



# Air Quality Monitoring Network for November 2007



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**RE: Peace Airshed Zone Association (PASZA) – November 2007 Ambient Air Report**

Enclosed is the PASZA Ambient Monitoring Network Report for the month of **November 2007**.

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

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

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

During the month of November the following events were noted:

**Henry Pirker Station:**

- ◆ All analyzers / sensors at the Henry Pirker station had an operational uptime greater than 90%.
- ◆ TRS spans dropped on 26<sup>th</sup>, 28<sup>th</sup>, 29<sup>th</sup> and 30<sup>th</sup> – reason undetermined.
- ◆ No CO spans on November 29<sup>th</sup> and 30<sup>th</sup> due to cylinder pressure.
- ◆ The THC analyzer had a number of issues during the month of November. Spans had dropped from the 19<sup>th</sup> to the 23<sup>rd</sup> and on November 25<sup>th</sup> the THC analyzer had thirteen (13) hours flagged due to excessive baseline drift. On November 26<sup>th</sup> there were two (2) hours flagged invalid and two (2) hours flagged for maintenance to troubleshoot the issues with the analyzer. A second calibration was performed.
- ◆ The O<sub>3</sub> analyzer had a number of days where the spans were unstable due to failing UV lamp; a new lamp was installed in December.
- ◆ The AQI for the month resulted in 630 hours of Good readings and 1 hour of Fair readings.

**Evergreen Park Station:**

- ◆ The TRS spans increased greater than 10% on November 5<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> - reason undetermined.
- ◆ On November 13<sup>th</sup> and 18<sup>th</sup> there were a total of seven (7) hours flagged invalid for the wind speed and wind direction sensors – sensors flatlined, possible cups frozen.
- ◆ All analyzers / sensors at the Evergreen Park station had an operational uptime greater than 90%.

**Smoky Heights Station:**

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

**Beaverlodge Station:**

- ◆ All analyzers / sensors at the Beaverlodge station had an operational uptime of 100%.
- ◆ SO<sub>2</sub> spans increased on November 8<sup>th</sup> and 9<sup>th</sup> – reason undetermined; however a new SO<sub>2</sub> trace analyzer was installed on November 13<sup>th</sup>.
- ◆ From November 13<sup>th</sup> to the 18<sup>th</sup> NO<sub>x</sub> spans shifted caused by improper purging of cylinder span gas at time of calibration.
- ◆ The AQI for the month resulted in 684 hours of Good readings.

**Portable – Spirit River Station:**

- ◆ Wind speed and wind direction had forty-four (44) hours of data flagged invalid, sensors not responding correctly. The Gill ultrasonic wind system was disconnected and was replaced with a Met One sytem on November 7<sup>th</sup> (twenty-six (26) hours flagged for maintenance).
- ◆ The relative humidity and temperature sensors continue to be out of service for the month of November – Alberta Environment reference # 192650.
- ◆ All analyzers / sensors at the Spirit River station had an operational uptime greater than 90%.

**Valleyview Station:**

- ◆ The SO<sub>2</sub> spans increased greater than 10% on November 26<sup>th</sup> to 30<sup>th</sup> - reason undetermined.
- ◆ A power failure on November 15<sup>th</sup> resulted in three (3) hours of invalid data for all analyzers and sensors.
- ◆ All analyzers / sensors at the Valleyview station had an operational uptime greater than 90%.

**Passive Monitoring: 54 Stations throughout the PASZA zone:**

Field notes during collection noted that: all three samples (SO<sub>2</sub>, NO<sub>2</sub> and O<sub>3</sub>) from the Ronan site were missing. There were six duplicate sites sampled in the month of November: Webber Creek, Saddle Hills, McLennan, High Prairie, Dixonville and Grande Prairie HP. The passive sample analyses were performed by MAXXAM Analytics Inc.

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

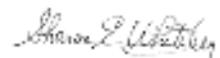
- Monthly average concentrations for SO<sub>2</sub> passives ranged from 0.1 ppb to 0.9 ppb, with a mean of 0.4 ppb.
- Monthly average concentrations for NO<sub>2</sub> passives ranged from 0.7 ppb to 9.9 ppb, with a mean of 2.0 ppb.
- Monthly average concentrations for O<sub>3</sub> passives ranged from 16.5 ppb to 34.8 ppb, with a mean of 28.0 ppb.

If you have any questions, please contact the Focus office at 1-888-869-2252 (Kelly Baragar or Sharon Whiteley).

On Behalf of the,  
Peace Airshed Zone Association



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Sharon Whiteley, B.Sc..  
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## PASZA Monthly Continuous Data Summary

Nov-2007 Peace Airshed Zone Association							Maximum Recorded Values						Operational Time (%)
Pollutant (units)	Objectives		Station	Monthly Average	Exceedence		1-hr				24-hr / 8-hr		
	1-hr	24-hr			1-hr	24-hr	Conc	Day	WSPD (km/hr)	WDIR (Sector)	Conc	Day	
SO <sub>2</sub> (ppb)	172	57	Henry Pirker	0.2	0	0	6.2	Nov-27 03:00	9.7	WNW	1.7	Nov-27	100.0%
SO <sub>2</sub> (ppb)	172	57	Evergreen Park	0.3	0	0	9.2	Nov-10 04:00	3.8	ESE	1.3	Nov-10	100.0%
SO <sub>2</sub> (ppb)	172	57	Smoky Heights	0.5	0	0	7.1	Nov-13 23:00	20.5	W	2.1	Nov-22	100.0%
SO <sub>2</sub> (ppb)	172	57	Beaverlodge	0.5	0	0	10.0	Nov-25 13:00	12.9	NE	1.6	Nov-25	100.0%
SO <sub>2</sub> (ppb)	172	57	Portable-Spirit River	0.5	0	0	5.2	Nov-03 06:00	10.3	W	1.4	Nov-22	100.0%
SO <sub>2</sub> (ppm)	172	57	Valleyview	0.73	0	0	12.86	Nov-01 08:00	22.2	WNW	4.66	Nov-01	99.6%
NO (ppb)			Henry Pirker	9.2	-	-	141.0	Nov-29 17:00	4.3	WNW	34.8	Nov-29	100.0%
NO <sub>2</sub> (ppb)	212	106	Henry Pirker	13.3	0	0	43.2	Nov-29 17:00	4.3	WNW	26.4	Nov-29	100.0%
NO <sub>x</sub> (ppb)			Henry Pirker	22.4	-	-	184.0	Nov-29 17:00	4.3	WNW	61.0	Nov-29	100.0%
NO (ppb)			Beaverlodge	0.6	-	-	13.2	Nov-16 09:00	1.8	NNW	4.5	Nov-16	100.0%
NO <sub>2</sub> (ppb)	212	106	Beaverlodge	4.7	0	0	26.2	Nov-15 18:00	3.6	SE	10.4	Nov-16	100.0%
NO <sub>x</sub> (ppb)			Beaverlodge	5.3	-	-	30.7	Nov-15 18:00	3.6	SE	15.0	Nov-16	100.0%
NO (ppb)			Portable-Spirit River	0.9	-	-	18.5	Nov-27 07:00	13.8	SW	3.1	Nov-21	100.0%
NO <sub>2</sub> (ppb)	212	106	Portable-Spirit River	4.9	0	0	24.9	Nov-27 07:00	13.8	SW	13.1	Nov-21	100.0%
NO <sub>x</sub> (ppb)			Portable-Spirit River	5.8	-	-	43.5	Nov-27 07:00	13.8	SW	16.2	Nov-21	100.0%
O <sub>3</sub> (ppb)	82		Henry Pirker	17.5	0	-	38.3	Nov-24 07:00	23.6	WSW	31.6	Nov-01	100.0%
O <sub>3</sub> (ppb) - 8-hr		65	Henry Pirker			0					38.4	Nov-01	
O <sub>3</sub> (ppb)	82		Beaverlodge	26.7	0	-	43.6	Nov-24 05:00	22.1	W	39.2	Nov-24	100.0%
O <sub>3</sub> (ppb) - 8-hr		65	Beaverlodge			0					42.5	Nov-24	
O <sub>3</sub> (ppb)	82		Portable-Spirit River	23.0	0	-	38.4	Nov-02 15:00	21.9	WSW	33.6	Nov-01	100.0%
O <sub>3</sub> (ppb) - 8-hr		65	Portable-Spirit River			0					37.7	Nov-01	
CO (ppm)	13		Henry Pirker	0.23	0	-	1.4	Nov-21 17:00	5.8	SSE	0.4	Nov-22	100.0%
CO (ppm) - 8-hr		5	Henry Pirker			0					0.7	Nov-22	
THC (ppm)			Henry Pirker	2.02	-	-	3.4	Nov-23 11:00	5.7	WSW	2.6	Nov-23	97.6%
TRS (ppb)			Henry Pirker	0.3	-	-	1.1	Nov-29 17:00	4.3	WNW	0.5	Nov-21	100.0%
TRS (ppb)			Evergreen Park	0.5	-	-	2.0	Nov-15 08:00	4.3	W	1.3	Nov-15	100.0%
TRS (ppb)			Smoky Heights	0.4	-	-	1.1	Nov-09 20:00	3.5	S	0.6	Nov-17	100.0%
TRS (ppb)			Portable-Spirit River	0.5	-	-	1.4	Sep-22 22:00	1.6	SSE	0.6	Sep-22	100.0%
H <sub>2</sub> S (ppb)	10	3	Valleyview	0.1	0	0	1.2	Nov-06 16:00	2.4	NE	0.3	Nov-06	99.6%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )		30 <sup>a</sup>	Henry Pirker	4.0	0	0	31.9	Nov-20 23:00	5.2	WNW	9.0	Nov-21	99.4%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )		30 <sup>a</sup>	Evergreen Park	3.7	0	0	28.8	Nov-01 09:00	29.4	W	9.0	Nov-21	98.9%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )		30 <sup>a</sup>	Smoky Heights	3.7	0	0	54.8	Nov-12 14:00	9.1	NNE	7.1	Nov-16	99.4%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )		30 <sup>a</sup>	Beaverlodge	2.8	0	0	25.5	Nov-30 01:00	6.2	NW	8.9	Nov-16	100.0%

## PASZA Monthly Continuous Data Summary - continued

Nov-2007		Peace Airshed Zone Association					Maximum Recorded Values						
							1-hr				24-hr / 8-hr		
RH (%)		Henry Pirker	72.2	-	-	-	-	-	-	-	-	-	100.0%
RH (%)		Beaverlodge	71.8	-	-	-	-	-	-	-	-	-	100.0%
RH (%)		Portable-Spirit River	0.0	0	0	0	0	0	0	0	0	0	0.0%
RH (%)		Valleyview	71.8	-	-	-	-	-	-	-	-	-	99.6%
SR (W/m <sup>2</sup> )		Henry Pirker	31.0	-	-	-	-	-	-	-	-	-	99.0%
Temp (°C)		Henry Pirker	-4.0	-	-	-	-	-	-	-	-	-	100.0%
Temp (°C)		Evergreen Park	-3.5	-	-	-	-	-	-	-	-	-	100.0%
Temp (°C)		Smoky Heights	-4.8	-	-	-	-	-	-	-	-	-	100.0%
Temp (°C)		Beaverlodge	-3.2	-	-	-	-	-	-	-	-	-	100.0%
Temp (°C)		Portable-Spirit River	0.0	0	0	0	0	0	0	0	0	0	0.0%
Temp (°C)		Valleyview	-4.0	-	-	-	-	-	-	-	-	-	99.6%
WSPD v (km/hr)		Henry Pirker	10.5	-	-	33.9	Nov-01 14:00	33.9	WSW	23.9	Nov-01		100.0%
WSPD v (km/hr)		Evergreen Park	7.4	-	-	29.9	Nov-01 14:00	29.9	W	23.2	Nov-01		99.0%
WSPD v (km/hr)		Smoky Heights	11.9	-	-	39.8	Nov-01 16:00	39.8	WSW	29.2	Nov-01		100.0%
WSPD v (km/hr)		Beaverlodge	7.7	-	-	31.2	Nov-01 14:00	31.2	W	22.0	Nov-01		100.0%
WSPD v (km/hr)		Portable-Spirit River	10.6	-	-	59.1	Nov-10 21:00	59.1	SW	40.7	Nov-26		90.0%
WSPD v (km/hr)		Valleyview	7.1	-	-	28.3	Nov-01 10:00	28.3	WNW	19.8	Nov-01		99.6%
WSPD s (km/hr)		Henry Pirker	11.1	-	-	34.1	Nov-01 14:00	34.1	WSW	24.2	Nov-01		100.0%
WSPD s (km/hr)		Evergreen Park	7.9	-	-	30.2	Nov-01 14:00	30.2	W	23.4	Nov-01		99.0%
WSPD s (km/hr)		Smoky Heights	12.2	-	-	39.9	Nov-01 16:00	39.9	WSW	29.6	Nov-01		100.0%
WSPD s (km/hr)		Beaverlodge	8.0	-	-	31.3	Nov-01 14:00	31.3	W	22.1	Nov-01		100.0%
WSPD s (km/hr)		Portable-Spirit River	19.6	-	-	118.2	Nov-10 21:00	118.2	SW	44.0	Nov-26		90.0%
WSPD s (km/hr)		Valleyview	7.3	-	-	28.5	Nov-01 10:00	28.5	WNW	20.1	Nov-01		99.6%
WDIR		Henry Pirker	W	-	-	-	-	-	-	-	-	-	100.0%
WDIR		Evergreen Park	W	-	-	-	-	-	-	-	-	-	99.0%
WDIR		Smoky Heights	S	-	-	-	-	-	-	-	-	-	100.0%
WDIR		Beaverlodge	WNW	-	-	-	-	-	-	-	-	-	100.0%
WDIR		Portable-Spirit River	SW	-	-	-	-	-	-	-	-	-	90.0%
WDIR		Valleyview	W	-	-	-	-	-	-	-	-	-	99.6%

Note: <sup>a</sup> the draft 24-hr Alberta Ambient Air Quality Objective

# Continuous Network Equipment Summary

## PASZA – Henry Pirker Station

### General Station Issues

Routine monthly calibrations were performed on November 1<sup>st</sup> (TEOM), November 19<sup>th</sup> (SO<sub>2</sub>, NO<sub>x</sub> and TRS), November 22<sup>nd</sup> (O<sub>3</sub>) and November 23<sup>rd</sup> (THC and CO). A second calibration was performed on the THC analyzer on November 26<sup>th</sup>.

Parameter	Make	Model	Notes
SO <sub>2</sub>	TEI	43C	No operational issues observed.
NO <sub>x</sub> /NO/NO <sub>2</sub>	TEI	42C	No operational issues observed.
O <sub>3</sub>	TEI	49C	Spans unstable for month due to failing UV lamp, lamp replaced in December.
CO	TEI	48C	No spans on November 29 <sup>th</sup> and 30 <sup>th</sup> due to cylinder pressure.
THC	TEI	51-CLT	On November 25 <sup>th</sup> thirteen hours were flagged as excessive baseline drift. On November 26 <sup>th</sup> there were two hours flagged invalid, and the remainder as maintenance – the pump was rebuilt, hydrogen cylinder was changed out and a second calibration was performed, all to address spans and baseline drifting.
TRS	TEI	43C	No operational issues observed.
PM <sub>2.5</sub>	R&P	1400AB	Four (4) hours were flagged due to excessive baseline drift.
RH	Met One	083D	No operational issues observed.
AT	Met One	083D	No operational issues observed.
SR	Met One	096-1	Seven hours were flagged invalid due to negative spiking caused by power induced electronic drift.
WS/WD	Met One	010C/020C	No operational issues observed.

## PASZA – Evergreen Park Station

### General Station Issues

Routine monthly calibrations were performed on November 15<sup>th</sup> (SO<sub>2</sub>, TRS and TEOM).

Parameter	Make	Model	Notes
SO <sub>2</sub>	TEI	43i	No operational issues observed.
TRS	TEI	43C	Span increase on TRS analyzer on November 5 <sup>th</sup> , 7 <sup>th</sup> , 8 <sup>th</sup> , 10 <sup>th</sup> , 11 <sup>th</sup> and 12 <sup>th</sup> - reason unknown.
PM <sub>2.5</sub>	R&P	1400AB	Power bump resulted in one (1) hour of invalid data on November 20 <sup>th</sup> . Seven (7) hours were removed due to excessive baseline drift.
AT	Met One	083D	No operational issues observed.
WS	Met One	010C	Total of seven (7) hours wer flagged invalid due to flatlined – possible cups frozen.
WD	Met One	020C	Total of seven (7) hours wer flagged invalid due to flatlined – possible cups frozen.

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**PASZA – Smoky Heights Station**


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**General Station Issues**

Routine monthly calibrations were performed on November 28<sup>th</sup> (SO<sub>2</sub>, TRS and TEOM).

Parameter	Make	Model	Notes
SO <sub>2</sub>	TEI	43C	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
PM <sub>2.5</sub>	R&P	1400AB	The TEOM had one (1) hour of invalid data due to power bump on November 13 <sup>th</sup> . Three (3) hours were removed due to excessive baseline drift.
AT	Met One	083D	No operational issues observed.
WS	Met One	010C	No operational issues observed.
WD	Met One	020C	No operational issues observed.

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**PASZA – Beaverlodge Station**


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**General Station Issues**

Routine monthly calibrations were performed on November 9 (SO<sub>2</sub>) November 13<sup>th</sup> (NO<sub>x</sub> and SO<sub>2</sub>) and November 14<sup>th</sup> (O<sub>3</sub>). On November 13<sup>th</sup> the SO<sub>2</sub> analyzer was replaced with an SO<sub>2</sub> trace analyzer from Environment Canada.

Parameter	Make	Model	Notes
SO <sub>2</sub>	TEI	43CTL	On November 8 <sup>th</sup> and 9 <sup>th</sup> spans increased, a single point calibration was performed on the 9 <sup>th</sup> to check into the increased spans – reason was undetermined - however analyzer was changed out on the 13 <sup>th</sup> .
NO <sub>x</sub> /NO/NO <sub>2</sub>	TEI	42C	Due to a mix up of inflow and outflow lines at time of calibration – spans went through dramatic high and low shifts that returned to normal on the 18 <sup>th</sup> .
O <sub>3</sub>	TEI	49C	No operational issues observed.
PM <sub>2.5</sub>	R&P	1400AB	No operational issues observed.
AT	n/a	n/a	No operational issues observed.
RH	n/a	n/a	No operational issues observed.
WS	Blue Sky	857	No operational issues observed.
WD	Blue Sky	857	No operational issues observed.

