25	21	25	22	21	21	22	39	28	18.5	39.4	
4-Apr	24	25	26	20	20	19	14	3	13	14	9	8	7	13	10	17	17	11	13	12	10	7	12	12	13.9	26.2	
5-Apr	8	10	13	12	12	11	11	7	10	14	14	10	8	12	11	0	3	6	7	10	9	10	10	8	9.4	13.9	
6-Apr	11	9	8	13	11	6	12	10	9	8	4	8	3	1	0	23	22	20	11	2	8	6	7	6	9.1	23.0	
7-Apr	4	1	9	16	16	7	8	6	6	12	12	8	8	7	4	11	13	1	13	8	8	8	8	6	8.3	16.0	
8-Apr	7	12	11	6	12	10	9	15	13	11	15	14	26	3	8	8	6	15	10	11	4	3	9	8	10.1	25.5	
9-Apr	9	7	8	12	8	0	15	15	6	6	10	11	7	13	11	9	1	9	6	10	7	11	11	10	8.9	15.3	
10-Apr	10	10	14	15	10	13	15	11	10	11	9	7	7	18	18	20	20	3	5	9	9	8	7	9	11.1	20.4	
11-Apr	7	5	3	3	4	9	12	6	10	10	6	6	2	3	8	8	7	8	13	6	10	8	9	9	7.1	13.2	
12-Apr	10	11	4	6	5	2	10	8	8	12	12	20	43	37	8	22	15	0	0	0	18	12	8	20	12.2	42.7	
13-Apr	12	8	7	5	7	7	8	8	11	9	12	0	0	25	12	5	12	10	9	10	15	10	21	25	10.3	25.2	
14-Apr	18	20	13	15	13	10	14	28	29	24	35	25	14	10	13	16	8	0	21	23	22	14	16	13	17.2	34.5	
15-Apr	26	25	22	26	26	14	9	11	11	11	13	9	14	16	10	15	15	10	9	14	11	16	17	13	15.0	26.4	
16-Apr	18	14	10	10	8	9	13	8	12	12	11	15	11	13	15	10	6	14	10	7	10	8	8	10	10.9	17.7	
17-Apr	9	10	10	2	7	13	16	9	10	14	16	19	8	7	15	7	8	9	15	21	17	16	18	19	12.3	20.5	
18-Apr	16	22	17	19	19	21	21	21	19	17	25	29	0	22	20	22	22	14	26	15	18	22	6	18	18.7	28.9	
19-Apr	21	15	4	7	8	6	11	16	17	7	6	8	8	3	1	0	9	16	11	6	7	7	7	6	8.5	20.9	
20-Apr	14	6	17	11	0	5	3	13	11	3	6	3	3	5	10	5	5	11	10	4	15	16	12	11	8.4	16.7	
21-Apr	11	0	7	12	7	10	9	13	13	9	16	17	11	9	4	0	3	6	3	7	4	0	5	6	7.5	17.1	
22-Apr	8	7	7	5	8	14	26	26	6	7	10	11	22	20	14	5	5	3	8	11	18	18	3	29	12.2	29.1	
23-Apr	29	3	0	16	37	37	30	26	0	0	21	0	0	21	30	16	21	34	34	5	20	9	7	7	16.8	37.0	
24-Apr	5	3	6	8	10	8	7	12	7	7	25	25	10	17	24	15	8	11	25	29	25	16	12	7	13.3	28.7	
25-Apr	16	12	9	12	14	16	10	9	18	25	14	0	15	10	8	11	7	7	6	14	10	23	19	0	11.9	24.9	
26-Apr	0	20	19	6	6	14	16	14	3	3	0	0	16	15	9	6	12	9	7	18	0	15	21	21	10.3	21.0	
27-Apr	4	5	5	18	18	15	6	20	19	26	27	7	7	17	20	6	0	11	18	17	8	3	9	18	12.8	27.1	
28-Apr	25	28	11	6	6	12	6	7	5	8	9	5	2	3	12	3	4	1	2	3	3	3	16	16	8.2	27.7	
29-Apr	25	27	23	23	9	5	5	25	24	13	9	8	17	22	8	14	10	5	6	13	12	12	12	5	13.8	27.2	
30-Apr	12	12	10	7	8	14	11	11	11	8	6	8	8	9	15	9	12	9	13	13	10	7	7	5	9.9	14.7	
		13.4	12.2	10.8	11.5	11.4	11.5	12.3	13.1	11.6	11.2	13.5	11.0	10.3	13.3	11.7	11.1	10.3	10.2	12.1	11.3	11.8	11.2	12.0	12.3	Diurnal Average	
		29.2	27.7	26.2	26.0	37.0	36.9	29.8	27.8	29.1	26.4	34.5	28.9	42.7	36.9	29.8	25.0	22.4	33.8	34.0	28.7	25.2	22.7	39.4	29.1	Diurnal Maximum	



**Pollutant Rose**

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





Peace Airshed Zone Association

# Hourly Averages

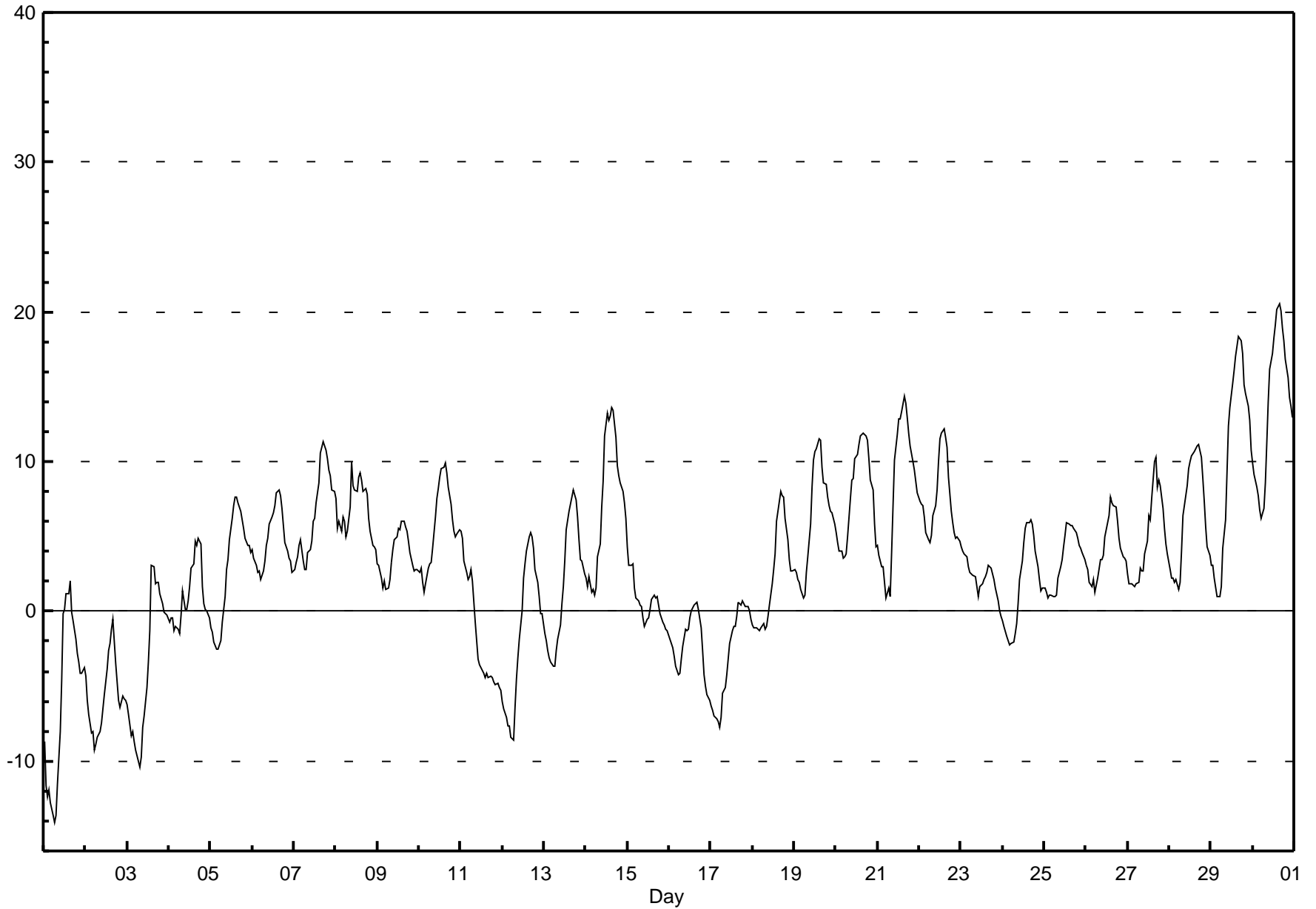
External Temperature (ET) - °C

Beaverlodge - April 2014

Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 20.5 °C on Apr 30 16:00	Maximum Daily Average: 13.8 °C on Apr 30		Hours of Data:	720
Minimum Value: -14 °C on Apr 1 07:00	Minimum Daily Average: -5.8 °C on Apr 1		Hours of Missing Data:	0
Maximum Diurnal Average: 7.3 °C at hour 16	Minimum Diurnal Average: -0.6 °C at hour 6		Hours of Calibration:	0
Monthly Average: 3.21 °C	Percentiles: P <sub>1</sub> = -11.9 P <sub>10</sub> = -4.2 Q <sub>1</sub> = -0.1 Median = 3.1 Q <sub>3</sub> = 6.6 P <sub>90</sub> = 10.3 P <sub>99</sub> = 18.1		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-Apr	-9	-12	-12	-12	-13	-14	-14	-14	-12	-8	-5	0	0	1	1	2	0	-1	-2	-3	-3	-4	-4	-4	-5.8	2.0
2-Apr	-4	-6	-7	-8	-8	-9	-9	-8	-8	-7	-7	-6	-4	-3	-2	-1	-1	-3	-5	-6	-6	-6	-6	-6	-5.7	-0.5
3-Apr	-6	-7	-8	-8	-9	-9	-10	-10	-10	-8	-7	-5	-3	-1	3	3	2	2	2	1	1	0	0	0	-3.7	3.1
4-Apr	-1	0	0	-1	-1	-1	-1	0	1	0	0	1	2	3	3	5	4	5	4	2	1	0	0	0	1.0	4.9
5-Apr	-1	-1	-2	-2	-2	-2	-2	-1	1	3	3	5	6	7	8	8	7	7	6	6	5	4	4	4	2.9	7.7
6-Apr	4	4	3	3	3	2	3	3	4	5	6	6	7	7	8	8	8	7	6	5	4	4	3	3	4.7	8.1
7-Apr	3	3	4	4	5	3	3	3	4	4	5	6	6	7	9	11	11	11	11	10	9	9	8	8	6.5	11.3
8-Apr	8	6	6	5	6	6	5	5	7	10	8	8	8	9	9	9	8	8	8	6	5	4	4	4	6.8	10.0
9-Apr	3	3	2	2	2	1	2	2	3	4	5	5	6	5	6	6	6	5	5	4	3	3	3	3	3.7	6.0
10-Apr	3	3	2	1	2	3	3	3	4	6	8	8	9	9	10	10	9	8	7	6	5	5	5	5	5.7	9.9
11-Apr	5	5	3	3	2	2	3	2	-1	-2	-3	-4	-4	-4	-4	-4	-4	-4	-4	-5	-5	-5	-5	-5	-1.6	5.3
12-Apr	-6	-7	-7	-8	-8	-8	-9	-6	-5	-3	-2	0	2	3	4	5	5	5	4	3	2	1	0	0	-1.4	5.2
13-Apr	-2	-2	-3	-3	-3	-4	-4	-3	-2	-1	0	2	3	5	7	7	8	8	7	6	5	3	3	3	1.8	8.1
14-Apr	2	2	2	1	1	1	2	4	4	7	9	12	13	13	13	14	13	12	10	9	9	8	7	6	7.2	13.6
15-Apr	4	3	3	3	2	1	1	0	0	0	-1	-1	0	0	1	1	1	1	0	0	-1	-1	-1	-1	0.6	4.3
16-Apr	-2	-2	-2	-3	-4	-4	-4	-3	-2	-1	-1	-1	0	0	0	1	1	0	-1	-3	-4	-5	-6	-6	-2.2	0.6
17-Apr	-6	-7	-7	-7	-7	-8	-7	-5	-5	-4	-3	-2	-1	-1	-1	0	1	0	1	1	0	0	0	-1	-2.9	0.7
18-Apr	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	0	2	3	4	6	7	8	8	8	6	5	3	3	3	2.3	8.0
19-Apr	3	3	2	2	2	1	1	3	4	6	8	10	11	11	12	11	10	9	8	8	7	7	7	6	6.2	11.5
20-Apr	5	5	4	4	4	4	4	5	8	9	9	10	10	11	12	12	12	12	11	10	9	8	6	4	7.8	11.9
21-Apr	4	4	3	3	2	1	2	1	4	7	10	12	13	13	13	14	14	13	12	11	10	9	9	8	8.0	14.3
22-Apr	7	7	7	6	5	5	5	5	6	7	8	10	12	12	12	12	11	9	7	6	5	5	5	5	7.5	12.2
23-Apr	4	4	4	4	3	3	3	2	2	2	2	1	2	2	2	3	3	3	3	2	2	1	0	0	2.3	4.3
24-Apr	-1	-1	-2	-2	-2	-2	-2	-1	-1	1	2	3	5	6	6	6	6	6	5	4	3	2	1	2	1.8	6.2
25-Apr	2	1	1	1	1	1	1	1	2	3	3	4	5	6	6	6	6	6	5	5	4	4	4	3	3.4	5.9
26-Apr	3	3	2	2	2	1	2	2	3	3	4	5	6	6	8	7	7	7	6	5	4	4	4	3	4.1	7.6
27-Apr	3	2	2	2	2	2	2	3	3	3	4	5	6	6	8	10	10	8	9	8	7	6	5	4	4.9	10.3
28-Apr	3	2	2	2	2	1	2	4	6	8	8	10	10	10	11	11	11	11	10	9	7	6	4	4	6.5	11.1
29-Apr	3	3	2	1	1	1	2	4	6	9	12	14	15	16	17	18	18	18	17	15	15	14	13	11	10.2	18.4
30-Apr	10	9	8	8	7	6	7	9	11	14	16	17	18	19	20	21	20	19	18	17	16	14	14	13	13.8	20.5

1.4	0.8	0.4	0.0	-0.2	-0.6	-0.5	0.3	1.3	2.5	3.4	4.6	5.5	6.1	6.9	7.3	7.2	6.6	5.9	4.9	4.1	3.5	3.0	2.6	Diurnal Average	
9.9	9.2	8.3	7.7	6.7	6.2	6.9	8.6	11.2	14.0	16.2	17.2	18.2	19.1	20.2	20.5	20.1	18.9	18.0	16.9	15.7	14.3	13.7	12.9	Diurnal Maximum	



# Hourly Averages

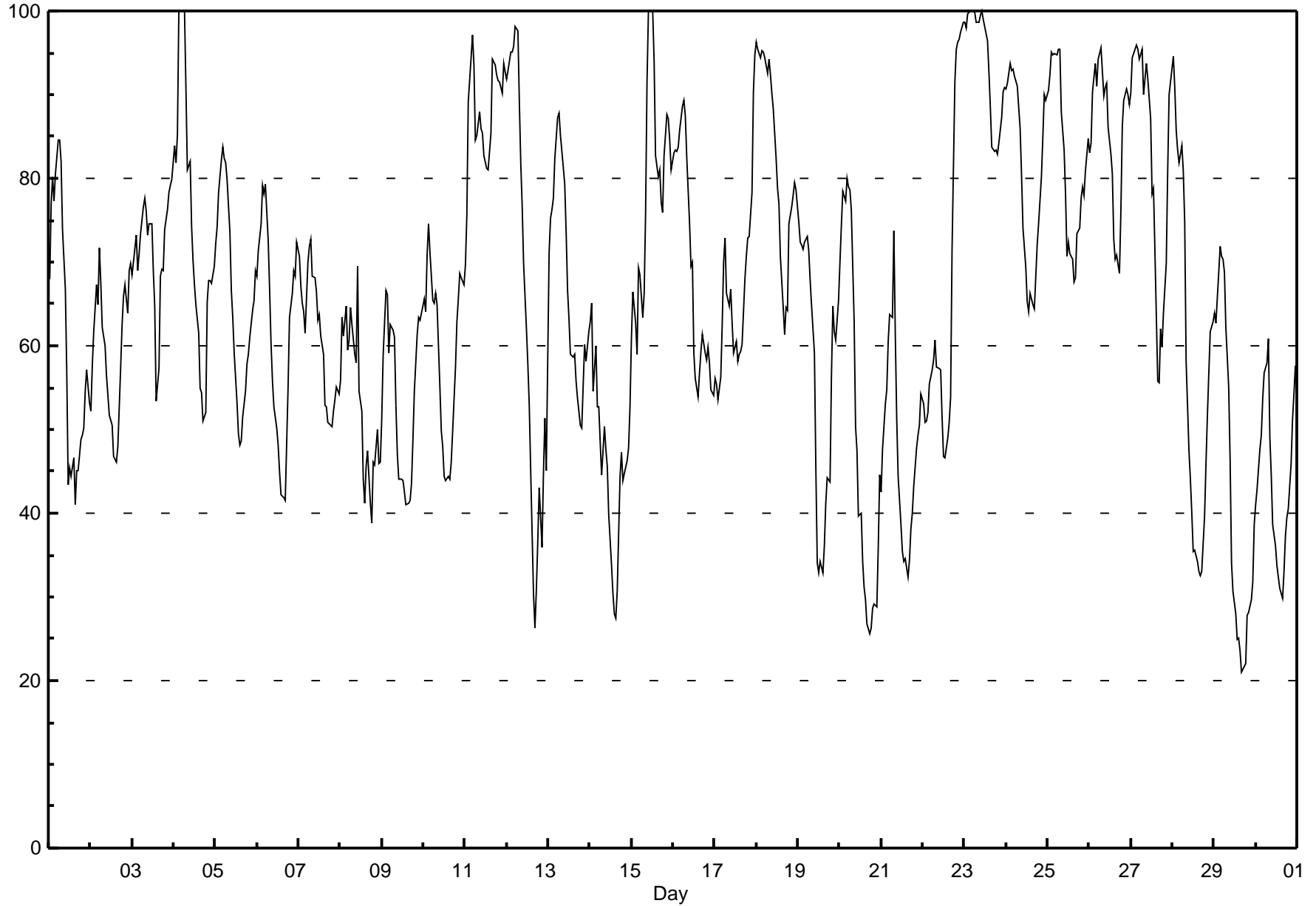
Relative Humidity (RH) - %

Beaverlodge - April 2014

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 100.0 % on Apr 4 04:00      Maximum Daily Average: 93.9 % on Apr 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: 21 % on Apr 29 17:00      Minimum Daily Average: 42.7 % on Apr 29 Maximum Diurnal Average: 78.8 % at hour 6      Minimum Diurnal Average: 50.6 % at hour 16 Monthly Average: 65.72 %      Percentiles: P <sub>1</sub> = 26.2 P <sub>10</sub> = 41.2 Q <sub>1</sub> = 51.6 Median = 65.2 Q <sub>3</sub> = 80.9 P <sub>90</sub> = 92.3 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-Apr	68	77	80	77	80	85	85	82	74	67	57	43	45	44	47	41	45	45	49	49	50	55	57	53	60.6	84.5
2-Apr	52	58	62	67	65	72	67	62	60	56	54	52	50	47	46	46	48	57	63	66	67	64	69	70	59.2	71.8
3-Apr	68	70	73	69	71	73	77	78	76	73	75	75	69	65	53	57	68	69	69	74	76	78	79	80	71.5	79.8
4-Apr	84	82	85	100	100	100	100	91	81	82	74	70	67	65	62	55	54	51	52	65	68	68	68	70	74.7	100.0
5-Apr	72	74	78	82	84	82	82	80	74	67	63	59	53	50	48	49	52	55	58	59	61	64	65	69	65.8	83.7
6-Apr	68	71	75	79	78	79	73	67	60	56	53	50	48	45	42	42	41	48	55	63	66	69	68	72	61.3	79.4
7-Apr	71	67	65	64	61	70	72	73	68	68	67	63	64	61	59	53	53	51	51	50	52	54	55	54	61.1	72.8
8-Apr	56	63	61	65	60	61	65	63	59	58	70	55	52	44	41	46	47	41	39	46	46	50	46	46	53.3	69.5
9-Apr	51	59	67	66	59	63	62	61	53	47	44	44	44	43	41	41	42	44	49	54	61	63	63	64	53.5	66.5
10-Apr	66	64	71	75	71	66	65	66	65	55	50	48	44	44	44	46	50	58	63	66	69	68	67	59.3	74.6	
11-Apr	70	76	89	94	97	94	85	85	88	86	85	83	81	81	83	85	94	94	92	92	91	90	94	93	87.6	97.1
12-Apr	92	93	95	95	96	98	98	89	82	77	70	62	58	53	45	30	26	31	37	43	36	45	51	45	64.4	98.2
13-Apr	71	75	76	78	82	87	88	85	83	79	74	67	63	59	59	59	56	54	50	50	55	60	58	62	68.0	87.9
14-Apr	63	65	55	60	53	53	48	45	50	48	46	40	34	30	28	27	31	44	47	44	45	46	48	53	45.9	65.1
15-Apr	61	66	63	59	69	69	63	66	76	92	100	100	100	94	83	80	81	77	76	83	88	87	85	81	79.1	100.0
16-Apr	83	83	83	84	86	89	89	87	83	75	69	70	59	56	54	57	59	61	59	58	60	58	55	54	69.7	89.3
17-Apr	56	55	54	56	63	70	73	66	65	67	63	59	61	58	59	59	60	68	71	73	73	78	90	95	66.3	94.8
18-Apr	96	95	94	95	95	94	93	94	92	90	88	82	79	77	71	65	61	65	64	75	77	78	80	79	82.5	96.2
19-Apr	75	72	72	71	72	73	71	68	65	59	46	34	33	34	33	36	41	44	44	56	65	62	61	66	56.4	74.8
20-Apr	70	74	78	77	80	79	79	76	63	50	47	40	40	34	31	30	27	26	26	29	29	29	36	45	49.8	80.0
21-Apr	43	48	53	55	61	64	63	74	61	51	44	39	35	34	35	32	34	38	40	43	48	49	50	54	47.9	73.8
22-Apr	53	51	51	52	55	57	58	61	57	57	57	51	47	47	49	51	54	71	92	95	96	97	97	99	64.8	98.7
23-Apr	99	98	100	100	100	100	100	99	99	100	100	99	97	96	93	88	84	83	83	83	84	87	90	91	93.9	100.0
24-Apr	91	91	94	93	93	92	91	88	86	80	74	69	65	64	66	65	64	68	72	75	80	85	90	89	80.3	93.7
25-Apr	90	92	95	95	95	95	95	95	88	83	78	71	72	71	70	68	68	73	74	78	79	78	81	85	82.1	95.4
26-Apr	83	84	90	94	91	94	95	96	90	91	91	86	83	81	73	70	71	69	76	86	89	91	90	89	85.5	95.6
27-Apr	90	94	96	96	95	94	95	90	92	94	92	87	78	79	71	56	56	62	60	64	70	81	90	91	82.2	95.9
28-Apr	95	91	86	83	82	84	81	75	58	47	44	40	35	36	34	33	33	33	40	46	52	57	62	63	57.8	94.5
29-Apr	64	63	66	72	71	70	69	62	55	46	34	31	28	25	25	23	21	22	22	28	28	30	32	39	42.7	71.8
30-Apr	41	43	48	49	54	57	58	61	49	45	39	36	34	32	31	30	33	37	39	40	46	51	54	58	44.4	60.8
71.4 73.2 75.1 76.8 77.3 78.8 78.0 76.1 71.7 68.2 64.9 60.1 57.3 55.0 52.5 50.6 51.7 54.4 56.9 61.0 63.5 65.7 67.7 69.1																	Diurnal Average									
98.7 97.9 99.7 100.0 100.0 100.0 100.0 98.7 98.7 99.5 100.0 100.0 100.0 96.4 92.7 88.5 94.2 93.5 92.3 95.5 96.3 96.6 97.5 98.7																	Diurnal Maximum									

### Hourly Averages

Relative Humidity (RH) - %  
Beaverlodge - April 2014





Peace Airshed Zone Association

# Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Beaverlodge - April 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	7	0	1	1	1	1	0	2	3	1	3	1	2	4	6	6	14	13	12	12	8	9	14	9	4.8	13.6
Dir	13	6	92	353	62	15	97	282	45	60	76	171	121	104	101	81	85	87	83	58	35	57	81	72	71	85
2 Spd	10	12	16	16	15	8	10	10	12	13	14	10	7	6	8	8	9	15	13	9	7	5	11	9	7.6	16.4
Dir	48	14	12	27	15	308	326	355	16	14	21	32	48	35	37	56	96	119	114	115	84	96	93	88	42	27
3 Spd	8	7	10	6	7	9	2	3	2	2	7	10	10	7	2	2	3	3	1	8	6	4	3	0	2.0	10.0
Dir	78	77	88	89	89	92	209	224	214	54	202	150	116	118	105	298	308	264	235	273	305	338	60	276	109	150
4 Spd	5	3	7	4	1	1	7	12	18	16	18	14	17	10	10	6	8	3	3	5	7	7	5	3	4.3	18.3
Dir	34	326	336	247	144	218	252	276	305	331	323	329	358	26	52	53	29	21	89	94	86	96	109	100	353	323
5 Spd	2	2	3	3	2	2	2	5	10	16	14	15	25	25	26	21	23	16	7	10	10	9	7	8	9.5	25.9
Dir	97	110	144	66	59	120	192	221	237	244	242	232	256	254	260	274	269	267	278	277	287	278	267	263	258	260
6 Spd	7	6	8	11	17	17	24	27	32	39	36	37	33	29	32	41	41	37	31	24	24	23	18	12	24.9	40.7
Dir	259	234	243	237	242	243	254	257	259	264	265	264	259	273	260	263	257	257	253	244	240	245	253	239	256	263
7 Spd	11	9	6	12	5	2	3	5	4	5	4	3	5	3	1	10	12	12	3	8	13	9	5	3	4.1	13.4
Dir	231	226	238	288	344	106	98	64	88	155	145	147	168	90	172	237	238	236	197	224	224	222	178	165	218	224
8 Spd	2	5	4	6	5	2	4	4	6	25	41	44	40	44	44	40	41	34	36	29	36	25	29	28	22.1	44.2
Dir	158	96	145	199	173	105	86	180	199	261	264	258	233	241	253	246	248	250	255	254	253	251	257	250	248	253
9 Spd	20	26	23	17	20	18	20	26	34	38	39	42	42	39	44	48	45	43	30	29	27	27	24	29	31.0	47.6
Dir	249	253	246	240	249	251	256	253	264	267	272	261	256	260	264	259	262	265	263	262	255	258	254	248	259	259
10 Spd	28	26	12	6	11	20	27	24	18	29	44	47	47	42	39	40	37	33	25	18	16	14	20	14	25.9	47.5
Dir	248	253	234	186	226	243	252	251	239	254	268	264	265	263	268	263	261	251	246	242	245	239	231	252	254	264
11 Spd	2	4	6	6	5	7	9	19	23	26	25	23	23	22	19	15	15	14	13	12	11	10	9	7	11.2	25.5
Dir	206	214	134	129	182	212	248	305	324	328	326	331	332	328	325	323	315	320	318	316	317	325	324	327	319	328
12 Spd	6	7	6	5	4	2	1	1	3	6	9	5	3	7	7	8	10	11	12	8	4	2	4	5	2.2	12.0
Dir	322	315	312	329	313	249	216	228	200	213	239	250	122	105	116	346	355	35	31	28	39	342	28	30	356	31
13 Spd	10	13	10	11	10	10	8	11	9	9	9	11	12	16	17	18	15	13	8	6	4	3	1	1	9.2	18.0
Dir	78	69	79	72	82	87	103	127	140	129	136	134	113	100	95	95	93	89	91	113	108	145	77	63	100	95
14 Spd	1	1	2	3	2	2	4	1	3	3	5	6	7	11	13	10	7	9	8	8	9	6	2	2	4.4	13.4
Dir	120	103	128	93	123	85	56	96	147	112	135	82	90	39	36	50	59	113	67	66	71	85	141	266	75	36
15 Spd	7	2	7	4	9	4	9	13	13	12	13	12	16	17	16	16	15	13	14	13	7	4	4	8	9.1	16.7
Dir	37	260	12	313	26	20	40	31	21	4	21	29	37	47	48	54	56	74	75	95	107	88	37	40	44	47
16 Spd	11	14	10	10	11	11	11	12	12	10	12	14	8	10	7	8	12	19	22	19	17	19	12	10	11.9	21.8
Dir	49	69	46	44	40	28	37	53	75	76	51	56	44	29	37	67	75	90	91	80	71	69	68	77	63	91
17 Spd	11	12	8	8	7	9	8	14	16	14	15	14	16	15	17	16	12	11	11	4	2	5	15	16	11.1	16.8
Dir	81	71	67	67	87	88	95	97	105	98	80	95	89	80	67	70	75	80	93	134	300	45	93	97	85	67
18 Spd	15	12	9	10	8	1	0	6	4	2	3	2	4	6	7	5	5	8	6	9	9	4	3	2	5.0	15.3
Dir	88	83	77	87	76	43	68	102	118	177	249	267	157	136	98	108	117	130	124	108	84	146	114	126	103	88
19 Spd	2	9	8	9	8	9	3	5	7	9	7	5	6	9	8	14	19	17	21	17	6	7	3	1	3.0	20.8
Dir	182	223	224	230	234	248	208	195	210	211	195	109	104	89	91	78	67	58	65	153	155	255	300	189	139	65
20 Spd	2	3	4	5	6	3	5	10	21	32	32	36	32	35	30	29	33	29	24	16	6	7	2	3	15.6	36.0
Dir	245	41	172	215	210	192	233	223	237	254	241	250	253	254	257	256	268	268	267	267	303	288	227	125	253	250
21 Spd	6	4	4	3	2	2	1	4	2	2	4	5	5	7	8	5	10	17	17	13	11	13	12	12	6.4	17.3
Dir	61	136	68	110	113	98	145	42	128	184	110	81	84	101	93	81	87	54	48	51	47	62	83	85	74	54
22 Spd	15	15	14	2	4	5	5	14	18	17	21	22	30	27	32	32	34	36	26	22	20	11	12	15	18.1	36.4
Dir	64	76	81	157	117	93	70	96	90	94	98	97	91	72	66	74	70	82	92	84	75	55	67	45	80	82



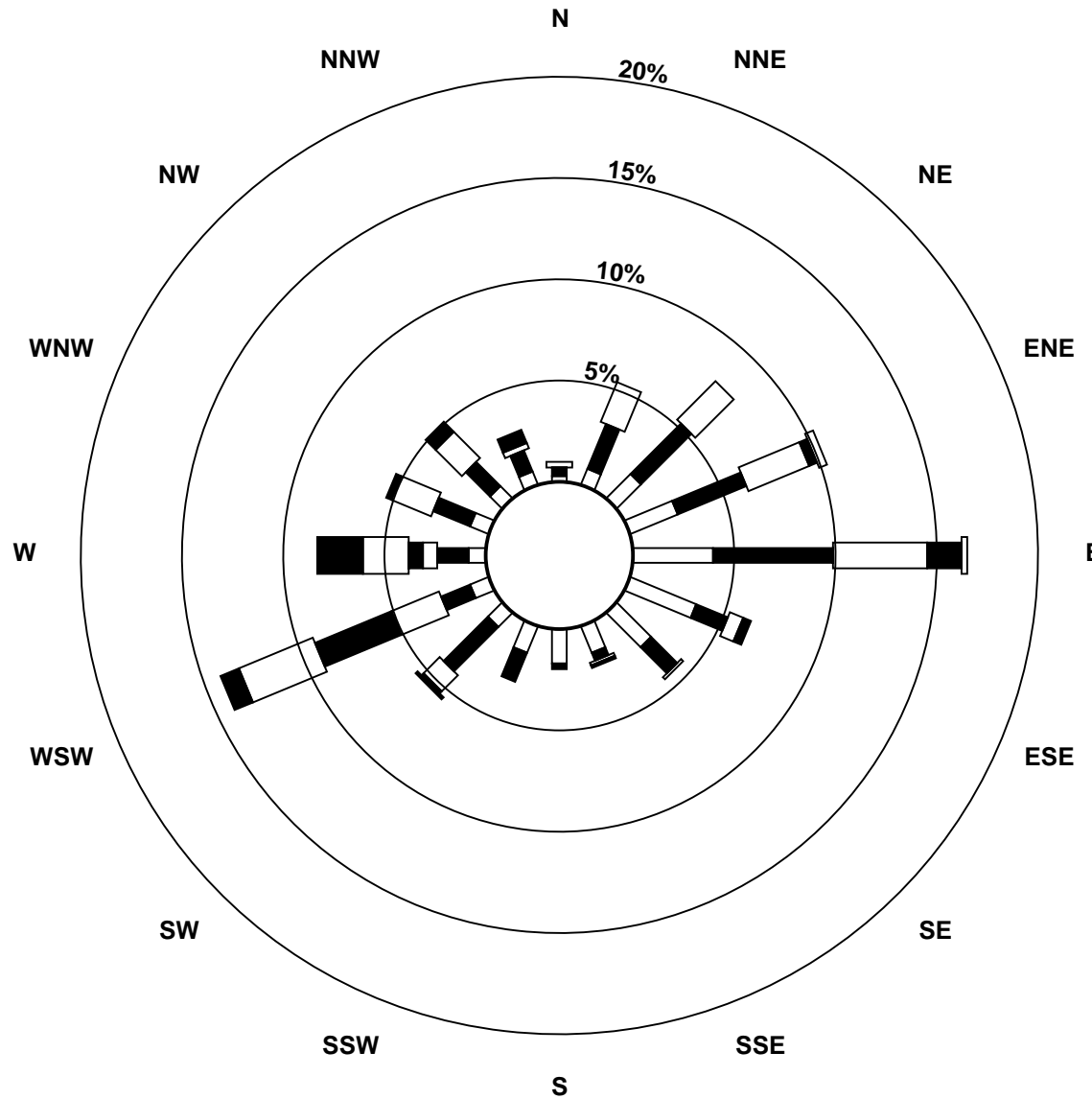
# Hourly Averages

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

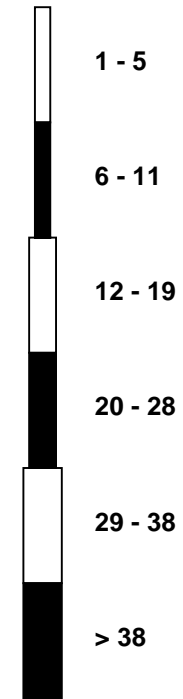
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	13	8	7	9	11	14	12	15	17	15	15	18	22	22	22	21	23	20	16	15	12	12	10	11	14.3	22.9
Dir	30	335	296	293	289	287	290	292	292	302	300	284	292	300	305	307	304	306	313	311	318	315	298	280	302	304
24 Spd	13	12	9	10	10	11	11	12	11	11	9	8	9	9	13	13	15	16	16	12	10	6	6	7.2	16.2	
Dir	279	288	286	294	292	297	301	290	291	307	305	310	338	9	33	30	36	40	50	36	36	32	22	13	344	36
25 Spd	8	8	7	5	4	5	6	8	2	2	4	5	5	5	4	5	9	9	9	9	7	6	5	4	4.8	9.4
Dir	20	26	18	22	316	5	28	37	345	296	27	59	100	88	120	52	41	73	81	94	65	64	91	77	51	73
26 Spd	6	6	7	7	6	7	7	11	12	12	14	17	21	18	17	23	23	24	24	20	19	21	25	25	15.0	25.3
Dir	61	76	89	74	81	36	98	88	75	65	52	82	95	99	92	98	92	110	115	106	98	89	89	94	91	89
27 Spd	23	19	14	9	8	3	3	2	5	8	3	8	10	17	10	5	8	14	10	8	2	21	12	6	0.5	23.2
Dir	97	103	101	85	71	81	298	265	245	217	253	285	278	283	334	317	345	291	309	29	99	161	130	214	99	97
28 Spd	6	10	7	7	8	9	11	14	27	34	35	34	35	34	33	31	29	32	29	26	18	14	12	10	20.4	35.3
Dir	206	231	221	223	215	217	213	215	243	247	242	244	255	262	259	257	262	258	240	241	239	242	242	233	245	255
29 Spd	6	7	7	1	2	3	4	3	6	5	8	10	7	7	8	6	4	3	13	9	6	5	5	1	2.2	13.0
Dir	233	243	233	208	129	87	66	157	189	183	148	130	127	145	99	101	87	47	239	266	273	281	277	113	184	239
30 Spd	4	5	5	4	3	4	4	3	3	4	10	13	16	19	25	26	30	33	29	29	19	12	14	12	10.3	32.6
Dir	58	75	126	136	77	87	69	70	205	183	218	225	230	232	246	256	254	257	247	257	268	287	290	302	251	257
Spd	1.8	0.5	0.7	0.2	0.3	1.2	2.1	2.2	4.0	6.5	6.9	6.5	5.3	4.9	4.5	4.7	4.6	3.0	1.4	1.8	1.7	1.4	0.4	0.3	Diurnal Average	
Dir	55	56	77	37	303	261	268	265	262	267	270	262	259	274	288	282	289	273	255	246	277	266	207	239	Diurnal Maximum	
Spd	28.2	26.0	23.5	17.4	19.6	19.7	26.6	26.7	34.3	39.5	43.7	47.5	46.7	44.2	44.2	47.6	44.9	42.6	35.6	29.5	36.3	26.9	28.6	28.9	Diurnal Maximum	
Dir	248	253	246	240	249	243	252	257	264	264	268	264	265	241	253	259	262	265	255	254	253	258	257	248	Diurnal Maximum	
Maximum Speed Value: 48 km/h on Apr 9 16:00		Minimum Speed Value: 0 km/h on Apr 1 02:00		Hours in Service: 720																						
Maximum Daily Speed Average: 31.0 km/h on Apr 9		Minimum Daily Speed Average: 0.5 km/h on Apr 3		Hours of Data: 720																						
Maximum Diurnal Speed Average: 6.9 km/h at hour 11		Minimum Diurnal Speed Average: 0.2 km/h at hour 4		Hours of Missing Data: 0																						
Monthly Average Velocity: 2.48 km/h 271.4 deg				Speed Percentiles: P <sub>1</sub> = 0.8 P <sub>10</sub> = 2.7 Q <sub>1</sub> = 5.3 Median = 9.6 Q <sub>3</sub> = 16.4 P <sub>90</sub> = 28.5 P <sub>99</sub> = 43.6				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	13	10	0	0	0	33																			
NorthEast	23	46	38	1	1	0	109																			
East	44	67	49	20	4	0	184																			
SouthEast	33	24	6	1	0	0	64																			
South	18	9	0	1	0	0	28																			
SouthWest	17	36	24	12	6	3	98																			
West	11	22	22	24	38	22	139																			
NorthWest	11	22	20	12	0	0	65																			
Total	167	239	169	71	49	25	720																			

**Wind Rose**

**Wind Speed (WS) (km/h)**  
**Beaverlodge - April 2014**



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



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - April 2014

Maximum Speed: 48 km/h on Apr 9 16:00	Maximum Daily Speed Average: 31.4 km/h on Apr 9	Hours in Service: 720
Minimum Speed: 1 km/h on Apr 12 07:00	Minimum Daily Speed Average: 5.6 km/h on Apr 14	Hours of Data: 720
Maximum Diurnal Speed Average: 19.2 km/h at hour 17	Minimum Diurnal Speed Average: 7.2 km/h at hour 6	Hours of Missing Data: 0
Monthly Average Speed: 13.00 km/h	Percentiles: $P_1 = 1.6$ $P_{10} = 3.3$ $Q_1 = 6.0$ Median = 9.9 $Q_3 = 16.7$ $P_{90} = 28.6$ $P_{99} = 43.7$	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-Apr	8	2	2	3	2	2	3	3	3	3	3	2	3	5	6	6	14	13	13	12	9	10	14	9	6.2	13.8
2-Apr	10	13	16	16	16	9	10	10	12	14	14	10	7	7	8	8	9	15	13	9	7	5	11	10	10.8	16.4
3-Apr	8	7	10	7	7	9	3	3	5	7	8	10	10	8	3	2	8	6	5	9	7	5	3	2	6.3	10.4
4-Apr	5	4	7	5	2	2	7	12	19	17	18	15	17	11	10	7	8	3	3	6	7	7	5	4	8.4	18.9
5-Apr	3	3	4	3	3	2	2	6	10	16	14	16	26	26	26	21	23	16	8	10	11	9	7	8	11.3	26.1
6-Apr	7	6	8	11	17	17	24	27	32	40	36	37	34	30	32	41	41	37	31	24	24	23	18	12	25.4	40.9
7-Apr	12	10	7	12	6	3	3	5	4	5	4	4	5	3	6	10	13	12	4	9	13	10	5	4	7.0	13.4
8-Apr	3	6	6	6	5	3	4	4	6	25	41	44	40	45	44	40	42	35	36	30	36	25	29	28	24.3	44.8
9-Apr	20	26	24	18	20	19	20	26	35	39	39	42	42	39	44	48	45	43	31	30	27	27	24	29	31.4	47.8
10-Apr	28	26	13	6	11	20	27	24	18	29	44	48	47	43	39	41	37	33	25	18	16	14	20	14	26.7	47.7
11-Apr	4	7	9	7	5	8	9	20	23	26	25	23	24	22	20	15	15	14	13	13	11	10	9	7	14.2	25.7
12-Apr	6	7	6	5	4	2	1	2	3	6	9	6	6	7	7	9	10	11	12	8	4	3	4	5	6.0	12.1
13-Apr	11	13	10	11	11	10	8	11	9	9	10	11	13	16	18	18	15	13	8	6	5	4	2	2	10.1	18.1
14-Apr	2	2	3	3	2	2	4	1	3	3	5	6	7	12	13	10	7	9	8	9	9	6	3	4	5.6	13.5
15-Apr	7	3	9	7	9	8	9	14	13	12	13	12	17	17	16	16	16	14	14	13	7	4	4	8	10.8	17.1
16-Apr	11	14	10	10	11	11	11	13	12	11	12	15	9	11	8	10	12	19	22	19	17	19	12	10	12.9	22.0
17-Apr	11	12	8	8	7	9	8	14	16	14	16	15	17	15	17	16	13	12	12	6	2	6	15	16	11.8	16.9
18-Apr	15	12	9	10	8	3	1	6	4	3	4	4	5	7	7	6	6	8	6	9	9	6	3	3	6.4	15.3
19-Apr	3	9	8	9	8	9	3	6	7	10	8	6	8	10	9	15	19	17	21	20	9	8	3	2	9.5	21.1
20-Apr	3	4	5	5	6	3	5	10	21	32	32	37	33	35	31	30	33	29	24	16	6	7	3	4	17.3	36.5
21-Apr	6	5	4	3	2	3	2	4	2	3	4	6	8	9	10	7	11	18	17	14	11	13	15	12	7.9	17.5
22-Apr	15	15	14	6	5	5	5	14	18	17	21	23	30	27	32	32	34	37	26	22	20	11	12	15	19.0	36.7
23-Apr	14	9	7	9	11	14	12	16	17	15	15	19	22	22	22	22	23	20	17	15	12	12	10	11	15.2	23.1
24-Apr	13	12	9	10	10	11	11	12	11	11	10	10	10	10	14	13	13	15	16	16	12	10	6	6	11.4	16.3
25-Apr	8	8	7	5	4	5	6	8	3	3	5	5	5	5	5	7	9	10	9	9	7	7	5	4	6.2	9.6
26-Apr	7	6	8	8	6	7	8	11	13	13	15	18	22	19	17	23	23	25	24	20	20	21	25	25	15.9	25.4
27-Apr	23	19	14	10	8	4	3	2	6	8	5	8	11	19	11	7	9	14	10	8	7	21	12	6	10.2	23.3
28-Apr	6	10	7	7	8	9	11	14	27	34	35	35	36	35	34	32	30	32	30	26	18	14	12	10	21.2	35.9
29-Apr	6	7	7	2	2	3	4	4	6	6	8	10	8	9	9	9	7	10	14	9	6	5	5	1	6.7	13.5
30-Apr	4	5	5	4	3	4	4	3	3	5	12	13	17	20	25	27	30	33	29	29	19	12	15	12	13.8	33.1
	9.3	9.3	8.6	7.5	7.3	7.2	7.7	10.2	12.1	14.6	16.2	16.9	17.8	18.1	18.1	18.3	19.2	19.1	16.6	14.7	12.3	11.2	10.4	9.4	Diurnal Average	
	28.2	26.0	23.5	17.7	19.6	19.8	26.6	26.8	34.6	39.6	43.9	47.7	47.1	44.8	44.5	47.8	45.1	42.9	36.0	29.6	36.3	26.9	28.7	29.0	Diurnal Maximum	

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

# Hourly Standard Deviations

Wind Direction (WD) - deg

Beaverlodge - April 2014

Maximum Value: 95.0 deg on Apr 4 00:00																							Hours in Service:	720		
Minimum Value: 1.8 deg on Apr 6 22:00																							Hours of Data:	720		
Percentiles: P <sub>1</sub> = 3.0 P <sub>10</sub> = 4.9 Q <sub>1</sub> = 7.0 Median = 11.0 Q <sub>3</sub> = 24.2 P <sub>90</sub> = 48.8 P <sub>99</sub> = 83.2																							Hours of Missing Data:	0		
																							Hours of Calibration:	0		
																							Percent Operational Time:	100.0		
Day	Hourly Period Ending At (MST)																								Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	58	91	67	75	66	80	93	64	20	88	26	61	56	24	12	22	7	9	10	8	10	17	8	12	93.1	
2-Apr	8	24	8	2	11	25	5	13	4	5	6	9	15	22	14	21	15	4	5	7	8	29	6	5	28.9	
3-Apr	8	8	6	7	6	28	27	29	62	83	19	19	6	12	42	66	71	81	87	53	54	52	19	95	95.0	
4-Apr	17	48	17	40	62	82	21	7	16	10	7	12	11	19	9	18	8	35	72	19	11	14	18	26	81.8	
5-Apr	33	25	35	16	42	34	58	41	5	4	7	10	12	9	7	6	4	5	37	12	7	10	10	7	58.1	
6-Apr	7	8	10	17	4	3	3	6	4	5	6	6	8	11	7	5	7	7	5	4	2	2	4	10	17.4	
7-Apr	13	14	20	16	21	52	24	19	38	11	12	30	8	31	74	8	17	7	35	14	5	37	8	21	74.5	
8-Apr	65	33	49	16	14	25	13	30	16	14	10	8	5	9	6	7	10	8	8	5	4	4	4	6	65.4	
9-Apr	5	5	5	9	4	11	6	4	6	8	8	8	8	6	5	5	6	6	7	6	4	4	4	3	5	11.1
10-Apr	4	3	25	10	11	6	4	4	9	16	6	6	7	8	10	8	7	4	4	3	4	8	8	14	24.8	
11-Apr	65	82	49	34	15	14	9	22	7	6	6	9	8	8	9	9	7	10	9	6	5	10	8	6	82.2	
12-Apr	5	3	5	8	10	26	53	50	26	18	16	46	80	15	19	36	18	10	7	7	17	67	31	10	79.8	
13-Apr	18	7	13	15	6	4	8	8	15	9	13	9	12	6	7	6	8	5	7	9	37	33	59	71	70.5	
14-Apr	47	30	43	23	20	43	9	30	23	25	16	10	16	17	6	9	11	14	9	11	9	9	36	71	71.0	
15-Apr	23	71	44	55	25	61	17	10	11	10	6	6	8	11	9	9	10	13	9	9	6	23	12	4	70.5	
16-Apr	8	6	17	6	6	3	6	12	9	14	14	17	38	29	30	40	20	13	7	8	5	4	10	11	40.3	
17-Apr	6	7	5	13	11	7	8	7	12	13	13	16	12	13	8	9	12	15	17	41	35	37	6	4	41.3	
18-Apr	5	6	8	6	7	71	85	14	16	54	61	64	44	34	21	38	40	16	17	4	13	45	35	38	84.8	
19-Apr	36	9	7	8	9	15	27	45	19	15	28	50	48	37	27	18	7	6	10	34	46	22	36	71	71.5	
20-Apr	72	63	48	8	7	33	18	8	11	8	6	9	11	9	12	13	10	10	7	12	8	20	75	47	75.2	
21-Apr	14	22	33	30	26	38	64	16	49	65	39	37	52	51	44	40	26	9	6	4	7	12	51	11	64.5	
22-Apr	5	5	6	77	51	16	11	6	6	8	6	10	7	9	5	5	5	8	9	11	8	10	8	10	77.1	
23-Apr	14	16	12	5	6	6	7	4	5	7	8	5	6	9	6	7	6	7	7	7	8	7	8	5	16.4	
24-Apr	4	3	4	5	5	6	6	8	12	14	23	33	31	27	18	18	16	20	6	7	5	4	8	5	33.3	
25-Apr	6	7	7	8	18	13	8	7	69	40	30	31	45	51	40	42	21	12	7	8	12	8	8	11	69.1	
26-Apr	10	12	16	13	14	9	25	10	19	10	9	16	11	12	13	7	6	12	7	6	5	4	3	3	24.6	
27-Apr	3	4	5	9	8	38	14	61	27	8	74	16	21	26	22	61	37	12	23	11	67	9	14	24	73.7	
28-Apr	14	14	12	10	11	11	6	7	7	7	5	9	10	12	13	11	11	10	8	4	3	4	2	9	14.3	
29-Apr	15	10	14	76	50	27	11	51	23	33	24	19	43	47	36	60	71	92	16	3	4	5	30	52	92.0	
30-Apr	10	10	24	18	31	43	14	20	42	30	35	17	15	11	15	11	10	10	7	5	7	11	8	12	42.8	
71.9	91.0	67.1	77.1	66.2	81.8	93.1	64.3	69.1	88.4	73.7	64.4	79.8	51.5	74.5	66.0	71.1	92.0	87.2	53.5	66.8	67.1	75.2	95.0			

PAZA

## Valleyview Station

Monthly Summary Tables, Graphs and  
Roses

## Hourly Averages

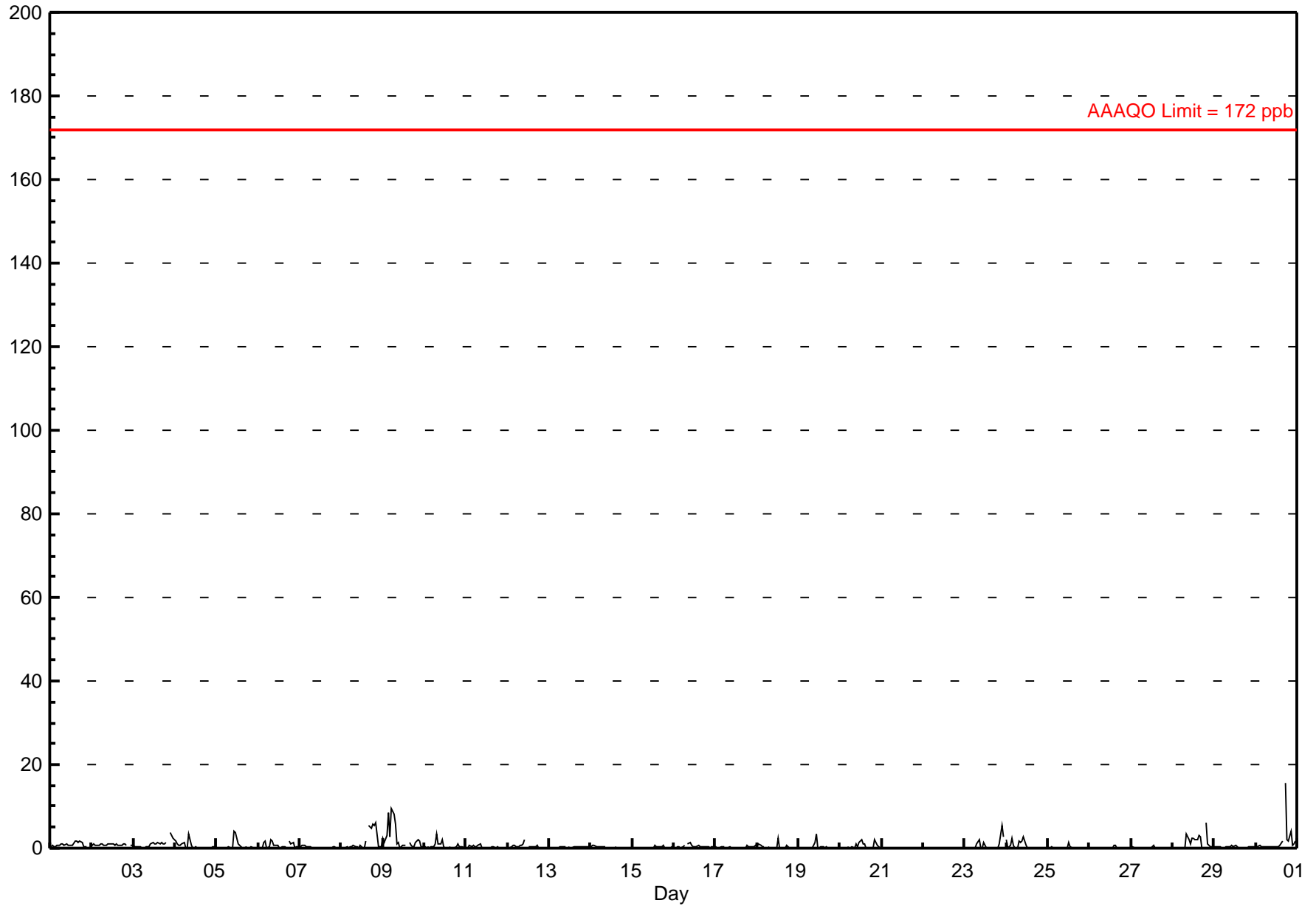
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Valleyview - April 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 720
Maximum Value: 15.7 ppb on Apr 30 18:00	Maximum Daily Average: 2.4 ppb on Apr 9
Minimum Value: 0 ppb on Apr 4 08:00	Hours of Data: 686
Maximum Diurnal Average: 1.0 ppb at hour 18	Hours of Missing Data: 34
Monthly Average: 0.54 ppb	Hours of Calibration: 34
Minimum Daily Average: 0.0 ppb on Apr 22	Percent Operational Time: 100.0
Minimum Diurnal Average: 0.3 ppb at hour 2	
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> = 1.4 P <sub>99</sub> = 5.9	

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-Apr	0	1	0	0	1	1	1	1	1	1	1	1	1	1	2	2	1	2	1	0	0	0	A	0	0.8	1.7
2-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.1
3-Apr	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	A	4	3	2	1.0	3.6
4-Apr	2	1	1	1	1	1	0	0	4	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.5	3.5
5-Apr	0	0	0	0	0	0	0	0	0	0	4	4	1	1	0	0	0	0	A	0	0	0	0	0	0.5	4.1
6-Apr	0	0	0	1	2	0	0	2	2	1	1	1	0	0	0	0	0	A	2	1	1	0	0	0	0.7	2.1
7-Apr	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.6
8-Apr	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	A	5	5	6	6	6	0	0	0	1.5	6.1
9-Apr	3	1	3	9	3	9	8	6	1	1	0	1	1	1	A	1	1	0	0	1	2	2	0	0	2.4	9.4
10-Apr	0	0	0	0	0	0	1	3	1	1	2	0	0	A	0	0	0	0	0	1	0	0	0	0	0.6	3.5
11-Apr	0	0	1	0	1	0	0	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
12-Apr	0	0	1	1	1	0	1	1	1	1	2	A	0	0	0	0	0	1	0	0	0	0	0	0	0.4	2.0
13-Apr	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	0.5
14-Apr	0	1	1	0	0	0	0	0	0	0	A	0	C	C	C	0	0	0	0	0	0	0	0	0	0.2	0.7
15-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1	0.7
16-Apr	0	0	0	0	0	0	1	A	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0.4	1.2
17-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0.2	0.6
18-Apr	0	1	1	1	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0.3	2.3
19-Apr	0	0	0	0	A	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	3.3
20-Apr	0	0	0	A	0	0	0	0	0	0	1	0	2	2	1	1	0	0	0	0	0	2	1	0	0.4	2.0
21-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
22-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
23-Apr	A	0	0	0	0	0	0	1	2	0	0	1	0	0	0	0	0	0	0	0	1	5	3	A	0.6	5.5
24-Apr	2	0	1	2	1	0	0	2	1	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.7
25-Apr	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0.1	1.2
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	A	0	0	0	0.1	0.8
27-Apr	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0.1	0.8
28-Apr	0	0	0	0	0	0	0	0	3	2	1	2	2	2	3	3	0	0	A	6	1	1	0	0	1.3	6.0
29-Apr	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	A	0	0	0	0	0	0	0.3	0.8
30-Apr	0	0	1	0	1	0	0	0	0	0	0	0	0	1	2	A	16	2	2	2	4	1	1	2	1.5	15.7
	0.4	0.3	0.4	0.7	0.4	0.5	0.5	0.7	0.7	0.5	0.7	0.6	0.6	0.4	0.5	0.4	0.5	1.0	0.6	0.7	0.7	0.5	0.4	0.3	Diurnal Average	
	2.5	1.4	3.1	8.5	2.9	9.4	8.2	5.7	3.5	2.1	4.1	3.8	2.3	2.2	2.2	3.1	5.4	15.7	5.9	6.0	6.1	5.5	3.0	2.5	Diurnal Maximum	

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



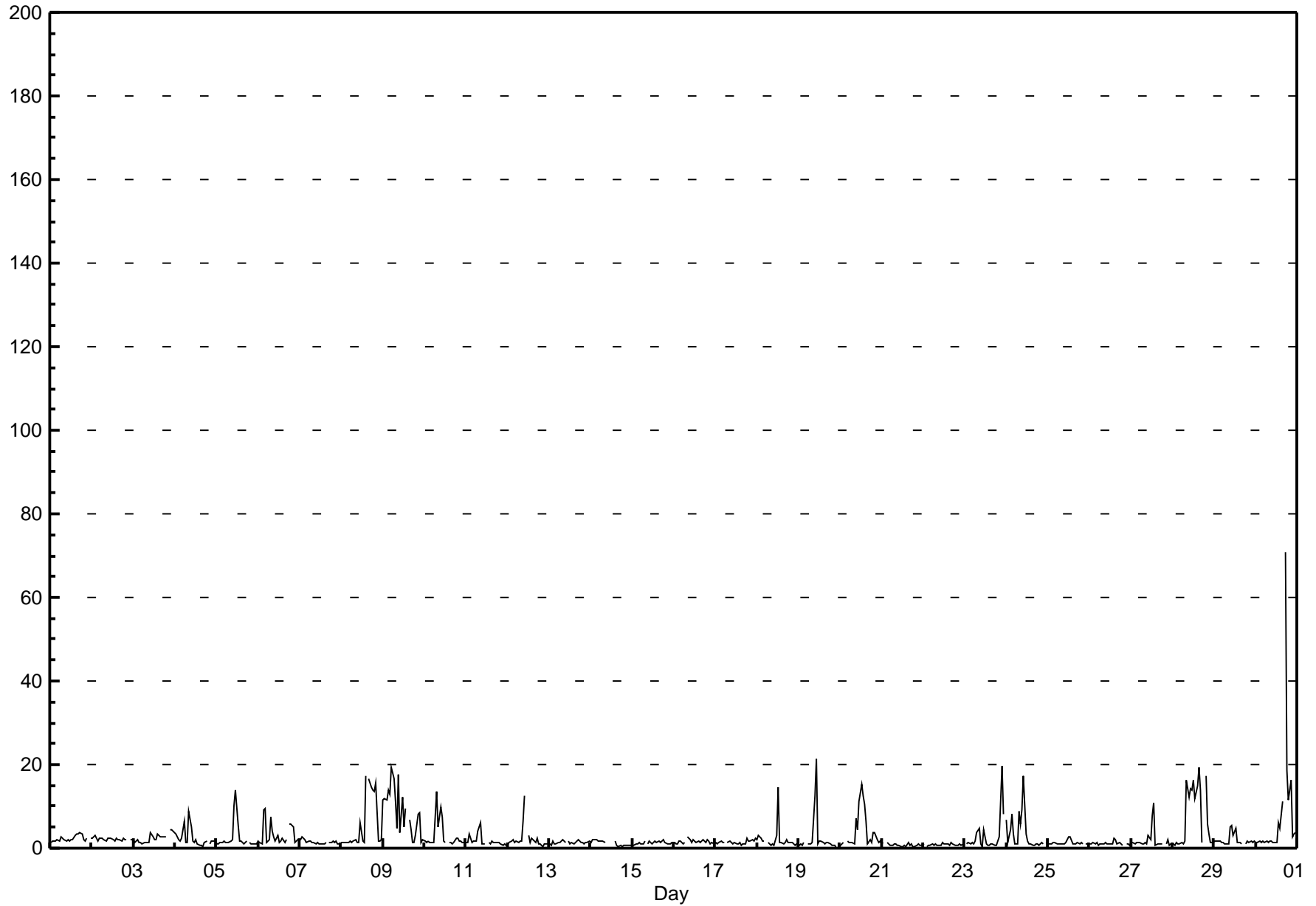
## Hourly Maximums

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

Valleyview - April 2014

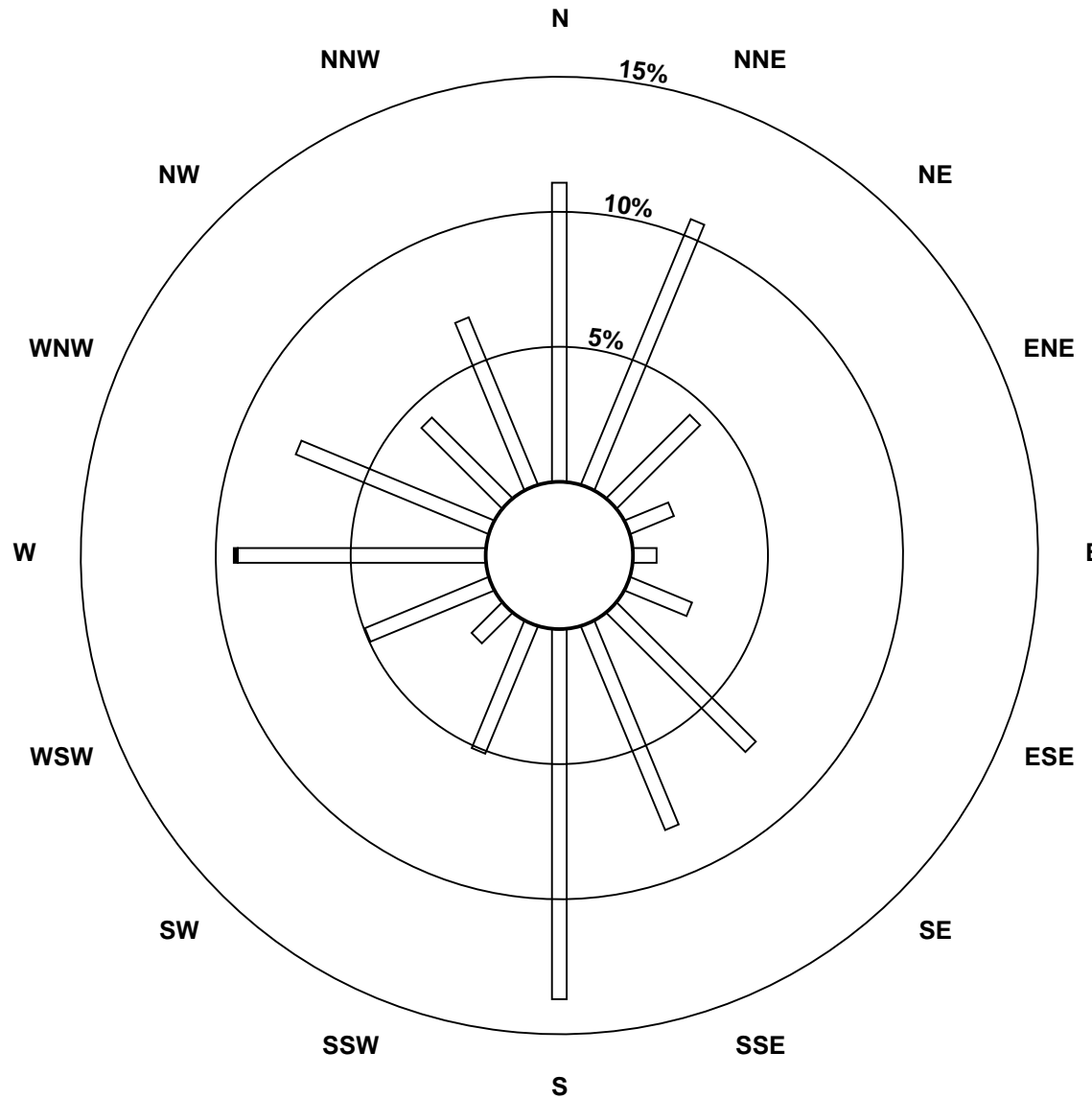
Maximum Value: 71.0 ppb on Apr 30 18:00		Maximum Daily Average: 8.6 ppb on Apr 9		Hours in Service: 720																							
Minimum Value: 0 ppb on Apr 19 23:00		Minimum Daily Average: 0.8 ppb on Apr 21		Hours of Data: 686																							
Maximum Diurnal Average: 4.5 ppb at hour 18		Minimum Diurnal Average: 1.5 ppb at hour 24		Hours of Missing Data: 34																							
Monthly Average: 2.73 ppb		Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 0.8 Q <sub>1</sub> = 1.1 Median = 1.4 Q <sub>3</sub> = 2.1 P <sub>90</sub> = 6.0 P <sub>99</sub> = 17.1		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-Apr	1	2	2	2	2	2	3	3	2	2	2	2	2	2	3	3	3	4	3	2	2	2	A	2	2.2	3.6	
2-Apr	2	3	3	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	A	2	2	2.2	2.9	
3-Apr	2	1	2	1	1	1	1	1	1	1	4	3	2	2	3	3	3	3	3	3	A	5	5	4	2.4	4.5	
4-Apr	4	3	2	2	2	6	1	1	9	5	2	1	2	1	1	1	0	1	2	A	1	2	2	2	2.3	8.8	
5-Apr	1	1	1	2	2	1	2	2	2	2	10	14	6	2	2	1	1	2	A	1	1	1	1	1	2.5	13.9	
6-Apr	2	1	1	9	10	1	2	7	4	3	2	3	1	2	3	1	2	A	6	6	5	1	2	2	3.3	9.5	
7-Apr	2	3	2	2	2	2	2	1	1	1	1	1	1	1	1	1	A	2	1	2	1	2	1	1	1.5	2.6	
8-Apr	1	1	1	1	1	2	1	2	2	1	1	6	2	1	17	A	17	15	14	13	16	2	2	2	5.3	17.4	
9-Apr	11	12	12	14	13	19	16	11	5	18	4	12	5	10	A	7	4	2	1	3	8	8	1	2	8.6	19.3	
10-Apr	2	1	2	1	1	1	7	14	5	10	7	2	1	A	1	1	1	1	2	2	2	2	1	1	3.1	13.6	
11-Apr	1	1	3	1	2	2	2	4	6	1	1	1	A	1	1	2	1	2	2	1	1	1	1	1	1.7	6.1	
12-Apr	1	1	2	2	1	2	1	2	2	6	13	A	3	1	2	2	2	2	2	1	1	0	1	1	2.2	12.6	
13-Apr	1	1	2	1	1	1	1	2	2	1	A	2	1	1	1	1	2	2	1	1	1	1	1	2	1.4	2.1	
14-Apr	1	2	2	2	2	2	2	2	1	A	1	C	C	C	2	1	0	1	0	1	1	1	1	1	1.2	2.0	
15-Apr	1	1	1	1	1	1	1	2	A	1	2	1	1	2	1	2	1	2	2	1	1	1	1	1	1.3	2.0	
16-Apr	1	1	1	2	2	1	1	A	3	2	2	2	2	1	2	1	2	2	1	2	2	1	2	1	1.6	2.8	
17-Apr	1	1	1	2	1	1	A	1	2	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1.4	2.3	
18-Apr	2	3	2	2	2	A	2	1	1	1	3	15	1	1	1	1	2	2	1	1	1	1	1	1	2.0	14.5	
19-Apr	1	1	1	1	A	1	1	1	1	1	13	21	1	2	2	1	1	1	1	1	1	1	0	0	2.4	21.3	
20-Apr	1	1	1	A	2	1	1	1	1	7	4	11	15	13	11	6	1	2	1	4	4	2	1	2	4.1	15.4	
21-Apr	1	1	A	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	0	0	1	1	1	1	0.8	1.5	
22-Apr	1	A	0	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	
23-Apr	A	1	1	1	1	1	2	4	5	1	0	5	1	1	1	1	1	1	2	3	20	8	A	1	2.7	19.6	
24-Apr	7	1	4	8	3	1	1	9	6	9	17	3	2	1	1	1	1	1	1	1	1	1	A	1	3.6	17.4	
25-Apr	1	1	1	1	1	1	1	1	1	1	1	2	3	3	1	1	1	1	1	1	1	A	1	1	1.3	2.7	
26-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	A	1	1	1	1.1	2.3	
27-Apr	1	2	1	1	1	1	1	1	1	1	3	2	8	11	1	1	1	1	1	A	1	2	1	1	2.0	10.7	
28-Apr	1	1	1	1	1	1	1	2	16	12	14	14	16	12	15	19	14	1	A	17	6	3	1	1	7.5	19.3	
29-Apr	2	2	2	2	1	1	1	1	1	5	6	3	5	1	1	1	1	A	1	2	1	2	1	2	1.9	5.5	
30-Apr	1	2	2	1	2	1	2	1	2	2	1	1	1	6	5	11	A	71	19	11	16	3	3	4	7.3	71.0	
		1.9	1.8	2.0	2.3	2.2	2.1	2.1	2.8	3.0	3.9	4.4	3.6	3.6	3.0	3.0	2.7	2.4	4.5	2.7	3.1	2.9	2.5	1.6	1.5	Diurnal Average	
		11.5	11.8	11.6	14.0	13.0	19.3	16.5	13.6	16.2	17.6	21.3	13.9	16.3	12.5	17.4	19.3	16.6	71.0	18.7	17.3	16.3	19.6	8.2	4.0	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



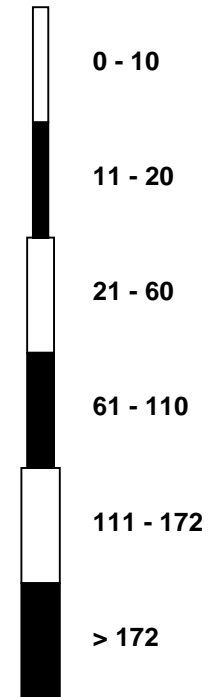


**Pollutant Rose**

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

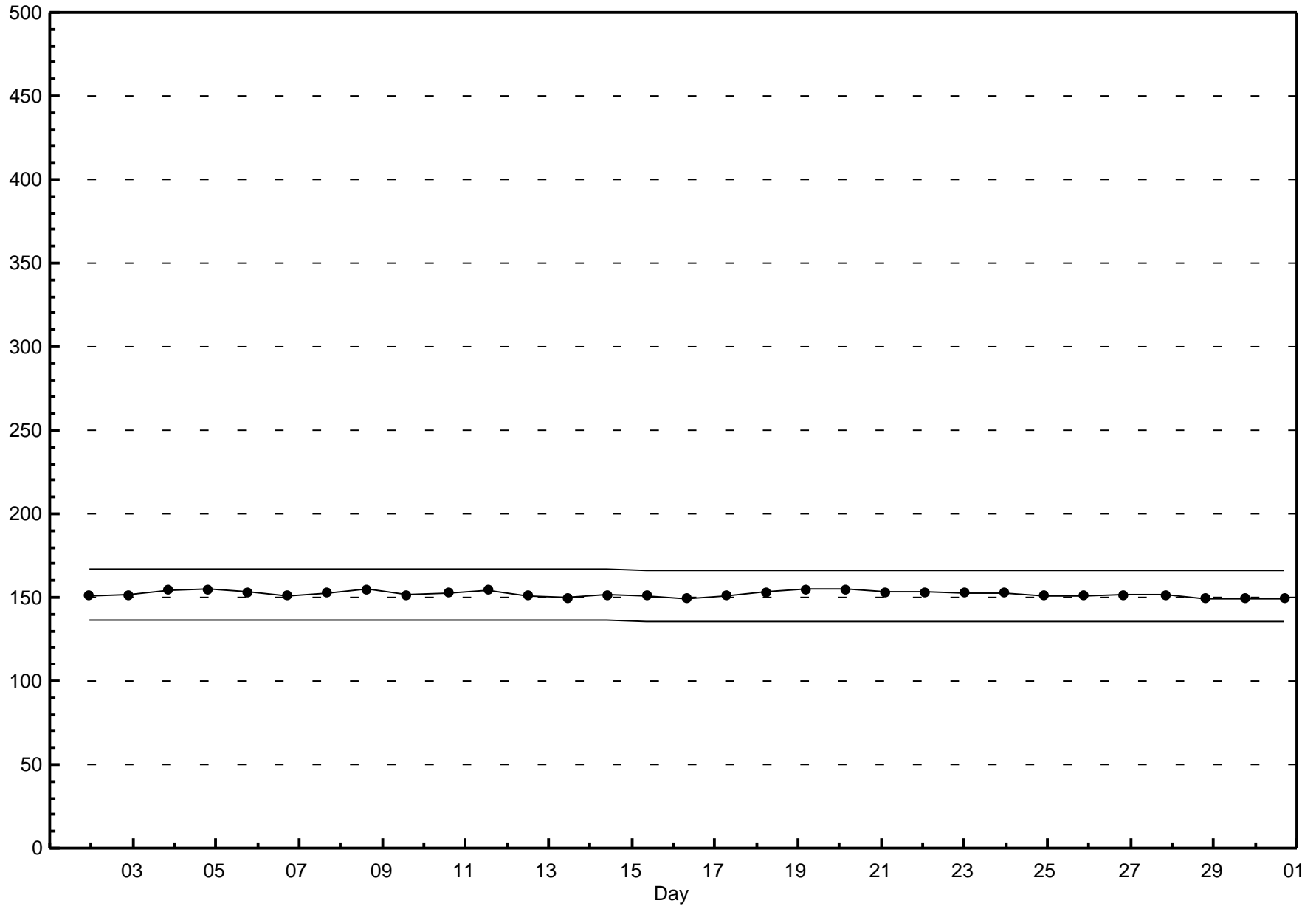


**Pollutant Classes (ppb)**



### Span Responses

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



## Hourly Averages

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

### Valleyview - April 2014

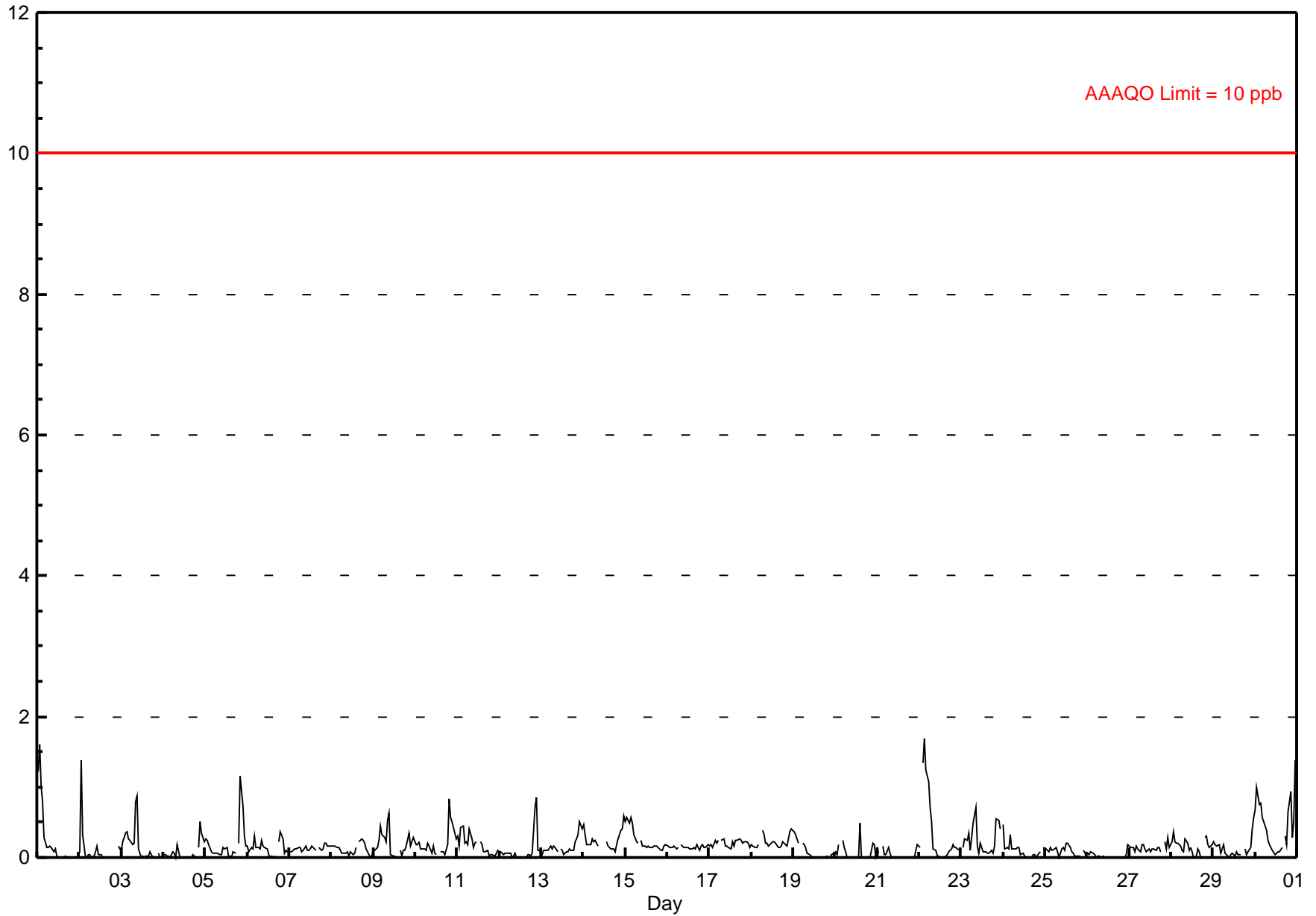
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 1.7 ppb on Apr 22 04:00	Maximum Daily Average: 0.4 ppb on Apr 30		Hours of Data:	686
Minimum Value: 0 ppb on Apr 1 13:00	Minimum Daily Average: 0.0 ppb on Apr 26		Hours of Missing Data:	34
Maximum Diurnal Average: 0.3 ppb at hour 2	Minimum Diurnal Average: 0.1 ppb at hour 13		Hours of Calibration:	34
Monthly Average: 0.16 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> = 1.2		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-Apr	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	1.6
2-Apr	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	1.4
3-Apr	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.9
4-Apr	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
5-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0	0	0.2	1.2
6-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.4
7-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2
8-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.3
9-Apr	0	0	0	0	0	0	0	0	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.6
10-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	1	1	0	0.2	0.8
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
12-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	0.1	0.8
13-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
14-Apr	0	0	0	0	0	0	0	0	0	A	C	C	C	0	0	0	0	0	0	0	0	0	0	1	0.2	0.6
15-Apr	1	1	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
16-Apr	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
17-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
18-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
19-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
20-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
21-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
22-Apr	0	A	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.7
23-Apr	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	A	0.2	0.7
24-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.5
25-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.2
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.0	0.2
27-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.3
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
29-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	A	0	0	0	1	0.1	0.6
30-Apr	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	0	1	1	0.4	1.4
	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	Diurnal Average
	1.2	1.6	1.4	1.7	1.2	1.1	0.7	0.5	0.8	0.9	0.2	0.2	0.2	0.2	0.5	0.3	0.3	0.3	0.3	0.8	1.2	0.8	0.5	1.4	Diurnal Maximum	

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

**Hourly Averages**

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



## Hourly Maximums

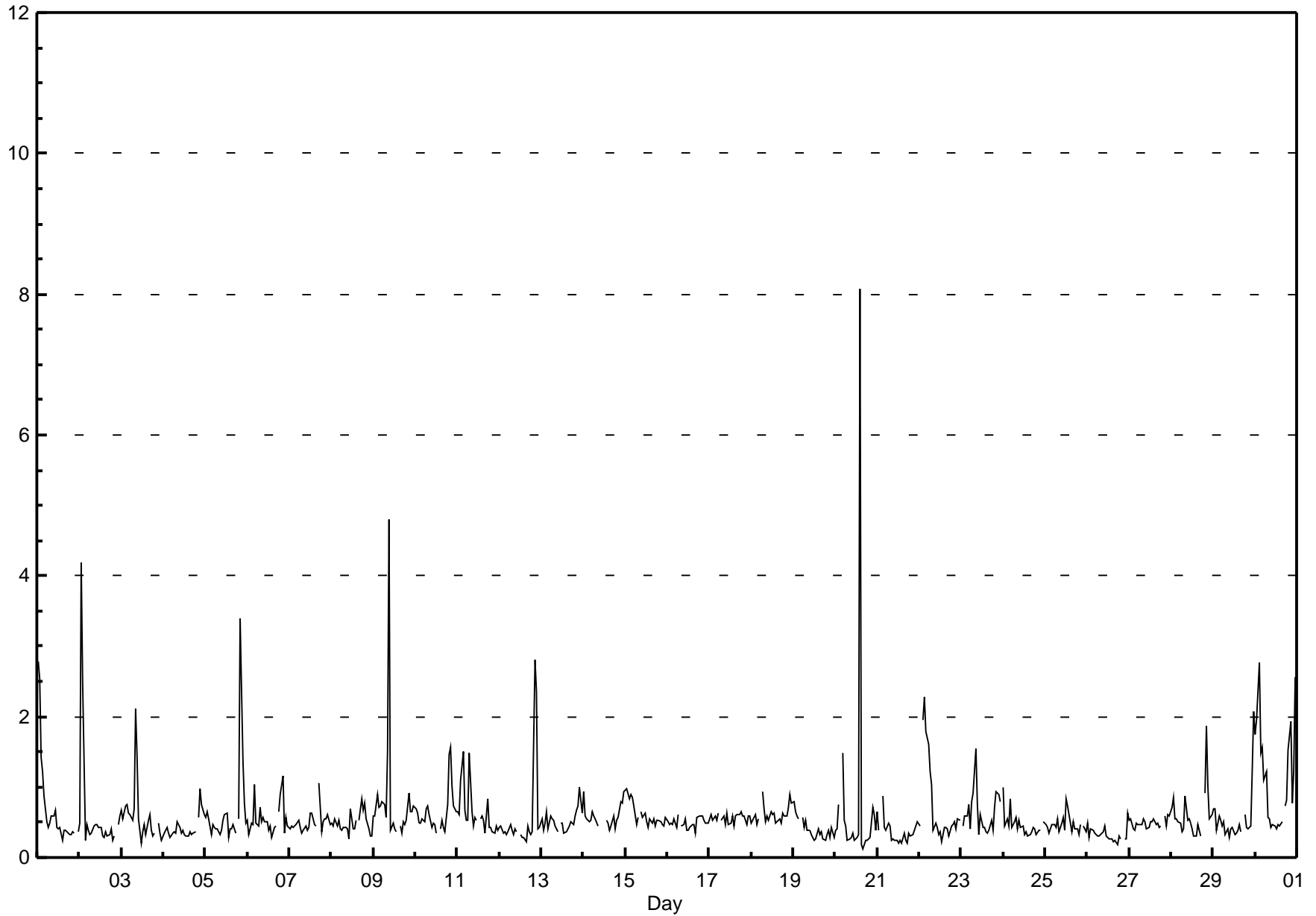
### Hydrogen Sulphide (H<sub>2</sub>S) - ppb

### Valleyview - April 2014

Maximum Value: 8.1 ppb on Apr 20 15:00		Maximum Daily Average: 1.1 ppb on Apr 30		Hours in Service: 720																						
Minimum Value: 0 ppb on Apr 20 17:00		Minimum Daily Average: 0.3 ppb on Apr 26		Hours of Data: 686																						
Maximum Diurnal Average: 0.9 ppb at hour 21		Minimum Diurnal Average: 0.4 ppb at hour 14		Hours of Missing Data: 34																						
Monthly Average: 0.58 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> = 0.9 P <sub>99</sub> = 2.8		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-Apr	3	3	1	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0.7	2.8
2-Apr	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0.6	4.2
3-Apr	1	1	1	1	1	1	1	1	2	1	1	0	0	0	0	1	1	0	0	0	A	0	0	0	0.6	2.1
4-Apr	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	0.4	1.0
5-Apr	1	1	1	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	A	1	3	1	1	0	0.6	3.4
6-Apr	1	0	0	0	1	0	0	1	1	1	1	1	0	0	0	0	0	A	1	1	1	0	1	0	0.6	1.2
7-Apr	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	A	1	0	1	1	1	1	0	0.5	1.1
8-Apr	0	0	1	0	1	0	0	0	0	0	1	0	0	0	1	A	1	1	1	1	1	0	0	0	0.5	0.8
9-Apr	1	1	1	1	1	1	1	1	2	5	0	0	0	0	A	0	1	1	0	1	1	1	1	1	0.8	4.8
10-Apr	1	1	0	0	1	1	1	1	1	0	0	0	0	A	0	1	0	0	1	1	2	1	1	1	0.7	1.6
11-Apr	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	0	1	0	0	0	0	0	0	0.6	1.5
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	3	2	0	0	0.6	2.8
13-Apr	1	0	0	1	0	1	1	1	0	0	A	0	0	0	0	0	0	1	0	1	1	1	1	1	0.5	1.0
14-Apr	1	1	1	1	1	1	1	1	0	A	C	C	C	1	0	0	0	1	0	1	1	1	1	1	0.6	0.9
15-Apr	1	1	1	1	1	1	0	1	A	1	1	1	1	0	1	0	1	0	1	1	0	0	0	1	0.6	1.0
16-Apr	1	0	0	0	1	0	1	A	0	0	1	0	0	0	0	0	0	1	1	1	1	1	0	0	0.5	0.6
17-Apr	1	1	1	1	1	1	A	1	1	0	1	0	0	1	0	1	1	1	1	1	1	0	1	1	0.6	0.6
18-Apr	0	1	1	0	1	A	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	0.6	0.9
19-Apr	1	1	1	1	A	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
20-Apr	0	0	1	A	1	1	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	1	1	0	0.7	8.1
21-Apr	1	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	0.9
22-Apr	0	A	2	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0.7	2.3
23-Apr	A	0	1	1	1	0	1	1	1	2	1	0	1	0	0	0	1	0	1	1	1	1	1	A	0.6	1.5
24-Apr	1	0	1	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0.5	1.0
25-Apr	0	0	0	0	0	0	0	1	0	0	1	0	1	1	0	0	1	0	0	0	0	A	0	0	0.5	0.8
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0.3	0.6
27-Apr	1	1	0	0	0	0	0	0	1	1	0	0	1	1	1	0	0	0	0	A	1	0	1	1	0.5	0.6
28-Apr	1	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	1	2	1	1	0.6	1.9
29-Apr	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	1	2	0.6	2.1
30-Apr	2	2	3	1	2	1	1	1	1	0	0	0	0	0	0	1	A	1	1	2	2	1	1	3	1.1	2.8
		0.7	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.4	0.4	0.4	0.7	0.4	0.4	0.5	0.5	0.6	0.9	0.7	0.6	0.6	Diurnal Average
		2.8	4.2	2.8	2.3	1.8	1.6	1.2	1.5	2.1	4.8	0.7	0.7	0.8	0.7	8.1	0.6	0.6	1.1	0.8	1.5	3.4	2.4	1.2	2.6	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