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**PASZA – Spirit River (Portable) Station**

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**General Station Issues**

Routine monthly calibrations were performed on November 6<sup>th</sup> (SO<sub>2</sub> and NO<sub>x</sub>) and 7<sup>th</sup> (O<sub>3</sub> and TRS). Wind system was replaced on November 7<sup>th</sup>.

Parameter	Make	Model	Notes
SO <sub>2</sub>	TEI	43C	No operational issues observed.
NOx/NO/NO <sub>2</sub>	TEI	42i	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
O <sub>3</sub>	TEI	49C	No operational issues observed.
AT	Gill	Met Pak 3	The temperature & relative humidity sensors continue to be out of service – Alberta Environment reference # 192650.
RH	Gill	Met Pak 3	The temperature & relative humidity sensors continue to be out of service – Alberta Environment reference # 192650.
WS	Met One		Forty-four (44) hours of invalid data followed by twenty-six (26) hours flagged for maintenance – Gill ultrasonic wind system replaced with Met one
WD	Met One		Forty-four (44) hours of invalid data followed by twenty-six (26) hours flagged for maintenance – Gill ultrasonic wind system replaced with Met one

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**PASZA – Valleyview Station**

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**General Station Issues**

Routine monthly calibrations were performed on November 16<sup>th</sup> (SO<sub>2</sub> and H<sub>2</sub>S). A power failure on November 15<sup>th</sup> resulted in three (3) hours of invalid data for all parameters and sensors.

Parameter	Make	Model	Notes
SO <sub>2</sub>	TEI	43i	Due to a new perm tube – spans continue to increase throughout the month. No other issues other than above noted power failure.
H <sub>2</sub> S	TEI	43A	No operational issues observed other than above noted power failure.
AT	Gill	Met Pak 3	No operational issues observed other than above noted power failure.
RH	Gill	Met Pak 3	No operational issues observed other than above noted power failure.
WS	Gill	Met Pak 3	No operational issues observed other than above noted power failure.
WD	Gill	Met Pak 3	No operational issues observed other than above noted power failure.

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# PASZA – Henry Pirker Station

## Monthly Summary Tables, Graphs and Roses

## PASZA - Henry Pirker AQI Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

### Air Quality Index (AQI)

Monitoring Dates: November 1, 2007 to December 1, 2007

Alberta's Air Quality Index

<b>Good</b>	<b>1 to 25</b>
<b>Fair</b>	<b>26 to 50</b>
<b>Poor</b>	<b>51 to 100</b>
<b>Very Poor</b>	<b>&gt; 100</b>

**Summary**

Number of 1-hr Good Readings:	675
Number of 1-hr Fair Readings:	1
Number of 1-hr Poor Readings:	0
Number of 1-hr Very Poor Readings:	0

**Status Flag Characters**

C Calibration	A AIC - Zero / Span Check
S Instrument out of Service	X Filter Exchange
N No Data	M Equipment Maintenance
D Excessive Instrument Drift	P Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00
1-Nov-07	18	18	18	17	17	N	14	14	14	16	17	17	18	18	N	N	N	N	N	N	13	13	14	15
2-Nov-07	15	14	14	14	13	N	10	6	9	7	8	10	13	13	14	12	7	7	17	17	17	17	15	16
3-Nov-07	16	16	17	14	N	17	17	17	18	17	17	15	17	17	17	17	16	14	15	13	12	11	13	14
4-Nov-07	15	15	14	N	13	14	12	11	14	17	18	18	18	19	18	17	12	7	5	7	6	6	5	6
5-Nov-07	4	5	N	5	5	6	6	5	6	7	8	8	8	9	11	10	10	11	11	10	10	7	6	7
6-Nov-07	7	N	4	5	5	4	4	4	10	10	5	11	13	13	12	7	8	11	14	9	9	9	9	8
7-Nov-07	N	9	9	9	9	7	4	4	3	4	5	6	5	4	6	5	7	6	4	8	9	7	4	N
8-Nov-07	5	8	9	10	11	10	9	7	4	6	8	10	11	12	14	12	5	5	5	6	7	8	N	9
9-Nov-07	10	11	11	11	12	12	11	11	9	9	7	8	8	7	6	4	5	5	6	8	7	N	7	6
10-Nov-07	6	3	3	3	4	4	4	3	2	2	3	3	7	7	14	13	12	13	15	15	N	14	10	15
11-Nov-07	14	14	15	16	14	15	9	5	6	6	6	9	12	15	13	10	6	7	6	N	7	8	7	8
12-Nov-07	7	6	8	9	11	12	12	13	12	12	10	10	10	11	14	15	14	7	N	9	13	13	11	10
13-Nov-07	12	13	14	14	14	14	14	9	7	7	9	9	11	12	13	13	14	N	12	12	14	14	15	14
14-Nov-07	14	14	14	16	14	13	9	7	7	8	13	16	16	16	15	13	N	7	8	11	12	14	15	15
15-Nov-07	14	13	13	12	12	11	10	5	5	7	8	6	7	16	12	N	6	6	5	5	5	6	5	5
16-Nov-07	6	4	4	4	3	3	5	5	6	6	5	11	9	7	N	13	9	9	8	7	9	6	5	4
17-Nov-07	7	13	15	14	14	13	8	6	7	7	6	10	11	N	11	10	5	5	6	6	8	10	10	9
18-Nov-07	8	8	7	7	12	11	10	9	12	13	11	12	N	15	16	13	11	10	12	8	9	6	8	6
19-Nov-07	6	5	3	3	4	6	6	6	6	8	7	N	N	N	N	4	7	6	6	5	6	6	5	4
20-Nov-07	4	5	8	11	10	N	10	7	6	6	5	11	14	14	14	12	7	12	15	13	14	15	24	26
21-Nov-07	21	14	12	12	N	9	9	8	9	9	7	6	6	6	8	5	7	11	7	14	13	13	7	8
22-Nov-07	6	13	9	N	13	6	7	8	7	8	5	4	5	15	15	9	9	10	13	9	11	10	9	8
23-Nov-07	6	5	6	6	6	N	8	8	14	14	7	15	18	11	8	8	10	11	11	10	N	16	9	7
24-Nov-07	8	N	14	12	18	N	19	19	19	17	16	17	17	16	16	15	15	15	14	12	14	14	15	15
25-Nov-07	15	15	15	15	N	12	9	7	6	6	10	11	12	12	12	13	13	13	16	16	16	15	16	15
26-Nov-07	16	16	15	N	15	15	14	13	13	14	14	N	14	N	13	12	12	12	12	13	12	12	10	11
27-Nov-07	10	11	11	13	12	N	10	6	6	9	8	8	7	7	8	7	7	7	7	6	6	11	12	13
28-Nov-07	13	13	13	13	13	N	11	9	7	9	12	13	11	7	6	9	8	8	8	7	8	6	8	7
29-Nov-07	7	5	7	6	N	7	7	8	9	8	8	7	10	10	8	6	9	15	14	8	6	6	6	6
30-Nov-07	6	7	13	N	15	10	6	8	8	7	10	11	14	16	15	14	15	15	16	16	16	17	17	17

# PASZA - Henry Pirker Sulphur Dioxide Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

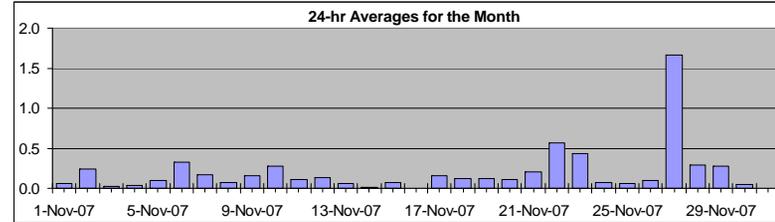
## Sulphur Dioxide (SO<sub>2</sub>)

Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 1-hr 172 ppb 24-hr 57 ppb

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	6.2	ppb	27-Nov	3:00 4:00
Maximum 24-hr Average:	1.7	ppb	27-Nov	

AIC Time:	32 hrs	Operational Time:	686 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	2.0	1.1	0.2	0.0	0.0	0.0	0.0	0.2 ppb	0.0 ppb



### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00			
1-Nov-07	0	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
2-Nov-07	0	0	0	0	0	A	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.1
3-Nov-07	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
4-Nov-07	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	0.2
5-Nov-07	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	0.4
6-Nov-07	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0.3	1.7
7-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	A	0.2	0.6	
8-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0.1	0.8	
9-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.4	
10-Nov-07	0	1	1	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	A	0	0	0	0.3	1.3	
11-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	0.1	1.1		
12-Nov-07	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.9	
13-Nov-07	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	
14-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.1	
15-Nov-07	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	
16-Nov-07	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	
17-Nov-07	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	1	0	0	0	0	0	0	0.2	0.8	
18-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4	
19-Nov-07	0	0	0	0	0	0	0	0	1	1	0	A	C	C	A	0	0	0	0	0	0	0	0	0	0.1	0.6	
20-Nov-07	0	0	0	0	1	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.1	0.6	
21-Nov-07	0	0	0	0	A	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0.2	1.2	
22-Nov-07	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	1	1	0.6	1.6	
23-Nov-07	0	0	0	0	0	A	0	0	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	2.1	
24-Nov-07	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.2	
25-Nov-07	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5	
26-Nov-07	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.1	0.5	
27-Nov-07	1	1	0	6	4	A	1	0	1	1	3	1	1	1	2	4	2	2	2	1	1	1	0	0	1.7	6.2	
28-Nov-07	0	0	0	1	1	A	1	0	0	0	1	2	0	0	0	0	0	1	1	0	0	0	0	0	0.3	1.5	
29-Nov-07	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0.3	1.8	
30-Nov-07	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3	
Hourly Avg	0.1	0.1	0.1	0.4	0.3	0.0	0.1	0.1	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.1	0.1	0.1	0.1	0.1			
Hourly Max	1.3	1.2	1.3	6.2	3.7	0.2	0.6	0.5	2.1	1.6	3.2	1.5	1.3	1.4	1.9	4.2	2.0	2.0	1.8	1.3	1.3	1.6	1.0	1.1			

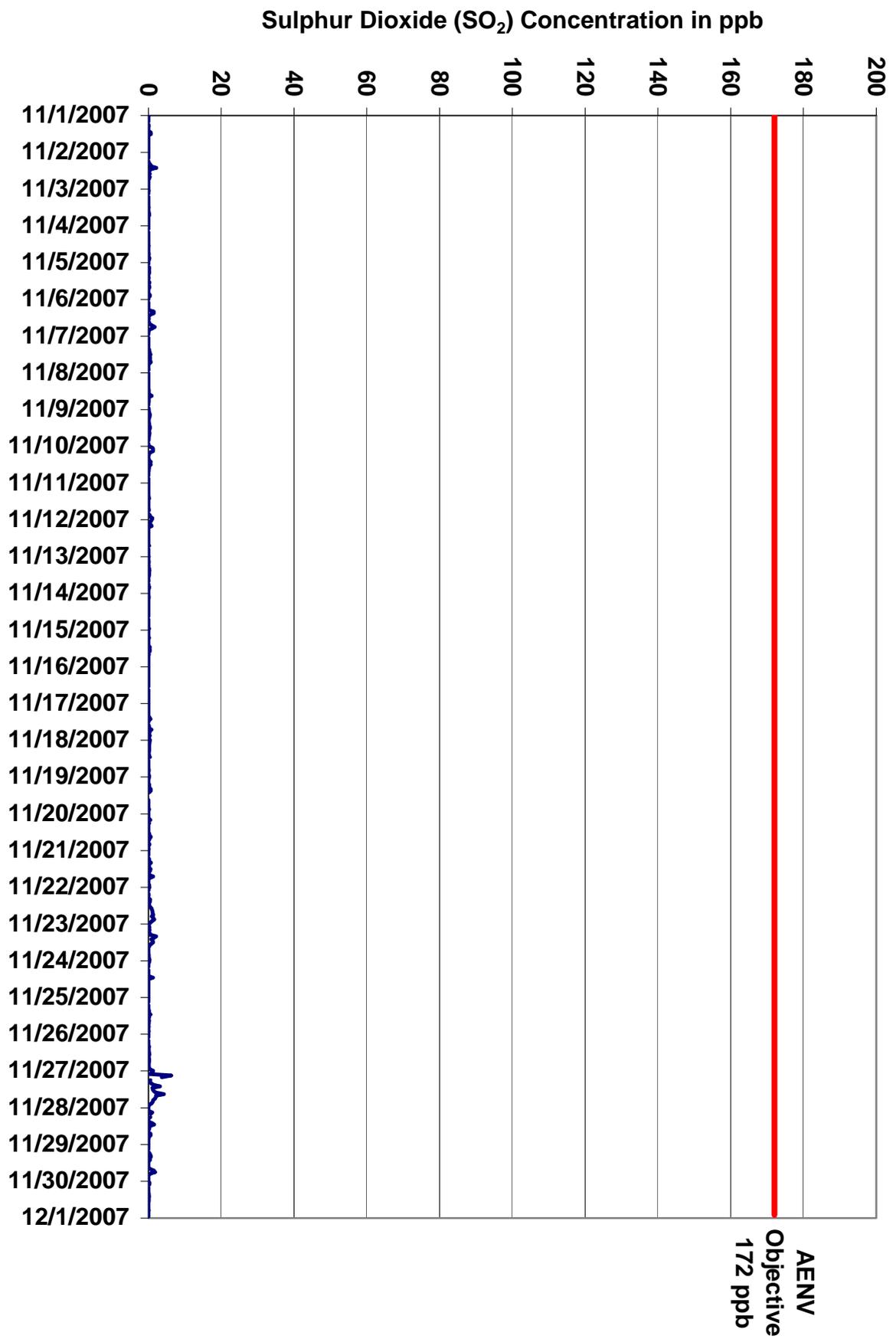


Figure 1. PASZA - Henry Pirker Sulphur Dioxide 1-hr Average Monthly Trend

Station: Henry Pirker  
 Station Owner: PASZA

**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

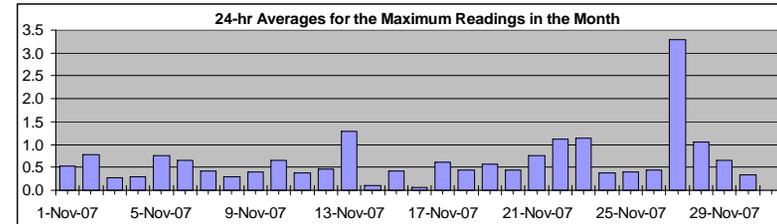
**Sulphur Dioxide (SO<sub>2</sub>)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	23.3	ppb	13-Nov	0:00 1:00
Maximum 24-hr Value:	3.3	ppb	27-Nov	

AIC Time:	32 hrs	Operational Time:	686 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	5.0	2.2	0.6	0.3	0.1	0.0	0.0	0.6 ppb	0.3 ppb



**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	0	0	0	0	0	A	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0.5	2.9
2-Nov-07	0	0	0	0	0	A	0	0	1	1	5	2	2	0	1	0	1	1	0	0	0	0	0	0	0.8	4.9
3-Nov-07	0	0	0	0	A	0	0	0	0	1	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0.3	1.1
4-Nov-07	0	0	0	A	0	0	0	0	1	0	0	1	0	1	0	0	1	1	1	1	0	1	1	1	0.3	0.7
5-Nov-07	1	1	A	1	1	1	1	1	1	0	3	0	0	1	0	1	3	0	0	0	1	1	1	0	0.8	3.0
6-Nov-07	0	A	0	0	0	0	0	1	2	2	2	0	0	0	0	1	1	1	3	2	0	0	0	0	0.7	3.2
7-Nov-07	A	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	1	A	0.4	1.1
8-Nov-07	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2	1	1	1	0	0	0	A	0	0.3	2.2
9-Nov-07	0	0	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	A	0	0	0.4	0.6
10-Nov-07	1	3	3	2	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0.7	3.1
11-Nov-07	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	1	A	0	1	1	2	0.4	1.8
12-Nov-07	2	2	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0.5	2.5
13-Nov-07	23	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	A	1	0	1	0	0	0	1.3	23.3
14-Nov-07	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	0.5
15-Nov-07	0	0	0	0	0	1	0	0	1	0	0	1	1	1	1	A	1	0	0	0	0	0	0	0	0.4	0.8
16-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	0	0	0	0	0	0	0	0	0.1	0.6
17-Nov-07	0	0	0	0	0	0	0	0	0	1	2	1	0	A	0	0	0	4	1	1	1	1	1	1	0.6	4.2
18-Nov-07	1	1	1	1	0	0	0	0	0	0	0	2	A	0	0	0	0	0	0	0	0	0	0	1	0.4	2.0
19-Nov-07	0	0	1	0	1	1	1	1	3	1	1	A	C	C	A	0	1	0	0	0	0	0	0	0	0.6	2.6
20-Nov-07	0	0	0	1	1	A	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0.4	1.3
21-Nov-07	0	0	0	0	A	1	1	1	5	1	1	1	1	1	1	1	1	2	1	0	0	1	1	1	0.8	5.1
22-Nov-07	1	0	1	A	0	1	1	1	4	1	1	1	1	1	1	1	2	2	2	1	2	2	2	1	1.1	4.1
23-Nov-07	1	1	1	1	1	A	1	1	8	3	1	2	2	1	1	1	1	0	0	1	1	1	1	1	1.1	8.3
24-Nov-07	1	1	0	1	0	A	0	0	0	0	2	3	1	0	0	0	0	0	0	0	0	0	0	1	0.4	2.6
25-Nov-07	0	0	0	0	A	0	0	0	2	1	0	1	1	2	0	1	0	1	0	0	0	1	0	0	0.4	2.1
26-Nov-07	0	0	0	A	0	0	0	0	1	0	0	0	1	1	0	0	1	1	1	1	1	1	1	2	0.4	1.6
27-Nov-07	2	2	1	19	7	A	1	1	5	5	7	1	1	2	3	5	4	4	2	1	2	1	1	0	3.3	18.9
28-Nov-07	0	0	0	3	2	A	3	0	2	1	2	3	1	1	1	0	1	3	1	0	0	0	1	0	1.1	3.0
29-Nov-07	0	0	0	1	A	0	0	1	1	0	0	0	0	0	0	2	2	3	1	1	0	0	0	0	0.6	3.1
30-Nov-07	0	1	1	A	0	0	1	1	0	0	1	0	0	1	0	0	0	1	1	0	0	0	0	0	0.3	1.5
Hourly Avg	1.2	0.5	0.4	1.2	0.7	0.3	0.3	0.4	1.3	0.7	1.0	0.8	0.7	0.5	0.5	0.6	0.8	1.1	0.7	0.4	0.4	0.4	0.4	0.4		
Hourly Max	23.3	3.1	2.9	18.9	6.7	0.7	2.6	1.3	8.3	5.0	6.6	2.6	2.9	2.1	2.9	5.4	3.9	4.2	3.2	1.6	2.0	2.0	2.4	1.8		

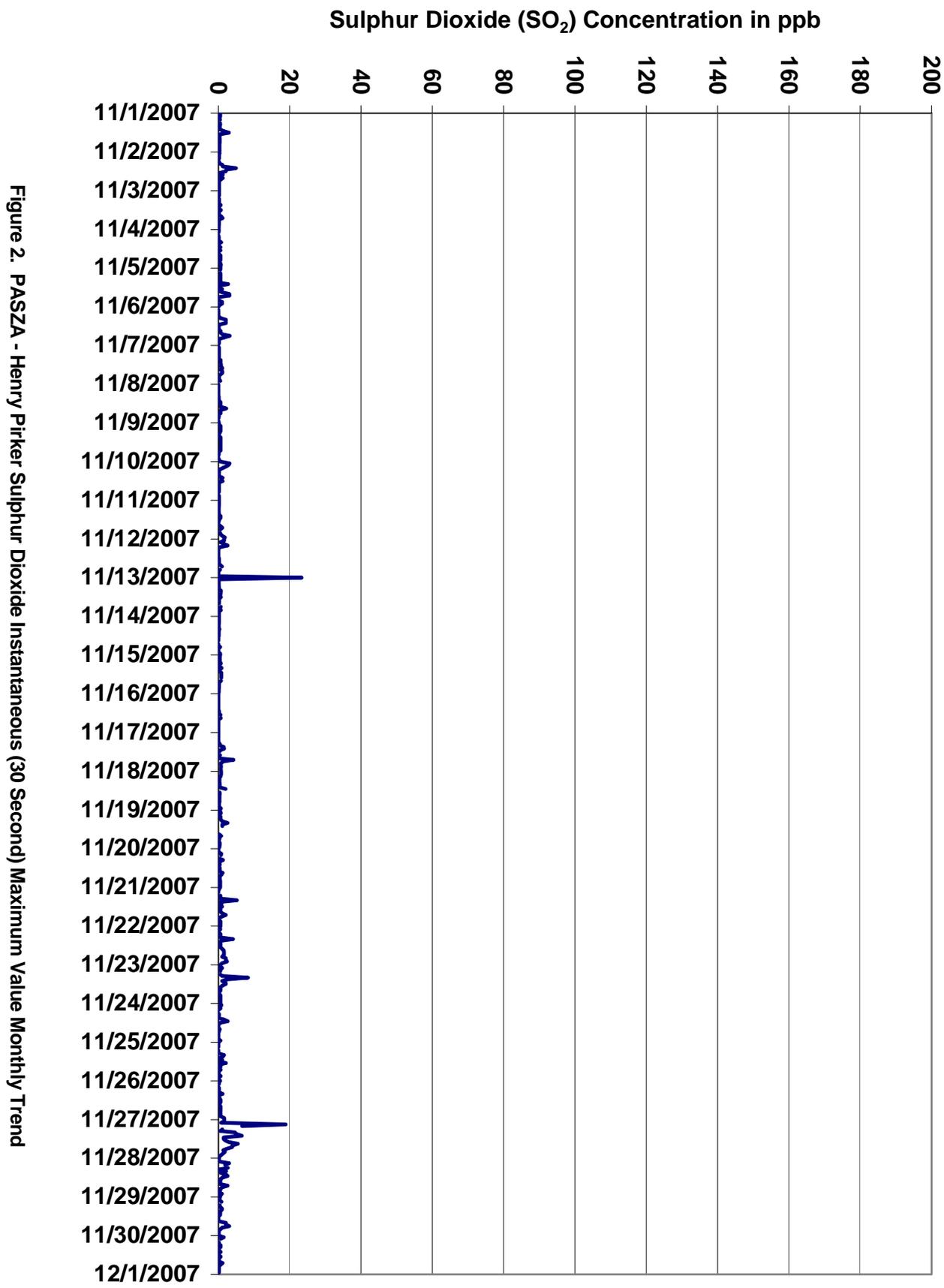
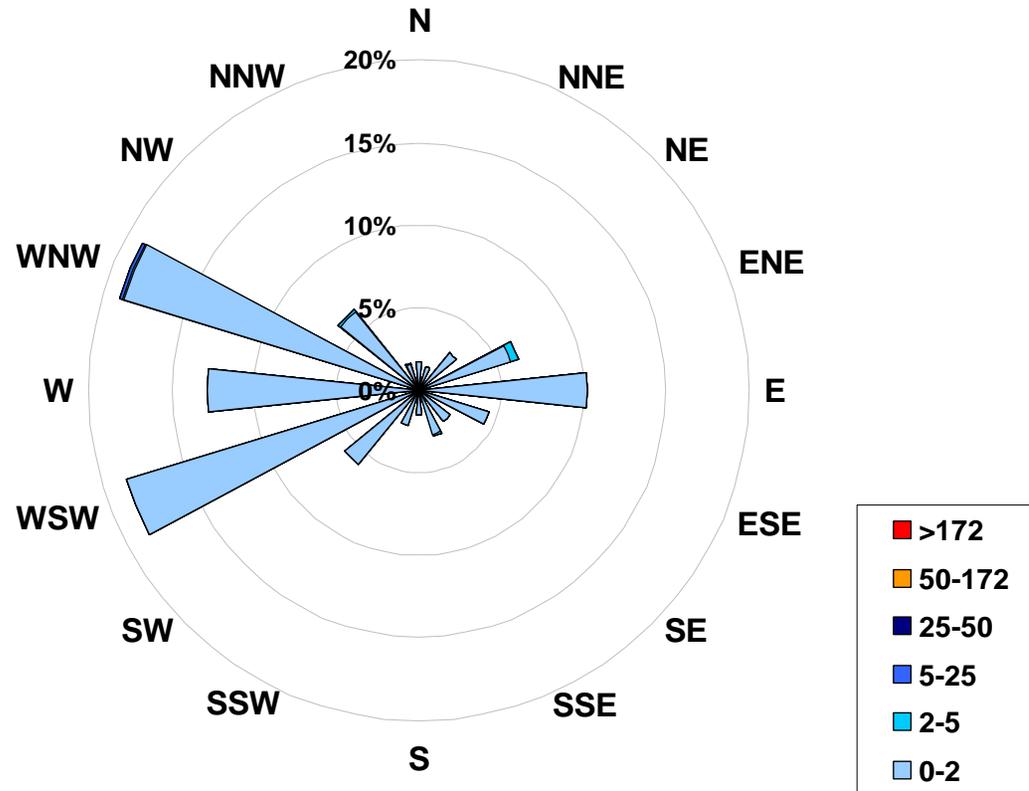


Figure 2. PASZA - Henry Pirkker Sulphur Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Sulphur Dioxide (in ppb) Located at the Henry Pirker Site for November 2007**



**Calms: 0%**

Frequency Distribution of SO <sub>2</sub> in ppb Range			Frequency (hrs)
0.0	<	2	678
2	to	5	7
5	to	25	1
25	to	50	0
50	to	172	0
	>	172	0
Total Non-Zero Values			686

# PASZA - Henry Pirker Nitrogen Dioxide Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

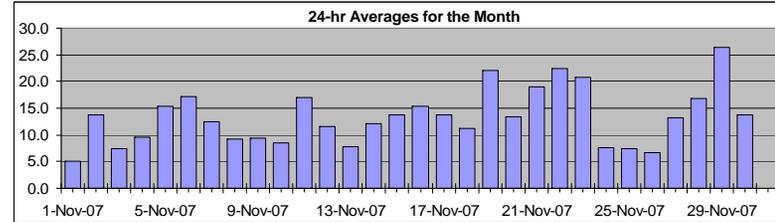
## Nitrogen Dioxide (NO<sub>2</sub>)

Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 1-hr 212 ppb 24-hr 106 ppb  
 Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	43.2 ppb 29-Nov 17:00 18:00
Maximum 24-hr Average:	26.4 ppb 29-Nov

AIC Time:	31 hrs	Operational Time:	685 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	36.7	30.8	18.8	11.3	6.0	2.5	1.4	13.3 ppb	11.3 ppb



### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00		
1-Nov-07	2	2	1	2	2	A	11	9	9	4	3	3	3	3	4	6	6	9	8	8	8	6	4	5.1	11.0	
2-Nov-07	5	6	6	7	6	A	16	26	37	31	20	20	13	11	9	16	31	31	5	5	5	4	5	4	13.8	36.9
3-Nov-07	3	4	2	5	A	4	4	4	4	5	6	8	7	6	8	9	12	15	12	15	13	11	8	6	7.4	14.7
4-Nov-07	4	4	4	A	4	3	6	7	4	3	2	2	2	1	1	3	13	21	22	24	25	26	20	18	9.5	26.0
5-Nov-07	18	20	A	21	22	24	24	23	16	13	10	9	10	10	7	11	12	12	11	13	11	17	24	14	15.4	24.4
6-Nov-07	12	A	16	11	9	10	12	18	31	35	20	5	4	6	10	23	33	36	37	31	12	10	8	7	17.2	36.6
7-Nov-07	A	6	5	5	5	6	13	15	15	15	16	14	15	12	15	14	16	19	19	13	10	14	14	A	12.4	19.0
8-Nov-07	5	2	2	2	1	2	4	8	14	13	6	6	8	12	9	11	21	20	17	16	14	11	A	7	9.2	20.8
9-Nov-07	6	5	6	6	5	5	6	8	10	9	11	10	8	9	11	17	19	20	12	7	9	A	7	8	9.4	19.9
10-Nov-07	10	13	10	9	6	5	6	6	9	10	13	10	9	9	7	10	9	8	5	4	A	8	14	5	8.5	13.9
11-Nov-07	6	6	4	3	6	5	16	21	24	25	26	15	11	5	10	15	25	28	25	A	20	32	31	33	17.0	32.6
12-Nov-07	31	18	13	11	9	7	8	5	7	7	10	10	11	11	13	11	13	29	A	17	7	7	5	2	11.5	31.3
13-Nov-07	2	1	1	1	1	1	2	14	30	28	16	12	7	6	6	6	7	A	10	9	6	6	5	5	7.8	29.8
14-Nov-07	5	5	4	4	8	10	18	28	24	23	9	5	6	7	9	14	A	31	20	15	11	8	7	6	12.0	30.6
15-Nov-07	7	7	7	8	8	10	11	23	20	12	12	21	21	23	14	A	16	17	15	17	13	11	13	13	13.8	23.1
16-Nov-07	13	14	15	14	11	14	17	16	15	14	14	17	17	15	A	18	16	18	17	17	19	17	12	15	15.4	19.3
17-Nov-07	10	4	3	6	6	8	19	25	29	28	19	8	6	A	6	6	15	21	21	19	17	17	13	11	13.8	29.3
18-Nov-07	14	15	13	10	4	8	6	11	7	6	10	10	A	5	3	7	14	14	10	19	14	20	15	24	11.2	24.0
19-Nov-07	25	22	13	13	17	26	27	27	23	21	18	A	C	C	C	C	30	27	24	23	23	23	21	18	22.1	29.6
20-Nov-07	17	19	9	5	6	A	9	14	16	18	20	7	3	3	3	8	20	23	18	20	20	18	16	15	13.4	22.8
21-Nov-07	14	13	14	14	A	17	19	21	21	17	14	14	26	24	21	23	31	38	30	10	8	9	21	16	19.0	38.3
22-Nov-07	23	7	14	A	8	19	18	20	31	29	21	16	10	4	5	18	36	38	38	36	36	36	31	20	22.4	38.3
23-Nov-07	19	16	18	20	18	A	21	19	23	27	28	36	31	25	17	20	21	18	17	17	7	9	21	30	20.7	35.7
24-Nov-07	33	15	12	14	4	A	4	3	3	6	7	6	4	6	6	8	5	6	7	9	6	5	3	2	7.5	33.0
25-Nov-07	2	2	2	2	A	9	15	18	24	25	8	4	4	4	5	5	6	6	6	6	5	5	4	4	7.5	25.5
26-Nov-07	3	3	3	A	3	3	6	8	8	6	6	6	6	6	6	8	10	10	9	8	9	7	11	8	6.6	11.2
27-Nov-07	10	8	6	4	5	A	9	19	25	11	14	14	25	21	16	17	16	16	16	18	22	5	3	2	13.2	25.1
28-Nov-07	2	2	2	2	2	A	6	10	16	12	6	4	9	21	27	29	34	35	34	28	30	26	25	23	16.7	35.1
29-Nov-07	20	16	16	27	A	28	29	33	36	31	24	21	13	13	21	23	37	43	42	35	26	24	26	24	26.4	43.2
30-Nov-07	24	27	17	A	5	16	26	34	33	25	18	16	10	4	7	10	9	9	5	5	6	4	4	3	13.7	33.9
Hourly Avg	11.9	9.8	8.2	8.6	6.9	10.4	12.9	16.4	18.9	17.0	13.6	11.3	10.7	10.1	9.9	13.0	18.3	21.2	17.7	15.9	14.3	13.7	13.6	11.9		
Hourly Max	33.0	27.2	18.3	26.7	22.1	27.8	29.2	33.9	36.9	35.0	27.6	35.7	31.0	24.7	27.1	28.7	36.8	43.2	41.9	36.5	36.2	36.2	31.2	32.6		

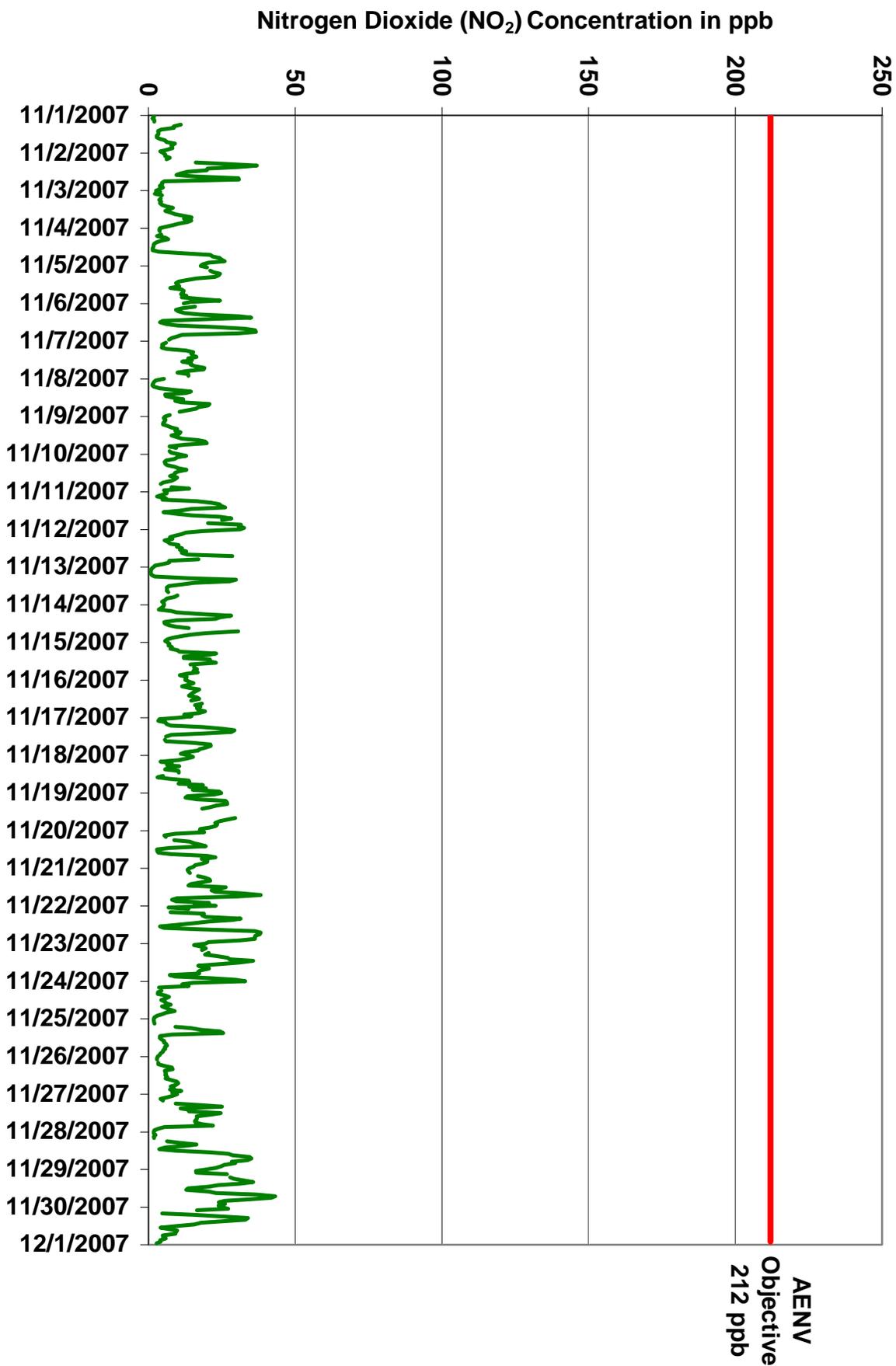


Figure 3. PASZA - Henry Pirkler Nitrogen Dioxide 1-hr Average Monthly Trend

Station: Henry Pirker  
 Station Owner: PASZA

**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

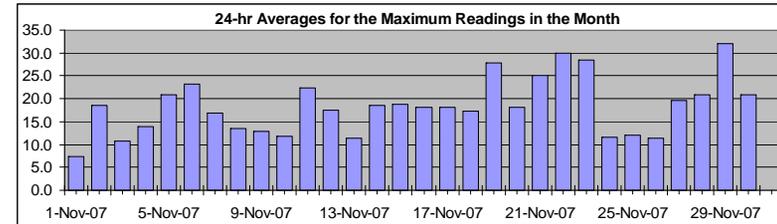
**Nitrogen Dioxide (NO<sub>2</sub>)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	49.4	ppb	27-Nov	10:00 11:00
Maximum 24-hr Value:	32.0	ppb	29-Nov	