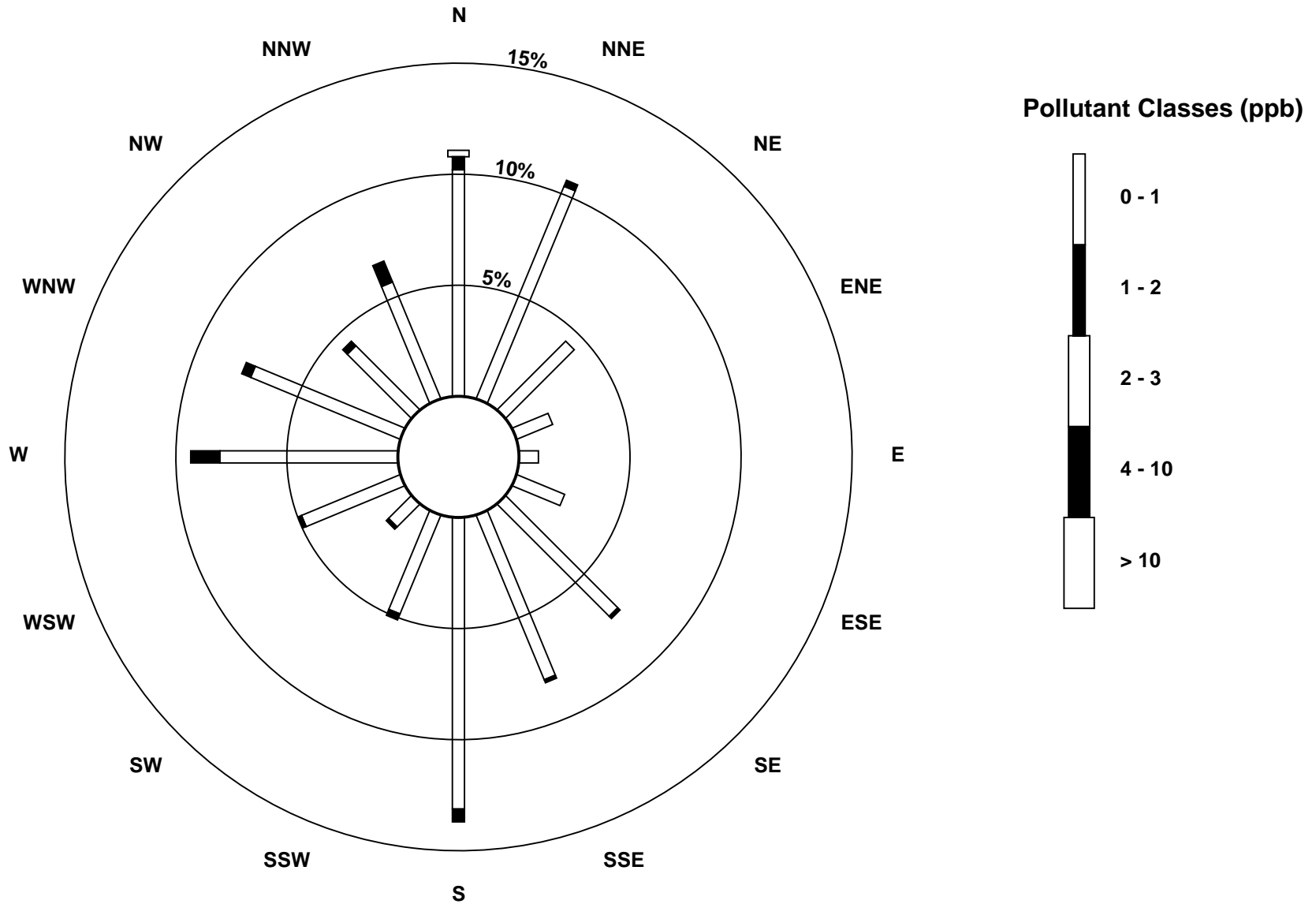
### Hourly Maximums

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

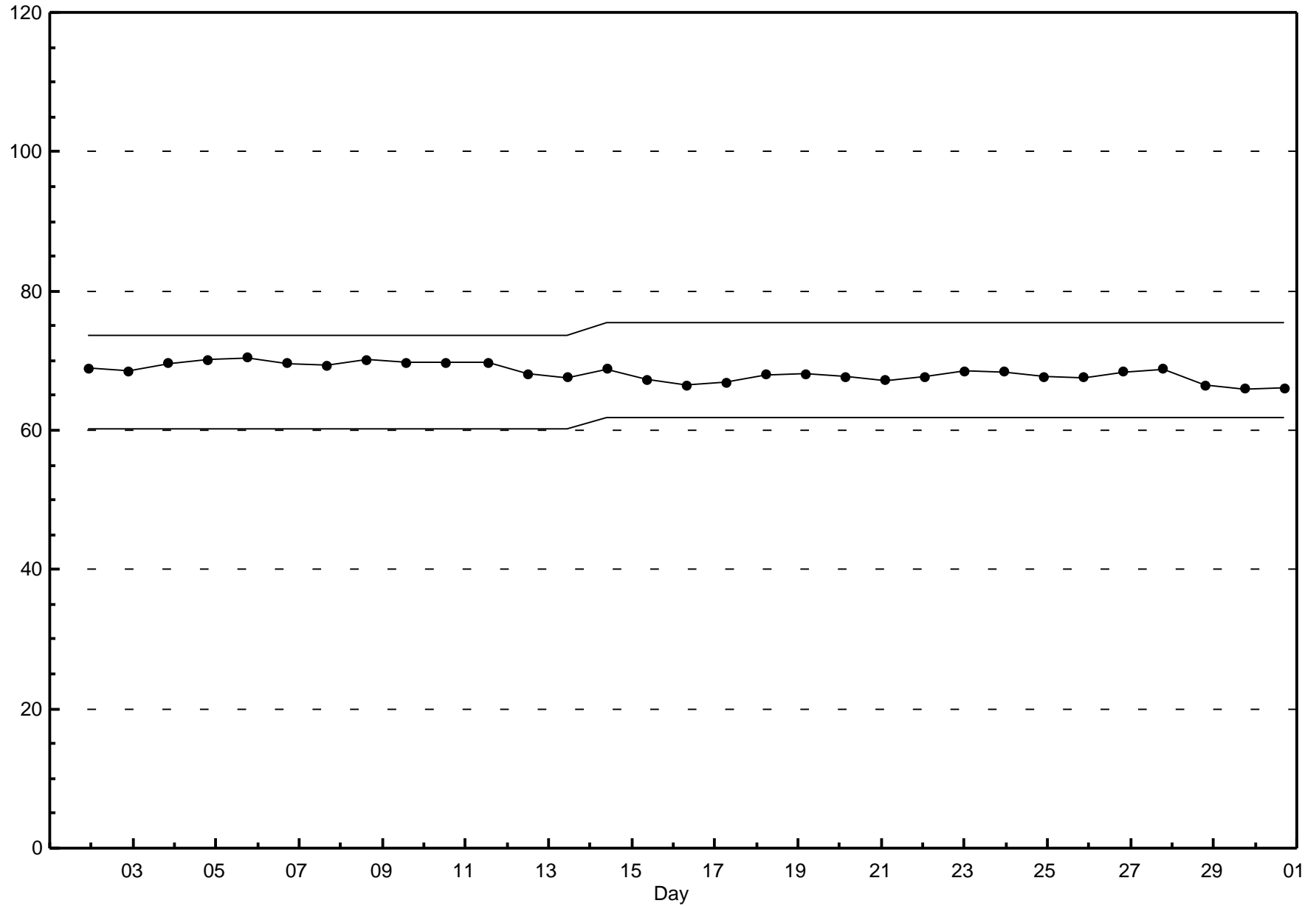


**Pollutant Rose**

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









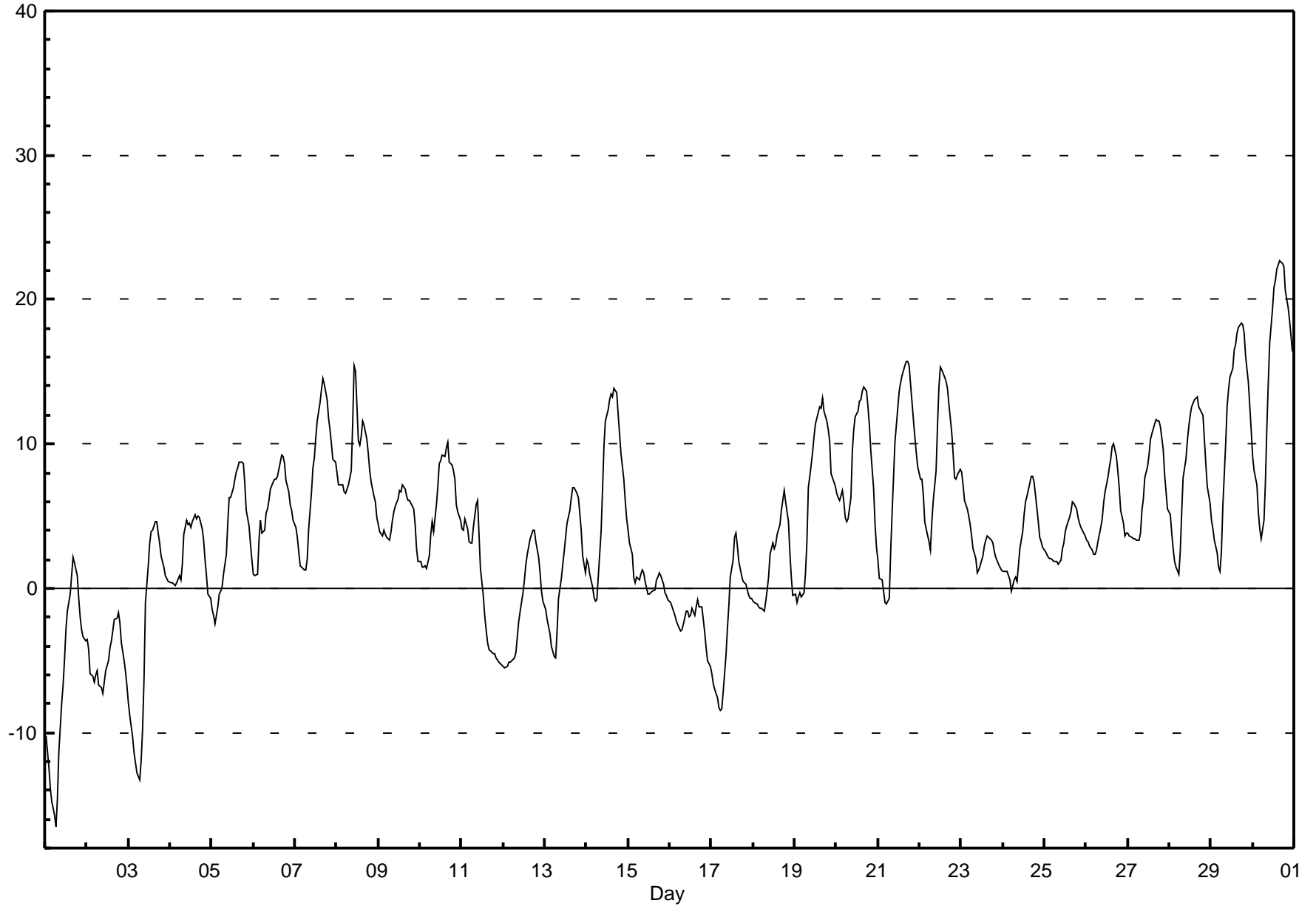
Peace Airshed Zone Association

# Hourly Averages

External Temperature (ET) - °C

Valleyview - April 2014

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 22.7 °C on Apr 30 16:00 Maximum Daily Average: 14.9 °C on Apr 30		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 °C on Apr 1 07:00 Maximum Diurnal Average: 8.2 °C at hour 17 Monthly Average: 4.03 °C		Minimum Daily Average: -6.3 °C on Apr 1 Minimum Diurnal Average: -0.4 °C at hour 6 Percentiles: P <sub>1</sub> = -12.5 P <sub>10</sub> = -3.7 Q <sub>1</sub> = 0.4 Median = 3.8 Q <sub>3</sub> = 7.6 P <sub>90</sub> = 12.4 P <sub>99</sub> = 20.5																									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	-10	-11	-12	-14	-15	-16	-17	-15	-11	-8	-7	-5	-3	-2	0	1	2	2	1	-1	-2	-3	-3	-4	-6.3	2.2	
2-Apr	-4	-4	-6	-6	-6	-6	-6	-7	-7	-7	-7	-6	-5	-4	-4	-3	-2	-2	-2	-2	-4	-5	-6	-7	-4.9	-1.7	
3-Apr	-8	-9	-10	-11	-12	-13	-13	-12	-10	-6	-1	2	3	4	4	5	5	4	3	2	1	1	1	0	-3.0	4.6	
4-Apr	0	0	0	0	0	1	1	2	4	5	4	4	4	5	5	5	5	5	4	3	2	1	0	-1	2.5	5.1	
5-Apr	-1	-2	-2	-1	0	0	0	1	2	4	6	6	7	8	8	8	9	9	9	7	5	4	3	2	3.8	8.8	
6-Apr	1	1	1	3	5	4	4	5	6	6	7	7	8	8	8	9	9	9	9	8	7	6	5	5	5.8	9.2	
7-Apr	4	4	3	2	1	1	1	2	4	7	8	9	10	12	13	14	15	14	13	12	11	10	9	9	7.8	14.5	
8-Apr	8	7	7	7	7	7	7	7	8	11	15	15	10	10	11	12	11	10	9	8	7	6	6	5	8.9	15.5	
9-Apr	4	4	4	4	4	4	4	3	4	5	6	6	7	7	7	6	6	6	6	6	5	4	3	2	4.9	7.1	
10-Apr	2	1	1	2	1	2	4	5	4	6	7	9	9	9	9	10	10	9	9	8	8	6	5	5	5.8	10.1	
11-Apr	4	4	5	4	3	3	3	4	6	6	4	1	0	-2	-3	-4	-4	-4	-4	-5	-5	-5	-5	-5	0.0	6.1	
12-Apr	-5	-6	-5	-5	-5	-5	-5	-4	-3	-2	-2	0	1	2	2	3	4	4	4	3	2	1	0	-1	-1.0	4.1	
13-Apr	-1	-2	-3	-3	-4	-5	-5	-3	-1	1	2	3	4	5	5	6	7	7	7	6	5	4	2	1	1.6	7.0	
14-Apr	2	2	1	0	-1	-1	-1	1	4	7	10	12	12	13	13	13	14	14	12	11	9	8	6	5	6.9	13.9	
15-Apr	4	3	2	1	0	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	0	0	0	-1	0.7	4.0	
16-Apr	-1	-1	-2	-2	-2	-3	-3	-3	-2	-2	-2	-2	-2	-1	-2	-1	-1	-1	-1	-2	-3	-4	-5	-5	-2.2	-0.8	
17-Apr	-6	-7	-7	-8	-8	-8	-8	-7	-5	-3	-1	1	2	4	4	3	2	1	1	0	0	0	-1	-1	-2.2	3.9	
18-Apr	-1	-1	-1	-1	-1	-1	-2	-1	0	1	2	3	3	3	4	4	5	6	7	6	5	2	1	-1	1.8	6.8	
19-Apr	0	-1	-1	0	-1	0	1	3	7	9	9	10	11	12	13	12	13	12	12	11	10	8	8	7	6.9	13.2	
20-Apr	7	6	6	7	6	5	5	5	6	10	11	12	12	13	13	14	14	14	13	11	10	7	4	3	8.8	14.0	
21-Apr	2	1	1	0	-1	-1	-1	3	5	8	10	13	14	14	15	15	16	16	15	14	12	11	9	8	8.2	15.8	
22-Apr	8	8	6	5	4	3	3	5	6	8	11	14	15	15	15	14	14	13	11	9	8	8	8	8	9.1	15.3	
23-Apr	8	7	6	5	5	4	4	3	2	1	1	2	2	3	3	4	4	3	3	3	2	2	1	1	3.3	8.0	
24-Apr	1	1	1	1	1	0	1	1	0	2	3	4	5	6	6	7	8	8	7	6	5	4	3	3	3.5	7.7	
25-Apr	3	2	2	2	2	2	2	2	2	2	3	3	4	4	5	5	6	6	5	5	5	4	4	4	3.5	6.0	
26-Apr	3	3	3	3	2	2	3	3	4	5	6	7	8	8	9	10	10	9	8	7	5	5	4	4	5.4	10.0	
27-Apr	4	4	4	3	3	3	3	4	5	6	8	8	9	10	11	11	12	12	11	10	8	7	6	6	7.2	11.7	
28-Apr	5	4	3	2	1	1	3	5	8	9	10	11	12	13	13	13	13	13	12	12	10	9	7	6	8.1	13.2	
29-Apr	5	4	3	2	2	1	3	6	10	13	14	15	15	17	17	18	18	18	18	18	16	14	13	11	11.2	18.3	
30-Apr	9	8	7	5	4	3	5	7	11	14	17	19	21	21	22	23	23	22	22	21	19	19	17	16	14.9	22.7	
		1.5	1.0	0.6	0.2	-0.1	-0.4	-0.2	0.9	2.4	3.9	5.2	6.1	6.6	7.1	7.5	7.9	8.2	7.9	7.5	6.7	5.5	4.4	3.5	2.8	Diurnal Average	
		9.1	8.1	7.2	7.2	6.7	6.6	6.9	7.4	11.1	14.3	17.0	19.3	20.8	21.4	22.1	22.7	22.6	22.5	22.3	20.7	19.4	18.6	17.5	16.4	Diurnal Maximum	



# Hourly Averages

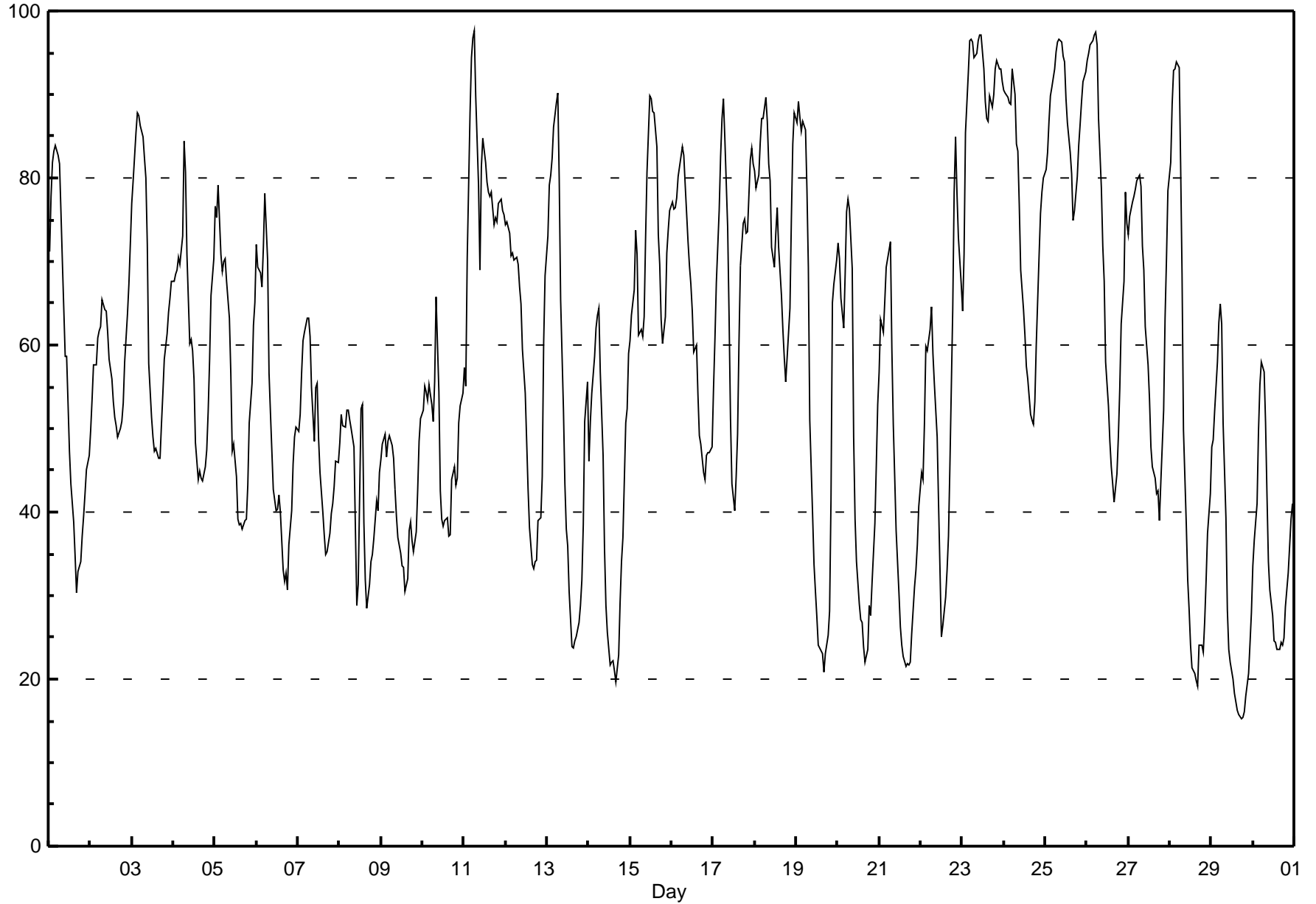
Relative Humidity (RH) - %

Valleyview - April 2014

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 97.7 % on Apr 11 07:00 Maximum Daily Average: 90.5 % on Apr 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: 15 % on Apr 29 18:00 Minimum Daily Average: 32.7 % on Apr 29 Maximum Diurnal Average: 75.9 % at hour 6 Minimum Diurnal Average: 41.6 % at hour 17 Monthly Average: 57.76 % Percentiles: P <sub>1</sub> = 17.9 P <sub>10</sub> = 28.8 Q <sub>1</sub> = 40.9 Median = 56.6 Q <sub>3</sub> = 75.2 P <sub>90</sub> = 87.1 P <sub>99</sub> = 96.5																										
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-Apr	71	78	82	83	84	83	82	76	70	59	59	53	47	43	39	35	30	33	34	37	39	42	45	47	56.3	83.8
2-Apr	50	54	58	58	61	62	62	65	64	64	62	58	56	53	51	50	49	50	51	53	58	64	67	72	58.0	72.0
3-Apr	77	80	85	88	87	86	85	82	80	72	58	51	49	47	48	46	47	51	54	58	61	64	66	68	66.3	87.8
4-Apr	68	68	69	71	70	73	84	81	71	60	61	59	56	48	44	45	44	44	45	47	52	58	66	70	60.6	84.4
5-Apr	77	75	79	71	69	70	70	68	63	57	47	48	44	39	38	39	38	39	39	43	51	55	62	65	56.1	79.2
6-Apr	72	69	69	67	72	78	70	57	52	47	43	40	40	42	40	33	32	33	31	36	40	46	49	50	50.3	78.1
7-Apr	50	52	57	61	62	63	63	61	55	48	55	55	49	45	40	37	35	35	37	40	41	43	46	46	49.0	63.3
8-Apr	48	52	50	50	52	52	51	50	48	38	29	31	52	53	39	32	28	31	34	35	37	41	40	45	42.5	52.8
9-Apr	46	48	49	47	48	49	48	46	43	39	37	35	34	33	30	32	38	39	37	35	38	43	49	51	41.4	51.2
10-Apr	52	55	54	53	55	53	51	56	66	54	42	39	38	39	39	37	37	44	45	43	44	51	53	54	48.2	65.7
11-Apr	57	55	70	88	94	97	98	90	79	69	81	85	82	79	78	78	78	74	75	75	77	77	76	76	78.7	97.7
12-Apr	74	75	73	71	71	70	71	70	67	65	60	54	48	43	38	34	33	34	34	39	39	44	60	68	55.7	74.8
13-Apr	73	79	80	82	86	89	90	80	65	52	43	38	36	30	24	24	25	25	27	29	32	38	51	56	52.3	90.1
14-Apr	46	51	54	59	62	64	64	57	47	36	29	26	22	22	22	21	20	23	29	34	37	51	52	59	41.1	64.3
15-Apr	60	64	67	74	71	61	62	61	63	73	81	90	89	88	88	84	73	70	63	60	63	71	74	76	71.9	89.9
16-Apr	77	76	76	78	80	83	84	83	79	72	70	67	64	59	60	54	49	48	45	44	47	47	47	48	64.0	83.7
17-Apr	55	61	67	76	83	87	89	85	74	63	51	43	40	44	49	60	70	75	75	73	74	82	84	82	68.5	89.5
18-Apr	81	79	80	84	87	87	90	87	82	80	72	69	73	76	72	66	62	59	56	58	64	75	84	88	75.5	89.7
19-Apr	87	89	87	86	87	86	79	69	51	40	34	30	27	24	23	23	21	23	25	28	41	65	67	70	52.6	89.1
20-Apr	72	70	66	62	68	76	78	76	69	49	39	34	29	27	27	24	22	24	29	28	32	39	46	53	47.4	77.5
21-Apr	57	63	62	65	69	70	72	60	51	44	38	30	26	24	23	22	22	22	22	25	31	33	36	41	42.0	72.4
22-Apr	45	44	51	60	59	62	65	59	55	49	41	33	25	26	30	33	37	46	64	78	85	78	73	67	52.7	84.9
23-Apr	64	71	85	93	96	97	96	94	95	96	97	97	93	89	87	87	90	88	90	93	94	93	93	91	90.5	97.1
24-Apr	90	90	90	89	89	93	90	84	83	77	69	64	61	57	56	52	51	51	53	60	71	76	78	80	73.1	93.0
25-Apr	81	83	87	90	91	93	95	96	97	96	95	94	89	87	83	81	75	76	80	84	86	89	91	93	88.0	96.6
26-Apr	94	95	96	97	97	97	96	87	79	72	68	58	53	48	45	43	41	45	49	55	63	68	78	75	70.7	97.4
27-Apr	73	75	77	78	79	80	80	79	72	69	62	58	54	48	45	44	42	43	39	44	52	63	70	79	62.7	80.3
28-Apr	82	89	93	93	94	93	82	68	50	39	32	28	24	21	21	20	19	24	24	23	27	32	37	42	48.2	93.9
29-Apr	48	49	52	58	63	65	63	51	39	28	24	22	20	18	17	16	16	15	16	16	18	21	24	28	32.7	64.9
30-Apr	34	37	41	50	55	58	57	51	42	34	31	28	25	24	24	24	24	24	25	29	33	36	39	41	36.0	58.0
																			65.4 67.5 70.3 72.6 74.7 75.9 75.5 70.9 65.0 58.1 53.5 50.7 48.2 46.0 44.0 42.5 41.6 42.8 44.3 46.8 50.9 56.2 60.2 62.6		Diurnal Average					
																			94.0 94.9 95.9 96.5 97.1 97.4 97.7 96.2 96.6 96.5 97.1 97.1 93.0 89.2 87.8 86.8 89.8 88.4 90.1 93.0 94.0 93.0 93.1 92.7		Diurnal Maximum					

**Hourly Averages**

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



## Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Valleyview - April 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	1	0	0	1	0	0	0	0	2	2	3	4	5	8	9	9	6	7	8	7	6	6	3	2	3.0	9.1
Dir	351	0	206	181	267	181	175	162	161	149	346	344	339	342	340	337	52	33	17	20	8	1	20	75	5	340
2 Spd	2	3	6	3	4	3	4	8	5	9	9	7	6	5	6	6	6	8	3	2	4	4	2	2	4.5	9.4
Dir	159	332	355	12	345	347	2	11	9	344	359	27	28	25	29	27	2	341	11	24	355	2	0	348	5	344
3 Spd	3	0	0	0	0	0	0	0	1	1	7	11	10	10	12	11	11	11	11	10	11	10	11	11	5.9	11.9
Dir	338	335	144	165	321	246	137	32	344	23	162	158	157	162	159	153	153	146	149	153	159	167	170	166	158	159
4 Spd	10	8	7	7	7	4	2	2	8	12	14	15	15	14	12	12	10	8	7	2	1	0	0	0	3.6	15.1
Dir	169	172	170	167	175	234	186	195	265	296	306	305	316	320	322	336	336	2	1	30	146	195	170	164	301	316
5 Spd	0	0	1	2	1	2	2	3	3	4	13	12	9	9	8	4	5	2	0	1	1	1	2	1	1.9	13.2
Dir	184	248	174	178	173	176	176	174	178	231	264	266	291	296	319	352	36	3	69	166	317	229	175	159	272	264
6 Spd	1	2	2	7	5	1	3	10	16	17	16	18	15	13	12	15	14	14	15	8	6	5	4	2	8.4	18.0
Dir	175	169	186	251	262	201	222	266	278	281	282	280	295	311	306	291	288	287	279	277	253	241	236	193	279	280
7 Spd	2	2	1	2	3	2	2	2	3	4	3	2	4	5	3	3	3	3	2	2	2	3	2	4	2.6	4.5
Dir	185	190	186	198	193	193	191	168	170	183	212	147	176	180	192	163	203	207	173	157	174	176	177	170	182	180
8 Spd	3	0	4	3	3	4	4	5	3	4	5	12	19	13	13	14	18	13	11	13	13	10	14	14	7.0	19.3
Dir	175	141	193	185	181	185	173	171	176	177	190	274	320	301	280	271	274	273	270	268	264	248	249	248	261	320
9 Spd	11	11	10	12	13	14	14	17	22	21	22	20	19	21	21	19	15	14	12	10	10	1	1	2	13.4	22.3
Dir	255	257	260	268	277	268	269	273	278	284	284	284	283	286	283	286	298	302	291	279	275	193	166	173	279	284
10 Spd	1	2	2	2	2	2	4	13	10	5	11	15	19	16	13	15	12	15	8	6	1	0	1	1	6.2	19.5
Dir	175	194	202	192	187	172	250	273	278	239	276	291	301	306	314	313	315	325	296	270	277	140	165	162	291	301
11 Spd	2	3	7	2	2	2	2	4	5	17	17	21	19	20	15	18	18	18	17	17	14	12	13	11	9.3	20.6
Dir	197	199	264	240	162	180	181	254	271	295	314	331	327	345	7	8	6	5	355	360	358	358	351	353	342	331
12 Spd	6	5	4	2	2	1	2	3	3	4	7	6	9	9	10	9	13	12	8	5	4	4	5	7	4.2	12.6
Dir	15	31	33	27	45	135	166	166	171	248	268	284	310	306	318	316	326	308	297	297	286	328	344	0	318	326
13 Spd	6	5	4	2	2	1	1	1	2	3	3	2	2	4	5	4	4	4	3	1	2	0	1	0	1.9	6.1
Dir	12	22	21	33	29	46	358	127	151	141	136	48	360	28	46	47	67	62	63	27	18	4	173	139	46	12
14 Spd	1	6	6	4	4	3	2	4	3	4	1	2	8	8	10	12	5	5	4	2	3	2	1	3	0.9	11.5
Dir	177	173	174	180	180	186	183	170	167	177	123	319	305	323	345	342	2	28	62	59	350	325	339	21	335	342
15 Spd	2	1	1	0	3	8	10	10	9	14	16	15	15	16	14	13	9	7	6	4	6	5	4	4	7.7	16.1
Dir	351	345	345	325	9	9	5	14	7	1	359	5	5	4	7	11	30	31	41	45	48	42	12	11	11	359
16 Spd	5	5	6	5	6	4	4	3	5	5	8	12	10	8	10	9	7	9	11	8	6	9	5	3	6.6	11.8
Dir	22	33	44	36	37	20	19	11	13	359	6	2	22	32	26	18	353	18	7	26	15	8	23	9	18	2
17 Spd	5	3	1	0	2	2	2	3	2	3	3	4	4	5	5	9	11	10	8	9	5	7	7	5	3.4	11.0
Dir	1	8	18	44	18	22	33	21	29	23	49	68	143	131	128	129	128	125	130	127	133	133	138	141	112	128
18 Spd	4	3	4	4	2	2	2	2	2	2	3	1	3	3	3	4	2	2	1	2	1	0	0	1	1.0	4.4
Dir	132	126	124	122	98	97	56	83	137	150	184	225	288	334	328	354	45	96	78	125	145	150	343	163	105	122
19 Spd	0	1	2	2	1	2	3	3	2	5	5	2	1	3	2	1	1	6	5	4	4	2	2	1	0.5	5.6
Dir	298	182	185	185	182	175	172	165	196	299	287	333	241	151	107	26	1	47	28	76	176	196	170	172	156	47
20 Spd	1	2	3	4	1	1	1	2	3	12	16	17	18	16	14	14	13	13	13	10	3	2	1	1	6.4	18.2
Dir	240	229	252	276	184	208	186	182	178	275	287	283	279	284	284	289	300	318	334	329	326	163	197	171	288	279
21 Spd	1	1	1	1	1	0	0	2	1	1	2	2	2	1	3	3	5	4	3	4	6	5	4	4	1.2	6.1
Dir	183	192	188	198	194	194	167	171	155	172	148	157	93	134	78	104	141	125	113	52	56	56	345	326	100	56
22 Spd	4	1	1	1	2	1	2	2	3	3	2	7	11	10	9	8	11	13	3	3	9	7	7	7	3.0	12.7
Dir	326	257	355	357	1	346	344	336	10	338	350	39	92	109	103	92	125	124	110	13	10	9	8	12	59	124

# Hourly Averages

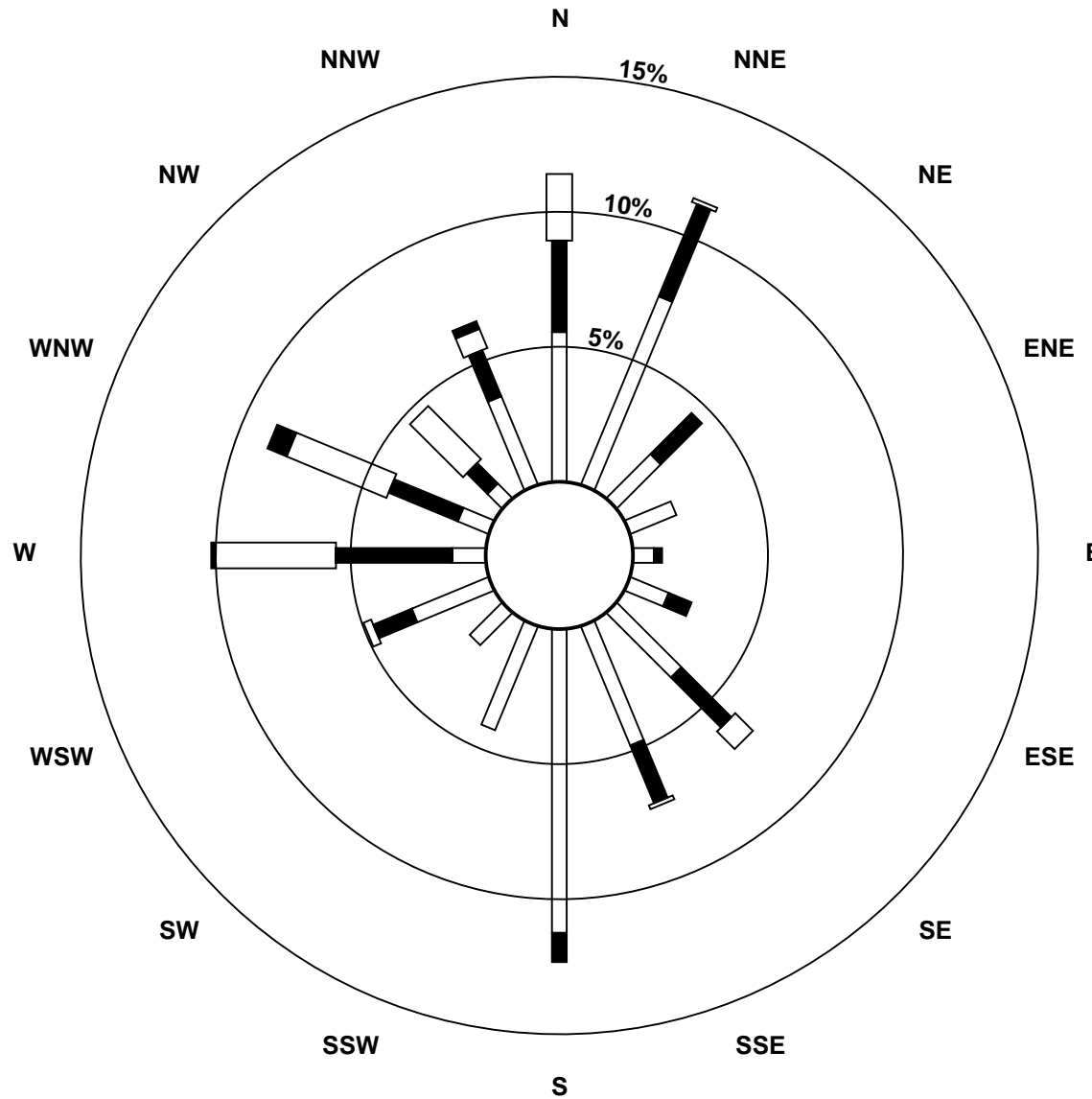
**Wind Speed (km/h)  
Wind Direction (deg)  
Valleyview - April 2014**

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	3	1	1	2	3	7	9	8	3	2	5	8	10	11	12	9	12	8	7	6	9	8	8	5.7	11.7
Dir	15	58	341	342	351	343	278	272	272	240	238	267	299	298	297	295	296	284	289	283	275	274	268	270	289	295
24 Spd	7	6	5	6	3	1	1	3	4	5	4	3	2	4	5	5	6	6	8	7	6	5	5	5	1.9	8.5
Dir	265	249	254	255	255	182	163	265	256	256	277	295	358	30	357	9	50	41	40	45	37	35	27	9	344	45
25 Spd	4	4	4	3	2	2	2	3	4	4	3	4	2	4	6	6	6	6	7	6	4	3	3	2	3.7	7.5
Dir	11	12	5	13	32	16	23	30	23	23	26	345	312	353	358	19	1	24	27	41	41	34	359	7	16	27
26 Spd	3	1	2	1	2	1	1	2	3	6	5	8	7	9	11	11	13	12	12	12	13	11	6	9	6.1	13.4
Dir	358	24	14	32	2	12	113	111	123	130	135	142	135	123	133	134	131	132	133	128	125	123	121	126	126	131
27 Spd	8	7	5	4	4	5	6	7	6	4	4	9	8	11	12	10	10	13	10	6	2	6	1	2	1.5	12.8
Dir	132	137	146	137	140	147	164	164	177	197	249	303	290	283	325	332	347	342	341	332	191	240	9	188	287	342
28 Spd	1	1	2	2	2	3	3	3	12	16	15	15	17	16	13	13	14	13	12	10	7	8	3	1	7.5	16.8
Dir	194	193	193	192	172	185	178	191	270	278	281	276	281	275	281	277	300	282	263	261	252	237	194	194	271	281
29 Spd	2	3	3	3	2	3	3	4	3	4	6	6	4	2	2	4	4	5	6	5	4	4	2	2	2.1	5.9
Dir	176	179	175	174	150	159	160	158	159	254	249	261	296	257	232	162	143	132	121	118	118	127	218	167	172	121
30 Spd	3	3	2	1	0	1	1	1	3	4	3	2	3	6	6	8	10	11	11	9	11	10	5	5	3.9	11.3
Dir	176	180	185	206	242	212	200	181	166	173	182	224	220	282	265	275	281	268	281	275	276	284	281	274	261	276
Spd	0.2	0.6	0.7	1.0	0.4	0.5	0.7	1.4	2.3	3.7	4.6	5.3	5.7	5.2	4.9	4.6	3.3	3.5	3.0	1.6	1.1	0.7	0.8	0.3	Diurnal Average	
Dir	300	188	214	216	229	228	238	252	266	282	290	302	309	314	323	326	330	341	337	341	328	317	306	301	Diurnal Maximum	
Spd	11.1	11.1	10.2	12.3	13.5	14.3	14.3	17.1	21.7	21.1	22.3	20.6	19.5	20.6	21.3	19.0	18.2	17.5	16.6	16.8	13.7	11.6	14.0	13.8	Diurnal Maximum	
Dir	255	257	260	268	277	268	269	273	278	284	284	331	301	286	283	286	6	5	355	360	358	358	249	248	Diurnal Maximum	
Maximum Speed Value: 22 km/h on Apr 9 11:00																		Minimum Speed Value: 0 km/h on Apr 18 22:00						Hours in Service:		720
Maximum Daily Speed Average: 13.4 km/h on Apr 9																		Minimum Daily Speed Average: 0.5 km/h on Apr 18						Hours of Data:		720
Maximum Diurnal Speed Average: 5.7 km/h at hour 13																		Minimum Diurnal Speed Average: 0.2 km/h at hour 1						Hours of Missing Data:		0
Monthly Average Velocity: 2.02 km/h 307.3 deg																		Speed Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 1.0 Q <sub>1</sub> = 2.1 Median = 4.2 Q <sub>3</sub> = 8.9 P <sub>90</sub> = 13.2 P <sub>99</sub> = 20.2						Percent Operational Time:		100.0
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
		Speed Range (km/h)																								
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	80	46	19	1	0	0	146																			
NorthEast	50	30	0	0	0	0	80																			
East	15	4	0	0	0	0	19																			
SouthEast	45	27	10	0	0	0	82																			
South	146	17	2	0	0	0	165																			
SouthWest	27	2	0	0	0	0	29																			
West	21	47	52	6	0	0	126																			
NorthWest	21	20	28	4	0	0	73																			
Total	405	193	111	11	0	0	720																			

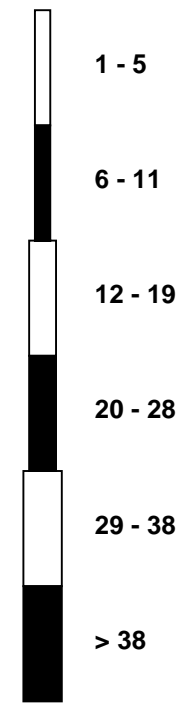
**Wind Rose**

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

**Valleyview - April 2014**



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





# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - April 2014

<b>Maximum Speed: 23 km/h on Apr 9 11:00</b>		<b>Maximum Daily Speed Average: 14.2 km/h on Apr 9</b>		Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0																						
<b>Minimum Speed: 0 km/h on Apr 18 22:00</b>		<b>Minimum Daily Speed Average: 2.5 km/h on Apr 18</b>		Percent Operational Time: 100.0																						
<b>Maximum Diurnal Speed Average: 10.0 km/h at hour 16</b>		<b>Minimum Diurnal Speed Average: 2.7 km/h at hour 6</b>																								
<b>Monthly Average Speed: 6.20 km/h</b>		Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 1.3 Q <sub>1</sub> = 2.4 Median = 4.6 Q <sub>3</sub> = 9.1 P <sub>90</sub> = 13.6 P <sub>99</sub> = 20.8																								
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-Apr	1	0	0	1	0	0	0	0	2	2	3	4	5	8	9	9	7	8	9	7	6	6	3	2	3.8	9.1
2-Apr	2	3	6	3	4	4	4	8	6	9	9	7	6	6	6	7	6	8	3	2	4	4	3	2	5.1	9.4
3-Apr	3	1	0	0	0	0	0	0	1	1	8	11	10	10	12	11	11	11	11	10	11	10	11	11	6.5	12.1
4-Apr	10	8	7	7	8	4	2	2	9	12	14	15	15	15	12	12	10	9	7	2	1	0	0	0	7.6	15.4
5-Apr	0	0	1	2	1	2	2	3	3	4	14	12	9	9	8	6	5	2	0	1	1	2	2	1	3.8	13.6
6-Apr	1	2	2	7	6	1	3	11	16	17	16	18	15	13	12	15	14	14	15	8	6	5	4	2	9.3	18.2
7-Apr	2	2	1	2	3	2	2	3	3	4	4	2	4	5	4	3	3	3	2	2	2	3	2	4	2.8	4.6
8-Apr	3	1	4	3	3	4	4	5	3	4	5	13	20	13	13	15	18	13	11	14	13	10	14	14	9.2	19.7
9-Apr	11	11	10	12	14	14	14	17	22	21	23	21	19	21	22	20	15	15	12	10	10	2	1	2	14.2	22.7
10-Apr	2	2	2	2	2	2	5	13	11	6	12	15	20	16	14	15	13	15	8	6	2	1	2	1	7.8	19.7
11-Apr	2	3	7	2	2	2	2	5	6	18	17	21	20	20	16	18	18	18	17	17	14	12	13	11	11.6	20.9
12-Apr	7	5	4	2	2	2	2	3	3	5	8	7	9	9	11	10	13	12	8	5	4	5	5	8	6.1	12.9
13-Apr	6	5	4	2	2	1	1	1	2	3	4	3	4	5	5	4	4	4	3	1	2	1	1	1	2.9	6.3
14-Apr	1	6	6	4	4	3	2	4	3	4	3	4	9	8	10	12	6	5	4	2	3	2	1	3	4.4	11.7
15-Apr	2	2	1	1	3	8	10	10	9	15	16	16	15	16	14	13	9	8	6	4	6	5	4	4	8.1	16.2
16-Apr	5	5	6	5	6	4	4	3	6	5	8	12	10	9	10	10	8	10	11	8	6	9	5	4	7.0	12.2
17-Apr	5	3	1	1	2	2	2	3	3	3	4	5	4	5	6	9	11	10	8	9	5	7	7	5	5.0	11.1
18-Apr	4	3	4	4	2	2	2	2	2	2	3	3	4	4	4	5	3	3	1	2	1	0	0	1	2.5	4.6
19-Apr	1	1	2	2	1	2	3	3	3	5	5	3	5	5	4	5	3	6	6	6	6	2	2	2	3.4	5.8
20-Apr	2	3	3	4	1	1	1	2	3	13	16	17	19	16	15	15	13	13	13	10	3	2	1	2	7.8	18.7
21-Apr	1	2	1	1	1	0	1	2	1	2	2	2	4	5	5	6	6	4	3	4	6	5	4	4	3.0	6.2
22-Apr	4	2	1	1	2	1	2	2	3	4	3	8	11	11	9	8	12	13	4	3	9	7	7	7	5.6	12.9
23-Apr	7	5	1	2	2	4	7	9	8	3	2	6	8	10	11	12	9	12	8	7	6	9	8	8	6.8	11.9
24-Apr	8	6	5	6	3	1	1	3	4	5	4	4	4	5	6	6	6	7	6	9	7	6	5	5	5.1	8.6
25-Apr	4	4	4	3	2	2	2	3	4	4	3	4	2	5	6	6	7	7	8	6	5	3	3	2	4.1	7.7
26-Apr	3	1	2	1	2	1	1	2	3	6	6	8	7	9	11	11	14	12	12	12	13	11	6	9	6.9	13.7
27-Apr	8	7	5	4	4	5	6	7	7	5	6	9	8	12	13	11	10	13	11	6	3	7	3	2	7.2	13.1
28-Apr	1	1	2	3	2	3	3	3	3	13	17	15	16	18	16	14	14	14	12	10	7	8	4	2	8.8	17.6
29-Apr	2	3	4	3	2	3	3	4	3	6	7	7	5	5	5	5	5	6	6	5	4	4	3	2	4.2	7.1
30-Apr	3	3	2	1	0	1	1	1	3	4	4	4	5	7	8	9	10	11	11	9	11	10	5	5	5.4	11.4
																								Diurnal Average		
																								Diurnal Maximum		
3.7 3.3 3.3 3.0 2.9 2.7 3.0 4.5 5.4 7.0 8.1 9.3 9.8 9.9 9.8 10.0 9.5 9.5 7.9 6.5 5.9 5.2 4.3 4.2																										
11.3 11.2 10.4 12.5 13.7 14.4 14.5 17.3 22.0 21.3 22.7 20.9 19.7 21.0 21.6 19.6 18.3 17.7 16.7 17.0 13.9 11.7 14.0 13.9																										

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

# Hourly Standard Deviations

Wind Direction (WD) - deg

Valleyview - April 2014

Maximum Value: 95.9 deg on Apr 21 14:00																								Hours in Service:	720
Minimum Value: 4.4 deg on Apr 2 18:00																								Hours of Data:	720
Percentiles: P <sub>1</sub> = 5.2 P <sub>10</sub> = 8.1 Q <sub>1</sub> = 10.3 Median = 15.5 Q <sub>3</sub> = 31.1 P <sub>90</sub> = 54.7 P <sub>99</sub> = 88.1																								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-Apr	90	73	75	39	64	54	79	81	24	25	8	6	9	5	6	28	35	19	8	8	8	9	41	29	90.2
2-Apr	19	64	15	22	15	15	13	9	13	7	17	8	16	22	16	21	19	4	22	14	10	18	14	33	63.9
3-Apr	8	81	68	73	90	92	53	51	33	50	39	12	13	14	11	12	11	10	9	10	8	9	7	7	91.9
4-Apr	7	8	10	14	10	29	16	17	15	17	10	10	11	12	11	8	12	15	10	17	32	34	26	36	35.6
5-Apr	26	70	33	7	45	13	43	6	8	61	13	16	16	14	12	39	11	14	63	24	70	48	22	16	70.1
6-Apr	47	16	16	31	30	15	22	25	10	9	10	10	11	10	15	11	11	16	9	12	14	14	12	11	46.7
7-Apr	5	7	23	6	6	8	6	21	21	15	37	31	13	10	52	11	27	16	8	11	18	9	12	6	52.2
8-Apr	12	76	8	4	4	6	6	8	11	9	20	28	13	11	13	11	10	11	13	10	11	9	6	6	76.4
9-Apr	12	8	10	9	9	8	9	8	10	9	10	12	13	10	10	14	16	20	14	11	12	43	19	20	43.4
10-Apr	14	5	6	10	16	21	45	16	26	32	16	12	8	12	9	11	12	8	16	10	62	61	63	49	62.9
11-Apr	14	13	21	36	14	31	11	34	46	13	13	10	9	10	8	8	7	8	8	9	9	8	8	9	45.5
12-Apr	17	18	14	21	18	37	14	15	20	42	32	30	21	16	19	21	13	10	12	10	8	37	16	11	41.9
13-Apr	10	13	10	15	9	36	70	65	42	27	41	64	69	35	28	35	27	12	37	18	13	55	63	52	70.1
14-Apr	50	9	10	8	6	8	9	8	12	18	81	71	19	18	16	10	31	22	18	30	24	17	52	17	81.5
15-Apr	74	74	71	80	38	6	7	8	10	9	8	8	8	8	10	15	13	18	14	15	13	15	11	9	79.8
16-Apr	9	8	17	13	9	15	15	24	14	35	21	16	20	19	16	19	21	18	10	13	13	8	10	14	34.8
17-Apr	6	52	12	81	45	35	16	18	26	48	38	34	37	30	20	12	8	7	9	8	15	10	12	13	81.1
18-Apr	12	9	8	8	18	24	14	32	24	34	30	61	49	32	48	40	66	62	52	13	15	95	73	17	95.2
19-Apr	78	23	9	8	34	11	13	8	37	42	34	84	86	60	61	80	91	16	13	51	45	11	25	80	90.6
20-Apr	47	29	22	19	64	72	11	8	8	39	15	17	13	15	15	20	19	20	9	5	8	58	37	19	71.9
21-Apr	35	40	28	14	19	58	66	14	51	31	26	50	68	96	62	69	38	36	30	11	15	9	18	19	95.9
22-Apr	10	49	51	41	41	75	37	26	12	17	40	30	16	17	16	23	21	10	58	55	6	10	6	7	74.6
23-Apr	7	60	52	67	25	35	18	8	9	14	29	16	16	15	13	11	12	9	12	15	8	8	11	9	67.4
24-Apr	11	8	10	10	24	26	75	42	27	36	37	67	74	54	48	56	42	30	21	9	8	10	11	10	74.9
25-Apr	11	9	12	20	14	13	24	13	11	18	22	17	32	25	15	18	25	20	14	9	10	14	13	16	32.0
26-Apr	11	13	23	16	17	23	26	19	15	10	15	13	23	13	13	15	12	9	9	8	7	8	10	12	26.2
27-Apr	11	12	12	13	13	11	9	11	14	25	45	26	26	24	18	20	23	14	12	13	70	64	88	27	88.1
28-Apr	26	45	28	33	8	6	9	26	17	13	15	17	18	18	24	17	18	17	14	12	9	7	33	49	49.2
29-Apr	12	5	5	5	13	9	9	11	24	61	35	42	54	89	79	43	55	29	15	8	9	28	38	18	88.9
30-Apr	11	9	34	46	79	11	16	39	15	15	33	75	60	49	47	42	29	18	15	9	8	9	11	12	79.2
	90.2	81.0	74.8	81.1	90.0	91.9	78.5	81.1	50.8	61.3	81.5	84.3	85.5	95.9	79.4	80.2	90.6	62.1	63.0	55.0	70.1	95.2	88.1	79.9	

PAZA

Portable – Reno Station

Monthly Summary Tables, Graphs and  
Roses

## Hourly Averages

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

### Portable Reno - April 2014

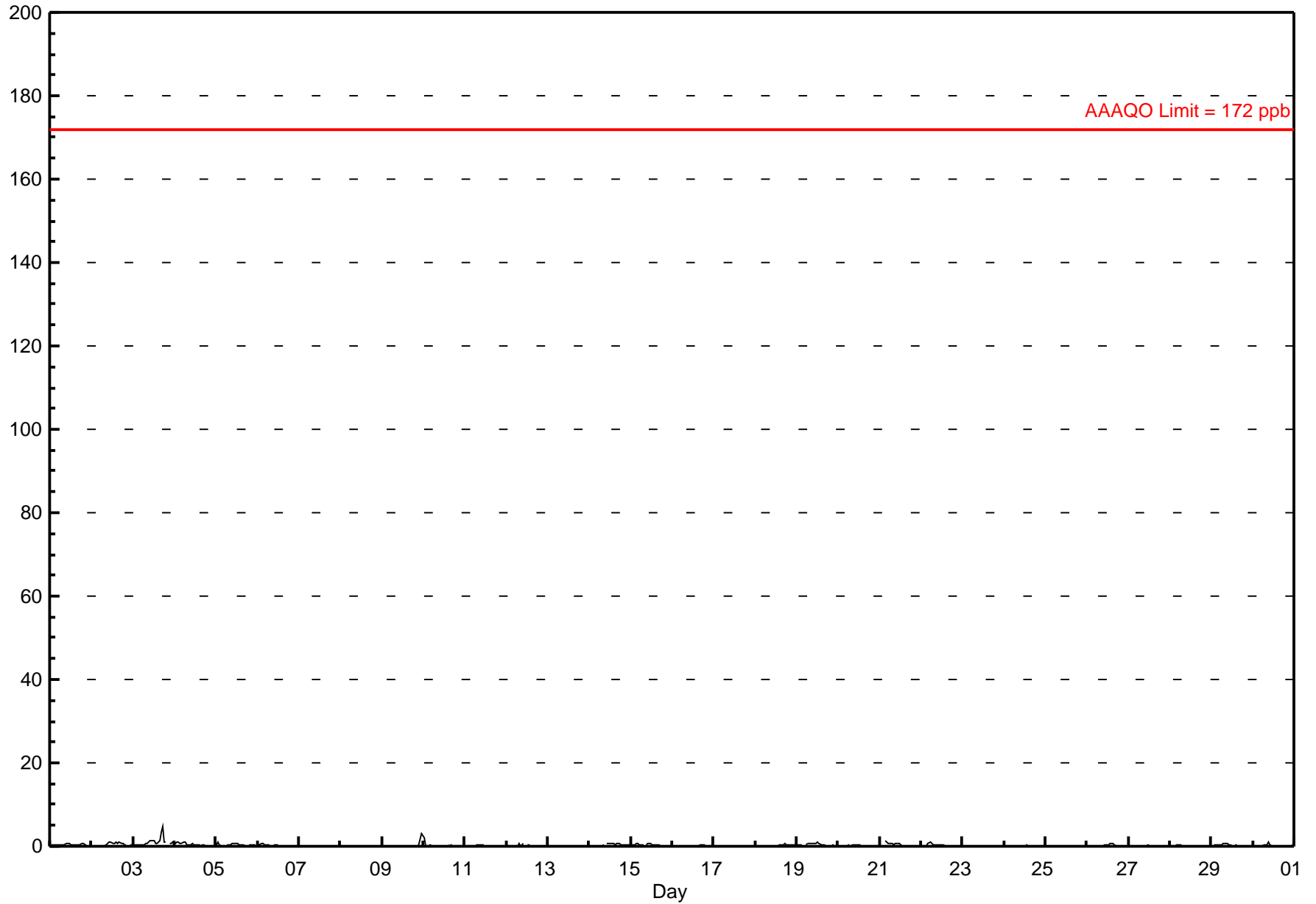
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 4.8 ppb on Apr 3 18:00	Maximum Daily Average: 1.0 ppb on Apr 3		Hours of Data:	685
Minimum Value: 0 ppb on Apr 2 06:00	Minimum Daily Average: 0.0 ppb on Apr 8		Hours of Missing Data:	35
Maximum Diurnal Average: 0.4 ppb at hour 11	Minimum Diurnal Average: 0.1 ppb at hour 21		Hours of Calibration:	35
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> = 0.6 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-Apr	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	1	0	0	A	0	0.4	0.7
2-Apr	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	A	0	0	0.4	1.0
3-Apr	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	3	5	1	1	A	1	1	1	1.0	4.8
4-Apr	1	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0.4	1.2
5-Apr	0	1	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0.3	1.0
6-Apr	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.5
7-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.0	0.1
8-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.0	0.0
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	3.0
10-Apr	2	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	1.9
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
12-Apr	0	0	0	0	0	0	0	1	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
13-Apr	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
14-Apr	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	1	0	1	1	1	0	0	0	0	0.3	0.7
15-Apr	0	0	0	1	1	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
16-Apr	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
17-Apr	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	0.1
18-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.2	0.6
19-Apr	0	0	0	0	A	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	1.0
20-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
21-Apr	0	0	A	1	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
22-Apr	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
23-Apr	A	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
24-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
25-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.0	0.0
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	A	0	0	0	0.2	0.6
27-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.2
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
29-Apr	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.6
30-Apr	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.9
	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.2	Diurnal Average
	1.9	1.0	0.9	1.2	0.9	1.2	1.1	0.6	0.8	1.0	1.4	1.3	1.2	0.8	0.9	1.2	3.5	4.8	0.9	1.1	0.4	0.5	1.8	3.0	Diurnal Maximum	

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

### Hourly Averages

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



## Hourly Maximums

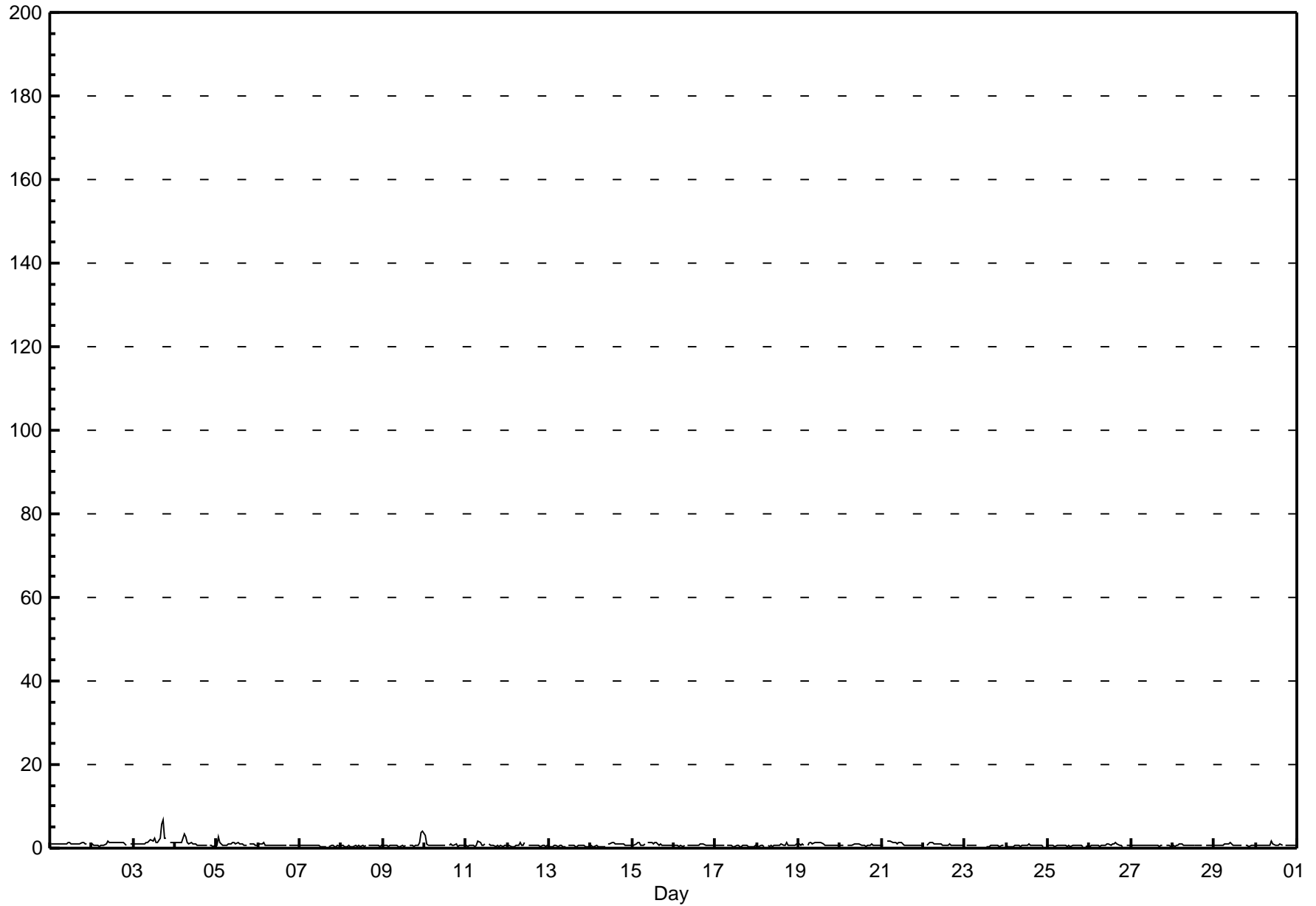
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Portable Reno - April 2014

Maximum Value: 6.8 ppb on Apr 3 18:00		Maximum Daily Average: 1.9 ppb on Apr 3		Hours in Service: 720																							
Minimum Value: 0 ppb on Apr 17 20:00		Minimum Daily Average: 0.5 ppb on Apr 13		Hours of Data: 685																							
Maximum Diurnal Average: 1.0 ppb at hour 18		Minimum Diurnal Average: 0.6 ppb at hour 21		Hours of Missing Data: 35																							
Monthly Average: 0.80 ppb		Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.6 Median = 0.7 Q <sub>3</sub> = 0.9 P <sub>90</sub> = 1.3 P <sub>99</sub> = 2.7		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-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4
2-Apr	1	1	1	1	0	1	1	1	1	2	1	1	1	1	1	1	2	1	1	1	1	A	1	1	1	1.1	1.6
3-Apr	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	2	6	7	2	2	A	1	1	1	1	1.9	6.8
4-Apr	1	1	1	1	1	3	3	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	1.2	3.3
5-Apr	1	3	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	2.8
6-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.2
7-Apr	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	A	0	1	1	0	0	1	0	0	0.6	0.7
8-Apr	1	1	0	0	1	0	0	1	0	1	0	1	0	1	0	1	A	1	1	1	1	1	0	1	1	0.5	0.6
9-Apr	0	1	1	0	1	1	1	1	1	0	0	1	0	1	1	A	1	1	1	0	1	1	1	4	4	0.9	4.2
10-Apr	3	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	0.8	3.2
11-Apr	1	0	1	1	1	0	1	2	1	1	1	1	A	1	1	1	1	1	1	1	0	1	0	1	1	0.7	1.7
12-Apr	1	1	0	0	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	0	1	0.7	1.3
13-Apr	0	0	0	1	1	0	1	1	0	0	A	1	1	1	1	0	0	1	1	1	1	0	0	0	0	0.5	0.7
14-Apr	1	0	0	1	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
15-Apr	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4
16-Apr	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
17-Apr	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	0	0	1	0.5	0.7
18-Apr	0	0	1	1	0	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.3
19-Apr	1	1	1	1	A	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5
20-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.7	1.1
21-Apr	1	1	A	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.8
22-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
23-Apr	A	1	1	1	1	1	1	1	C	C	C	C	0	0	0	1	1	1	1	1	0	1	1	1	1	0.6	0.7
24-Apr	1	0	0	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	0.6	1.1
25-Apr	1	1	1	1	0	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	A	0	1	1	0.5	0.6
26-Apr	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.2
27-Apr	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0.6	0.8
28-Apr	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.1
29-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	1	0.8	1.2
30-Apr	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	1.8
		0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.9	1.0	0.9	0.8	0.8	0.8	0.8	0.8	1.0	0.8	0.7	0.6	0.7	0.7	0.8	Diurnal Average	
		3.2	2.8	1.5	1.8	1.7	3.3	2.6	1.7	1.4	1.8	1.9	1.8	2.2	1.5	1.4	2.3	5.8	6.8	2.3	2.3	0.9	1.3	3.7	4.2	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

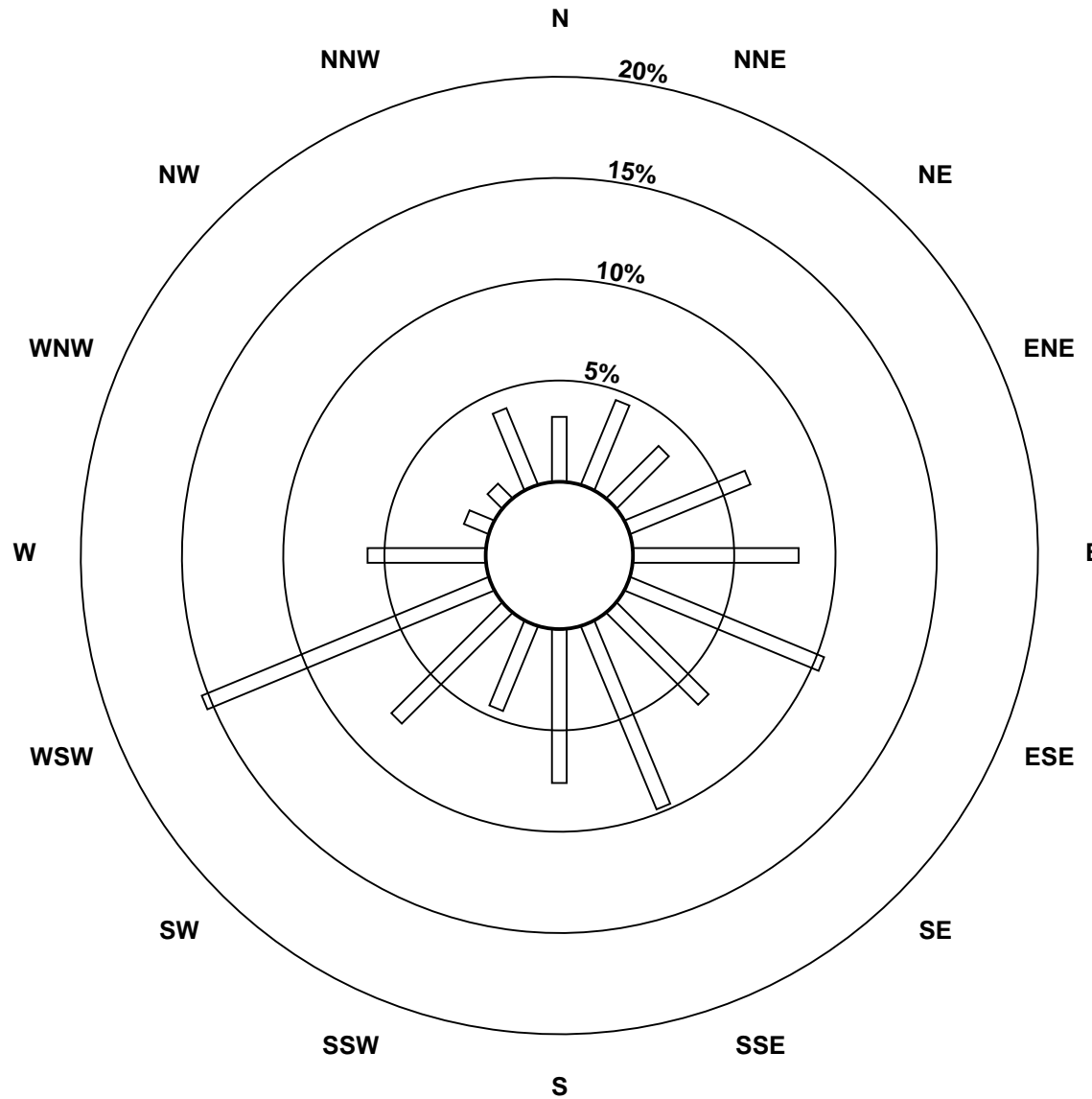
### Hourly Maximums

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

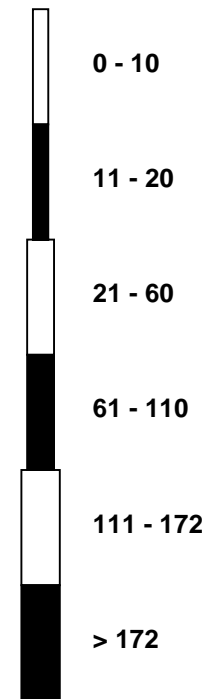


**Pollutant Rose**

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



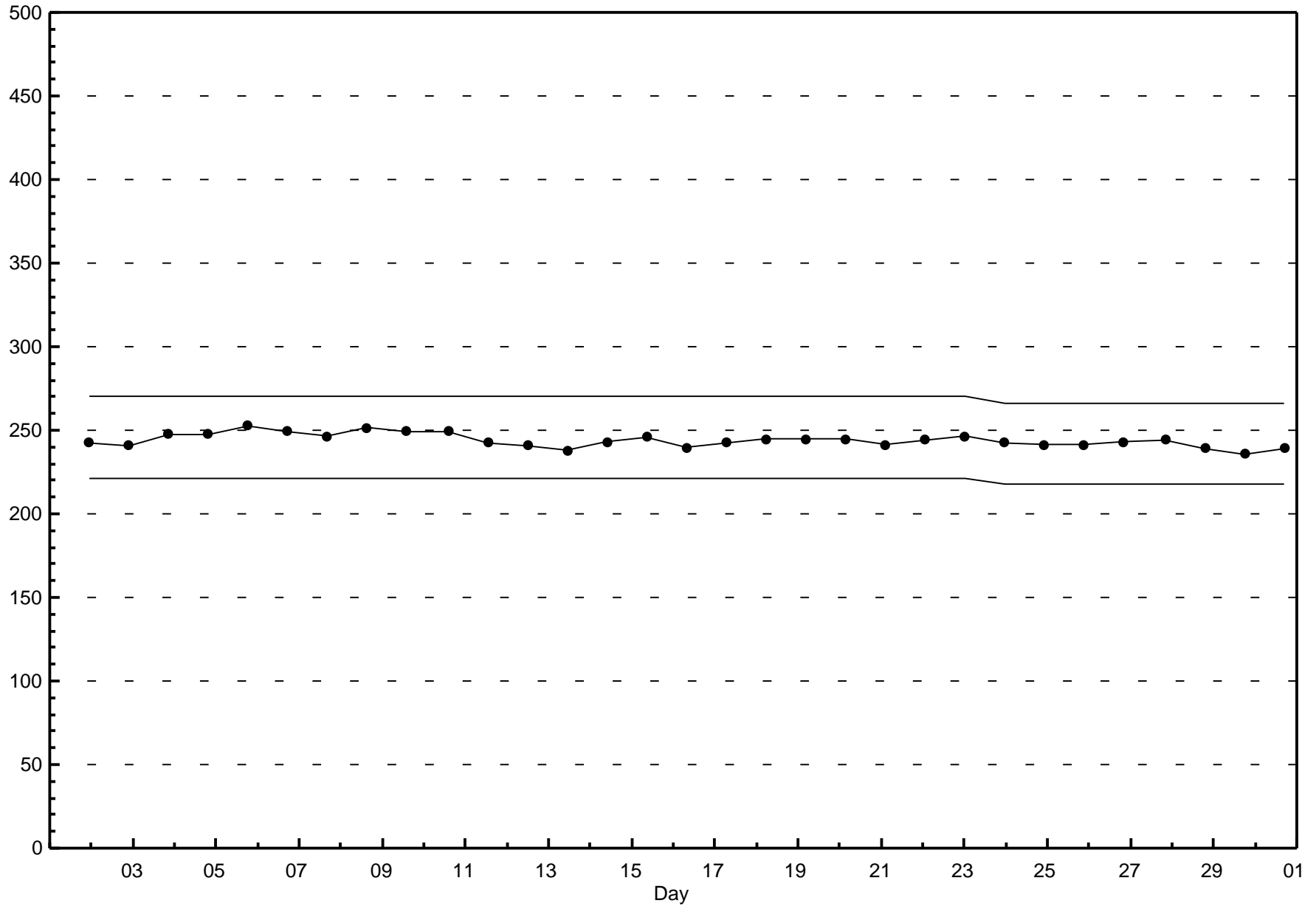
**Pollutant Classes (ppb)**





### Span Responses

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

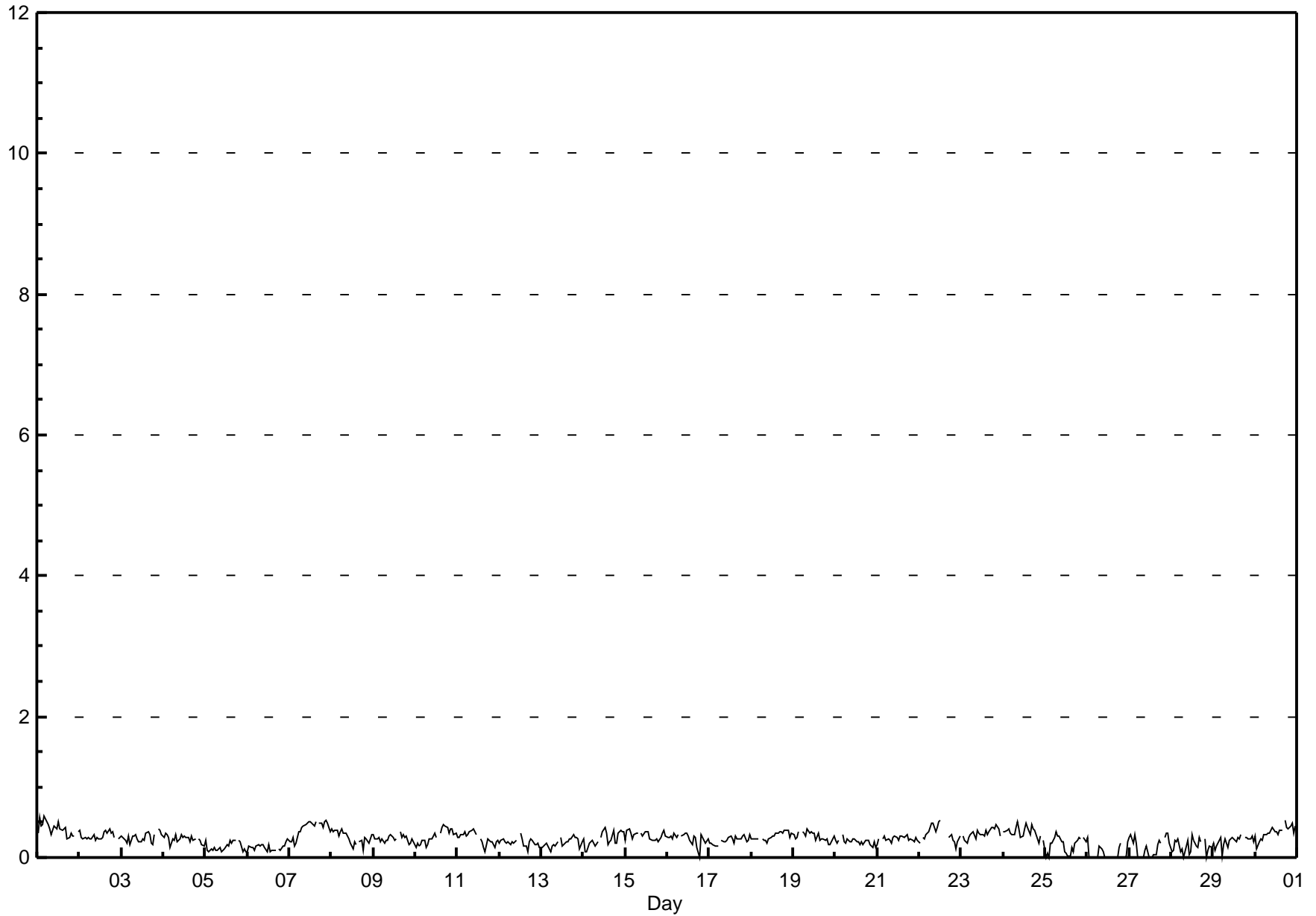


## Hourly Averages

## Total Reduced Sulphur (TRS) - ppb

### Portable Reno - April 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.6 ppb on Apr 1 05:00      Maximum Daily Average: 0.4 ppb on Apr 1		Hours in Service: 720 Hours of Data: 685 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0																									
Minimum Value: 0 ppb on Apr 16 19:00 Maximum Diurnal Average: 0.3 ppb at hour 18 Monthly Average: 0.26 ppb		Minimum Daily Average: 0.1 ppb on Apr 26 Minimum Diurnal Average: 0.2 ppb at hour 2 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> = 0.3 P <sub>90</sub> = 0.4 P <sub>99</sub> = 0.5																									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	0	1	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0.4	0.6	
2-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.4	
3-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.4	
4-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.3	
5-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.2	
6-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.3	
7-Apr	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	A	0	0	0	0	1	1	0	0	0.4	0.5
8-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.4	
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.4	
10-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.5	
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4	
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.4	
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.4	
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.3	
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4	
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4	
20-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
21-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.3	
22-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5	
23-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5	
24-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5	
25-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
27-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
29-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
30-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5	
Diurnal Average: 0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 Diurnal Maximum: 0.4 0.6 0.4 0.5 0.6 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.4 0.5 0.5 0.5 0.5 0.5 0.4 0.5 0.5 0.5 0.5																								Diurnal Average Diurnal Maximum			
C - Calibration      A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb    24-hr 3 ppb																											



## Hourly Maximums

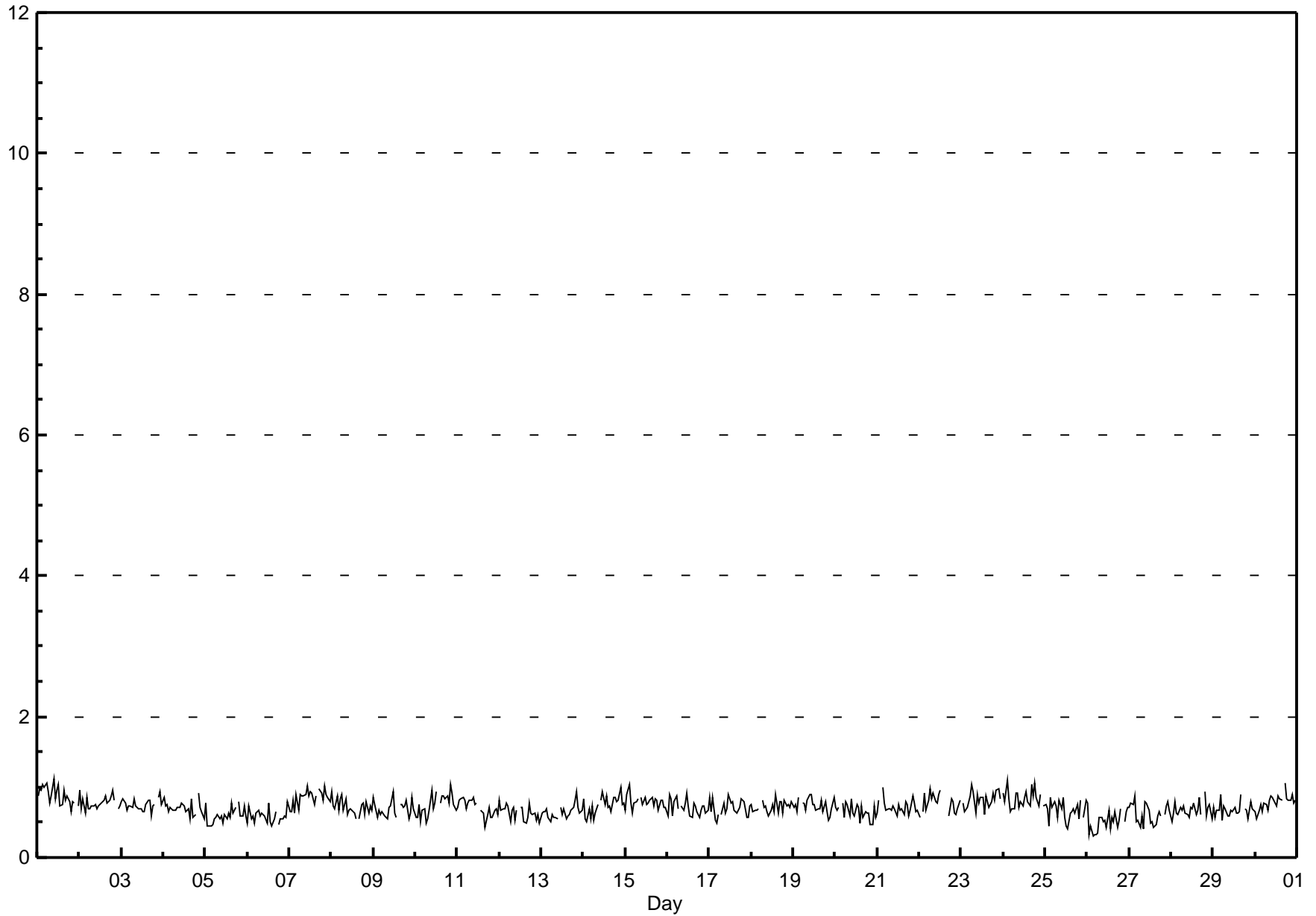
## Total Reduced Sulphur (TRS) - ppb

### Portable Reno - April 2014

Maximum Value: 1.1 ppb on Apr 1 10:00		Maximum Daily Average: 0.9 ppb on Apr 1		Hours in Service: 720																							
Minimum Value: 0 ppb on Apr 26 04:00		Minimum Daily Average: 0.5 ppb on Apr 26		Hours of Data: 685																							
Maximum Diurnal Average: 0.7 ppb at hour 12		Minimum Diurnal Average: 0.7 ppb at hour 15		Hours of Missing Data: 35																							
Monthly Average: 0.71 ppb		Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 0.6 Q <sub>1</sub> = 0.6 Median = 0.7 Q <sub>3</sub> = 0.8 P <sub>90</sub> = 0.9 P <sub>99</sub> = 1.0		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-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.1	
2-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.0	
3-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	0.9	
4-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	0.9	
5-Apr	1	0	0	0	0	1	1	1	1	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	0.6	0.8	
6-Apr	0	1	1	1	0	1	1	1	1	1	1	0	1	1	0	1	1	A	0	1	1	1	1	1	0.6	0.8	
7-Apr	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	1.0	
8-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	0.9	
9-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	0.9	
10-Apr	1	1	1	1	1	1	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0	
11-Apr	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	0.7	0.9	
12-Apr	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	1	1	1	1	1	0	0.6	0.8	
13-Apr	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9	
14-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0	
15-Apr	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0	
16-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9	
17-Apr	1	1	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9	
18-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9	
19-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9	
20-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	1	0.7	0.8	
21-Apr	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0	
22-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	C	C	C	C	1	1	1	1	1	1	1	0.8	1.0	
23-Apr	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0	
24-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.1	
25-Apr	1	1	0	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	A	1	1	0.7	0.9	
26-Apr	1	0	0	0	0	0	0	1	1	1	1	0	1	0	1	1	1	0	1	1	A	1	1	1	0.5	0.8	
27-Apr	1	1	1	1	1	1	0	1	0	1	1	0	1	0	0	1	1	1	1	A	1	1	1	1	0.6	0.9	
28-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	0.9	
29-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.7	0.9	
30-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.1	
		0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	Diurnal Average	
		1.0	1.0	1.1	1.0	1.0	1.1	1.0	0.9	0.9	1.1	1.0	1.0	1.0	0.9	0.9	1.0	1.0	1.1	1.1	1.0	1.0	1.0	0.9	0.8	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