AIC Time:	31 hrs		Operational Time:	685 hrs					
Calibration Time:	4 hrs		AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average	Median
	44.4	38.4	25.7	16.7	9.6	4.3	2.3	18.3 ppb	16.7 ppb



**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	3	2	2	3	3	A	19	11	12	8	5	6	6	5	5	8	8	12	11	11	10	8	5	7.4	18.7	
2-Nov-07	7	8	8	10	10	A	25	36	40	39	28	26	17	13	12	22	37	40	15	7	6	8	8	18.7	40.4	
3-Nov-07	5	10	4	8	A	7	5	6	5	6	8	11	10	11	11	16	23	15	22	21	14	11	8	10.8	22.7	
4-Nov-07	6	7	7	A	9	5	10	9	6	5	3	3	3	3	2	10	20	28	31	28	28	29	40	14.0	39.8	
5-Nov-07	22	26	A	23	27	31	29	28	22	19	13	12	14	19	12	16	21	21	15	17	16	25	29	23	20.8	31.2
6-Nov-07	19	A	19	18	12	16	19	26	41	42	27	10	10	10	21	31	37	42	44	36	17	12	13	11	23.2	44.2
7-Nov-07	A	8	6	9	7	10	19	18	18	18	21	23	17	14	16	16	19	22	23	28	17	23	18	A	16.8	28.1
8-Nov-07	11	3	2	2	2	3	9	15	21	20	10	16	16	16	14	15	26	26	20	19	21	13	A	9	13.5	26.3
9-Nov-07	7	6	7	7	9	8	8	12	14	15	14	17	14	14	15	20	22	23	20	10	12	A	8	11	12.8	22.9
10-Nov-07	12	15	13	12	9	9	8	9	13	12	17	14	12	11	11	13	12	11	7	6	A	11	21	11	11.7	21.1
11-Nov-07	9	9	10	5	10	10	26	31	29	28	39	19	15	8	16	17	37	33	33	A	27	35	34	36	22.4	38.5
12-Nov-07	35	27	17	17	19	17	18	9	9	12	13	13	16	18	23	17	19	43	A	26	10	13	6	4	17.5	43.1
13-Nov-07	8	1	1	1	1	2	4	23	36	33	26	18	12	8	9	9	9	A	14	12	10	9	7	7	11.4	35.7
14-Nov-07	8	9	9	9	12	16	32	36	38	30	19	8	9	13	15	34	A	39	24	21	15	13	9	8	18.6	38.7
15-Nov-07	10	11	11	14	23	15	19	27	23	19	21	24	23	27	21	A	22	23	19	19	18	13	14	15	18.8	27.0
16-Nov-07	15	16	17	16	13	17	20	23	16	17	15	19	20	19	A	22	17	19	19	20	22	21	18	18	18.2	23.0
17-Nov-07	14	7	7	9	11	13	35	32	33	30	30	12	9	A	8	9	22	24	25	22	18	20	16	13	18.2	34.9
18-Nov-07	17	17	17	13	9	16	10	13	10	12	20	26	A	11	6	21	22	20	14	32	20	27	19	28	17.4	31.9
19-Nov-07	28	27	22	18	24	35	33	47	28	26	25	A	C	C	C	C	34	32	28	25	27	27	23	20	27.9	46.7
20-Nov-07	28	26	19	7	9	A	11	18	19	23	26	17	5	5	5	17	31	30	23	23	24	20	17	17	18.1	30.6
21-Nov-07	15	15	15	18	A	21	23	28	26	19	22	16	32	29	27	26	38	45	39	20	14	23	33	36	25.1	45.1
22-Nov-07	32	12	29	A	12	34	34	36	37	33	34	21	19	6	11	28	43	42	41	40	38	41	45	23	30.0	45.1
23-Nov-07	25	19	23	24	22	A	24	23	29	37	33	43	41	30	25	31	29	25	35	35	16	17	32	39	28.4	43.0
24-Nov-07	39	38	17	21	8	A	6	4	4	10	11	9	6	7	9	13	11	10	12	11	8	7	5	3	11.7	39.2
25-Nov-07	3	2	2	3	A	16	23	25	30	32	21	10	9	9	7	9	13	10	9	12	10	9	9	6	12.1	31.5
26-Nov-07	8	10	9	A	5	6	10	11	12	8	9	8	8	10	9	12	21	19	22	12	12	10	21	11	11.5	21.9
27-Nov-07	15	12	12	5	7	A	14	31	32	26	49	20	29	26	20	22	23	21	21	22	29	9	5	3	19.6	49.4
28-Nov-07	3	3	3	3	4	A	8	16	25	18	8	7	19	26	32	33	37	44	37	36	34	29	25	25	20.8	44.2
29-Nov-07	27	20	27	32	A	41	31	37	40	34	31	26	18	19	26	33	43	49	47	40	32	26	29	27	32.0	49.4
30-Nov-07	26	31	27	A	7	30	34	46	43	34	29	29	22	8	12	22	16	17	7	8	10	8	8	7	20.8	46.1
Hourly Avg	15.8	13.7	12.5	11.8	11.0	16.3	18.9	22.9	23.7	22.1	20.8	16.6	15.4	14.0	14.4	19.1	24.3	27.2	23.1	21.4	18.7	18.0	18.1	16.3		
Hourly Max	39.2	38.3	28.5	32.4	26.9	40.5	34.9	46.7	42.8	41.6	49.4	43.0	40.7	30.1	31.8	34.0	43.0	49.4	47.4	40.5	38.3	41.4	45.1	39.8		

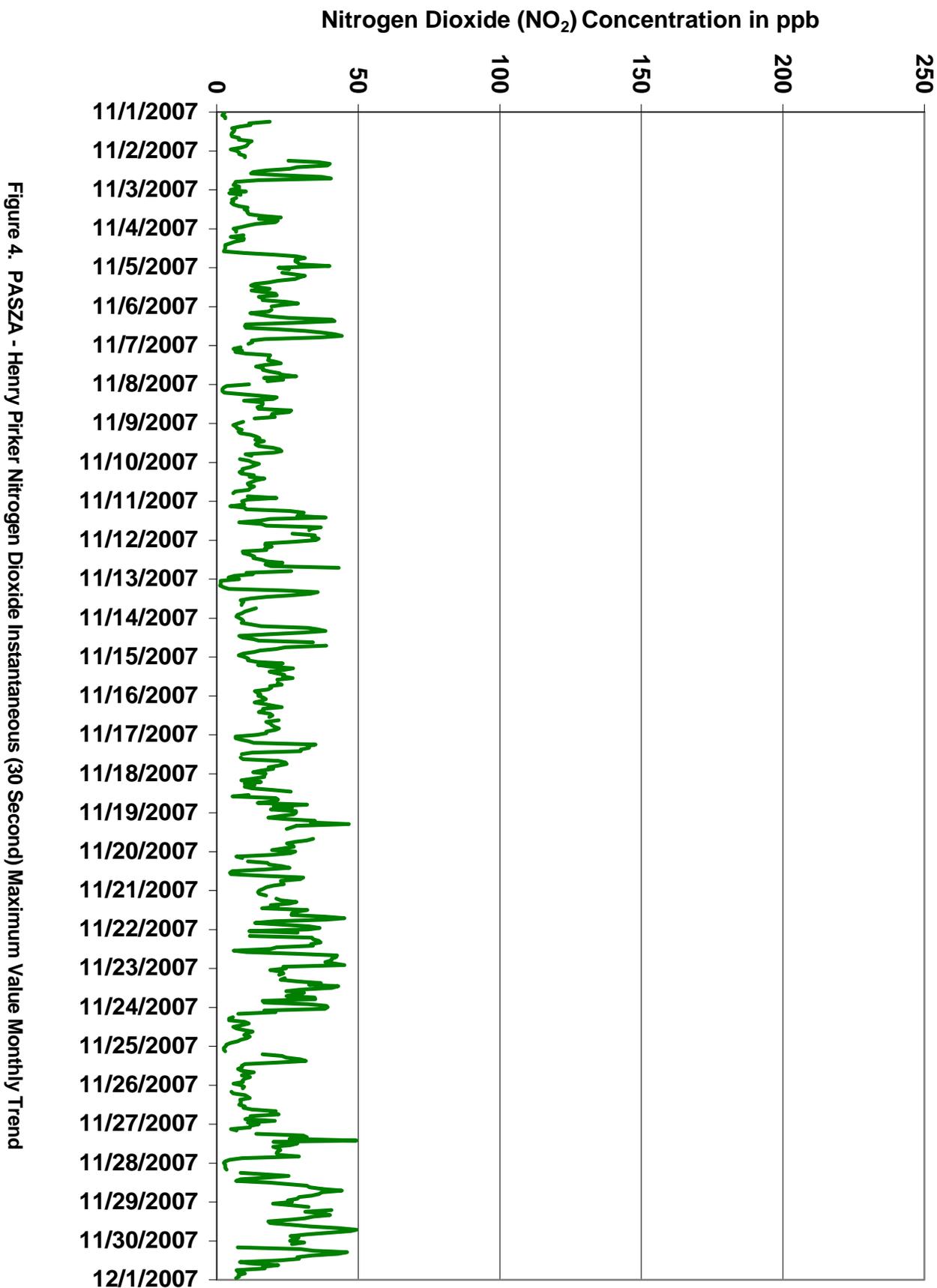
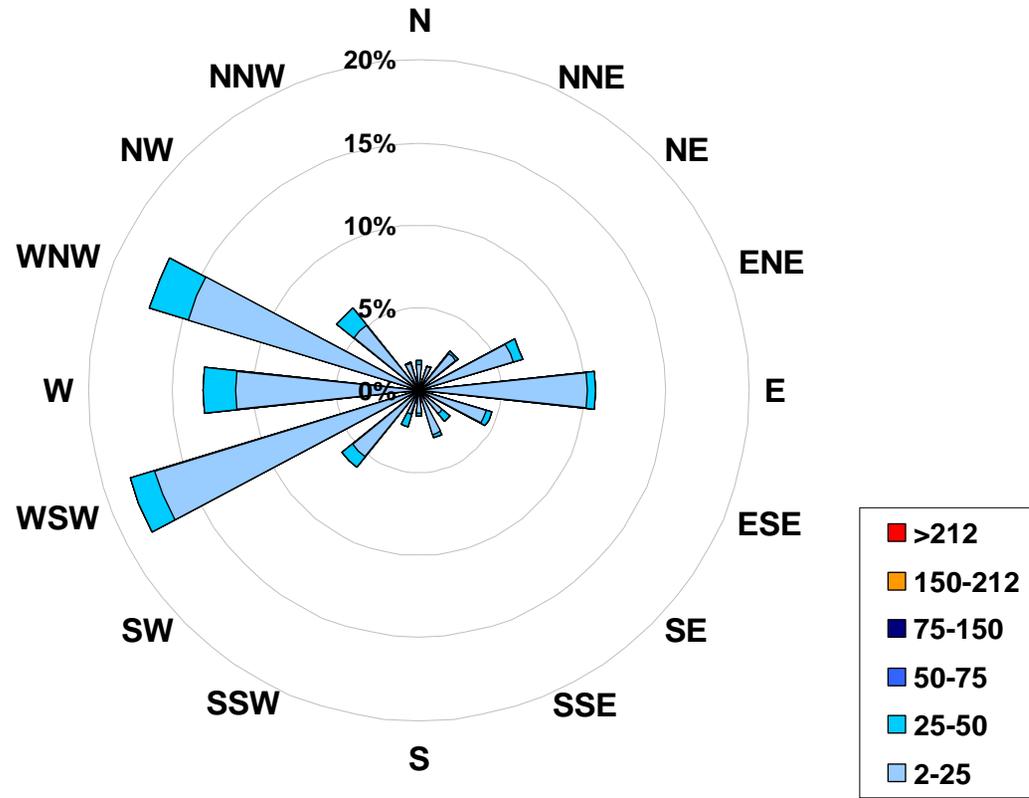


Figure 4. PASZA - Henry Pirkner Nitrogen Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Nitrogen Dioxide (in ppb) Located at the Henry Pirker Site for November 2007**



**Calms: 0%**

Frequency Distribution of NO <sub>2</sub> in ppb			
Range		Frequency (hrs)	
2.0	< 25	615	
25	to 50	44	
50	to 75	10	
75	to 150	16	
150	to 212	0	
	> 212	0	
Total Non-Zero Values			685

# PASZA - Henry Pirker Nitric Oxide Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

## Nitric Oxide (NO)

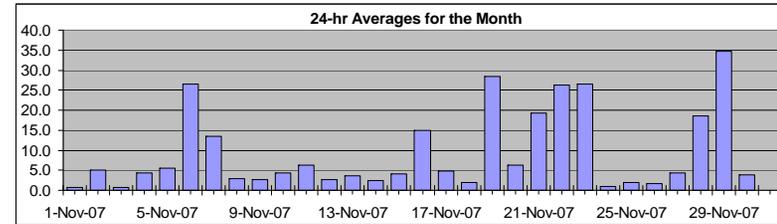
Monitoring Dates: November 1, 2007 to December 1, 2007

Guideline Limit:  
 Summary

1-hr	na	ppb	24-hr	na	ppb
------	----	-----	-------	----	-----

Maximum 1-hr Average:	141.0	ppb	29-Nov	17:00	18:00
Maximum 24-hr Average:	34.8	ppb	29-Nov		

AIC Time:	31 hrs	Operational Time:	685 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	100.0	43.4	8.1	2.0	0.7	0.1	0.0	9.2 ppb	2.0 ppb



### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00		
1-Nov-07	0	0	0	0	0	A	1	1	2	1	1	2	2	1	1	1	1	1	1	1	0	0	0	0	0.8	1.7
2-Nov-07	0	0	0	0	0	A	2	6	40	30	4	4	2	2	2	3	9	10	1	1	1	0	0	5.1	40.1	
3-Nov-07	0	0	0	0	A	0	0	1	1	1	1	2	1	1	2	1	1	0	0	0	0	0	0	0.6	1.5	
4-Nov-07	0	0	0	A	0	0	1	1	1	1	1	1	1	0	0	1	2	3	10	15	14	31	16	3	4.3	31.0
5-Nov-07	1	7	A	19	24	13	10	11	6	5	4	4	4	3	1	2	2	1	1	1	1	1	7	1	5.6	23.5
6-Nov-07	0	A	1	0	1	3	6	29	123	125	31	2	1	2	2	8	26	80	110	53	1	1	2	2	26.5	124.8
7-Nov-07	A	1	1	1	1	1	3	5	5	31	35	18	22	14	21	22	32	56	17	2	1	1	6	A	13.4	55.8
8-Nov-07	1	0	0	0	0	0	1	2	9	6	3	4	5	5	2	2	8	5	4	3	3	2	A	1	2.9	8.8
9-Nov-07	1	1	1	1	1	1	1	2	3	3	4	7	7	4	4	9	8	6	1	0	0	A	0	0	2.7	8.8
10-Nov-07	1	1	1	1	1	2	1	2	4	10	28	18	16	5	2	2	1	1	1	1	A	1	2	0	4.4	28.2
11-Nov-07	0	0	0	0	0	0	0	1	4	14	21	7	6	2	2	2	11	9	6	A	1	11	11	39	6.3	39.3
12-Nov-07	24	3	1	1	1	1	1	1	1	1	2	3	2	2	2	2	1	8	A	1	1	0	0	0	2.6	24.0
13-Nov-07	0	0	0	0	0	0	0	2	23	21	8	9	5	4	3	2	1	A	1	1	1	1	0	0	3.6	23.0
14-Nov-07	0	0	0	0	0	1	2	7	7	8	3	2	2	2	2	3	A	9	3	2	1	1	1	1	2.5	9.5
15-Nov-07	0	1	1	0	1	1	0	3	3	3	4	16	14	15	7	A	4	5	3	4	3	2	2	3	4.2	15.5
16-Nov-07	2	3	4	3	1	6	28	14	13	18	21	40	36	21	A	30	18	28	20	12	16	6	1	1	14.9	40.1
17-Nov-07	0	0	0	0	0	0	2	3	9	18	10	3	3	A	2	2	5	11	11	12	7	12	4	1	4.9	18.4
18-Nov-07	3	4	5	1	0	1	0	1	0	1	4	7	A	2	1	2	2	1	1	3	1	2	1	3	2.0	7.5
19-Nov-07	3	9	5	3	4	20	23	44	55	76	48	A	C	C	C	C	48	48	29	17	28	50	24	6	28.5	76.0
20-Nov-07	2	2	0	0	0	A	0	1	2	4	9	2	1	1	1	2	6	9	5	5	45	26	10	11	6.2	45.0
21-Nov-07	5	3	3	3	A	8	26	30	49	32	25	16	42	23	15	12	29	98	19	1	0	1	2	3	19.3	98.0
22-Nov-07	2	0	1	A	0	2	4	6	28	25	16	11	6	1	1	6	32	73	87	48	68	89	73	25	26.3	88.8
23-Nov-07	7	4	4	6	14	A	19	21	75	117	75	111	93	37	9	5	2	1	1	1	0	0	1	3	26.4	117.3
24-Nov-07	4	6	0	0	0	A	0	0	0	0	1	1	1	1	1	2	1	1	1	1	1	1	0	0	1.0	5.6
25-Nov-07	0	0	0	0	A	0	0	1	4	13	4	3	3	2	2	1	1	1	1	1	2	2	2	1	2.0	13.4
26-Nov-07	2	2	1	A	1	1	1	2	2	2	3	3	3	3	2	3	2	3	2	1	1	1	1	1	1.8	2.9
27-Nov-07	1	0	0	0	0	A	1	5	13	2	5	8	23	17	9	5	2	2	1	0	1	1	0	0	4.3	23.0
28-Nov-07	0	0	0	0	0	A	0	1	3	3	2	1	6	21	30	26	35	75	97	33	40	24	19	10	18.5	96.7
29-Nov-07	5	2	3	15	A	15	18	36	50	35	24	22	11	9	16	15	55	141	133	94	52	21	22	6	34.8	141.0
30-Nov-07	6	10	2	A	0	2	5	17	11	7	5	6	5	2	3	3	1	1	0	1	1	1	0	0	3.9	17.3
Hourly Avg	2.4	2.0	1.2	2.1	2.0	3.4	5.3	8.4	18.2	20.5	13.4	11.4	11.6	7.2	5.2	6.2	11.9	23.6	19.6	10.9	10.0	9.9	7.2	4.3		
Hourly Max	24.0	10.1	5.4	18.8	23.5	20.3	28.1	43.9	122.8	124.8	74.8	110.5	93.5	37.2	30.5	30.1	55.1	141.0	133.3	94.1	68.5	88.8	72.5	39.3		

# PASZA - Henry Pirker Oxides of Nitrogen Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

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

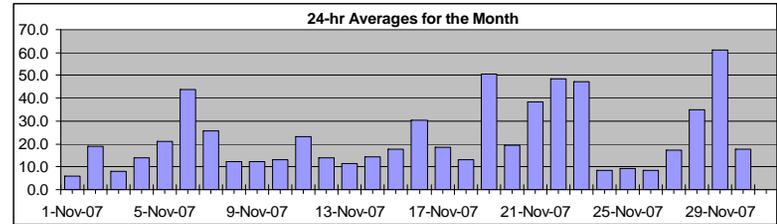
Monitoring Dates: November 1, 2007 to December 1, 2007

Guideline Limit: Alberta Environment: 

1-hr	na	ppb	24-hr	na	ppb
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Summary

Maximum 1-hr Average:	184.0	ppb	29-Nov	17:00 18:00
Maximum 24-hr Average:	61.0	ppb	29-Nov	



AIC Time:	31 hrs	Operational Time:	685 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	137.5	70.1	27.7	13.6	7.0	2.6	1.5	22.4 ppb	13.6 ppb

Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00			0:00
1-Nov-07	2	2	2	2	2	A	12	10	10	6	5	5	5	4	4	5	7	7	10	8	9	9	6	4	5.9	12.4	
2-Nov-07	5	6	6	7	6	A	18	31	77	60	24	24	15	13	11	19	40	41	6	5	5	4	5	4	19.0	77.0	
3-Nov-07	3	5	2	5	A	4	4	5	4	5	7	10	8	7	9	10	13	15	12	15	14	11	9	6	8.0	15.4	
4-Nov-07	4	4	4	A	5	3	6	7	5	3	3	2	2	2	2	4	15	24	32	40	39	57	36	21	13.9	57.0	
5-Nov-07	19	27	A	40	46	37	34	34	22	18	15	13	14	13	8	13	14	13	12	14	12	18	32	16	21.1	45.7	
6-Nov-07	13	A	17	12	10	13	19	47	153	159	51	7	5	8	12	31	59	117	146	84	13	11	10	9	43.7	159.4	
7-Nov-07	A	7	5	6	5	7	15	20	19	46	52	32	37	25	36	36	47	74	36	15	11	15	20	A	25.7	74.4	
8-Nov-07	6	2	2	1	1	2	4	10	23	19	9	10	14	17	11	13	29	25	21	20	17	12	A	8	12.1	28.9	
9-Nov-07	7	6	7	6	6	6	8	10	12	12	15	17	14	13	16	26	27	25	13	7	10	A	7	8	12.1	27.0	
10-Nov-07	11	14	11	10	7	7	7	8	13	20	41	28	25	14	9	11	10	9	6	5	A	8	15	6	12.9	41.0	
11-Nov-07	6	6	5	3	6	5	17	22	28	39	47	21	17	7	12	17	35	37	31	A	21	42	41	71	23.2	71.4	
12-Nov-07	55	21	13	12	10	9	9	6	7	8	12	12	14	12	15	13	14	36	A	18	7	7	5	2	13.8	54.9	
13-Nov-07	2	1	1	1	1	1	2	15	53	48	24	20	11	10	9	8	8	A	11	10	7	6	5	5	11.3	52.6	
14-Nov-07	5	5	4	4	8	10	20	35	31	30	12	7	7	9	11	16	A	40	22	16	12	9	7	6	14.3	39.8	
15-Nov-07	7	8	8	8	8	11	11	26	24	15	16	36	35	38	21	A	20	21	18	21	17	12	16	16	17.9	38.2	
16-Nov-07	15	17	19	16	13	20	45	31	28	33	34	57	53	35	A	48	34	45	37	29	36	23	13	15	30.3	56.6	
17-Nov-07	10	4	3	6	6	8	20	28	38	47	28	11	9	A	7	8	19	32	32	31	24	28	16	12	18.6	46.6	
18-Nov-07	17	19	18	11	4	9	7	11	7	6	14	18	A	6	4	9	16	15	11	22	15	21	15	28	13.1	27.5	
19-Nov-07	28	32	18	15	21	47	50	71	79	97	66	A	C	C	C	C	77	75	53	40	52	73	45	24	50.6	96.8	
20-Nov-07	19	21	9	5	6	A	9	15	17	22	28	10	4	4	4	9	25	32	23	25	65	44	26	26	19.6	64.9	
21-Nov-07	18	16	16	17	A	25	46	51	70	49	39	29	68	47	36	35	60	136	50	11	9	10	23	18	38.2	136.2	
22-Nov-07	25	7	15	A	8	21	23	25	59	54	36	26	17	5	7	24	68	111	125	85	105	125	104	46	48.7	125.2	
23-Nov-07	26	20	22	26	33	A	40	40	99	144	102	146	124	62	26	25	23	19	18	18	7	9	22	33	47.2	146.2	
24-Nov-07	37	21	12	14	3	A	4	3	3	6	7	7	5	7	7	9	5	7	8	9	7	5	3	2	8.3	37.0	
25-Nov-07	2	2	2	2	A	10	15	19	29	39	12	7	7	6	7	7	7	7	7	7	7	6	7	6	5	9.5	38.9
26-Nov-07	5	5	4	A	4	4	7	10	10	7	8	9	9	9	8	10	12	13	11	9	9	8	13	9	8.4	12.9	
27-Nov-07	10	9	7	4	5	A	10	24	38	13	19	22	48	38	25	22	19	18	17	19	23	6	4	2	17.5	47.7	
28-Nov-07	2	2	3	2	2	A	7	11	19	15	7	5	15	42	58	54	69	110	130	61	69	50	44	33	35.2	130.3	
29-Nov-07	25	18	19	42	A	43	47	68	85	66	48	42	25	22	37	37	92	184	175	128	78	45	48	30	61.0	184.0	
30-Nov-07	30	37	18	A	5	17	31	51	44	32	23	22	15	6	10	13	11	10	5	6	7	4	4	3	17.6	51.2	
Hourly Avg	14.3	11.8	9.4	10.7	8.9	13.8	18.2	24.8	37.0	37.3	26.9	22.6	22.2	17.3	15.1	19.1	30.2	44.7	37.2	26.8	24.3	23.5	20.7	16.2			
Hourly Max	54.9	37.2	22.5	41.7	45.7	46.6	49.8	70.6	153.4	159.4	102.4	146.2	124.4	61.9	57.6	54.2	91.7	184.0	175.0	128.5	104.7	125.1	103.8	71.4			

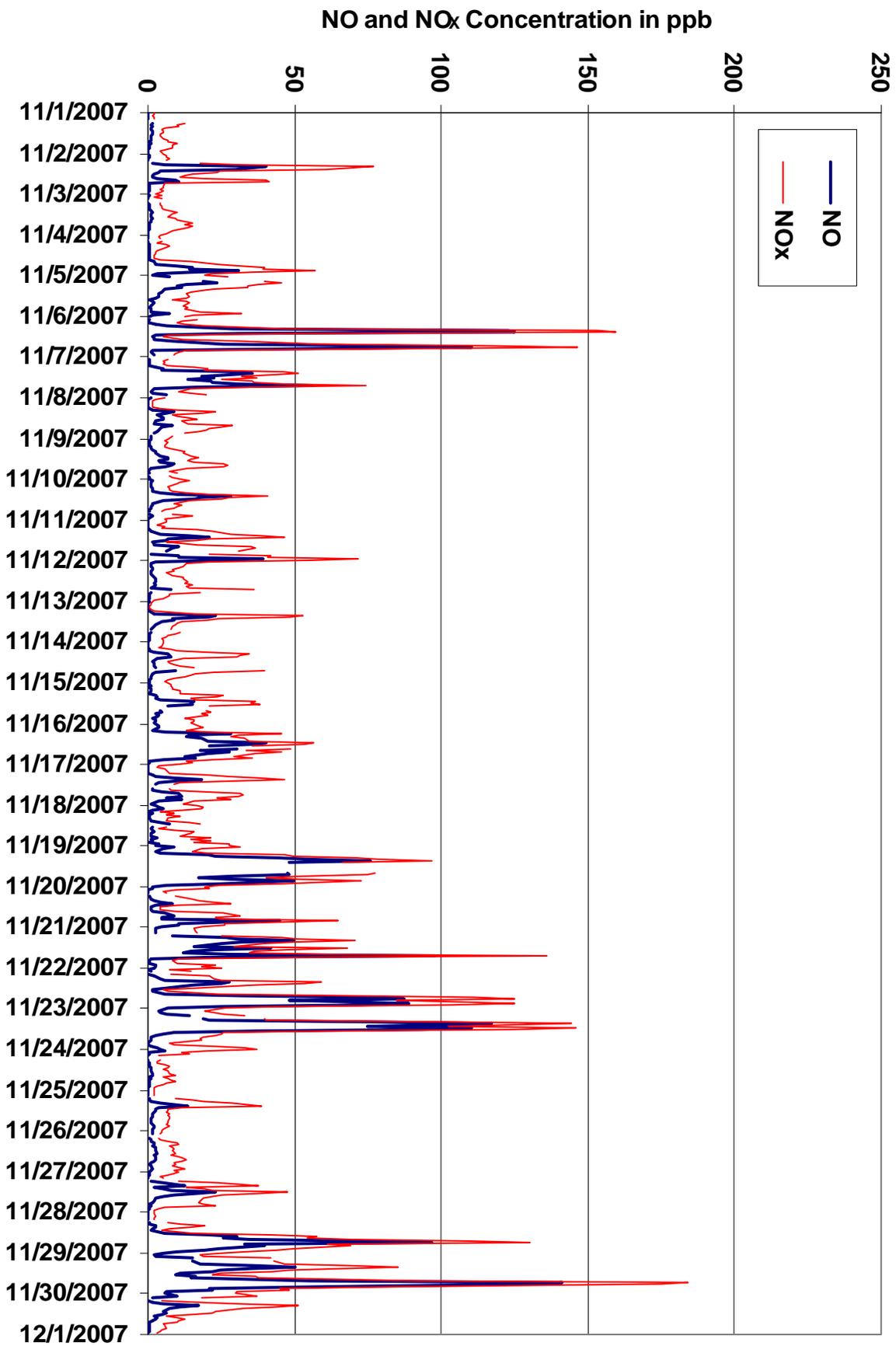


Figure 5. PASZA - Henry Pirkker Oxides of Nitrogen 1-hr Average Monthly Trend

Station: Henry Pirker  
 Station Owner: PASZA

**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

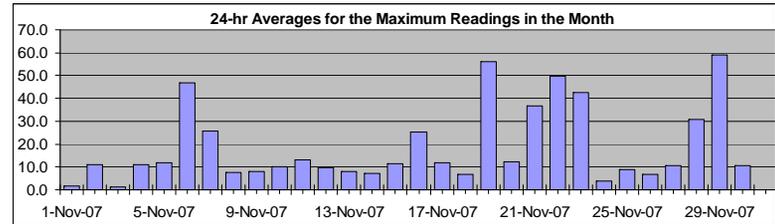
**Nitric Oxide (NO)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	226.3	ppb	29-Nov	17:00 18:00
Maximum 24-hr Value:	59.1	ppb	29-Nov	

AIC Time:	31 hrs	Operational Time:	685 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	158.2	73.3	19.5	7.0	2.0	0.5	0.3	18.3 ppb	7.0 ppb



**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	0	0	0	0	1	A	2	2	3	2	2	4	3	3	2	2	2	1	1	1	1	1	1	1	1.6	3.9
2-Nov-07	0	1	1	0	1	A	3	21	58	70	13	8	4	3	3	6	18	37	1	1	1	1	1	1	11.0	69.7
3-Nov-07	1	1	0	1	A	0	1	1	1	1	1	2	2	2	2	2	1	1	0	1	1	3	0	0	1.4	3.3
4-Nov-07	0	0	1	A	0	0	2	1	2	1	1	1	1	1	1	2	5	10	36	42	29	51	30	32	11.0	50.5
5-Nov-07	10	11	A	29	29	27	19	22	12	31	9	6	6	7	1	3	6	6	4	2	3	6	20	4	11.9	30.6
6-Nov-07	3	A	1	1	1	9	18	70	173	168	63	6	3	6	7	18	69	116	208	105	3	2	17	9	46.9	207.8
7-Nov-07	A	1	3	6	4	2	12	9	48	48	50	51	32	21	27	33	58	90	39	8	3	8	15	A	25.9	90.0
8-Nov-07	5	1	0	0	1	1	2	6	21	14	6	14	17	8	8	4	20	12	9	9	14	3	A	2	7.8	20.9
9-Nov-07	1	1	1	4	8	10	4	5	5	18	11	16	15	10	12	17	17	13	4	1	1	A	1	5	7.9	18.4
10-Nov-07	4	3	2	6	10	15	5	5	15	16	50	35	23	9	3	3	2	1	1	1	A	5	12	2	10.0	50.3
11-Nov-07	1	0	2	0	0	0	1	5	12	26	48	11	10	3	5	4	33	17	14	A	5	19	26	55	13.0	54.6
12-Nov-07	45	9	2	3	26	19	3	3	2	3	4	8	4	17	11	12	9	37	A	3	1	1	1	1	9.8	44.5
13-Nov-07	16	0	0	0	0	1	1	6	52	38	18	15	10	6	5	4	2	A	1	1	1	1	1	1	7.9	51.7
14-Nov-07	1	0	0	1	1	1	11	15	26	14	14	3	4	5	3	13	A	27	4	4	4	4	2	1	7.0	26.8
15-Nov-07	1	5	10	1	12	15	2	7	7	7	12	22	22	22	19	A	20	13	6	12	14	3	4	20	11.2	22.0
16-Nov-07	6	10	7	6	4	19	51	39	20	25	26	51	48	38	A	44	36	41	34	28	25	17	2	3	25.2	51.0
17-Nov-07	1	0	0	0	0	0	14	12	13	29	28	6	5	A	4	4	22	21	29	26	10	33	15	2	11.9	32.9
18-Nov-07	7	10	12	3	1	4	1	1	1	2	13	29	A	5	2	6	7	3	2	11	2	16	2	8	6.6	29.3
19-Nov-07	7	19	20	10	15	46	48	132	96	128	89	A	C	C	C	C	93	73	55	28	87	66	37	20	56.2	131.6
20-Nov-07	14	8	1	0	0	A	1	3	4	10	17	9	2	2	2	6	16	24	11	11	61	47	15	14	12.1	60.6
21-Nov-07	9	8	7	6	A	22	39	61	73	46	75	20	60	39	23	18	90	156	48	3	1	3	11	25	36.6	156.3
22-Nov-07	9	1	8	A	0	8	22	26	76	42	46	17	16	2	3	12	60	111	142	92	88	147	168	45	49.7	168.1
23-Nov-07	19	8	9	11	21	A	44	44	121	168	102	140	142	62	24	12	8	3	8	8	1	0	4	14	42.5	168.2
24-Nov-07	14	37	0	9	0	A	1	1	1	1	1	1	1	2	2	4	3	2	2	1	1	1	1	1	3.7	36.9
25-Nov-07	1	1	0	1	A	5	2	2	13	51	17	12	9	8	6	7	15	8	4	6	10	12	9	6	8.9	50.9
26-Nov-07	14	10	11	A	1	2	4	5	4	3	12	5	4	5	4	9	8	8	12	13	1	6	6	9	6.8	14.4
27-Nov-07	3	2	2	0	1	A	4	20	27	17	28	15	35	26	13	16	10	9	4	1	6	2	2	1	10.6	34.7
28-Nov-07	1	1	0	0	1	A	1	1	9	4	3	3	17	32	40	38	51	106	129	72	61	65	44	27	30.8	129.0
29-Nov-07	16	7	15	38	A	51	35	54	73	47	43	31	18	16	30	36	118	226	191	124	102	36	33	17	59.1	226.3
30-Nov-07	9	22	7	A	0	7	11	49	34	13	12	17	15	5	8	12	7	2	1	2	2	2	1	1	10.4	49.0
Hourly Avg	7.5	6.2	4.4	5.3	5.4	11.6	12.2	21.0	33.4	34.9	27.1	19.4	18.8	13.2	9.8	12.4	27.8	40.6	34.5	21.3	18.6	19.4	16.5	11.3		
Hourly Max	44.5	36.9	19.5	38.4	29.2	51.4	51.0	131.6	172.6	168.3	101.7	140.5	141.7	62.2	40.5	44.0	118.1	226.3	207.8	124.0	101.7	147.2	168.1	54.6		

Station: Henry Pirker  
 Station Owner: PASZA

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

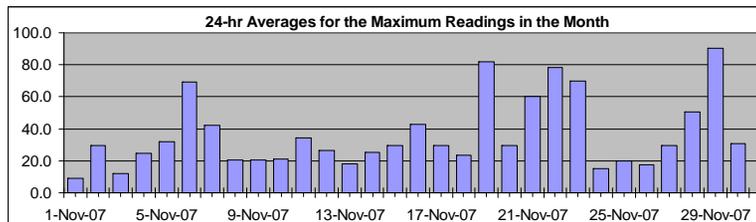
### Oxides of Nitrogen (NO<sub>x</sub>)

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	275.0	ppb	29-Nov	17:00 18:00
Maximum 24-hr Value:	90.3	ppb	29-Nov	

AIC Time:	31 hrs	Operational Time:	685 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	197.9	107.8	44.0	23.5	12.3	4.5	2.3	35.8 ppb	23.5 ppb