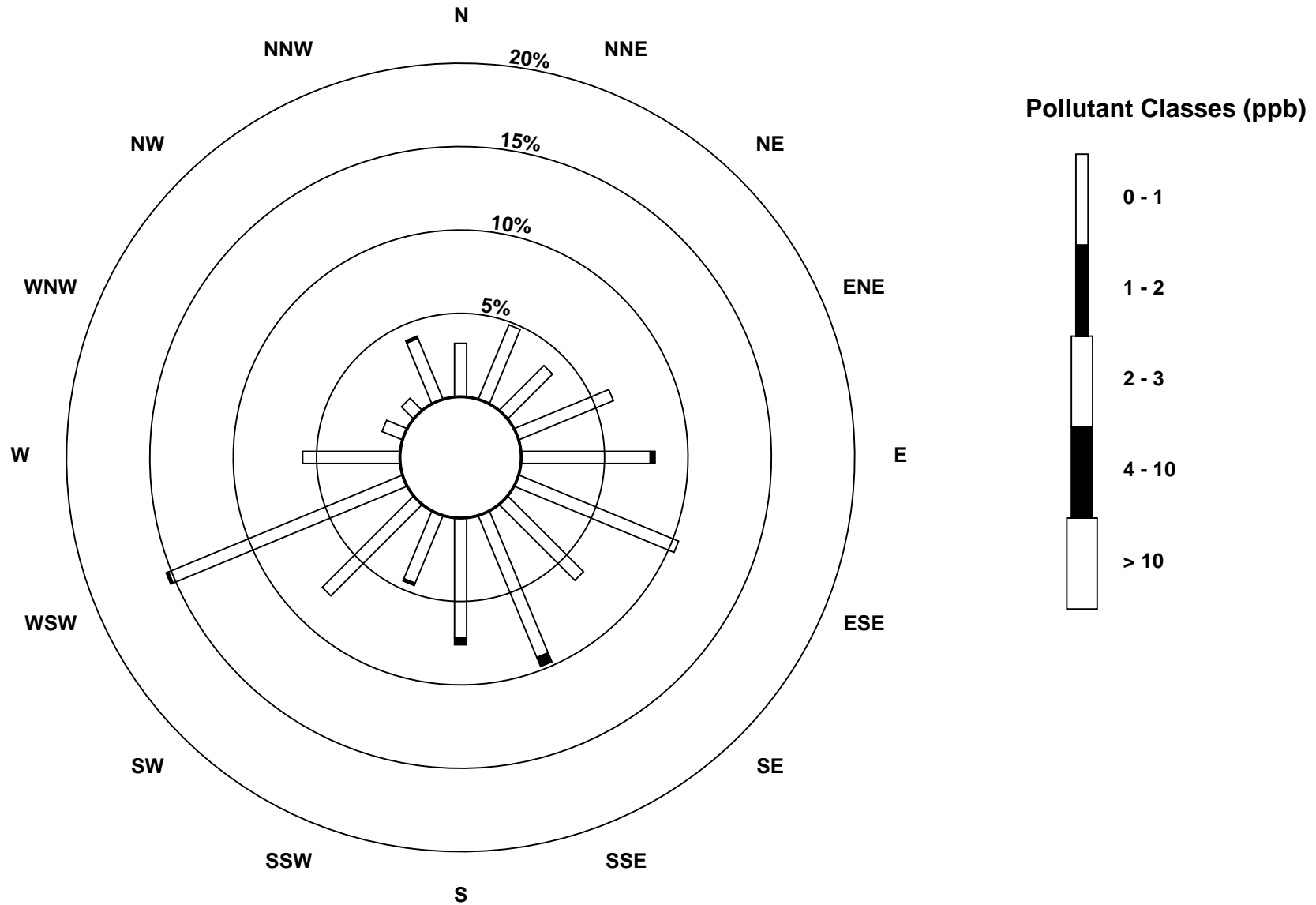
**Hourly Maximums**

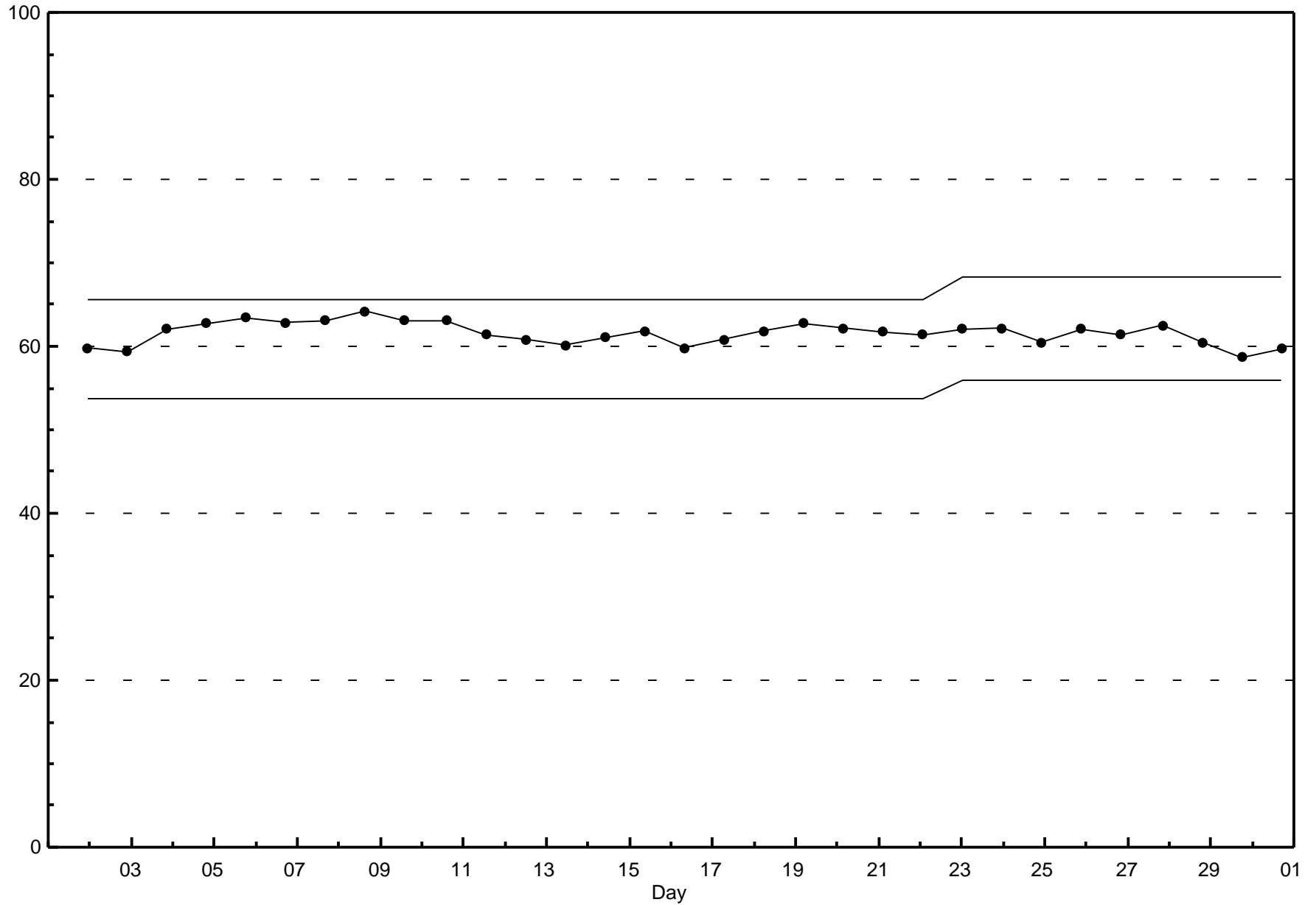
**Total Reduced Sulphur (TRS) - ppb**  
**Portable Reno - April 2014**



**Pollutant Rose**

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





## Hourly Averages

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

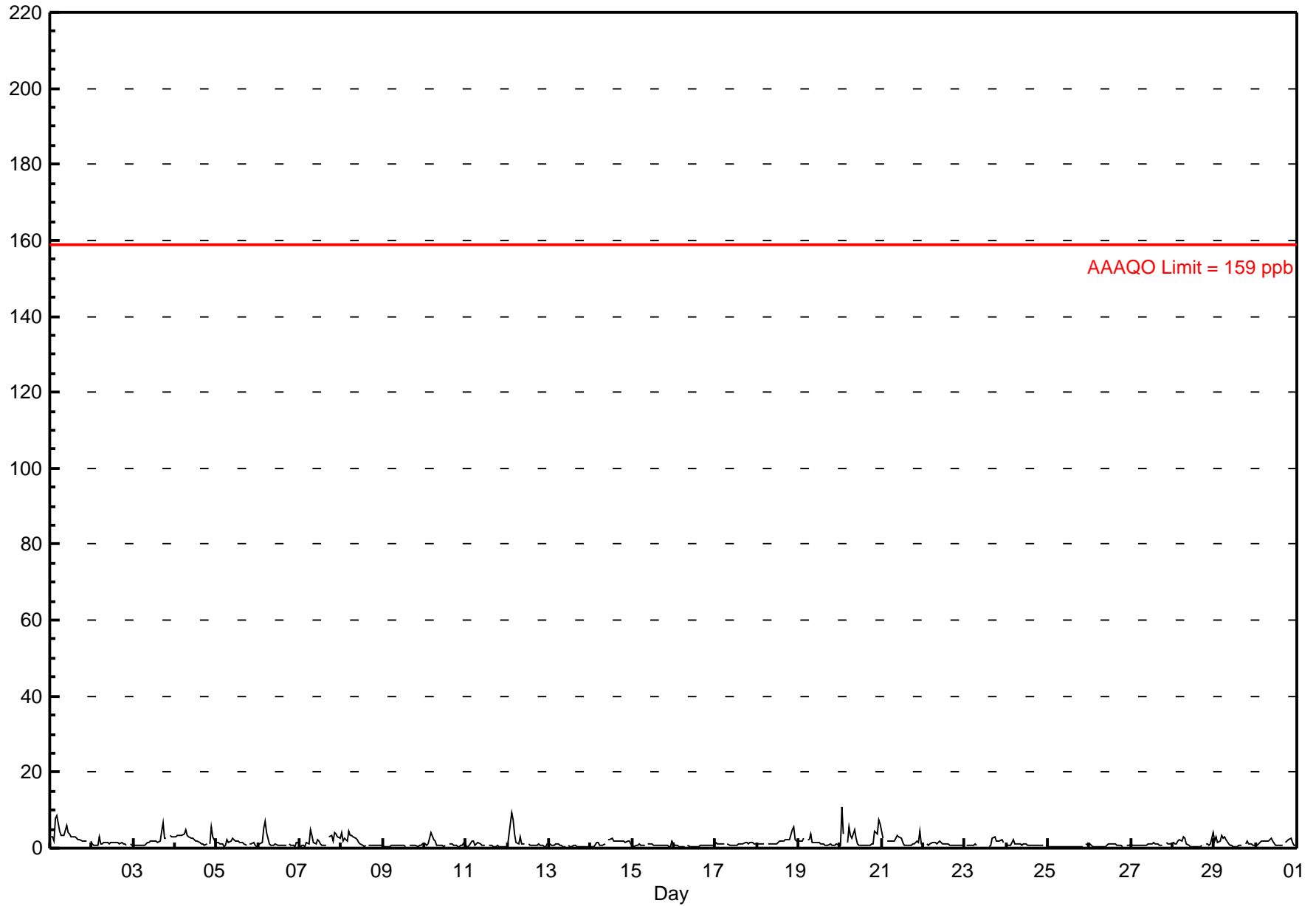
### Portable Reno - April 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 10.7 ppb on Apr 20 02:00	Maximum Daily Average: 3.4 ppb on Apr 1		Hours of Data:	683
Minimum Value: 0 ppb on Apr 13 10:00	Minimum Daily Average: 0.5 ppb on Apr 25		Hours of Missing Data:	37
Maximum Diurnal Average: 2.1 ppb at hour 5	Minimum Diurnal Average: 1.0 ppb at hour 16		Hours of Calibration:	37
Monthly Average: 1.41 ppb	Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.7 Median = 1.0 Q <sub>3</sub> = 1.7 P <sub>90</sub> = 2.9 P <sub>99</sub> = 7.2		Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	3	3	2	8	9	4	3	3	3	6	4	4	3	3	3	3	2	2	2	2	2	2	A	2	3.4	8.7	
2-Apr	1	1	1	1	3	1	1	2	1	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1.3	2.9	
3-Apr	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	4	7	3	3	A	3	3	3	1.9	6.8	
4-Apr	3	3	3	3	3	4	5	3	3	3	2	2	2	2	2	1	1	1	1	A	1	6	3	2	2.6	5.5	
5-Apr	1	2	1	1	0	1	2	2	2	3	2	2	2	2	1	1	1	1	A	1	1	1	1	1	1.4	2.7	
6-Apr	1	1	2	5	7	4	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.5	7.2	
7-Apr	0	1	1	0	2	1	5	3	1	1	2	2	1	1	1	1	A	3	3	2	4	4	3	3	1.9	4.8	
8-Apr	4	2	3	2	4	3	3	3	2	2	2	1	1	0	1	A	1	1	1	1	1	1	1	1	1.7	4.4	
9-Apr	1	1	0	0	0	1	1	1	1	1	1	1	1	0	A	1	1	1	1	1	0	1	1	1	0.6	0.9	
10-Apr	1	1	1	3	4	2	2	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	2	1.2	4.1	
11-Apr	0	1	1	2	2	1	1	1	1	1	1	1	A	1	1	1	0	1	1	0	0	0	0	0	0.8	1.9	
12-Apr	0	3	9	7	4	1	1	3	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1.9	9.4	
13-Apr	1	1	1	1	1	1	1	1	0	0	A	1	0	1	1	1	1	0	0	0	0	0	0	0	0.6	1.1	
14-Apr	0	0	0	1	1	1	1	1	1	A	2	2	3	2	2	2	2	2	2	2	2	1	2	2	1	1.5	2.5
15-Apr	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	0.8	1.9	
16-Apr	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9	
17-Apr	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1.1	1.5	
18-Apr	1	1	1	1	1	1	A	1	1	1	1	1	1	2	2	2	2	2	2	2	5	6	2	2	1.9	5.6	
19-Apr	2	2	2	3	A	2	2	4	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1.4	3.5	
20-Apr	1	11	4	A	1	6	3	3	5	3	1	1	1	1	1	1	1	1	1	1	5	4	7	6	2.9	10.7	
21-Apr	4	3	A	2	2	2	2	2	3	3	3	2	2	1	1	1	1	1	1	1	2	1	4	1	1.9	4.5	
22-Apr	1	A	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.9	
23-Apr	A	1	1	1	1	1	1	1	C	C	C	C	C	C	1	1	3	3	2	2	2	2	1	A	--	3.2	
24-Apr	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	2.2	
25-Apr	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	1	1	0.5	1.1	
26-Apr	1	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	1.2	
27-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	A	1	1	1	1.0	1.6	
28-Apr	1	1	1	2	2	2	3	2	1	1	0	0	0	0	0	0	0	0	1	A	1	1	1	4	1.2	3.9	
29-Apr	2	3	2	2	3	2	3	2	1	1	1	0	1	1	1	1	1	1	A	1	2	1	1	1	1.4	3.4	
30-Apr	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	A	2	2	2	2	1	1	1	1.5	2.4	
	1.3	1.6	1.5	1.8	2.1	1.7	1.7	1.6	1.5	1.5	1.4	1.3	1.1	1.1	1.0	1.0	1.0	1.3	1.2	1.1	1.4	1.6	1.5	1.4	Diurnal Average		
	4.4	10.7	9.4	7.8	8.7	5.6	4.8	3.5	5.0	5.9	4.0	3.9	2.9	3.0	2.9	2.6	4.4	6.8	3.2	2.5	4.7	5.6	7.3	6.2	Diurnal Maximum		

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





## Hourly Maximums

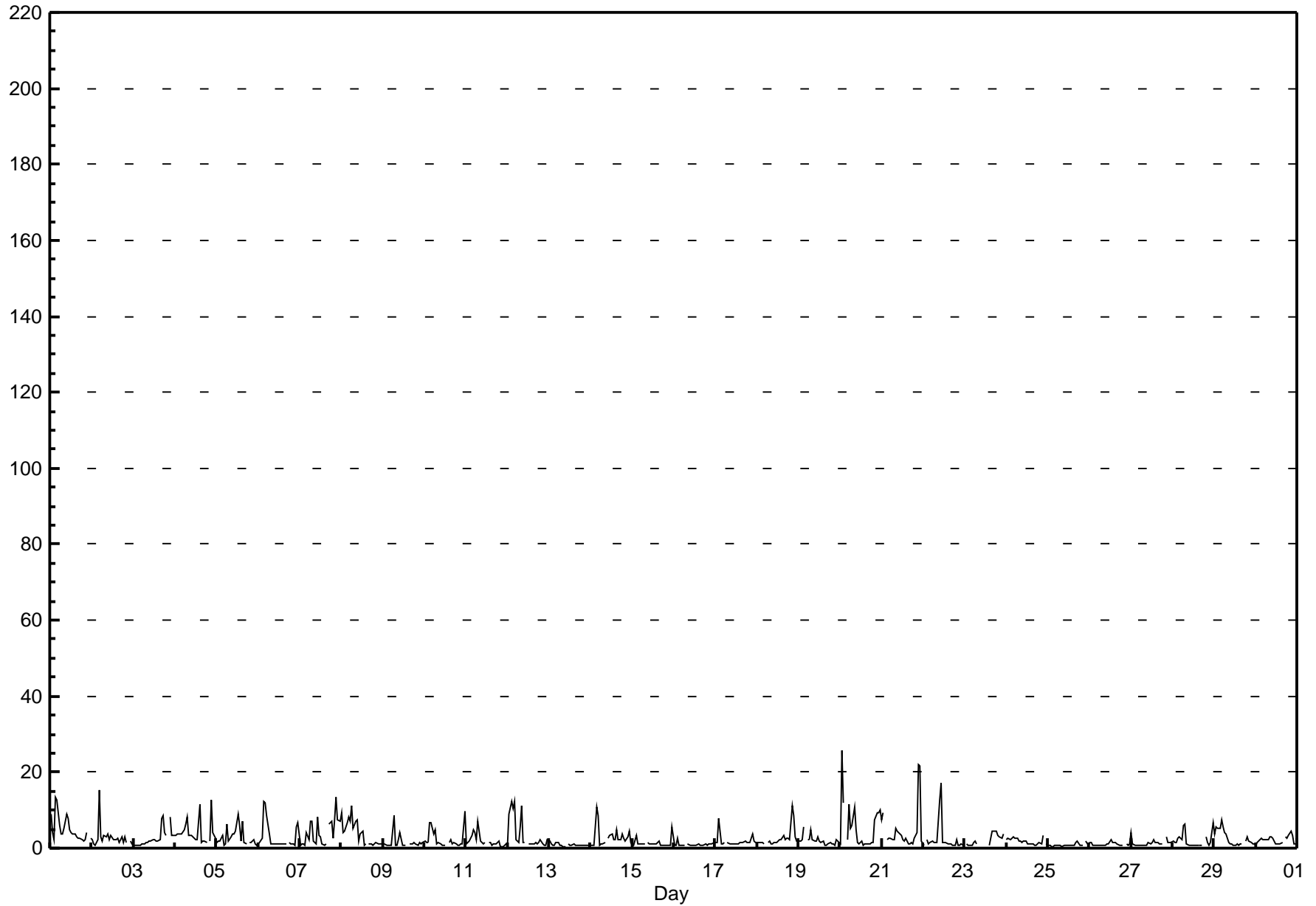
Nitrogen Dioxide (NO<sub>2</sub>) - ppb

Portable Reno - April 2014

Maximum Value: 25.8 ppb on Apr 20 02:00		Maximum Daily Average: 5.6 ppb on Apr 20		Hours in Service: 720																							
Minimum Value: 0 ppb on Apr 25 09:00		Minimum Daily Average: 0.8 ppb on Apr 25		Hours of Data: 683																							
Maximum Diurnal Average: 4.2 ppb at hour 5		Minimum Diurnal Average: 1.6 ppb at hour 14		Hours of Missing Data: 37																							
Monthly Average: 2.59 ppb		Percentiles: P <sub>1</sub> = 0.6 P <sub>10</sub> = 0.8 Q <sub>1</sub> = 1.0 Median = 1.5 Q <sub>3</sub> = 2.8 P <sub>90</sub> = 6.1 P <sub>99</sub> = 13.5		Hours of Calibration: 37																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	9	4	2	14	13	6	4	4	5	9	8	5	4	4	3	3	3	2	2	2	4	A	3	5.0	13.5		
2-Apr	2	1	1	2	15	3	2	3	3	4	2	3	2	2	3	2	3	1	3	2	A	2	1	2.8	15.1		
3-Apr	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	8	9	4	3	A	8	3	3	2.7	8.5		
4-Apr	3	4	4	4	4	5	6	8	3	3	3	2	2	2	12	2	2	2	A	2	13	4	3	4.1	12.6		
5-Apr	2	2	2	3	1	1	6	2	3	4	4	4	9	6	2	7	2	1	A	2	2	2	1	1	2.9	8.8	
6-Apr	1	2	3	12	12	9	4	1	1	1	1	1	1	1	1	1	A	1	1	1	1	5	7	3.0	12.3		
7-Apr	1	1	1	1	4	2	7	7	2	1	8	4	3	1	1	1	A	6	7	3	8	14	8	7	4.2	13.6	
8-Apr	9	4	4	7	8	7	11	5	7	8	2	4	5	1	1	A	1	1	1	1	2	1	1	1	4.0	11.1	
9-Apr	1	1	1	1	1	1	8	1	1	2	4	1	1	1	A	1	1	1	2	1	1	1	1	1	1.5	8.4	
10-Apr	2	1	2	7	7	4	5	1	1	1	1	1	A	2	2	1	1	1	1	1	1	1	10	2.3	9.5		
11-Apr	1	1	2	3	5	4	2	7	2	1	1	1	A	1	2	1	1	1	2	2	1	0	1	1	1.9	7.3	
12-Apr	1	9	12	10	12	2	1	6	11	2	1	A	1	1	1	1	1	1	1	2	1	1	1	2	3.6	12.4	
13-Apr	2	1	1	1	1	2	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.7	
14-Apr	1	1	1	11	9	1	1	1	1	A	3	3	4	2	2	5	2	2	4	3	2	3	4	2	2.9	10.7	
15-Apr	1	1	3	1	1	1	1	1	A	1	1	1	1	1	1	2	1	1	1	1	1	1	6	1.4	5.7		
16-Apr	1	1	3	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.6	
17-Apr	2	1	8	1	1	2	A	2	1	1	1	1	1	1	1	1	2	2	2	2	2	4	2	1	1.8	7.7	
18-Apr	1	1	1	1	1	A	2	2	1	1	1	1	2	2	2	3	2	3	2	2	11	9	3	2	2.6	11.3	
19-Apr	2	2	2	6	A	2	2	5	2	2	3	2	2	2	2	1	1	1	1	1	1	2	1	1	2.0	5.6	
20-Apr	1	26	12	A	2	12	5	6	11	5	2	1	2	1	1	1	1	2	1	1	8	9	9	10	5.6	25.8	
21-Apr	8	9	A	2	3	2	2	2	5	5	4	3	2	2	3	1	1	2	1	3	4	22	22	2	4.8	22.0	
22-Apr	1	A	2	1	1	2	2	2	1	13	17	1	1	1	1	1	1	1	2	1	1	1	1	1	2.5	17.0	
23-Apr	A	1	1	1	1	1	2	1	C	C	C	C	C	C	1	3	4	4	5	3	3	3	4	A	--	4.6	
24-Apr	2	3	2	3	3	2	3	2	2	1	2	2	1	1	1	1	1	1	2	1	3	A	1	1.7	3.2		
25-Apr	1	1	0	0	1	1	1	1	0	1	1	1	1	1	1	2	2	1	1	1	A	2	1	0.8	2.0		
26-Apr	2	2	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	A	1	1	1	1.0	2.1	
27-Apr	4	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	A	3	1	1	1	1.4	4.1	
28-Apr	2	1	1	3	3	2	6	6	1	1	1	1	1	1	1	1	1	1	A	3	2	1	2	7	2.0	6.8	
29-Apr	4	6	5	5	8	5	4	4	1	1	1	1	1	1	1	1	1	A	2	3	2	2	1	1	2.6	7.5	
30-Apr	1	1	2	3	2	2	2	2	3	3	2	1	1	1	1	A	3	3	3	3	4	3	1	1	2.1	4.4	
		2.3	3.1	2.8	3.6	4.2	2.9	3.3	2.9	2.7	2.7	2.8	2.0	2.0	1.6	1.8	1.8	1.7	2.0	1.9	1.9	2.4	4.0	3.0	2.8	Diurnal Average	
		9.4	25.8	12.4	13.5	15.1	11.7	11.1	8.3	11.2	12.6	17.0	5.0	8.8	6.1	11.5	6.9	7.7	8.5	7.1	3.5	11.3	22.0	21.6	9.9	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

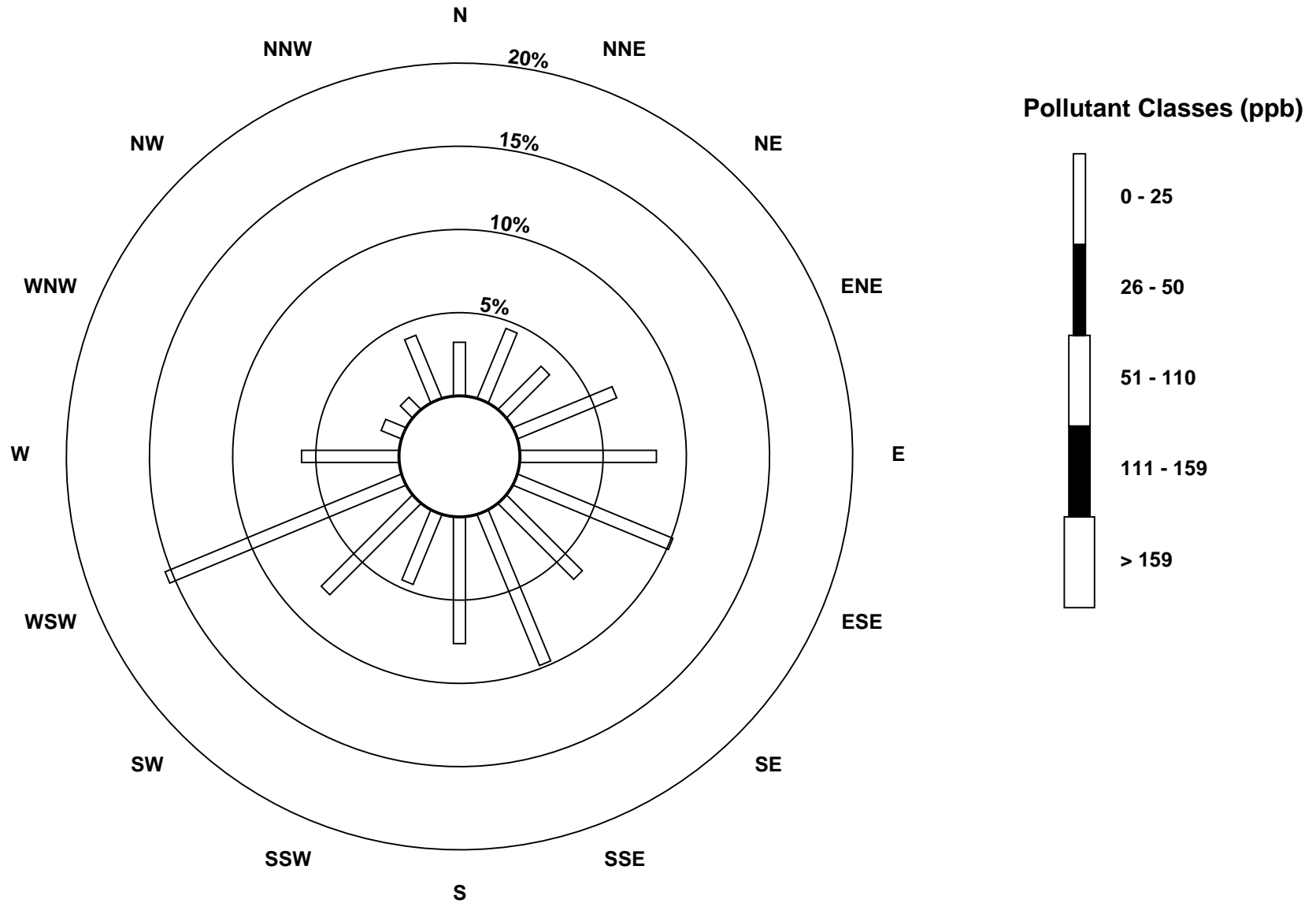
# Hourly Maximums

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



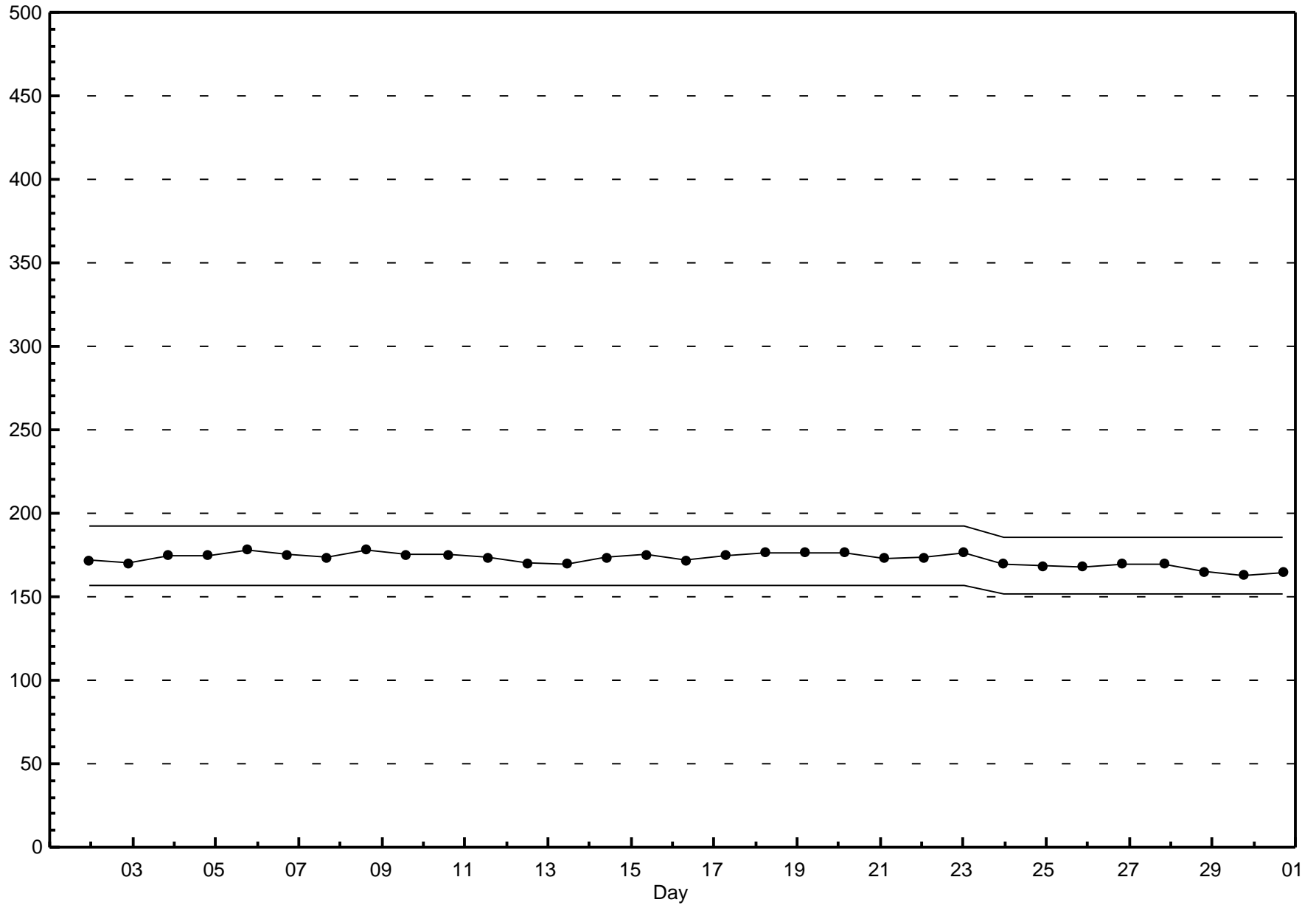
**Pollutant Rose**

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



**Span Responses**

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



## Hourly Averages

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

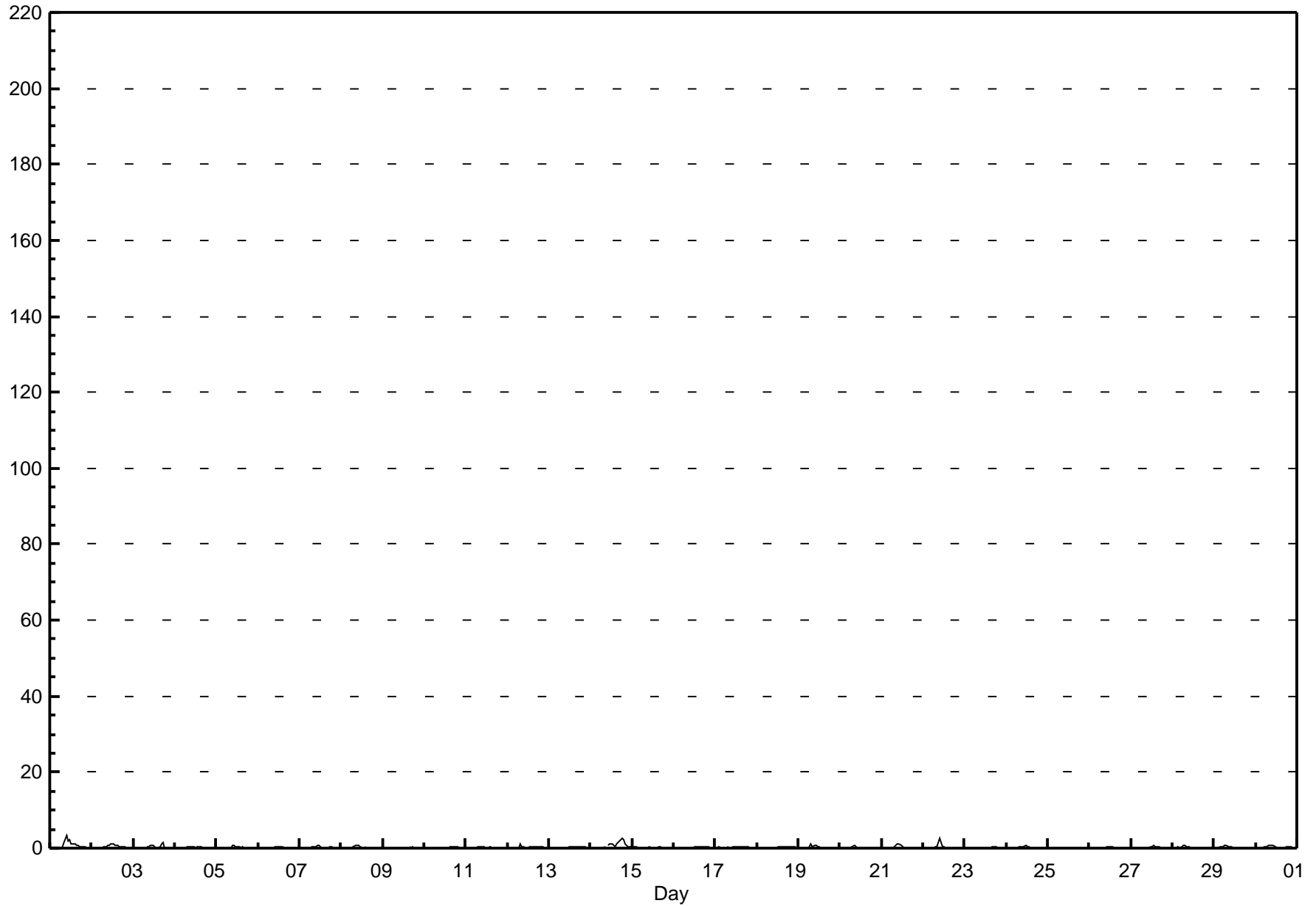
Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.4 ppb on Apr 1 10:00 Maximum Daily Average: 0.7 ppb on Apr 14		Hours in Service: 720 Hours of Data: 683 Hours of Missing Data: 37 Hours of Calibration: 37 Percent Operational Time: 100.0																								
Minimum Value: 0 ppb on Apr 2 23:00 Maximum Diurnal Average: 0.6 ppb at hour 10 Monthly Average: 0.21 ppb		Minimum Daily Average: 0.0 ppb on Apr 25 Minimum Diurnal Average: 0.0 ppb at hour 1 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> = 0.5 P <sub>99</sub> = 2.0																								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	0	0	0	0	0	0	0	0	1	3	2	2	1	1	1	1	1	0	0	0	0	0	A	0	0.7	3.4
2-Apr	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	A	0	0	0.4	1.1
3-Apr	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	1	1	0	0	A	0	0	0	0.3	1.4
4-Apr	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
5-Apr	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.8
6-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.3
7-Apr	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.8
8-Apr	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.8
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.2
10-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
11-Apr	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
12-Apr	0	0	0	0	0	0	0	1	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
13-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
14-Apr	0	0	0	0	0	0	0	0	0	A	1	1	1	1	1	1	2	2	3	2	1	1	0	0	0.7	2.8
15-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
16-Apr	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
17-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
18-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.5
19-Apr	0	0	0	0	A	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
20-Apr	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
21-Apr	0	0	A	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
22-Apr	0	A	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.7
23-Apr	A	0	0	0	0	0	0	0	C	C	C	C	C	C	0	0	1	1	0	0	0	0	0	0	--	0.5
24-Apr	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.6
25-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.0	0.0
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.3
27-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0.2	0.6
28-Apr	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.8
29-Apr	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.8
30-Apr	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.9
																								Diurnal Average	Diurnal Maximum	
																								0.0	0.2	
																								0.0	0.2	
																								0.0	0.3	
																								0.0	0.2	
																								0.0	0.3	
																								0.0	0.3	
																								0.1	0.8	
																								0.3	1.2	
																								0.3	1.4	
																								0.6	3.4	
																								0.5	2.0	
																								0.4	2.1	
																								0.3	1.3	
																								0.3	1.1	
																								0.3	1.0	
																								0.2	1.0	
																								0.3	1.0	
																								0.2	1.5	
																								0.3	2.2	
																								0.3	2.8	
																								0.2	2.2	
																								0.1	1.3	
																								0.1	0.5	
																								0.1	0.3	
																								0.1	0.2	

C - Calibration

A - Automated Daily Zero Span

### Hourly Averages

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



## Hourly Maximums

Nitrogen Oxide (NO) - ppb

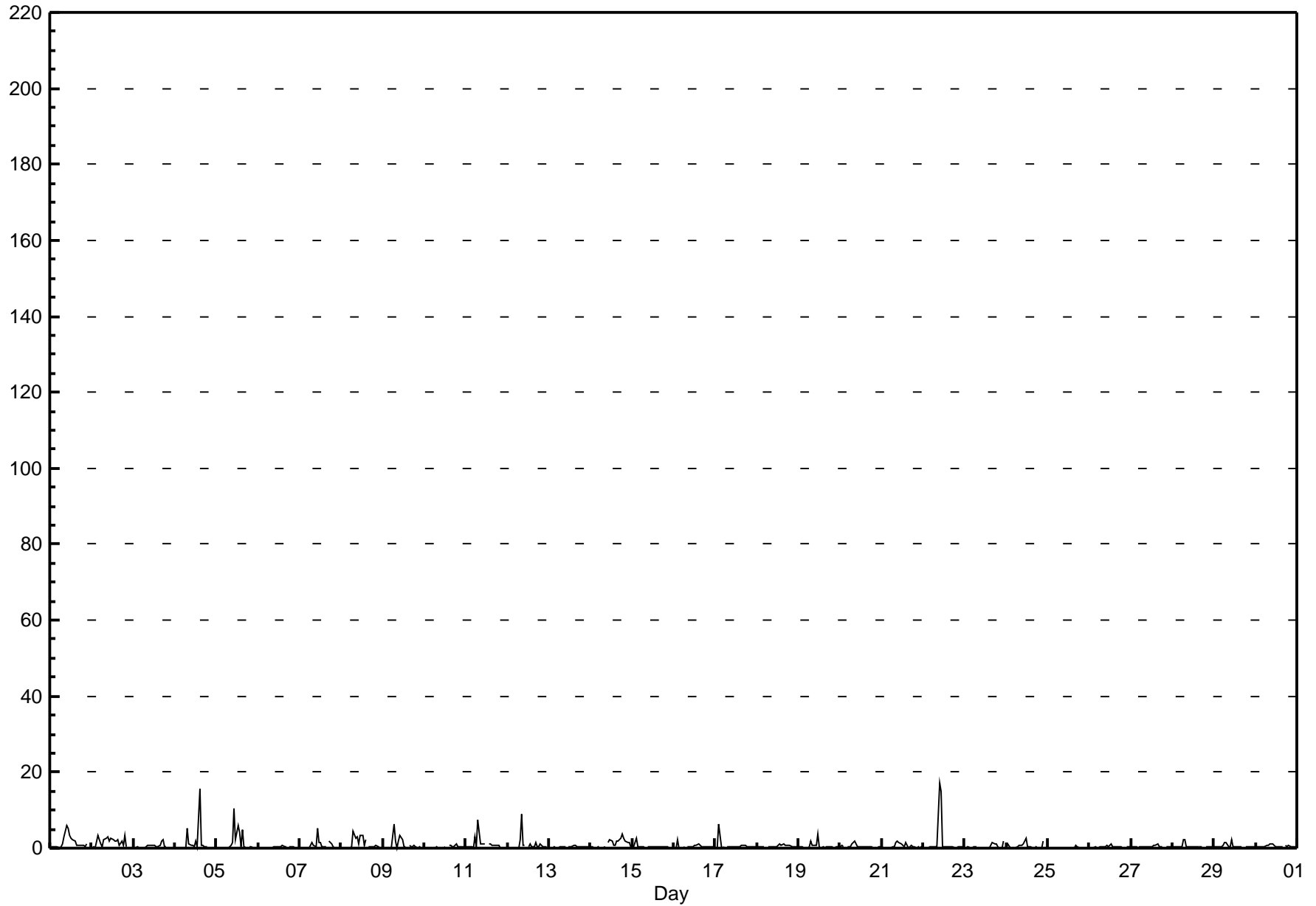
Portable Reno - April 2014

Maximum Value: 17.0 ppb on Apr 22 10:00		Maximum Daily Average: 1.6 ppb on Apr 22		Hours in Service: 720																							
Minimum Value: 0 ppb on Apr 4 05:00		Minimum Daily Average: 0.2 ppb on Apr 25		Hours of Data: 683																							
Maximum Diurnal Average: 2.0 ppb at hour 11		Minimum Diurnal Average: 0.2 ppb at hour 1		Hours of Missing Data: 37																							
Monthly Average: 0.70 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.2 Median = 0.3 Q <sub>3</sub> = 0.6 P <sub>90</sub> = 1.7 P <sub>99</sub> = 6.0		Hours of Calibration: 37																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	0	0	0	0	0	0	0	1	3	6	5	3	3	2	2	1	1	1	1	1	0	1	A	0	1.4	6.0	
2-Apr	0	0	0	3	2	1	0	2	2	3	2	3	2	2	2	2	1	2	1	3	0	A	0	0	1.5	3.4	
3-Apr	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	1	2	2	0	0	A	0	0	0	0.5	2.2	
4-Apr	0	0	0	0	0	0	0	5	1	1	1	0	2	0	16	1	1	0	1	A	0	0	0	0	1.2	15.7	
5-Apr	0	0	0	0	0	0	0	0	1	1	11	2	6	4	0	5	0	0	A	0	0	0	0	0	1.4	10.6	
6-Apr	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	A	0	0	0	0	0	0	0.2	0.7	
7-Apr	0	0	0	0	0	0	1	1	1	0	5	2	1	0	0	0	A	2	1	0	0	0	0	0	0.7	5.1	
8-Apr	0	0	0	0	0	0	0	4	3	3	1	3	3	1	2	A	0	0	0	0	1	0	0	0	1.0	4.3	
9-Apr	0	0	0	0	0	0	6	2	0	2	3	2	0	0	A	1	1	0	1	0	0	0	0	0	0.9	6.4	
10-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0	0	1	0	0	0	0	0	0.3	1.1	
11-Apr	0	0	0	0	0	3	0	7	1	1	1	1	A	1	1	1	1	1	1	1	0	0	0	0	1.0	7.5	
12-Apr	0	0	0	0	0	0	0	2	9	1	1	A	0	1	0	0	2	0	0	1	0	0	0	0	0.9	8.8	
13-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0.3	0.7	
14-Apr	0	0	0	0	0	0	0	0	0	A	2	2	2	1	1	2	2	3	4	3	2	1	1	1	1.2	3.6	
15-Apr	0	0	3	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.4	2.7	
16-Apr	0	0	2	0	0	0	0	A	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0.4	2.1	
17-Apr	0	0	6	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0.6	6.3	
18-Apr	0	0	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0.4	1.0	
19-Apr	0	0	0	0	A	0	0	0	2	1	1	1	4	0	0	0	0	0	0	0	0	0	0	0	0.5	3.6	
20-Apr	0	1	0	A	0	0	0	1	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.9	
21-Apr	0	0	A	0	0	0	0	0	2	2	2	1	1	0	1	0	0	1	0	0	0	0	0	0	0.6	1.7	
22-Apr	0	A	0	0	0	0	0	0	0	17	15	0	0	0	0	0	0	0	0	0	0	0	0	0	1.6	17.0	
23-Apr	A	0	0	0	0	0	0	0	C	C	C	C	C	C	0	1	1	1	1	0	0	0	2	A	--	1.9	
24-Apr	0	1	0	0	0	0	0	1	1	1	1	2	0	0	0	0	0	0	0	0	0	2	A	0	0.5	2.5	
25-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	A	0	0	0.2	0.9	
26-Apr	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	A	0	0	0.3	1.0	
27-Apr	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	A	1	0	0	0	0.4	1.0	
28-Apr	0	0	0	0	0	0	2	2	1	0	0	0	0	0	0	0	0	0	0	A	1	0	0	1	0.5	2.2	
29-Apr	0	0	0	1	0	1	1	1	1	1	2	0	0	0	0	0	0	A	0	0	0	0	0	0	0.5	2.1	
30-Apr	0	0	0	0	0	0	1	1	1	1	1	1	0	0	1	0	A	1	1	1	0	0	0	0	0.5	1.1	
		0.2	0.2	0.5	0.3	0.2	0.3	0.6	1.3	1.1	1.6	2.0	1.2	1.0	0.7	1.2	0.8	0.6	0.7	0.6	0.5	0.3	0.4	0.3	0.2	Diurnal Average	
		0.5	1.0	6.3	3.4	2.3	3.0	6.4	7.5	8.8	17.0	14.9	3.6	6.1	4.2	15.7	5.0	2.0	2.5	3.6	3.3	1.9	1.9	1.9	0.5	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



### Hourly Maximums

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



## Hourly Averages

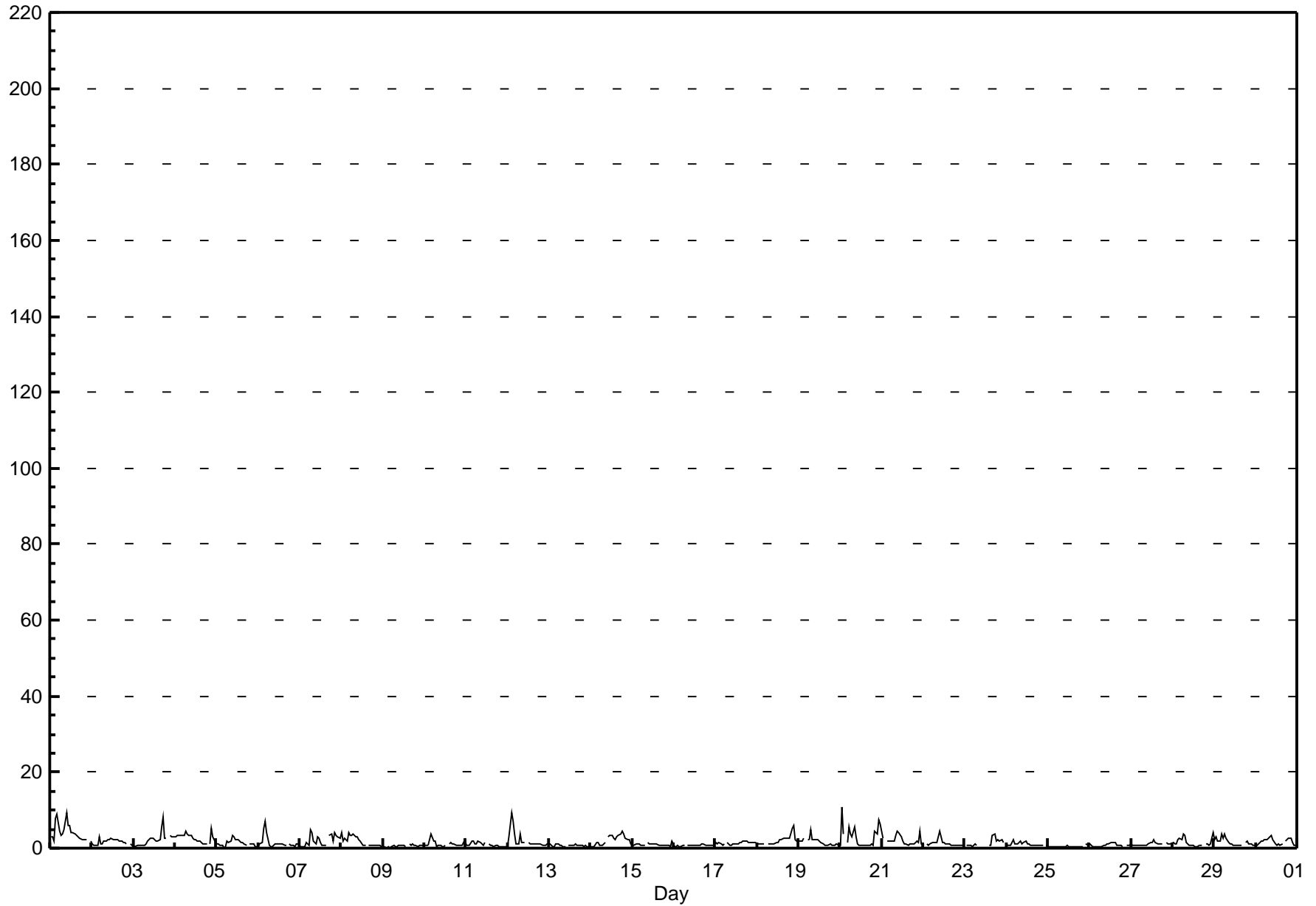
Oxides of Nitrogen (NO<sub>x</sub>) - ppb

Portable Reno - April 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 10.9 ppb on Apr 20 02:00	Maximum Daily Average: 4.1 ppb on Apr 1		Hours of Data:	683
Minimum Value: 0 ppb on Apr 5 05:00	Minimum Daily Average: 0.5 ppb on Apr 25		Hours of Missing Data:	37
Maximum Diurnal Average: 2.1 ppb at hour 5	Minimum Diurnal Average: 1.2 ppb at hour 16		Hours of Calibration:	37
Monthly Average: 1.59 ppb	Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.7 Median = 1.1 Q <sub>3</sub> = 2.0 P <sub>90</sub> = 3.3 P <sub>99</sub> = 7.2		Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	3	3	2	8	9	4	3	4	5	9	6	6	4	4	4	3	3	3	2	2	2	2	A	2	4.1	9.3
2-Apr	1	1	1	1	3	1	1	2	2	2	2	3	2	2	2	2	2	2	1	1	1	A	1	1	1.7	3.0
3-Apr	1	1	1	1	1	1	1	1	2	2	2	3	2	2	2	2	5	8	3	3	A	3	3	3	2.2	8.2
4-Apr	3	3	3	3	3	3	5	4	3	3	3	2	2	2	2	1	1	1	1	A	1	5	3	1	2.6	5.4
5-Apr	1	1	1	1	0	0	2	1	2	3	3	2	2	2	2	2	1	1	A	1	1	1	1	0	1.4	3.4
6-Apr	0	1	1	5	7	4	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	1	1.5	7.0
7-Apr	0	0	0	0	1	1	5	4	2	1	3	2	1	1	1	1	A	3	4	2	4	4	3	3	2.0	4.9
8-Apr	4	2	3	2	4	3	3	4	3	3	2	2	1	1	1	A	1	1	1	1	1	1	1	1	1.8	4.3
9-Apr	0	0	0	0	0	0	1	0	0	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	0.6	1.1
10-Apr	1	1	1	2	4	2	2	0	1	1	0	0	1	A	1	1	1	1	1	1	1	1	1	2	1.1	3.9
11-Apr	1	1	1	2	2	1	1	2	2	1	1	1	A	1	1	1	0	1	1	0	0	0	0	0	0.9	2.0
12-Apr	0	3	9	7	4	1	1	4	2	2	2	A	1	1	1	1	1	1	1	1	1	1	1	1	2.0	9.4
13-Apr	1	1	1	1	1	1	1	1	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0.7	1.1
14-Apr	0	0	0	1	1	1	1	1	1	A	3	3	4	3	2	3	3	4	5	4	3	2	2	1	2.2	4.5
15-Apr	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	0.9	1.8
16-Apr	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	0.9
17-Apr	1	1	2	1	1	1	A	1	1	1	1	1	1	1	1	2	2	2	2	2	1	2	1	1	1.3	1.9
18-Apr	1	1	1	1	1	A	1	1	1	1	1	1	2	2	2	3	3	3	2	5	6	2	2	2	2.1	5.9
19-Apr	2	2	2	3	A	2	2	5	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1.6	4.8
20-Apr	1	11	4	A	1	6	4	3	6	3	1	1	1	1	1	1	1	1	1	1	5	4	7	6	3.0	10.9
21-Apr	4	3	A	2	2	2	2	2	3	5	4	3	2	1	1	1	1	1	1	1	2	1	5	1	2.2	4.6
22-Apr	1	A	1	1	1	2	2	2	2	5	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	4.5
23-Apr	A	1	1	1	1	1	1	1	C	C	C	C	C	C	1	1	3	4	2	2	2	2	2	A	--	3.8
24-Apr	1	1	1	2	2	1	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	A	1	1.0	2.1
25-Apr	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	1	0	0	A	1	1	0.5	1.1
26-Apr	1	1	0	0	0	0	0	0	1	1	1	1	2	1	1	1	1	1	1	1	A	1	1	1	0.8	1.5
27-Apr	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1	A	2	1	1	1	1.1	2.2
28-Apr	1	1	1	2	2	2	4	3	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	4	1.4	4.2
29-Apr	2	3	2	2	4	3	4	3	1	1	1	1	1	1	1	1	1	A	1	2	1	1	1	1	1.6	3.9
30-Apr	1	1	2	2	2	2	2	3	3	3	2	1	1	1	1	A	2	2	2	3	3	1	1	1	1.7	3.3
	1.3	1.6	1.5	1.8	2.1	1.7	1.8	1.9	1.8	2.0	1.9	1.7	1.4	1.4	1.3	1.2	1.4	1.6	1.4	1.3	1.5	1.6	1.5	1.4	Diurnal Average	
	4.4	10.9	9.4	7.9	8.8	5.7	4.9	4.8	5.7	9.3	6.1	6.0	4.2	4.1	3.8	3.3	5.4	8.2	4.5	3.9	5.0	5.9	7.4	6.3	Diurnal Maximum	

C - Calibration                      A - Automated Daily Zero Span



## Hourly Maximums

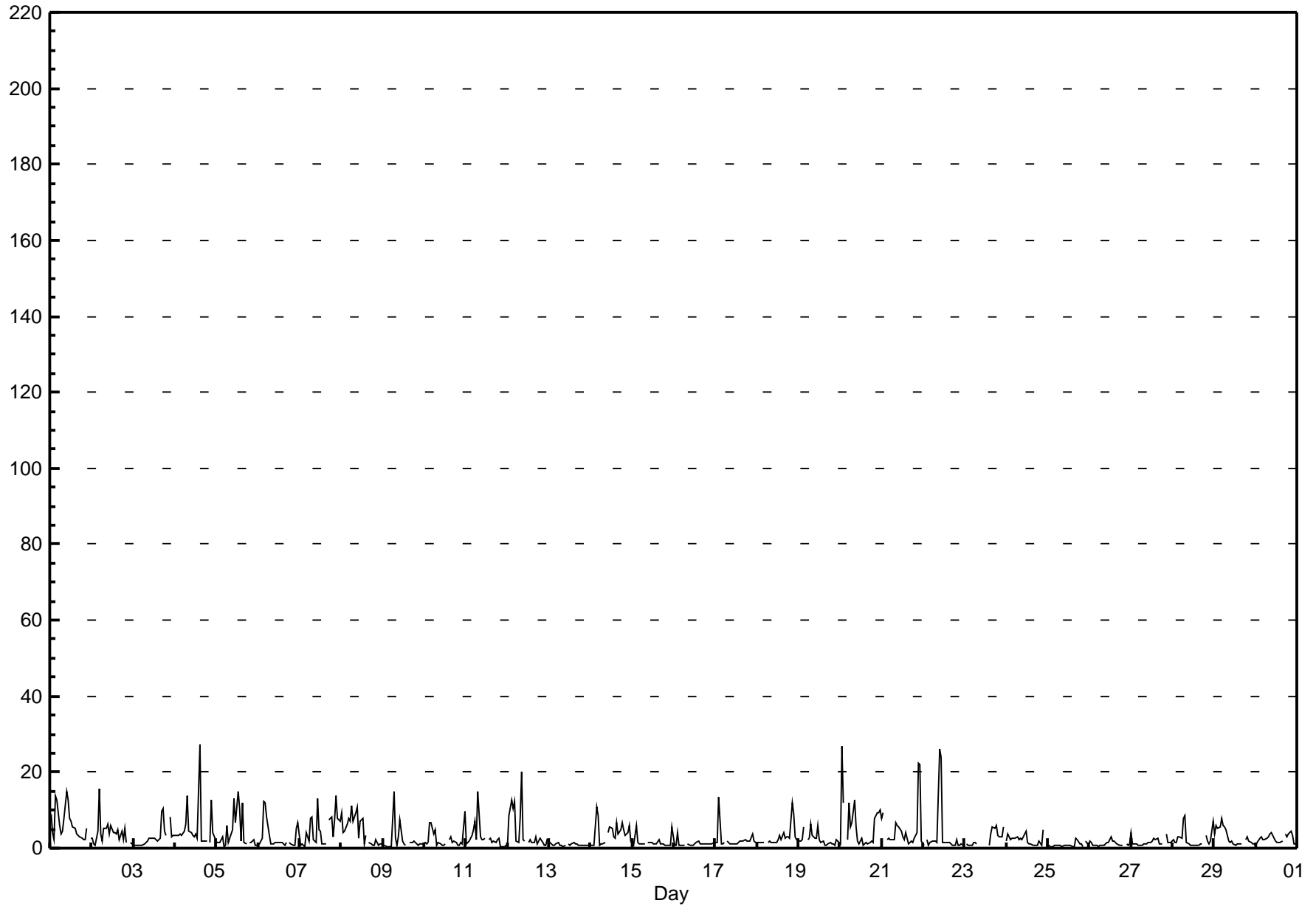
Oxides of Nitrogen (NO<sub>x</sub>) - ppb

Portable Reno - April 2014

Maximum Value: 27.2 ppb on Apr 4 15:00		Maximum Daily Average: 6.2 ppb on Apr 1		Hours in Service: 720																																													
Minimum Value: 0 ppb on Apr 5 05:00		Minimum Daily Average: 0.9 ppb on Apr 25		Hours of Data: 683																																													
Maximum Diurnal Average: 4.3 ppb at hour 11		Minimum Diurnal Average: 2.1 ppb at hour 17		Hours of Missing Data: 37																																													
Monthly Average: 3.08 ppb		Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 0.8 Q <sub>1</sub> = 1.0 Median = 1.7 Q <sub>3</sub> = 3.5 P <sub>90</sub> = 7.2 P <sub>99</sub> = 19.4		Hours of Calibration: 37																																													
				Percent Operational Time: 100.0																																													
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Apr	9	4	2	14	13	6	4	4	8	15	13	8	7	6	5	4	3	3	3	2	2	5	A	3	6.2	15.0																							
2-Apr	2	1	1	4	16	4	2	5	5	6	4	6	4	4	4	5	2	5	2	5	2	A	2	1	4.0	15.8																							
3-Apr	1	1	1	1	1	1	1	2	2	2	3	3	3	2	2	3	10	11	4	3	A	8	3	3	3.0	10.6																							
4-Apr	3	3	3	4	4	5	6	14	4	4	3	3	4	2	27	2	2	2	2	A	2	13	4	2	5.2	27.2																							
5-Apr	1	2	1	3	0	1	6	2	4	5	13	7	15	10	2	12	2	1	A	2	1	2	1	1	4.1	15.0																							
6-Apr	1	1	2	12	12	8	3	1	1	1	2	2	2	2	1	1	A	1	1	1	1	1	5	7	3.0	12.3																							
7-Apr	1	1	1	0	4	2	8	8	2	2	13	5	5	1	1	1	A	7	8	3	8	14	8	7	4.8	13.8																							
8-Apr	10	4	4	6	8	7	11	7	9	11	3	7	8	1	3	A	1	1	1	1	2	1	1	1	4.8	11.2																							
9-Apr	1	1	0	0	0	1	15	3	1	3	7	2	1	1	A	1	1	1	2	1	1	1	1	1	2.0	14.9																							
10-Apr	2	1	1	7	7	4	5	1	1	1	1	1	1	A	2	3	1	2	1	1	1	1	1	10	2.4	9.5																							
11-Apr	1	2	2	3	5	7	2	15	3	2	2	3	A	2	3	1	2	2	2	2	0	0	0	1	2.8	14.8																							
12-Apr	1	9	13	10	12	2	1	8	20	2	2	A	2	2	1	1	3	1	2	3	1	1	1	2	4.4	20.1																							
13-Apr	2	1	1	1	1	2	1	1	0	1	A	1	1	1	2	1	1	1	1	1	1	1	1	1	1.0	1.7																							
14-Apr	1	1	1	11	9	1	1	1	2	A	4	6	5	3	3	7	4	5	7	5	3	4	6	2	3.8	10.8																							
15-Apr	1	1	6	1	1	1	1	1	A	2	1	1	1	1	1	2	1	1	1	1	1	1	1	6	1.6	6.0																							
16-Apr	1	1	4	1	1	1	1	A	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1.2	4.2																							
17-Apr	2	1	13	1	1	2	A	2	1	1	1	1	1	1	2	2	2	2	2	2	2	4	2	2	2.2	13.3																							
18-Apr	2	1	1	1	1	A	2	2	1	1	1	2	2	3	2	4	3	3	3	3	12	9	3	2	2.8	11.8																							
19-Apr	2	2	2	6	A	2	3	6	3	3	3	6	2	2	2	1	1	1	2	1	1	1	2	1	2.3	6.5																							
20-Apr	1	27	12	A	2	12	6	7	13	6	2	1	2	1	1	2	1	1	2	1	8	9	9	10	5.9	26.7																							
21-Apr	8	9	A	2	3	2	2	2	7	6	6	5	3	2	4	1	1	2	1	3	4	22	22	2	5.2	22.4																							
22-Apr	1	A	2	1	1	2	2	2	2	26	24	2	2	1	1	1	1	1	1	2	1	1	1	1	3.4	26.3																							
23-Apr	A	1	1	1	1	1	2	1	C	C	C	C	C	C	1	4	6	5	6	3	3	3	6	A	--	5.8																							
24-Apr	2	4	2	3	3	2	3	2	3	2	3	4	1	1	1	1	1	1	1	2	1	5	A	1	2.1	5.0																							
25-Apr	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	3	2	1	1	1	A	2	1	1	0.9	2.5																							
26-Apr	2	2	1	1	1	1	1	1	1	1	2	2	3	2	2	2	1	1	1	1	A	1	1	1	1.1	3.0																							
27-Apr	4	1	1	1	1	1	1	1	1	1	1	1	2	3	2	3	1	1	1	A	4	1	2	1	1.6	4.2																							
28-Apr	2	1	2	3	3	3	8	9	2	1	1	1	1	1	1	1	1	1	A	3	2	1	2	7	2.4	8.6																							
29-Apr	4	6	5	6	8	6	6	5	2	2	2	1	1	1	1	1	1	A	2	3	2	2	1	1	2.9	7.9																							
30-Apr	1	2	3	3	2	2	3	3	4	4	3	2	1	1	1	2	A	4	3	4	5	4	1	1	2.5	4.6																							
																								2.3	3.1	3.1	3.7	4.2	3.0	3.6	4.0	3.7	4.0	4.3	2.9	2.9	2.2	2.8	2.4	2.1	2.5	2.2	2.2	2.5	4.2	3.2	2.7	Diurnal Average	
																								9.5	26.7	13.3	13.7	15.8	12.0	14.9	14.8	20.1	26.3	23.8	7.8	15.0	10.3	27.2	12.0	9.8	10.6	8.2	5.3	11.8	22.4	22.1	10.0	Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span																									

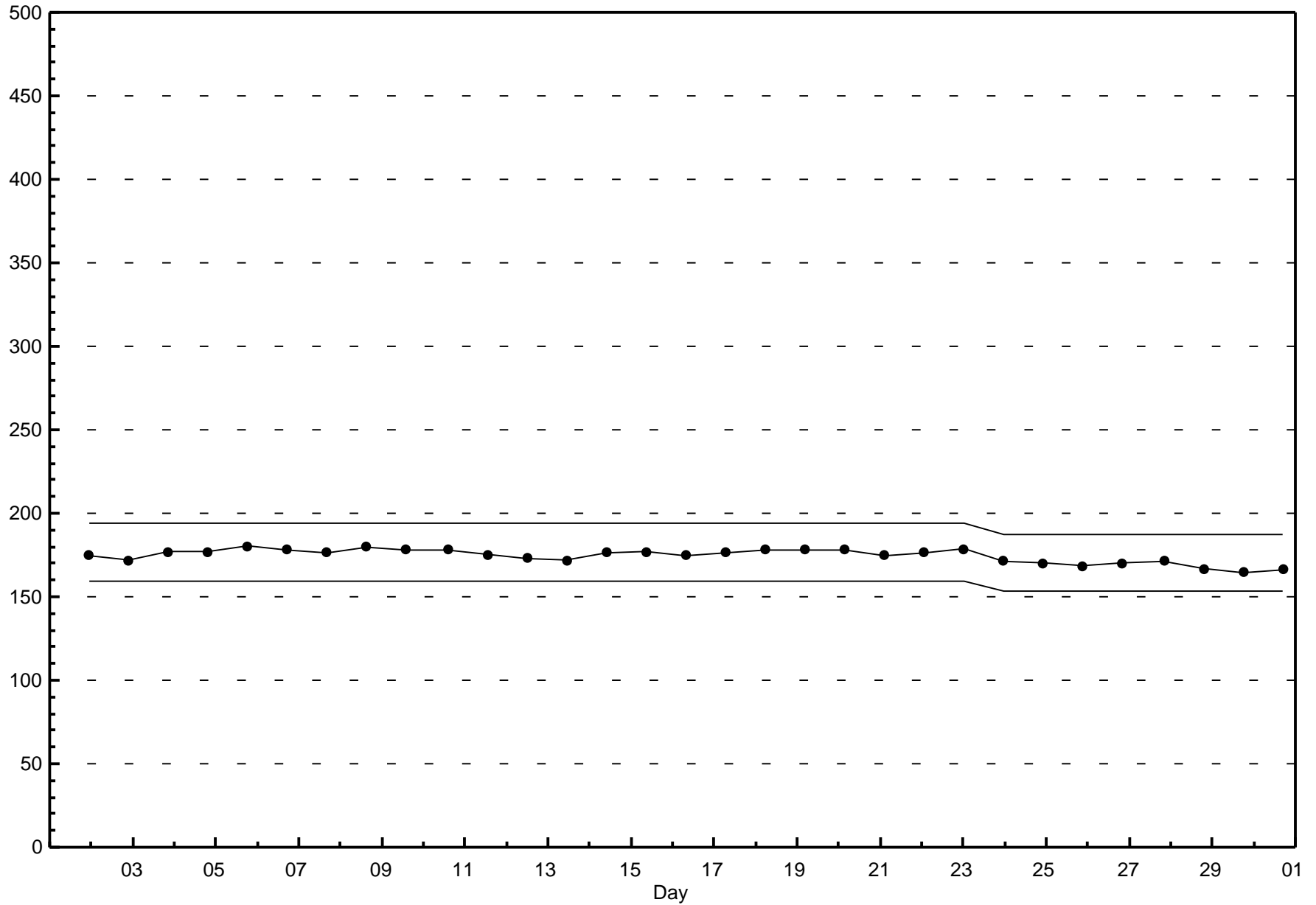
### Hourly Maximums

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



**Span Responses**

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



## Hourly Averages

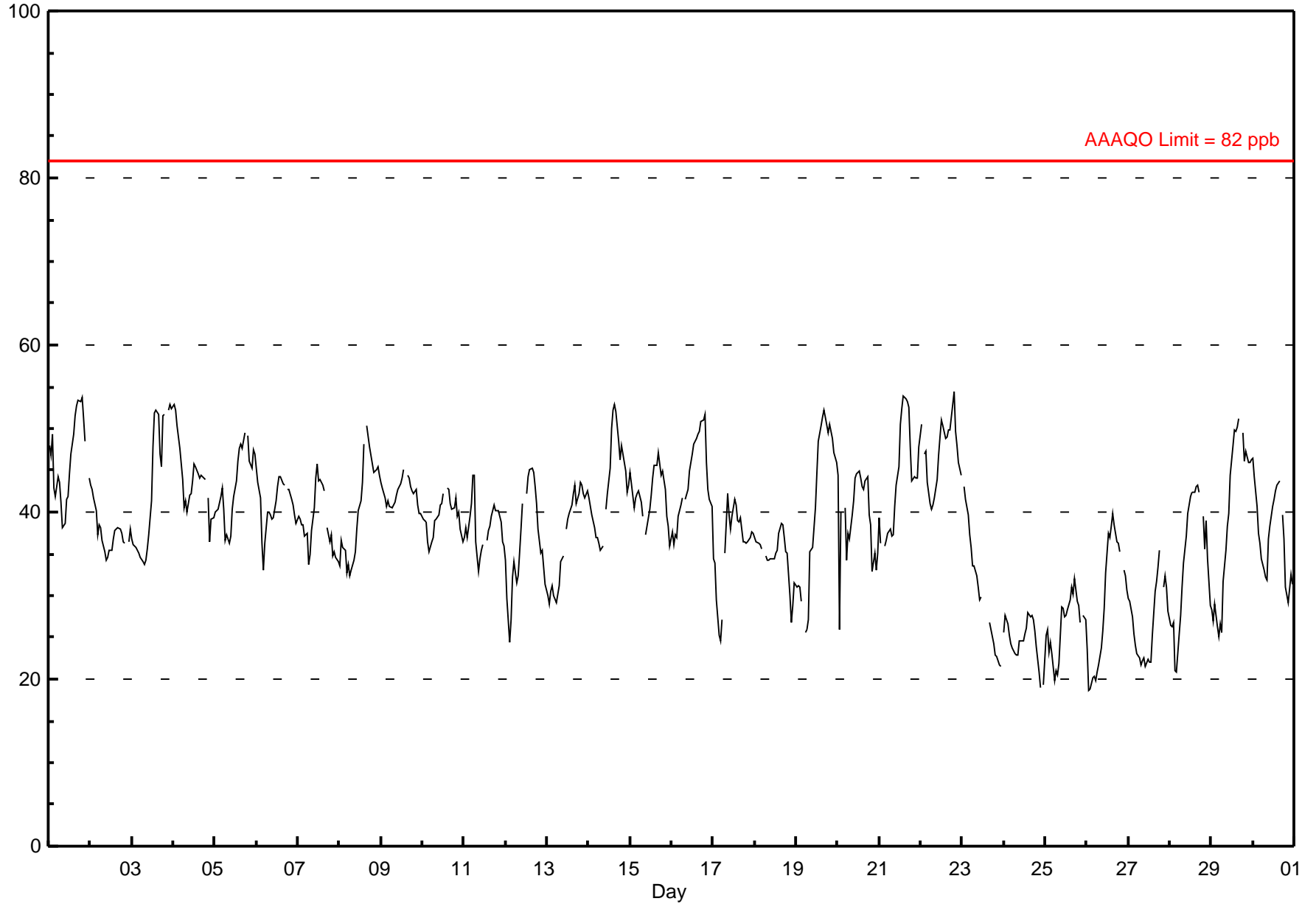
Ozone (O<sub>3</sub>) - ppb

Portable Reno - April 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 54.3 ppb on Apr 22 20:00 Maximum Daily Average: 47.2 ppb on Apr 22		Hours in Service: 720 Hours of Data: 685 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0																								
Minimum Value: 19 ppb on Apr 26 02:00 Maximum Diurnal Average: 43.6 ppb at hour 16 Monthly Average: 38.30 ppb		Minimum Daily Average: 24.6 ppb on Apr 24 Minimum Diurnal Average: 33.8 ppb at hour 8 Percentiles: P <sub>1</sub> = 20.3 P <sub>10</sub> = 26.6 Q <sub>1</sub> = 34.2 Median = 39.2 Q <sub>3</sub> = 43.7 P <sub>90</sub> = 48.1 P <sub>99</sub> = 53.2																								
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-Apr	48	47	49	43	42	44	44	41	38	39	42	42	45	47	49	51	53	53	53	54	51	48	A	44	46.4	53.7
2-Apr	43	43	42	40	37	38	38	37	35	34	35	36	35	37	38	38	38	38	37	36	36	A	36	38	37.7	43.3
3-Apr	37	36	36	35	35	35	34	34	34	36	37	41	48	52	52	52	47	45	52	52	A	52	53	52	42.9	52.9
4-Apr	53	52	50	49	48	44	41	41	40	42	42	44	46	45	45	44	44	44	44	A	42	36	39	39	44.1	52.9
5-Apr	40	40	40	42	43	40	37	37	36	37	40	42	44	46	48	48	48	50	A	49	46	45	47	47	43.2	49.5
6-Apr	45	44	42	36	33	36	40	40	40	39	39	41	43	44	44	43	43	A	43	43	42	41	40	39	40.9	45.3
7-Apr	40	39	39	38	37	37	34	35	38	40	44	46	44	44	43	43	A	38	36	37	35	35	35	34	38.7	45.8
8-Apr	34	37	36	35	33	34	32	33	34	35	38	40	41	44	48	A	50	48	47	46	45	45	45	44	40.2	50.3
9-Apr	43	43	42	41	41	41	40	41	41	42	43	43	44	45	A	44	44	43	43	42	43	41	40	40	42.2	45.1
10-Apr	39	39	39	36	35	37	37	39	39	40	41	41	42	A	43	43	41	40	41	42	40	40	38	36	39.4	43.0
11-Apr	37	38	37	39	41	44	44	36	33	34	35	36	A	37	38	38	40	41	40	40	40	39	37	36	38.3	44.4
12-Apr	34	30	24	27	32	34	32	32	35	38	41	A	42	44	45	45	45	43	41	38	35	35	33	31	36.4	45.3
13-Apr	30	29	31	31	30	29	30	31	34	35	A	38	39	40	41	42	43	41	42	44	43	42	42	43	36.9	43.5
14-Apr	42	41	40	38	37	37	36	35	36	A	40	42	45	50	52	53	52	48	46	48	47	45	42	43	43.4	52.9
15-Apr	45	43	41	42	42	43	41	39	A	37	38	40	42	44	46	46	47	46	44	45	43	40	38	36	42.1	47.1
16-Apr	38	36	37	37	40	41	42	A	42	43	45	46	47	48	49	49	50	51	51	52	46	43	42	41	44.0	51.7
17-Apr	34	34	29	25	25	27	A	35	42	40	38	40	41	41	39	39	39	37	36	36	36	37	38	37	35.9	42.2
18-Apr	37	37	36	36	36	A	35	34	34	34	34	34	35	35	38	39	38	37	35	35	30	27	29	32	34.7	38.6
19-Apr	31	31	31	29	A	26	26	27	35	36	38	40	45	48	50	51	52	51	50	51	50	49	47	46	40.9	52.2
20-Apr	44	26	40	A	40	34	37	37	40	41	44	45	45	44	43	43	44	44	40	38	33	35	33	35	39.4	45.0
21-Apr	39	36	A	36	37	37	38	37	37	41	43	45	50	52	54	54	53	53	48	44	44	44	44	48	44.1	54.0
22-Apr	51	A	47	47	44	41	40	41	42	44	47	49	51	50	49	49	50	50	53	54	50	48	46	44	47.2	54.3
23-Apr	A	43	41	40	37	36	34	34	32	31	30	30	C	C	C	C	27	25	24	23	23	22	22	A	30.7	43.0
24-Apr	26	28	27	25	24	24	23	23	23	25	25	25	25	26	28	28	28	27	26	24	21	19	A	19	24.6	27.9
25-Apr	25	26	23	24	23	20	21	20	22	29	29	27	28	28	30	31	30	32	29	29	27	A	28	27	26.4	32.0
26-Apr	24	19	19	20	20	20	21	22	24	26	28	33	38	37	38	40	39	37	36	35	A	33	32	31	29.1	39.8
27-Apr	30	29	28	25	24	23	22	22	22	22	22	22	22	22	25	31	32	33	35	A	31	32	31	28	26.7	35.4
28-Apr	26	26	27	21	21	25	28	31	34	37	40	41	42	42	42	43	43	42	A	39	36	39	34	29	34.3	43.2
29-Apr	28	27	29	26	25	27	26	32	35	38	40	44	48	50	50	50	51	A	50	46	47	46	46	46	39.4	51.2
30-Apr	46	44	41	37	36	34	33	32	32	37	38	41	42	43	43	44	A	40	37	31	29	31	32	31	37.2	46.4
																								Diurnal Average	Diurnal Maximum	
37.6 35.9 35.9 34.6 34.4 34.1 34.0 33.8 34.8 36.3 37.8 39.1 41.4 42.4 43.2 43.6 43.2 42.0 41.4 41.2 38.9 38.9 38.2 37.8 52.9 52.2 50.3 49.0 47.5 44.3 44.4 41.3 42.2 43.9 46.9 49.0 51.0 52.3 54.0 53.5 53.2 53.4 53.2 54.3 51.2 52.2 52.9 52.4																								Diurnal Average	Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na																										

### Hourly Averages

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





## Hourly Maximums

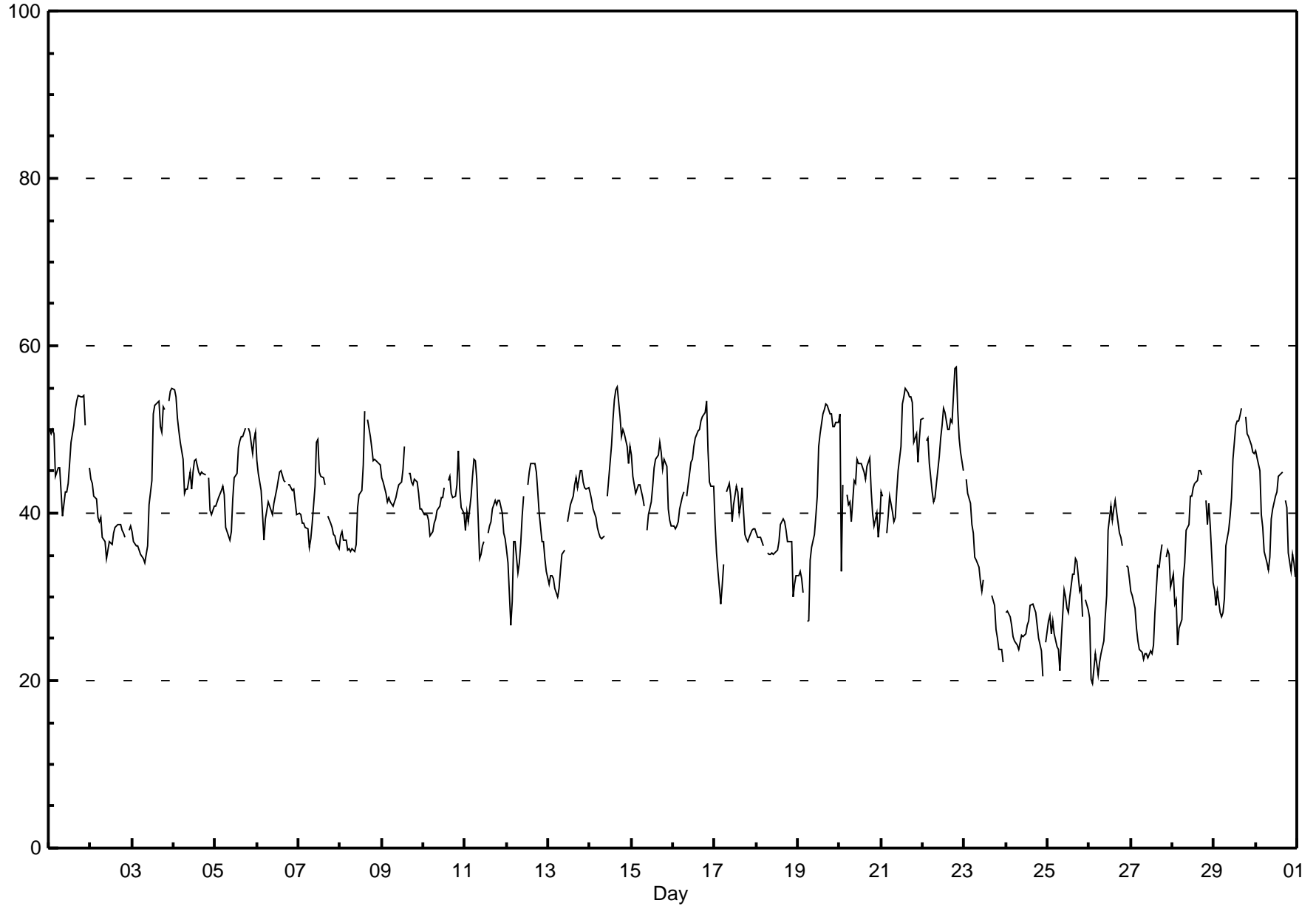
Ozone (O<sub>3</sub>) - ppb

Portable Reno - April 2014

Maximum Value: 57.5 ppb on Apr 22 20:00		Maximum Daily Average: 48.9 ppb on Apr 22		Hours in Service: 720																							
Minimum Value: 20 ppb on Apr 26 03:00		Minimum Daily Average: 26.0 ppb on Apr 24		Hours of Data: 685																							
Maximum Diurnal Average: 44.8 ppb at hour 17		Minimum Diurnal Average: 35.7 ppb at hour 7		Hours of Missing Data: 35																							
Monthly Average: 40.06 ppb		Percentiles: P <sub>1</sub> = 22.0 P <sub>10</sub> = 28.6 Q <sub>1</sub> = 35.6 Median = 40.8 Q <sub>3</sub> = 45.0 P <sub>90</sub> = 50.0 P <sub>99</sub> = 54.7		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-Apr	50	49	50	49	44	45	45	42	40	42	42	43	46	48	50	52	53	54	54	54	54	50	A	45	48.2	54.1	
2-Apr	44	43	42	42	40	39	40	37	37	35	36	37	36	38	38	39	39	39	38	38	37	A	38	39	38.6	44.0	
3-Apr	38	37	36	36	36	35	35	34	35	36	41	44	52	53	53	53	50	50	53	52	A	53	55	55	44.4	54.9	
4-Apr	55	54	51	50	49	46	42	43	43	45	43	45	46	46	45	45	45	45	45	A	44	40	40	41	45.5	54.8	
5-Apr	41	41	42	43	43	42	38	38	37	38	42	44	45	48	49	49	49	50	A	50	50	47	49	50	44.5	50.2	
6-Apr	46	45	43	40	37	39	41	41	40	40	41	43	44	45	45	44	44	A	43	43	43	43	41	40	42.2	46.2	
7-Apr	40	40	39	39	38	38	36	37	39	43	48	49	45	44	44	43	A	40	39	38	38	37	36	36	40.3	48.8	
8-Apr	37	38	37	37	36	36	35	36	35	36	41	42	43	46	52	A	51	49	48	46	46	46	46	46	42.0	52.2	
9-Apr	44	44	42	41	42	41	41	41	42	43	43	44	45	48	A	45	45	44	43	44	44	42	41	41	43.0	47.9	
10-Apr	40	40	40	39	37	38	39	39	40	41	42	42	43	A	44	44	42	42	42	42	43	47	43	41	40	41.2	47.4
11-Apr	38	40	39	42	44	46	46	44	35	35	36	37	A	38	39	39	41	42	41	42	42	40	38	37	39.9	46.4	
12-Apr	36	34	27	30	37	37	33	34	37	40	42	A	43	45	46	46	46	45	43	40	37	37	35	33	38.2	46.0	
13-Apr	32	33	33	32	31	30	31	33	35	36	A	39	40	41	42	43	44	43	45	45	44	43	43	43	38.3	45.0	
14-Apr	42	42	41	40	38	38	37	37	37	A	42	44	48	51	53	55	55	51	49	50	49	48	46	48	45.3	55.1	
15-Apr	47	44	42	43	43	43	42	41	A	38	40	41	43	45	46	47	48	47	45	46	46	40	39	38	43.4	48.4	
16-Apr	39	38	39	39	41	42	43	A	42	45	46	47	48	49	50	50	51	51	52	53	48	44	43	43	45.3	53.4	
17-Apr	39	35	33	29	31	34	A	43	44	42	39	41	43	43	40	41	43	37	37	37	37	38	38	38	38.3	43.5	
18-Apr	38	37	37	37	36	A	35	35	35	35	35	35	36	37	39	39	39	38	37	37	37	30	31	33	35.9	39.4	
19-Apr	33	33	32	31	A	27	27	34	36	37	40	42	48	49	52	52	53	53	52	52	50	50	51	51	42.9	53.1	
20-Apr	52	33	43	A	42	41	41	39	44	43	46	46	46	45	45	44	46	47	43	40	38	40	37	39	42.7	51.9	
21-Apr	42	42	A	38	40	42	40	39	39	43	45	48	53	54	55	54	54	54	53	48	49	46	49	51	46.9	54.9	
22-Apr	51	A	49	49	46	42	41	42	43	47	49	50	52	52	50	50	51	51	57	57	52	49	47	45	48.9	57.5	
23-Apr	A	44	42	41	39	38	35	34	34	32	31	32	C	C	C	C	30	29	26	25	24	24	22	A	32.3	44.0	
24-Apr	28	28	28	27	25	25	24	24	25	25	25	26	27	27	29	29	29	28	27	25	24	20	A	25	26.0	29.1	
25-Apr	27	28	26	27	26	24	24	21	25	31	30	29	28	30	33	33	35	34	31	31	28	A	30	29	28.6	34.5	
26-Apr	27	20	20	23	22	21	22	23	25	28	30	38	41	39	41	41	40	38	37	36	A	34	34	32	31.0	41.5	
27-Apr	31	30	29	26	25	24	23	23	23	23	24	23	24	28	34	34	35	36	A	35	36	35	31	28.4	36.3		
28-Apr	33	29	30	24	26	27	32	34	38	39	42	42	43	44	44	45	45	A	42	39	41	39	32	37.1	45.1		
29-Apr	31	29	31	28	28	28	30	36	38	40	42	47	51	51	51	52	53	A	52	49	49	48	47	47	41.6	52.6	
30-Apr	48	47	45	40	38	35	34	33	35	39	41	42	43	44	44	45	A	42	41	35	33	35	34	32	39.4	47.5	
		39.5	37.8	37.4	36.6	36.5	36.0	35.7	35.8	36.4	37.8	39.4	40.7	42.9	43.7	44.5	44.8	44.8	43.6	43.1	42.9	41.5	40.9	40.1	39.9	Diurnal Average	
		54.8	53.9	51.4	49.9	48.6	46.4	46.3	44.0	44.0	46.8	49.0	50.4	53.0	53.9	54.9	54.7	55.1	54.0	57.3	57.5	54.1	53.4	54.6	54.9	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

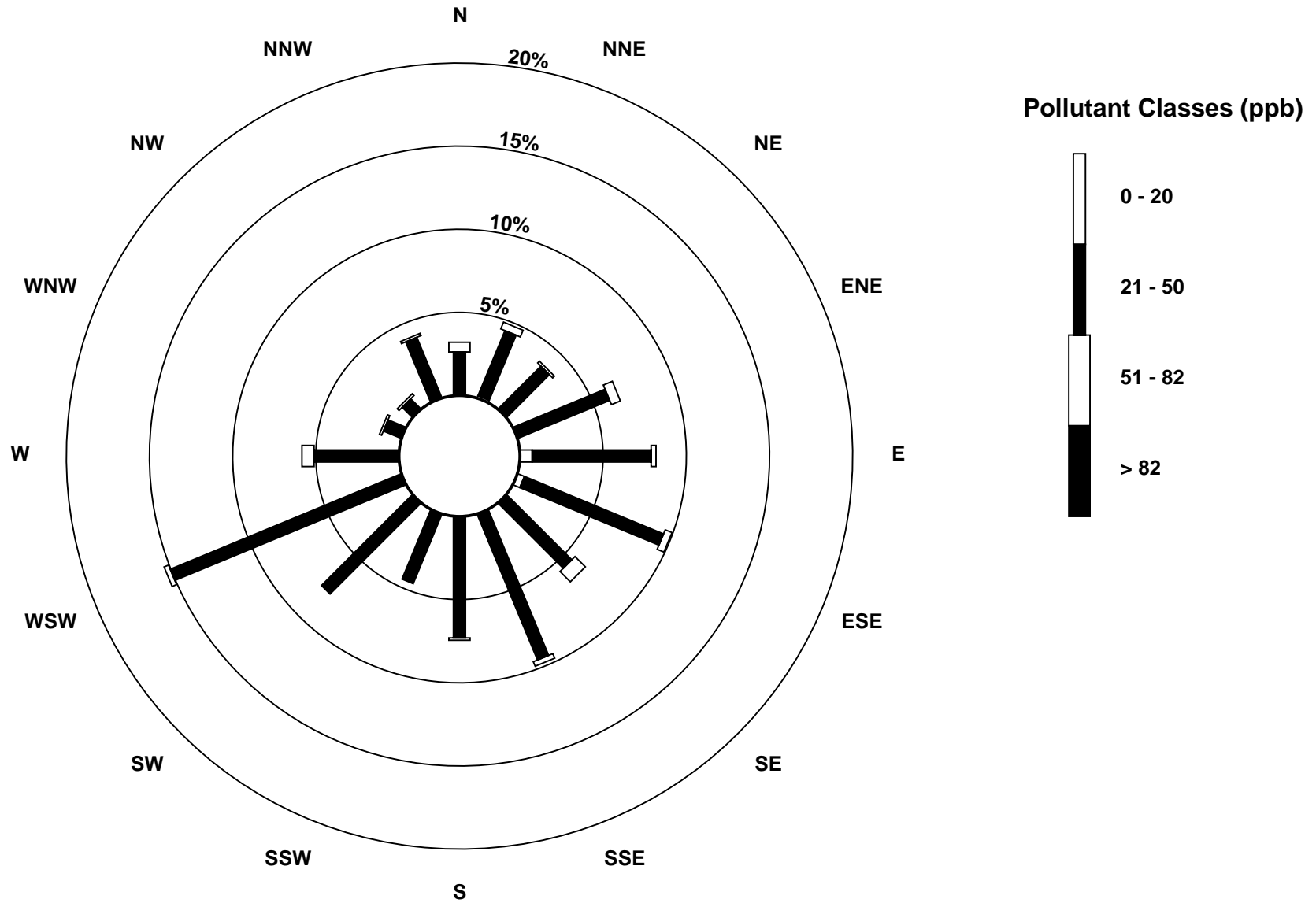
# Hourly Maximums

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



**Pollutant Rose**

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



# Eight Hour Running Averages

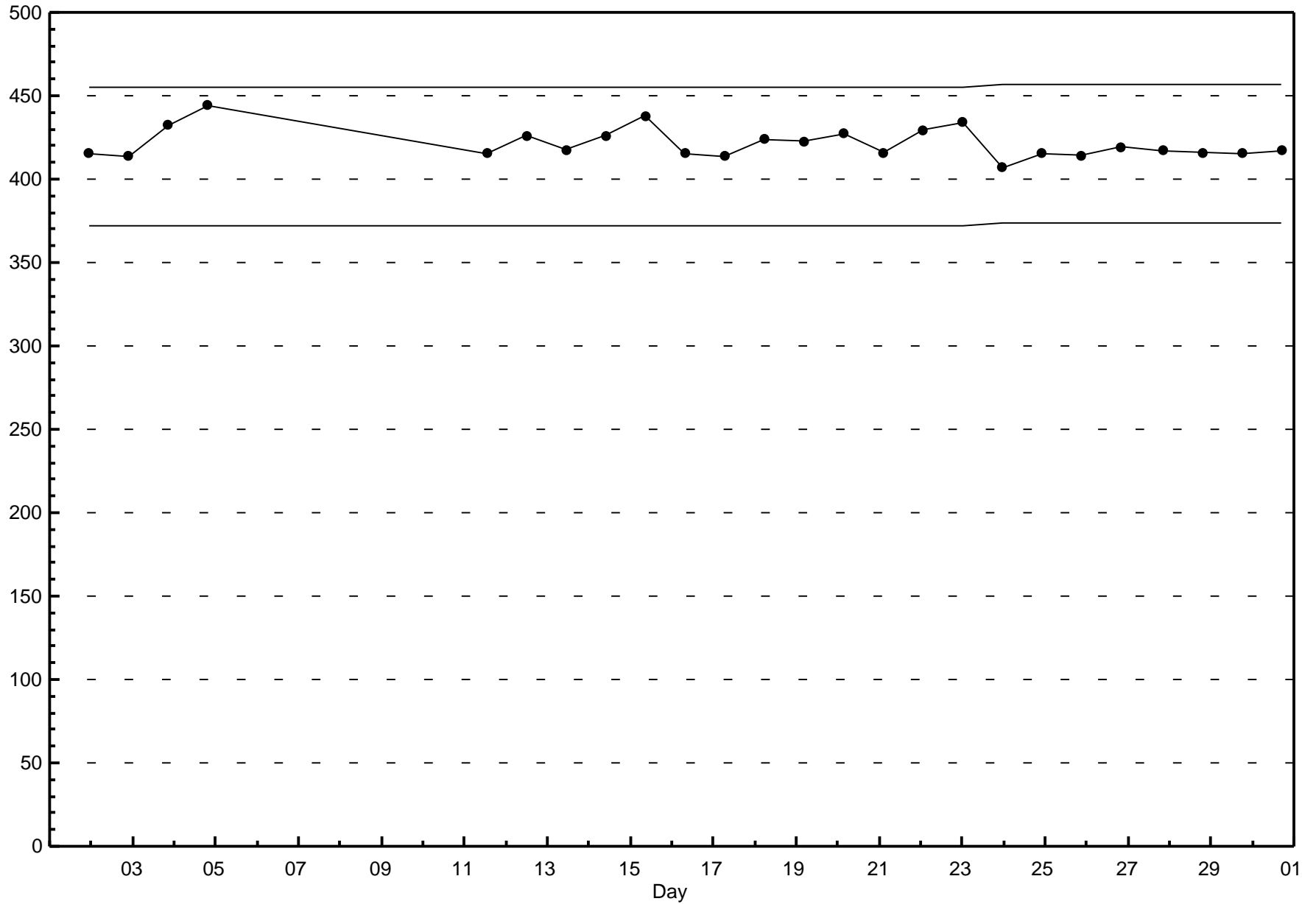
Ozone (O<sub>3</sub>) - ppb

Portable Reno - April 2014

Maximum Value: 52.3 ppb on Apr 4 02:00																						Hours in Service: 720			
Minimum Value: 20.5 ppb on Apr 26 08:00																						Hours of Data: 713			
Percentiles: P <sub>1</sub> = 22.3 P <sub>10</sub> = 27.0 Q <sub>1</sub> = 34.9 Median = 39.2 Q <sub>3</sub> = 43.1 P <sub>90</sub> = 47.4 P <sub>99</sub> = 51.2																						Hours of Missing Data: 7			
																						Hours of Calibration: 7			
																						Percent Operational Time: 100.0			
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	47	47	47	46	45	45	45	45	44	42	42	41	42	42	43	44	46	48	49	51	51	52	52	51	52.0
2-Apr	50	48	46	45	43	41	41	40	39	38	37	36	36	36	36	36	36	37	37	37	37	37	37	37	49.6
3-Apr	37	37	37	36	36	36	36	35	35	35	35	36	37	40	42	44	46	47	49	50	50	50	50	50	50.5
4-Apr	51	52	52	52	51	50	49	47	46	44	43	43	42	43	43	43	44	44	45	45	44	43	42	41	52.3
5-Apr	41	40	40	40	40	40	40	40	39	39	39	39	39	40	41	43	44	46	46	47	48	48	48	47	47.8
6-Apr	47	46	46	44	42	41	40	40	39	38	38	39	40	41	41	42	42	43	43	43	43	43	42	41	47.1
7-Apr	41	41	40	40	39	39	38	37	37	37	38	39	40	41	42	43	43	43	42	41	39	38	37	36	43.4
8-Apr	36	35	35	35	35	35	34	34	34	34	34	35	36	37	39	40	42	44	45	46	47	47	47	46	47.0
9-Apr	45	45	44	44	43	43	42	42	41	41	41	42	42	42	43	43	44	44	44	44	43	43	42	42	45.4
10-Apr	41	41	40	40	39	38	38	38	38	38	38	39	39	40	41	41	41	42	42	42	41	41	40	40	41.6
11-Apr	39	39	38	38	38	39	40	40	39	39	39	38	38	37	36	36	37	38	38	39	39	39	39	39	39.7
12-Apr	38	37	35	33	32	32	31	31	31	32	34	35	36	38	40	42	43	44	44	43	42	41	39	38	43.6
13-Apr	36	34	33	32	31	31	30	30	31	31	31	32	34	35	37	38	40	41	41	42	42	42	42	42	42.5
14-Apr	42	42	42	41	40	40	39	38	38	37	37	38	39	41	43	46	48	48	49	49	50	49	48	47	49.6
15-Apr	46	45	44	43	43	43	42	42	42	41	40	40	40	40	41	42	43	44	44	45	45	44	44	42	45.6
16-Apr	41	40	39	38	38	38	38	39	39	40	41	42	44	45	46	46	47	48	49	50	49	49	48	47	49.5
17-Apr	45	43	40	37	34	32	31	30	31	32	33	35	38	40	39	40	40	39	39	39	38	37	37	37	44.9
18-Apr	37	37	37	37	37	37	36	36	35	35	35	35	34	35	35	36	36	36	36	37	36	35	34	33	36.8
19-Apr	32	31	31	30	30	30	29	29	29	30	31	33	34	37	40	43	45	47	49	50	50	50	50	49	50.5
20-Apr	48	45	44	43	42	40	38	37	36	39	39	40	40	42	42	43	44	44	43	43	41	40	39	38	48.4
21-Apr	37	36	36	35	36	36	37	37	37	38	38	39	41	43	45	47	49	51	51	51	50	49	48	47	51.1
22-Apr	47	46	46	46	46	46	45	44	43	43	43	43	44	46	47	48	49	49	50	51	51	50	50	49	50.7
23-Apr	49	48	47	45	43	41	39	38	37	36	34	33	32	32	N	N	N	N	N	N	N	24	24	24	49.3
24-Apr	23	24	24	24	25	25	25	25	25	24	24	24	24	24	25	25	26	26	27	26	26	25	25	23	26.5
25-Apr	23	23	22	23	23	23	23	23	22	23	23	24	24	25	27	28	29	29	29	30	29	30	29	29	29.7
26-Apr	28	26	24	23	22	22	21	20	20	21	23	24	26	28	31	33	35	36	37	37	37	37	36	35	37.4
27-Apr	33	32	31	30	29	28	27	25	24	24	23	23	22	22	22	24	25	26	28	29	30	31	32	32	33.4
28-Apr	31	30	29	28	27	26	25	26	27	28	30	32	35	37	39	40	41	42	42	42	41	41	40	38	42.3
29-Apr	35	33	33	31	30	28	27	27	28	30	31	33	36	39	42	44	46	48	49	49	49	49	48	47	49.2
30-Apr	47	46	45	44	43	41	40	38	36	35	35	35	36	37	38	40	41	41	41	40	38	36	35	33	46.8
51.3 52.3 52.1 51.7 51.2 50.1 48.6 47.2 45.6 44.3 43.3 43.4 44.3 45.5 46.5 47.6 49.1 50.6 51.1 50.9 51.5 51.7 52.0 51.0																									
Diurnal Maximums																									
N - Not Valid																									

### Span Responses

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



## Hourly Averages

## Total Hydrocarbons (THC) - ppm

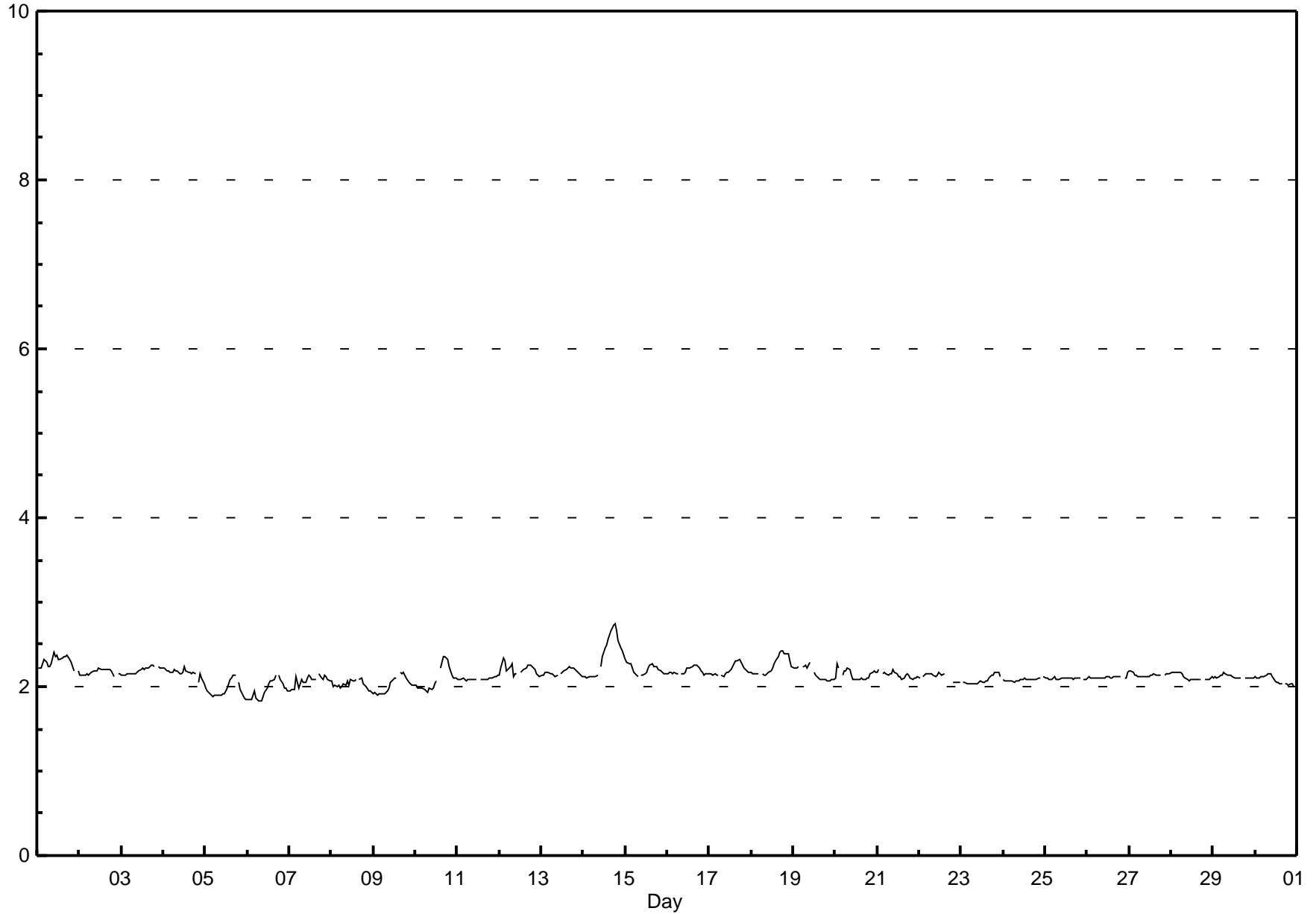
### Portable Reno - April 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 2.74 ppm on Apr 14 19:00	Maximum Daily Average: 2.36 ppm on Apr 14		Hours of Data:	683
Minimum Value: 1.8 ppm on Apr 6 07:00	Minimum Daily Average: 1.96 ppm on Apr 5		Hours of Missing Data:	37
Maximum Diurnal Average: 2.20 ppm at hour 18	Minimum Diurnal Average: 2.10 ppm at hour 7		Hours of Calibration:	35
Monthly Average: 2.133 ppm	Percentiles: P <sub>1</sub> = 1.86 P <sub>10</sub> = 2.01 Q <sub>1</sub> = 2.08 Median = 2.13 Q <sub>3</sub> = 2.17 P <sub>90</sub> = 2.25 P <sub>99</sub> = 2.54		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-Apr	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.3	2.4	2.4	2.4	2.3	2.3	2.3	2.4	2.4	2.4	2.3	2.3	2.2	2.2	A	2.2	2.2	2.29	2.41
2-Apr	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	A	2.2	2.1	2.17	2.21	
3-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	A	2.2	2.2	2.2	2.19	2.26	
4-Apr	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	A	2.1	2.2	2.1	2.0	2.16	2.23	
5-Apr	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.1	2.1	A	2.1	2.0	1.9	1.9	1.8	1.96	2.14	
6-Apr	1.8	1.8	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	2.0	2.0	2.1	2.1	2.1	2.1	A	2.1	2.1	2.0	2.0	2.0	2.0	1.96	2.14	
7-Apr	1.9	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.07	2.15	
8-Apr	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	2.03	2.11	
9-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.1	2.1	2.1	A	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.02	2.16	
10-Apr	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.1	A	2.2	2.3	2.4	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.09	2.35	
11-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.09	2.13	
12-Apr	2.1	2.2	2.3	2.3	2.2	2.2	2.2	2.3	2.1	2.2	2.2	A	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.21	2.33	
13-Apr	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.17	2.23	
14-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.2	2.4	2.5	2.5	2.6	2.6	2.7	2.7	2.7	2.7	2.5	2.5	2.4	2.4	2.36	2.74
15-Apr	2.3	2.3	2.3	2.3	2.2	2.2	2.1	2.1	A	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.21	2.33	
16-Apr	2.2	2.2	2.2	2.2	2.2	2.2	2.2	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.19	2.26	
17-Apr	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.20	2.33	
18-Apr	2.2	2.2	2.2	2.1	2.2	A	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.2	2.25	2.42	
19-Apr	2.2	2.2	2.2	2.2	A	2.2	2.2	2.3	2.2	2.3	M	M	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.16	2.28	
20-Apr	2.1	2.3	2.2	A	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.14	2.26	
21-Apr	2.2	2.2	A	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.14	2.20	
22-Apr	2.1	A	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.1	C	C	C	C	2.1	2.1	2.1	2.1	2.0	2.12	2.16	
23-Apr	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	A	2.08	2.17	
24-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.08	2.12	
25-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.09	2.12	
26-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.2	2.11	2.18	
27-Apr	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.2	2.2	2.14	2.19	
28-Apr	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.11	2.18	
29-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.12	2.17	
30-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.08	2.16	

2.11	2.11	2.11	2.11	2.11	2.10	2.10	2.11	2.10	2.11	2.11	2.13	2.15	2.15	2.16	2.18	2.20	2.19	2.16	2.14	2.13	2.11	2.11	Diurnal Average		
2.33	2.28	2.33	2.31	2.32	2.29	2.24	2.28	2.28	2.41	2.35	2.38	2.45	2.49	2.56	2.61	2.67	2.73	2.74	2.66	2.55	2.46	2.42	2.37	Diurnal Maximum	

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



## Hourly Maximums

## Total Hydrocarbons (THC) - ppm

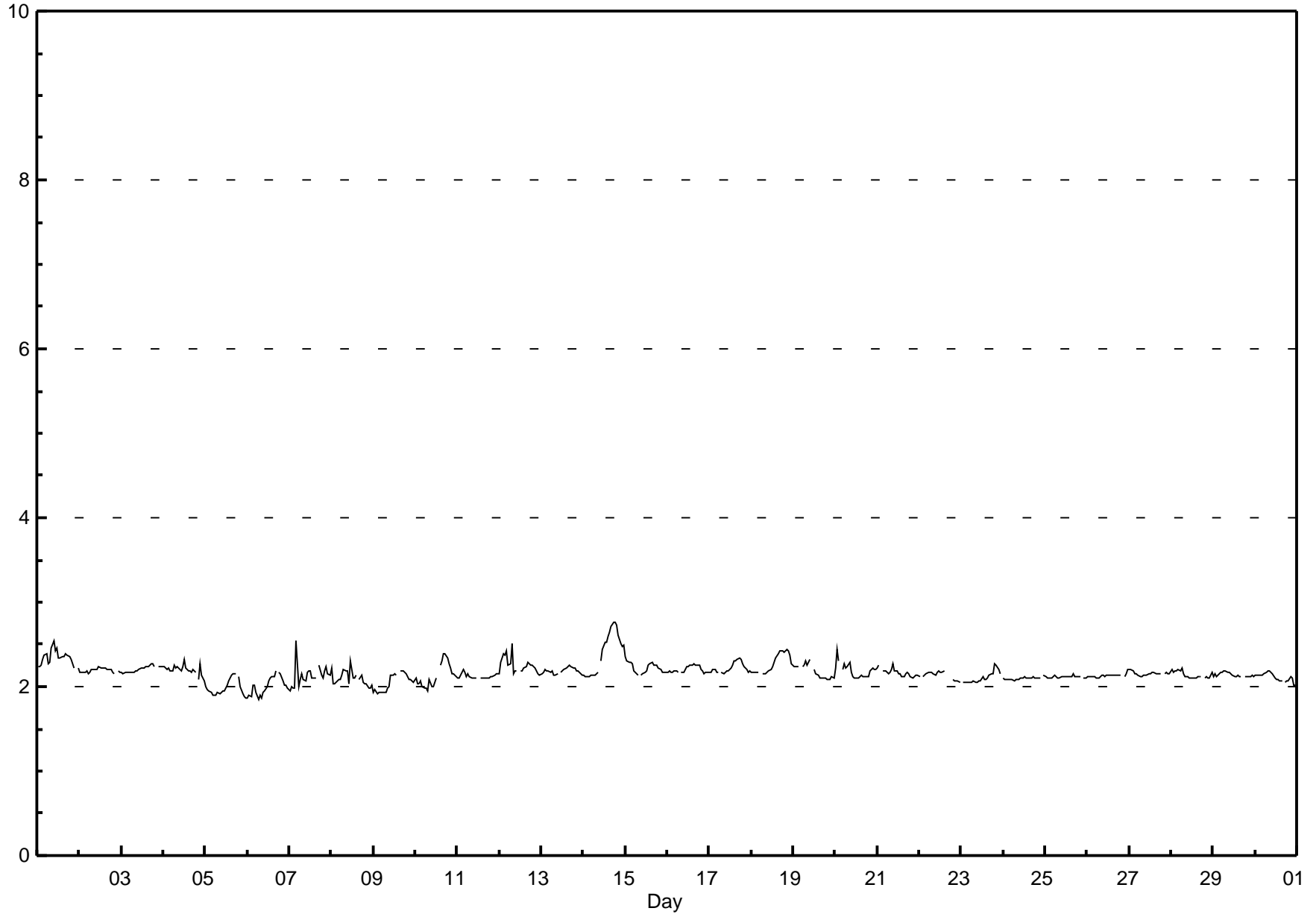
### Portable Reno - April 2014

Maximum Value: 2.77 ppm on Apr 14 19:00		Maximum Daily Average: 2.40 ppm on Apr 14		Hours in Service: 720																																													
Minimum Value: 1.9 ppm on Apr 6 07:00		Minimum Daily Average: 1.98 ppm on Apr 5		Hours of Data: 683																																													
Maximum Diurnal Average: 2.22 ppm at hour 18		Minimum Diurnal Average: 2.13 ppm at hour 6		Hours of Missing Data: 37																																													
Monthly Average: 2.163 ppm		Percentiles: P <sub>1</sub> = 1.89 P <sub>10</sub> = 2.05 Q <sub>1</sub> = 2.11 Median = 2.15 Q <sub>3</sub> = 2.21 P <sub>90</sub> = 2.28 P <sub>99</sub> = 2.59		Hours of Calibration: 35																																													
				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-Apr	2.2	2.2	2.3	2.3	2.4	2.4	2.3	2.3	2.5	2.6	2.4	2.5	2.3	2.3	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.2	A	2.2	2.2	2.34	2.55																						
2-Apr	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	A	2.2	2.2	2.19	2.24																							
3-Apr	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.2	A	2.2	2.2	2.2	2.21	2.27																							
4-Apr	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	A	2.1	2.3	2.1	2.1	2.20	2.33																							
5-Apr	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.1	2.2	2.1	A	2.1	2.0	1.9	1.9	1.9	1.98	2.15																							
6-Apr	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.1	2.1	2.2	A	2.2	2.1	2.1	2.0	2.0	2.0	2.00	2.19																							
7-Apr	2.0	2.0	2.0	2.0	2.5	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.1	A	2.2	2.1	2.1	2.2	2.2	2.2	2.1	2.13	2.54																							
8-Apr	2.2	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.0	2.3	2.1	2.1	2.1	A	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.10	2.30																							
9-Apr	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.2	2.1	A	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.05	2.19																							
10-Apr	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.1	A	2.3	2.3	2.4	2.4	2.3	2.3	2.2	2.2	2.1	2.1	2.13	2.39																							
11-Apr	2.1	2.1	2.1	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.12	2.20																							
12-Apr	2.2	2.3	2.4	2.4	2.4	2.3	2.3	2.5	2.2	2.2	2.2	A	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.25	2.50																							
13-Apr	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.2	A	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.19	2.25																							
14-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	A	2.3	2.4	2.5	2.5	2.6	2.6	2.7	2.8	2.8	2.7	2.6	2.5	2.5	2.5	2.40	2.77																							
15-Apr	2.4	2.3	2.3	2.3	2.3	2.2	2.2	2.1	A	2.1	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.22	2.36																							
16-Apr	2.2	2.2	2.2	2.2	2.2	2.2	2.2	A	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.20	2.27																							
17-Apr	2.2	2.2	2.2	2.2	2.2	2.2	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.22	2.34																							
18-Apr	2.2	2.2	2.2	2.2	2.2	A	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.27	2.44																							
19-Apr	2.2	2.2	2.2	2.2	A	2.2	2.3	2.3	2.3	2.3	M	M	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.18	2.32																							
20-Apr	2.2	2.4	2.3	A	2.2	2.3	2.2	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.19	2.44																							
21-Apr	2.2	2.3	A	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.16	2.26																							
22-Apr	2.1	A	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	C	C	C	C	2.1	2.1	2.1	2.1	2.1	2.13	2.19																							
23-Apr	A	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.2	2.2	A	2.11	2.26																							
24-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.10	2.13																							
25-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	A	2.1	2.1	2.12	2.15																							
26-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.2	2.13	2.21																							
27-Apr	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.2	2.2	2.1	2.2	A	2.2	2.2	2.2	2.2	2.16	2.21																							
28-Apr	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.2	2.14	2.23																							
29-Apr	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.14	2.19																							
30-Apr	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	A	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.11	2.19																							
																								2.14	2.14	2.13	2.14	2.16	2.13	2.13	2.14	2.14	2.15	2.14	2.17	2.18	2.17	2.19	2.20	2.22	2.21	2.19	2.17	2.16	2.14	2.14	Diurnal Average		
																								2.36	2.44	2.39	2.38	2.54	2.39	2.28	2.50	2.46	2.55	2.43	2.46	2.52	2.52	2.60	2.64	2.71	2.76	2.77	2.72	2.61	2.50	2.47	2.48	Diurnal Maximum	
C - Calibration																								M - Maintenance						A - Automated Daily Zero Span																			



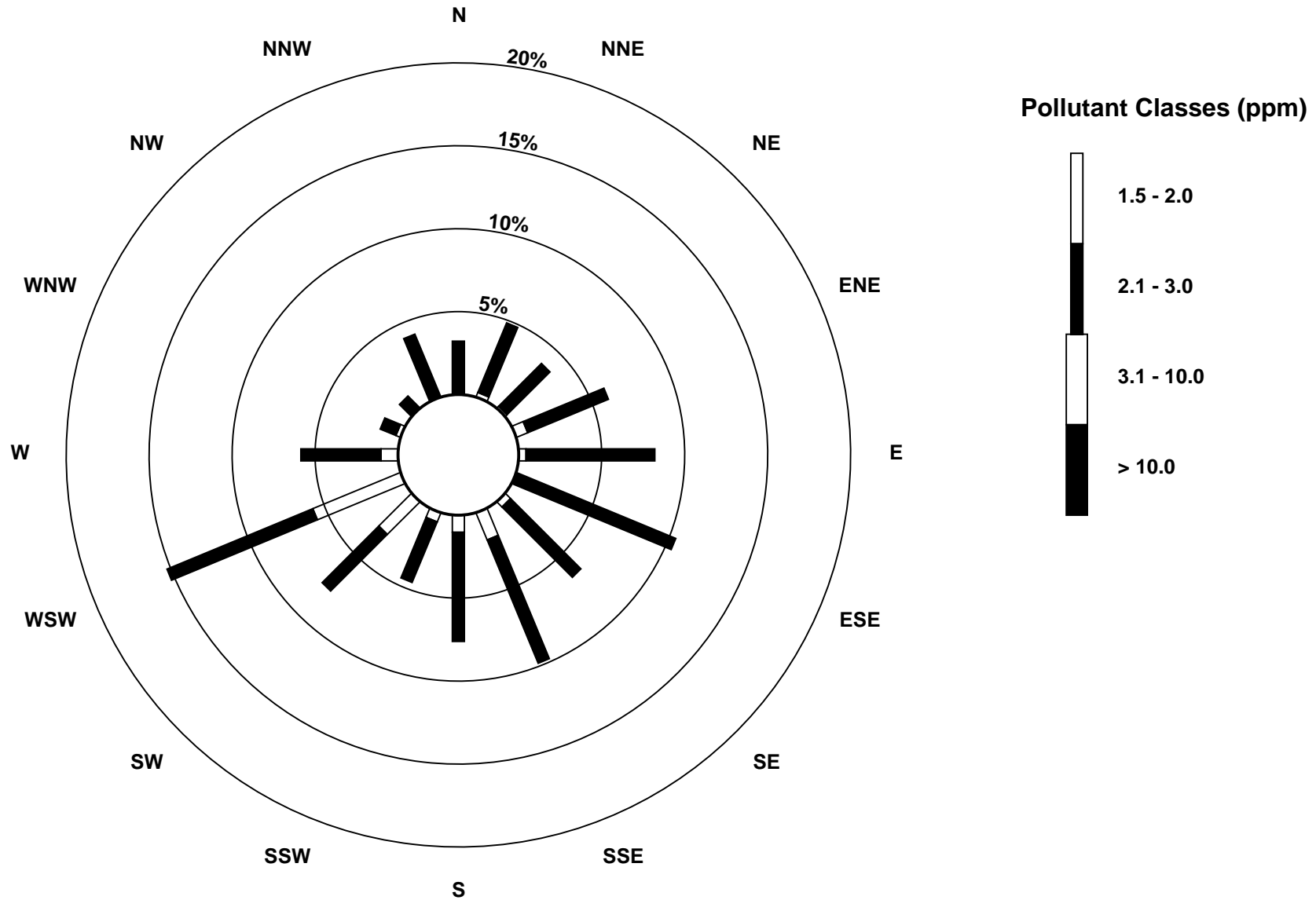
**Hourly Maximums**

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



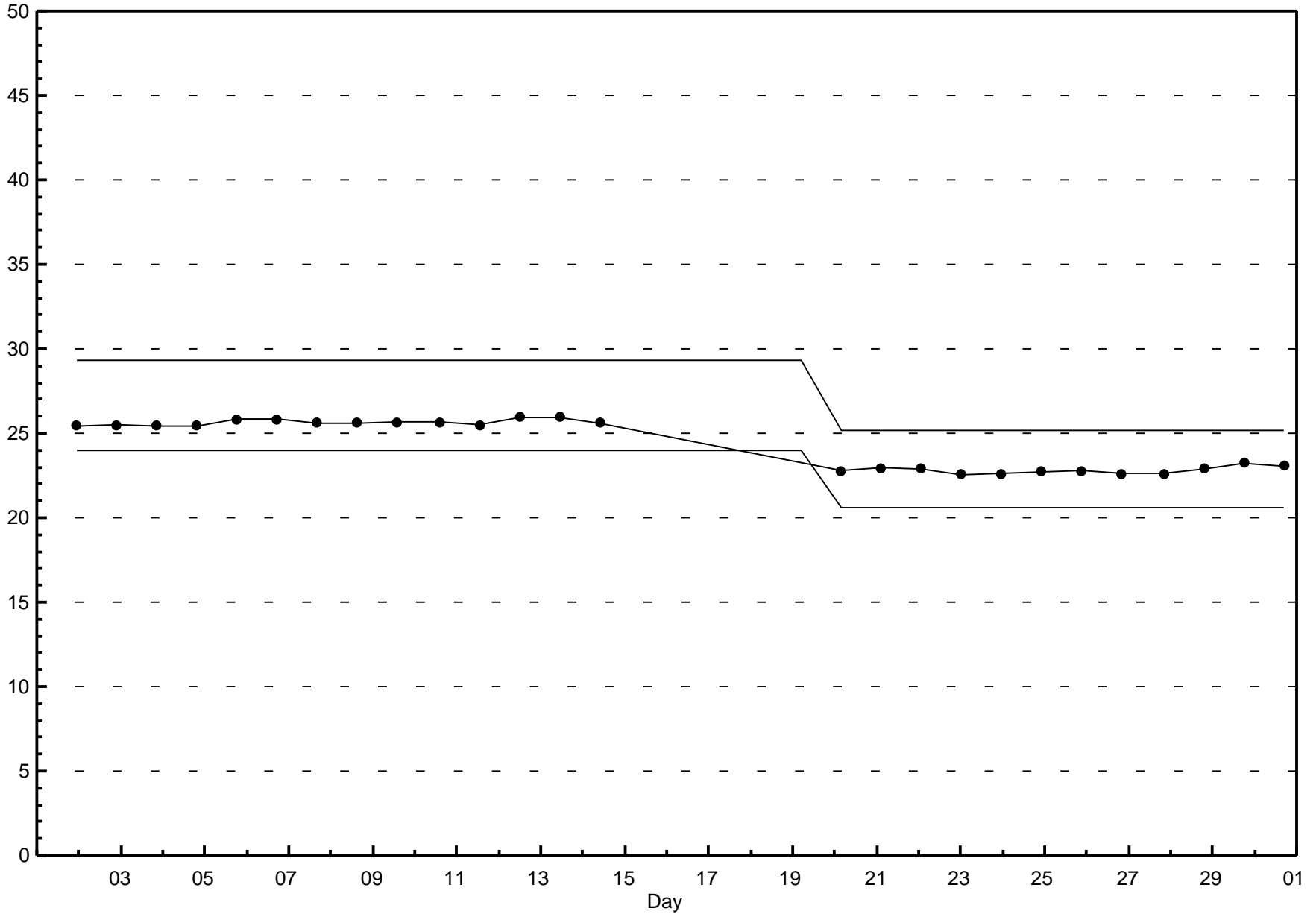
**Pollutant Rose**

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



**Span Responses**

**Total Hydrocarbons (THC)**  
**Portable Reno - April 2014**



## Hourly Averages

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

Portable Reno - April 2014

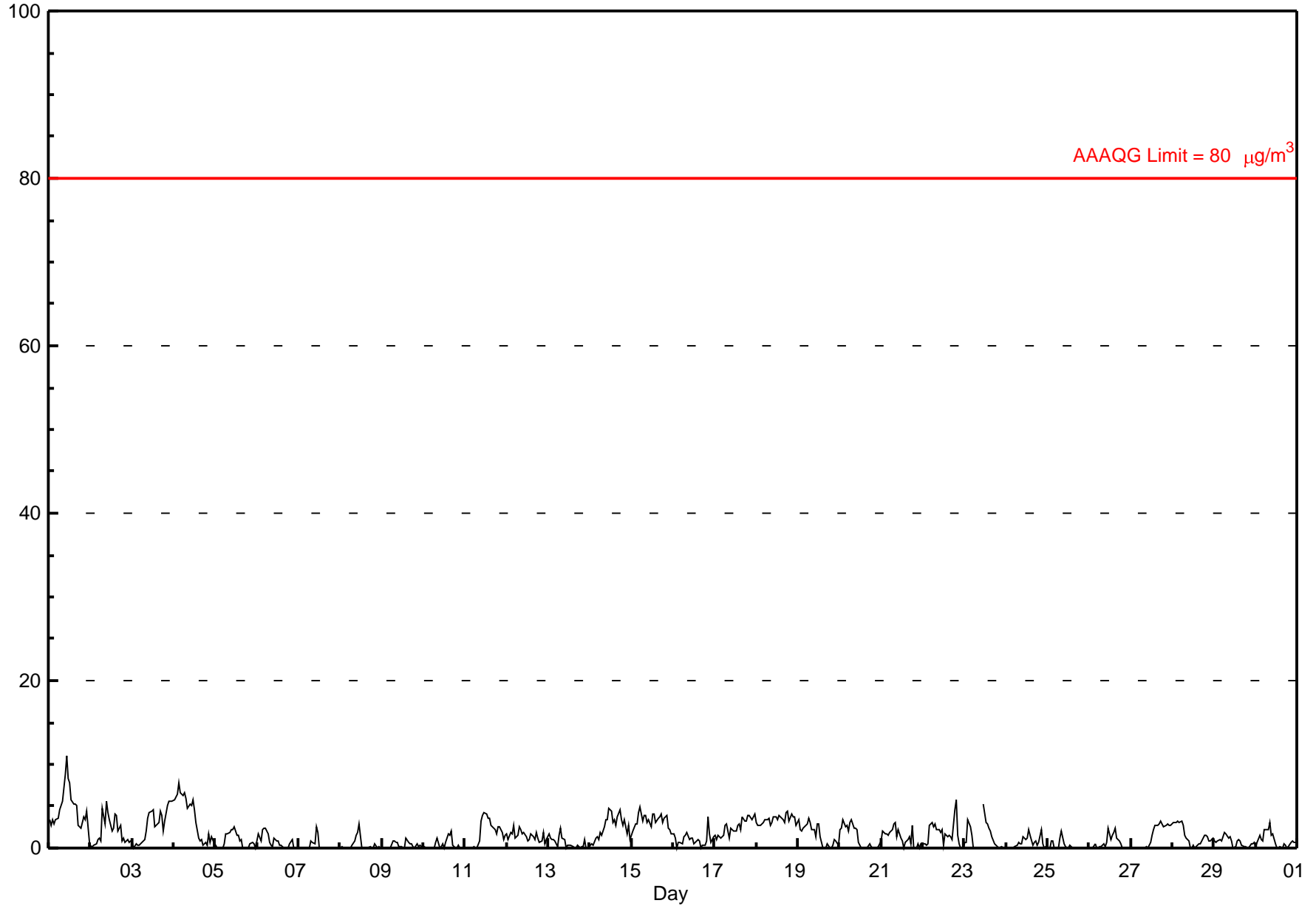
Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 720
Maximum Value: 11.1 µg/m <sup>3</sup> on Apr 1 11:00	Maximum Daily Average: 4.7 µg/m <sup>3</sup> on Apr 1
Minimum Value: 0 µg/m <sup>3</sup> on Apr 5 02:00	Hours of Data: 718
Maximum Diurnal Average: 2.3 µg/m <sup>3</sup> at hour 12	Hours of Missing Data: 2
Monthly Average: 1.52 µg/m <sup>3</sup>	Hours of Calibration: 0
Minimum Daily Average: 0.2 µg/m <sup>3</sup> on Apr 25	Percent Operational Time: 99.7
Minimum Diurnal Average: 0.9 µg/m <sup>3</sup> at hour 24	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 1.0 Q <sub>3</sub> = 2.5 P <sub>90</sub> = 3.7 P <sub>99</sub> = 6.4	

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-Apr	3	3	3	3	3	3	5	5	6	9	11	8	8	6	5	5	5	3	2	3	4	3	4	1	4.7	11.1																						
2-Apr	0	0	0	1	1	1	1	5	3	6	4	3	2	2	4	4	2	3	1	1	1	1	1	1	2.0	5.6																						
3-Apr	1	0	0	0	0	0	1	1	2	4	4	4	4	3	3	3	4	4	2	3	5	6	6	6	2.8	5.6																						
4-Apr	6	6	6	8	7	6	7	6	5	5	5	6	5	3	1	1	1	0	1	0	2	1	1	0	3.7	7.8																						
5-Apr	0	0	0	0	0	0	2	2	2	2	2	2	2	2	1	1	0	0	0	0	1	1	0	0	0.8	2.5																						
6-Apr	1	2	1	2	2	2	2	1	0	0	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0.8	2.4																						
7-Apr	0	0	0	0	0	0	0	1	1	1	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.6																						
8-Apr	0	0	0	0	0	0	0	0	1	1	2	3	0	0	0	0	0	0	0	0	1	0	0	0	0.3	2.8																						
9-Apr	0	0	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0.3	1.3																						
10-Apr	0	0	0	0	0	0	0	1	1	0	0	1	0	1	2	1	2	0	0	0	0	0	0	0	0.4	2.1																						
11-Apr	0	0	0	0	0	0	0	0	1	3	4	4	4	4	4	3	3	2	2	3	3	2	1	2	1.8	4.3																						
12-Apr	2	1	2	2	3	1	2	3	2	2	2	1	1	1	2	1	1	2	1	1	1	2	0	1	1.5	2.7																						
13-Apr	2	1	1	1	1	0	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.6	2.3																						
14-Apr	0	1	0	1	1	1	2	1	3	3	3	5	4	3	3	3	4	5	3	3	3	2	3	1	2.4	4.7																						
15-Apr	2	2	3	3	4	5	3	4	4	3	3	2	4	4	3	4	4	4	3	3	4	2	2	2	3.2	4.9																						
16-Apr	2	1	0	1	1	0	1	1	2	1	1	1	1	1	1	0	0	0	1	4	2	1	1	1	1.0	3.7																						
17-Apr	2	1	2	1	1	2	3	3	1	2	2	2	2	3	3	2	4	3	3	4	4	3	4	4	2.5	4.1																						
18-Apr	3	3	3	3	3	3	3	4	3	3	4	4	3	4	4	3	4	4	4	3	4	4	4	3	3.4	4.4																						
19-Apr	3	2	2	2	2	3	3	3	3	2	2	1	3	3	1	0	0	0	0	0	1	1	0	0	1.6	3.5																						
20-Apr	2	2	3	2	3	2	3	3	2	2	2	1	0	0	0	0	0	1	0	0	0	0	0	0	1.3	3.4																						
21-Apr	1	2	2	2	2	2	2	3	3	1	2	1	1	0	1	1	1	1	3	0	0	1	0	1	1.3	3.1																						
22-Apr	0	1	0	1	3	3	3	3	2	2	2	2	0	2	1	2	1	1	5	6	1	1	0	0	1.7	5.7																						
23-Apr	1	1	3	3	1	0	0	0	0	M	M	5	3	3	2	2	1	0	0	0	0	0	0	0	1.2	5.2																						
24-Apr	0	0	0	0	0	0	0	1	0	0	1	1	1	2	2	0	1	1	0	1	2	0	0	0	0.6	2.3																						
25-Apr	0	0	1	1	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.0																						
26-Apr	0	0	0	0	0	0	0	0	1	0	1	2	1	2	2	2	1	1	1	0	0	0	0	0	0.6	2.4																						
27-Apr	0	0	0	0	0	0	0	0	0	0	0	1	2	2	3	3	3	3	3	3	3	3	3	3	1.4	3.2																						
28-Apr	3	3	3	3	3	3	3	2	1	1	0	0	0	0	1	1	1	1	2	2	1	1	1	1	1.5	3.3																						
29-Apr	1	1	1	1	1	1	2	2	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	1	0.7	1.8																						
30-Apr	0	1	1	1	1	2	2	2	3	2	2	1	0	0	0	0	1	0	0	0	1	1	1	1	0.9	3.1																						
																								1.2	1.1	1.3	1.4	1.5	1.5	1.7	2.0	1.9	2.1	2.2	2.3	1.7	1.6	1.6	1.5	1.4	1.4	1.2	1.2	1.5	1.2	1.1	0.9	Diurnal Average
																								5.7	6.2	6.5	7.8	6.5	6.2	6.7	5.9	5.5	8.8	11.1	8.3	7.8	5.7	5.2	5.2	5.2	4.6	4.6	5.7	5.1	5.6	5.5	5.6	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 Averages

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



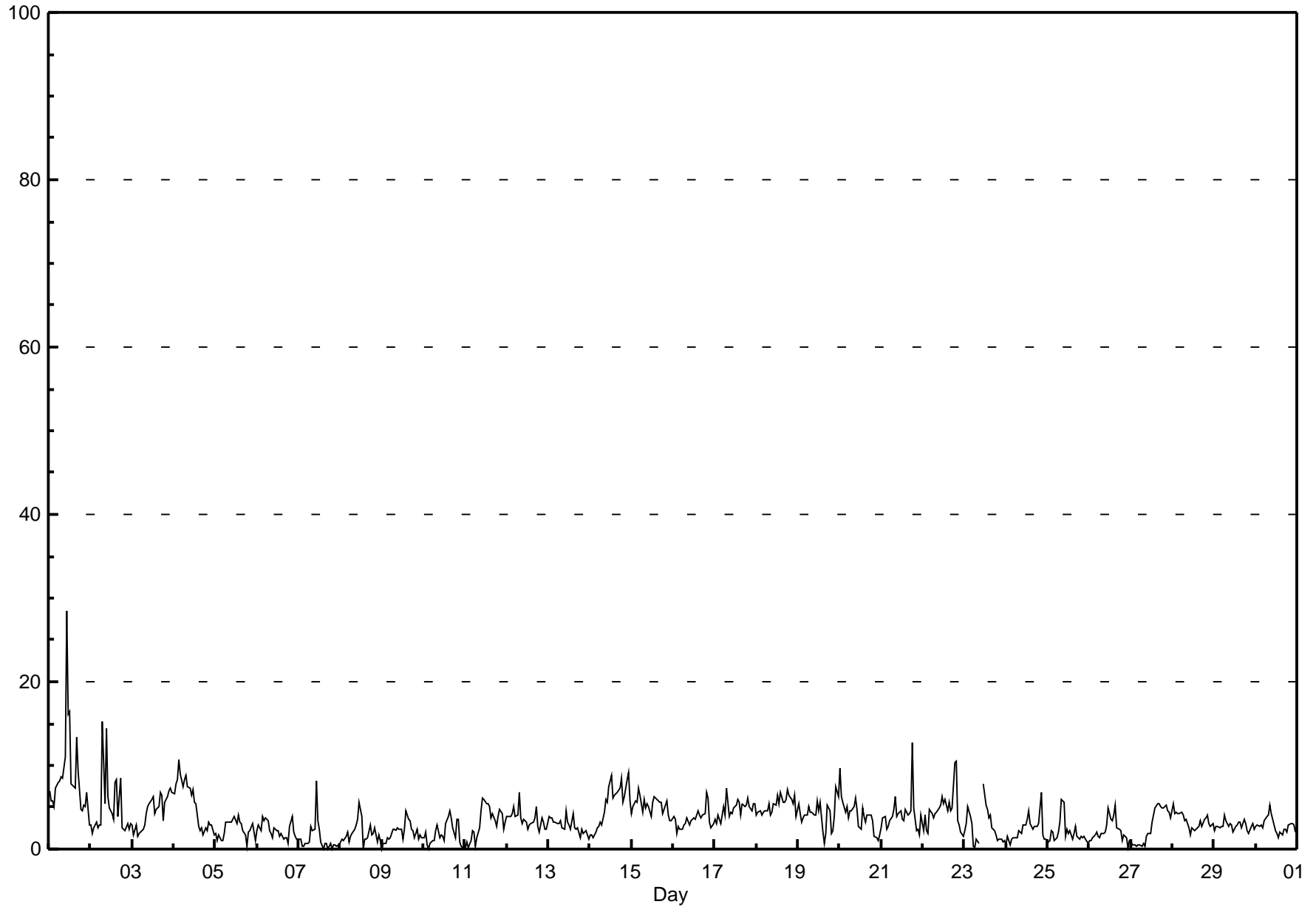
## Hourly Maximums

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

Maximum Value: 28.5 µg/m <sup>3</sup> on Apr 1 11:00 Minimum Value: 0 µg/m <sup>3</sup> on Apr 7 15:00 Maximum Diurnal Average: 4.9 µg/m <sup>3</sup> at hour 11 Monthly Average: 3.56 µg/m <sup>3</sup>		Maximum Daily Average: 8.8 µg/m <sup>3</sup> on Apr 1 Minimum Daily Average: 1.3 µg/m <sup>3</sup> on Apr 7 Minimum Diurnal Average: 2.5 µg/m <sup>3</sup> at hour 24 Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 1.1 Q <sub>1</sub> = 2.0 Median = 3.1 Q <sub>3</sub> = 4.6 P <sub>90</sub> = 6.2 P <sub>99</sub> = 12.3		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-Apr	7	6	6	5	7	8	8	9	8	11	29	16	16	8	8	7	13	9	5	5	5	5	7	3	8.8	28.5																							
2-Apr	3	2	2	3	2	3	3	15	5	14	6	5	4	4	8	8	4	9	2	2	2	3	2	3	4.9	15.2																							
3-Apr	3	2	3	2	2	2	2	3	4	5	5	6	6	4	5	5	7	6	3	6	6	7	7	7	4.5	7.3																							
4-Apr	7	8	8	11	9	7	8	9	7	7	6	7	6	5	3	2	2	2	3	2	3	3	3	2	5.4	10.7																							
5-Apr	2	1	2	1	1	2	3	3	3	3	4	4	3	4	3	3	2	2	0	2	2	3	2	1	2.4	4.1																							
6-Apr	2	3	2	4	3	4	3	2	2	1	3	2	2	2	2	1	1	1	1	3	4	2	1	1	2.2	3.9																							
7-Apr	1	1	0	0	1	1	1	3	2	2	8	3	2	1	0	1	1	0	1	0	1	0	0	0	1.3	8.1																							
8-Apr	1	1	1	2	2	1	2	2	2	3	4	6	4	0	1	1	3	2	2	2	1	2	1	1	1.9	5.6																							
9-Apr	0	1	1	1	1	1	2	2	2	3	2	2	1	2	5	4	3	2	2	1	2	1	2	1	1.9	4.6																							
10-Apr	1	2	0	0	1	1	1	2	3	1	2	2	1	3	4	5	4	3	1	4	4	1	0	0	1.9	4.6																							
11-Apr	0	1	0	1	2	2	0	1	3	5	6	6	5	5	5	4	4	3	3	4	5	4	2	3	3.2	6.1																							
12-Apr	4	4	4	4	5	4	4	7	4	3	4	3	2	3	3	3	4	5	3	2	4	3	2	2	3.6	6.8																							
13-Apr	4	4	4	3	3	3	3	3	3	2	5	3	3	2	4	2	2	3	1	2	2	2	2	1	2.8	4.5																							
14-Apr	2	2	1	2	3	3	3	3	4	6	6	7	9	6	6	7	7	7	8	6	6	8	9	6	5.3	9.1																							
15-Apr	4	5	6	6	7	6	4	6	5	5	5	4	6	6	6	6	6	6	4	5	6	4	3	3	5.2	7.4																							
16-Apr	4	4	2	3	2	2	3	3	4	3	3	4	4	4	5	4	4	4	4	7	6	3	3	3	3.6	6.8																							
17-Apr	4	3	4	3	4	5	4	7	4	4	4	5	5	6	6	4	5	5	5	6	5	5	5	5	4.8	7.3																							
18-Apr	4	4	5	4	4	5	5	5	4	4	5	5	6	5	7	6	6	6	7	6	6	5	6	4	5.3	7.1																							
19-Apr	6	4	3	4	4	4	5	4	4	4	4	6	5	6	2	1	2	5	5	2	2	4	7	6	4.1	7.5																							
20-Apr	10	6	6	4	5	4	5	5	5	6	5	3	2	5	4	3	4	4	4	3	2	1	1	2	4.1	9.7																							
21-Apr	3	4	4	2	3	3	4	5	6	4	4	5	4	3	5	4	4	5	13	5	2	2	2	4	4.1	12.7																							
22-Apr	2	4	2	2	5	4	4	4	4	5	5	6	5	6	5	6	4	5	10	11	3	3	2	2	4.6	10.6																							
23-Apr	2	3	5	4	3	0	0	1	1	M	M	8	5	5	4	4	3	2	2	1	1	1	1	1	2.6	7.8																							
24-Apr	1	2	0	1	1	1	1	2	2	2	3	3	4	5	3	2	3	3	3	3	7	2	1	1	2.3	6.8																							
25-Apr	1	1	2	2	1	1	2	3	6	6	2	2	2	2	1	2	3	2	1	1	1	2	1	1	2.0	5.9																							
26-Apr	1	1	1	2	2	2	1	2	2	2	3	5	4	3	4	5	3	2	2	1	2	1	0	1	2.2	5.3																							
27-Apr	1	1	0	0	0	1	0	1	0	2	2	2	3	4	5	5	5	5	5	5	5	5	4	4	2.8	5.5																							
28-Apr	5	4	4	4	4	4	4	3	4	3	2	2	2	2	3	3	3	3	4	4	4	3	3	3	3.4	5.5																							
29-Apr	2	3	3	2	3	3	4	3	3	3	3	2	3	3	3	3	2	4	3	2	2	3	3	2	2.8	4.1																							
30-Apr	3	3	3	3	3	3	4	4	5	4	4	2	2	1	2	2	2	2	2	3	3	3	3	2	2.8	5.3																							
																								2.9	2.9	2.8	2.9	3.2	3.0	3.2	4.1	3.8	4.3	4.9	4.6	4.2	3.9	4.0	3.8	3.8	3.9	3.6	3.5	3.5	3.0	3.0	2.5	Diurnal Average	
																								9.7	7.9	8.3	10.7	9.0	8.0	8.3	15.2	8.5	14.4	28.5	16.1	16.4	7.7	8.0	8.4	13.4	9.2	12.7	10.6	6.8	8.3	9.1	6.8	Diurnal Maximum	
M - Maintenance																																																	

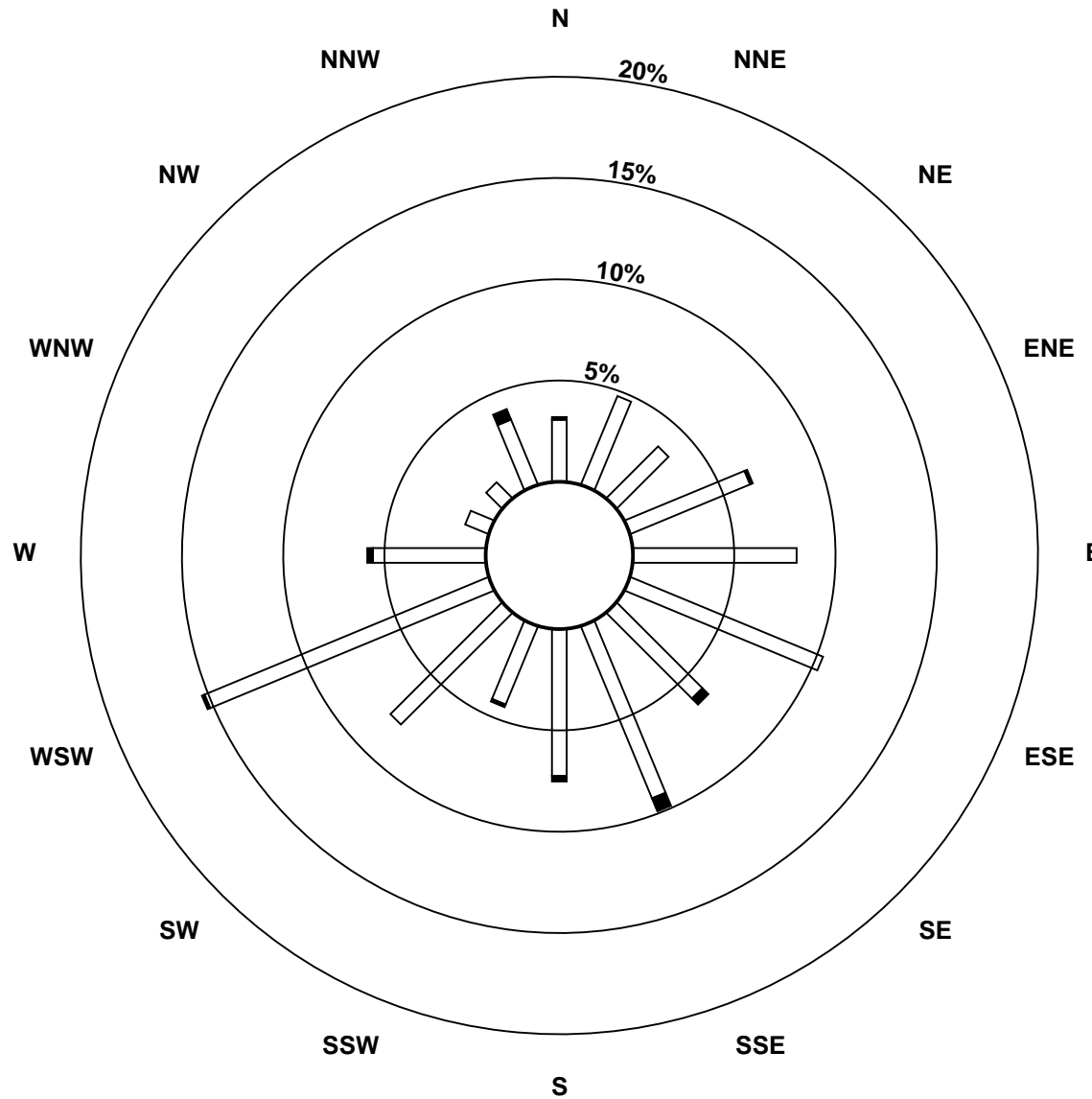
### Hourly Maximums

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

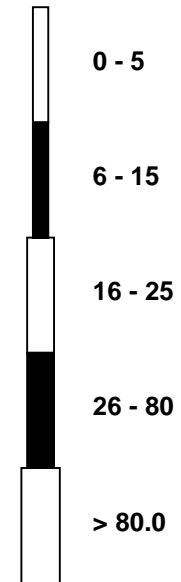


**Pollutant Rose**

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



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



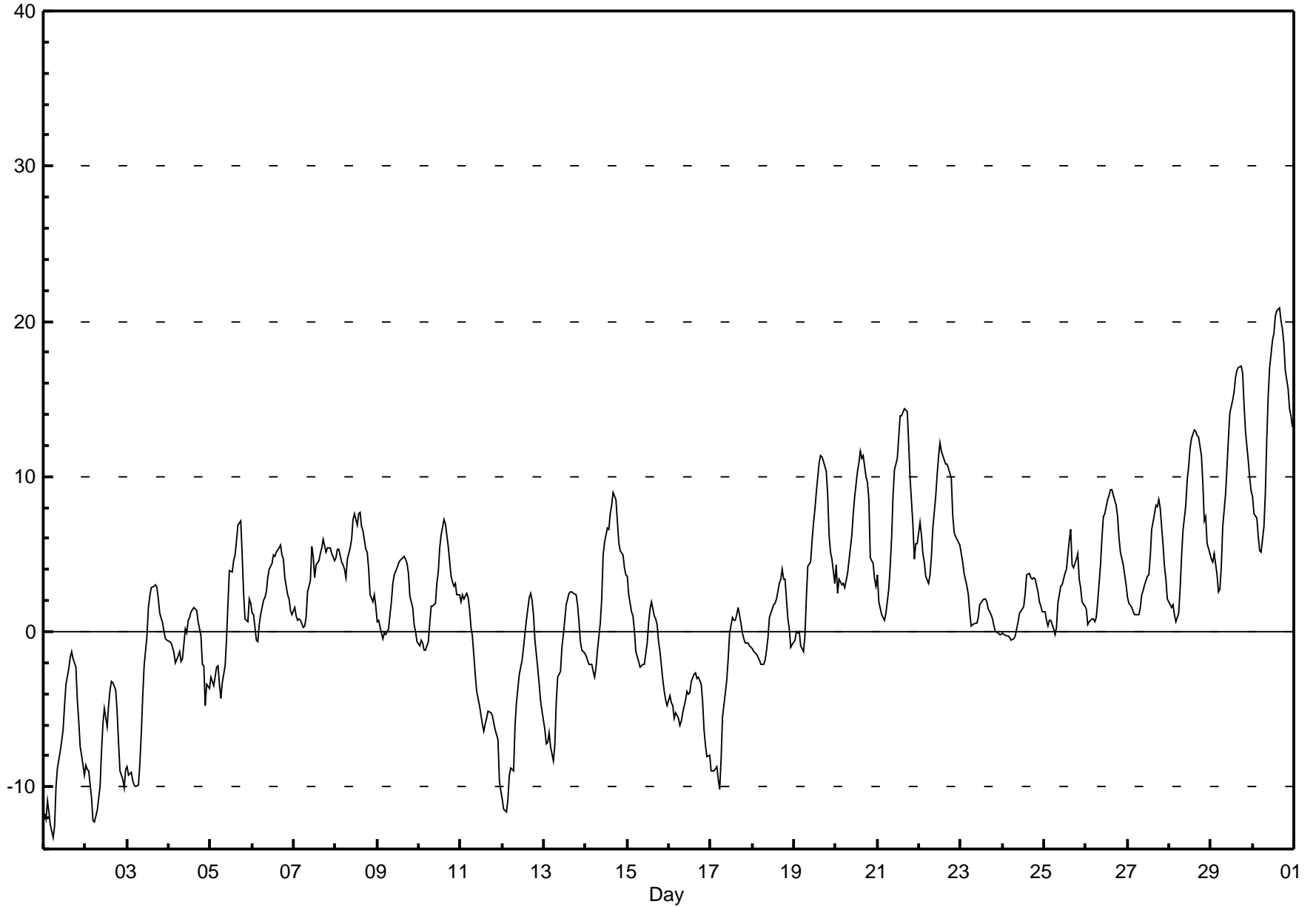


## Hourly Averages

External Temperature (ET) - °C

Portable Reno - April 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 20.9 °C on Apr 30 16:00 Maximum Daily Average: 13.9 °C on Apr 30		Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																								
Minimum Value: -13 °C on Apr 1 06:00 Maximum Diurnal Average: 5.7 °C at hour 16 Monthly Average: 1.86 °C		Minimum Daily Average: -7.8 °C on Apr 2 Minimum Diurnal Average: -1.9 °C at hour 6 Percentiles: P <sub>1</sub> = -11.7 P <sub>10</sub> = -6.0 Q <sub>1</sub> = -1.2 Median = 1.7 Q <sub>3</sub> = 5.0 P <sub>90</sub> = 8.9 P <sub>99</sub> = 18.4																								
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-Apr	-12	-12	-11	-12	-12	-13	-13	-10	-9	-8	-7	-6	-5	-3	-2	-2	-1	-2	-2	-4	-6	-7	-8	-9	-7.4	-1.2
2-Apr	-9	-9	-9	-11	-12	-12	-12	-12	-10	-8	-6	-5	-6	-5	-4	-3	-3	-4	-5	-7	-9	-10	-10	-9	-7.8	-3.2
3-Apr	-9	-9	-9	-10	-10	-10	-10	-9	-7	-4	-2	0	2	2	3	3	3	3	2	1	1	0	0	-1	-2.9	3.0
4-Apr	-1	-1	-1	-1	-2	-2	-1	-2	-2	0	0	1	1	1	2	1	1	1	0	-2	-2	-5	-3	-4	-0.8	1.6
5-Apr	-3	-3	-3	-2	-2	-3	-4	-3	-2	0	2	4	4	5	5	6	7	7	5	2	1	1	2	2	1.0	7.1
6-Apr	1	1	-1	-1	0	1	2	2	3	4	4	4	5	5	5	5	6	5	5	4	2	2	1	1	2.8	5.6
7-Apr	2	1	1	1	1	0	0	1	3	3	5	5	3	4	5	5	5	6	5	5	5	5	5	5	3.4	5.9
8-Apr	5	5	5	4	4	4	3	5	5	6	7	8	7	8	8	7	7	5	5	4	2	2	2	2	5.0	7.7
9-Apr	1	1	0	0	0	0	0	1	2	3	4	4	4	5	5	5	5	4	4	2	2	0	0	-1	2.1	4.8
10-Apr	-1	-1	-1	-1	-1	-1	1	2	2	2	3	4	5	6	7	7	6	5	4	3	3	3	2	2	2.6	7.3
11-Apr	2	2	2	2	2	1	0	0	-3	-4	-4	-5	-6	-6	-6	-6	-5	-5	-5	-6	-6	-7	-10	-10	-3.4	2.5
12-Apr	-11	-11	-12	-11	-9	-9	-9	-6	-5	-4	-3	-2	-1	0	1	2	2	2	1	-1	-2	-3	-5	-5	-4.1	2.5
13-Apr	-6	-7	-7	-7	-7	-8	-7	-5	-3	-3	-1	0	1	2	3	3	3	2	2	2	1	-1	-1	-1	-2.0	2.6
14-Apr	-2	-2	-2	-2	-3	-3	-2	-1	1	2	5	6	7	7	8	8	9	9	7	6	5	5	4	4	3.1	8.9
15-Apr	4	2	1	1	0	-1	-2	-2	-2	-2	-2	-1	1	1	2	1	1	0	-1	-1	-3	-4	-4	-5	-0.7	3.5
16-Apr	-4	-5	-5	-6	-5	-6	-6	-6	-5	-4	-4	-4	-4	-3	-3	-3	-3	-3	-3	-4	-6	-7	-8	-8	-4.8	-2.7
17-Apr	-9	-9	-9	-9	-10	-10	-8	-6	-4	-3	-2	0	1	1	1	1	2	1	0	0	-1	-1	-1	-1	-3.2	1.6
18-Apr	-1	-1	-1	-2	-2	-2	-2	-2	-1	0	1	1	2	2	2	3	3	4	3	3	1	0	-1	-1	0.4	4.0
19-Apr	-1	0	0	0	-1	-1	0	2	4	4	6	7	8	9	11	11	11	11	10	9	6	5	5	3	5.0	11.3
20-Apr	4	2	3	3	3	3	3	4	5	6	8	9	10	11	12	11	11	10	10	8	5	4	3	3	6.4	11.6
21-Apr	4	2	1	1	1	1	3	4	6	9	10	11	13	14	14	14	14	14	12	10	7	5	6	6	7.5	14.4
22-Apr	7	6	5	4	4	3	4	5	7	9	10	11	12	12	11	11	11	11	10	8	6	6	6	6	7.6	12.2
23-Apr	5	4	4	3	2	1	0	0	1	1	1	2	2	2	2	2	1	1	1	0	0	0	0	0	1.5	5.1
24-Apr	0	0	0	0	0	-1	0	0	0	1	1	1	2	2	4	4	3	3	3	3	3	2	2	1	1.4	3.8
25-Apr	1	1	0	1	1	0	0	0	2	3	3	3	4	4	6	7	4	4	5	5	3	3	2	2	2.6	6.6
26-Apr	1	0	1	1	1	1	1	2	4	6	7	8	8	9	9	9	9	8	7	6	5	4	4	3	4.8	9.1
27-Apr	2	2	2	1	1	1	1	2	2	3	3	4	4	5	7	8	8	8	9	8	6	4	3	2	3.9	8.5
28-Apr	2	2	2	1	1	1	3	5	7	8	10	11	12	12	13	13	13	13	11	10	7	7	6	5	7.2	13.0
29-Apr	5	5	5	4	3	3	4	7	9	11	12	14	15	16	16	17	17	17	17	15	13	11	10	9	10.5	17.1
30-Apr	9	8	7	6	5	5	7	9	12	15	17	19	19	20	21	21	20	19	19	17	16	14	14	13	13.9	20.9
																								Diurnal Average		
																								Diurnal Maximum		



## Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Portable Reno - April 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	6	8	5	1	5	8	5	4	5	3	5	5	4	5	4	4	4	3	3	3	4	3	11	14	1.1	14.3
Dir	143	155	155	179	169	167	170	177	186	267	338	333	346	331	322	357	353	21	348	11	19	18	70	76	75.7	75.7
2 Spd	15	18	19	6	5	5	7	5	5	6	8	9	16	15	14	14	13	11	8	5	3	3	12	19	7.0	19.2
Dir	73	65	72	356	5	1	14	352	349	351	344	340	325	323	329	333	334	335	340	345	2	13	78	87	9.7	86.8
3 Spd	21	21	21	22	22	23	23	23	21	20	20	20	20	24	27	29	29	25	24	23	27	26	24	24	22.3	28.9
Dir	90	92	95	93	94	95	95	99	109	115	124	129	138	132	132	128	132	126	119	122	129	133	134	137	117.3	131.9
4 Spd	24	22	25	20	18	18	16	16	19	19	19	21	26	24	24	25	23	19	16	3	2	10	8	10	10.4	25.6
Dir	147	148	157	166	166	182	206	243	263	276	279	278	263	262	264	273	283	289	297	325	91	172	159	157	234.2	263.4
5 Spd	8	9	12	17	19	19	16	16	14	11	9	7	10	11	10	6	3	2	4	6	10	9	13	16	8.7	18.7
Dir	144	133	146	147	151	159	164	167	170	180	224	227	249	266	255	240	198	157	155	150	157	149	152	160	170.6	150.5
6 Spd	16	13	12	11	13	15	18	17	18	23	25	28	26	24	23	21	18	17	21	23	21	22	19	19	17.1	27.5
Dir	166	169	172	183	206	216	237	239	247	264	267	271	262	261	261	254	257	252	253	252	246	248	234	228	243.5	271.0
7 Spd	19	17	12	12	10	10	9	10	13	14	14	19	14	19	22	21	17	16	16	17	16	15	15	15	13.5	22.0
Dir	237	241	238	231	208	226	186	173	166	165	194	203	165	146	155	165	183	186	178	180	190	186	182	179	187.8	155.3
8 Spd	19	25	26	20	20	21	13	15	13	12	15	18	28	29	28	29	25	20	20	19	14	14	23	20	19.3	28.9
Dir	211	224	225	225	210	218	177	194	196	207	234	249	249	235	233	225	237	245	237	235	243	242	251	245	229.3	224.8
9 Spd	20	22	21	22	25	26	21	21	21	26	26	32	34	37	34	31	24	24	22	18	18	16	17	17	23.6	37.2
Dir	235	245	248	248	250	247	246	251	252	257	259	268	268	271	261	259	255	256	266	252	251	235	239	242	254.5	270.6
10 Spd	15	20	18	15	18	15	17	20	18	15	17	14	13	13	13	11	7	3	13	9	11	9	8	11	8.7	20.4
Dir	243	243	242	223	219	216	227	237	260	243	254	254	258	270	257	276	4	8	40	104	171	145	108	120	236.7	237.3
11 Spd	17	15	13	11	15	12	7	7	14	22	23	29	34	29	25	24	19	15	12	11	10	8	3	1	9.6	33.6
Dir	126	161	167	207	233	251	242	325	339	333	336	332	330	333	335	335	337	342	344	347	12	16	17	263	328.8	329.7
12 Spd	3	6	6	6	11	11	12	12	13	13	16	17	18	17	15	10	10	9	4	5	11	18	13	10	4.3	18.5
Dir	171	169	172	177	161	168	170	209	237	245	247	252	250	253	244	238	259	336	354	356	21	36	44	41	238.1	36.1
13 Spd	7	3	7	9	9	11	13	12	11	13	14	15	16	15	15	17	17	16	15	13	18	17	20	20	10.9	20.4
Dir	59	135	104	114	105	116	120	130	165	170	191	194	200	200	203	180	168	165	143	117	117	124	122	115	148.4	115.0
14 Spd	20	21	21	20	17	16	15	14	13	10	3	5	7	7	4	3	1	2	1	0	4	5	2	13	6.2	20.9
Dir	111	114	116	121	132	128	141	165	163	166	167	224	236	259	266	288	359	353	357	273	15	43	28	67	131.2	116.3
15 Spd	24	18	9	19	21	19	20	20	12	9	9	9	11	9	12	19	15	17	19	16	13	11	10	13	13.6	23.6
Dir	76	64	38	50	39	29	32	32	30	11	11	13	12	12	22	36	30	56	66	69	74	83	83	74	45.5	76.2
16 Spd	12	3	6	9	13	16	15	18	17	12	10	12	13	10	10	12	14	11	10	9	13	10	5	2	10.2	17.8
Dir	64	43	34	34	36	48	53	61	65	46	17	21	19	9	11	16	38	51	78	68	60	76	78	346	44.3	60.8
17 Spd	2	2	3	1	3	5	6	5	8	15	19	20	18	22	23	21	22	25	24	23	21	23	21	21	14.0	25.4
Dir	2	8	2	23	144	146	120	98	85	109	131	124	111	85	96	105	115	117	113	112	113	112	115	116	110.2	117.1
18 Spd	22	19	17	17	16	11	12	12	13	12	8	8	5	6	7	4	4	3	1	2	6	7	9	11	6.8	22.3
Dir	117	114	112	111	113	106	105	112	123	123	143	199	263	297	291	319	280	234	235	189	156	149	150	138	127.0	117.3
19 Spd	13	13	14	15	15	14	12	8	9	9	6	7	8	8	5	5	4	5	3	2	8	7	7	5	5.0	15.3
Dir	153	148	146	153	164	163	164	179	237	244	236	244	245	251	237	246	307	267	279	19	65	89	110	141	178.8	164.0
20 Spd	4	5	10	12	11	8	8	9	9	11	13	14	14	13	18	13	12	13	9	7	7	7	6	7	8.6	18.3
Dir	124	196	245	252	229	177	177	169	194	209	231	245	252	240	262	263	251	247	236	221	191	214	181	183	227.5	262.3
21 Spd	6	12	13	13	12	13	12	10	9	6	6	7	6	5	2	5	6	5	8	10	10	14	14	15	4.6	14.5
Dir	207	166	162	165	167	166	169	167	179	178	183	174	188	269	122	249	261	269	26	31	56	65	80	86	148.4	85.9
22 Spd	17	15	21	22	23	24	26	26	24	24	26	28	31	32	33	32	37	32	35	33	34	37	39	43	28.6	43.0
Dir	95	93	86	89	89	91	90	88	90	91	88	84	86	80	73	77	66	63	72	74	69	67	74	79	79.5	79.0

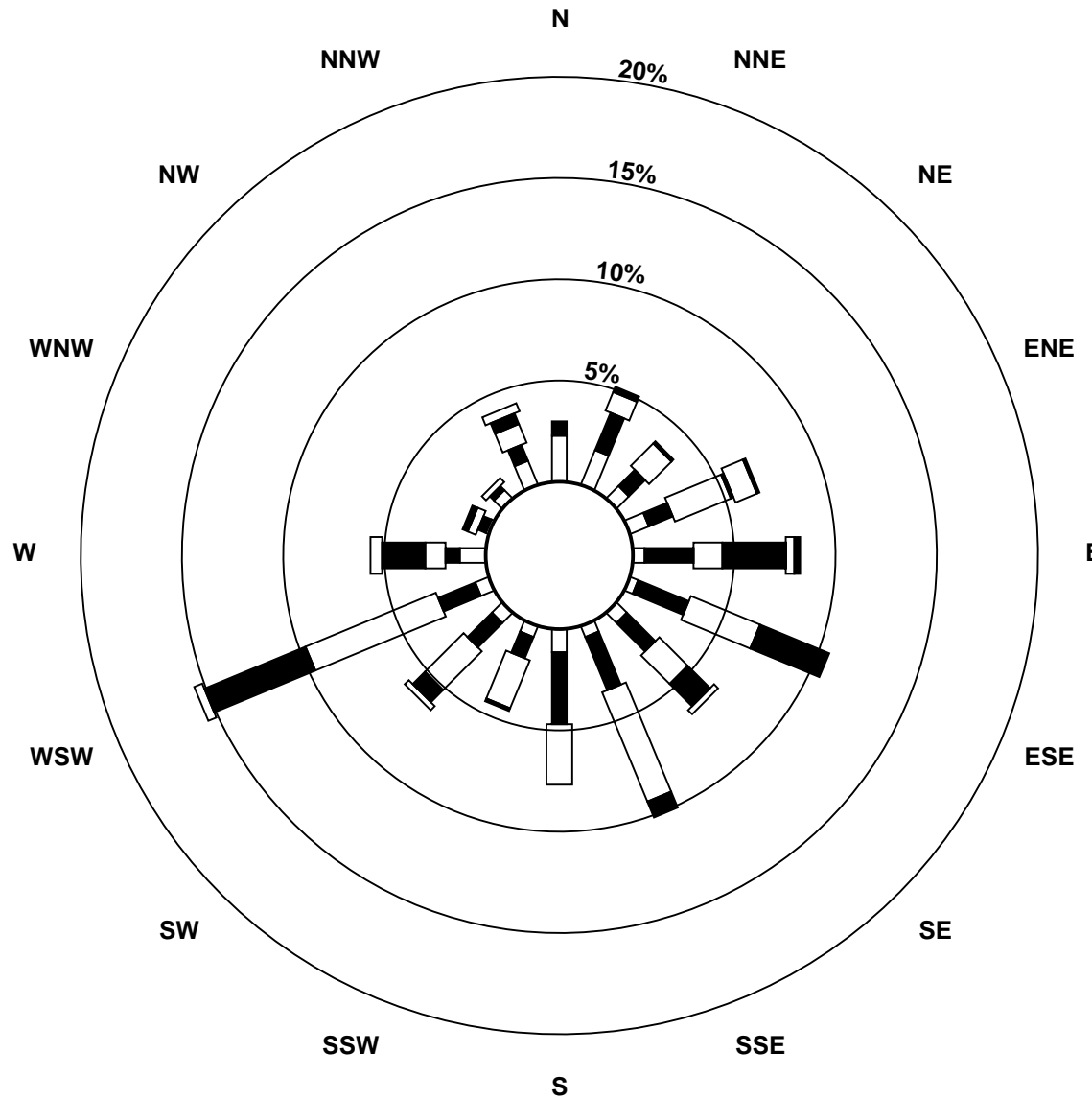
## Hourly Averages

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

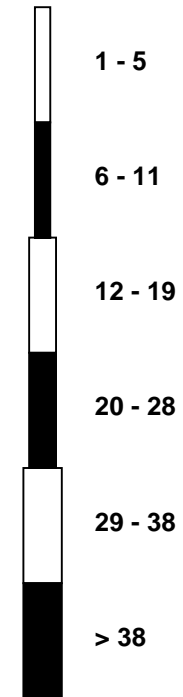
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	38	39	22	15	13	17	18	15	10	7	5	4	7	9	8	2	1	1	2	3	5	0	0	0	8.5	39.0
Dir	82	83	79	78	78	73	67	60	52	27	26	57	106	124	121	170	237	257	209	219	227	229	229	226	79.4	82.6
24 Spd	0	0	0	0	0	0	0	0	0	8	9	7	8	7	6	4	5	7	6	8	8	4	4	8	1.4	8.6
Dir	223	224	223	220	218	217	219	218	217	228	219	190	163	167	172	81	67	76	62	36	41	25	12	82	109.3	218.8
25 Spd	14	14	5	5	5	7	7	5	4	4	6	4	4	4	7	2	5	5	6	7	9	11	10	7	5.4	14.0
Dir	93	93	87	72	54	85	86	120	143	42	70	71	41	59	136	257	336	46	87	99	93	129	130	105	91.9	92.8
26 Spd	11	10	8	7	7	13	13	11	11	11	8	15	16	16	13	18	24	22	28	22	17	16	17	21	13.9	28.3
Dir	95	96	111	112	96	91	96	101	108	127	133	167	166	171	126	108	116	111	114	108	113	117	123	133	118.9	114.4
27 Spd	17	17	19	19	20	18	18	17	18	15	11	8	10	5	3	7	8	5	2	2	5	8	8	9	8.4	19.6
Dir	121	110	108	101	96	99	104	108	119	126	142	164	187	204	270	284	322	14	6	1	73	93	97	100	111.1	95.7
28 Spd	9	10	9	12	13	12	11	11	16	22	25	31	29	25	24	25	22	23	24	18	16	22	16	14	14.9	30.7
Dir	128	134	150	162	166	165	172	203	239	252	257	258	257	254	251	249	259	255	244	240	245	238	224	210	234.8	258.1
29 Spd	15	16	16	13	13	12	12	12	13	12	11	16	17	16	11	8	6	7	6	7	9	14	17	19	8.5	19.2
Dir	226	218	229	220	202	213	173	211	239	242	236	247	242	258	245	249	185	218	197	123	110	113	116	125	209.1	124.7
30 Spd	21	18	15	13	17	17	18	17	16	17	17	21	22	20	19	23	23	21	19	18	18	16	22	24	12.5	24.3
Dir	123	130	156	163	158	162	163	163	178	201	214	242	251	245	249	255	252	246	247	252	257	286	282	275	222.9	275.2
Spd	8.7	8.0	7.0	6.4	6.9	6.8	6.9	5.5	4.5	4.3	5.0	6.4	6.9	6.2	5.1	4.0	2.2	1.4	1.6	2.7	3.8	4.8	5.9	7.4	Diurnal Average	
Dir	126.4	135.6	143.6	147.7	150.2	149.1	142.5	154.5	177.9	206.7	230.2	242.9	247.6	250.0	242.5	245.4	250.0	227.7	141.2	127.5	118.9	122.8	127.5	126.8	Diurnal Maximum	
Spd	38.3	39.0	25.5	22.2	24.8	25.6	26.0	26.1	24.3	26.0	26.3	31.9	33.6	37.2	33.6	32.4	37.2	31.6	35.0	32.9	34.1	36.8	39.1	43.0	Diurnal Maximum	
Dir	82.3	82.6	224.7	93.3	250.2	246.5	89.6	88.2	89.8	257.1	259.0	268.1	329.7	270.6	261.4	76.7	66.4	62.8	71.9	74.1	68.7	66.8	73.8	79.0	Diurnal Maximum	
Maximum Speed Value: 43 km/h on Apr 23 00:00		Minimum Speed Value: 0 km/h on Apr 24 06:00																Hours in Service: 720								
Maximum Daily Speed Average: 28.6 km/h on Apr 22		Minimum Daily Speed Average: 1.1 km/h on Apr 24																Hours of Data: 720								
Maximum Diurnal Speed Average: 8.7 km/h at hour 1		Minimum Diurnal Speed Average: 1.4 km/h at hour 18																Hours of Missing Data: 0								
Monthly Average Velocity: 3.62 km/h 166.60 deg		Speed Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 4.1 Q <sub>1</sub> = 7.5 Median = 13.1 Q <sub>3</sub> = 19.0 P <sub>90</sub> = 23.8 P <sub>99</sub> = 36.5																Percent Operational Time: 100.0								
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
		Speed Range (km/h)																								
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	30	21	8	0	0	0	59																			
NorthEast	10	18	24	4	3	0	59																			
East	7	32	34	31	8	4	116																			
SouthEast	9	29	37	35	3	0	113																			
South	11	35	66	2	0	0	114																			
SouthWest	18	27	58	26	2	0	131																			
West	13	13	24	45	7	0	102																			
NorthWest	5	7	6	5	3	0	26																			
Total	103	182	257	148	26	4	720																			