**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	3	3	2	3	3	A	21	13	14	10	8	10	9	7	8	7	10	9	13	12	12	11	9	5	8.9	20.9
2-Nov-07	7	9	8	10	10	A	29	57	98	108	41	34	21	16	15	29	55	77	16	8	7	9	9	9	29.6	108.2
3-Nov-07	6	12	4	9	A	7	6	7	6	7	9	13	12	13	13	13	17	24	15	22	21	16	11	9	12.0	24.2
4-Nov-07	6	7	7	A	10	5	12	10	8	6	4	4	4	4	3	11	26	38	67	67	55	76	59	72	24.5	76.4
5-Nov-07	26	37	A	51	56	58	48	50	33	49	22	18	20	26	14	20	27	28	17	18	19	30	48	27	32.2	58.3
6-Nov-07	21	A	21	19	12	25	36	95	210	206	89	17	13	16	28	49	105	155	251	138	19	14	29	20	69.1	251.3
7-Nov-07	A	9	9	14	11	12	31	28	66	66	70	73	49	34	43	49	75	111	61	36	20	28	29	A	41.9	110.9
8-Nov-07	16	4	2	2	2	3	11	20	42	34	15	30	30	23	20	18	43	38	29	28	31	17	A	11	20.4	43.0
9-Nov-07	9	7	8	11	17	17	12	17	19	34	24	33	28	23	23	37	39	35	24	11	13	A	8	16	20.2	38.8
10-Nov-07	16	18	15	15	19	24	13	13	28	28	67	49	35	18	14	16	14	12	8	7	A	15	33	12	21.3	67.0
11-Nov-07	9	9	12	5	10	11	26	35	41	54	87	28	25	11	21	20	70	49	46	A	31	53	58	85	34.6	86.6
12-Nov-07	77	35	18	20	45	34	21	11	11	14	17	20	19	35	34	26	25	79	A	29	11	13	7	5	26.3	78.5
13-Nov-07	4	2	2	2	1	3	4	29	87	71	43	32	21	15	15	13	10	A	15	13	11	10	8	8	18.3	87.0
14-Nov-07	8	9	10	9	13	17	43	50	64	44	33	11	13	18	18	47	A	65	28	24	18	15	10	9	25.1	65.2
15-Nov-07	10	13	20	14	35	29	20	33	30	26	33	45	45	49	40	A	40	36	25	30	29	16	19	35	29.3	48.7
16-Nov-07	21	26	24	22	18	35	69	61	37	40	40	70	67	56	A	66	54	59	51	47	44	37	19	19	42.7	69.8
17-Nov-07	15	7	6	9	11	13	49	44	44	58	58	18	14	A	11	13	43	45	53	46	28	52	30	14	29.6	58.1
18-Nov-07	24	25	29	16	9	19	10	14	10	15	33	55	A	16	7	27	29	23	16	43	22	42	21	34	23.5	55.1
19-Nov-07	33	43	38	28	39	81	76	178	116	154	111	A	C	C	C	C	124	104	80	52	113	92	59	37	81.9	178.0
20-Nov-07	41	35	20	7	9	A	12	21	22	33	42	25	7	6	6	22	47	53	34	34	80	66	31	29	29.7	80.0
21-Nov-07	23	22	21	22	A	42	60	89	97	64	95	36	87	67	49	42	122	197	87	23	14	26	42	60	60.4	197.4
22-Nov-07	42	12	36	A	12	40	56	62	112	76	80	37	35	8	13	40	99	149	173	131	123	183	209	68	78.1	209.4
23-Nov-07	43	24	32	31	42	A	69	66	149	200	134	183	180	92	48	43	37	27	43	43	17	17	36	52	70.0	200.2
24-Nov-07	52	73	17	29	7	A	6	5	5	10	12	10	7	8	12	16	13	12	12	12	9	8	6	4	14.9	72.6
25-Nov-07	3	3	3	3	A	19	24	27	42	82	28	22	18	17	13	15	26	17	12	17	19	21	16	12	20.0	81.6
26-Nov-07	23	20	20	A	6	7	12	14	16	11	19	12	12	15	13	17	29	27	33	23	14	16	26	19	17.5	33.2
27-Nov-07	16	14	14	5	8	A	16	49	57	43	78	35	62	52	33	35	29	31	24	24	35	11	5	3	29.5	77.8
28-Nov-07	3	3	3	3	4	A	9	17	35	22	11	10	36	58	72	70	87	145	164	106	93	94	71	51	50.7	164.2
29-Nov-07	42	27	42	70	A	92	64	92	110	79	73	57	36	35	56	68	159	275	238	162	132	60	62	44	90.3	275.0
30-Nov-07	33	53	34	A	8	36	45	94	76	47	40	47	37	13	19	34	20	19	8	9	12	9	9	8	30.8	94.1
Hourly Avg	21.8	19.3	16.4	16.6	16.1	27.4	30.3	43.4	56.1	56.3	47.2	35.6	33.7	26.9	23.7	30.8	50.8	66.8	56.8	42.0	36.3	36.5	33.8	26.8		
Hourly Max	77.4	72.6	41.7	70.3	55.6	91.8	75.9	178.0	210.2	206.3	134.3	182.9	180.3	92.2	71.7	69.6	159.2	275.0	251.3	162.5	132.1	183.2	209.4	85.5		

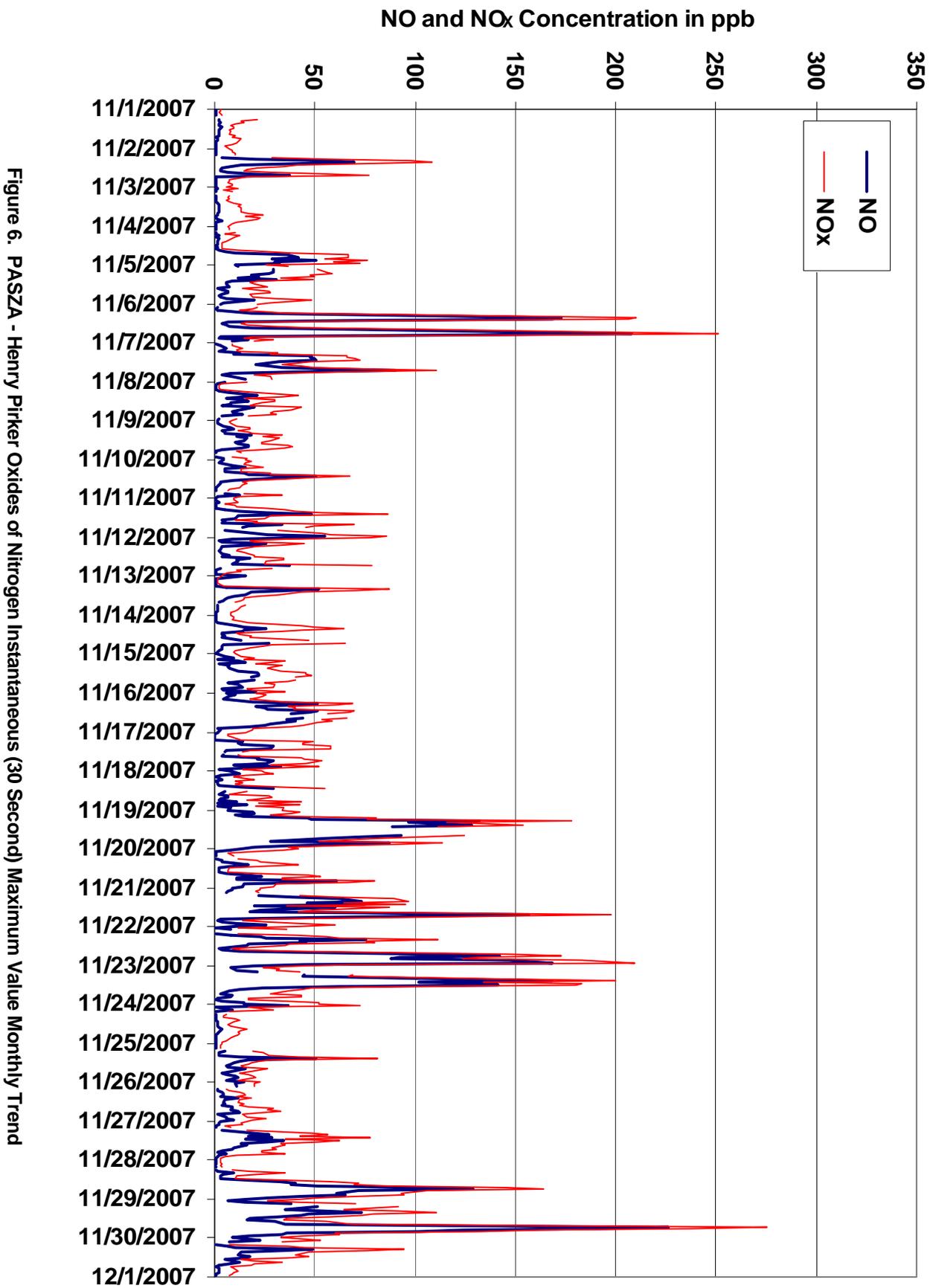


Figure 6. PASZA - Henry Pirkler Oxides of Nitrogen Instantaneous (30 Second) Maximum Value Monthly Trend

## PASZA - Henry Pirker Ozone Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

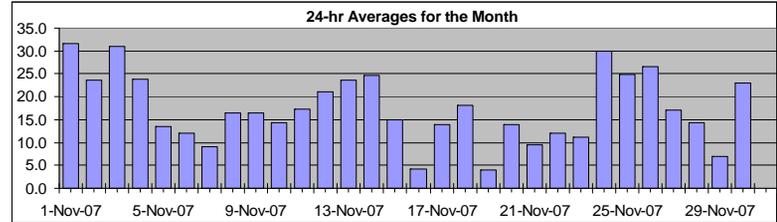
Ozone (O<sub>3</sub>)

Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 1-hr 82 ppb 24-hr na ppb  
**Summary**

Number of 1-hr Exceedances:		0	
Maximum 1-hr Average:	38.3 ppb	24-Nov	7:00 8:00
Maximum 24-hr Average:	31.6 ppb	1-Nov	

AIC Time:	32 hrs	Operational Time:	685 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%
Percentile	99	95	75
	35.8	33.7	26.7
	18.1	7.2	2.4
	1.8	1.8	1.8
	Average		Median
	17.5 ppb		18.1 ppb



**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00		
1-Nov-07	36	36	35	34	34	A	27	29	28	32	34	35	35	36	35	34	32	31	26	27	26	26	28	31	31.6	36.0
2-Nov-07	30	28	28	27	26	A	21	12	5	7	16	19	25	26	29	24	11	11	34	34	33	33	31	32	23.5	34.0
3-Nov-07	33	31	34	29	A	34	35	35	35	34	33	31	33	35	33	33	31	28	30	25	23	23	26	28	31.0	35.3
4-Nov-07	30	29	27	A	27	28	23	21	29	34	36	36	37	38	37	35	23	14	10	6	4	4	8	13	23.8	37.5
5-Nov-07	9	4	A	3	3	4	5	6	11	14	16	16	16	19	23	20	21	22	22	20	20	13	6	14	13.4	22.8
6-Nov-07	14	A	8	10	11	9	7	3	4	4	9	23	27	26	24	13	5	3	4	5	17	18	17	15	12.0	26.7
7-Nov-07	A	18	18	17	17	15	7	5	4	3	3	7	6	6	5	4	3	2	6	17	19	14	3	A	9.1	18.5
8-Nov-07	10	15	18	19	21	21	17	14	8	11	17	19	23	24	27	23	10	10	11	11	13	16	A	18	16.4	27.5
9-Nov-07	20	22	21	23	23	24	23	22	19	17	15	15	17	15	13	8	5	5	13	17	15	A	14	12	16.4	24.1
10-Nov-07	9	5	6	7	8	8	8	7	5	4	4	5	6	8	29	25	24	26	30	31	A	27	20	29	14.4	30.6
11-Nov-07	28	28	29	31	28	30	18	10	6	7	9	18	24	30	25	20	11	7	10	A	14	5	5	3	17.3	31.2
12-Nov-07	4	12	16	18	21	25	23	26	24	23	20	19	19	23	27	31	28	13	A	19	26	25	23	20	21.1	30.7
13-Nov-07	23	27	28	29	29	29	28	17	5	7	17	19	22	24	26	27	27	A	24	24	27	28	29	28	23.7	29.0
14-Nov-07	28	28	29	32	28	26	18	11	15	16	27	31	32	32	30	26	A	9	17	22	25	28	30	29	24.7	32.4
15-Nov-07	27	26	25	23	24	21	19	7	7	15	16	11	12	13	17	A	13	11	10	9	11	11	8	7	15.0	27.2
16-Nov-07	8	6	4	4	6	3	2	3	2	3	5	5	5	5	A	2	2	2	2	2	2	5	10	9	4.2	10.4
17-Nov-07	14	26	31	29	28	25	16	8	4	4	11	20	22	A	23	20	10	4	4	3	4	3	5	7	13.9	30.8
18-Nov-07	5	4	3	6	24	21	21	18	24	26	21	24	A	30	31	27	21	19	24	15	19	11	16	6	18.1	31.3
19-Nov-07	4	2	6	6	6	2	2	2	2	3	5	A	8	11	8	8	4	2	2	2	2	2	2	4	4.1	10.7
20-Nov-07	8	7	17	21	21	A	20	15	13	12	11	22	28	28	28	25	13	7	9	6	3	3	3	3	13.9	27.7
21-Nov-07	4	5	4	5	A	3	2	2	2	4	7	11	10	13	13	10	5	3	6	27	27	26	14	17	9.5	27.0
22-Nov-07	12	25	19	A	26	13	15	16	3	C	C	C	A	30	29	18	4	2	2	2	3	3	2	2	11.9	30.2
23-Nov-07	4	4	5	2	2	A	2	2	4	3	4	5	5	8	16	17	19	21	22	21	33	31	19	11	11.3	32.5
24-Nov-07	7	24	27	23	35	A	37	38	38	34	33	34	35	32	31	29	30	31	29	25	27	29	30	30	30.0	38.3
25-Nov-07	30	30	30	30	A	24	18	14	7	8	20	23	24	24	25	26	26	26	31	31	32	31	31	31	24.9	31.7
26-Nov-07	31	31	31	A	30	29	27	25	25	27	28	28	28	27	26	25	23	23	24	25	24	25	21	23	26.5	31.4
27-Nov-07	21	21	23	25	24	A	20	12	7	19	17	17	10	12	15	14	15	15	14	11	8	22	24	26	17.0	26.2
28-Nov-07	27	26	25	26	26	A	23	18	14	18	23	26	21	14	10	8	3	2	2	2	2	3	4	5	14.3	26.8
29-Nov-07	7	8	10	3	A	5	3	3	3	5	11	15	20	21	16	12	4	3	4	2	1	2	2	3	7.0	20.8
30-Nov-07	4	3	17	A	29	20	12	7	7	13	20	22	27	33	30	27	29	30	32	32	31	34	33	35	22.9	34.9
Hourly Avg	16.8	18.3	19.9	18.6	21.5	18.2	16.7	13.5	12.0	14.1	16.7	19.8	20.6	22.1	23.5	20.3	15.7	13.1	15.7	16.3	17.0	17.3	16.0	17.0		
Hourly Max	35.7	35.8	35.0	34.2	35.3	33.7	37.0	38.3	37.7	34.5	35.7	35.8	36.9	37.5	36.8	34.8	31.8	30.9	33.9	34.0	33.1	33.7	33.5	34.9		

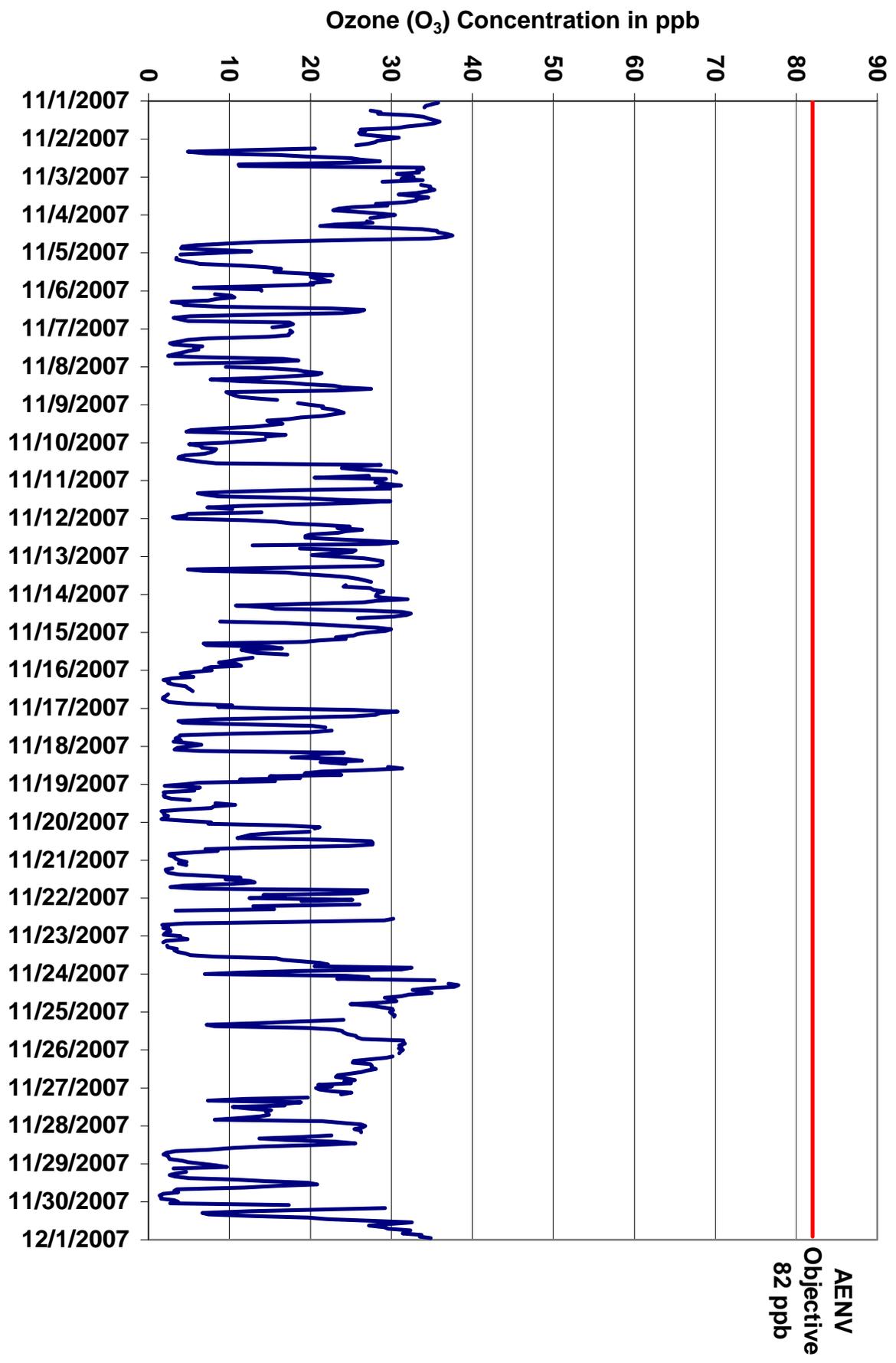


Figure 7. PASZA - Henry Pirkler Ozone 1-hr Average Monthly Trend

Station: Henry Pirker  
 Station Owner: PASZA

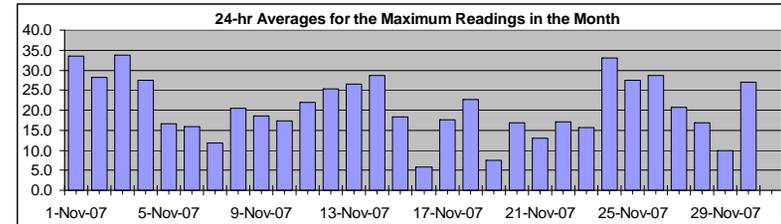
### INSTANTANEOUS (30 Second) MAXIMUM TABLE