**Wind Rose**

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



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



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable Reno - April 2014

Maximum Speed: 43 km/h on Apr 23 00:00	Maximum Daily Speed Average: 29.1 km/h on Apr 22	Hours in Service: 720
Minimum Speed: 0 km/h on Apr 24 06:00	Minimum Daily Speed Average: 4.2 km/h on Apr 24	Hours of Data: 720
Maximum Diurnal Speed Average: 16.3 km/h at hour 13	Minimum Diurnal Speed Average: 11.7 km/h at hour 20	Hours of Missing Data: 0
Monthly Average Speed: 13.95 km/h	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 4.6 Q <sub>1</sub> = 7.8 Median = 13.2 Q <sub>3</sub> = 19.2 P <sub>90</sub> = 23.9 P <sub>99</sub> = 36.7	Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	6	8	5	2	5	8	5	4	5	4	5	5	4	5	4	4	4	3	3	3	4	3	11	14	5.3	14.3
2-Apr	15	18	19	6	5	5	7	5	5	7	8	9	16	15	14	14	13	11	8	5	3	3	12	19	10.1	19.2
3-Apr	21	21	21	22	22	23	23	23	22	20	20	20	21	25	28	29	29	25	24	23	27	26	24	24	23.4	29.1
4-Apr	24	22	25	21	18	18	17	16	20	20	20	21	26	24	24	25	23	20	16	6	4	10	8	10	18.1	25.7
5-Apr	8	9	12	17	19	19	17	16	14	12	10	7	10	11	10	6	3	2	4	6	10	9	13	17	10.8	18.8
6-Apr	16	13	12	11	13	15	19	17	18	23	25	28	26	24	24	21	18	17	21	24	21	22	19	19	19.4	27.6
7-Apr	19	17	12	12	10	10	9	10	14	14	15	19	15	19	22	21	17	16	17	16	15	16	15	15	15.3	22.0
8-Apr	19	25	26	21	20	21	13	15	13	12	15	18	28	29	28	29	25	21	20	19	14	14	23	21	20.3	29.0
9-Apr	20	22	21	22	25	26	21	22	21	26	26	32	34	37	34	31	24	25	23	18	18	16	17	17	24.0	37.3
10-Apr	15	20	18	15	18	15	17	20	18	15	17	14	13	14	13	11	7	4	13	10	11	10	9	12	13.7	20.5
11-Apr	17	16	13	11	15	12	7	8	14	22	23	29	34	29	25	24	19	15	12	12	10	8	3	2	16.0	33.7
12-Apr	3	6	6	6	11	11	12	12	14	13	16	17	18	17	15	10	11	9	4	5	11	19	13	10	11.2	18.6
13-Apr	7	4	7	9	9	11	13	12	11	13	14	16	16	15	15	17	17	16	15	13	18	17	20	20	13.6	20.4
14-Apr	20	21	21	20	17	16	16	14	13	10	5	6	7	7	5	3	1	2	1	0	4	7	5	14	9.8	20.9
15-Apr	24	18	10	19	22	19	20	20	12	9	9	9	11	9	12	19	15	18	19	16	13	11	10	13	14.9	23.7
16-Apr	12	5	7	9	13	16	15	18	17	12	11	13	13	10	11	12	15	12	11	10	13	10	5	2	11.3	18.0
17-Apr	2	2	3	2	3	5	6	5	8	16	19	20	19	23	24	21	23	26	24	23	21	23	22	21	15.1	25.8
18-Apr	22	19	18	17	16	12	12	12	13	12	9	9	6	6	7	5	5	3	2	2	6	8	9	11	10.0	22.3
19-Apr	13	14	14	15	15	14	12	8	9	10	6	7	8	8	5	5	4	5	3	3	8	8	8	5	8.6	15.4
20-Apr	6	5	10	13	12	9	8	9	9	11	13	15	14	14	19	14	12	13	9	7	7	8	6	7	10.3	18.7
21-Apr	6	12	13	13	12	13	12	10	9	6	6	7	6	6	4	6	7	6	8	10	10	14	14	15	9.4	14.6
22-Apr	17	15	21	22	23	24	26	26	24	24	26	29	31	32	34	33	37	32	35	33	34	37	39	43	29.1	43.2
23-Apr	38	39	23	16	13	17	18	15	10	7	5	5	7	9	8	3	1	1	2	3	5	0	0	0	10.3	39.2
24-Apr	0	0	0	0	0	0	0	0	0	8	9	7	8	7	7	5	5	7	6	8	8	4	4	8	4.2	8.7
25-Apr	14	14	5	5	5	7	7	5	4	4	7	5	5	5	7	7	7	6	6	7	9	11	10	7	7.1	14.1
26-Apr	11	10	8	7	8	13	13	11	12	11	10	15	16	16	13	19	24	23	28	22	17	16	17	22	15.1	28.5
27-Apr	17	17	19	19	20	18	18	17	18	15	11	9	10	6	5	7	8	6	3	3	5	8	8	9	11.5	19.6
28-Apr	10	10	9	12	13	12	11	11	16	22	25	31	29	25	24	25	23	23	24	18	16	22	16	14	18.5	31.0
29-Apr	15	16	16	13	13	13	12	13	14	13	11	16	17	17	12	9	7	9	8	8	9	14	17	19	12.8	19.2
30-Apr	21	18	15	13	17	17	18	18	17	17	17	21	23	21	20	23	24	22	19	18	18	16	22	24	19.1	24.4
	14.7	14.6	13.6	13.0	13.7	13.9	13.5	13.1	13.2	13.6	13.8	15.3	16.3	16.1	15.7	15.4	14.3	13.2	12.9	11.7	12.4	13.0	13.3	14.4		Diurnal Average
	38.4	39.2	25.5	22.2	24.8	25.6	26.0	26.1	24.3	26.1	26.4	32.0	33.7	37.3	34.1	32.7	37.4	31.8	35.5	33.1	34.2	37.0	39.2	43.2		Diurnal Maximum

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

# Hourly Standard Deviations

Wind Direction (WD) - deg

Portable Reno - April 2014

Maximum Value: 87.1 deg on Apr 25 16:00																	Hours in Service: 720								
Minimum Value: 0.4 deg on Apr 23 23:00																	Hours of Data: 720								
Percentiles: P <sub>1</sub> = 0.9 P <sub>10</sub> = 3.3 Q <sub>1</sub> = 5.0 Median = 7.8 Q <sub>3</sub> = 13.3 P <sub>90</sub> = 24.0 P <sub>99</sub> = 72.2																	Hours of Missing Data: 0								
																	Hours of Calibration: 0								
																	Percent Operational Time: 100.0								
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	8	7	12	20	8	7	12	26	10	48	12	16	17	15	13	22	21	13	14	10	9	18	4	4	47.8
2-Apr	9	2	4	16	8	8	9	7	10	12	11	12	5	4	4	6	6	6	8	8	19	21	8	2	21.0
3-Apr	2	2	2	2	2	3	3	4	7	7	7	10	12	10	10	7	7	7	4	3	3	3	3	3	11.8
4-Apr	4	5	4	7	4	5	20	8	9	6	9	7	6	4	4	6	4	8	6	75	69	9	9	7	74.7
5-Apr	7	4	8	4	3	8	5	3	6	6	19	13	6	7	6	10	14	17	7	13	4	5	7	9	19.3
6-Apr	7	5	3	5	8	7	7	5	10	6	4	3	3	4	5	3	5	4	6	4	4	3	7	4	9.8
7-Apr	3	2	3	5	12	5	21	4	4	4	13	11	14	5	3	12	7	14	6	4	8	4	6	12	20.8
8-Apr	5	4	3	9	10	5	15	11	9	13	6	8	6	6	6	3	5	7	4	5	7	10	5	8	15.1
9-Apr	4	3	3	3	3	2	3	3	5	5	6	5	5	4	4	3	4	3	9	6	4	7	5	3	8.7
10-Apr	3	2	3	6	2	3	5	4	10	7	5	4	9	13	7	30	13	43	18	33	16	23	16	11	43.3
11-Apr	4	22	6	13	23	9	15	40	10	7	8	6	5	4	7	7	7	10	11	14	10	8	7	65	65.3
12-Apr	9	5	5	13	5	4	5	10	9	4	5	6	6	5	5	9	22	14	14	12	15	5	3	6	21.7
13-Apr	11	39	11	5	5	5	4	6	11	3	12	13	8	8	6	14	4	3	17	7	6	3	3	4	39.0
14-Apr	3	4	3	3	7	3	14	4	5	4	54	30	17	15	22	41	83	36	66	52	22	47	77	57	82.7
15-Apr	6	8	24	7	7	5	5	6	10	7	8	8	12	10	12	13	10	16	8	8	7	3	4	6	24.3
16-Apr	5	81	12	8	6	5	6	8	9	20	12	16	13	13	16	16	19	35	26	23	8	8	7	27	80.7
17-Apr	16	30	22	73	49	24	11	21	14	19	15	13	14	15	13	12	10	8	6	6	6	6	6	6	73.2
18-Apr	5	6	6	8	7	7	9	7	8	8	14	17	36	14	10	26	44	17	60	37	22	11	10	4	60.4
19-Apr	8	9	3	5	4	6	7	13	13	7	19	9	7	16	22	35	16	18	18	46	8	15	24	25	46.4
20-Apr	56	22	12	13	9	20	13	8	5	8	7	5	12	7	12	13	7	8	10	6	17	24	9	8	56.5
21-Apr	12	11	2	2	3	5	6	5	10	14	23	14	24	31	59	37	35	34	16	5	7	3	3	6	58.7
22-Apr	3	15	4	2	3	3	3	3	4	6	7	8	8	8	11	8	5	7	9	6	6	5	5	5	14.9
23-Apr	5	5	11	11	8	6	4	4	8	8	8	29	12	12	8	48	21	19	8	13	4	1	0	1	47.6
24-Apr	1	1	1	1	1	0	1	2	6	7	8	15	10	9	15	43	16	11	15	10	15	29	28	7	43.1
25-Apr	6	4	24	17	10	6	16	14	44	70	34	35	32	59	20	87	45	49	12	21	6	14	5	5	87.1
26-Apr	9	5	6	10	11	7	5	8	9	14	33	14	14	15	19	13	10	9	7	7	6	6	9	6	33.5
27-Apr	8	5	5	6	4	5	6	6	7	6	14	24	13	27	65	31	28	41	78	27	14	11	6	5	77.8
28-Apr	16	11	13	4	3	3	7	19	8	7	11	8	9	14	15	10	12	8	6	3	8	7	3	5	19.1
29-Apr	6	3	6	5	10	10	16	15	13	14	13	13	12	19	21	31	59	31	41	11	5	3	4	2	59.2
30-Apr	3	8	9	13	5	2	3	5	9	10	14	11	11	14	13	10	8	7	9	5	8	5	5	5	14.2
Average	56.5	80.7	24.3	73.2	48.6	24.1	20.8	40.2	44.2	70.1	53.8	35.1	35.8	58.8	65.3	87.1	82.7	49.1	77.8	74.7	68.7	47.2	77.5	65.3	

PAZA

Falher Station

Monthly Summary Tables, Graphs and  
Roses



## Hourly Averages

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

Falher - April 2014

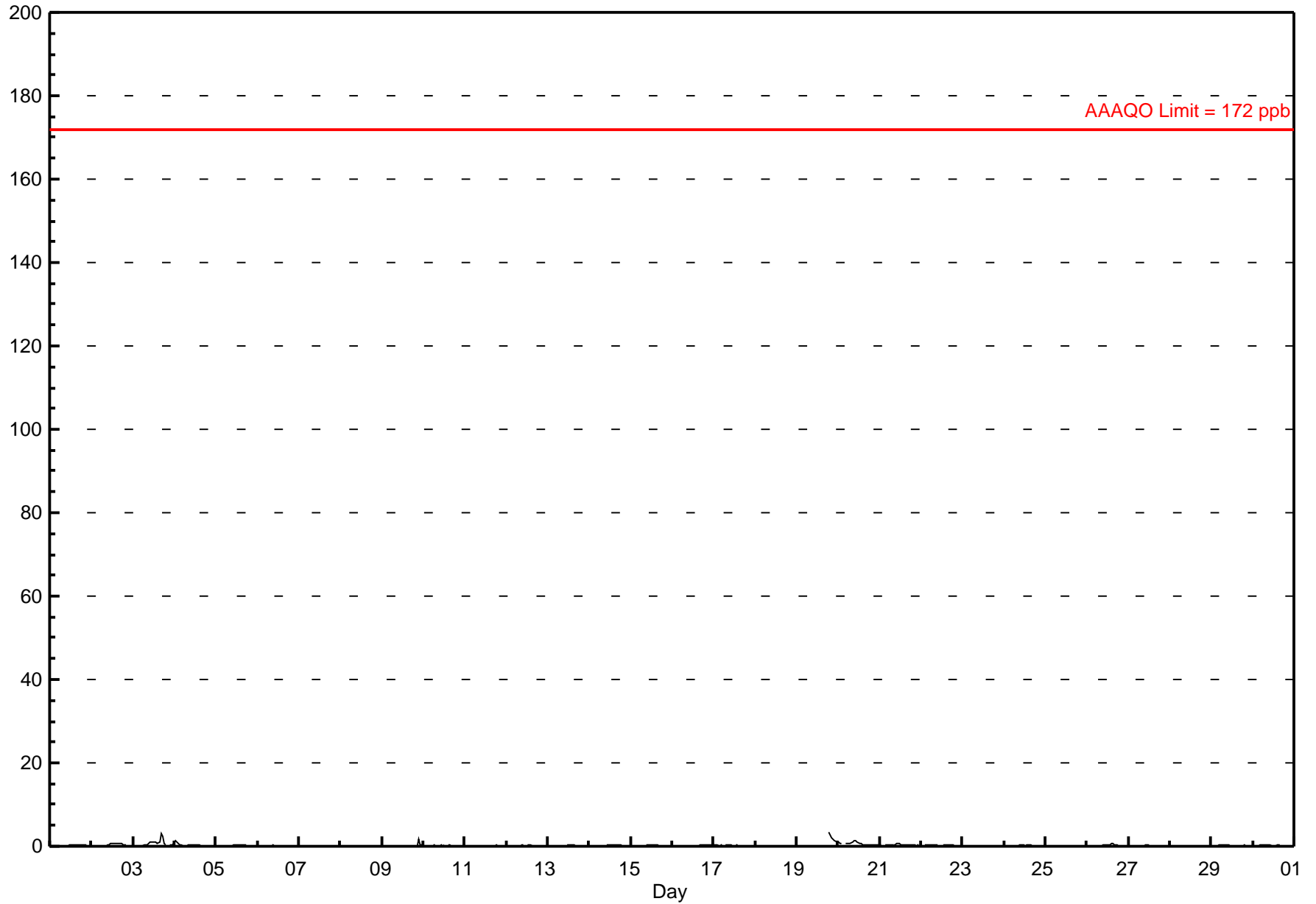
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 3.6 ppb on Apr 19 19:00	Maximum Daily Average: 0.7 ppb on Apr 3		Hours of Data:	639
Minimum Value: 0 ppb on Apr 1 05:00	Minimum Daily Average: 0.0 ppb on Apr 8		Hours of Missing Data:	81
Maximum Diurnal Average: 0.3 ppb at hour 19	Minimum Diurnal Average: 0.1 ppb at hour 4		Hours of Calibration:	32
Monthly Average: 0.19 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> = 1.4		Percent Operational Time:	93.2

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-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.4	
2-Apr	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	A	0	0	0.3	0.7	
3-Apr	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	3	2	1	0	A	0	0	0	0	0.7	2.9	
4-Apr	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	1.4	
5-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.4	
6-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2	
7-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.0	0.1	
8-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.0	0.0	
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	2	0	0	0.1	1.7	
10-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
11-Apr	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	
12-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
13-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5	
14-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
15-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
16-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
17-Apr	P	P	P	P	P	P	P	A	0	0	0	0	0	0	0	0	0	P	P	P	P	P	P	P	--	0.3	
18-Apr	N	N	N	N	N	N	N	P	N	N	N	N	N	N	N	N	N	P	P	P	P	P	P	P	N	--	--
19-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	M	4	3	2	2	1	1	--	3.6	
20-Apr	1	1	1	A	1	1	1	1	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.7	1.5	
21-Apr	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5	
22-Apr	0	A	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
23-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.0	
24-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.3	
25-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.1	
26-Apr	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	A	0	0	0	0.2	0.7	
27-Apr	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	
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.1	
29-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	A	0	0	0	0	0.2	0.5	
30-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.4	

0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1	Diurnal Average
1.4	0.9	0.7	0.4	0.7	0.7	0.7	0.8	0.9	1.5	1.3	1.1	1.0	0.9	0.7	0.9	2.9	2.2	3.6	2.6	1.9	1.7	1.2	1.1		Diurnal Maximum	

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

Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb    24-hr 48 ppb    30-day 11 ppb



## Hourly Maximums

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

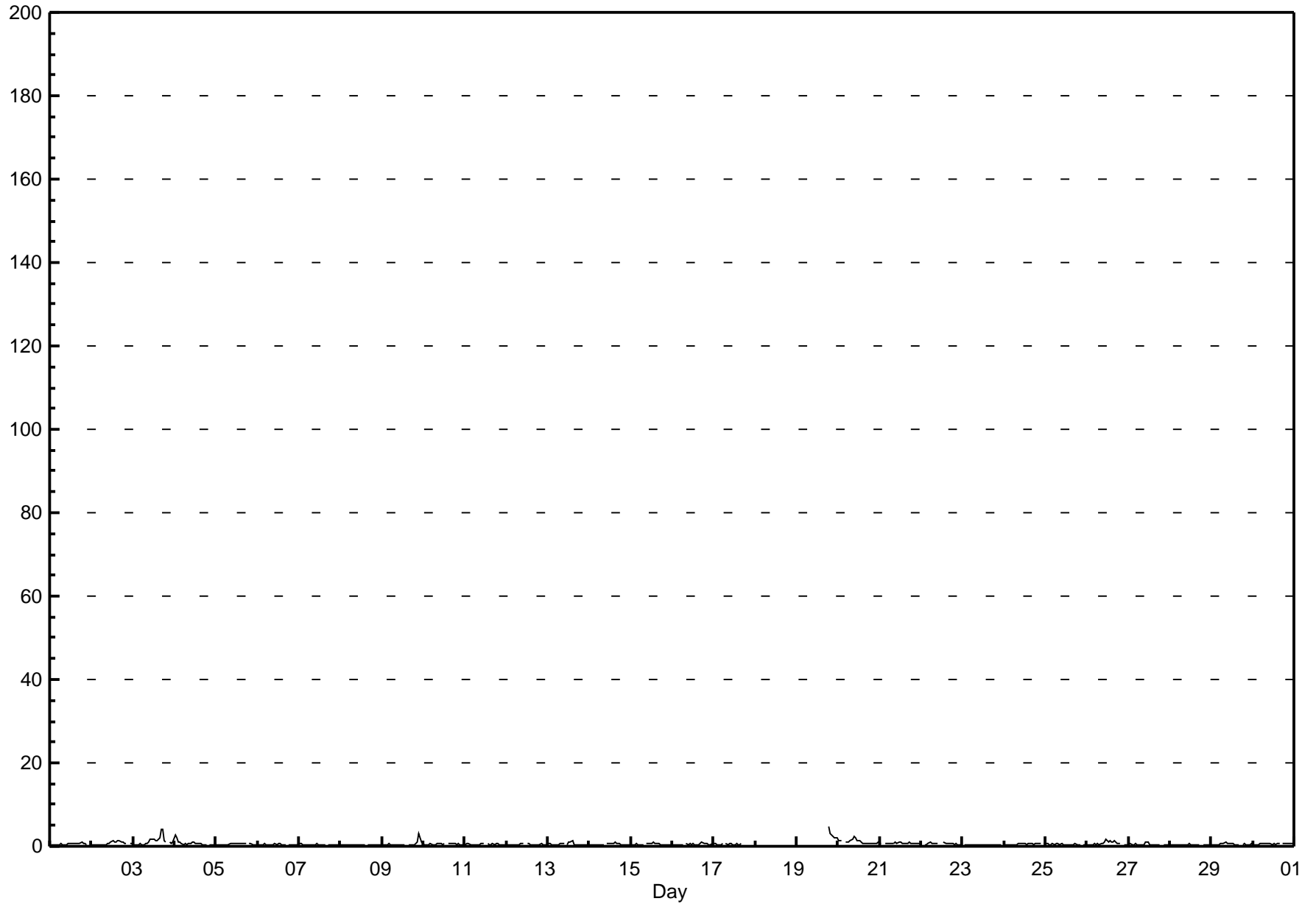
Falher - April 2014

Maximum Value: 4.6 ppb on Apr 19 19:00		Maximum Daily Average: 1.2 ppb on Apr 3		Hours in Service: 720																																													
Minimum Value: 0 ppb on Apr 8 13:00		Minimum Daily Average: 0.3 ppb on Apr 8		Hours of Data: 639																																													
Maximum Diurnal Average: 0.7 ppb at hour 12		Minimum Diurnal Average: 0.4 ppb at hour 4		Hours of Missing Data: 81																																													
Monthly Average: 0.60 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> = 0.9 P <sub>99</sub> = 2.5		Hours of Calibration: 32																																													
				Percent Operational Time: 93.2																																													
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-Apr	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	A	0	0.5	0.9																							
2-Apr	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	1.2																							
3-Apr	0	0	0	0	1	0	0	1	1	1	2	2	2	1	1	2	4	4	1	1	A	1	1	1	1.2	4.0																							
4-Apr	3	2	1	1	1	0	1	0	1	1	1	1	1	1	1	1	0	0	0	A	0	0	0	0	0.7	2.8																							
5-Apr	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0	0	0.5	0.8																							
6-Apr	0	0	0	0	1	0	0	0	0	0	1	0	1	1	0	0	0	A	0	0	0	0	0	0	0.4	0.7																							
7-Apr	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	0.5																							
8-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.4																							
9-Apr	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	3	2	1	0.6	3.2																							
10-Apr	0	0	0	0	1	0	0	0	1	1	1	0	1	A	1	1	1	1	1	0	1	0	0	0	0.5	0.7																							
11-Apr	0	1	1	0	0	0	0	0	0	1	1	1	A	1	1	0	1	0	1	1	0	0	0	0	0.5	0.6																							
12-Apr	0	0	0	0	0	0	0	0	1	1	1	A	1	1	0	0	0	0	0	0	1	0	0	1	0.5	0.7																							
13-Apr	1	1	0	0	0	0	0	1	1	1	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0.5	1.3																							
14-Apr	0	0	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.5	0.9																							
15-Apr	0	0	0	1	0	1	0	0	A	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0.5	0.9																							
16-Apr	0	0	0	0	0	0	0	A	1	0	1	0	1	0	0	0	1	1	1	1	1	0	0	1	0.5	0.9																							
17-Apr	1	1	0	0	0	1	A	1	0	1	0	0	0	1	0	0	1	P	P	P	P	P	P	P	--	0.8																							
18-Apr	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	--	--																							
19-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	M	5	3	3	2	2	2	--	4.6																						
20-Apr	2	1	1	A	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.4																							
21-Apr	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1																							
22-Apr	1	A	1	0	1	1	1	1	1	1	C	C	C	1	1	1	1	1	1	0	1	0	0	0	0.6	0.9																							
23-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5																							
24-Apr	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	A	1	0.5	0.8																							
25-Apr	1	1	0	0	1	0	1	1	1	1	0	0	0	0	0	0	0	1	0	1	0	A	0	1	0.5	0.6																							
26-Apr	0	0	0	1	1	1	1	0	1	1	1	2	1	1	1	1	1	1	1	1	1	A	0	0	0.7	1.6																							
27-Apr	0	1	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0.5	1.1																							
28-Apr	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	A	0	0	0	0	0	0.4	0.6																							
29-Apr	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	A	0	1	0	0	1	0.5	1.0																							
30-Apr	0	0	0	0	1	1	1	1	1	1	1	0	1	1	1	1	A	1	1	1	1	1	1	1	0.5	0.7																							
																								0.6	0.6	0.5	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.6	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	Diurnal Average	
																								2.8	2.0	1.2	0.9	1.1	1.2	1.1	1.3	1.7	2.4	2.2	1.8	1.7	1.5	1.3	2.2	4.0	3.9	4.6	3.2	2.8	3.2	2.1	1.9	Diurnal Maximum	
C - Calibration				P - Power Failure				M - Maintenance				N - Not Valid				A - Automated Daily Zero Span																																	

# Hourly Maximums

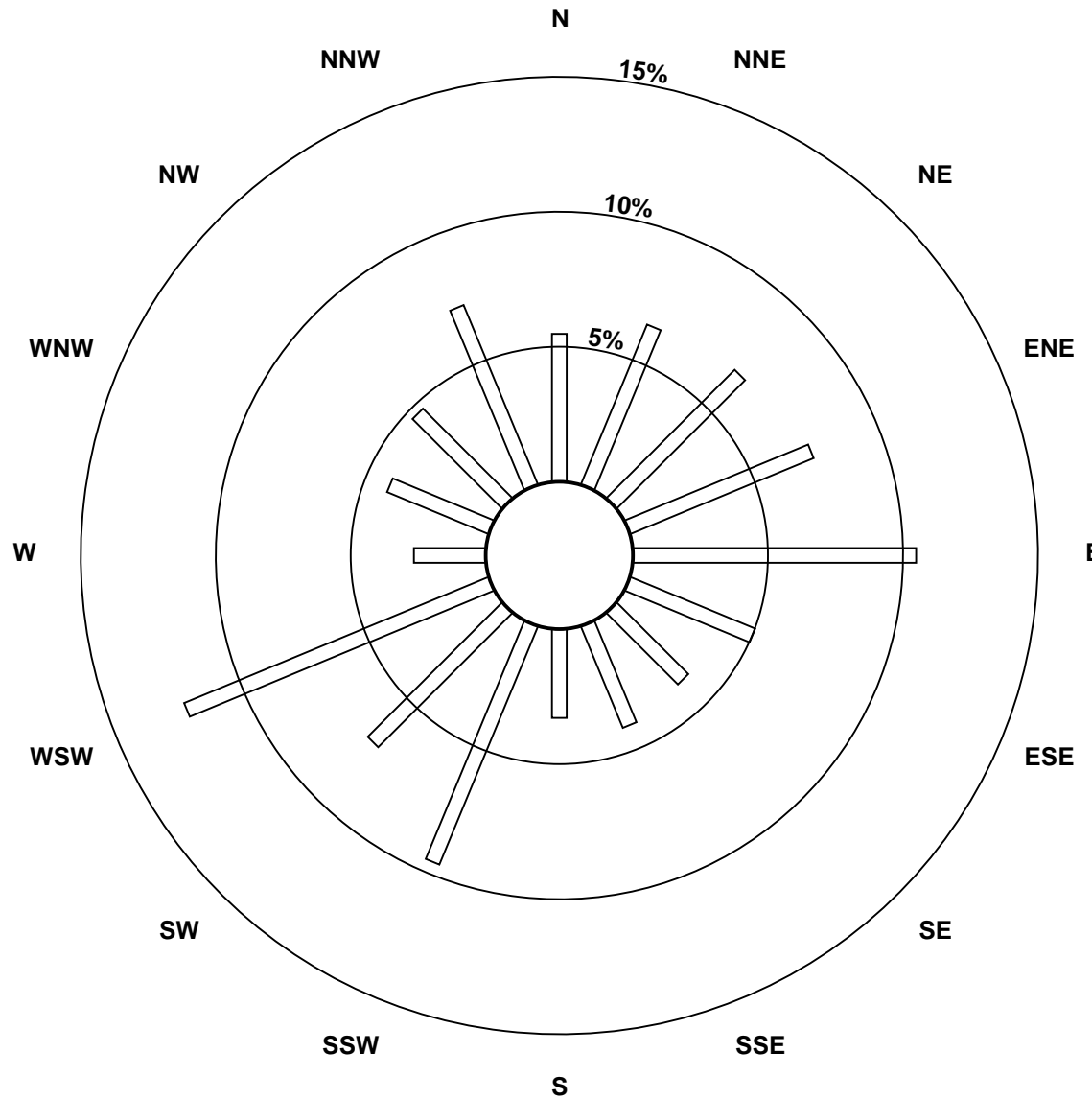
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Falher - April 2014

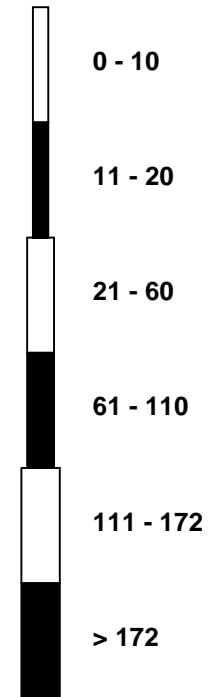


**Pollutant Rose**

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

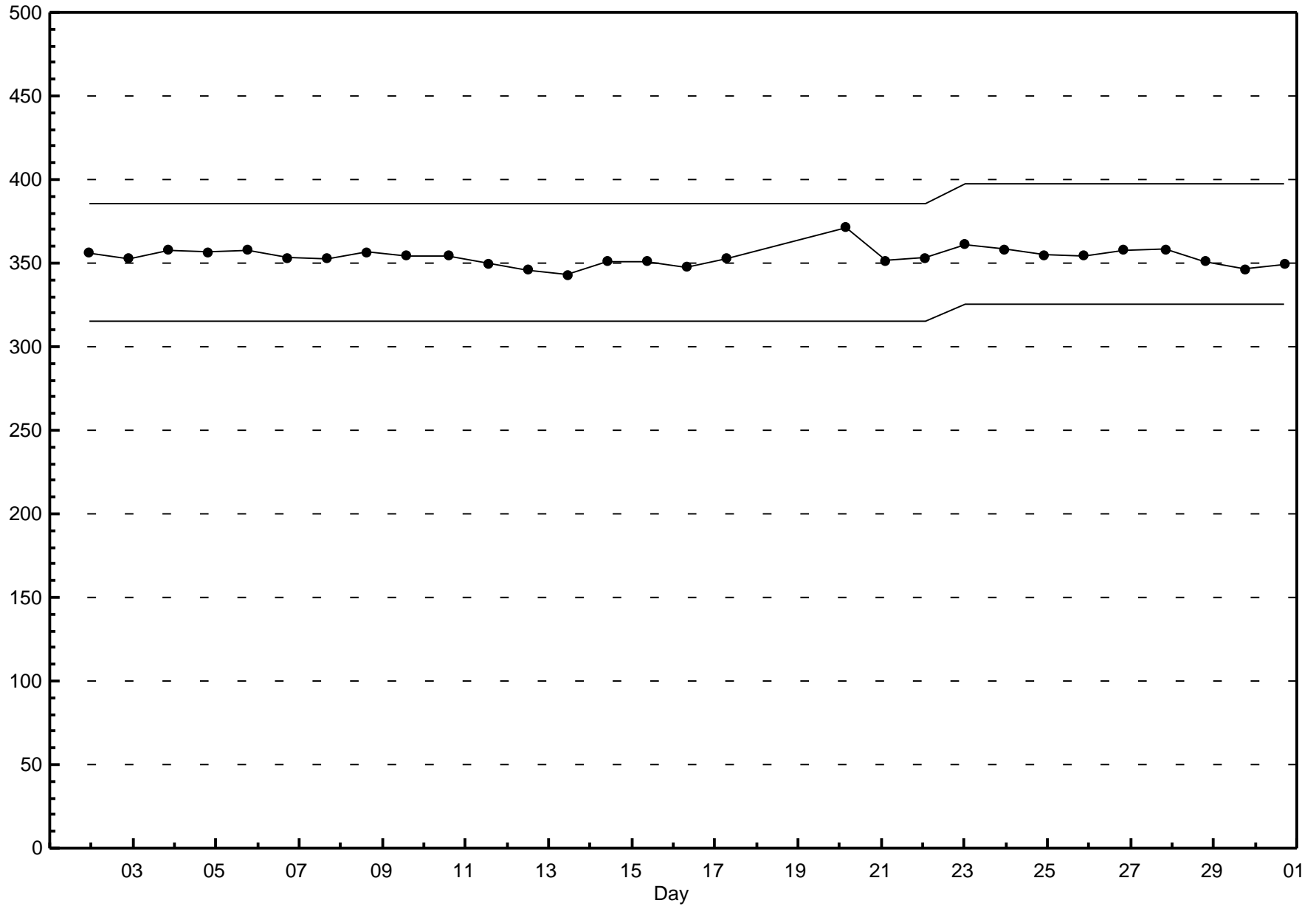


**Pollutant Classes (ppb)**



### Span Responses

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



## Hourly Averages

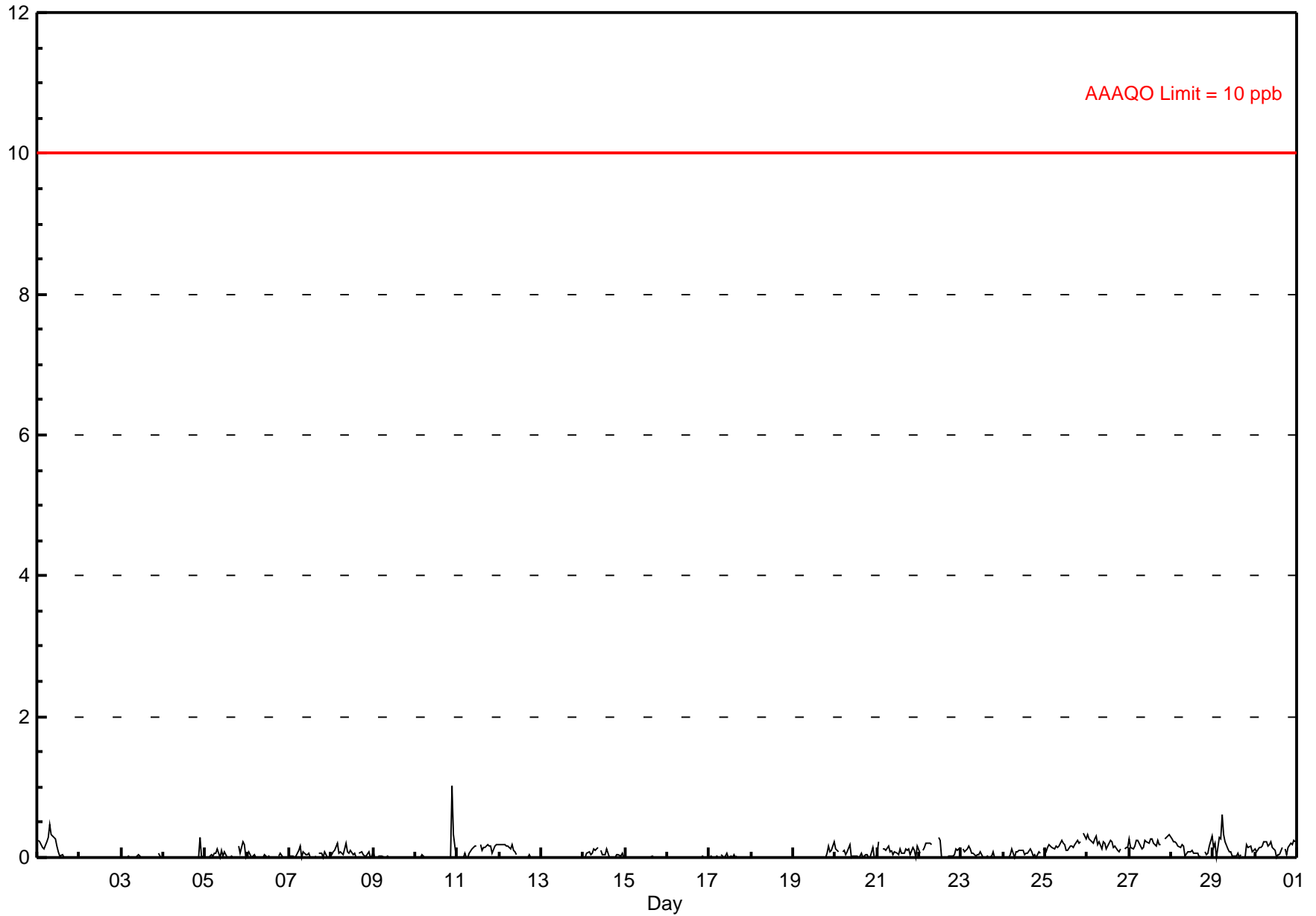
## Hydrogen Sulphide (H<sub>2</sub>S) - ppb

Falher - April 2014

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 1.0 ppb on Apr 10 22:00	Maximum Daily Average: 0.2 ppb on Apr 27		Hours of Data:	639
Minimum Value: 0 ppb on Apr 1 16:00	Minimum Daily Average: 0.0 ppb on Apr 2		Hours of Missing Data:	81
Maximum Diurnal Average: 0.1 ppb at hour 22	Minimum Diurnal Average: 0.0 ppb at hour 17		Hours of Calibration:	32
Monthly Average: 0.07 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> = 0.2 P <sub>99</sub> = 0.3		Percent Operational Time:	93.2

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

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





## Hourly Maximums

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

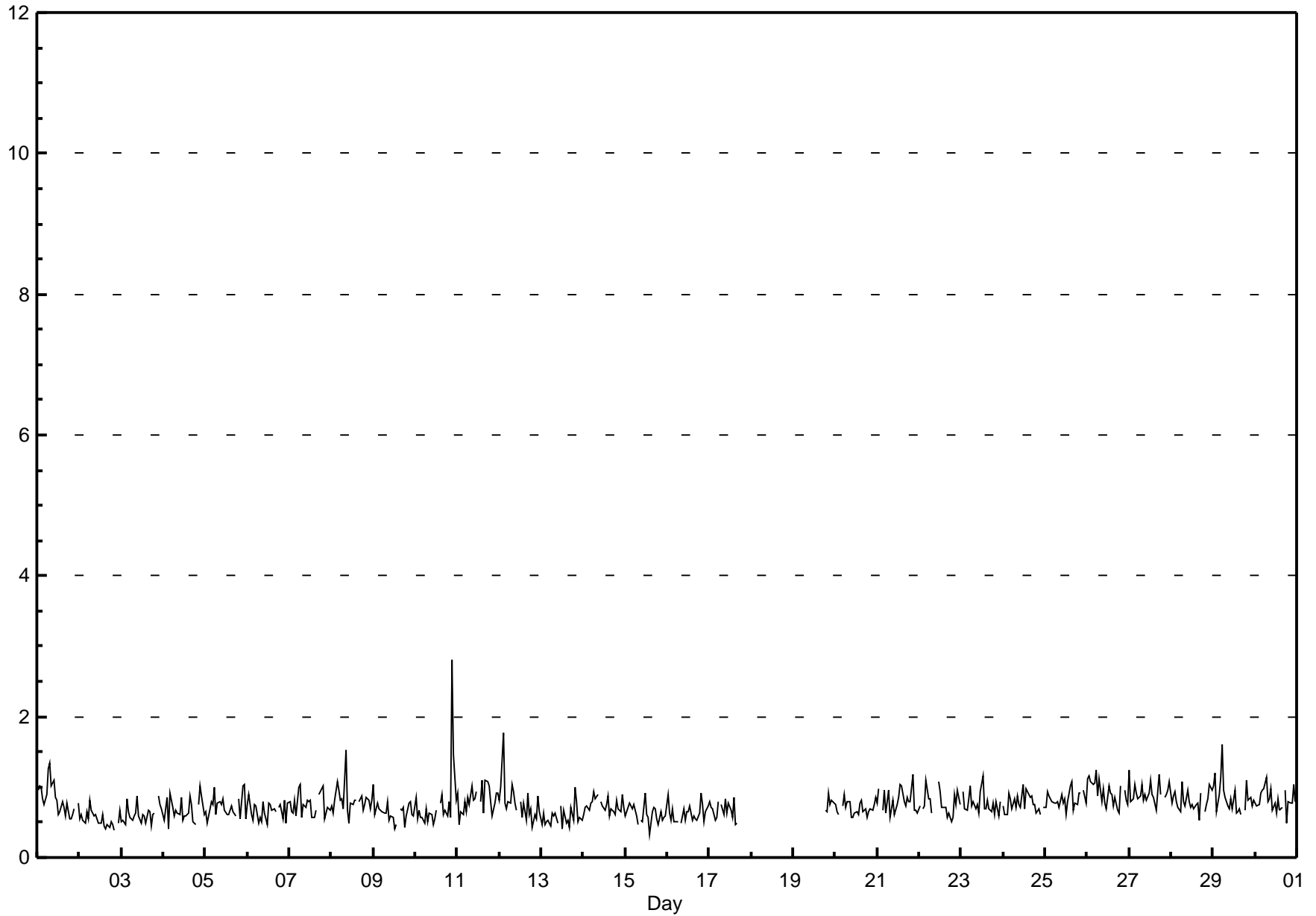
Falher - April 2014

Maximum Value: 2.8 ppb on Apr 10 22:00		Maximum Daily Average: 0.9 ppb on Apr 27		Hours in Service: 720																																													
Minimum Value: 0 ppb on Apr 15 15:00		Minimum Daily Average: 0.5 ppb on Apr 2		Hours of Data: 639																																													
Maximum Diurnal Average: 0.8 ppb at hour 22		Minimum Diurnal Average: 0.7 ppb at hour 19		Hours of Missing Data: 81																																													
Monthly Average: 0.75 ppb		Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.6 Median = 0.7 Q <sub>3</sub> = 0.8 P <sub>90</sub> = 1.0 P <sub>99</sub> = 1.2		Hours of Calibration: 32																																													
				Percent Operational Time: 93.2																																													
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-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.3																							
2-Apr	1	1	1	0	1	1	1	1	1	1	1	0	0	1	0	0	0	0	1	0	0	A	0	1	0.5	0.8																							
3-Apr	1	1	0	1	1	1	1	1	1	1	1	0	1	1	0	1	1	0	1	1	A	1	1	1	0.6	0.9																							
4-Apr	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	1	0.7	1.0																							
5-Apr	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.0																							
6-Apr	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	A	1	1	1	1	0	1	0.7	0.9																							
7-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.7	1.0																							
8-Apr	1	1	1	1	1	1	1	1	1	2	1	0	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.5																							
9-Apr	1	1	1	1	1	1	1	1	1	1	1	0	0	A	1	1	1	1	0	1	1	1	1	1	0.6	1.0																							
10-Apr	1	1	1	1	1	0	1	1	1	1	0	1	1	A	1	1	1	1	1	1	1	3	1	1	0.8	2.8																							
11-Apr	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1																							
12-Apr	1	1	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	0.8	1.8																							
13-Apr	0	1	0	1	1	0	1	1	1	0	A	1	0	1	0	1	0	1	1	1	1	1	1	1	0.6	1.0																							
14-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9																							
15-Apr	1	1	1	1	1	1	1	0	A	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	0.6	0.9																							
16-Apr	1	1	1	1	1	1	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9																							
17-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	0	P	P	P	P	P	P	P	P	--	0.9																							
18-Apr	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	--	--																							
19-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	0.9																						
20-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9																							
21-Apr	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2																							
22-Apr	1	A	1	1	1	1	1	1	1	C	C	C	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1																							
23-Apr	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2																							
24-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0																							
25-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.1																							
26-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.2																							
27-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.2																							
28-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1																							
29-Apr	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	A	1	1	1	1	0.9	1.6																							
30-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	1	1	0.8	1.1																							
																								0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8	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	0.7	Diurnal Average		
																								1.2	1.2	1.8	1.1	1.1	1.6	1.3	1.3	1.5	1.1	0.9	1.1	1.2	1.0	1.1	1.1	1.1	1.2	1.0	1.1	1.2	2.8	1.5	1.1	Diurnal Maximum	
C - Calibration																								P - Power Failure						N - Not Valid						A - Automated Daily Zero Span													

**Hourly Maximums**

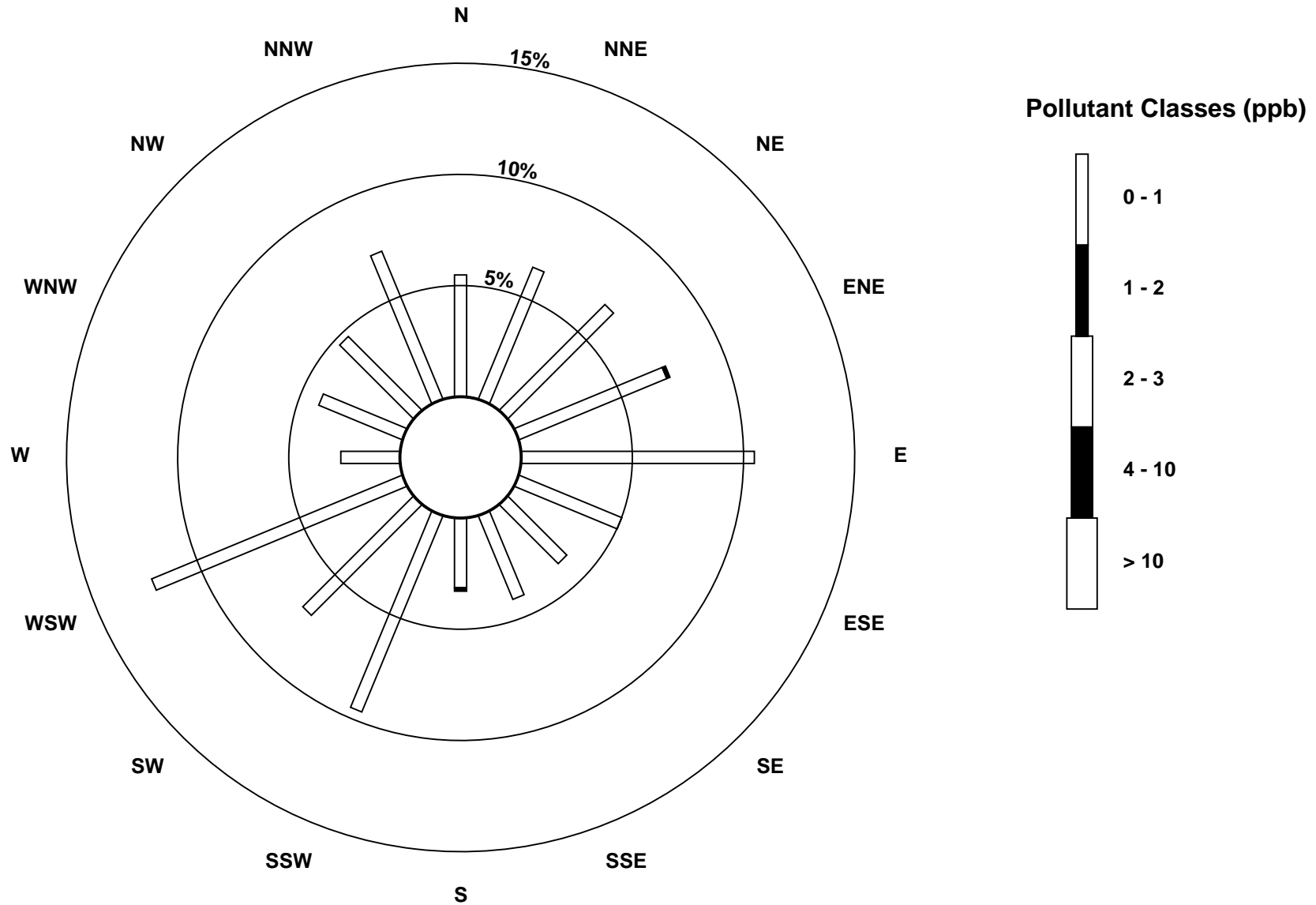
**Hydrogen Sulphide (H<sub>2</sub>S) - ppb**

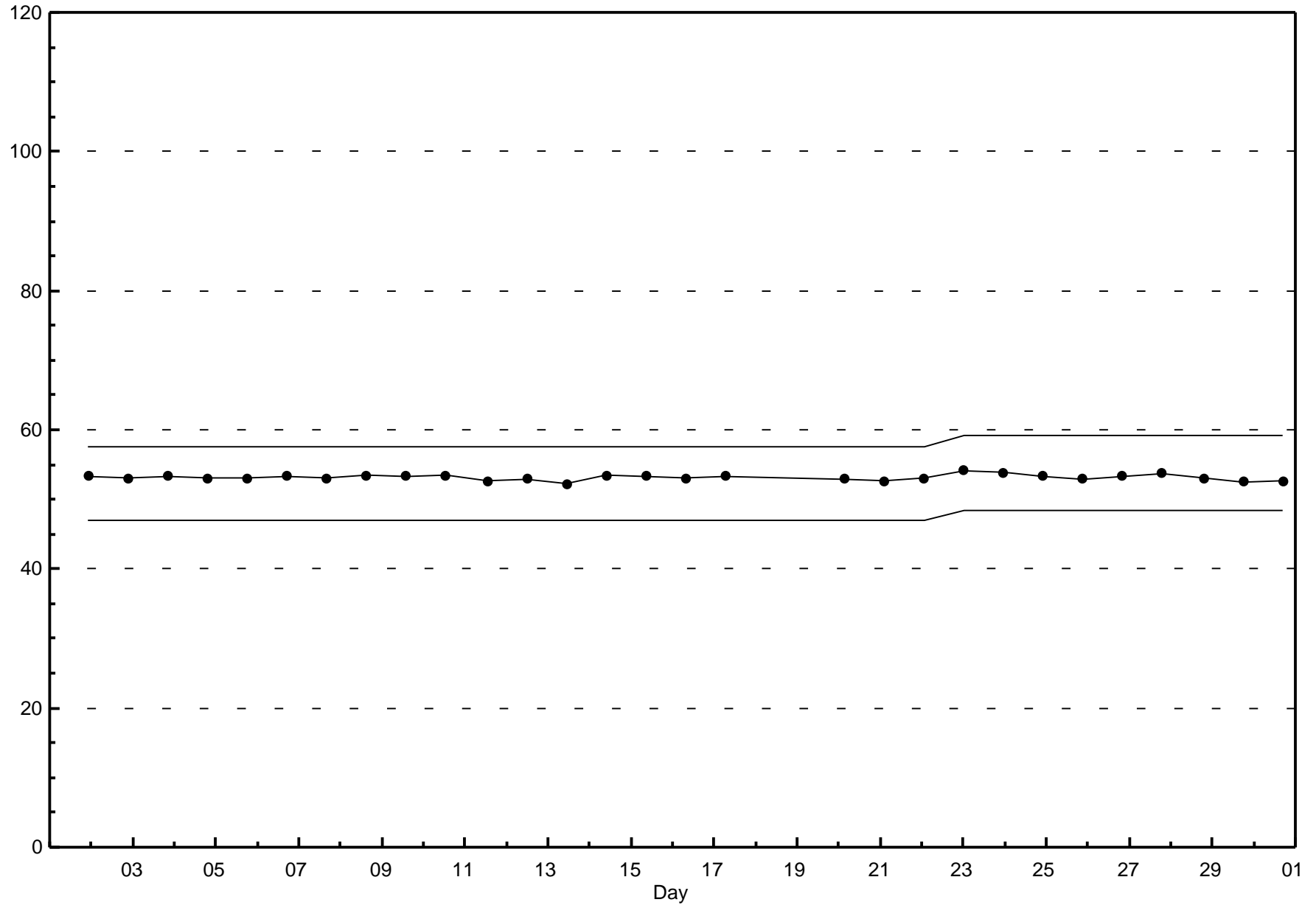
**Falher - April 2014**



**Pollutant Rose**

**Hydrogen Sulphide (H<sub>2</sub>S) - ppb**  
**Falher - April 2014**





## Hourly Averages

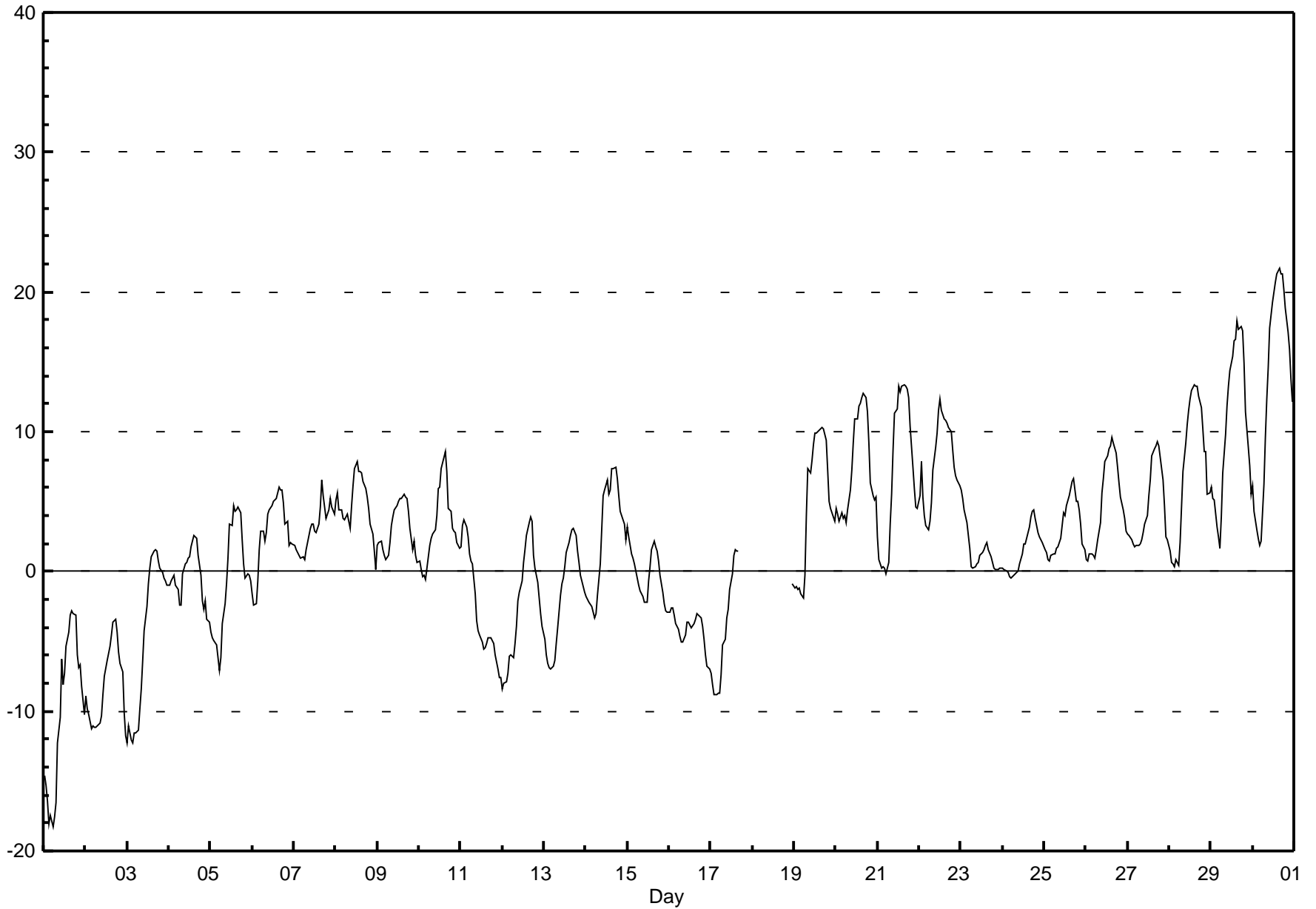
External Temperature (ET) - °C

Falher - April 2014

Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	720
Maximum Value: 21.7 °C on Apr 30 16:00	Maximum Daily Average: 13.5 °C on Apr 30		Hours of Data:	690
Minimum Value: -18 °C on Apr 1 06:00	Minimum Daily Average: -9.9 °C on Apr 1		Hours of Missing Data:	30
Maximum Diurnal Average: 5.9 °C at hour 17	Minimum Diurnal Average: -1.8 °C at hour 6		Hours of Calibration:	0
Monthly Average: 1.96 °C	Percentiles: P <sub>1</sub> = -15.9 P <sub>10</sub> = -6.1 Q <sub>1</sub> = -1.4 Median = 1.9 Q <sub>3</sub> = 5.3 P <sub>90</sub> = 9.9 P <sub>99</sub> = 19.9		Percent Operational Time:	95.8

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-Apr	-15	-15	-16	-18	-17	-18	-18	-17	-12	-10	-6	-8	-7	-5	-4	-3	-3	-3	-3	-6	-7	-7	-8	-10	-9.9	-2.8																						
2-Apr	-9	-10	-10	-11	-11	-11	-11	-11	-11	-10	-9	-7	-6	-6	-5	-5	-4	-3	-4	-6	-7	-7	-10	-12	-8.2	-3.4																						
3-Apr	-12	-11	-12	-12	-12	-12	-11	-10	-8	-6	-4	-2	-1	0	1	1	2	2	1	0	0	0	-1	-1	-4.6	1.6																						
4-Apr	-1	-1	0	0	-1	-1	-2	-2	0	1	1	1	1	2	3	2	2	1	0	-2	-3	-2	-3	-4	-0.4	2.6																						
5-Apr	-4	-5	-5	-5	-6	-7	-6	-4	-2	-1	1	3	3	5	4	4	5	4	2	1	0	0	0	-1	-0.6	4.7																						
6-Apr	-2	-2	-2	-1	2	3	3	2	3	4	4	5	5	5	5	6	6	6	5	3	4	2	2	2	2.9	6.0																						
7-Apr	2	2	1	1	1	1	1	2	2	3	3	3	3	3	3	5	7	5	4	4	4	5	5	4	3.1	6.6																						
8-Apr	5	6	4	4	4	4	4	4	3	5	6	7	8	7	7	7	6	6	5	4	3	3	1	0	4.8	7.9																						
9-Apr	2	2	2	2	1	1	1	2	3	4	4	5	5	5	5	5	5	5	4	3	2	2	1	1	3.1	5.5																						
10-Apr	1	0	0	0	-1	1	2	2	3	3	4	6	6	7	8	9	7	4	4	3	3	3	2	2	3.3	8.6																						
11-Apr	2	3	4	3	2	1	1	1	-2	-4	-4	-5	-5	-6	-5	-5	-5	-5	-5	-5	-6	-7	-8	-8	-2.7	3.7																						
12-Apr	-8	-8	-8	-7	-6	-6	-6	-5	-4	-2	-1	-1	1	2	3	3	4	4	1	0	-1	-2	-3	-4	-2.3	3.9																						
13-Apr	-5	-6	-7	-7	-7	-7	-6	-5	-4	-2	-1	0	0	1	2	3	3	3	3	1	1	0	-1	-1	-1.7	3.1																						
14-Apr	-2	-2	-2	-2	-3	-3	-3	-2	1	3	5	6	7	6	6	7	7	7	7	5	4	4	3	2	2.5	7.4																						
15-Apr	3	2	1	1	1	0	-1	-1	-2	-2	-2	-2	-1	0	2	2	2	1	1	0	-1	-2	-3	-3	-0.2	3.1																						
16-Apr	-3	-3	-3	-3	-4	-4	-5	-5	-5	-5	-4	-4	-4	-4	-4	-3	-3	-3	-3	-4	-5	-6	-7	-7	-4.1	-2.6																						
17-Apr	-7	-8	-9	-9	-9	-9	-7	-5	-5	-3	-3	-1	0	1	2	1	1	P	P	P	P	P	P	P	--	1.6																						
18-Apr	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-1	-0.8																						
19-Apr	-1	-1	-1	-1	-2	-2	0	4	7	7	8	9	10	10	10	10	10	10	9	7	5	5	4	4	5.1	10.3																						
20-Apr	4	4	4	4	4	4	3	4	6	7	9	11	11	12	12	12	13	12	11	9	6	5	5	5	7.5	12.7																						
21-Apr	2	1	0	0	0	0	1	3	6	9	11	12	13	13	13	13	13	13	12	10	8	6	5	5	7.1	13.4																						
22-Apr	5	8	5	4	3	3	4	5	7	9	10	11	12	12	11	11	11	10	10	9	7	7	7	6	7.8	12.3																						
23-Apr	6	5	4	3	3	2	0	0	0	0	1	1	1	2	2	2	2	1	1	0	0	0	0	0	1.6	5.8																						
24-Apr	0	0	0	0	0	0	0	0	0	0	1	1	2	2	2	3	4	4	4	4	3	3	2	2	1.5	4.4																						
25-Apr	2	1	1	1	1	1	1	2	2	2	3	4	4	5	5	6	6	7	5	5	4	3	2	2	3.2	6.6																						
26-Apr	1	1	1	1	1	1	2	2	4	6	7	8	8	9	9	10	9	8	7	6	5	4	4	3	4.9	9.5																						
27-Apr	3	3	2	2	2	2	2	2	2	3	3	4	5	7	8	9	9	9	9	8	7	5	2	2	4.6	9.2																						
28-Apr	1	1	1	0	1	0	2	5	7	9	11	11	12	13	13	13	13	13	12	10	9	9	6	6	7.4	13.4																						
29-Apr	6	5	5	3	2	2	4	7	10	12	13	14	15	16	17	18	17	18	17	15	11	9	8	6	10.5	17.9																						
30-Apr	6	4	3	2	2	2	6	10	12	15	17	19	20	21	21	22	21	21	20	19	17	16	14	12	13.5	21.7																						
																								-0.6	-0.8	-1.3	-1.5	-1.7	-1.8	-1.4	-0.4	0.8	1.9	3.1	3.9	4.5	4.9	5.4	5.9	5.9	5.8	5.0	3.8	2.6	2.0	1.0	0.4	Diurnal Average
																								6.2	7.9	5.3	4.4	3.8	4.0	6.2	9.6	12.4	14.6	17.4	19.2	19.9	20.7	21.3	21.7	21.3	21.2	20.2	18.9	17.1	15.9	13.8	12.2	Diurnal Maximum

P - Power Failure



## Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Falher - April 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	4	5	5	2	3	5	3	4	3	3	2	6	8	7	7	5	6	5	4	7	11	12	8	12	5.1	12.1
Dir	317	341	25	298	358	18	31	32	87	189	273	327	324	336	13	346	359	344	336	338	338	335	342	344	338	
2 Spd	14	13	10	12	15	16	17	19	17	19	19	18	15	19	17	13	10	9	5	8	11	9	5	12.7	18.9	
Dir	352	334	327	271	293	285	285	286	284	294	296	294	284	271	271	276	281	272	257	274	286	273	298	289	286	
3 Spd	3	8	3	4	11	19	21	19	22	24	27	26	25	27	29	26	27	26	23	23	21	21	21	17.7	29.0	
Dir	4	16	317	31	18	13	15	44	60	66	78	80	82	84	87	89	90	86	82	83	91	89	73	87		
4 Spd	23	26	22	16	15	17	16	14	18	21	26	26	25	24	18	20	15	17	13	8	7	7	7	9.6	26.3	
Dir	102	112	117	116	150	149	166	215	248	245	242	242	239	241	248	243	244	263	254	220	166	182	205	242		
5 Spd	8	11	12	17	14	12	11	10	9	6	3	0	2	5	6	6	7	7	11	13	10	10	10	7.8	16.9	
Dir	79	66	55	79	87	99	106	97	114	129	168	128	87	5	6	62	45	72	101	107	109	105	90	79		
6 Spd	12	9	11	12	15	20	22	19	19	23	23	29	26	23	22	20	16	14	18	17	19	15	19	16.1	28.9	
Dir	128	125	157	183	194	212	211	196	217	245	243	244	245	243	241	247	242	236	237	230	221	201	195	244		
7 Spd	18	16	15	14	15	14	13	14	15	12	16	15	16	15	13	10	6	12	10	13	15	16	13	11.5	18.4	
Dir	198	208	207	198	194	194	170	142	140	161	153	175	116	95	96	115	184	137	129	138	136	152	159	198		
8 Spd	20	16	12	15	17	17	18	13	12	1	4	5	21	26	37	36	30	30	27	24	15	13	11	16.6	36.8	
Dir	199	211	210	192	200	181	180	165	140	100	45	211	244	211	212	213	213	212	214	212	235	220	207	212		
9 Spd	19	24	26	20	19	19	21	22	29	30	39	38	37	35	34	30	28	26	21	19	11	18	19	24.2	38.5	
Dir	216	213	214	220	217	215	218	230	240	245	247	246	245	249	251	250	247	247	240	233	222	210	233	247		
10 Spd	18	15	14	14	15	15	17	16	16	12	9	9	8	4	4	16	18	15	8	6	10	9	13	5.9	18.1	
Dir	192	200	189	185	190	199	209	215	226	231	239	250	269	162	186	259	294	344	11	150	118	68	209	294		
11 Spd	13	13	15	13	15	12	3	8	25	29	34	32	32	31	29	30	27	26	24	19	11	6	6	14.4	33.9	
Dir	104	166	183	196	196	211	9	324	306	290	282	277	271	276	287	298	298	296	298	305	303	281	280	282		
12 Spd	3	5	6	3	9	10	12	11	11	13	15	16	15	17	17	17	16	15	11	11	16	16	5.6	16.9		
Dir	179	152	149	97	128	116	135	192	221	243	237	233	242	247	252	247	247	270	352	337	326	329	255	247		
13 Spd	3	3	6	7	8	10	9	11	9	10	14	15	16	14	12	15	16	19	20	19	23	19	11.5	23.5		
Dir	342	314	340	16	42	48	58	76	89	114	122	122	107	111	104	94	97	92	87	83	81	85	86	81		
14 Spd	18	20	19	17	15	11	10	11	6	3	2	3	3	9	7	7	6	2	3	6	8	4	6.1	20.2		
Dir	74	71	73	68	75	80	82	88	108	189	198	64	50	7	351	11	8	13	333	322	322	346	54	71		
15 Spd	13	10	15	14	15	13	18	18	18	20	23	23	22	20	15	10	17	15	15	13	12	12	13.8	23.4		
Dir	14	10	337	349	353	341	333	337	332	334	324	323	331	328	318	300	2	358	38	42	34	31	348	323		
16 Spd	9	11	10	9	11	13	14	16	16	14	8	13	20	22	20	19	17	19	14	6	6	10	12.3	21.8		
Dir	346	348	353	334	332	345	347	2	5	10	24	318	321	321	325	319	312	319	319	17	318	312	335	321		
17 Spd	7	3	6	4	3	2	4	3	6	7	13	19	22	25	26	25	30	P	P	P	P	P	--	30.5		
Dir	334	316	287	301	162	228	5	55	33	36	71	78	79	88	86	75	89	P	P	P	P	P	--	89		
18 Spd	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	9	9.4		
Dir	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	98	98		
19 Spd	10	9	10	10	8	9	7	3	1	7	11	9	3	6	8	12	12	12	9	9	6	6	3.2	12.1		
Dir	99	94	104	113	104	103	151	217	249	260	258	252	328	16	5	27	28	30	21	19	21	89	50	27		
20 Spd	3	6	8	10	9	10	10	9	12	12	15	13	15	20	24	25	23	21	17	12	13	10	11.5	24.6		
Dir	43	206	239	230	201	178	164	169	198	222	247	258	274	252	240	241	245	237	240	236	203	225	231	241		
21 Spd	11	14	13	14	14	9	7	7	8	4	2	4	7	11	13	15	14	15	12	10	10	10	4.6	15.0		
Dir	163	148	139	152	149	133	113	139	159	169	237	350	2	15	21	26	20	5	7	15	17	26	62	26		
22 Spd	15	13	16	21	22	22	24	26	26	29	27	32	33	32	34	35	32	30	29	32	37	29	27.2	37.4		
Dir	70	64	54	55	59	58	61	64	73	74	69	72	68	61	68	67	55	56	59	44	48	42	60	48		

## Hourly Averages

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

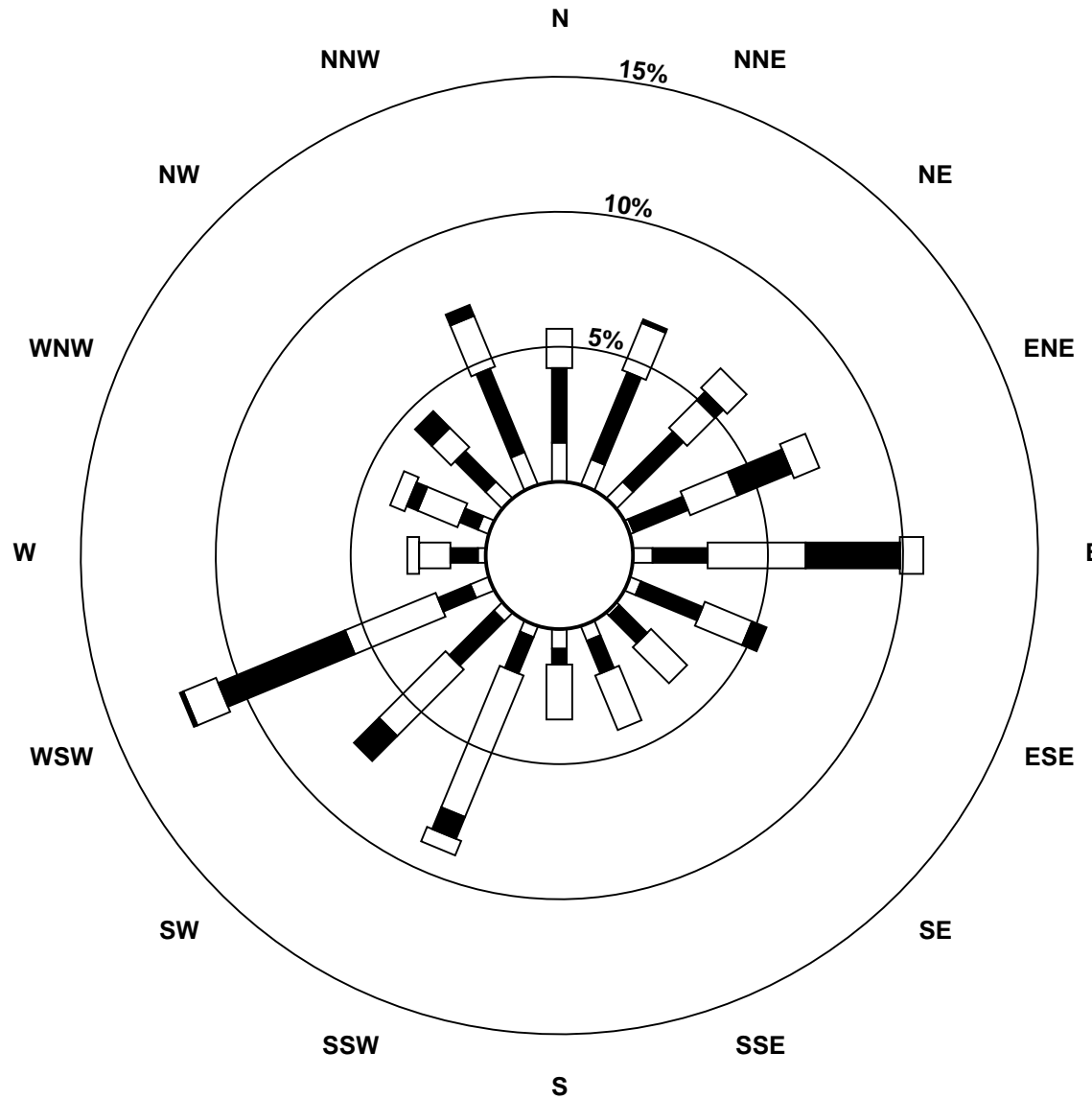
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	17	15	14	20	20	17	8	7	9	9	8	7	8	6	3	2	3	8	9	9	9	10	11	13	3.9	19.8
Dir	40	24	22	41	37	34	4	325	313	318	327	336	339	351	348	337	234	234	235	223	222	221	223	221	346	37
24 Spd	12	12	13	13	14	11	11	11	10	10	5	4	1	5	9	12	11	10	12	9	10	11	10	7	1.4	13.7
Dir	219	208	205	204	208	209	207	211	202	202	194	254	27	48	39	44	43	31	22	9	347	339	351	19	238	208
25 Spd	10	6	5	7	8	10	7	9	10	7	5	4	5	7	9	12	5	4	15	9	8	6	9	8	6.6	14.6
Dir	47	53	56	5	28	47	27	24	49	59	116	146	337	7	58	77	112	24	32	53	81	85	72	54	51	32
26 Spd	9	11	11	11	8	7	9	13	16	14	15	15	15	16	20	26	31	31	36	33	25	24	22	19	17.2	36.3
Dir	47	58	64	56	36	33	60	80	87	90	99	104	129	120	95	98	95	90	88	89	91	92	104	103	90	88
27 Spd	18	23	27	24	23	23	24	24	21	17	11	6	6	7	6	9	10	8	8	8	6	10	9	5	10.2	26.7
Dir	88	82	76	72	76	78	81	82	85	98	97	140	242	266	307	307	314	355	13	27	45	72	87	103	73	76
28 Spd	3	8	5	12	15	14	11	13	20	22	26	27	30	26	23	21	21	23	25	18	16	10	13	16	14.2	29.7
Dir	2	68	95	128	156	171	185	206	225	244	243	241	249	252	246	246	238	238	234	218	252	233	199	200	228	249
29 Spd	17	15	13	15	14	12	11	13	14	16	15	13	12	9	9	4	10	7	7	11	13	13	15	17	6.8	16.9
Dir	202	203	205	190	194	184	197	217	242	257	238	242	257	257	212	258	219	219	130	105	83	83	86	90	199	202
30 Spd	18	15	13	12	12	11	13	17	18	17	16	22	18	19	18	21	24	22	21	25	20	21	19	14	10.4	24.6
Dir	92	89	89	88	105	114	138	152	163	185	217	231	226	231	236	238	238	232	247	249	251	249	248	244	213	249
Spd	4.0	3.7	3.1	3.5	3.8	3.5	3.0	2.5	2.1	3.5	4.6	5.6	5.2	4.2	3.3	2.7	2.3	2.7	1.2	1.2	1.8	1.7	3.0	3.4	Diurnal Average	
Dir	105	112	119	123	132	131	138	143	192	244	244	249	264	270	269	273	281	293	347	77	63	76	91	102	Diurnal Maximum	
Spd	22.8	25.6	26.7	23.9	23.4	22.6	24.1	25.8	29.1	30.4	38.5	38.2	36.9	35.2	36.8	36.4	32.2	30.8	36.3	32.6	37.4	29.5	34.0	31.3	Diurnal Maximum	
Dir	102	112	76	72	76	78	81	64	240	245	247	246	245	249	212	213	55	90	88	89	48	42	46	52	Diurnal Maximum	
Maximum Speed Value: 39 km/h on Apr 9 11:00		Minimum Speed Value: 0 km/h on Apr 5 12:00																				Hours in Service: 720				
Maximum Daily Speed Average: 27.2 km/h on Apr 22		Minimum Daily Speed Average: 1.4 km/h on Apr 1																				Hours of Data: 690				
Maximum Diurnal Speed Average: 5.6 km/h at hour 12		Minimum Diurnal Speed Average: 1.2 km/h at hour 19																				Hours of Missing Data: 30				
Monthly Average Velocity: 0.82 km/h 182.1 deg		Speed Percentiles: P <sub>1</sub> = 2.0 P <sub>10</sub> = 5.1 Q <sub>1</sub> = 8.7 Median = 12.9 Q <sub>3</sub> = 18.7 P <sub>90</sub> = 25.1 P <sub>99</sub> = 36.2																				Percent Operational Time: 95.8				
All monthly, daily, and diurnal averages have been calculated using vector methods																										
P - Power Failure																										
Frequency Distribution																										
		Speed Range (km/h)																								
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	12	45	26	1	0	0	84																			
NorthEast	12	37	18	9	10	0	86																			
East	6	30	44	38	10	0	128																			
SouthEast	4	21	28	1	0	0	54																			
South	9	13	42	4	0	0	68																			
SouthWest	6	21	57	45	9	2	140																			
West	5	15	23	5	10	0	58																			
NorthWest	13	26	18	14	1	0	72																			
Total	67	208	256	117	40	2	690																			



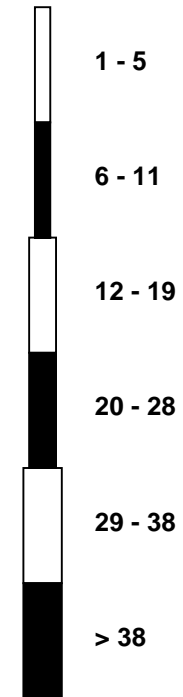
**Wind Rose**

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

**Falher - April 2014**



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



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Falher - April 2014

Maximum Speed: 39 km/h on Apr 9 11:00		Maximum Daily Speed Average: 27.7 km/h on Apr 22		Hours in Service: 720																							
Minimum Speed: 2 km/h on Apr 5 12:00		Minimum Daily Speed Average: 6.1 km/h on Apr 1		Hours of Data: 690																							
Maximum Diurnal Speed Average: 17.7 km/h at hour 16		Minimum Diurnal Speed Average: 12.2 km/h at hour 24		Hours of Missing Data: 30																							
Monthly Average Speed: 14.45 km/h		Percentiles: P <sub>1</sub> = 2.5 P <sub>10</sub> = 5.8 Q <sub>1</sub> = 9.0 Median = 13.3 Q <sub>3</sub> = 18.9 P <sub>90</sub> = 25.2 P <sub>99</sub> = 36.2		Percent Operational Time: 95.8																							
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-Apr	5	5	5	3	4	6	4	5	4	3	3	6	8	7	7	5	6	5	5	7	11	12	8	12	6.1	12.4	
2-Apr	15	13	10	13	15	16	17	19	17	19	19	18	15	19	19	17	13	10	9	5	8	11	9	6	13.8	18.9	
3-Apr	3	8	3	4	11	19	21	19	22	24	27	26	25	27	29	26	27	26	23	23	21	21	21	17	19.7	29.0	
4-Apr	23	26	22	16	15	17	16	15	18	21	26	26	25	24	19	20	15	17	13	8	7	8	7	10	17.3	26.4	
5-Apr	9	11	12	17	14	12	11	10	9	6	4	2	2	5	7	6	7	7	11	13	11	10	10	13	9.1	17.0	
6-Apr	12	9	11	13	15	21	22	19	19	23	23	29	26	23	22	20	16	14	18	17	19	15	19	19	18.5	28.9	
7-Apr	18	16	15	14	15	14	13	14	15	12	16	16	16	15	13	12	6	12	10	13	15	17	14	15	14.0	18.4	
8-Apr	20	16	12	16	17	17	18	13	12	5	5	7	21	26	37	36	30	30	27	24	16	13	11	12	18.3	36.8	
9-Apr	19	24	26	20	19	19	21	22	29	31	39	38	37	35	34	30	28	26	21	19	12	18	19	19	25.3	38.6	
10-Apr	18	15	14	14	15	15	17	16	16	12	9	9	9	4	8	16	19	15	9	10	10	10	13	15	12.8	19.2	
11-Apr	14	13	16	13	15	12	5	9	25	29	34	33	33	31	29	30	27	26	24	19	11	6	6	4	19.3	34.0	
12-Apr	3	5	6	4	9	11	12	12	11	13	15	16	15	17	17	17	16	17	11	11	16	16	13	9	12.2	17.4	
13-Apr	4	4	6	7	8	10	9	11	10	10	14	16	16	14	12	15	17	19	20	19	23	19	19	18	13.2	23.5	
14-Apr	18	20	19	17	15	11	10	11	6	4	3	3	3	9	9	7	7	6	4	3	6	8	7	4	8.8	20.2	
15-Apr	13	11	15	14	15	14	18	18	18	20	23	23	22	20	15	10	18	15	16	13	12	12	13	9	15.7	23.5	
16-Apr	9	11	10	9	11	13	14	16	16	14	9	14	21	22	20	19	17	19	14	6	7	10	10	9	13.4	22.0	
17-Apr	7	3	6	4	4	3	4	3	6	7	14	19	22	25	26	25	31	F	F	F	F	F	F	F	--	9.5	
19-Apr	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	9	8.1	12.3
20-Apr	10	9	10	10	8	9	7	3	2	8	11	9	6	7	8	12	12	12	9	9	7	6	6	6	13.4	25.0	
21-Apr	6	7	8	11	9	10	10	9	12	12	15	13	15	21	25	25	23	21	17	12	13	10	8	7	10.4	15.4	
22-Apr	11	14	13	14	14	9	7	7	8	4	3	5	7	12	14	15	14	15	12	11	10	10	10	11	10.4	15.4	
23-Apr	15	14	16	21	22	22	24	26	26	29	27	32	33	32	34	35	32	30	29	32	38	30	34	31	27.7	37.5	
24-Apr	18	15	14	20	20	17	8	7	9	9	8	7	8	6	3	2	3	8	9	9	9	10	11	13	10.1	19.8	
25-Apr	12	13	13	13	14	11	11	11	10	10	5	4	2	5	9	12	11	10	12	9	10	11	10	8	9.8	13.7	
26-Apr	10	6	5	7	8	10	7	10	10	7	5	5	6	8	9	13	6	6	15	9	8	7	9	8	8.1	14.8	
27-Apr	9	11	11	11	8	7	9	13	17	14	16	16	16	17	20	26	31	31	36	33	25	24	23	19	18.3	36.3	
28-Apr	19	23	27	24	23	23	24	24	21	17	11	7	7	8	7	9	11	9	9	8	6	10	9	7	14.2	26.7	
29-Apr	5	9	6	12	15	14	11	13	20	23	26	28	30	26	24	22	22	23	25	18	19	11	13	16	18.0	30.0	
30-Apr	17	15	13	15	14	12	11	13	14	16	15	14	13	11	10	6	11	8	7	11	13	13	15	17	12.7	17.0	
31-Apr	18	15	13	12	12	11	14	17	18	18	16	22	19	19	19	22	25	22	21	25	20	22	19	14	18.0	24.6	
12.3 12.4 12.4 12.7 13.2 13.3 13.0 13.2 14.5 14.5 15.2 15.9 16.5 17.0 17.4 17.7 17.2 16.5 15.6 14.2 13.7 13.2 13.1 12.2																								Diurnal Average			
22.9 25.6 26.7 24.0 23.5 22.7 24.2 25.8 29.2 30.5 38.6 38.2 36.9 35.3 36.8 36.4 32.2 30.9 36.3 32.6 37.5 29.6 34.0 31.3																								Diurnal Maximum			
P - Power Failure																											
All monthly, daily, and diurnal averages have been calculated using scalar methods																											