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

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	40.1	ppb	8-Nov	14:00 15:00
Maximum 24-hr Value:	33.8	ppb	3-Nov	



AIC Time:	32 hrs	Operational Time:	685 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	38.3	35.8	29.8	22.6	11.7	3.7	2.5	20.8 ppb	22.6 ppb

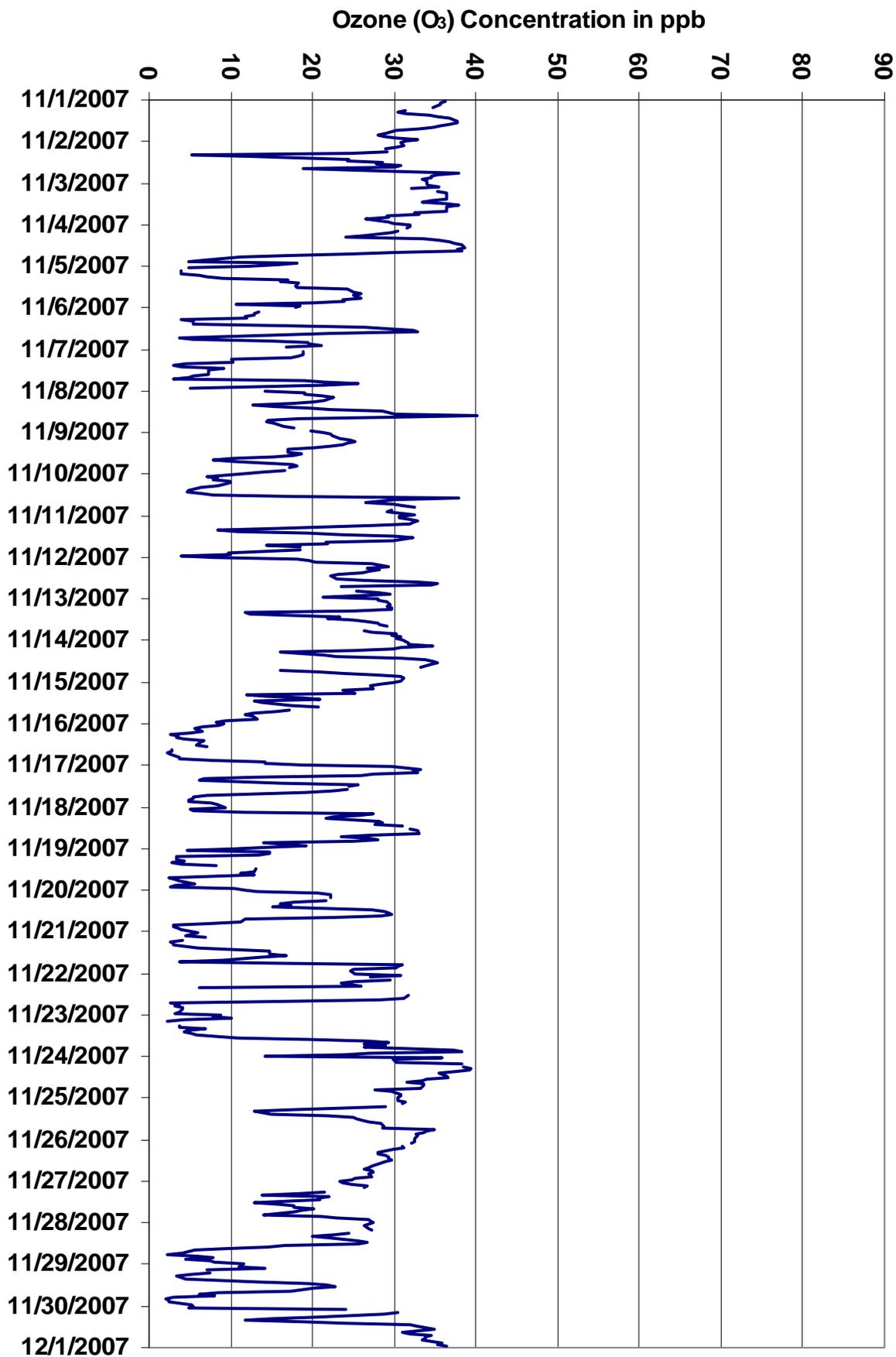
**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

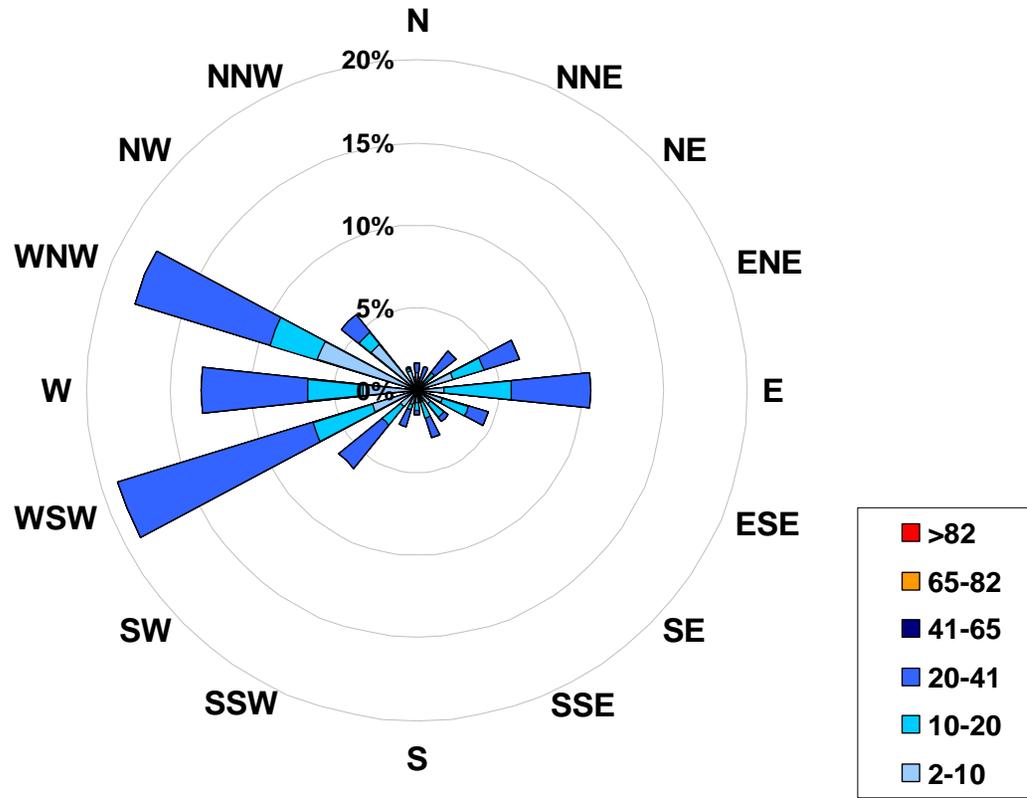
**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	36	36	36	36	35	A	31	31	31	34	35	37	38	38	37	36	35	33	30	29	28	29	30	33	33.6	37.7
2-Nov-07	31	31	31	30	29	A	29	25	5	13	24	24	29	28	31	30	19	31	38	35	35	33	34	34	28.3	38.0
3-Nov-07	34	34	35	32	A	35	36	36	36	36	35	33	36	38	36	36	36	32	33	29	29	27	29	30	33.8	37.9
4-Nov-07	32	32	32	A	31	30	26	24	34	35	37	37	38	39	38	38	30	24	17	11	7	5	18	16	27.4	38.7
5-Nov-07	12	5	A	4	4	6	7	9	17	16	18	18	18	24	25	25	26	25	26	24	24	20	11	18	16.6	26.0
6-Nov-07	18	A	13	13	13	12	12	4	5	5	17	26	29	32	33	22	10	4	5	15	19	20	21	17	15.9	32.8
7-Nov-07	A	19	19	19	18	17	10	10	4	3	4	9	7	7	7	5	5	3	19	22	25	21	5	A	11.8	25.5
8-Nov-07	14	19	19	21	23	22	20	18	13	15	20	22	29	30	40	30	18	15	14	15	16	18	A	20	20.4	40.1
9-Nov-07	21	22	22	23	25	25	24	24	22	20	17	17	19	18	15	10	8	10	17	18	17	A	17	14	18.6	25.2
10-Nov-07	12	7	8	8	10	10	9	8	6	5	5	6	8	18	38	30	26	30	31	32	A	30	29	32	17.4	37.8
11-Nov-07	31	31	32	33	32	32	28	15	8	11	19	24	30	32	30	22	22	14	18	A	19	10	10	4	22.0	32.9
12-Nov-07	8	18	20	20	27	29	27	28	27	26	23	22	23	26	33	35	35	23	A	25	28	30	26	21	25.3	35.3
13-Nov-07	28	28	29	29	29	30	30	25	12	12	23	22	25	27	28	28	29	A	26	27	30	30	31	30	26.5	30.7
14-Nov-07	31	32	32	35	31	30	25	16	21	23	31	34	35	35	35	33	A	16	21	24	28	31	31	31	28.7	35.2
15-Nov-07	30	28	27	27	27	24	25	12	14	19	21	13	14	17	21	A	17	15	13	12	13	13	9	8	18.3	29.8
16-Nov-07	9	9	6	6	7	5	3	3	3	4	7	6	6	7	A	3	3	2	3	4	4	8	14	14	5.9	14.1
17-Nov-07	19	30	33	32	33	27	26	13	7	6	16	26	24	A	24	23	19	7	5	5	5	5	8	8	17.5	33.3
18-Nov-07	9	5	5	12	27	26	23	22	28	29	28	31	A	32	33	33	27	24	27	28	25	14	19	14	22.6	33.1
19-Nov-07	10	5	15	15	13	3	3	4	3	4	8	A	13	13	11	13	8	2	3	4	6	3	3	11	7.5	14.7
20-Nov-07	11	13	21	22	22	A	22	18	16	17	15	27	29	29	30	28	23	12	11	7	3	3	4	4	16.9	29.8
21-Nov-07	5	6	5	7	A	4	3	3	3	6	10	15	15	15	17	14	9	4	16	31	30	30	25	25	12.9	30.9
22-Nov-07	25	31	27	A	30	25	24	26	6	C	C	C	A	32	31	28	16	3	4	3	4	4	4	3	17.1	31.7
23-Nov-07	9	8	10	4	2	A	4	4	7	5	4	5	6	11	20	27	29	26	29	26	37	38	27	24	15.7	38.2
24-Nov-07	14	36	30	30	38	A	38	39	39	37	35	36	37	34	33	32	34	34	33	28	30	30	31	31	33.1	39.4
25-Nov-07	30	30	31	31	A	29	23	17	13	15	22	25	25	26	27	28	29	28	35	34	34	33	33	33	27.5	34.9
26-Nov-07	33	33	32	A	31	31	30	28	28	29	29	29	30	29	28	27	27	26	27	28	27	27	25	25	28.6	32.5
27-Nov-07	23	24	25	27	26	A	21	18	14	22	21	21	13	16	18	18	20	19	18	14	21	23	27	27	20.7	27.0
28-Nov-07	27	27	26	27	27	A	24	23	20	22	26	27	26	17	15	10	6	4	2	6	8	5	7	8	16.9	27.5
29-Nov-07	12	11	14	7	A	7	5	3	5	9	13	20	22	23	20	17	8	6	8	3	2	2	5	5	9.8	22.8
30-Nov-07	5	5	24	A	30	29	21	15	12	19	24	32	33	35	33	31	32	35	34	34	33	36	35	36	27.1	36.4
Hourly Avg	20.0	21.2	22.8	21.2	23.9	21.2	20.3	17.4	15.4	17.2	20.3	23.0	23.4	25.1	27.1	24.6	20.9	17.6	19.5	19.8	20.2	19.9	19.4	19.9		
Hourly Max	36.2	36.2	35.7	35.7	38.3	35.4	38.4	39.4	39.1	37.5	36.9	37.3	38.3	38.7	40.1	38.3	36.4	34.6	38.0	35.2	37.4	38.2	35.4	36.4		

Figure 8. PASZA - Henry Pitker Ozone Instantaneous (30 Second) Maximum Value Monthly Trend



**1-hr Average Concentration Rose for Ozone (in ppb) Located at the Henry Pirker Site for November 2007**



**Calms: 0%**

Frequency Distribution of O <sub>3</sub> in ppb			
Range			Frequency (hrs)
2.0	<	10	214
10	to	20	161
20	to	41	310
41	to	65	0
65	to	82	0
	>	82	0
Total Non-Zero Values			685

### PASZA - Henry Pirker Ozone Eight Hour Average Summary

Station: Henry Pirker  
 Station Owner: PASZA

#### EIGHT HOUR RUNNING AVERAGE TABLE

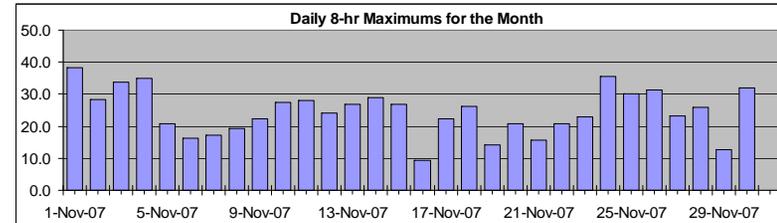
Ozone (O<sub>3</sub>)

Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 8-hr 65 ppb  
 Summary

Number of 8-hr Exceedances:	0			
Maximum 8-hr Average:	38.4	ppb	1-Nov	0:00 1:00

Percentile	99	95	75	50	25	5	1
	35.5	32.4	25.1	17.3	10.0	3.5	2.6



#### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

#### Day Mountain Standard Time

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	Daily Maximum
1-Nov-07	38	38	37	37	36	35	34	33	32	31	31	31	32	32	33	34	34	34	33	32	31	30	29	28	38.4
2-Nov-07	28	28	28	28	28	28	27	24	21	18	16	15	15	16	17	19	20	20	22	24	25	26	26	27	28.3
3-Nov-07	30	33	33	32	32	32	32	33	33	34	34	34	34	34	34	33	33	32	32	31	30	28	27	27	33.9
4-Nov-07	27	27	27	27	27	28	28	27	26	27	28	29	30	32	33	35	34	32	29	25	21	17	13	10	35.0
5-Nov-07	8	7	7	6	6	6	6	5	5	7	8	10	11	13	15	17	18	19	20	20	21	20	18	17	20.8
6-Nov-07	16	16	14	12	11	10	10	9	7	7	7	9	11	13	15	16	16	16	16	13	12	11	10	11	16.4
7-Nov-07	11	13	15	17	17	17	15	14	13	11	9	8	6	5	5	5	5	5	5	6	8	9	9	9	17.2
8-Nov-07	10	12	14	14	15	15	17	17	17	16	16	16	16	17	18	19	19	19	18	17	16	15	13	13	19.4
9-Nov-07	14	16	17	19	21	22	22	22	22	22	21	20	19	18	16	15	13	12	11	12	11	11	11	11	22.2
10-Nov-07	12	12	11	10	9	9	8	7	7	7	6	6	6	6	8	11	13	16	19	22	25	27	26	27	27.4
11-Nov-07	27	28	28	28	28	28	28	25	23	20	17	16	15	15	16	17	18	18	18	18	17	13	10	8	28.1
12-Nov-07	7	7	8	9	10	13	15	18	21	22	23	23	23	22	23	23	24	23	23	23	24	24	23	22	24.1
13-Nov-07	21	23	24	25	25	26	27	26	24	21	20	19	18	17	17	18	21	23	24	25	26	26	27	27	26.9
14-Nov-07	27	27	28	29	29	29	27	25	23	22	22	21	22	23	24	26	28	27	25	24	23	22	22	23	28.8
15-Nov-07	23	25	27	27	27	26	24	22	19	18	17	15	14	13	12	13	14	14	13	12	12	12	10	10	26.7
16-Nov-07	9	9	8	7	7	6	5	4	4	3	3	3	3	4	4	4	4	4	3	3	3	3	4	4	9.3
17-Nov-07	6	9	12	16	19	21	22	22	21	18	16	15	14	12	13	15	16	16	15	12	10	9	7	5	22.2
18-Nov-07	4	4	4	5	7	9	11	13	15	18	20	22	22	23	25	26	26	25	25	24	23	21	19	16	26.3
19-Nov-07	14	12	10	9	7	6	4	4	3	4	3	3	3	5	6	6	7	6	6	6	5	4	3	2	14.3
20-Nov-07	3	4	6	8	10	11	14	16	16	17	16	16	17	18	19	21	21	20	20	18	15	11	8	6	20.7
21-Nov-07	5	4	4	4	4	4	4	3	3	3	4	5	5	6	8	9	9	9	9	11	13	15	15	16	15.5
22-Nov-07	17	19	21	20	20	18	18	18	17	N	N	N	N	N	N	N	N	N	N	13	11	8	5	2	20.9
23-Nov-07	2	3	3	3	3	3	3	3	3	3	3	3	4	4	6	8	10	12	14	16	20	22	23	22	22.8
24-Nov-07	21	21	22	22	22	21	24	28	32	33	34	36	36	35	34	33	32	32	31	30	29	29	29	29	35.7
25-Nov-07	29	29	29	30	30	29	28	25	22	19	17	16	17	17	18	19	22	24	26	27	28	28	29	30	30.0
26-Nov-07	31	31	31	31	31	31	30	29	28	28	27	27	27	27	27	27	27	26	26	25	25	25	24	24	31.3
27-Nov-07	23	23	23	23	23	22	22	21	19	18	18	16	15	14	14	14	15	14	14	13	13	14	15	17	23.9
28-Nov-07	18	20	21	23	25	26	26	25	23	21	21	21	20	20	18	17	15	13	11	8	6	4	3	3	25.9
29-Nov-07	3	4	5	5	6	6	6	6	5	5	5	6	8	10	12	13	13	13	12	10	8	5	4	2	12.8
30-Nov-07	3	2	4	4	8	11	13	13	14	15	16	16	16	18	20	22	25	27	29	30	30	31	31	32	32.1