## Hourly Standard Deviations

Wind Direction (WD) - deg

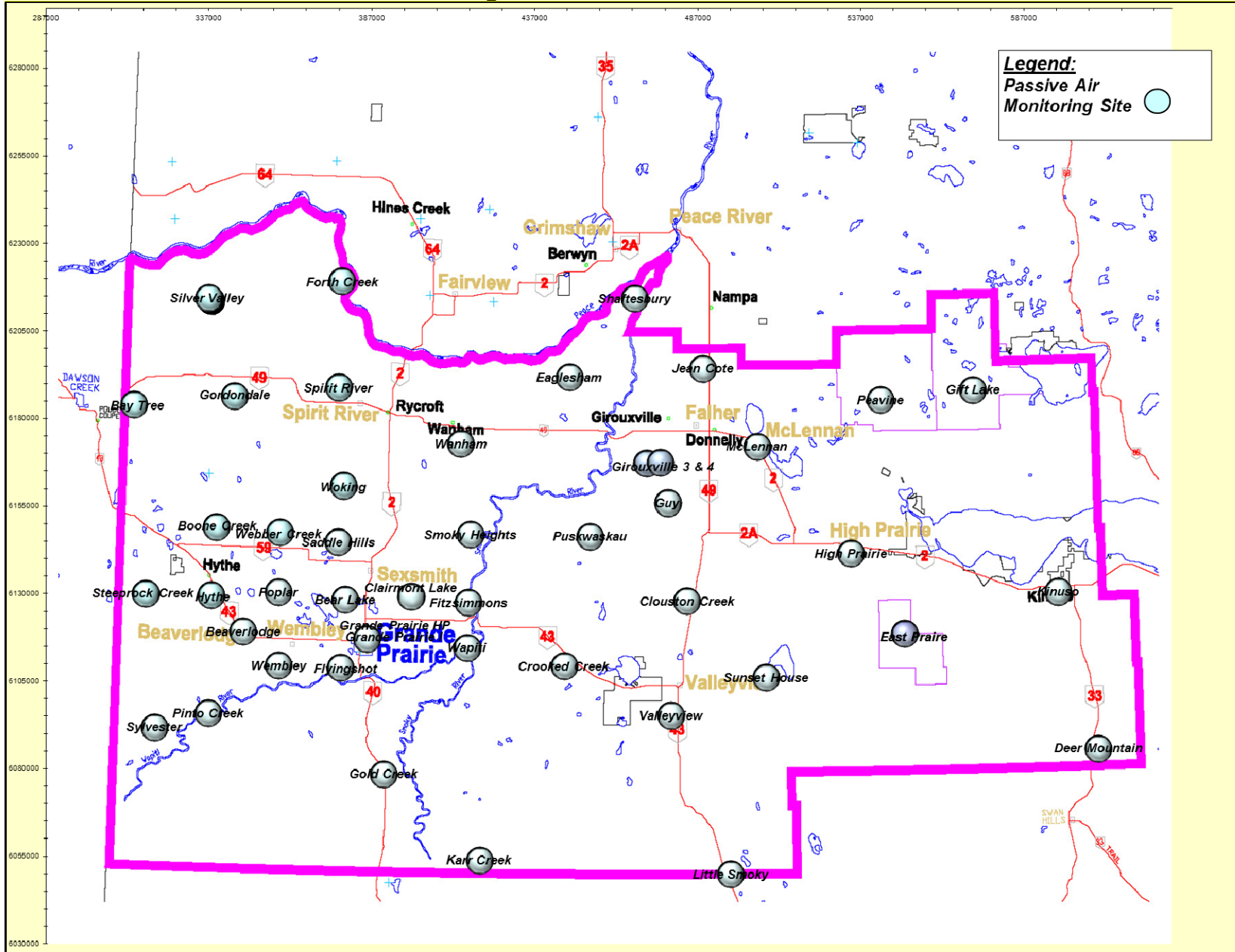
Falher - April 2014

Maximum Value: 93.5 deg on Apr 5 12:00																								Hours in Service:	720	
Minimum Value: 0.9 deg on Apr 7 05:00																								Hours of Data:	690	
Percentiles: P <sub>1</sub> = 1.7 P <sub>10</sub> = 2.9 Q <sub>1</sub> = 4.3 Median = 7.3 Q <sub>3</sub> = 13.0 P <sub>90</sub> = 26.0 P <sub>99</sub> = 81.0																								Hours of Missing Data:	30	
																								Hours of Calibration:	0	
																								Percent Operational Time:	95.8	
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-Apr	12	14	11	34	42	34	16	27	33	12	28	9	5	9	10	19	13	14	27	5	4	6	9	20	41.7	
2-Apr	17	6	9	18	7	7	4	3	4	4	4	6	10	6	5	7	5	6	4	17	9	4	18	11	18.5	
3-Apr	18	5	33	11	3	2	5	9	3	4	2	2	2	2	2	2	2	2	2	2	4	2	2	3	32.8	
4-Apr	5	3	8	13	9	4	9	13	7	6	4	4	3	4	3	4	6	4	13	24	6	33	9	4	32.6	
5-Apr	18	7	6	7	4	7	4	3	6	7	29	93	10	23	29	10	5	7	6	12	15	12	17	4	93.5	
6-Apr	13	6	12	6	3	11	7	4	12	2	4	2	2	2	3	3	4	5	5	3	8	3	2	13.0		
7-Apr	2	4	3	4	1	4	7	11	14	9	10	16	12	4	7	32	26	14	8	6	5	16	17	11	32.2	
8-Apr	3	6	7	5	5	8	4	6	9	81	54	86	8	10	3	3	5	3	2	4	13	7	13	4	86.0	
9-Apr	3	2	6	2	2	2	2	5	3	5	3	3	2	3	2	4	3	3	4	3	13	7	7	7	12.5	
10-Apr	2	5	4	3	3	2	2	2	9	6	5	5	24	66	54	6	19	7	26	59	24	26	7	6	66.0	
11-Apr	17	11	24	5	7	8	60	17	8	6	3	7	5	6	5	4	5	4	4	4	10	8	5	12	59.7	
12-Apr	42	10	14	43	6	5	15	26	10	6	6	8	6	7	6	7	6	32	8	10	4	7	3	6	43.3	
13-Apr	81	13	9	15	5	5	4	5	8	15	8	9	6	7	11	5	4	5	2	3	2	3	2	2	81.1	
14-Apr	3	2	2	8	5	3	9	5	15	22	48	34	18	10	6	9	15	7	60	36	12	16	79	61	79.3	
15-Apr	16	21	5	5	9	4	5	3	6	5	7	5	5	6	11	10	17	6	14	3	7	4	3	11	20.9	
16-Apr	6	5	8	8	5	5	5	10	11	19	28	19	7	8	8	9	7	6	10	20	30	11	7	4	29.6	
17-Apr	4	80	5	38	56	45	23	39	19	21	16	9	9	6	9	9	5	P	P	P	P	P	P	P	80.2	
18-Apr	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	5	5.1
19-Apr	7	3	6	7	5	10	20	38	40	14	8	12	63	20	15	10	10	5	4	8	13	21	89	22	89.2	
20-Apr	65	34	12	11	7	13	2	5	7	10	6	10	10	18	10	10	7	8	5	6	12	10	12	8	64.6	
21-Apr	20	4	6	6	4	15	14	12	8	34	67	24	28	15	16	13	11	5	4	6	3	8	12	5	66.7	
22-Apr	9	20	12	4	3	2	4	3	4	5	4	5	4	4	4	5	3	2	6	6	3	4	3	3	20.4	
23-Apr	14	7	12	3	4	5	10	12	5	3	6	7	4	12	15	42	10	5	9	3	4	5	4	3	41.9	
24-Apr	4	3	4	4	3	3	5	4	7	5	11	18	73	32	11	12	12	18	13	11	4	5	9	12	72.9	
25-Apr	8	8	26	19	12	12	27	13	6	14	21	24	62	22	26	16	42	87	11	7	18	12	8	7	86.7	
26-Apr	8	5	7	8	11	5	10	9	7	11	12	17	15	13	10	7	5	5	3	3	3	3	9	7	16.6	
27-Apr	5	2	3	3	3	3	3	3	4	6	14	22	36	21	44	25	24	31	23	7	10	13	16	47	47.5	
28-Apr	82	20	46	15	5	5	4	10	7	8	11	11	8	10	13	13	8	11	11	7	29	18	4	6	82.2	
29-Apr	3	7	12	4	2	4	5	11	13	10	17	20	27	37	33	71	34	31	25	9	7	4	4	5	71.0	
30-Apr	3	3	4	5	7	9	14	4	6	15	13	10	16	16	20	15	9	10	9	3	4	4	3	3	20.2	
82.2	80.2	45.8	43.3	56.3	45.3	59.7	38.7	39.9	81.4	66.7	93.5	72.9	66.0	53.6	71.0	42.1	86.7	59.6	58.5	29.6	32.6	89.2	61.4			
P - Power Failure																										

# PAZA

## Monthly Passive Data Summary

# Location of PAZA Passive Monitoring Stations



## PAZA Passive Results for April 2014

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
<b>Duplicates</b>						
2a	Bay Tree	0.3	39.5	0.4		
2b	Bay Tree	0.3	37.6	0.3		
11a	Webber Creek	0.3	42.7	0.4		
11b	Webber Creek	0.3	34.6	0.4		
20a	Shaftesbury	0.2	40.6	0.3		
20b	Shaftesbury	0.2	47.8	0.3		
41a	Valleyview	0.2	43.7	0.3		
41b	Valleyview	0.3	42.2	0.3		
64a	Girouxville 4				0.2	
64b	Girouxville 4				0.2	
1	Silver Valley	0.3	42.6	0.2		08-27-081-11 W6M
2	Bay Tree	0.3	38.6	0.4		13-16-078-13 W6M
3	Fourth Creek	0.2	43.8	0.2		04-13-082-07 W6M
4	Gordondale	0.3	43.2	0.3		04-34-078-10 W6M
5	Boone Creek	0.2	34.6	0.2		16-36-074-11 W6M
7	Steepprock Creek	0.2	39.8	0.3		09-35-072-13 W6M
9	Spirit River	0.2	49.3	0.4		08-12-079-07 W6M
10	Woking	0.2	44.5	0.3		01-13-076-07 W6M
11	Webber Creek	0.3	38.7	BDL		09-36-074-09 W6M
12	Hythe	0.2	36.9	0.8		14-36-072-11 W6M
14	Sylvester	0.1	27.4	0.6		08-06-069-12 W6M
16	Beaverlodge	0.5	48.1	0.6		15-36-071-10 W6M
17	Poplar	0.2	39.4	0.5		13-06-073-08 W6M
18	Saddle Hills	0.2	34.2	0.2		04-25-074-07 W6M
19	Wanham	0.2	43.7	0.3		16-22-077-03 W6M
20	Shaftesbury	0.2	44.2	0.3		04-03-082-23 W5M
21	Eaglesham	0.3	37.3	0.2		16-21-079-25 W5M
23	Bear Lake	0.3	35.6	0.6		15-31-072-06 W6M
24	Wembley	0.2	36.6	0.9		12-31-070-08 W6M
25	Pinto Creek	0.1	37.0	0.4		04-24-069-11 W6M
26	Flyingshot	0.2	38.2	0.9		15-36-070-07 W6M
27	Grande Prairie I	0.2	35.8	3.2		08-15-071-06 W6M

## PAZA Passive Results for April 2014 (Continued)

28	Clairmont Lake	0.2	41.0	0.4		09-06-073-04 W6M
29	Smoky Heights	0.3	45.2	0.4		04-06-075-02 W6M
30	Fitzsimmons	0.1	39.7	0.3		15-36-072-03 W6M
32	Gold Creek	0.1	32.6	0.8		06-33-067-05 W6M
33	Wapiti	N/S	N/S	N/S		02-25-071-03 W6M
34	Puskwaskau	0.1	40.8	BDL		15-35-074-25 W5M
35	Jean Cote	0.1	52.2	0.3		12-35-079-21 W5M
36	Guy	0.3	42.8	0.2		03-04-076-22 W5M
37	Crooked Creek	0.2	45.2	0.2		16-01-071-26 W5M
38	Karr Creek	0.1	31.1	0.4		10-16-065-02 W6M
39	Clouston Creek	0.2	46.2	0.3		12-01-073-22 W5M
40	McLennan	0.6	47.3	0.5		03-29-077-19 W5M
41	Valleyview	0.2	42.9	0.3		09-30-069-22 W5M
42	Sunset House	0.2	46.9	0.1		05-32-070-19 W5M
43	High Prairie	0.1	43.9	0.5		16-13-074-17 W5M
44	Peavine	0.2	43.0	BDL		03-05-079-15 W5M
45	Gift Lake	0.1	39.3	0.1	BDL	10-07-079-12 W5M
46	Little Smoky	0.4	37.7	1.0		12-01-065-21 W5M
47	Kinuso	0.2	37.9	BDL		12-10-073-10 W5M
48	Deer Mountain	0.2	44.0	0.2		15-22-068-09 W5M
49	Grande Prairie HP	0.2	40.5	2.9		17-26-071-06 W6M
50	East Prairie	0.2	37.9	0.4		13-02-072-15 W5M
63	Girouxville 3				0.2	14-02-077-23 W5M
64	Girouxville 4				0.2	4-08-077-22 W5M

\*BDL = Below Detection Level

\*N/S - No sample

## Passive Summary for April 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 April 2014 (PAZA Zone)				
<b>Mean</b>	<b>0.2</b>	<b>40.6</b>	<b>0.5</b>	<b>0.2</b>
<b>Standard Deviation</b>	<b>0.1</b>	<b>5.1</b>	<b>0.6</b>	<b>0.0</b>
<b>Minimum</b>	<b>0.1</b>	<b>27.4</b>	<b>0.1</b>	<b>0.2</b>
<b>Minimum At</b>	<b>Puskwaskau (#34)</b>	<b>Sylvester (#14)</b>	<b>Sunset House (#42)</b>	<b>Girouxville 4 (#64)</b>
<b>Maximum</b>	<b>0.6</b>	<b>52.2</b>	<b>3.2</b>	<b>0.2</b>
<b>Maximum At</b>	<b>McLennan (#40)</b>	<b>Jean Cote (#35)</b>	<b>Grande Prairie I (#27)</b>	<b>Girouxville 3 (#63)</b>

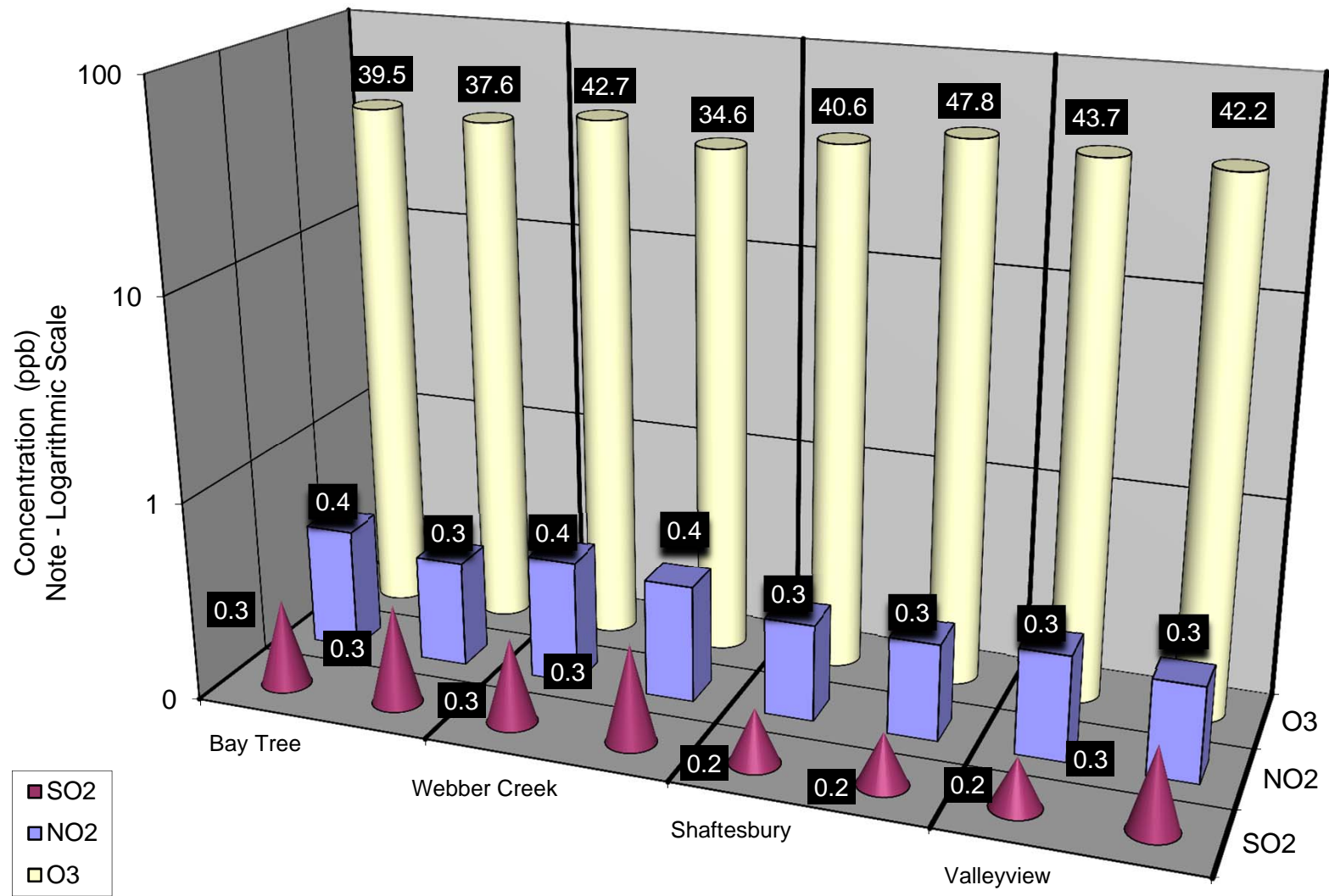
### Comparison between Continuous and Passive monitoring at Beaverlodge (passive #16 Beaverlodge)

	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
PAZA Beaverlodge station	0.3	39.6	2.2
PAZA Beaverlodge passive	0.5	48.1	0.6

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

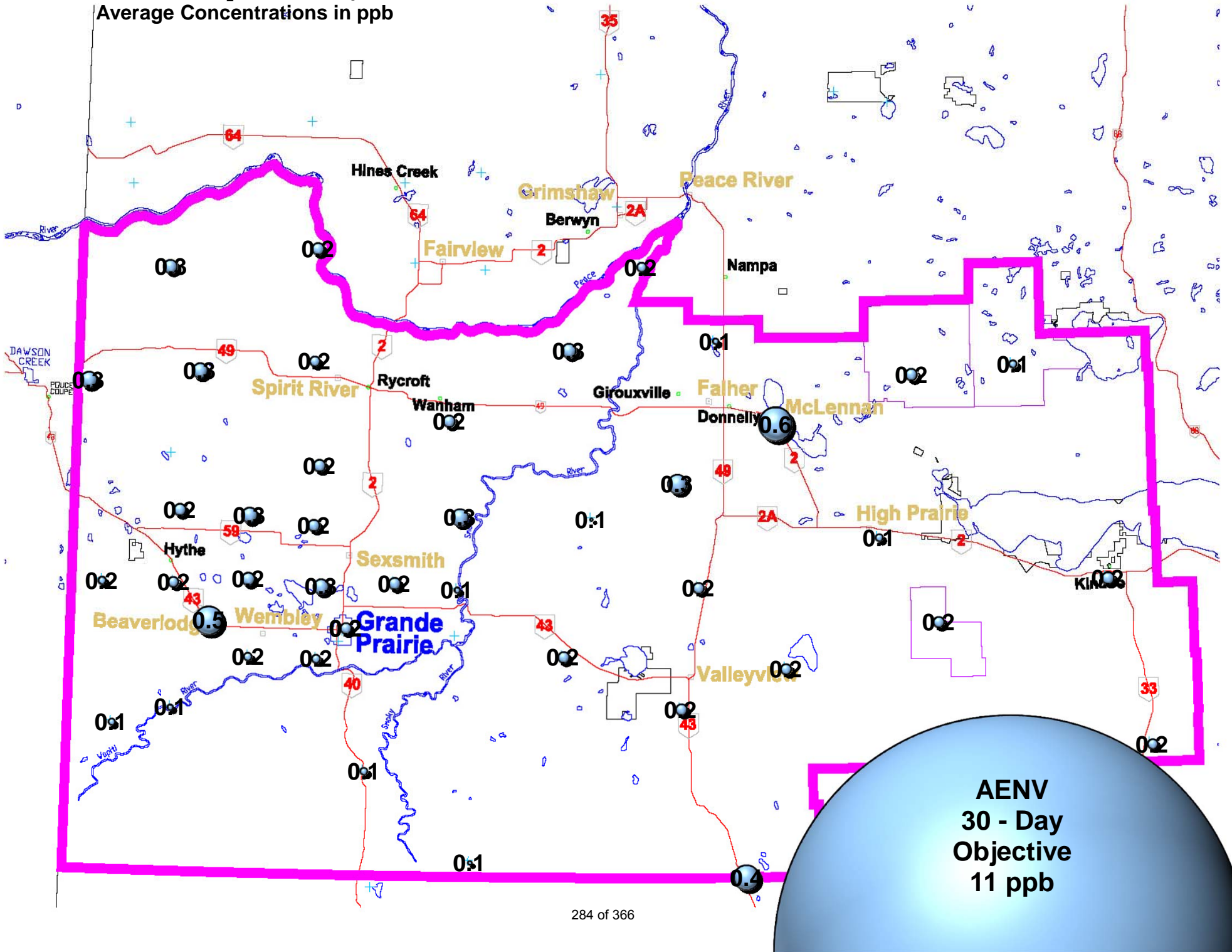
	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
PAZA Henry Pirker station	0.3	29.0	7.3
PAZA Grande Prairie passive	0.2	40.5	2.9





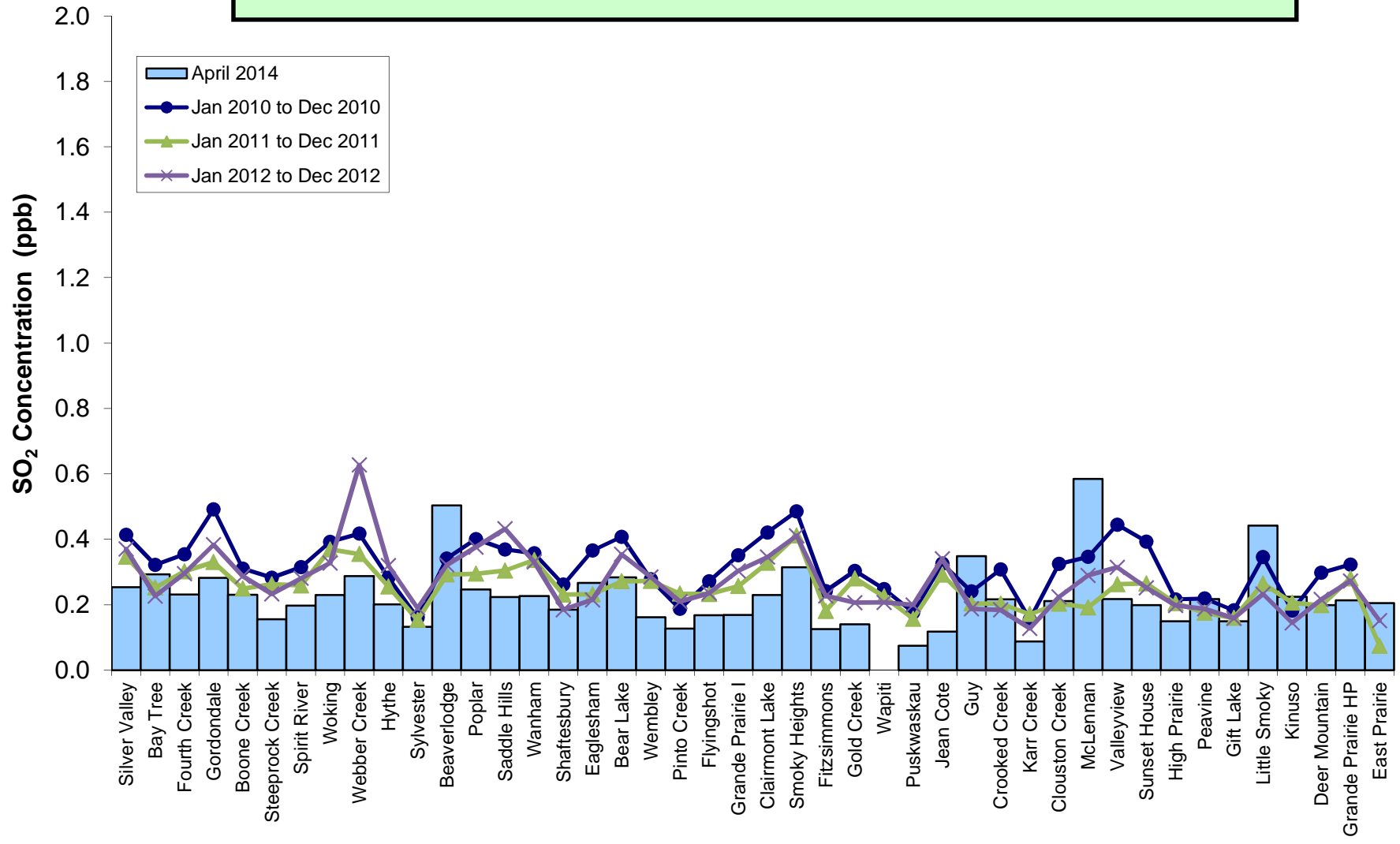
Duplicate Summary Chart

PAZA Passive SO<sub>2</sub> Stations - April 2014  
Average Concentrations in ppb



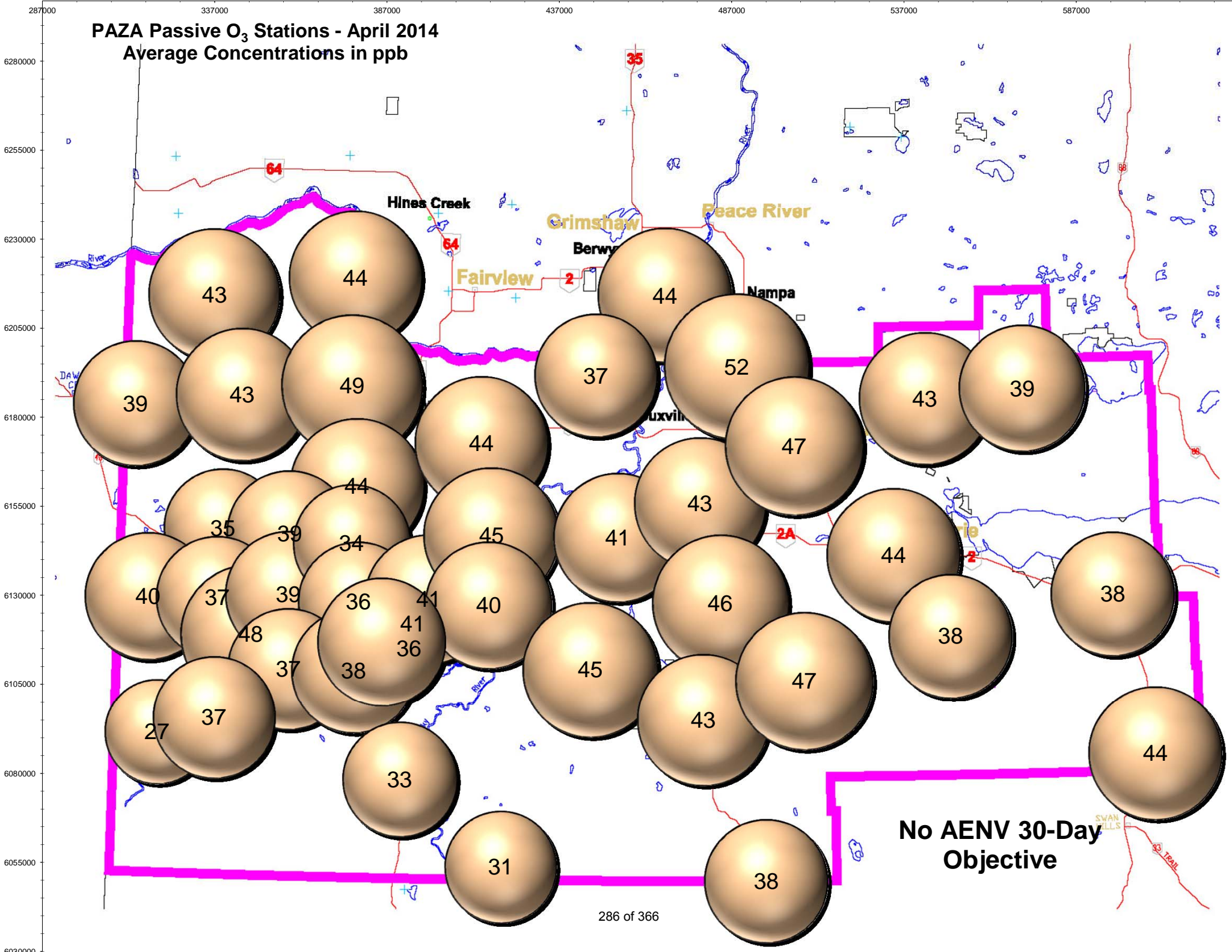
**AENV  
30 - Day  
Objective  
11 ppb**

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



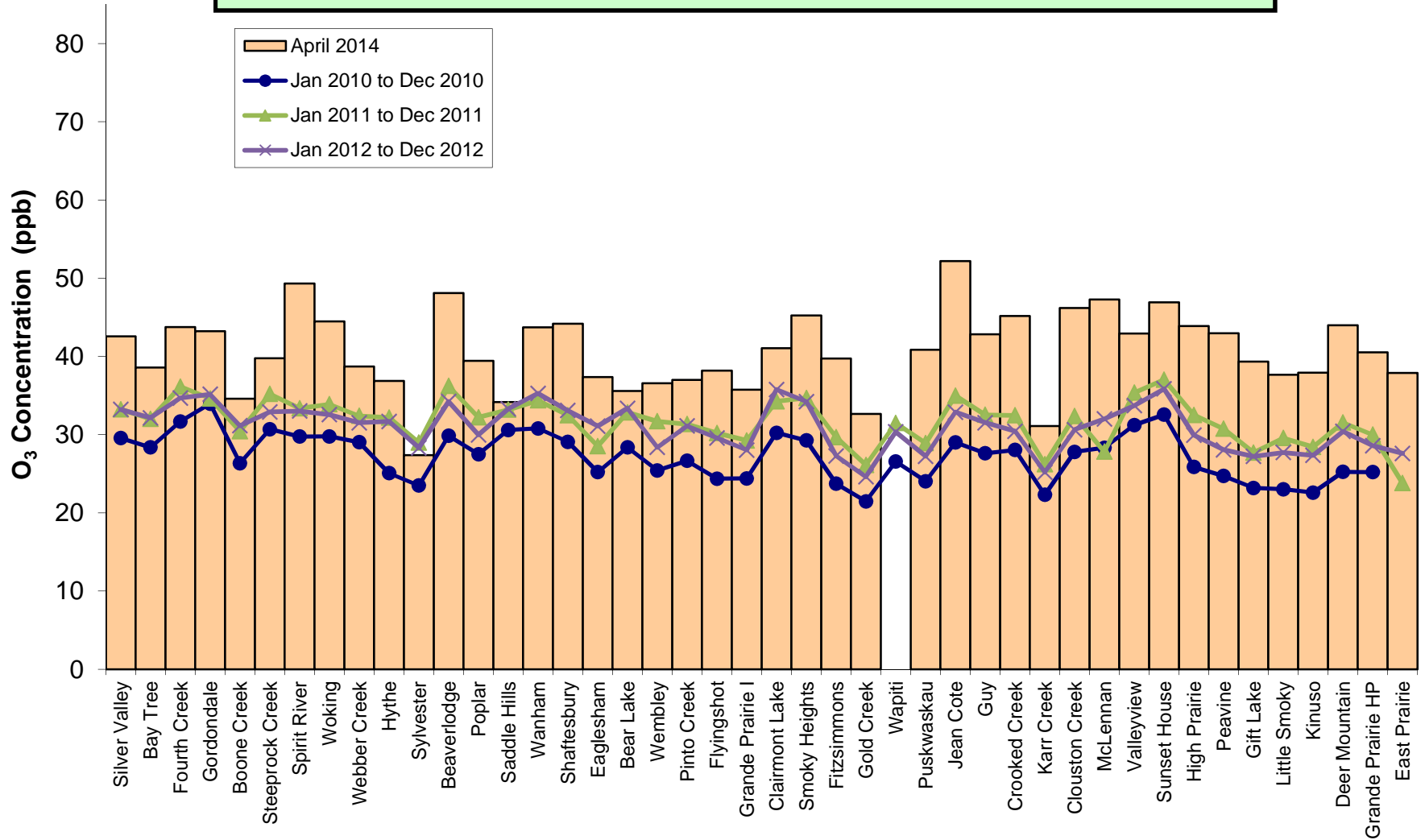


**PAZA Passive O<sub>3</sub> Stations - April 2014**  
**Average Concentrations in ppb**

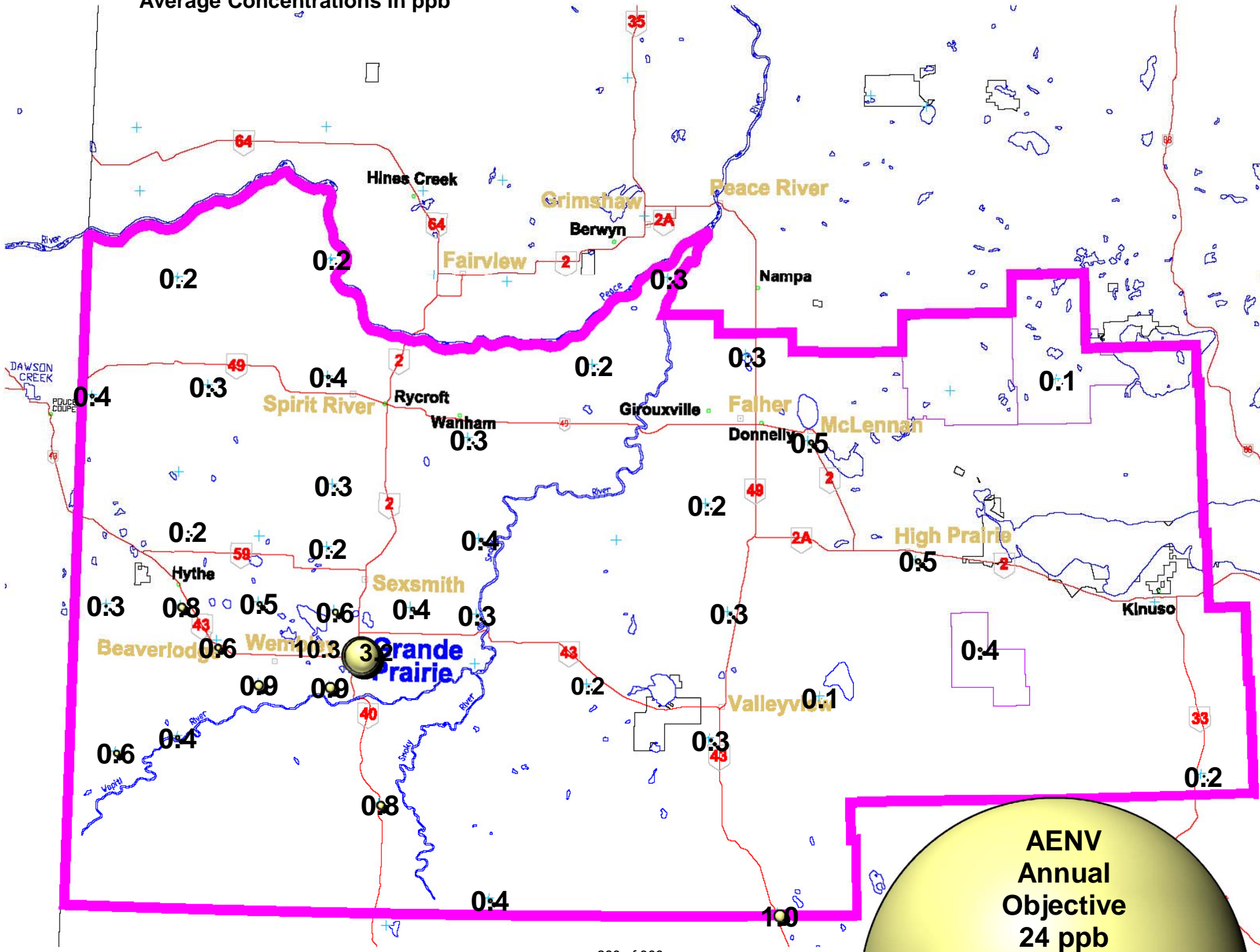


**No AENV 30-Day Objective**

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

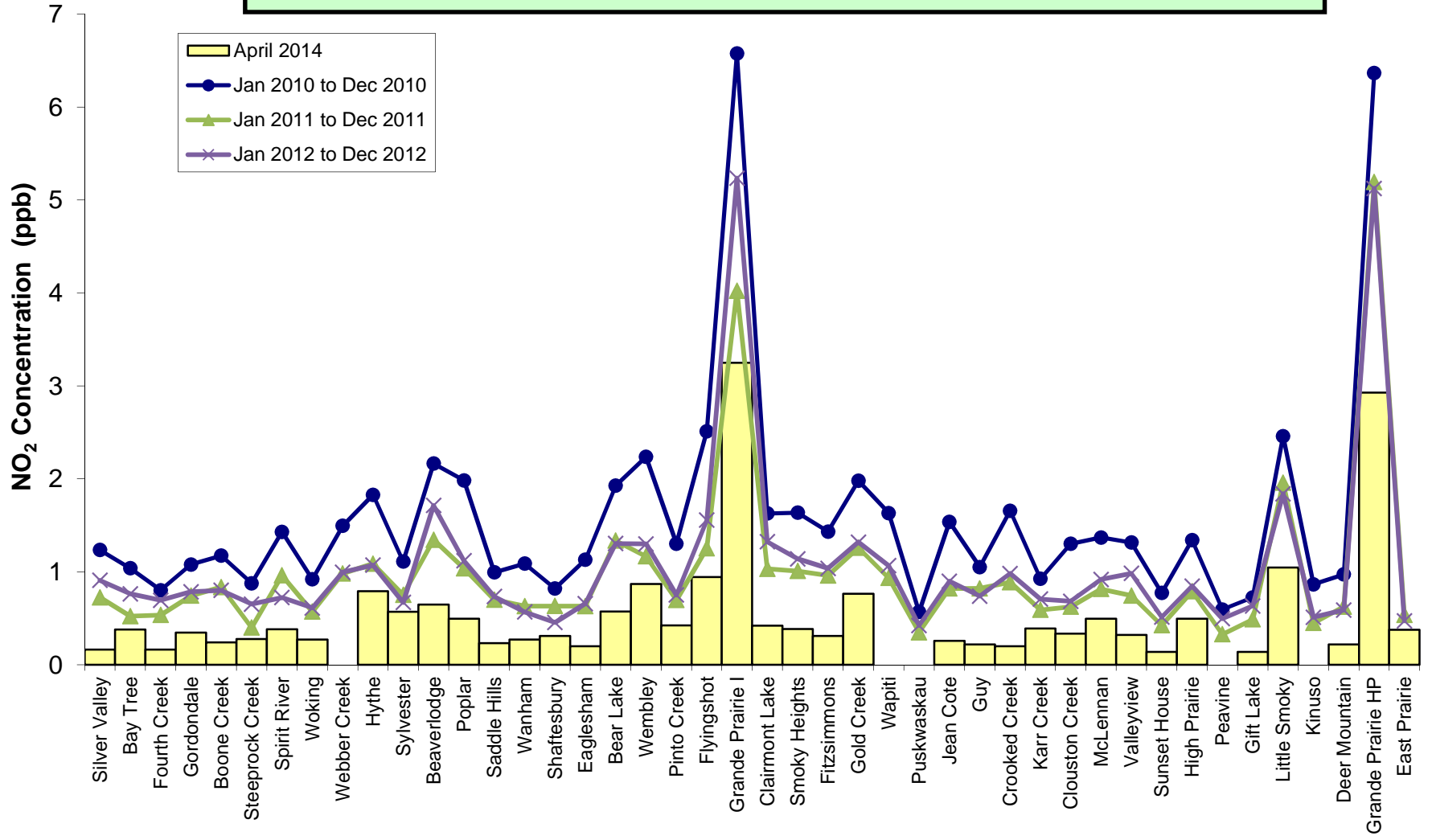


**PAZA Passive NO<sub>2</sub> Stations - April 2014**  
**Average Concentrations in ppb**



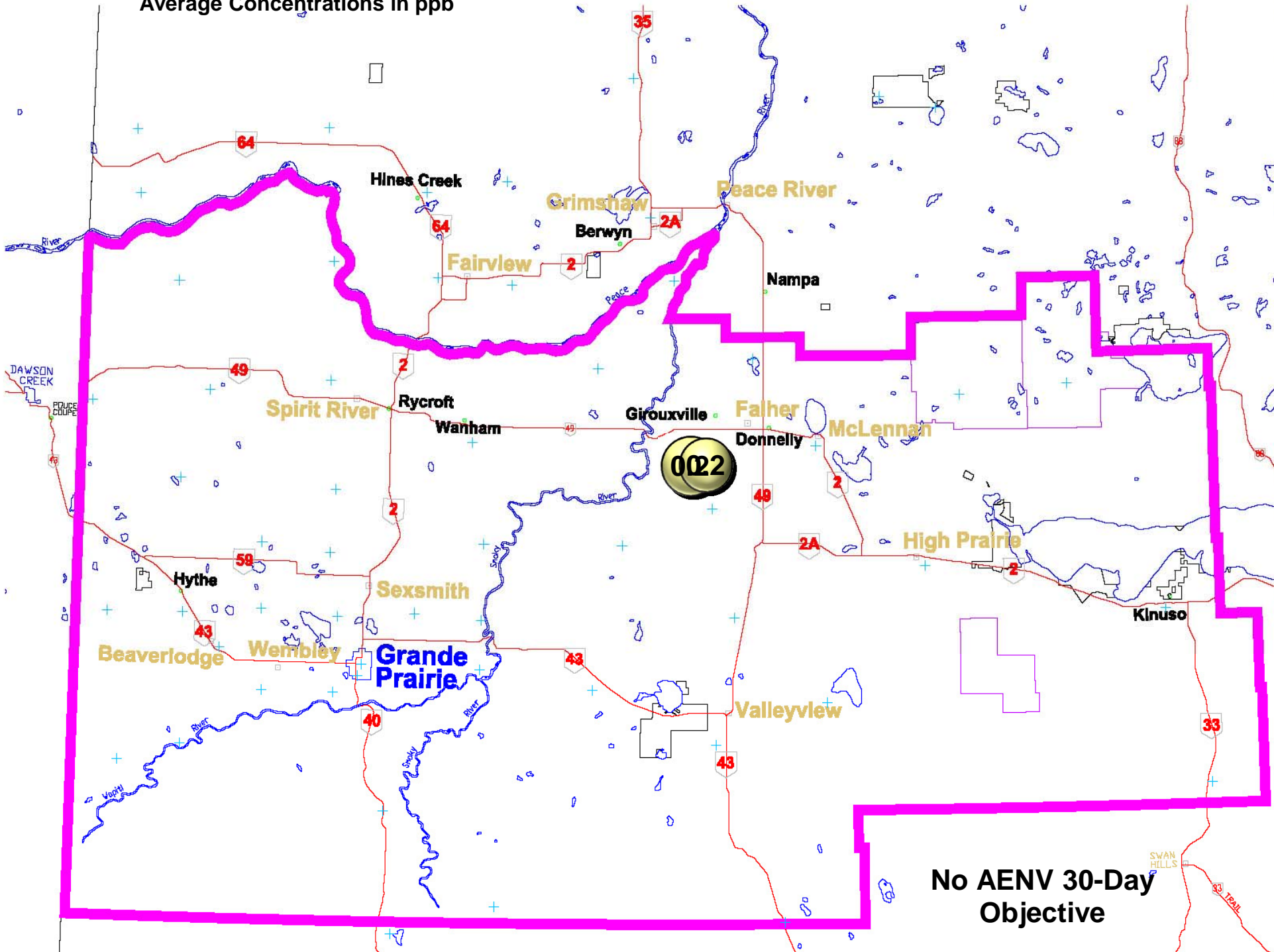
**AENV  
 Annual  
 Objective  
 24 ppb**

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





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



No AENV 30-Day Objective



# April 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**

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

# Calibration Report



Parameter SO2

Air Monitoring Network PAZA

## Station Information

Calibration Date	April 9, 2014	Previous Calibration	March 4, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	7:50	End Time (MST)	11:55
Barometric Pressure	717.000 mm	Station Temperature	20.5 Deg C
Calibrator		Serial Number	3016
Cal Gas Conc	51.5 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	1.001416	Calculated slope	1.003625
Calculated intercept	1.926454	Calculated intercept	1.595514
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	641.0	mm Hg	641.3	mm Hg
Flow	0.475	lpm	0.475	lpm
Lamp intensity	43695	Hz	43498	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	0.0	N/A
4995	39.93	408.4	406.2	1.0055
4995	19.97	205.1	201.8	1.0163
4995	9.97	102.6	99.2	1.0343
4995	0.00	0.0	0.0	As Found Zero
4995	39.93	408.4	406.2	As Found Span
Average Correction Factor				1.0187

Calculated value of As Found Response: 408.7 ppb      Percent Change of As Found: -0.1%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	250.7	ppb	255.5	ppb

Notes: No adjustments made.

Calibration Performed By: Dmytro Dolotii

# Calibration Summary

Parameter SO2  
 Air Monitoring Network PAZA



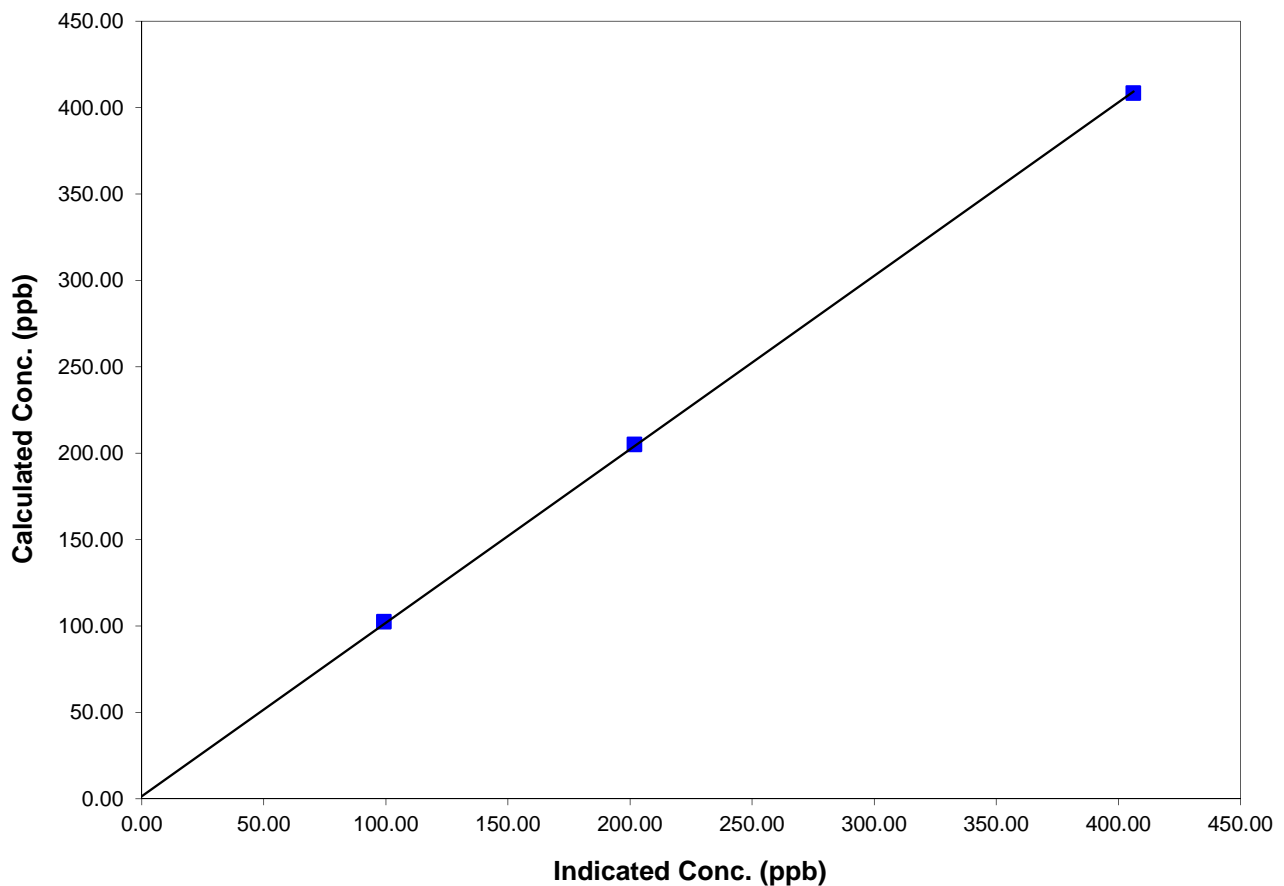
### Station Information

Calibration Date	April 9, 2014	Previous Calibration	March 4, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:50	End Time (MST)	11:55
Analyzer make/model	TEI 43C	Analyzer serial #	610816292

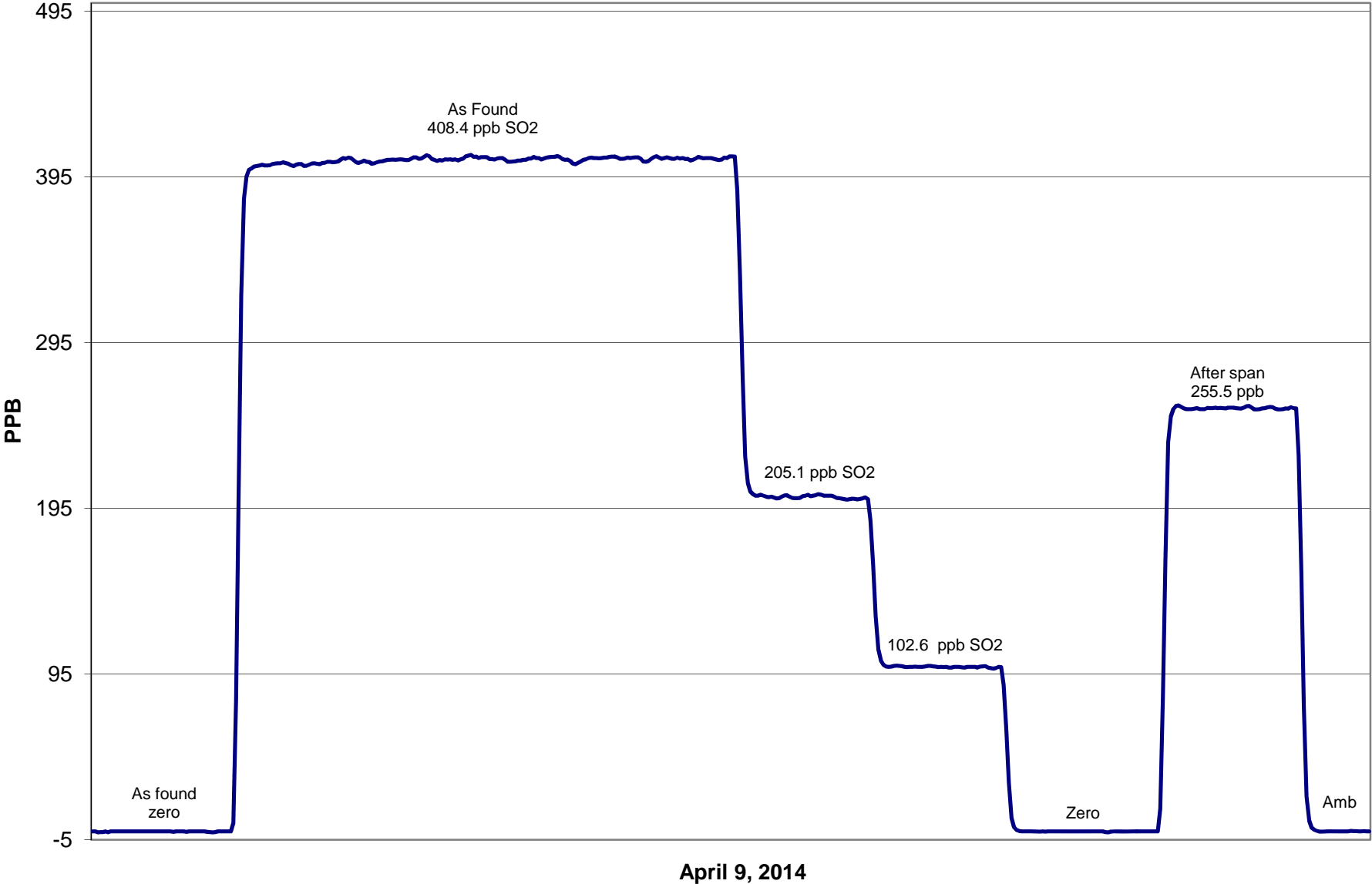
### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
408.4	406.2	1.0055	Correlation Coefficient	0.999932
205.1	201.8	1.0163		
102.6	99.2	1.0343	Slope	1.003625
			Intercept	1.595514

## 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	April 9, 2014	Previous Calibration	March 4, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	<b>Routine</b>	Installation	Removal
Start Time (MST)	7:50	End Time (MST)	13:40:00 PM
Barometric Pressure	717.000 mm	Station Temperature	20.5 Deg C
Calibrator	EnviroNics	Serial Number	3016
NO Cal Gas Conc	51.3 ppm	Cal Gas Expiry Date	March 12, 2014
NO <sub>x</sub> Cal Gas Conc	51.4 ppm	Cal Gas Serial #	LL105159

## DACS Information

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

Parameter	NO2	NOx	NO
Before	Data Slope	1.010383	0.999255
	Data Offset	0.872505	1.875250
After	Data Slope	0.998626	0.999069
	Data Offset	0.491737	1.412778
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	13.2	mV	13.2	mV
NO <sub>x</sub> bkgnd	13.6	mV	13.6	mV
NO coefficient	1.075		1.075	
NO <sub>x</sub> coefficient	1.000		1.000	
NO2 conv temp	318.0	Deg C	319.0	Deg C
Cooler	-2.5	Deg C	-2.5	Deg C
PMT Volt	-774.0	mV	-775.0	mV
R Cell Press	197.6	in Hg	199.1	in Hg

# Calibration Report

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



Calibration Date: **April 9, 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	-0.3	-0.1	-0.2	N/A	N/A	
1	4995	39.93	407.6	406.8	0.8	407.1	406.5	0.5	1.0013	1.0008	
2	4995	19.97	204.7	204.3	0.4	202.9	202.3	0.4	1.0089	1.0099	
3	4995	9.97	102.4	102.2	0.2	100.0	99.6	0.3	1.0237	1.0262	
AFZ	4995	0.00	0.0	0.0	0.0	-0.3	-0.1	-0.2	0.0000	0.0000	
AFS	4995	39.93	407.6	406.8	0.8	407.1	406.5	0.5	1.0013	1.0008	
									Average Correction Factor	1.0113	1.0123

As Found Concentrations: **NO<sub>x</sub>= 409.1** **NO= 408.4** As Found Percent Change **NO<sub>x</sub>= 0.4%** **NO= 0.4%**

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	-0.3	-0.1	-0.2	N/A	N/A	N/A	N/A	
NO point	406.8	406.8	0.0	407.2	406.8	0.3	0.9989	1.0000	N/A	N/A	
300	406.8	98.2	308.6	406.8	98.2	308.8	0.9999	1.0000	0.9993	100.1%	
200	406.8	198.0	208.8	406.1	198.0	208.3	1.0015	1.0000	1.0024	99.8%	
100	406.8	298.2	108.5	406.2	298.2	107.9	1.0014	1.0000	1.0056	99.4%	
							Average Correction Factor	1.0009	1.0000	1.0024	99.8%

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO	ppb	NOx	NO2	NO	ppb
Auto zero	0.0	0.0	-0.1	ppb	-0.4	-0.1	-0.1	ppb
Auto span	329.9	327.5	2.4	ppb	339.5	338.0	1.8	ppb

Calibration Performed By: Dmytro Dolotii

# Calibration Summary

Parameter NO<sub>2</sub>

Air Monitoring Network PAZA



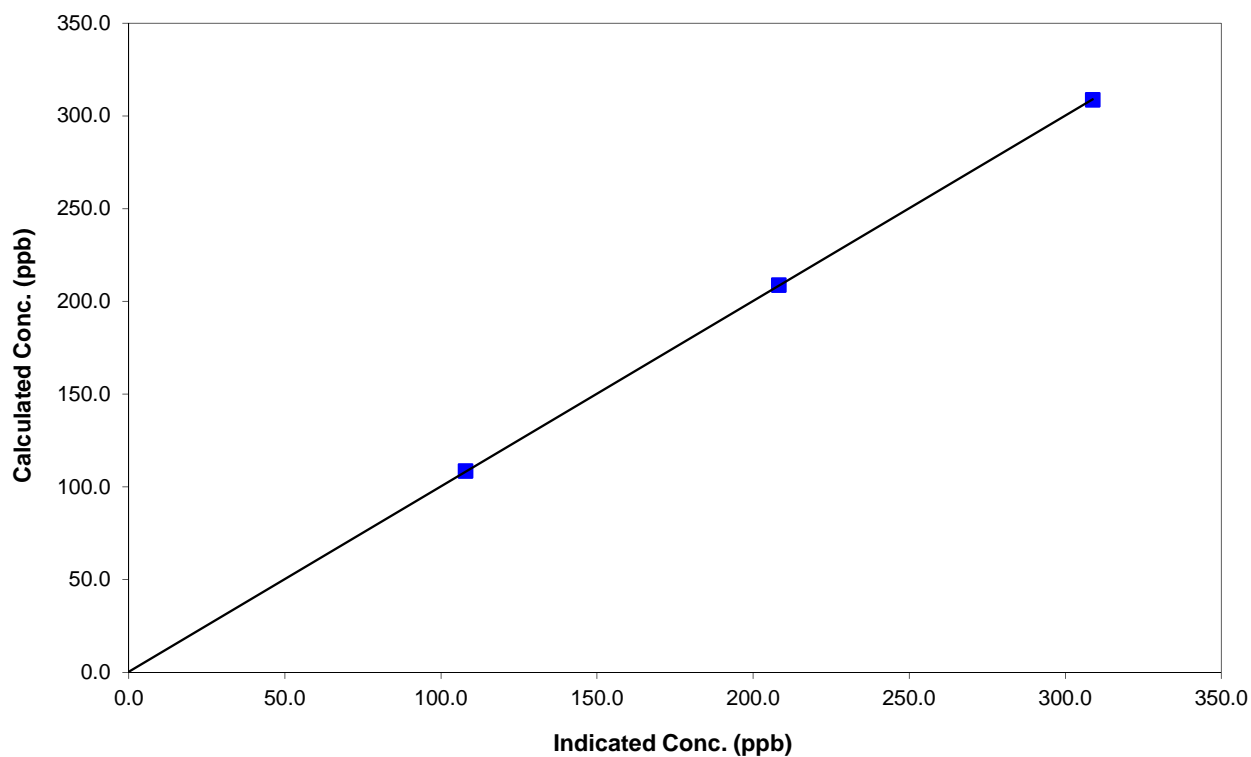
## Station Information

Calibration Date	April 9, 2014	Previous Calibration	March 4, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:50	End Time (MST)	13:40:00 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	-0.2	N/A	Correlation Coefficient	0.999994
308.6	308.8	0.9993		
208.8	208.3	1.0024	Slope	0.998626
108.5	107.9	1.0056		
			Intercept	0.491737

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



# Calibration Summary

Parameter NO<sub>x</sub>

Air Monitoring Network PAZA



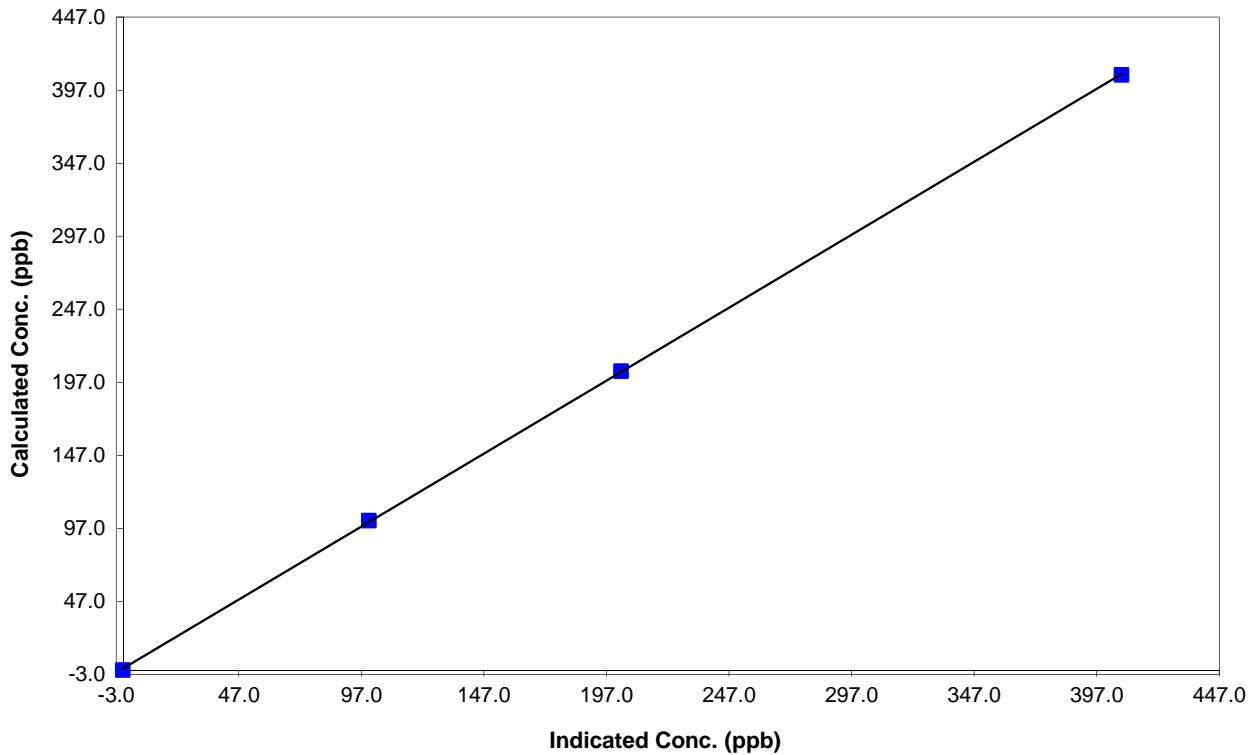
## Station Information

Calibration Date	April 9, 2014	Previous Calibration	March 4, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:50	End Time (MST)	13:40:00 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	-0.3	N/A	Correlation Coefficient	0.999969
407.6	407.1	1.0013		
204.7	202.9	1.0089	Slope	0.999166
102.4	100.0	1.0237		
			Intercept	1.412593

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





# Calibration Summary

Parameter NO

Air Monitoring Network PAZA



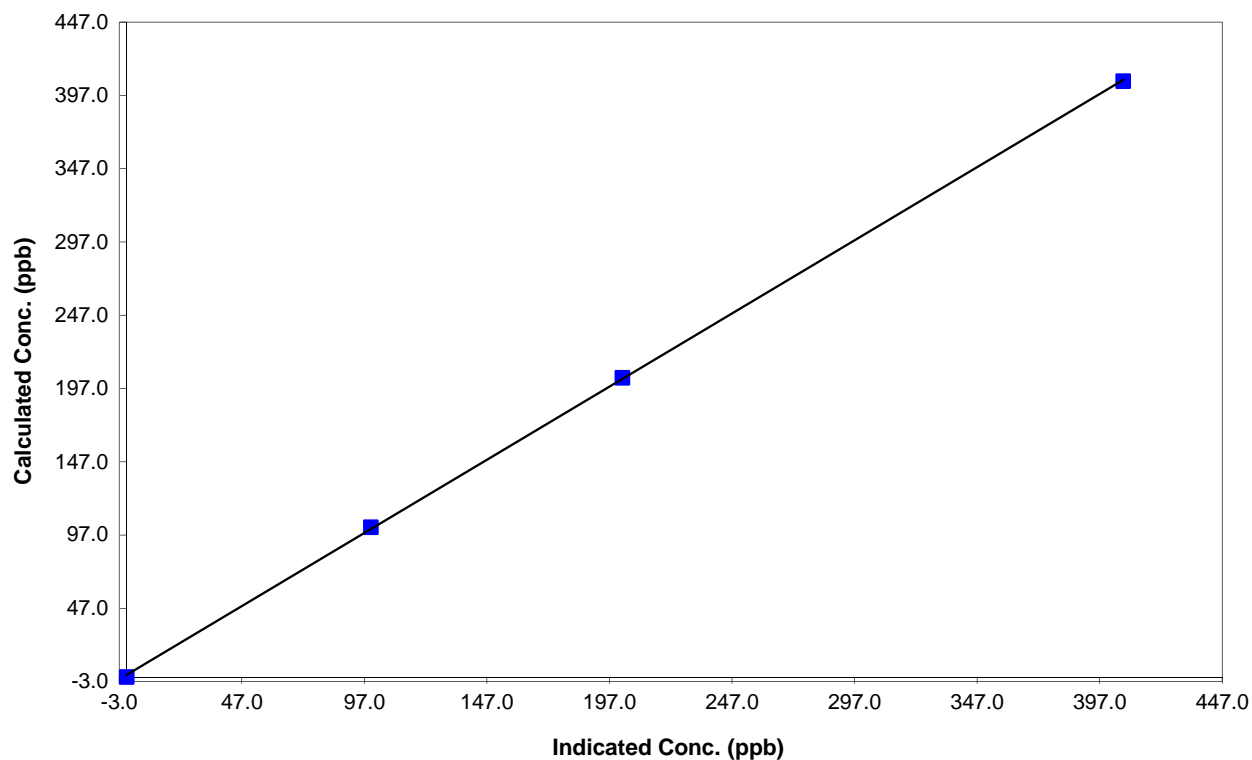
## Station Information

Calibration Date	April 9, 2014	Previous Calibration	March 4, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:50	End Time (MST)	13:40:00 PM
Analyzer make	TEI 42C	Analyzer serial #	508011073

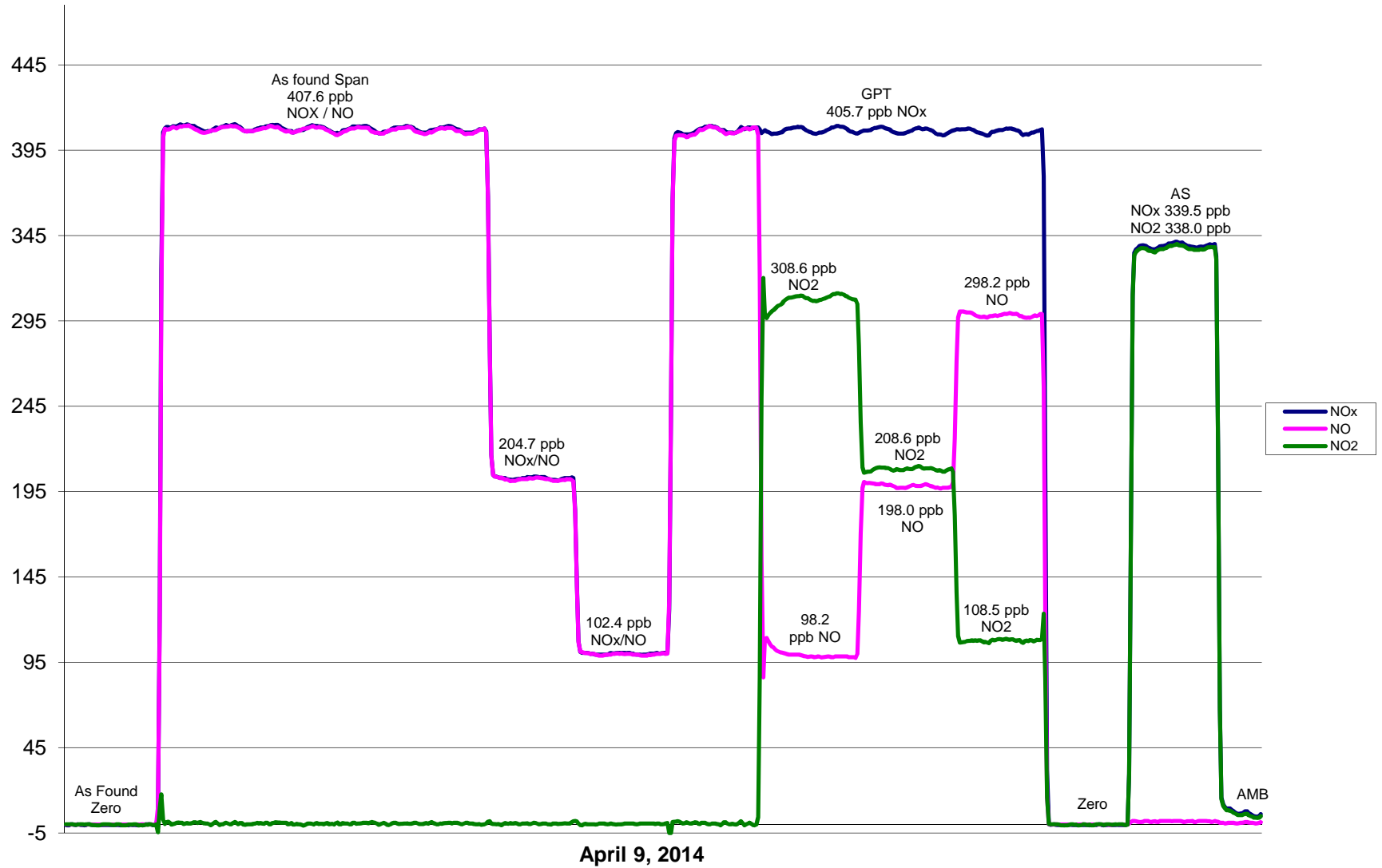
## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999949
406.8	406.5	1.0008		
204.3	202.3	1.0099	Slope	0.999069
102.2	99.6	1.0262		
			Intercept	1.412778

## NO Calibration Curve



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



# Calibration Report



Parameter 03

Air Monitoring Network PAZA

## Station Information

Calibration Date	April 17, 2014	Previous Calibration	March 5, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	<b>Routine</b>	Install	Removal
		Other:	
Start Time (MST)	8:12	End Time (MST)	11:20
Barometric Pressure	mm	Station Temperature	20.5 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.004245	Calculated slope	0.998058
Calculated intercept	1.103744	Calculated intercept	1.246764
Analyzer make	Teco 49C	Analyzer serial #	607415761

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.20	ppb	-0.10	ppb
slope	1.052		0.980	
Lamp temp	56.9	mV	57	mV
Lamp Intensity A/B	103286/93268	mV	89551/82809	mV
Pressure	674	mm Hg	678.5	mm Hg
Flow A	0.721	ccm	0.72	ccm
Flow B	0.724	ccm	0.723	ccm

## Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5035	0.0	0.0	-0.1	N/A
5035	0.3	308.6	309.1	0.9983
5035	0.2	208.8	206.8	1.0097
5035	0.1	108.5	106.3	1.0209
5035	0.0	0.0	-0.1	As found zero
5035	0.3	308.6	312.5	As found span
Average Correction Factor				1.0096

Calculated value of As Found Response: 315.0 ppm      Percent Change of As Found: 2.1%

	before calibration		after calibration	
Auto zero	1.0	ppb	1.2	ppb
Auto span	355.0	ppb	333.8	ppb

Notes: Due to the analyzer issues, calibration wasn't completed on the the 10th of April.  
 April 17th-tried to do the calibration again to replace the analyzer with the spare one.  
 Cal went normal with no issues. Made a decision to not do replacement for now  
 Span adjustment, run adjustment point

Calibration Performed By: Dmytro Dolotii, Grover Christiansen

# Calibration Summary



Parameter 03

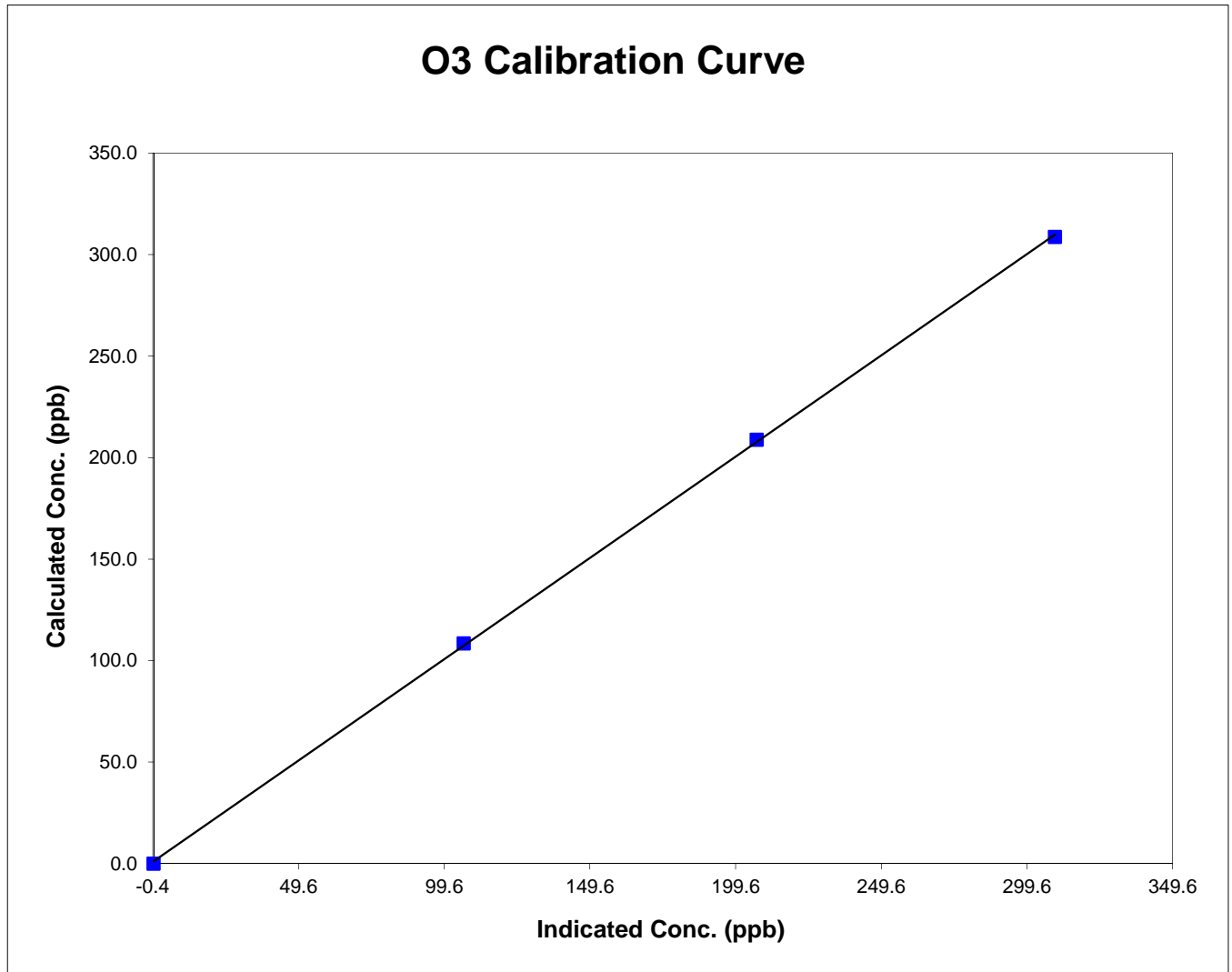
Air Monitoring Network PAZA

### Station Information

Calibration Date	<u>April 17, 2014</u>	Previous Calibration	<u>March 5, 2014</u>
Station Number	<u>1</u>	Station Location	<u>Henry Pirker</u>
Start Time (MST)	<u>8:12</u>	End Time (MST)	<u>11:20</u>
Analyzer make/model	<u>Teco 49C</u>	Analyzer serial #	<u>607415761</u>

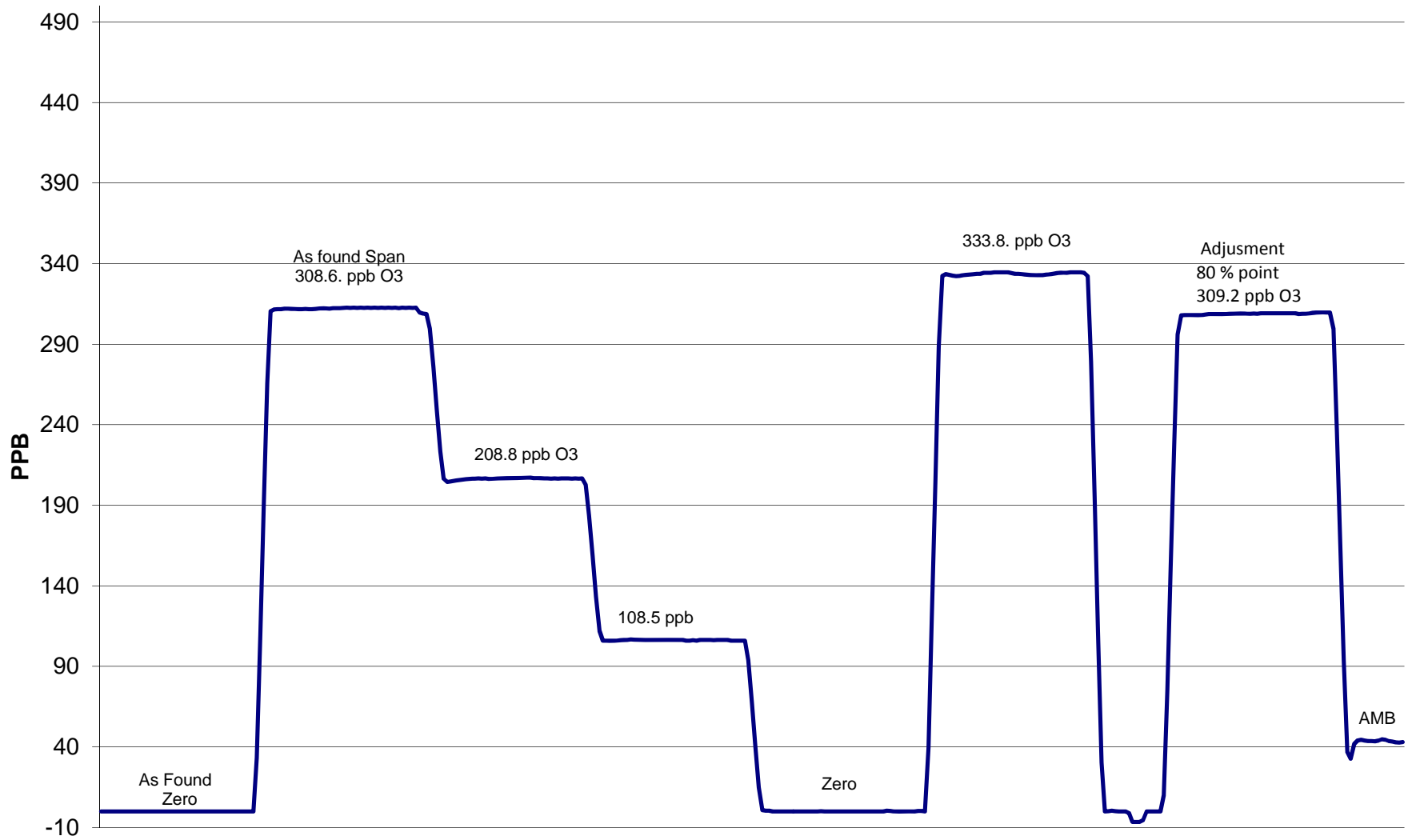
### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	NA		
308.6	309.1	0.9983	Correlation Coefficient	0.999896
208.8	206.8	1.0097		
108.5	106.3	1.0209		
			Slope	0.998058
			Intercept	1.246764



As Found  
Zero

### O3 Calibration



April 17, 2014

# Calibration Report



Parameter CO

Air Monitoring Network PAZA

## Station Information

Calibration Date	April 10, 2014	Previous Calibration	March 17, 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)	9:00	End Time (MST)	12:15
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	1.012718	Calculated slope	0.999386
Calculated intercept	0.133269	Calculated intercept	0.151392
Analyzer make	TEI Model 48C	Analyzer serial #	508011062

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO span setting	0.660		0.861	
CO zero setting	1.005		1.014	
Sample pressure	672.9	mm Hg	671.9	mm Hg
Sample Flow	1.111	LPM	1.113	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	0.02	N/A
4995	69.94	40.02	39.99	1.0006
4995	34.96	20.14	19.87	1.0136
4995	17.96	10.38	10.09	1.0287
4995	0.00	0.00	0.21	As Found Zero
4995	69.94	40.02	39.40	As Found Span
Average Correction Factor				1.0143

Calculated value of As Found Response: 39.825 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	20.07	ppm

Notes: Adjust zero from 0.159 to 0.001  
Span adjustment

Calibration Performed By: Grover Christiansen,Dmytro Dolotii

# Calibration Summary



Parameter CO  
 Air Monitoring Network PAZA

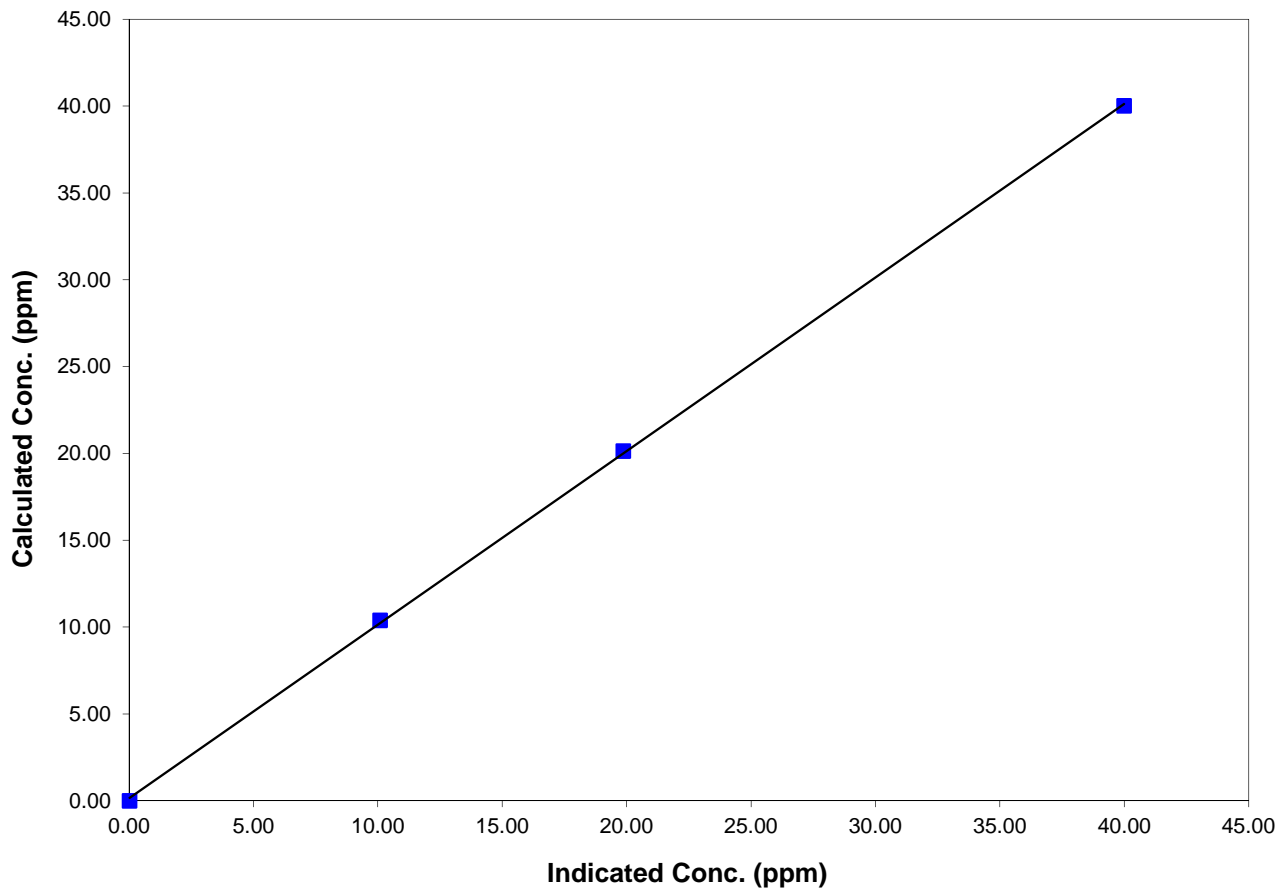
### Station Information

Calibration Date	April 10, 2014	Previous Calibration	March 17, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:00	End Time (MST)	12:15
Analyzer make/model	TEI Model 48C	Analyzer serial #	508011062

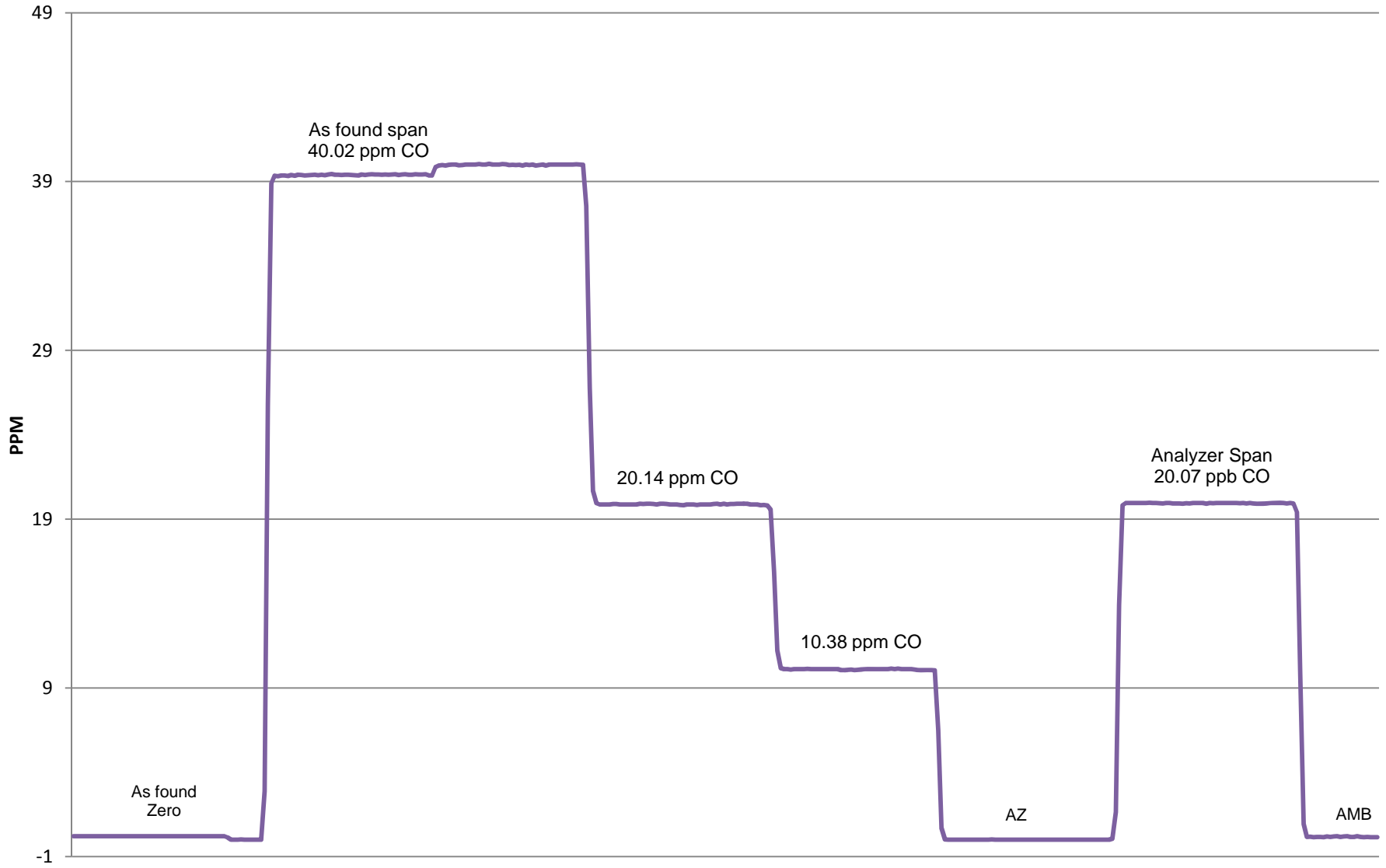
### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.023	N/A	Correlation Coefficient	0.999910
40.017	39.992	1.0006		
20.142	19.871	1.0136	Slope	0.999386
10.383	10.093	1.0287		
			Intercept	0.151392

## CO Calibration Curve



# CO Calibration



April 10, 2014



# Calibration Report



Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA

## Station Information

Calibration Date	April 10, 2014	Previous Calibration	March 17, 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)	7:15	End Time (MST)	10:10
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	27.8	PSI
Fuel pressure	42.3	PSI	42.1	PSI
Carrier pressure	30.2	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	12.78	1.0090
1996	40.96	7.76	7.71	1.0071
1996	15.99	3.07	3.01	1.0194
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	12.89	12.78	As Found Span
Average Correction Factor				1.0118

Calculated value of As Found Response: 12.736 ppm Percent Change of As Found: 1.2%

	Before	After
Calculated slope	0.996771	1.009007
Calculated intercept	0.020823	-0.000554

## Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	9.11	ppm	8.91	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	18.68	1.0177
1996	40.96	11.45	11.40	1.0040
1996	15.99	4.52	4.45	1.0172
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	19.00	18.68	As Found Span
Average Correction Factor				1.0130

Calculated value of As Found Response: 18.684 ppm      Percent Change of As Found: 1.7%

	<u>Before</u>		<u>After</u>
Calculated slope	1.002353	Calculated slope	1.016453
Calculated intercept	-0.020405	Calculated intercept	-0.033644

**Final Zero/Span Data**

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	12.55	ppm	12.23	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	31.43	1.0149
1996	40.96	19.21	19.09	1.0063
1996	15.99	7.59	7.45	1.0196
1996	0.00	0.00	0.03	As Found Zero
1996	68.93	31.89	31.43	As Found Span
Average Correction Factor				1.0136

Calculated value of As Found Response: 31.427 ppm      Percent Change of As Found: 1.4%

	<u>Before</u>		<u>After</u>
Calculated slope	1.000680	Calculated slope	1.014004
Calculated intercept	0.006569	Calculated intercept	-0.027186

**Final Zero/Span Data**

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	21.66	ppm	21.14	ppm

Notes: No adjustments made

Calibration Performed By: Grover Christiansen, Dmytro Dolotii

# Calibration Summary

Parameter CH4

Air Monitoring Network PAZA



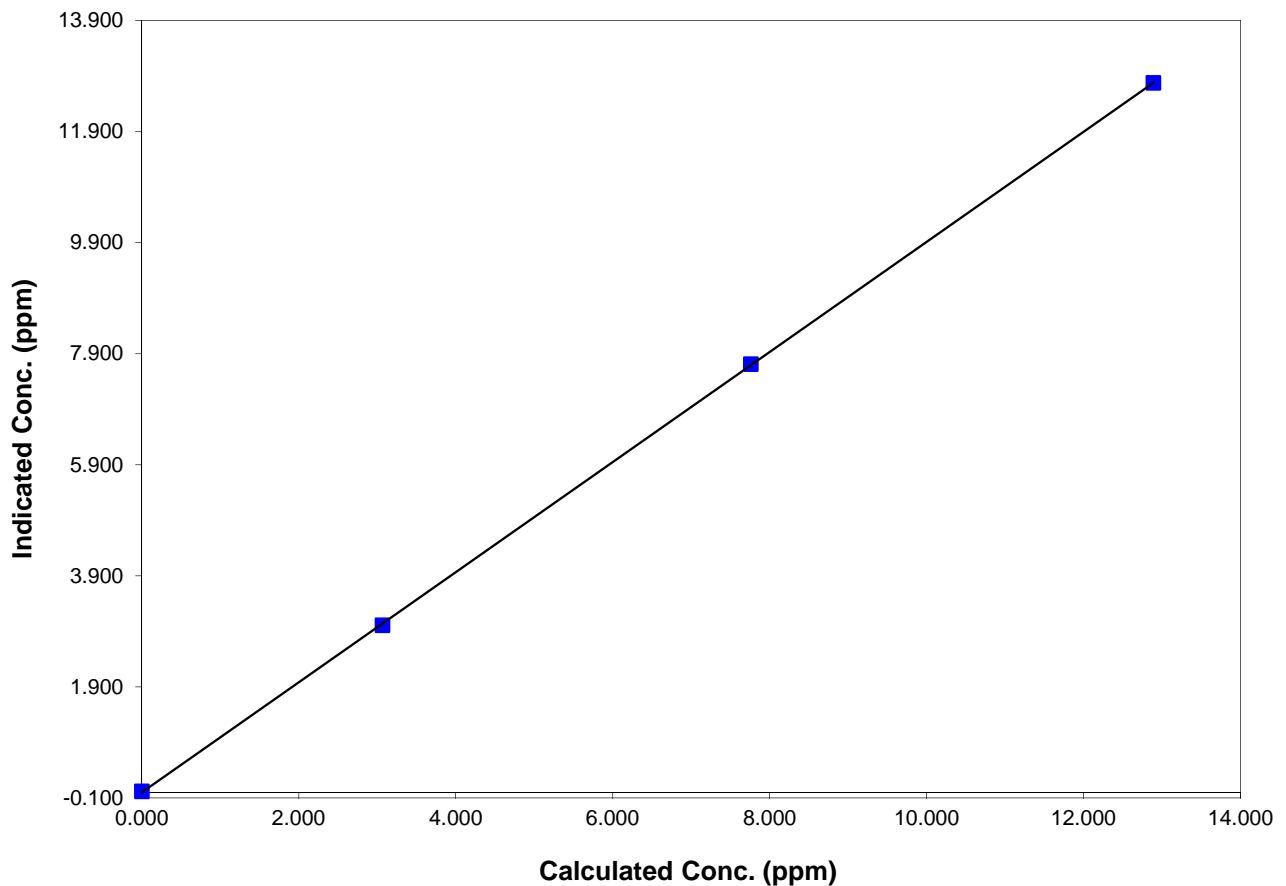
## Station Information

Calibration Date	April 10, 2014	Previous Calibration	March 17, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:15	End Time (MST)	10:10
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	0.999984
12.891	12.775	1.0090		
7.762	7.707	1.0071	Slope	1.009007
3.068	3.009	1.0194		
			Intercept	-0.000554

## CH4 Calibration Data



# Calibration Summary



Parameter NMHC  
Air Monitoring Network PAZA

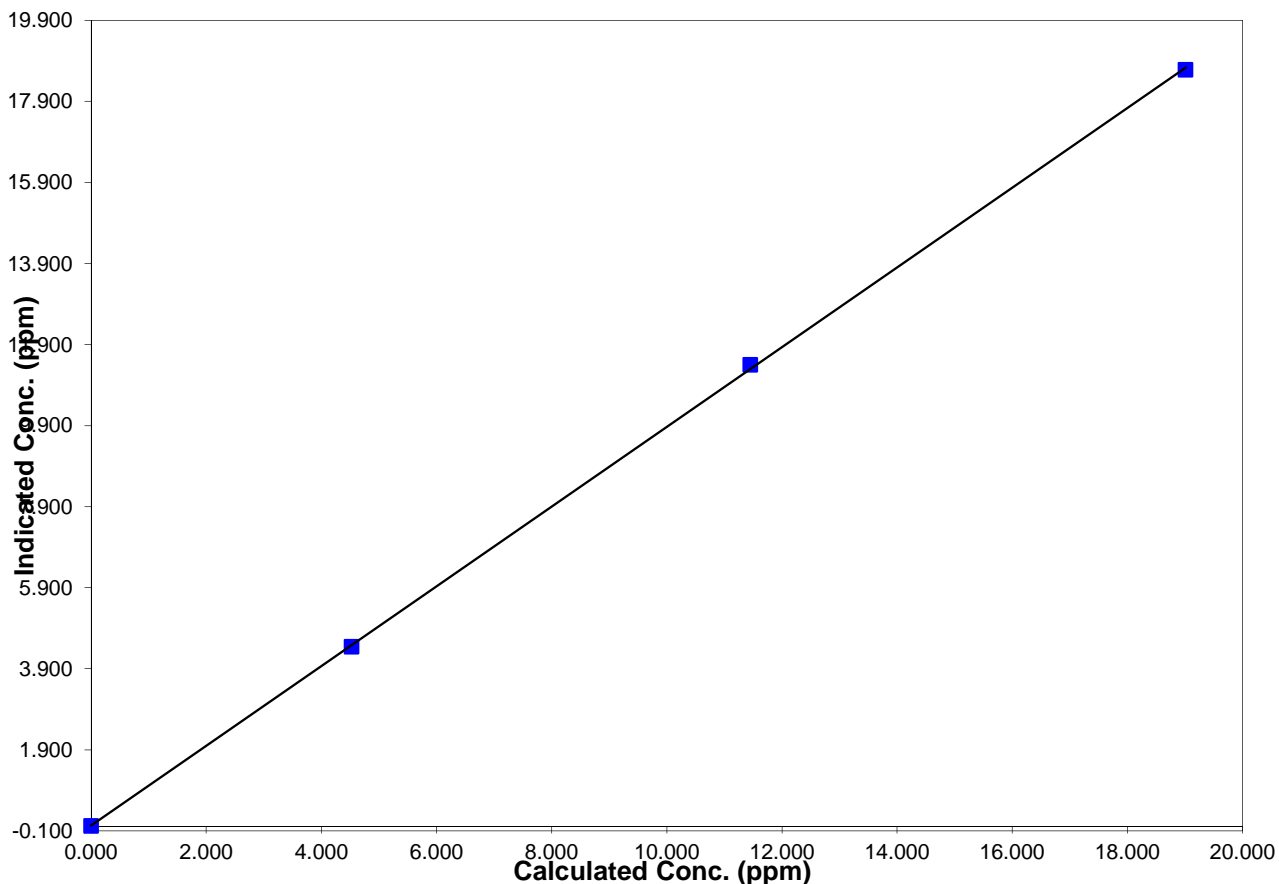
## Station Information

Calibration Date	<u>April 10, 2014</u>	Previous Calibration	<u>March 17, 2014</u>
Station Number	<u>1</u>	Station Location	<u>Henry Pirker</u>
Start Time (MST)	<u>7:15</u>	End Time (MST)	<u>10:10</u>
Analyzer make/model	<u>TEI 55I</u>	Analyzer serial #	<u>1134650658</u>

## Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.019	N/A		
19.010	18.679	1.0177	Correlation Coefficient	0.999920
11.447	11.401	1.0040		
4.524	4.448	1.0172	Slope	1.016453
			Intercept	-0.033644

### NMHC Calibration Data



# Calibration Summary

Parameter THC

Air Monitoring Network PAZA



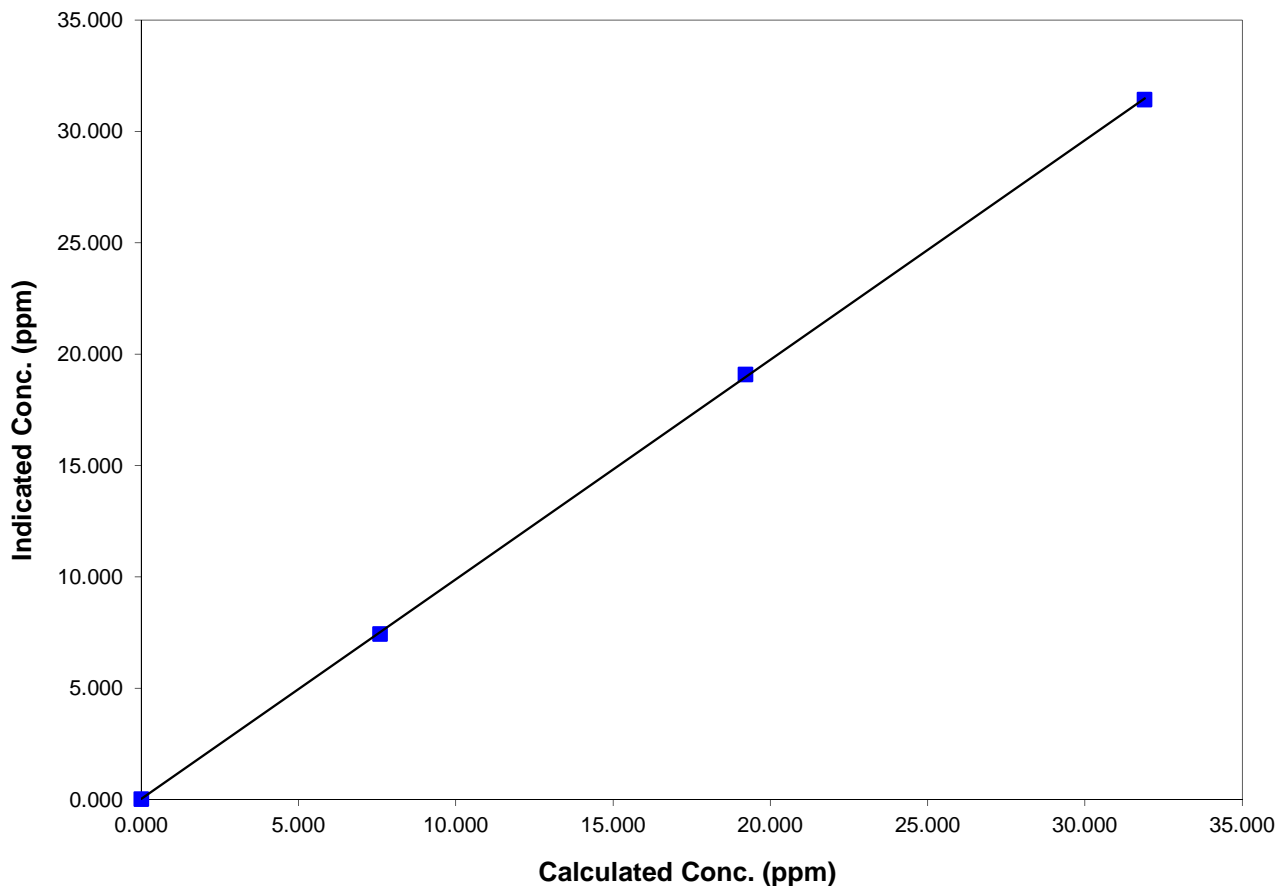
## Station Information

Calibration Date	April 10, 2014	Previous Calibration	March 17, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:15	End Time (MST)	10:10
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

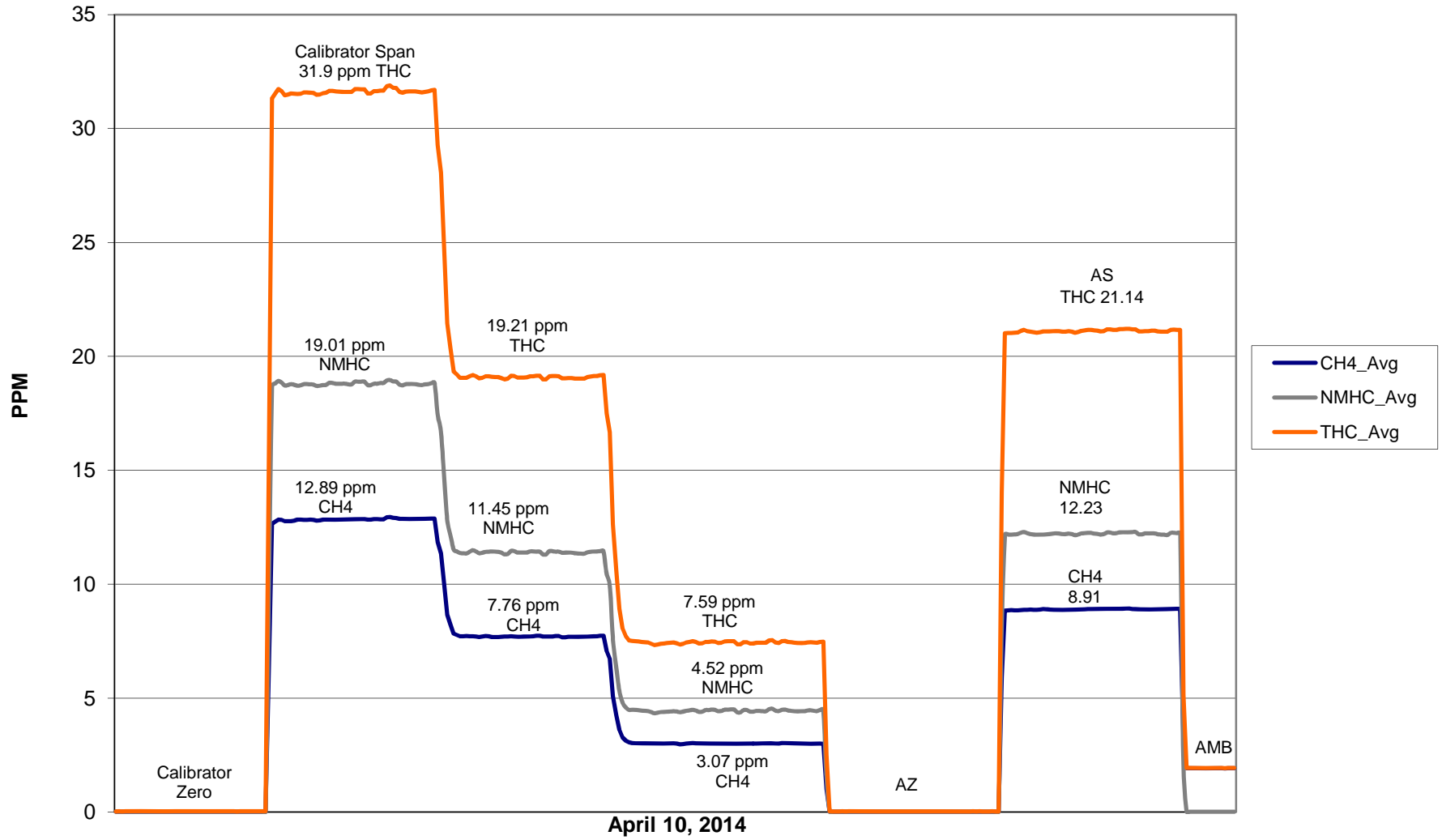
## Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.032	N/A	Correlation Coefficient	0.999962
31.901	31.432	1.0149		
19.209	19.088	1.0063	Slope	1.014004
7.592	7.446	1.0196		
			Intercept	-0.027186

## THC Calibration Data



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



# Calibration Report



Parameter TR5  
 Air Monitoring Network PAZA

## Station Information

Calibration Date	April 9, 2014	Previous Calibration	March 17, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	<b>Routine</b>	Install	Removal
			Other:
Start Time (MST)	14:05:00 PM	End Time (MST)	17:25:00 PM
Barometric Pressure	704.00 mm/Hg	Station Temperature	20.0 Deg C
Calibrator	Envionics 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	1.020112	Calculated slope	1.017520
Calculated intercept	0.256412	Calculated intercept	0.469799
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	0.988		0.988	
Background	17.6		17.7	
Pressure	658.7	mm Hg	655.4	mm Hg
Flow	0.452	ccm	0.449	ccm
Lamp Voltage	884	v	884	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	-0.30	N/A
4995	39.93	82.48	80.69	1.0222
4995	19.95	41.37	40.04	1.0334
8995	8.95	10.34	9.61	1.0762
4995	0.00	0.00	-0.30	As Found Zero
4995	39.93	82.48	80.69	As Found Span
Average Correction Factor				1.0439

Calculated value of As Found Response: 82.9 ppb      Percent Change of As Found: -0.5%

	before calibration		after calibration	
Auto zero	-0.92	ppb	0.38	ppb
Auto span	33.06	ppb	40.61	ppb

Notes: No adjustments made

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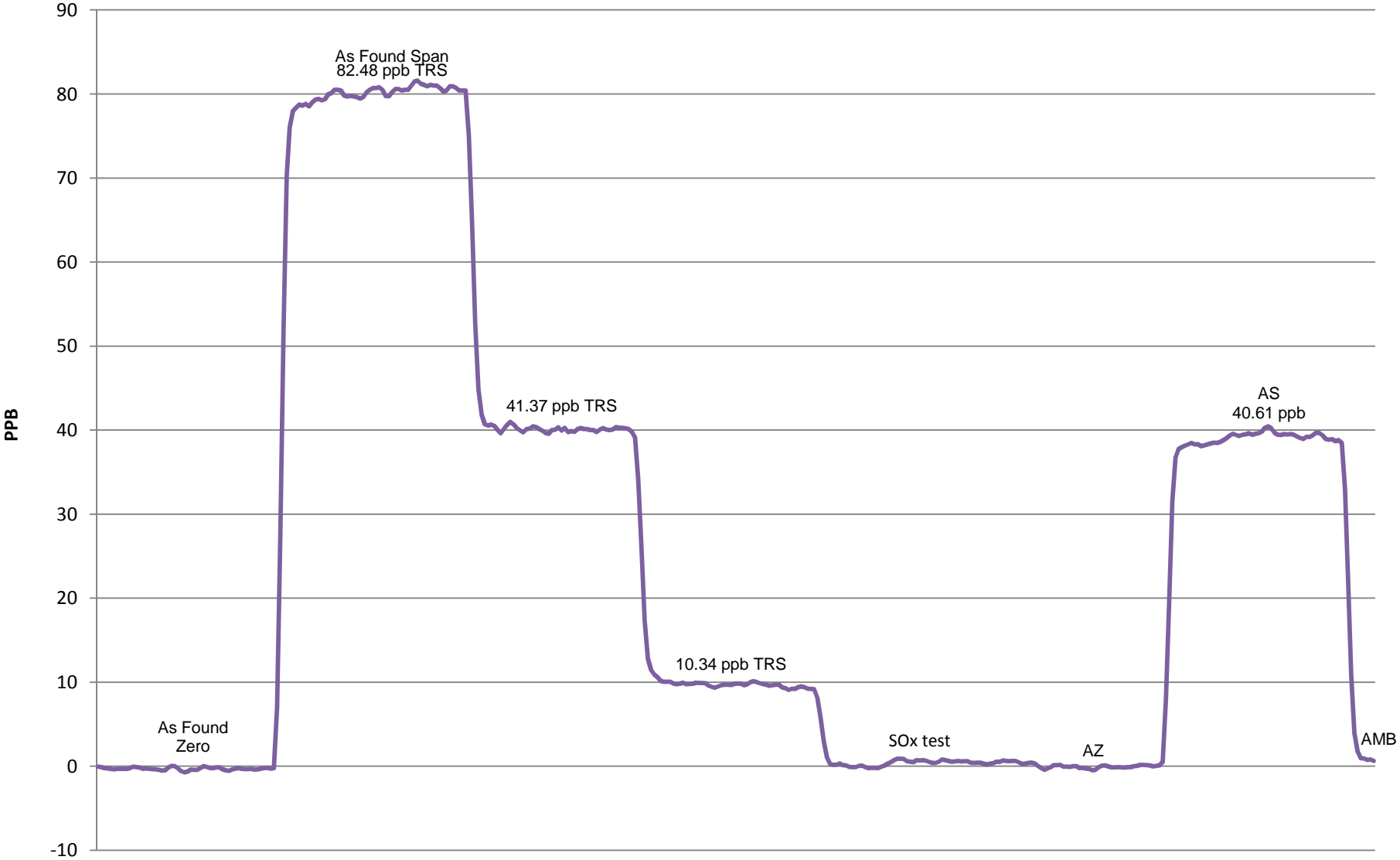
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Calibration Performed By: Dmytro Dolotii





# TRS Calibration



April 9, 2014

# Calibration Report



Parameter SO<sub>2</sub>

Air Monitoring Network PAZA

## Station Information

Calibration Date	April 01 2014	Previous Calibration	March 06 2014
Station Number	2	Station Location	Evergreen Park
Reason:	<b>Routine</b>	Install	Removal
			Other:
Start Time (MST)	10:50	End Time (MST)	13:25:00 PM
Barometric Pressure	0.924 ATM	Station Temperature	20.0 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Concentration	51.5 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	1.001442	Calculated slope	1.003737
Calculated intercept	0.509676	Calculated intercept	1.132895
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.6		11.7	
coefficient	1.22		1.22	
Lamp Voltage	830	volts	834	volts
Chamber Temp	45.2	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	668	mm Hg	666.8	mm Hg
Sample Flow	0.451	ccm	0.449	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	0.4	N/A
4995	39.93	408.4	406.5	1.0047
4995	19.97	205.1	202.5	1.0126
4995	9.97	102.6	99.5	1.0315
4995	0.0	0.0	0.4	As Found Zero
4995	39.93	408.4	406.5	As Found Span
Average Correction Factor				1.0163

Calculated value of As Found Response: 407.168 ppm      Percent Change of As Found: 0.3%

	before calibration		after calibration	
Auto zero	1.8	ppm	0.5	ppm
Auto span	290.1	ppm	277.9	ppm

Notes: No adjustments

Calibration Performed By: Grover Christiansen, Dmytro Dolotii

# Calibration Summary



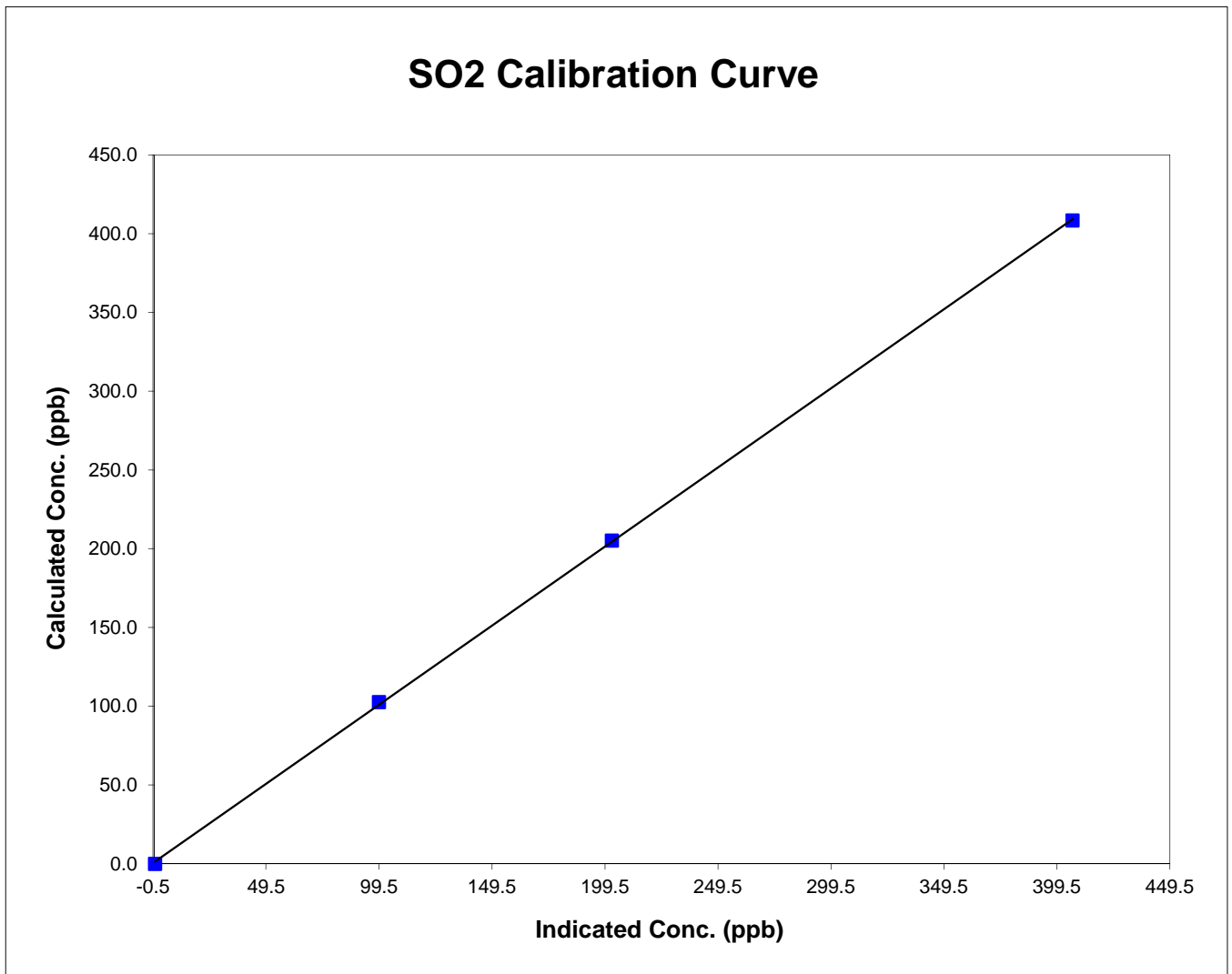
Parameter SO2  
 Air Monitoring Network PAZA

### Station Information

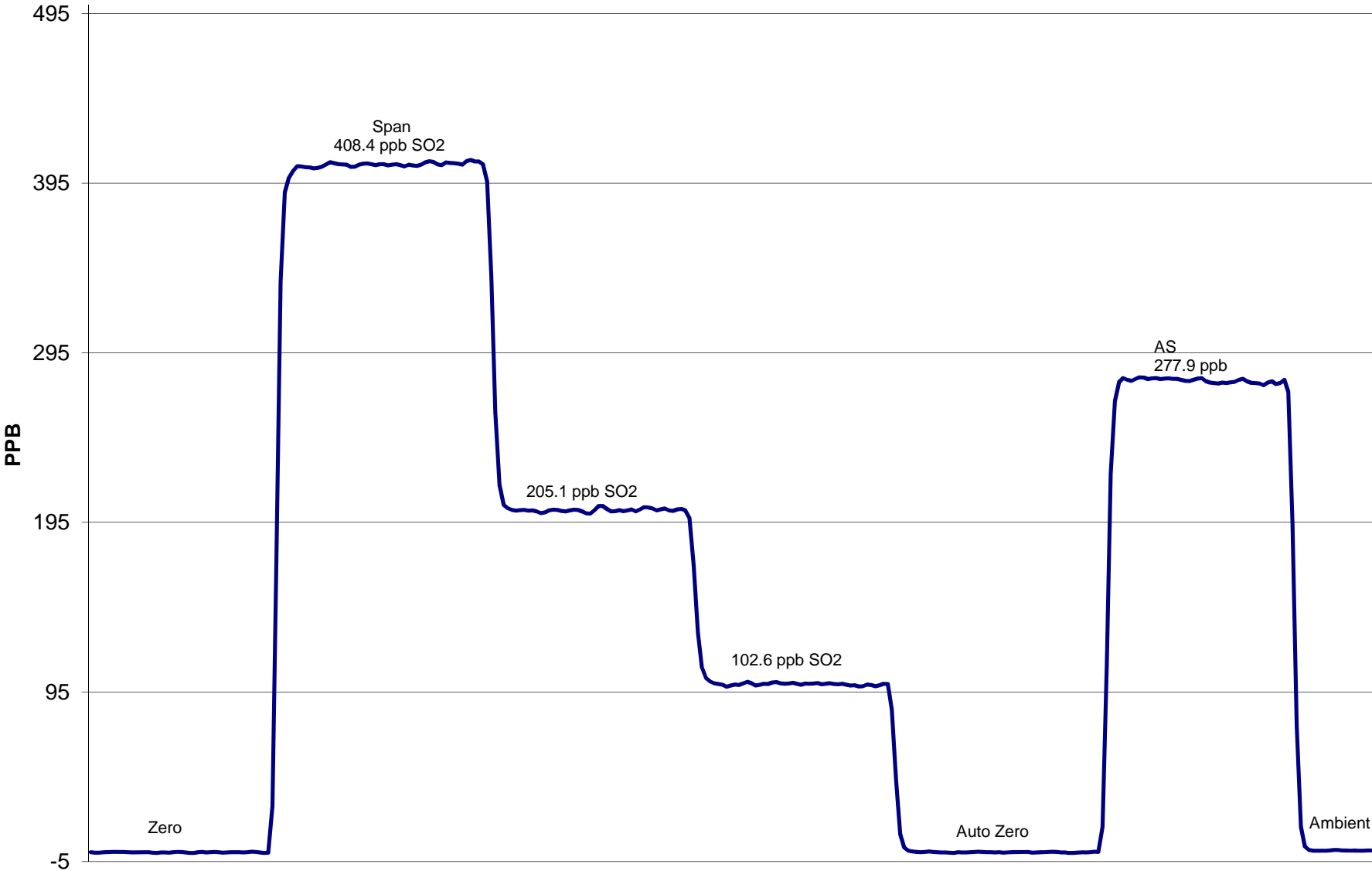
Calibration Date	April 01 2014	Previous Calibration	March 06 2014
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	10:50	End Time (MST)	13:25:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A	Correlation Coefficient	0.999934
408.4	406.5	1.0047		
205.1	202.5	1.0126	Slope	1.003737
102.6	99.5	1.0315		
			Intercept	1.132895



# SO2 Calibration



April 01 2014

# Calibration Report



Parameter TRS  
 Air Monitoring Network PAZA

## Station Information

Calibration Date	April 01 2014	Previous Calibration	March 06 2014
Station Number	2	Station Location	Evergreen Park
Reason:	<b>Routine</b>	Install	Removal
			Other:
Start Time (MST)	8:32	End Time (MST)	12:29
Barometric Pressure	0.907 ATM	Station Temperature	22.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Conc	10.4 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.030622	Cal Gas Cylinder #	LL110781
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	1.032504	Calculated slope	1.008260
Calculated intercept	-0.656430	Calculated intercept	0.015043
Analyzer make	TEI Model 43C	Analyzer serial #	3.199E+13

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	39	ppb	39.2	ppb
coefficient	1.043		1.043	
Lamp Voltage	1044	volts	1045	volts
Chamber Temp	44	Deg C	44.5	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	640.4	mm Hg	636.4	mm Hg
Sample Flow	0.626	ccm	0.645	ccm
Lamp Intensity	31,486	mv	31,325	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	0.1	N/A
4995	39.93	82.48	81.8	1.0086
4995	19.97	41.41	41.1	1.0070
8995	8.97	10.36	10.1	1.0293
4995	9.97	102.79	0.7	Sox Test
4995	0.00	0.00	0.1	As Found Zero
4995	39.93	82.48	81.8	As Found Span
Average Correction Factor				1.0150

Calculated value of As Found Response: 83.65 ppm      Percent Change of As Found: **-1.4%**

	before calibration		after calibration	
Auto zero	-0.2	ppm	0.3	ppm
Auto span	82.2	ppm	73.3	ppm

Notes: No adjustments been made  
Sox scrubber check was performed

Calibration Performed By: Grover Christiansen, Dmytro Dolotii

# Calibration Summary



Parameter TRS  
 Air Monitoring Network PAZA

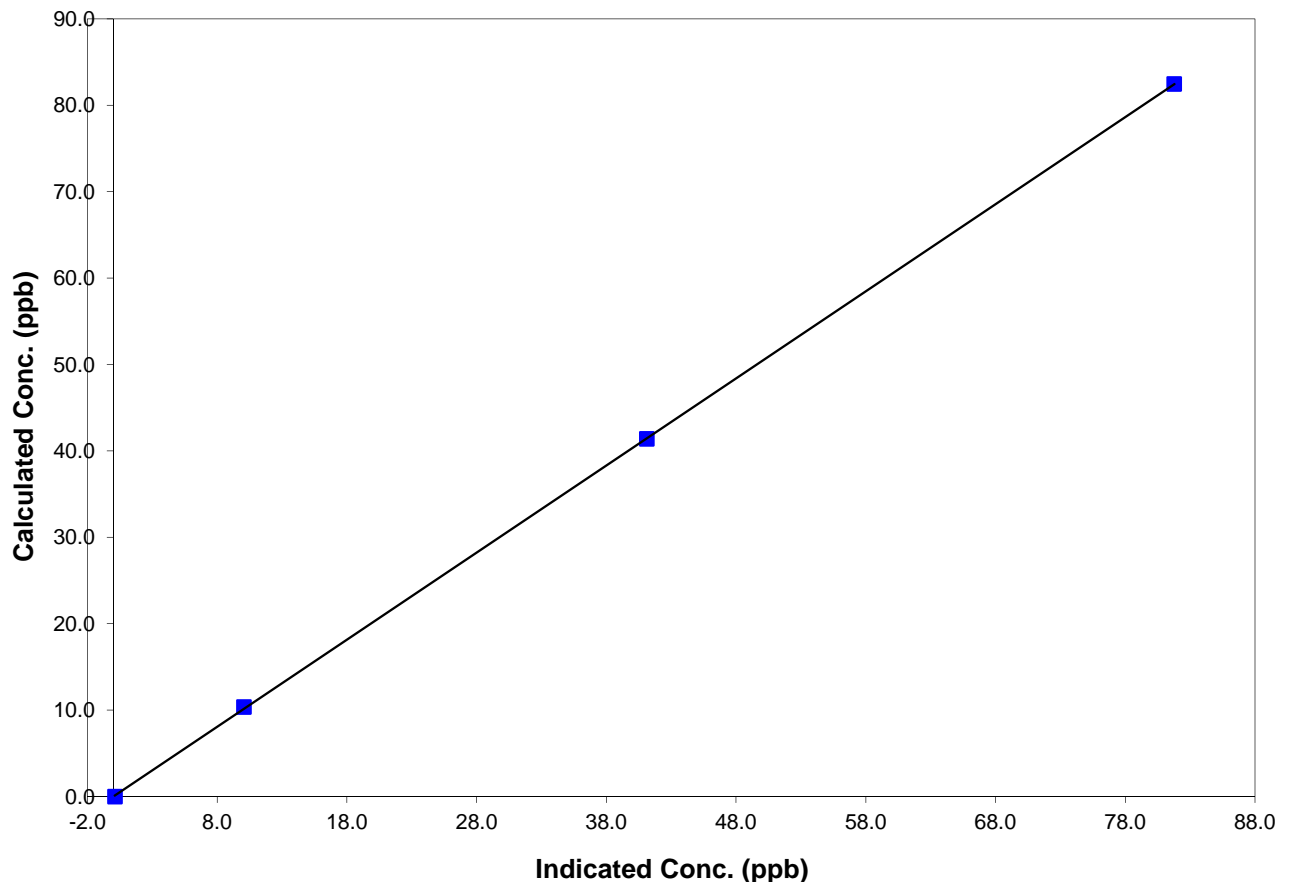
### Station Information

Calibration Date	April 01 2014	Previous Calibration	March 06 2014
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	8:32	End Time (MST)	12:29
Analyzer make/model	TEI Model 43C	Analyzer serial #	3199000000491

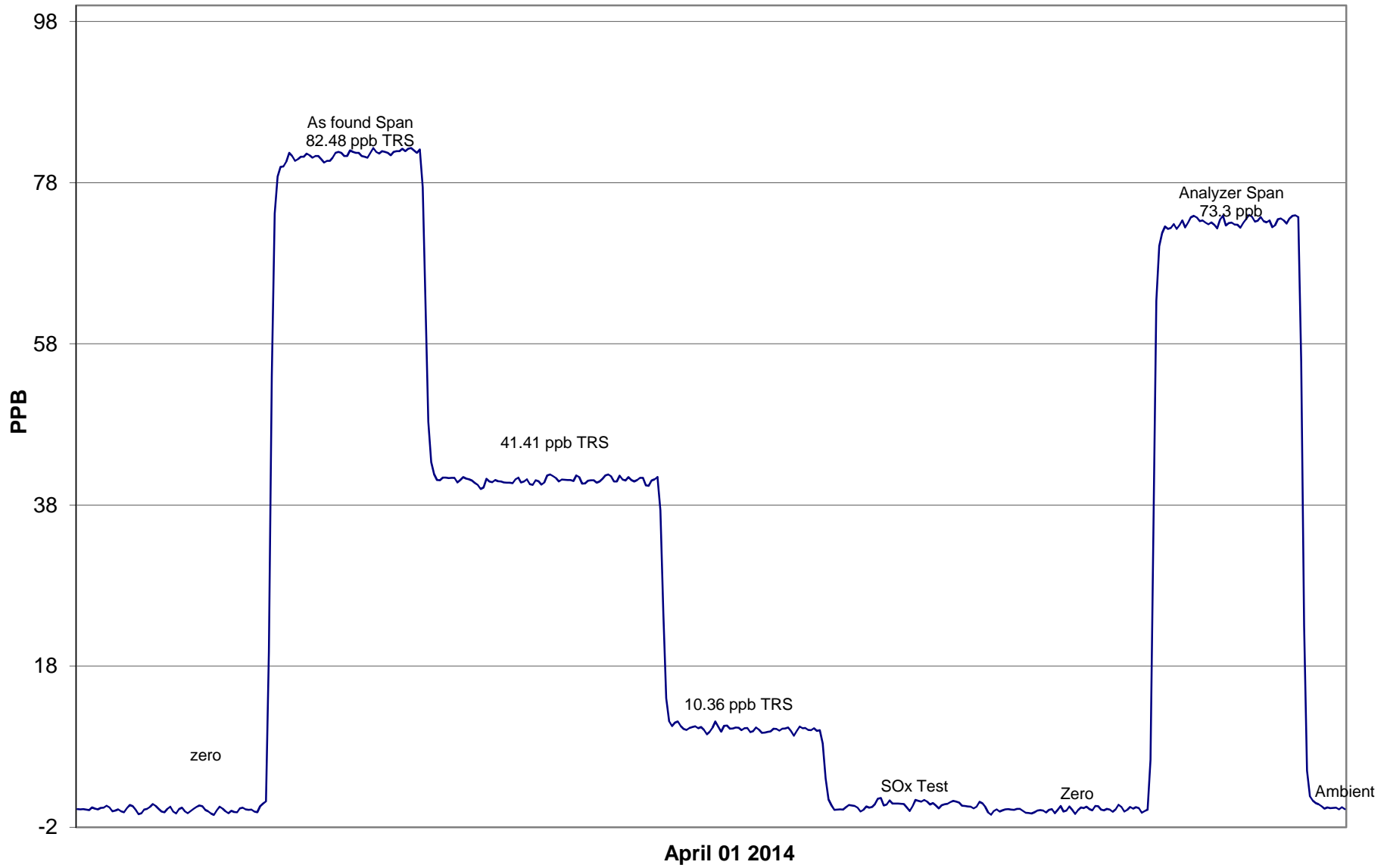
### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999985
82.5	81.8	1.0086		
41.4	41.1	1.0070		
10.4	10.1	1.0293	Slope	1.008260
			Intercept	0.015043

### TRS Calibration Curve



# TRS Calibration



# Calibration Report



Parameter SO<sub>2</sub>

Air Monitoring Network PAZA

## Station Information

Calibration Date	April 2, 2014	Previous Calibration	March 13, 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)	11:27	End Time (MST)	14:45:00 PM
Barometric Pressure	0.935 ATM	Station Temperature	20.0 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Concentration	51.5 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	1.013478	Calculated slope	0.996397
Calculated intercept	1.433417	Calculated intercept	1.060784
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.2		11.2	
coefficient	0.959		0.975	
Lamp Voltage	930	volts	930	volts
Chamber Temp	45.1	Deg C	45.2	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	667.5	mm Hg	668.4	mm Hg
Sample Flow	0.446	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	0.7	N/A
4995	39.93	408.43	409.7	0.9970
4995	19.97	205.08	203.9	1.0056
4995	9.97	102.59	100.2	1.0244
4995	0.0	0.00	0.7	As Found Zero
4995	39.93	408.43	402.2	As Found Span
Average Correction Factor				1.0090

Calculated value of As Found Response: 408.382 ppm      Percent Change of As Found: 0.0%

	before calibration		after calibration	
Auto zero	1.6	ppb	0.8	ppb
Auto span	248.2	ppb	254.1	ppb

Notes: Span adjustment made

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Calibration Performed By: Dmytro Dolotii



# Calibration Summary



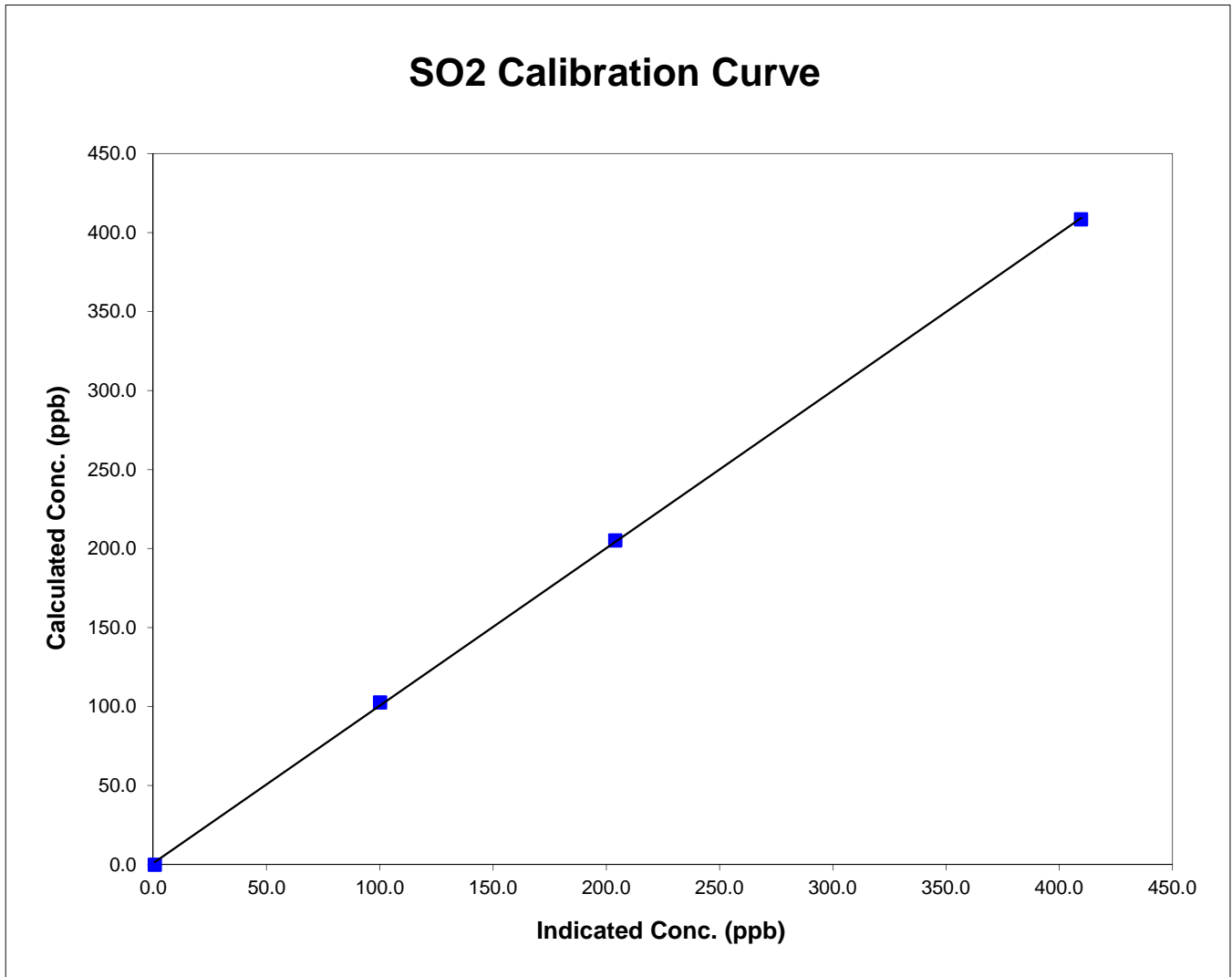
Parameter SO2  
 Air Monitoring Network PAZA

### Station Information

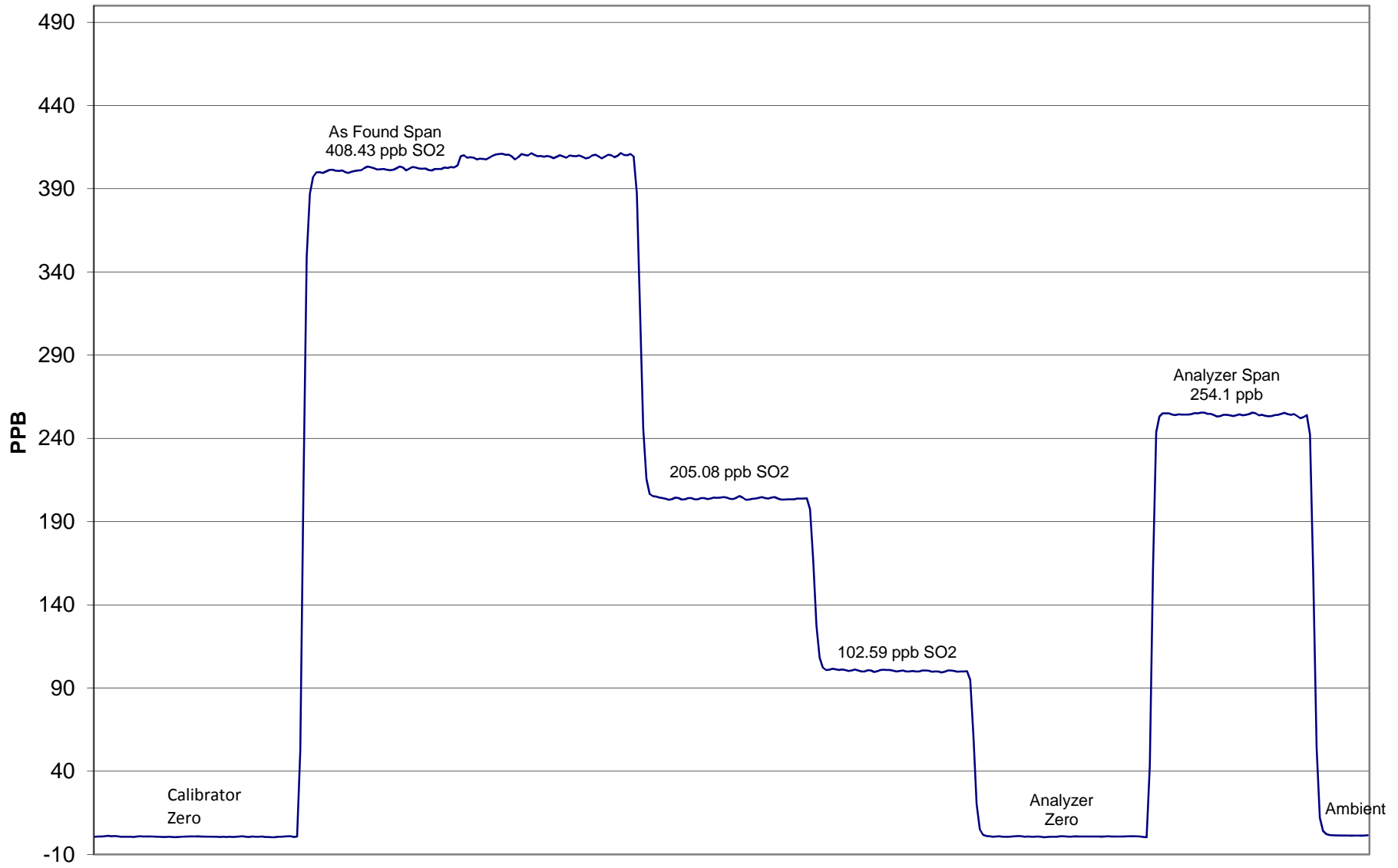
Calibration Date	April 2, 2014	Previous Calibration	March 13, 2014
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	11:27	End Time (MST)	14:45:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.7	N/A	Correlation Coefficient	0.999919
408.4	409.7	0.9970		
205.1	203.9	1.0056	Slope	0.996397
102.6	100.2	1.0244		
			Intercept	1.060784



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



April 2, 2014



# Calibration Summary



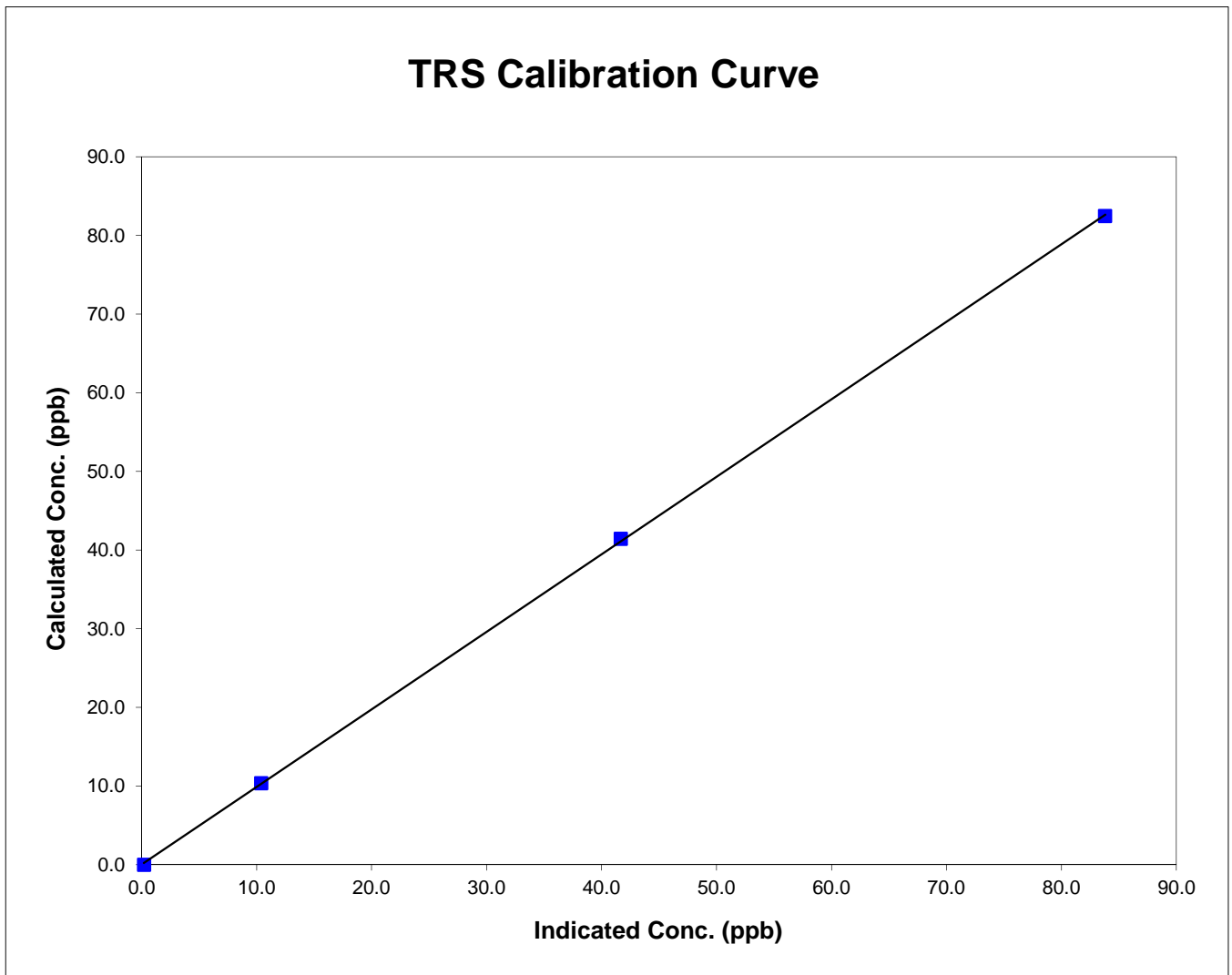
Parameter TRS  
 Air Monitoring Network PAZA

### Station Information

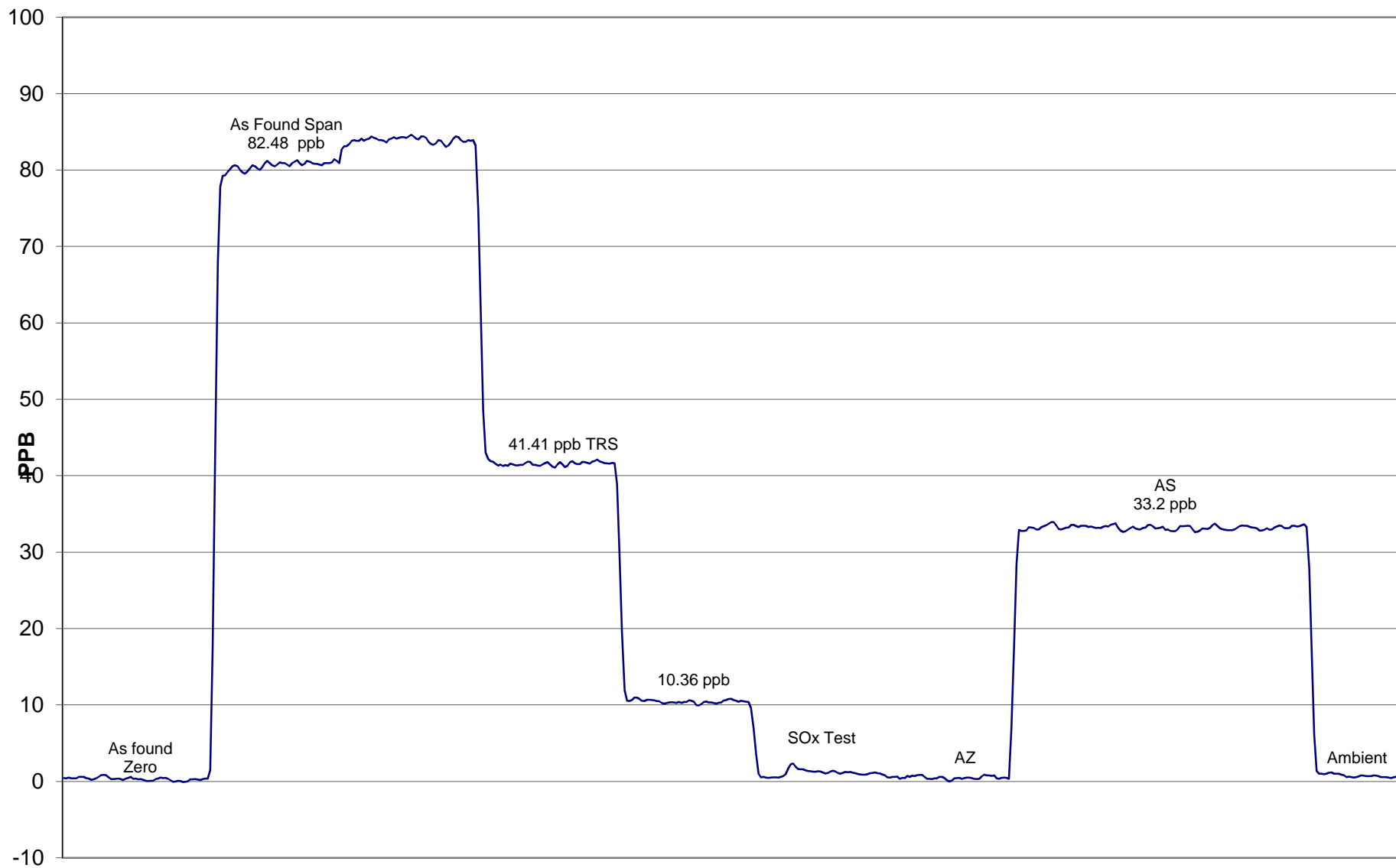
Calibration Date	April 2, 2014	Previous Calibration	March 13, 2014
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	9:10	End Time (MST)	13:40:00 PM
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999957
82.5	83.8	0.9842		
41.4	41.7	0.9938	Slope	0.985833
10.4	10.4	0.9958		
			Intercept	0.024062



# Smokey Heights TRS Calibration



April 2, 2014

# Calibration Report



Parameter SO2  
 Air Monitoring Network PAZA

## Station Information

Calibration Date	April 8, 2014	Previous Calibration	March 12, 2014
Station Number	4	Station Location	Beaverlodge
Reason:	<b>Routine</b>	Install	Removal
		Other:	
Start Time (MST)	14:40:00 PM	End Time (MST)	17:30:00 PM
Barometric Pressure	0.908 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	10.8 ppm	Cal Gas Expiry Date	28/09/2012
Gas Cert Reference	FF14871		
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.017408	Calculated slope	1.014408
Calculated intercept	0.035916	Calculated intercept	0.139634
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.74		2.71	
Coefficient	1.042		1.042	
PMT	-767.8	V	-767.4	V
UV Lamp Voltage	1065	V	1066	V
Chamber Temp	45	Deg C	45	Deg C
Pressure	653.1	mm Hg	665	mm Hg
Sample Flow	0.474	LPM	0.476	LPM
Lamp Intensity	96	%	96	%

## Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.0	N/A
4995	39.93	85.7	84.4	1.0149
4995	19.97	43.0	42.1	1.0212
4995	9.97	21.5	21.0	1.0267
4995	0.00	0.0	0.0	As found zero
4995	39.93	85.7	84.4	As found span
Average Correction Factor				1.0209

Calculated value of As Found Response: 85.879 ppm      Percent Change of As Found: -0.3%

	before calibration		after calibration	
Auto zero	0.2	ppb	0.1	ppb
Auto span	59.9	ppb	60.7	ppb

Notes: No adjustments made.

Calibration Performed By: Dmytro Dolotii

# Calibration Summary

Parameter SO2  
 Air Monitoring Network PAZA



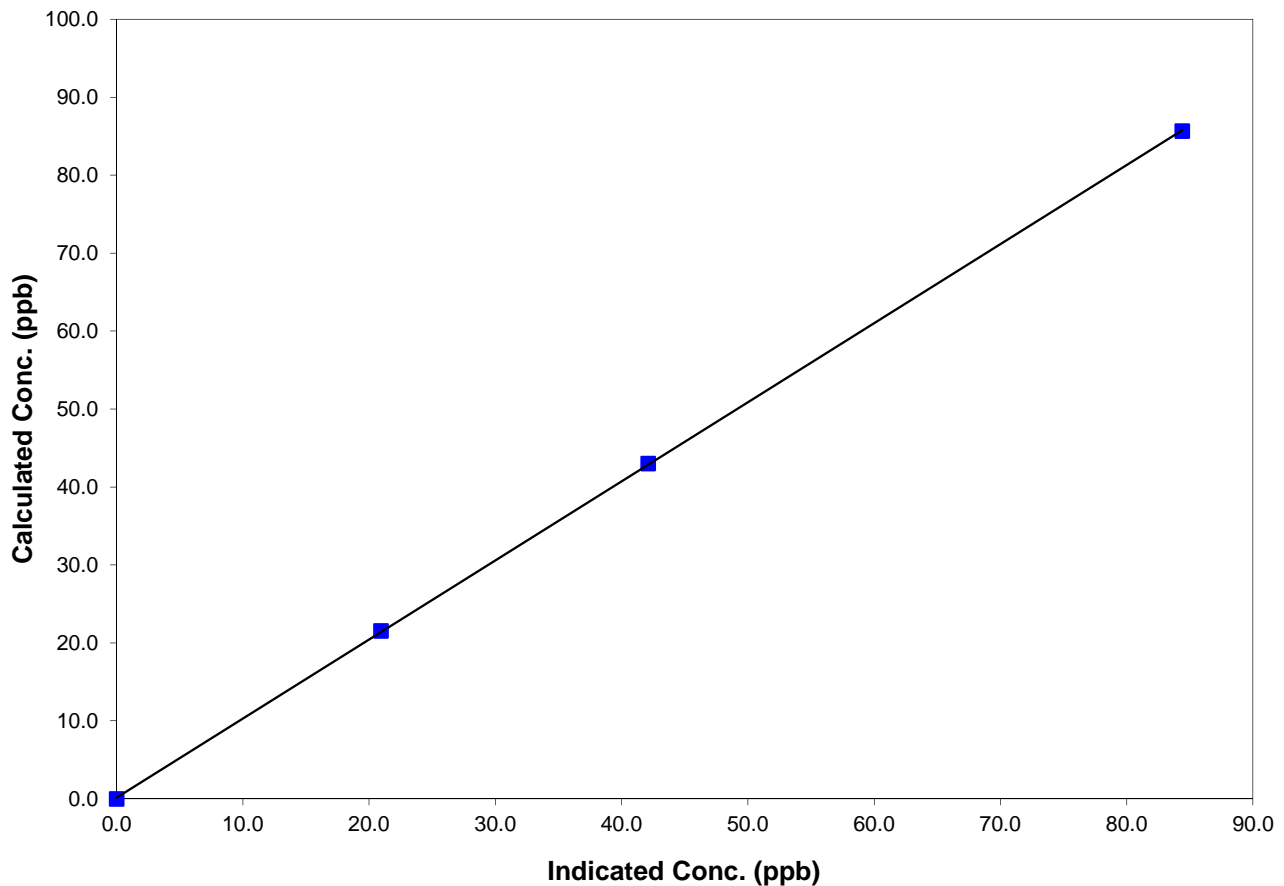
### Station Information

Calibration Date	April 8, 2014	Previous Calibration	March 12, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	14:40:00 PM	End Time (MST)	17:30:00 PM
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

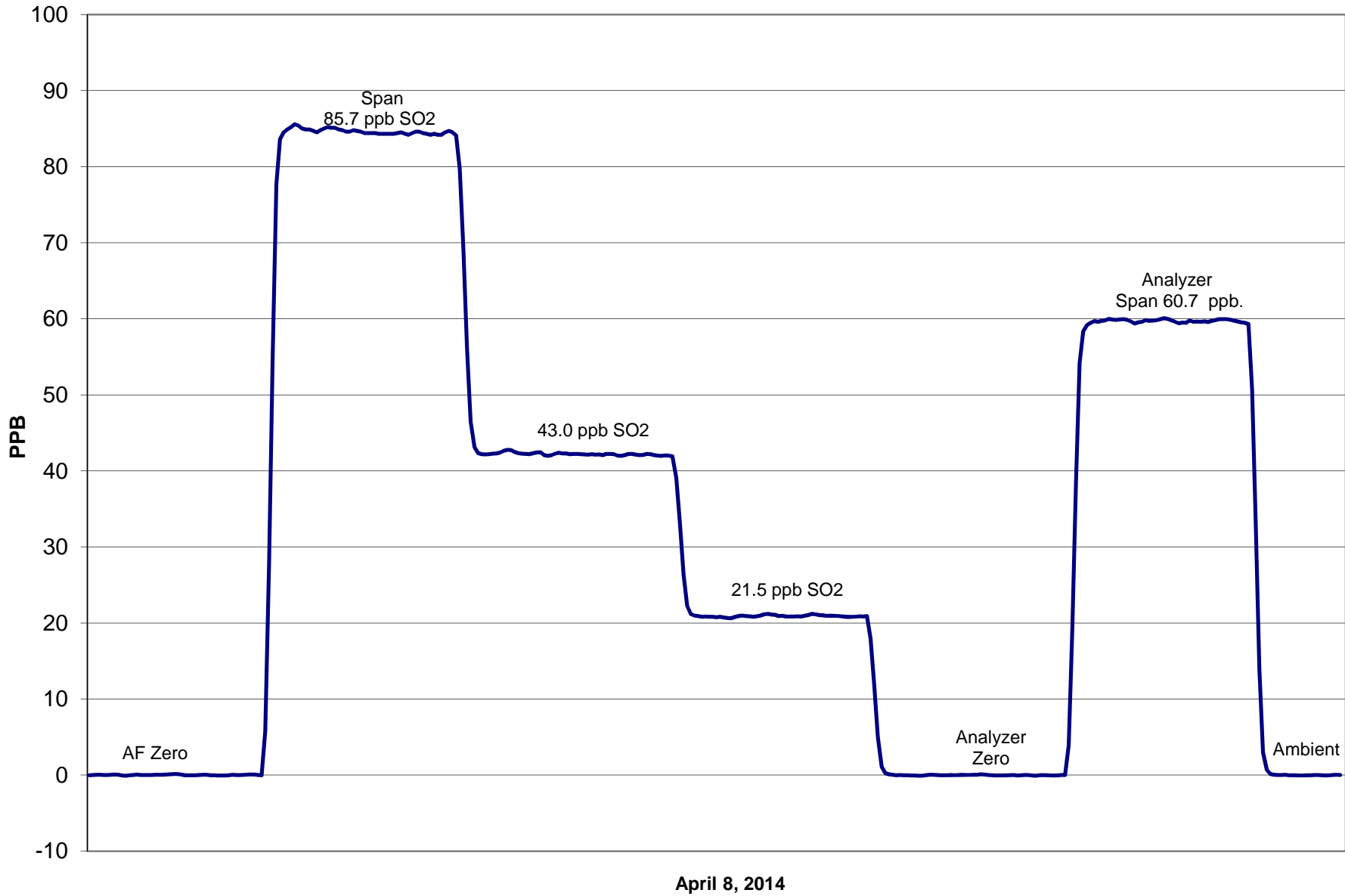
### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
85.7	84.4	1.0149	Correlation Coefficient	0.999982
43.0	42.1	1.0212		
21.5	21.0	1.0267	Slope	1.014408
			Intercept	0.139634

## 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	April 8, 2014	Previous Calibration	March 10, 2014
Station Number	4	Station Location	Beaverlodge
Reason:	<b>Routine</b> Installation Removal Other:		
Start Time (MST)	8:25	End Time (MST)	13:35:00 PM
Barometric Pressure	0.904 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
NO Cal Gas Conc	51.3 ppm	Cal Gas Expiry Date	February 25, 2021
NO <sub>x</sub> Cal Gas Conc	51.4 ppm	Cal Gas Serial #	LL105159

## DACS Information

DACS make	CR3000	DACS serial No.	5237	
Parameter		NO <sub>2</sub>	NO <sub>x</sub>	NO
Before	Data Slope	1.001238	1.003193	0.999226
	Data Offset	0.427803	0.653400	0.992680
After	Data Slope	1.004406	0.998230	0.998327
	Data Offset	-1.391095	2.355347	2.636329
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	2.9	mV	3.0	mV
NO <sub>x</sub> bkgnd	3.1	mV	3.2	mV
NO coefficient	1.001		0.989	
NO <sub>x</sub> coefficient	1.000		1.000	
NO <sub>2</sub> conv temp	325.0	Deg C	325.0	Deg C
PMT Temp	-3.1	Deg C	-2.9	Deg C
PMT Volt	-749.0	mV	-750.4	mV
R Cell Press	206.1	in Hg	208.5	in Hg
Sample Flow	0.684	LPM	0.683	LPM

Notes: Slight zero adjustment  
Span adjustment, run adjustment point.

# Calibration Report



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

## Station Information

Calibration Date: **April 8, 2014** Station Location: **Beaverlodge**

## Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	0.2	0.1	0.0	N/A	N/A
1	4995	39.93	407.6	406.8	0.8	407.4	406.4	0.2	1.0007	1.0011
2	4995	19.97	204.7	204.3	0.4	201.0	200.0	0.1	1.0182	1.0214
3	4995	9.97	102.4	102.2	0.2	98.0	97.5	0.3	1.0450	1.0482
AFZ	4995	0.00	0.0	0.0	0.0	0.5	0.3	0.1	0.0000	0.0000
AFS	4995	39.93	407.6	406.8	0.8	413.0	412.3	-0.1	0.9871	0.9868
Average Correction Factor									1.0213	1.0236

As Found Concentrations: **NO<sub>x</sub>= 413.1** **NO= 413.0** As Found Percent Change **NO<sub>x</sub>= 1.4%** **NO= 1.5%**

## 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	0.3	0.3	0.0	0.2	0.1	0.0	N/A	N/A	N/A	N/A
NO point	401.7	401.7	0.0	402.1	401.7	-0.3	0.9990	1.0000	N/A	N/A
300	401.7	99.0	302.7	402.0	99.0	302.5	0.9993	1.0000	1.0007	99.9%
200	401.7	198.4	203.3	402.0	198.4	202.8	0.9993	1.0000	1.0024	99.8%
100	401.7	299.6	102.1	405.8	299.6	105.6	0.9899	1.0000	0.9662	103.5%
Average Correction Factor							0.9961	1.0000	0.9897	101.1%

## AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.1	-0.1	-0.1	ppb	-0.1	-0.1	-0.2	ppb
Auto span	168.3	166.9	1.1	ppb	192.7	191.3	0.8	ppb

Calibration Performed By: Dmytro Dolotii

# Calibration Summary

Parameter NO<sub>2</sub>

Air Monitoring Network PAZA



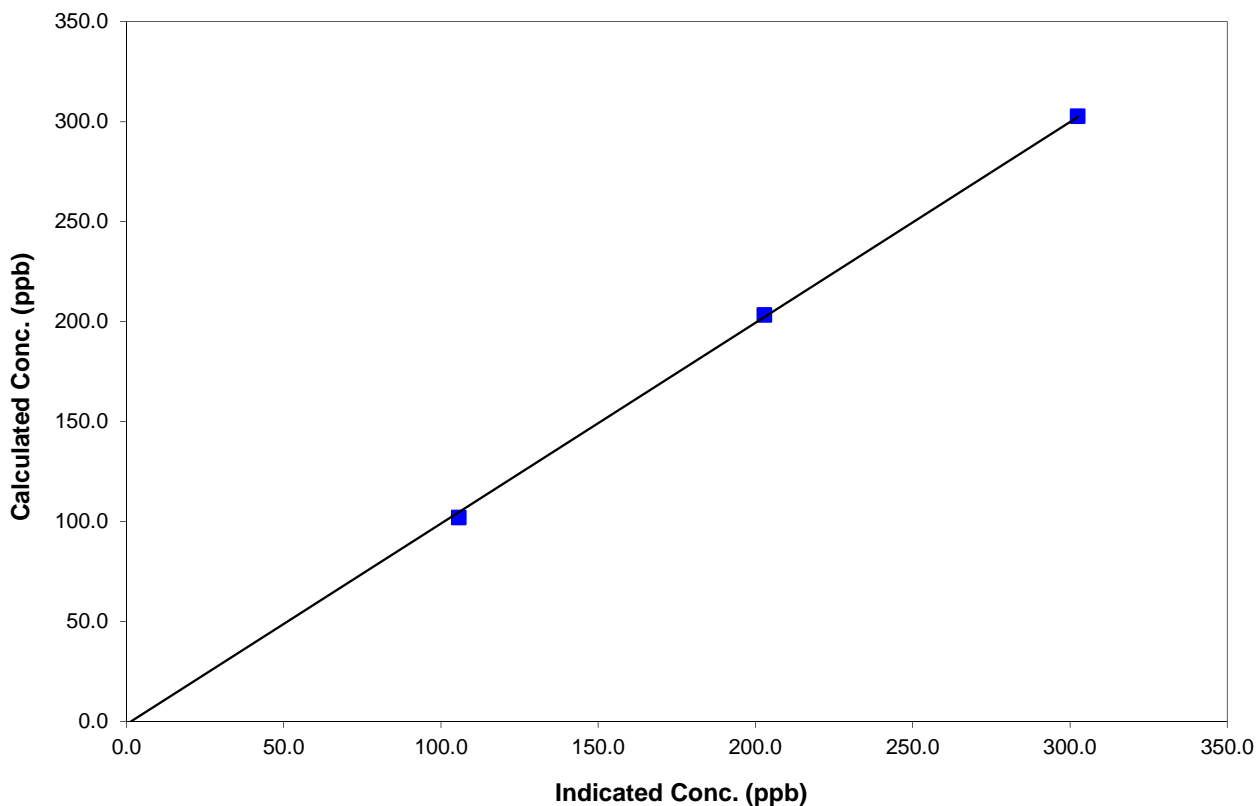
## Station Information

Calibration Date	April 8, 2014	Previous Calibration	March 10, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:25	End Time (MST)	13:35:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999804
302.7	302.5	1.0007		
203.3	202.8	1.0024	Slope	1.004406
102.1	105.6	0.9662		
			Intercept	-1.391095

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



# Calibration Summary

Parameter NO<sub>x</sub>

Air Monitoring Network PAZA



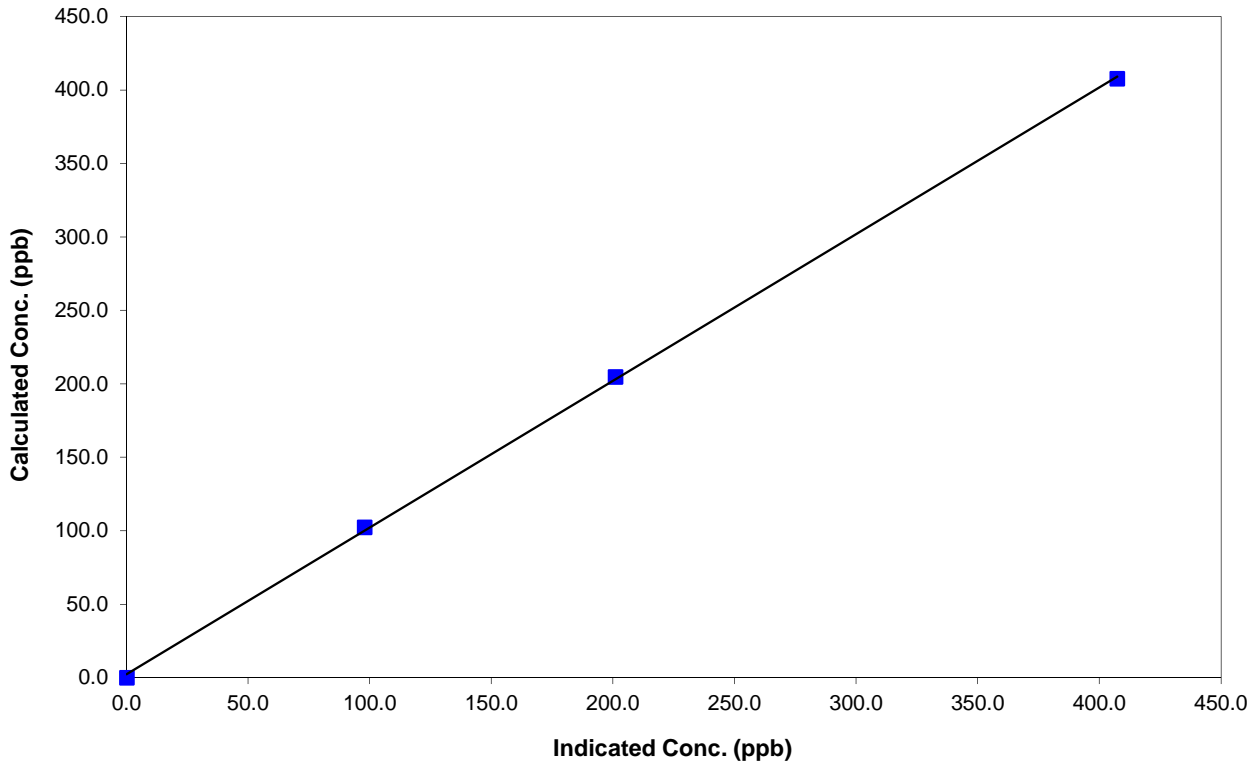
## Station Information

Calibration Date	April 8, 2014	Previous Calibration	March 10, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:25	End Time (MST)	13:35:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999825
407.6	407.4	1.0007		
204.7	201.0	1.0182		
102.4	98.0	1.0450		
			Slope	0.998230
			Intercept	2.355347

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



# Calibration Summary



Parameter NO

Air Monitoring Network PAZA

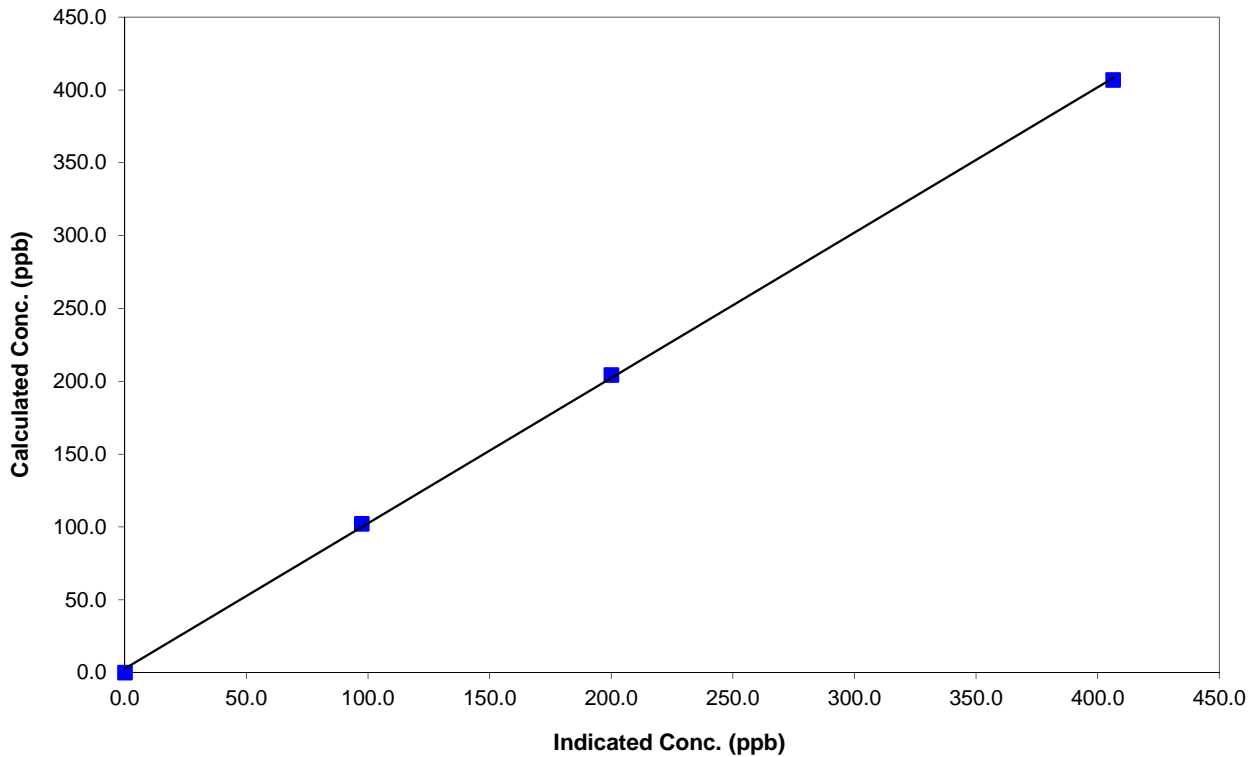
## Station Information

Calibration Date	April 8, 2014	Previous Calibration	March 10, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:25	End Time (MST)	13:35:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

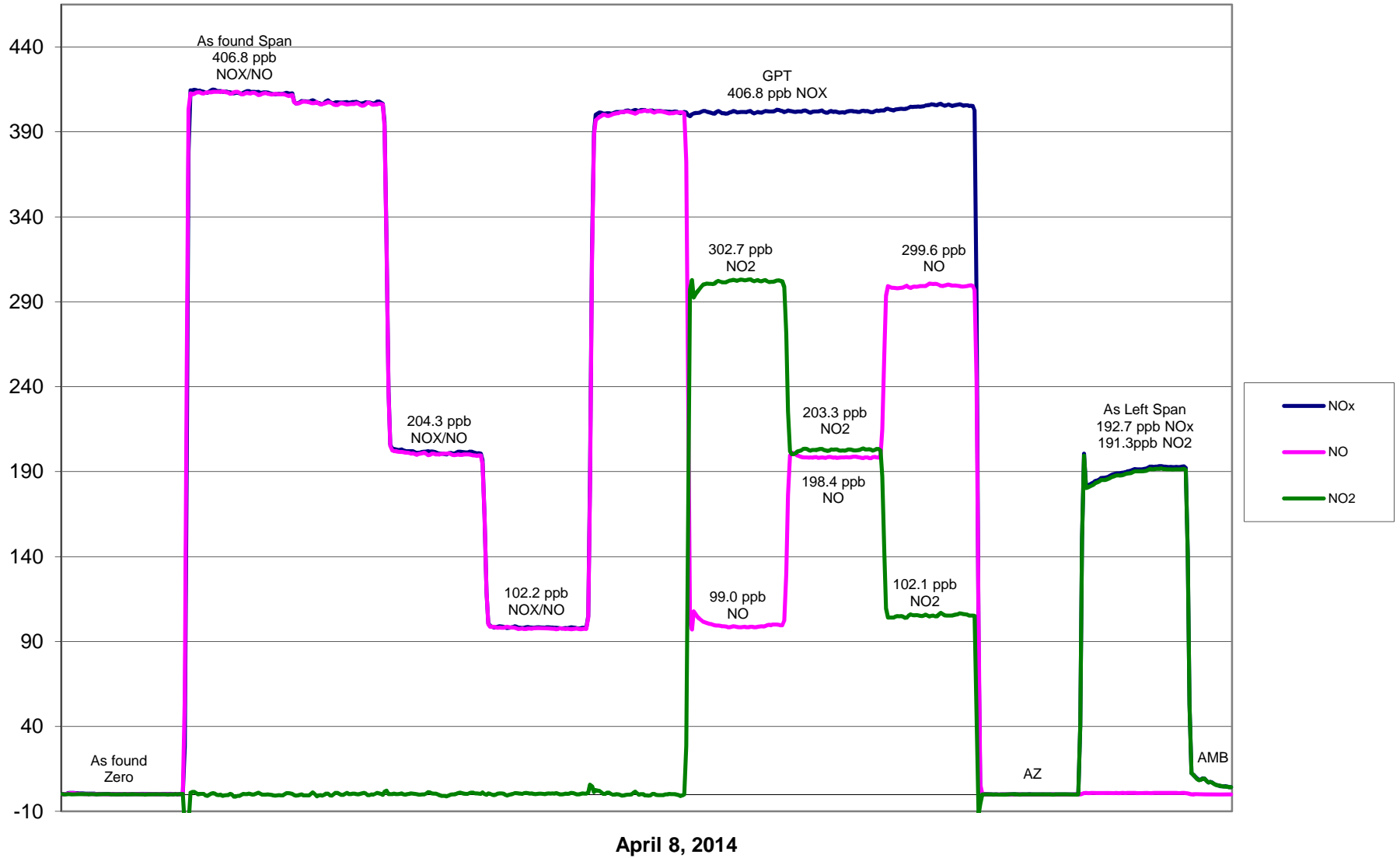
## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999797
406.8	406.4	1.0011		
204.3	200.0	1.0214	Slope	0.998327
102.2	97.5	1.0482		
			Intercept	2.636329

## NO Calibration Curve



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



# Calibration Report



Parameter 03  
Air Monitoring Network PAZA

## Station Information

Calibration Date	<u>April 8, 2014</u>	Previous Calibration	<u>March 10, 2014</u>
Station Number	<u>4</u>	Station Location	<u>Beaverlodge</u>
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	<u>12:30</u>	End Time (MST)	<u>15:50:00 PM</u>
Barometric Pressure	<u>0.904 atm</u>	Station Temperature	<u>20.0 Deg C</u>
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>0.987214</u>	Calculated slope	<u>1.005897</u>
Calculated intercept	<u>-0.879746</u>	Calculated intercept	<u>-0.779930</u>
Analyzer make	<u>Teco 49i</u>	Analyzer serial #	<u>1136451236</u>

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	0.00	ppb	0.00	ppb
slope	1.084		1.061	
Lamp temp	53.9	mV	53.9	mV
Lamp Intensity A/B	86821/89408	mV	86817/89337	mV
Pressure	657.3	mm Hg	676.9	mm Hg
Flow A	0.738	LPM	0.753	LPM
Flow B	0.724	LPM	0.737	LPM

## Calibration Data

Dilution air flow rate (cc/min)	Calibrator Setting	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5035	0.00	0.0	0.3	N/A
5035	0.30	302.7	302.0	1.0024
5035	0.20	203.3	201.8	1.0076
5035	0.10	102.1	103.6	0.9851
5035	0.00	0.0	0.3	As found zero
5035	0.30	302.7	309.9	As found span
Average Correction Factor				0.9984

Calculated value of As Found Response: 304.8 ppm      Percent Change of As Found: 0.7%

	before calibration		after calibration	
Auto zero	-1.2	ppb	-0.3	ppb
Auto span	277.9	ppb	283.3	ppb

Notes: Span adjustment, run adjustment point.

Calibration Performed By: Dmytro Dolotii

# Calibration Summary



Parameter                  03

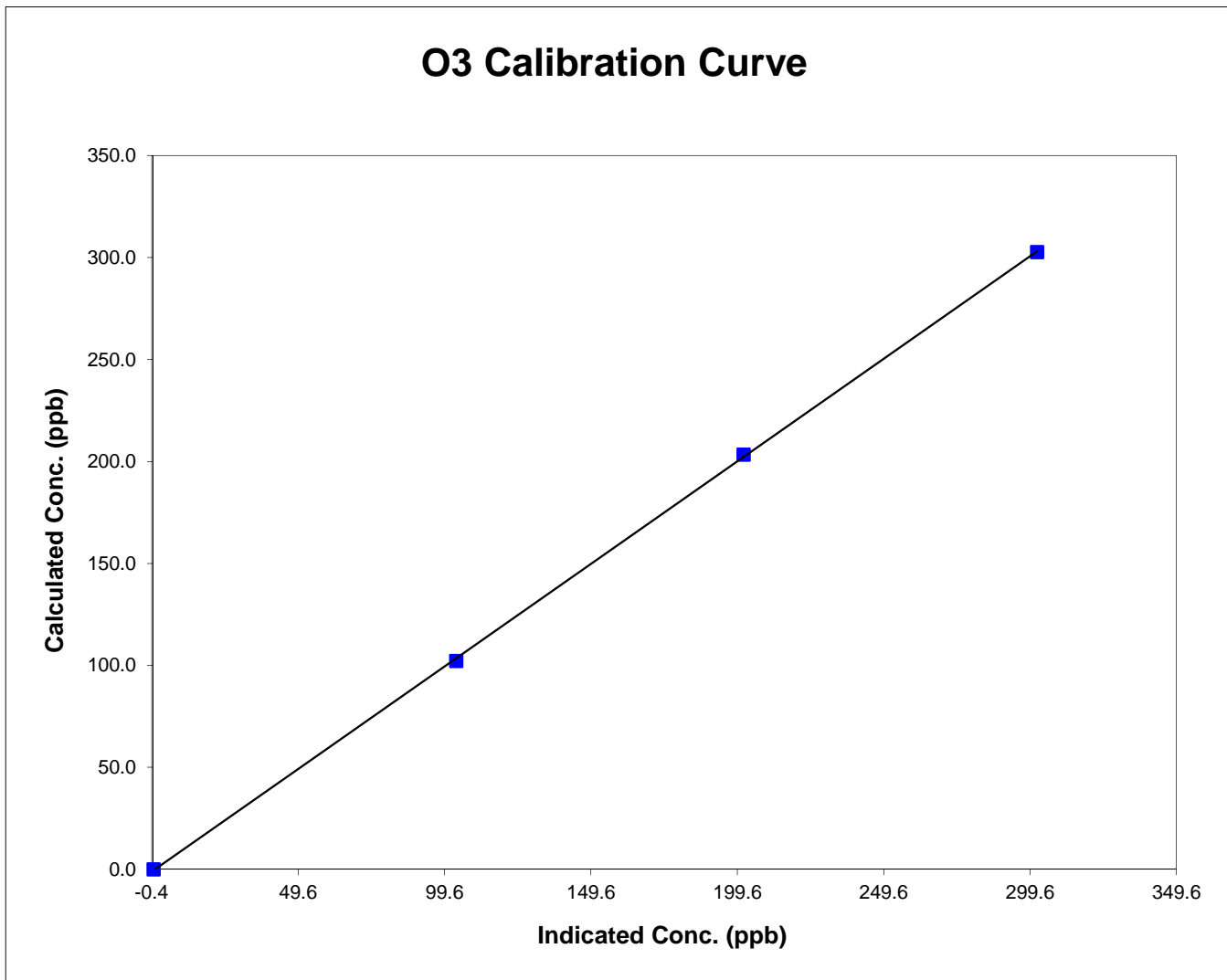
Air Monitoring Network    PAZA

### Station Information

Calibration Date	<u>                </u> April 8, 2014	Previous Calibration	<u>                </u> March 10, 2014
Station Number	<u>                </u> 4	Station Location	<u>                </u> Beaverlodge
Start Time (MST)	<u>                </u> 12:30	End Time (MST)	<u>                </u> 15:50:00 PM
Analyzer make/model	<u>                </u> Teco 49i	Analyzer serial #	<u>                </u> 1136451236

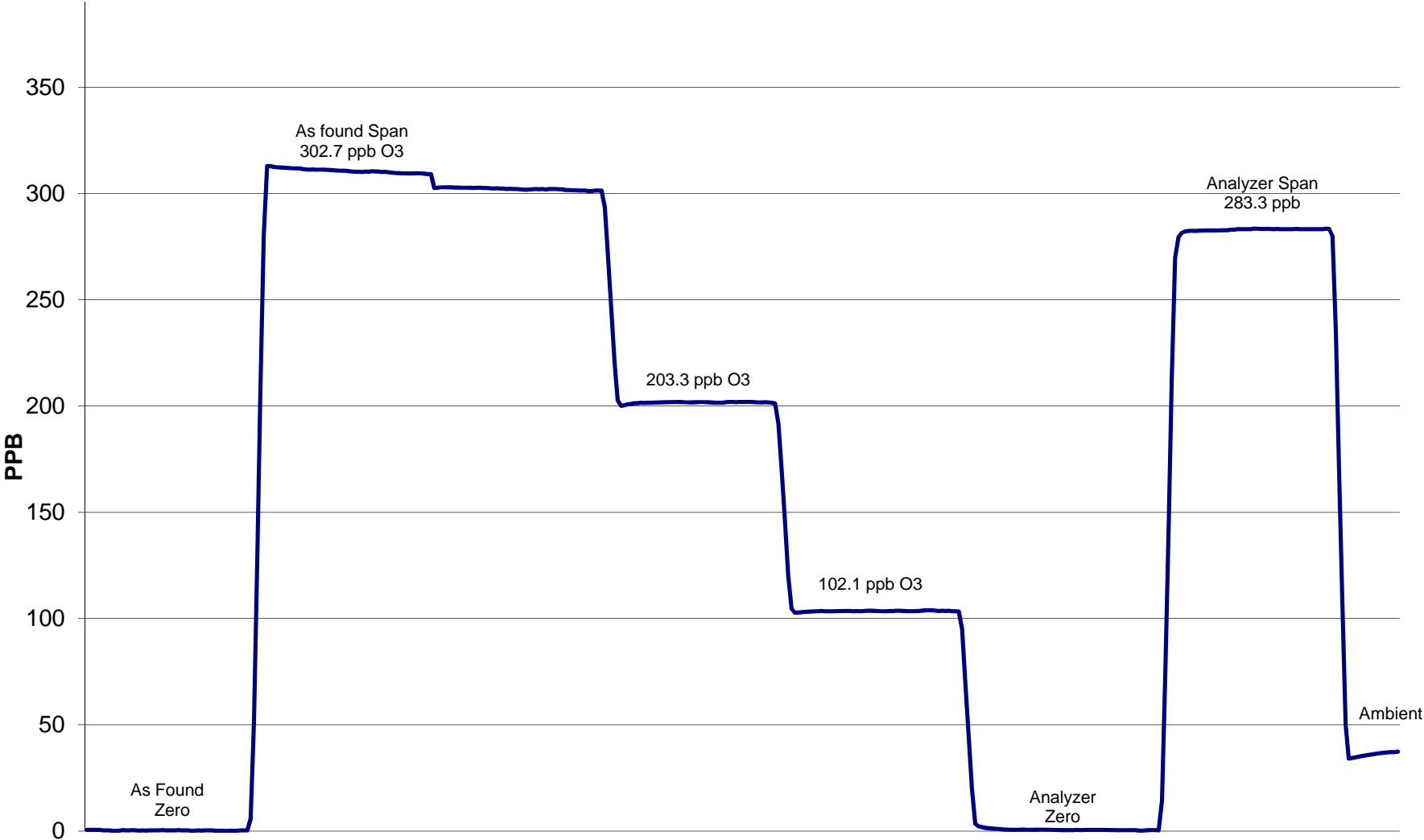
### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	NA		
302.7	302.0	1.0024	Correlation Coefficient	0.999931
203.3	201.8	1.0076		
102.1	103.6	0.9851	Slope	1.005897
			Intercept	-0.779930





# O3 Calibration



April 8, 2014

# Calibration Report



Parameter SO2

Air Monitoring Network PAZA

## Station Information

Calibration Date	April 14 2014	Previous Calibration	March 14 2014
Station Number	6	Station Location	Valleyview
Reason:	<b>Routine</b>	Install	Removal
			Other:
Start Time (MST)	11:35	End Time (MST)	14:15:00 PM
Barometric Pressure	702.00 mmHg	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
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	0.998502	Calculated slope	0.997170
Calculated intercept	1.232593	Calculated intercept	1.713589
Analyzer make	TEI 45C	Analyzer serial #	45C-57531-313

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	60.8		62.5	
Coefficient	1.038		1.038	
UV Lamp Voltage	833	LPM	834	LPM
Chamber Temp	44.3	V	44.5	V
Perm Gas Temp	37	C	37	C
Pressure	606.4	in Hg	602.3	in Hg
Sample Flow	0.537	LPM	0.539	LPM
Lamp Intensity	42051	Hz	42101	Hz

## Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.2	N/A
4995	39.93	408.4	408.9	0.9990
4995	19.97	205.1	202.8	1.0112
4995	9.97	102.6	99.4	1.0322
4995	0.00	0.0	1.8	As found zero
4995	39.93	408.4	408.9	As found span
Average Correction Factor				1.0141

Calculated value of As Found Response: 407.6 ppm      Percent Change of As Found: 0.2%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.0	ppm
Auto span	150.2	ppm	149.4	ppm

Notes: Slight zero adjustment

Calibration Performed By: Dmytro Dolotii.

# Calibration Summary

Parameter SO2  
 Air Monitoring Network PAZA

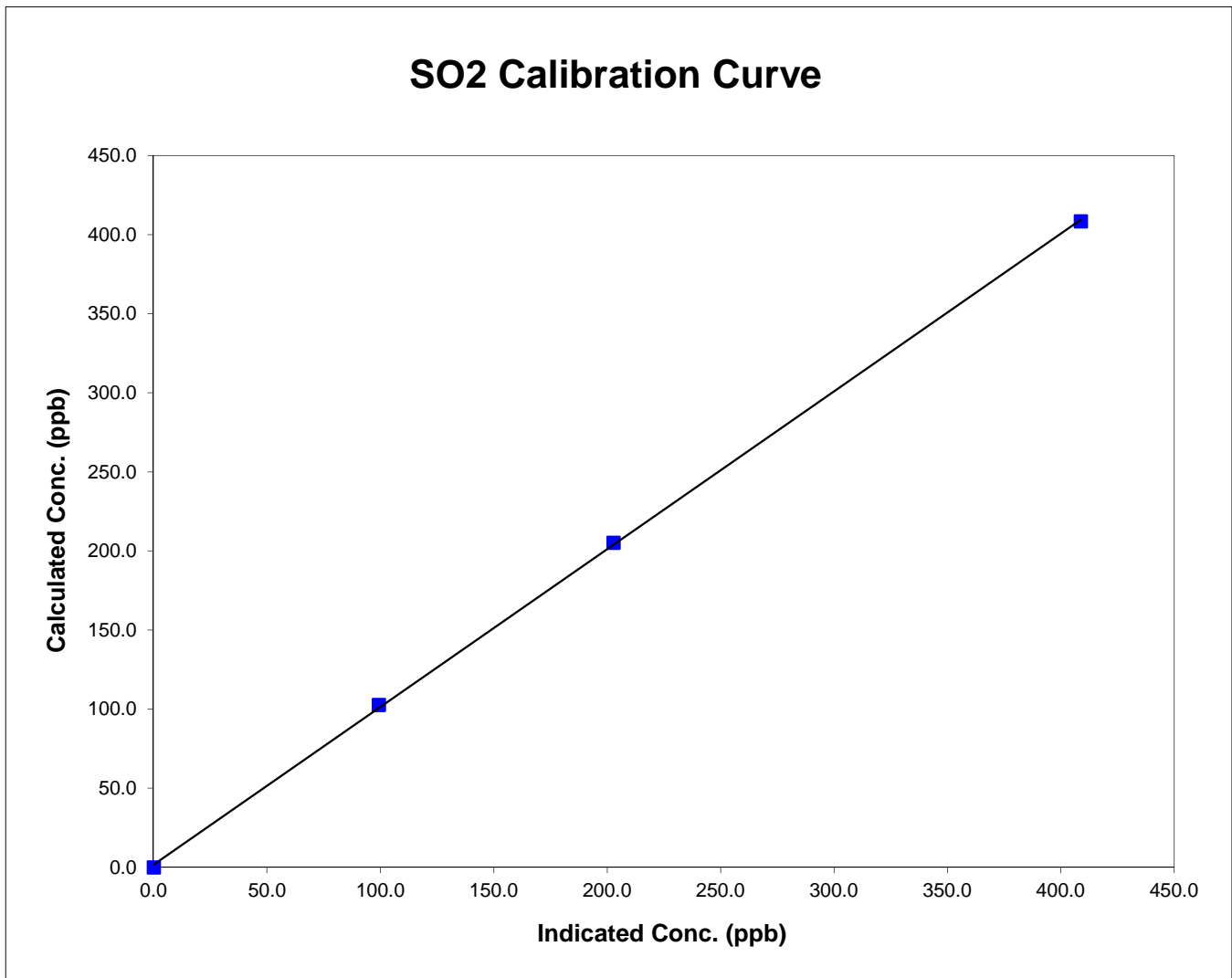


### Station Information

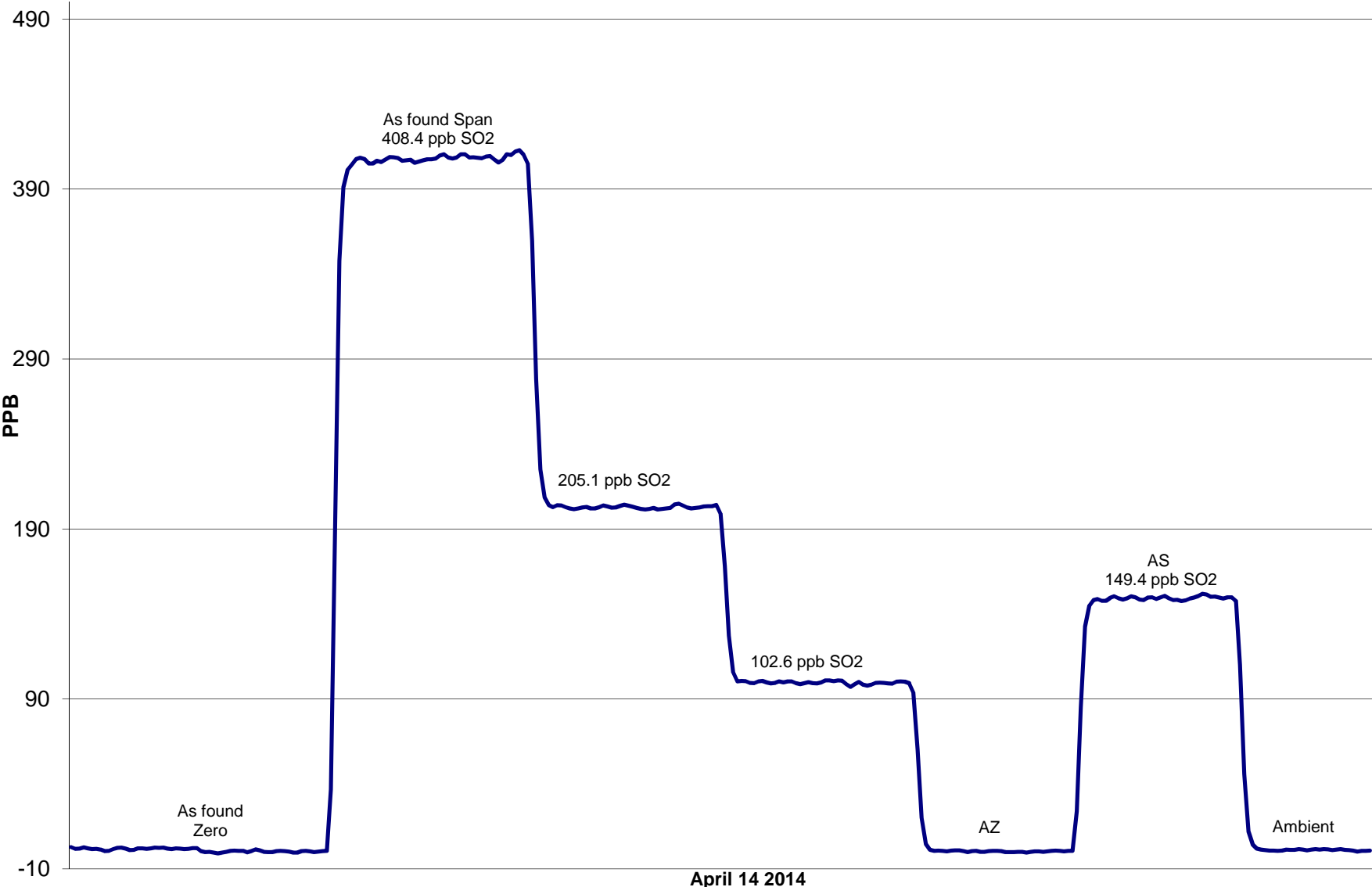
Calibration Date	April 14 2014	Previous Calibration	March 14 2014
Station Number	6	Station Location	Valleyview
Start Time (MST)	11:35	End Time (MST)	14:15:00 PM
Analyzer make/model	TEI 45C	Analyzer serial #	45C-57531-313

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999902
408.4	408.9	0.9990		
205.1	202.8	1.0112	Slope	0.997170
102.6	99.4	1.0322		
			Intercept	1.713589



# SO2 Calibration



# Calibration Report



Parameter H2S

Air Monitoring Network PAZA

### Station Information

Calibration Date	April 14 2014	Previous Calibration	March 14 2014
Station Number	6	Station Location	Valleyview
Reason:	<b>Routine</b>	Install	Removal
		Other:	

Start Time (MST)	9:44	End Time (MST)	13:00:00 PM
Barometric Pressure	702.00 mm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	10.4 ppm	Cal Gas Expiry Date	July 03 2016
Gas Cert Reference	LL110781		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.023205	Calculated slope	0.991507
Calculated intercept	0.637958	Calculated intercept	0.594315

Analyzer make TEI Model 43i - APSCB Analyzer serial # 701120010

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	7.8	ppb	7.7	ppb
Coefficient	0.915		0.915	
Lamp Voltage	790	v	791	v
Chamber Temp	45.1	c	45.2	c
Perm Oven Temp	44.99	c	45	c
Pressure	586.30	mm Hg	586.70	mm Hg
Sample Flow	0.400	ccm	0.399	lpm
Lamp Intensity	91	%	91	%

### Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	-0.1	N/A
4995	39.93	82.5	82.9	0.9955
4995	19.97	41.4	40.7	1.0178
8995	8.97	10.4	9.6	1.0798
4995	9.97	102.5	2.8	Sox Test
4995	0.00	0.0	-0.1	As found zero
4995	39.93	82.5	82.9	As found span
Average Correction Factor				1.0311

Calculated value of As Found Response: 85.54 ppm Percent Change of As Found: -3.7%

	before calibration		after calibration	
Auto zero	0.5	ppm	0.5	ppm
Auto span	67.3	ppm	66.3	ppm

Notes: No adjustments made  
Spike on the after span-new orifices will be ordered

Calibration Performed By: Dmytro Dolotii.

# Calibration Summary



Parameter H2S

Air Monitoring Network PAZA

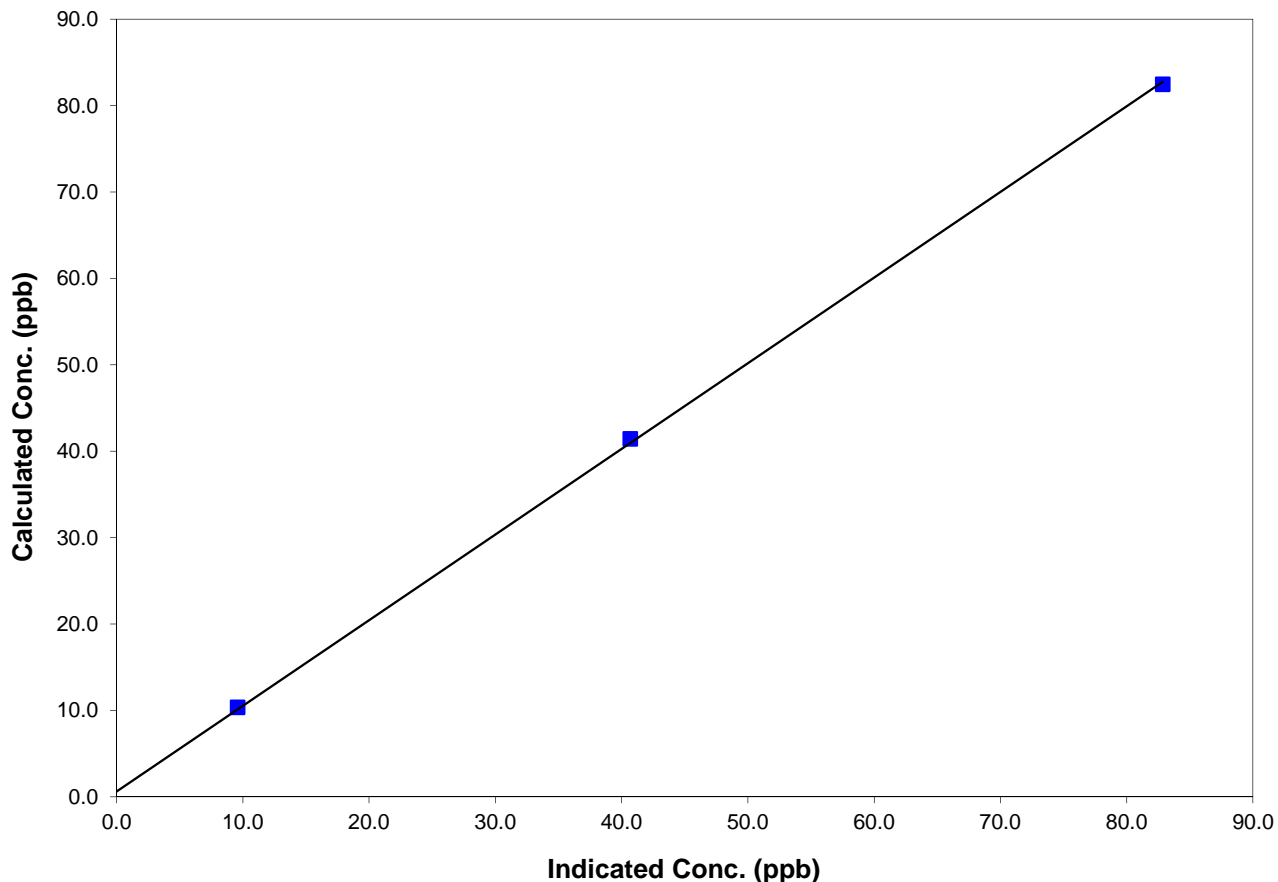
## Station Information

Calibration Date	<u>April 14 2014</u>	Previous Calibration	<u>March 14 2014</u>
Station Number	<u>6</u>	Station Location	<u>Valleyview</u>
Start Time (MST)	<u>9:44</u>	End Time (MST)	<u>13:00:00 PM</u>
Analyzer make/model	<u>TEI Model 43i - APSCB</u>	Analyzer serial #	<u>701120010</u>

## Calibration Data

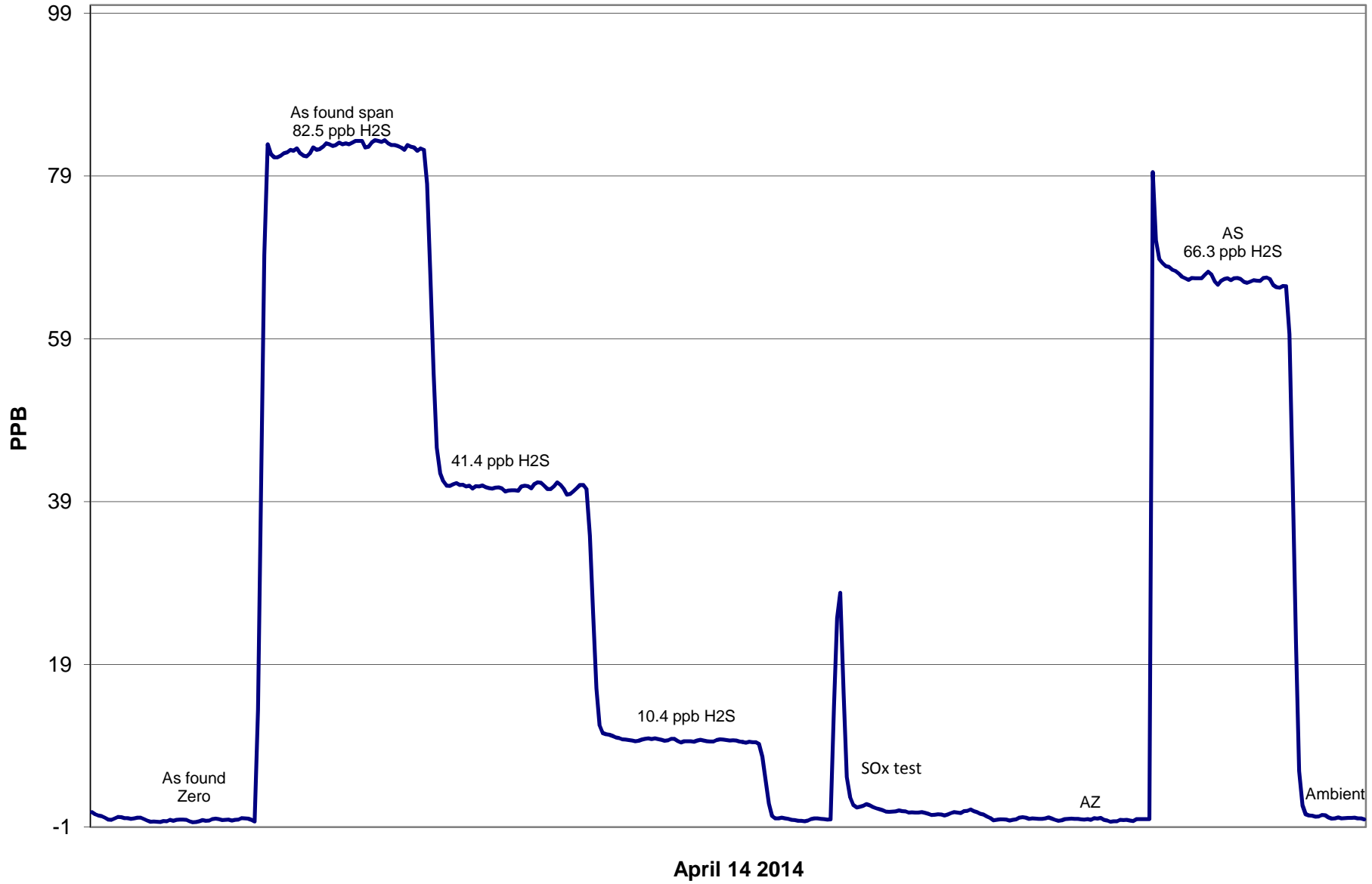
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999860
82.5	82.9	0.9955		
41.4	40.7	1.0178	Slope	0.991507
10.4	9.6	1.0798		
			Intercept	0.594315

### H2S Calibration Curve



10.4 ppb H2S

### H2S Calibration



# Calibration Report



Parameter SO2  
 Air Monitoring Network PAZA

### Station Information

Calibration Date	April 23, 2014	Previous Calibration	March 19, 2014
Station Number	10	Station Location	Reno
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
Other:	<input type="text"/>		
Start Time (MST)	8:10	End Time (MST)	12:10
Barometric Pressure	0.921 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Concentration	51.5 ppm	Cal Gas Expiry Date	12/03/2014
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	1.003438	Calculated slope	1.001764
Calculated intercept	1.156172	Calculated intercept	1.341068
Analyzer make	TEI 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	20.2		20.7	
Coefficient	1.059		1.059	
UV Lamp Voltage	867	V	866	V
Chamber Temp	44.7	C	44.8	C
Perm Gas Temp	45	C	45	C
Pressure	664.6	mm Hg	664.3	mm Hg
Sample Flow	0.462	LPM	0.462	LPM
Lamp Intesity	30696	Hz	30587	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	0.4	N/A
4995	39.93	408.4	407.2	1.0031
4995	19.97	205.1	202.7	1.0117
4995	9.97	102.6	99.2	1.0340
4995	0.00	0.0	0.9	As found zero
4995	39.93	408.4	407.2	As found span
Average Correction Factor				1.0163

Calculated value of As Found Response: 408.809 ppm      Percent Change of As Found: -0.1%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	259.1	ppm	243.8	ppm

Notes: Slight zero adjustment made.

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Calibration Performed By: Grover Christiansen, Dmytro Dolotii.



# Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



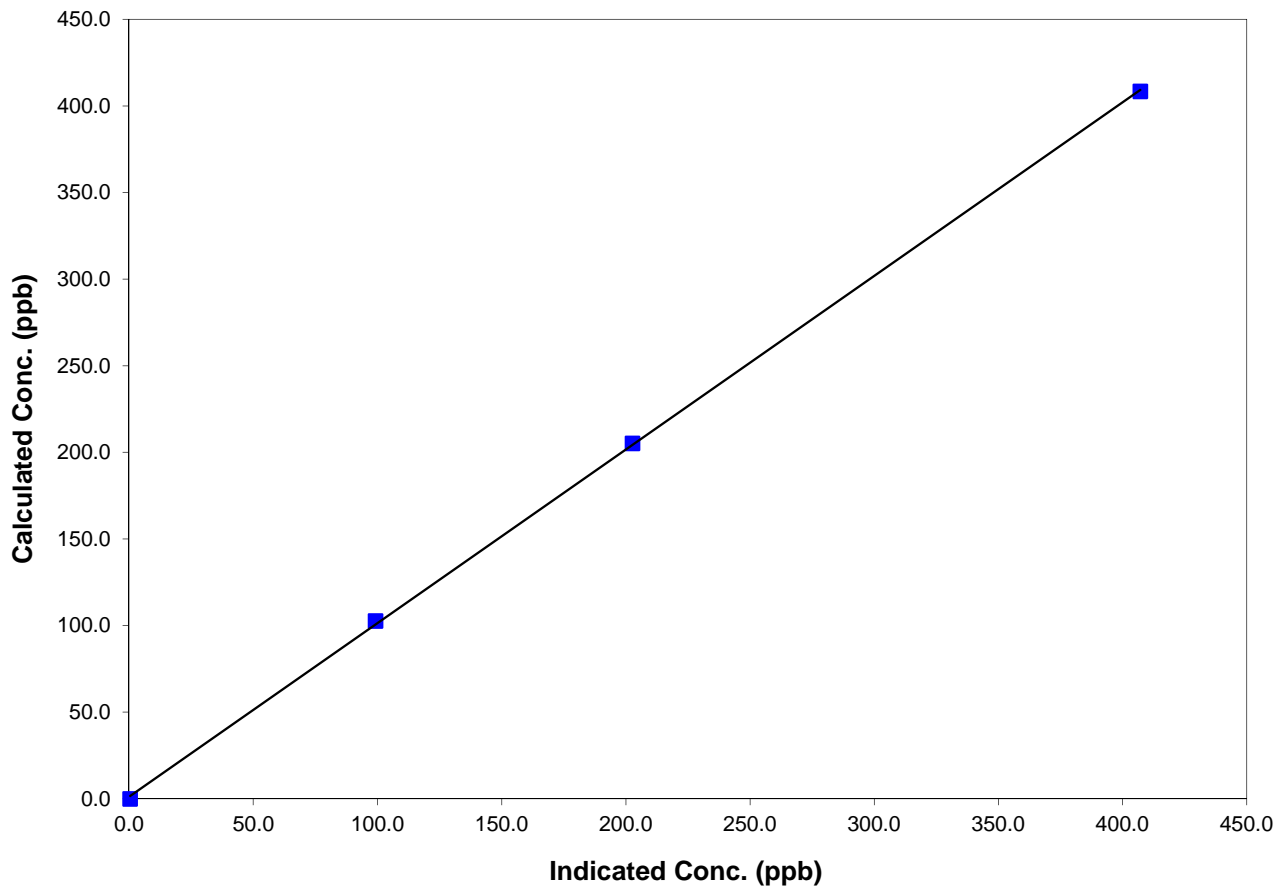
## Station Information

Calibration Date	April 23, 2014	Previous Calibration	March 19, 2014
Station Number	10	Station Location	Reno
Start Time (MST)	8:10	End Time (MST)	12:10
Analyzer make/model	TEI 43C	Analyzer serial #	436610005

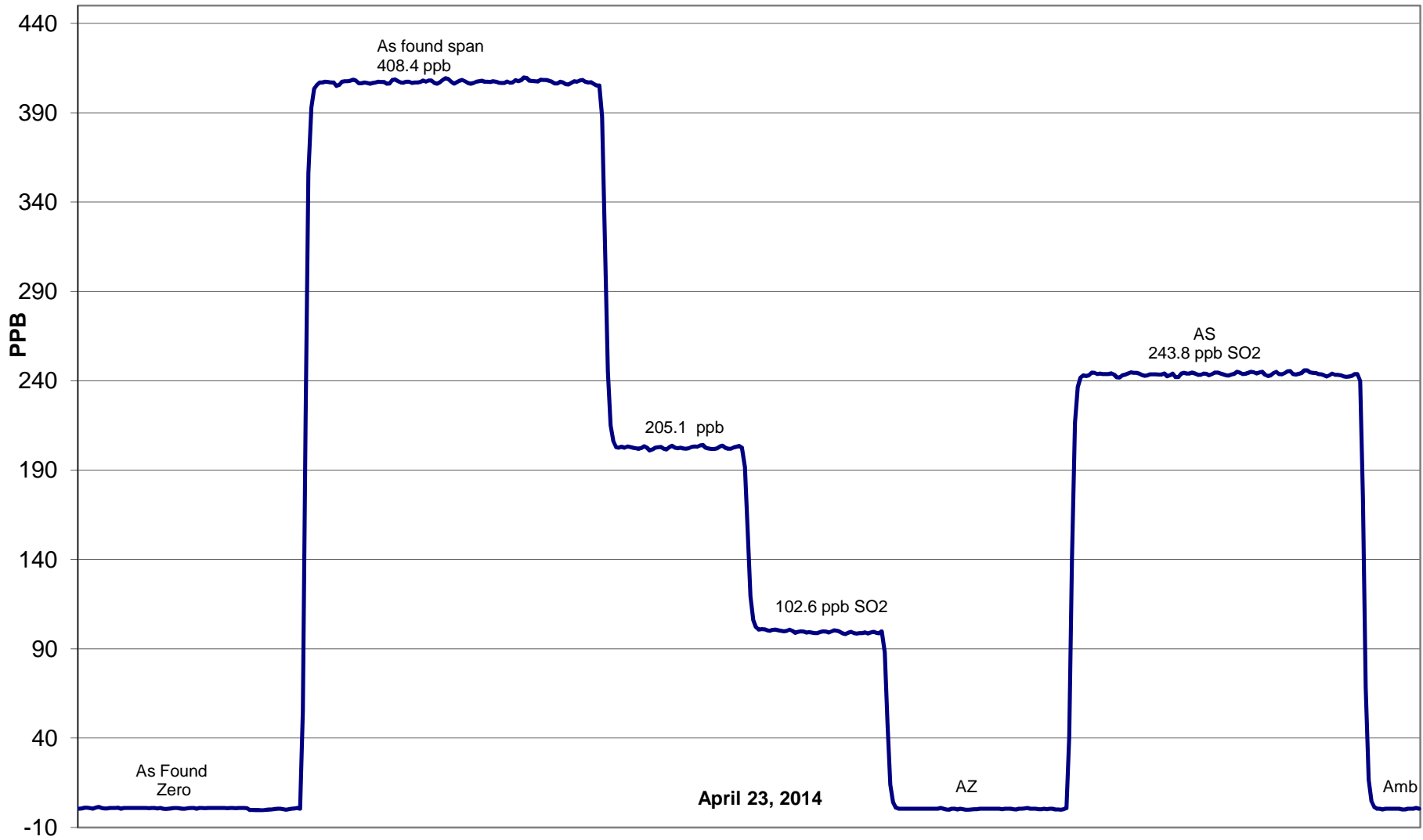
## Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A	Correlation Coefficient	0.999916
408.4	407.2	1.0031		
205.1	202.7	1.0117	Slope	1.001764
102.6	99.2	1.0340		
			Intercept	1.341068

### 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	April 23, 2014	Previous Calibration	March 19, 2014
Station Number	10	Station Location	Reno
Reason:	<b>Routine</b>	Install	Removal
Other:			
Start Time (MST)	8:05	End Time (MST)	
Barometric Pressure	0.921	Atm	Station Temperature
Calibrator	EnviroNics	Serial Number	3016
NO Cal Gas Conc	51.3	ppm	Cal Gas Expiry Date
NO <sub>x</sub> Cal Gas Conc	51.4	ppm	Cal Gas Serial #
			LL105159

## DACS Information

DACS make	CR3000	DACS serial No.	5407	
Parameter		NO <sub>2</sub>	NO <sub>x</sub>	NO
Before	Data Slope	1.003473	0.997446	0.998915
	Data Offset	0.442057	1.563537	1.553933
After	Data Slope	1.002900	0.994999	0.999479
	Data Offset	0.137784	1.242109	0.935344
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	6.3	mV	6.0	mV
NO <sub>x</sub> bkgnd	6.4	mV	6.2	mV
NO coefficient	1.091		1.053	
NO <sub>x</sub> coefficient	0.999		0.999	
NO <sub>2</sub> conv temp	325.8	Deg C	326.0	Deg C
Cooler Temp	-2.8	Deg C	-2.9	Deg C
PMT Volt	845.8	mV	845.8	mV
R Cell Press	196.8	in Hg	197.0	in Hg
Sample Flow	0.701	ccm	0.707	ccm

NOTES: Slight zero adjustment.  
 Span adjustment made.  
 Converter temp is moving +/- 4 C, from 323 C to 326.9C

# Calibration Report



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

## Station Information

Calibration Date: **April 23, 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	-0.1	0.0	0.0	N/A	N/A	
1	4995	39.93	407.6	406.8	0.8	409.0	406.6	0.7	0.9967	1.0005	
2	4995	19.97	204.7	204.3	0.4	203.9	202.9	0.2	1.0037	1.0069	
3	4995	9.97	102.4	102.2	0.2	100.5	100.4	0.3	1.0192	1.0179	
AFZ	4995	0.00	0.0	0.0	0.0	0.3	0.1	0.3	0.0000	0.0000	
AFS	4995	39.93	407.6	406.8	0.8	424.2	422.0	0.5	0.9609	0.9641	
									Average Correction Factor	1.0065	1.0085

As Found Concentrations: **NO<sub>x</sub>= 425.5** **NO= 423.4** As Found Percent Change **NO<sub>x</sub>= 4.4%** **NO= 4.1%**

## 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	0.0	0.0	N/A	N/A	N/A	N/A	
NO point	406.2	406.2	0.0	408.3	406.2	0.1	0.9949	1.0000	N/A	N/A	
300	406.2	89.6	316.5	406.8	89.6	315.6	0.9985	1.0000	1.0029	99.7%	
200	406.2	191.5	214.7	407.0	191.5	213.8	0.9980	1.0000	1.0042	99.6%	
100	406.2	293.9	112.3	407.5	293.9	111.7	0.9966	1.0000	1.0055	99.5%	
							Average Correction Factor	0.9977	1.0000	1.0042	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	0.0	0.2	ppb
Auto span	166.3	164.3	1.4	ppb	167.2	165.4	1.3	ppb

Calibration Performed By: Grover Christiansen, Dmytro Dolotii.

# Calibration Summary

Parameter NO<sub>2</sub>

Air Monitoring Network PAZA



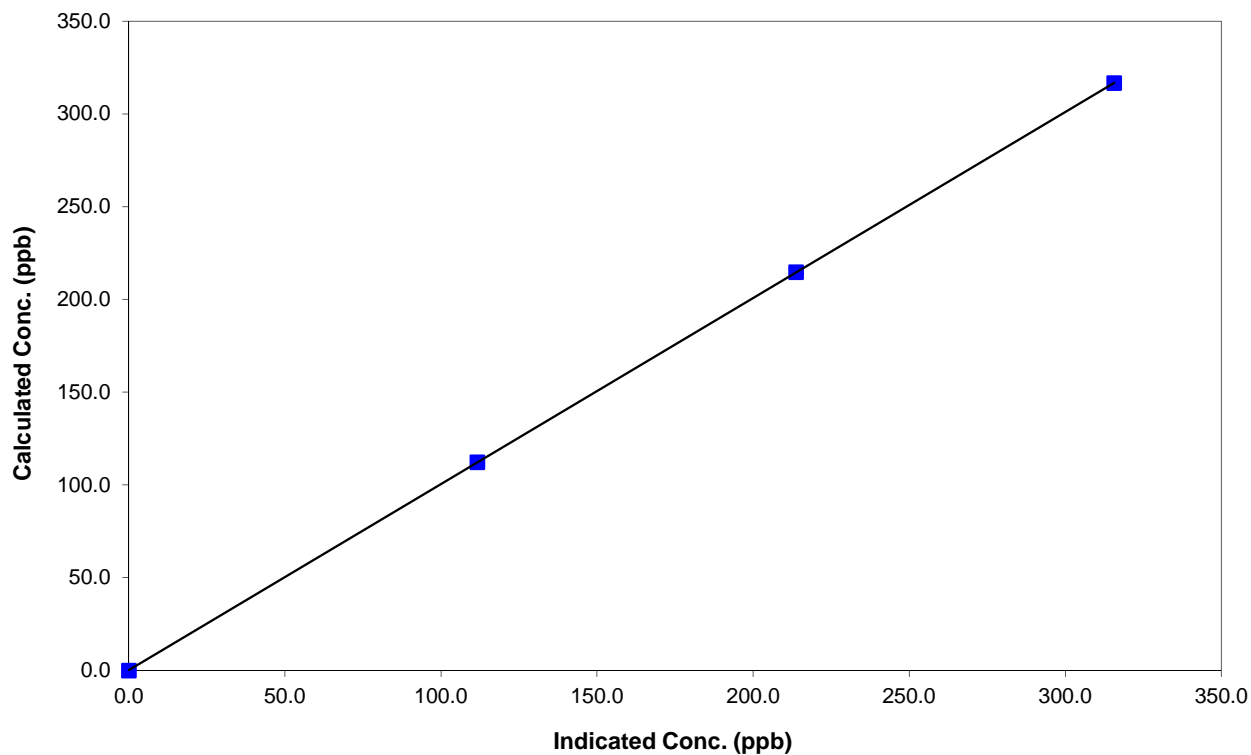
## Station Information

Calibration Date	April 23, 2014	Previous Calibration	March 19, 2014
Station Number	10	Station Location	Reno
Start Time (MST)	8:05	End Time (MST)	0:00
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		
316.5	315.6	1.0029	Correlation Coefficient	0.999999
214.7	213.8	1.0042		
112.3	111.7	1.0055	Slope	1.002900
			Intercept	0.137784

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



# Calibration Summary

Parameter NO<sub>x</sub>

Air Monitoring Network PAZA



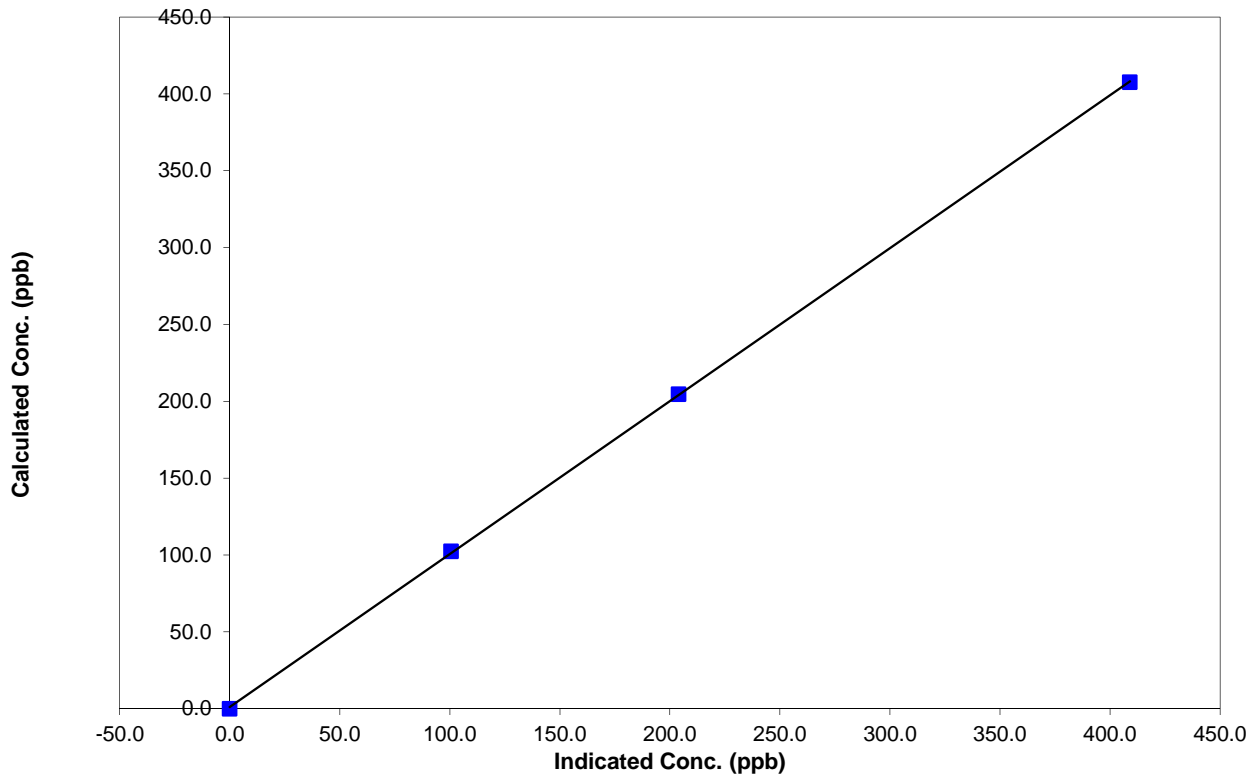
## Station Information

Calibration Date	April 23, 2014	Previous Calibration	March 19, 2014
Station Number	10	Station Location	Reno
Start Time (MST)	8:05	End Time (MST)	0:00
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	0.999963
407.6	409.0	0.9967		
204.7	203.9	1.0037		
102.4	100.5	1.0192	Slope	0.994999
			Intercept	1.242109

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



# Calibration Summary

Parameter NO

Air Monitoring Network PAZA



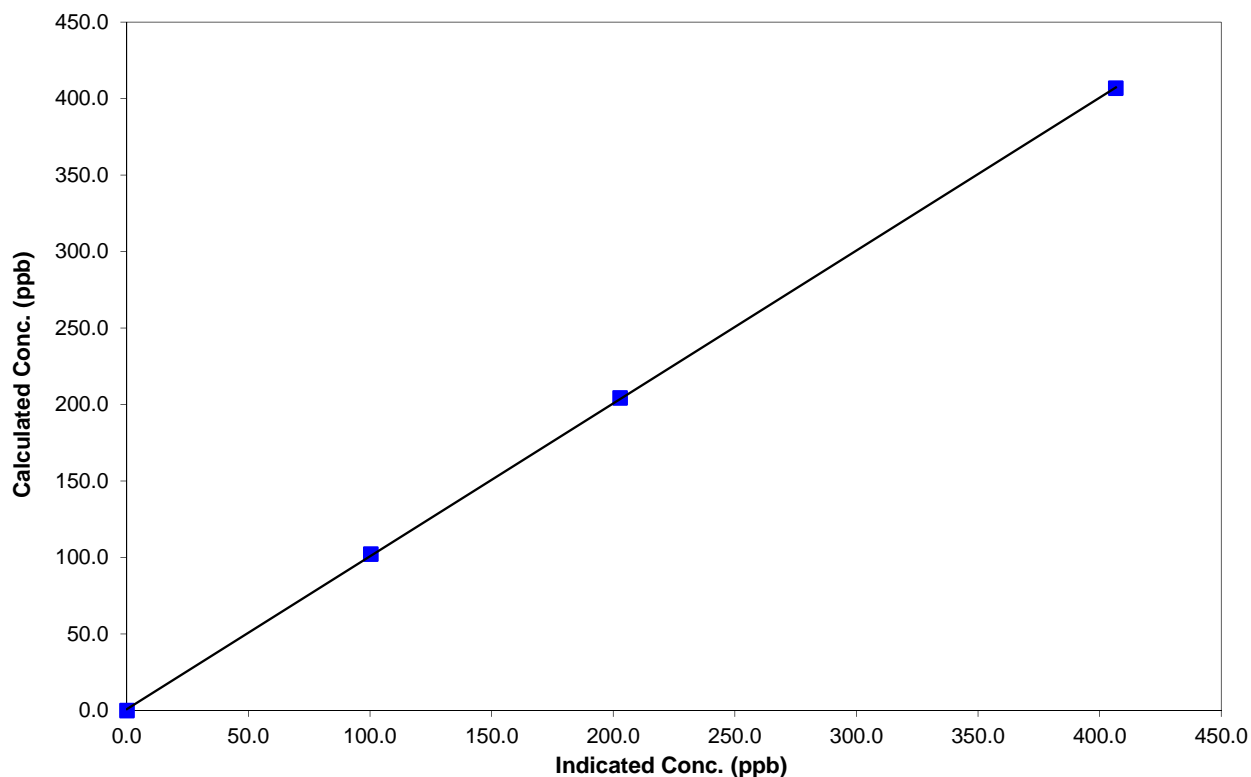
## Station Information

Calibration Date	April 23, 2014	Previous Calibration	March 19, 2014
Station Number	10	Station Location	Reno
Start Time (MST)	8:05	End Time (MST)	0:00
Analyzer make	TEI 42i	Analyzer serial #	0701120011

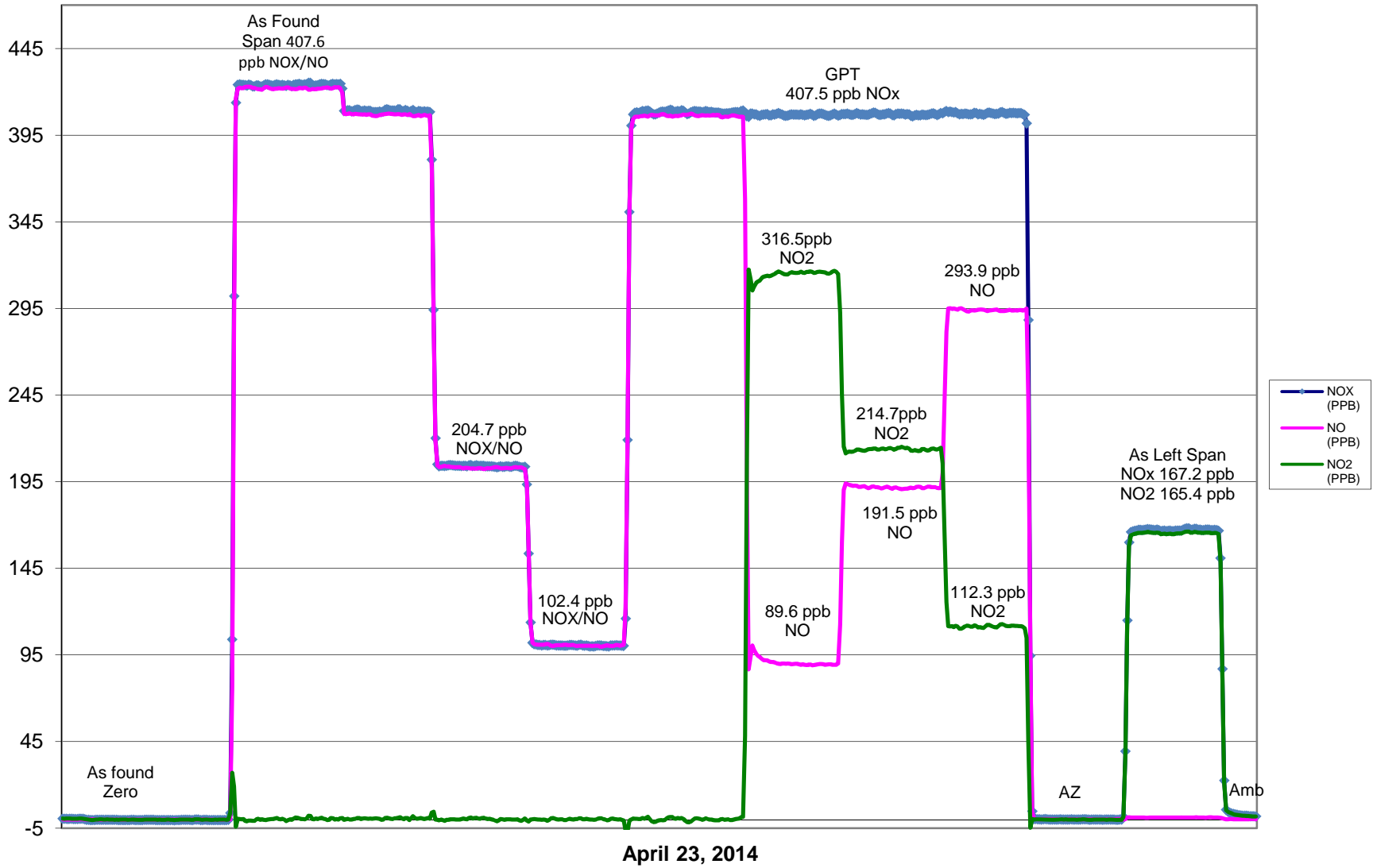
## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999974
406.8	406.6	1.0005		
204.3	202.9	1.0069		
102.2	100.4	1.0179	Slope	0.999479
			Intercept	0.935344

## NO Calibration Curve



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





# Calibration Report



Parameter 03

Air Monitoring Network PAZA

## Station Information

Calibration Date	<u>April 23 2014</u>	Previous Calibration	<u>March 19 2014</u>
Station Number	<u>10</u>	Station Location	<u>Reno</u>
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal remove
		<input type="checkbox"/> Other:	
Start Time (MST)	<u>12:21</u>	End Time (MST)	<u>15:25:00 PM</u>
Barometric Pressure	<u>0.921 atm</u>	Station Temperature	<u>20.0 Deg C</u>
Calibrator	<u>Envionics 6100</u>	Serial Number	<u>3016</u>
DACS make	<u>CR3000</u>	DACS serial No.	<u>5407</u>
DACS voltage range	<u>0 - 5 Volts</u>	DACS channel #	<u>6</u>
	<u>Before</u>		<u>After</u>
Calculated slope	<u>1.011276</u>	Calculated slope	<u>0.996852</u>
Calculated intercept	<u>1.024588</u>	Calculated intercept	<u>0.745468</u>
Analyzer make	<u>TEI Model 49C</u>	Analyzer serial #	<u>49C-0609716240</u>

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	0	ppb	0	ppb
Span	0.988		0.988	
Cell A intensity	107943	Hz	113584	Hz
Cell B intensity	104497	Hz	109812	Hz
Pressure	664.90	in Hg	664.10	in Hg
CellA Flow	0.700	ccm	0.699	ccm
Cell B Flow	0.694	cmm	0.693	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	316.5	317.7	0.9963
5035	0.20	214.7	213.7	1.0048
5035	0.10	112.3	111.2	1.0102
5035	0.00	0.0	0.0	As found zero
5035	0.30	316.5	317.7	As found span
Average Correction Factor				1.0038

Calculated value of As Found Response: 322.2 ppm      Percent Change of As Found: 1.8%

	before calibration		after calibration	
Auto zero	-0.1	ppb	0.8	ppb
Auto span	403.2	ppb	413.9	ppb

Notes: No adjustments made  
After zero started dropping from 421ppb to 414ppb. Put it back into internal zero.  
By accident press LEVEL 2 button instead of LEVEL 1 which caused the spike

Calibration Performed By: Grover Christiansen, Dmytro Dolotii.

# Calibration Summary

Parameter            **O3**                                 

Air Monitoring Network                                  **PAZA**                                 

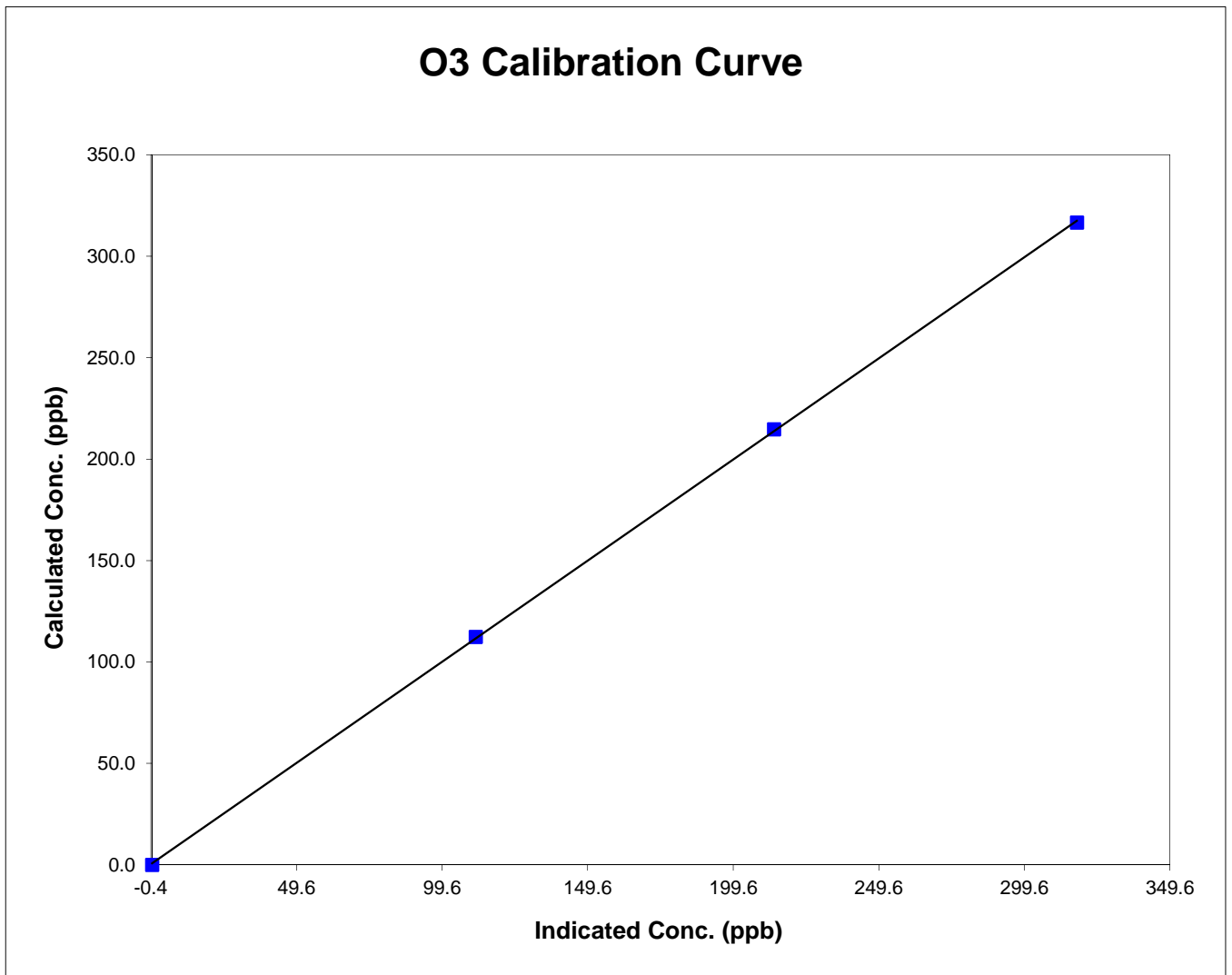


### Station Information

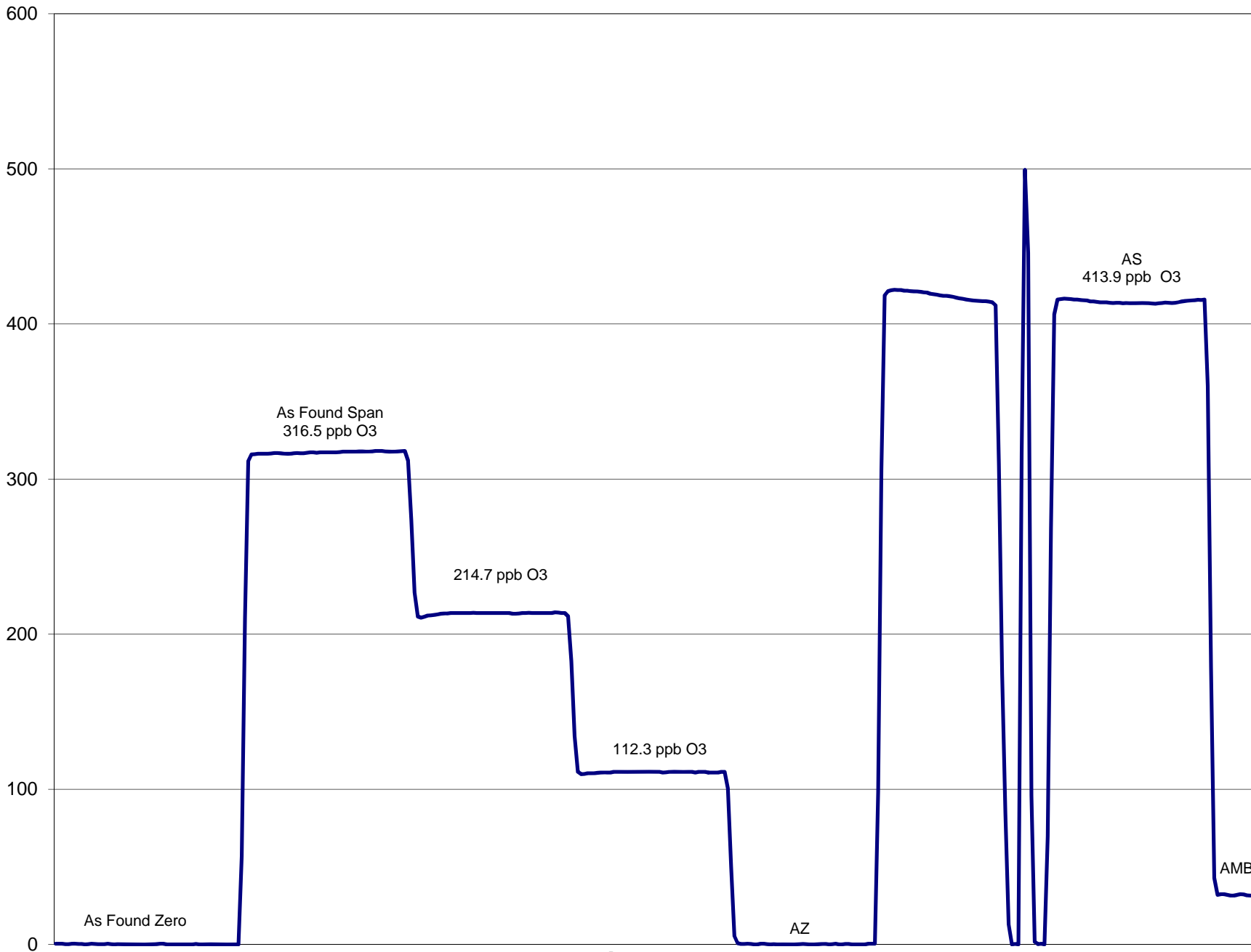
Calibration Date	<u>          </u> April 23 2014 <u>          </u>	Previous Calibration	<u>          </u> March 19 2014 <u>          </u>
Station Number	<u>          </u> 10 <u>          </u>	Station Location	<u>          </u> Reno <u>          </u>
Start Time (MST)	<u>          </u> 12:21 <u>          </u>	End Time (MST)	<u>          </u> 15:25:00 PM <u>          </u>
Analyzer make/model	<u>          </u> TEI Model 49C <u>          </u>	Analyzer serial #	<u>          </u> 49C-0609716240 <u>          </u>

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	NA		
316.5	317.7	0.9963	Correlation Coefficient	0.999947
214.7	213.7	1.0048		
112.3	111.2	1.0102	Slope	0.996852
			Intercept	0.745468



# O3 (PPB)



April 23 2014

# Calibration Report



Parameter                                  **TRS**

Air Monitoring Network                                  **PAZA**

### Station Information

Calibration Date	April 22 2014	Previous Calibration	March 19 2014
Station Name	PAZA Rover	Station Location	Reno
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			Other: <input type="text"/>
Start Time (MST)	13:15:00 PM	End Time (MST)	16:30:00 PM
Barometric Pressure	0.923 Atm	Station Temperature	20.0 Deg C
Calibrator	Envionics	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	1.012795	Calculated slope	1.004377
Calculated intercept	0.373808	Calculated intercept	-0.015737
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	16.5	ppb	16.6	ppb
Coefficient	1.015		1.015	
Lamp Voltage	772	V	777	V
Chamber Temp	44	C	43.9	C
Perm gas Temp	45	C	45	C
Pressure	651.6	mmHg	648.4	mmHg
Sample Flow	0.440	lpm	0.439	lpm
Lamp Intensity	39562	Hz	39151	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	0.2	N/A
4995	39.93	82.8	82.5	1.0034
4995	19.97	41.6	41.3	1.0060
8995	8.97	10.4	10.2	1.0187
4995	9.97	102.8	0.8	<b>Sox Test</b>
4995	0.00	0.0	0.2	As found zero
4995	39.93	82.8	82.5	As found span
Average Correction Factor				1.0094

Calculated value of As Found Response: **83.74 ppm**      Percent Change of As Found: **-1.1%**

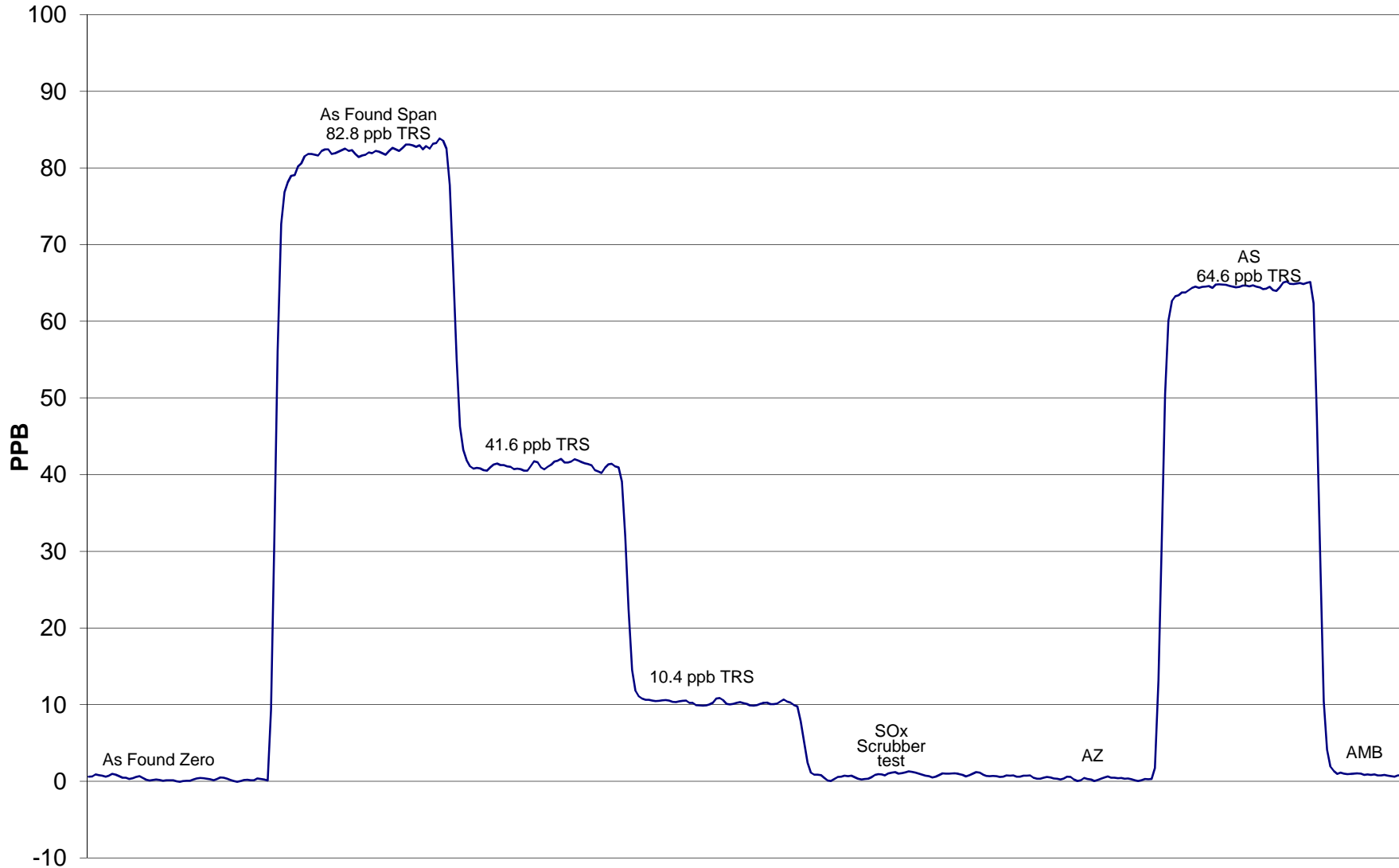
	before calibration		after calibration	
Auto zero	0.1	ppm	0.3	ppm
Auto span	65.4	ppm	64.6	ppm

Notes:            No adjustments made, Sox scrubber test performed.

Calibration Performed By:                                  Grover Christiansen, Dmytro Dolotii



# TRS Calibration



April 22 2014

# Calibration Report



Parameter SO<sub>2</sub>

Air Monitoring Network PAZA

## Station Information

Calibration Date	April 22, 2014	Previous Calibration	March 18, 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)	10:00	End Time (MST)	0:40
Barometric Pressure	0.931 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3474
Cal Gas Concentration	51.5 ppm	Cal Gas Expiry Date	25/02/2025
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	0.995674	Calculated slope	1.004921
Calculated intercept	0.970044	Calculated intercept	1.366471
Analyzer make	Teco 43i	Analyzer serial #	1207452008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	7.1		7.1	
coefficient	0.892		0.892	
Lamp Voltage	856	volts	857	volts
Chamber Temp	45.1	Deg C	45.2	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	672.2	mm Hg	674.3	mm Hg
Sample Flow	0.410	ccm	0.411	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	408.4	405.8	1.0065
4995	19.96	205.0	202.1	1.0144
4995	9.97	102.6	98.9	1.0374
4995	0.0	0.0	0.3	As Found Zero
4995	39.93	408.4	405.8	As Found Span
Average Correction Factor				1.0194

Calculated value of As Found Response: 404.696 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	355.7	ppm

Notes: No adjustments made

Calibration Performed By: Grover Christiansen, Dmytro Dolotii

# Calibration Summary



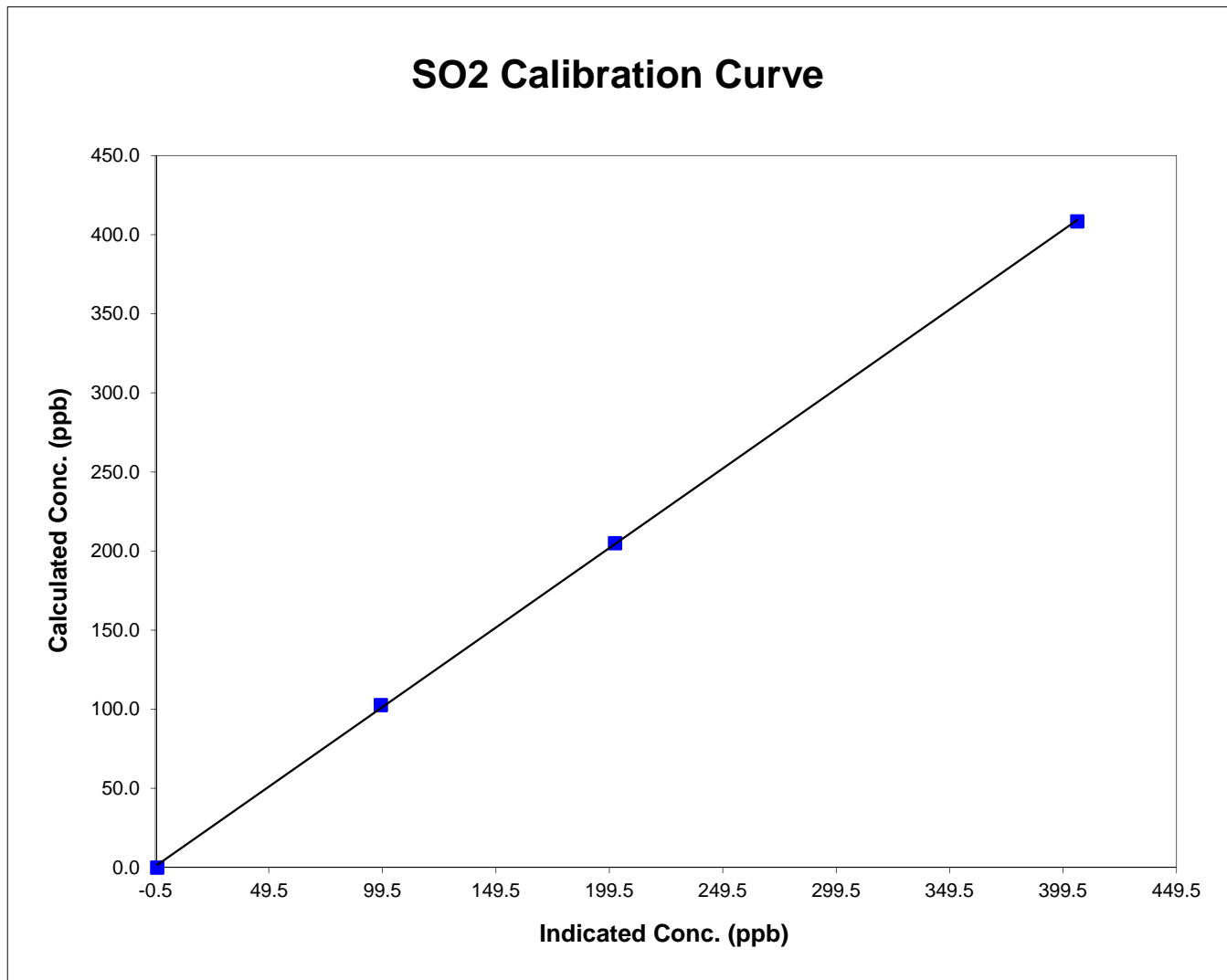
Parameter SO2  
 Air Monitoring Network PAZA

### Station Information

Calibration Date	April 22, 2014	Previous Calibration	March 18, 2014
Station Number	1	Station Location	Falher
Start Time (MST)	10:00	End Time (MST)	0:40
Analyzer make/model	Teco 43i	Analyzer serial #	1207452008

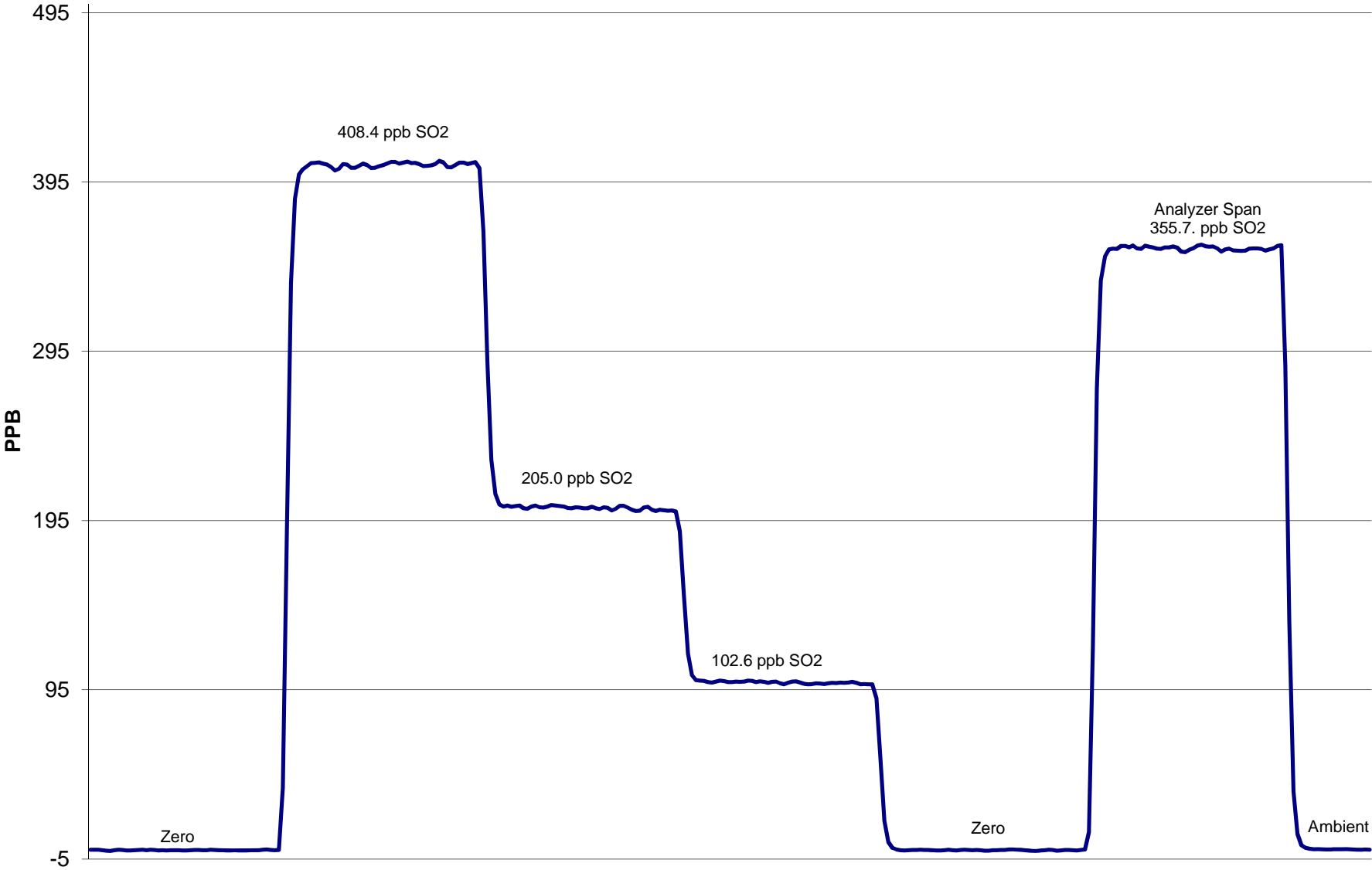
### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999923
408.4	405.8	1.0065		
205.0	202.1	1.0144		
102.6	98.9	1.0374	Slope	1.004921
			Intercept	1.366471





# SO2 Calibration



April 22, 2014

# Calibration Report



Parameter                                 H2S  
 Air Monitoring Network   PAZA

## Station Information

Calibration Date	<u>                                April 22, 2014</u>	Previous Calibration	<u>                                March 18, 2014</u>
Station Number	<u>                                1</u>	Station Location	<u>                                Falher</u>
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	<u>                                7:45</u>	End Time (MST)	<u>                                12:35</u>
Barometric Pressure	<u>                                0.931                  ATM</u>	Station Temperature	<u>                                20.0                  Deg C</u>
Calibrator	<u>                                EnviroNics</u>	Serial Number	<u>                                3016</u>
Cal Gas Conc	<u>                                10.4                  ppm</u>	Cal Gas Expiry Date	<u>                                08/07/2016</u>
Correction factor	<u>                                0.031647</u>	Cal Gas Cylinder #	<u>                                LL110781</u>
DACS make	<u>                                CR1000</u>	DACS serial No.	<u>                                3980</u>
DACS voltage range	<u>                                0 - 5 volt</u>	DACS channel #	<u>                                5</u>
	<u>                                Before</u>		<u>                                After</u>
Calculated slope	<u>                                0.965754</u>	Calculated slope	<u>                                0.972893</u>
Calculated intercept	<u>                                -0.303982</u>	Calculated intercept	<u>                                -0.629605</u>
Analyzer make	<u>                                Thermo 450i</u>	Analyzer serial #	<u>                                1207452006</u>

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	13.6	ppb	13.6	ppb
coefficient	1.169		1.169	
Lamp Voltage	806	volts	807	volts
Chamber Temp	45.1	Deg C	45.1	Deg C
Perm Gas Temp	45	Deg C	45.1	Deg C
Pressure	564.3	mm Hg	563.4	mm Hg
Sample Flow	0.904	lpm	0.902	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	0.8	N/A
4995	39.93	82.48	85.6	0.9641
4995	19.96	41.39	42.9	0.9638
8994	8.97	10.36	11.2	0.9218
4995	0.00	0.00	0.8	As Found Zero
4995	39.93	82.48	85.6	As Found Span
Average Correction Factor				0.9499

Calculated value of As Found Response:                                 81.53 ppm          Percent Change of As Found: **1.2%**

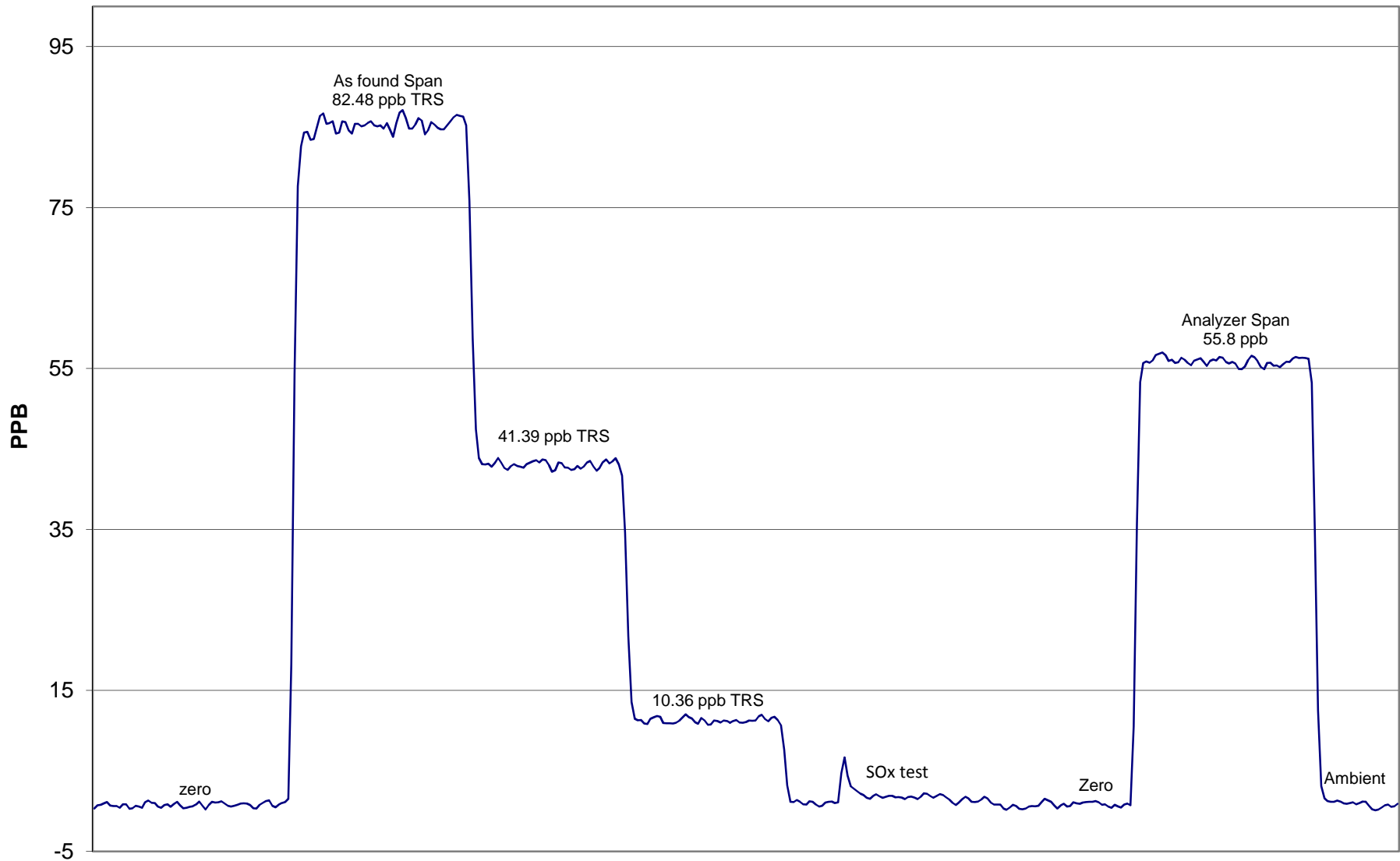
	before calibration		after calibration	
Auto zero	0.0	ppm	0.2	ppm
Auto span	51.2	ppm	55.8	ppm

Notes:                                 No adjustments made

Calibration Performed By:                                 Grover Christiansen, Dmytro Dolotii



# H2S Calibration



April 22, 2014