Hourly Max 38.4 37.9 37.3 36.5 35.8 35.5 34.1 33.0 33.2 33.7 34.1 35.7 35.6 35.2 34.5 35.0 34.3 34.0 33.0 32.0 30.9 30.6 31.1 32.1

# PASZA - Henry Pirker Carbon Monoxide Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

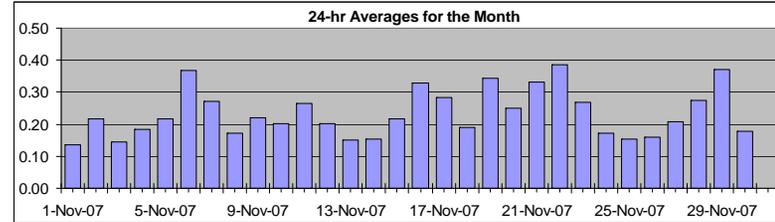
## Carbon Monoxide (CO)

Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 1-hr 13 ppm 24-hr na ppm  
 Summary

Number of 1-hr Exceedances:	0			
Maximum 1-hr Average:	1.4	ppm	21-Nov	17:00 18:00
Maximum 24-hr Value:	0.4	ppm	22-Nov	

AIC Time:	32 hrs		Operational Time:	684 hrs					
Calibration Time:	4 hrs		AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average	Median
	0.9	0.5	0.3	0.2	0.1	0.1	0.1	0.2 ppm	0.2 ppm



### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00			0:00
1-Nov-07	0:00	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.14	0.19
2-Nov-07	1:00	0.1	0.1	0.1	0.2	0.1	A	0.2	0.2	0.5	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.1	0.2	0.2	0.2	0.2	0.2	0.22	0.48
3-Nov-07	2:00	0.1	0.2	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.14	0.20
4-Nov-07	3:00	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.4	0.3	0.3	0.5	0.3	0.2	0.18	0.47
5-Nov-07	4:00	0.2	0.2	A	0.3	0.3	0.2	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.3	0.22	0.38
6-Nov-07	5:00	0.2	A	0.2	0.2	0.1	0.2	0.2	0.3	1.3	1.0	0.3	0.1	0.1	0.2	0.2	0.3	0.4	0.7	1.1	0.7	0.2	0.2	0.2	0.2	0.37	1.30
7-Nov-07	6:00	A	0.2	0.2	0.2	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.2	0.3	0.3	0.4	0.5	0.3	0.2	0.2	0.3	0.2	A	0.27	0.53
8-Nov-07	7:00	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.4	0.3	0.2	0.2	0.2	A	A	0.2	0.17	0.35
9-Nov-07	8:00	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	A	0.2	0.2	0.2	0.22	0.31
10-Nov-07	9:00	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	A	0.1	0.2	0.1	0.20	0.33
11-Nov-07	10:00	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.2	0.2	0.1	0.2	0.2	0.4	0.4	0.3	A	0.3	0.4	0.4	0.7	0.27	0.74
12-Nov-07	11:00	0.4	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	A	0.2	0.2	0.2	0.2	0.1	0.20	0.42
13-Nov-07	12:00	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	A	0.2	0.2	0.2	0.1	0.1	0.1	0.15	0.30
14-Nov-07	13:00	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	A	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.15	0.37
15-Nov-07	14:00	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	A	0.2	0.3	0.2	0.3	0.3	0.2	0.3	0.2	0.22	0.35
16-Nov-07	15:00	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	A	0.4	0.3	0.4	0.4	0.4	0.5	0.3	0.2	0.2	0.33	0.47
17-Nov-07	16:00	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.3	0.2	0.2	A	0.2	0.2	0.4	0.4	0.5	0.4	0.4	0.4	0.3	0.3	0.28	0.51
18-Nov-07	17:00	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	A	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.19	0.31
19-Nov-07	18:00	0.3	0.3	0.2	0.1	0.2	0.2	0.5	0.6	0.4	0.3	0.2	A	0.5	0.3	0.3	0.4	0.5	0.5	0.4	0.3	0.4	0.6	0.3	0.2	0.34	0.60
20-Nov-07	19:00	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.5	0.4	0.3	0.4	0.3	0.3	0.3	0.25	0.49
21-Nov-07	20:00	0.3	0.2	0.2	0.2	A	0.2	0.3	0.4	0.4	0.3	0.3	0.2	0.4	0.3	0.3	0.2	0.5	1.4	0.4	0.2	0.2	0.2	0.3	0.2	0.33	1.39
22-Nov-07	21:00	0.3	0.2	0.2	A	0.1	0.2	0.2	0.2	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.7	0.9	0.6	0.7	0.8	0.7	0.4	0.39	0.92
23-Nov-07	22:00	0.3	0.2	0.2	0.2	0.2	A	0.3	0.3	0.7	C	C	C	C	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.27	0.67
24-Nov-07	23:00	0.4	0.3	0.2	0.2	0.1	A	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.17	0.43
25-Nov-07	0:00	0.1	0.1	0.1	0.1	A	0.5	0.2	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15	0.47
26-Nov-07	1:00	0.1	0.1	0.1	A	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.16	0.22
27-Nov-07	2:00	0.1	0.1	0.1	0.2	0.1	A	0.2	0.2	0.3	0.2	0.2	0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.1	0.21	0.38
28-Nov-07	3:00	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.6	0.5	0.3	0.4	0.4	0.3	0.27	0.56
29-Nov-07	4:00	0.3	0.2	0.2	0.2	A	0.2	0.3	0.3	0.4	0.2	0.1	0.2	0.3	0.2	0.3	0.3	0.7	1.2	1.1	0.5	0.3	0.3	0.3	0.2	0.37	1.24
30-Nov-07	5:00	0.3	0.3	0.3	A	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.18	0.30
Hourly Avg		0.20	0.18	0.16	0.16	0.15	0.17	0.21	0.24	0.32	0.27	0.22	0.19	0.22	0.20	0.19	0.22	0.30	0.40	0.33	0.26	0.25	0.26	0.24	0.22		
Hourly Max		0.43	0.31	0.30	0.29	0.26	0.47	0.50	0.60	1.30	1.03	0.38	0.41	0.48	0.35	0.33	0.36	0.72	1.39	1.09	0.71	0.73	0.84	0.71	0.74		

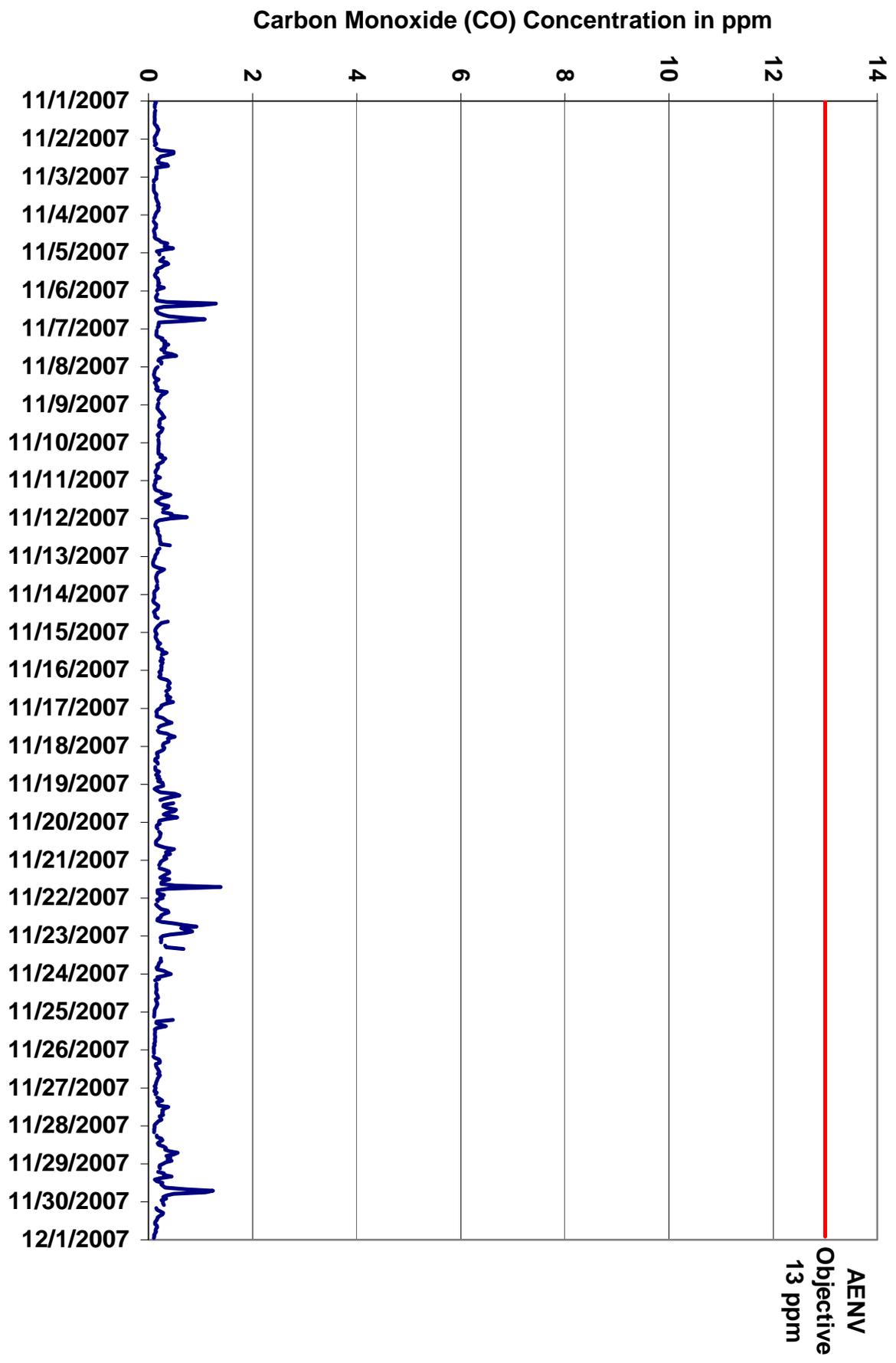


Figure 9. PASZA - Henry Pirkker Carbon Monoxide 1-hr Average Monthly Trend

Station: Henry Pirker  
 Station Owner: PASZA

**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

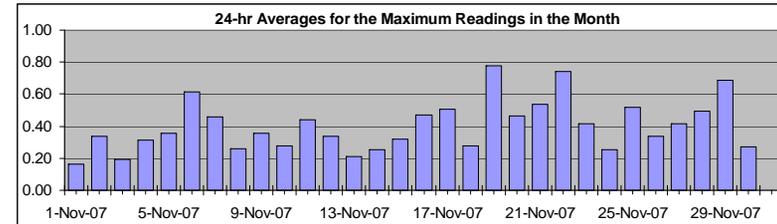
**Carbon Monoxide (CO)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	5.3	ppm	25-Nov	5:00 6:00
Maximum 24-hr Value:	0.8	ppm	19-Nov	

AIC Time:	32 hrs					Operational Time:	684 hrs				
Calibration Time:	4 hrs					AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	Average		Median	
	2.3	1.1	0.4	0.3	0.2	0.1	0.1	0.4	ppm	0.3	ppm



**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum		
1-Nov-07	0.2	0.2	0.1	0.1	0.1	A	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.16	0.22		
2-Nov-07	0.2	0.2	0.2	0.4	0.1	A	0.3	0.4	0.9	0.6	0.6	0.4	0.4	0.3	0.3	0.6	0.6	0.2	0.2	0.2	0.2	0.2	0.2	0.34	0.89		
3-Nov-07	0.3	0.3	0.2	0.1	A	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.19	0.30		
4-Nov-07	0.2	0.2	0.2	A	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.2	0.2	0.2	0.3	0.4	1.6	0.6	0.5	0.6	0.5	0.2	0.31	1.57	
5-Nov-07	0.3	0.3	A	0.4	0.3	0.7	0.7	0.6	0.6	0.5	0.4	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.35	0.73		
6-Nov-07	0.2	A	0.3	0.2	0.2	0.2	0.2	0.3	1.3	1.8	1.9	0.6	0.2	0.2	0.3	0.3	0.4	0.5	1.2	1.8	1.1	0.3	0.3	0.2	0.61	1.93	
7-Nov-07	A	0.3	0.2	0.2	0.2	0.2	0.7	0.3	0.6	0.6	1.2	0.4	0.4	0.3	0.4	0.3	0.9	0.8	0.5	0.3	0.2	0.5	0.5	A	0.46	1.16	
8-Nov-07	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.5	0.2	0.1	0.3	0.2	0.2	0.2	0.3	0.7	0.5	0.3	0.3	0.3	0.3	A	0.3	0.26	0.71	
9-Nov-07	0.3	0.6	0.3	0.2	0.3	0.3	0.5	0.8	0.7	0.5	0.5	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	A	0.2	0.2	0.35	0.81		
10-Nov-07	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.3	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.4	0.2	0.27	0.53		
11-Nov-07	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.9	0.4	0.9	0.7	0.3	0.3	0.2	0.2	0.3	0.4	0.7	0.6	0.4	A	0.4	0.6	0.9	1.2	0.44	1.18
12-Nov-07	0.7	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.4	0.4	0.7	0.4	0.8	A	0.3	0.2	0.2	0.2	0.2	0.33	0.80	
13-Nov-07	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.5	0.4	0.2	0.3	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.1	0.21	0.49		
14-Nov-07	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.4	A	0.6	0.3	0.6	0.3	0.3	0.4	0.3	0.25	0.56	
15-Nov-07	0.2	0.2	0.4	0.2	0.2	0.3	0.4	0.3	0.2	0.3	0.3	0.3	0.4	0.5	0.4	A	0.5	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.32	0.54	
16-Nov-07	0.3	0.3	0.3	0.3	0.3	0.6	0.8	0.6	0.9	0.6	0.5	0.5	0.5	0.5	A	0.5	0.4	0.5	0.5	0.5	0.6	0.5	0.3	0.3	0.47	0.92	
17-Nov-07	0.3	0.3	0.2	0.2	0.2	0.2	0.5	0.9	0.5	0.8	0.6	0.4	0.3	A	0.3	0.5	1.4	0.5	1.7	0.4	0.5	0.5	0.4	0.3	0.51	1.67	
18-Nov-07	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.3	0.4	A	0.2	0.2	0.2	0.4	0.3	0.2	0.3	0.2	0.4	0.3	0.4	0.28	0.44	
19-Nov-07	0.3	0.4	0.4	0.2	0.3	0.3	2.7	2.8	1.7	0.5	0.4	A	0.6	0.4	0.4	0.8	1.0	0.7	0.5	0.4	1.1	1.1	0.5	0.3	0.78	2.80	
20-Nov-07	0.3	0.3	0.2	0.2	0.2	A	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.6	0.7	2.3	0.9	0.4	0.6	0.4	0.3	0.8	0.46	2.34	
21-Nov-07	0.3	0.3	0.3	0.2	A	0.3	0.5	0.7	0.7	0.4	0.5	0.3	0.5	0.4	0.3	0.3	1.6	2.2	0.8	0.2	0.3	0.3	0.5	0.4	0.54	2.20	
22-Nov-07	0.4	0.3	0.3	A	0.1	0.2	0.5	0.5	0.9	0.6	1.4	0.3	0.3	0.2	0.2	0.3	0.9	1.5	1.5	1.2	2.1	1.2	1.3	0.7	0.74	2.13	
23-Nov-07	0.3	0.4	0.3	0.3	0.3	A	0.6	0.5	1.3	C	C	C	C	A	0.4	0.3	0.3	0.3	0.4	0.4	0.2	0.3	0.4	0.5	0.42	1.25	
24-Nov-07	0.6	1.2	0.2	0.3	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25	1.18	
25-Nov-07	0.2	0.1	0.1	0.1	A	5.3	0.2	0.2	0.8	1.0	0.4	0.2	0.2	0.3	0.4	0.3	0.3	0.2	0.4	0.6	0.1	0.3	0.2	0.1	0.52	5.27	
26-Nov-07	0.2	0.2	0.1	A	0.2	0.5	1.0	0.4	1.0	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.4	0.2	0.3	0.3	0.3	0.2	0.34	1.05	
27-Nov-07	0.3	0.2	0.2	0.3	0.2	A	0.3	0.6	0.6	0.3	0.5	0.3	1.1	0.4	0.4	0.5	0.4	1.7	0.3	0.4	0.3	0.3	0.2	0.2	0.41	1.74	
28-Nov-07	0.2	0.2	0.1	0.2	0.2	A	0.2	0.3	0.5	0.4	0.2	0.2	0.3	0.6	0.5	0.5	0.6	2.7	0.7	0.5	0.6	0.6	1.0	0.4	0.50	2.71	
29-Nov-07	0.4	0.3	0.3	0.3	A	0.3	0.7	0.6	1.0	0.4	0.2	0.3	0.3	0.3	0.4	0.6	2.2	2.4	2.6	0.7	0.5	0.3	0.5	0.3	0.69	2.59	
30-Nov-07	0.4	0.4	0.4	A	0.2	0.2	0.4	0.4	0.4	0.3	0.3	0.2	0.3	0.2	0.2	0.4	0.5	0.2	0.2	0.2	0.3	0.2	0.1	0.27	0.46		
Hourly Avg	0.28	0.29	0.22	0.22	0.19	0.49	0.46	0.52	0.62	0.45	0.42	0.28	0.32	0.27	0.27	0.36	0.59	0.80	0.62	0.41	0.41	0.38	0.39	0.32			
Hourly Max	0.69	1.18	0.44	0.43	0.30	5.27	2.74	2.80	1.83	1.93	1.36	0.54	1.07	0.61	0.49	0.84	2.24	2.71	2.59	1.19	2.13	1.21	1.32	1.18			

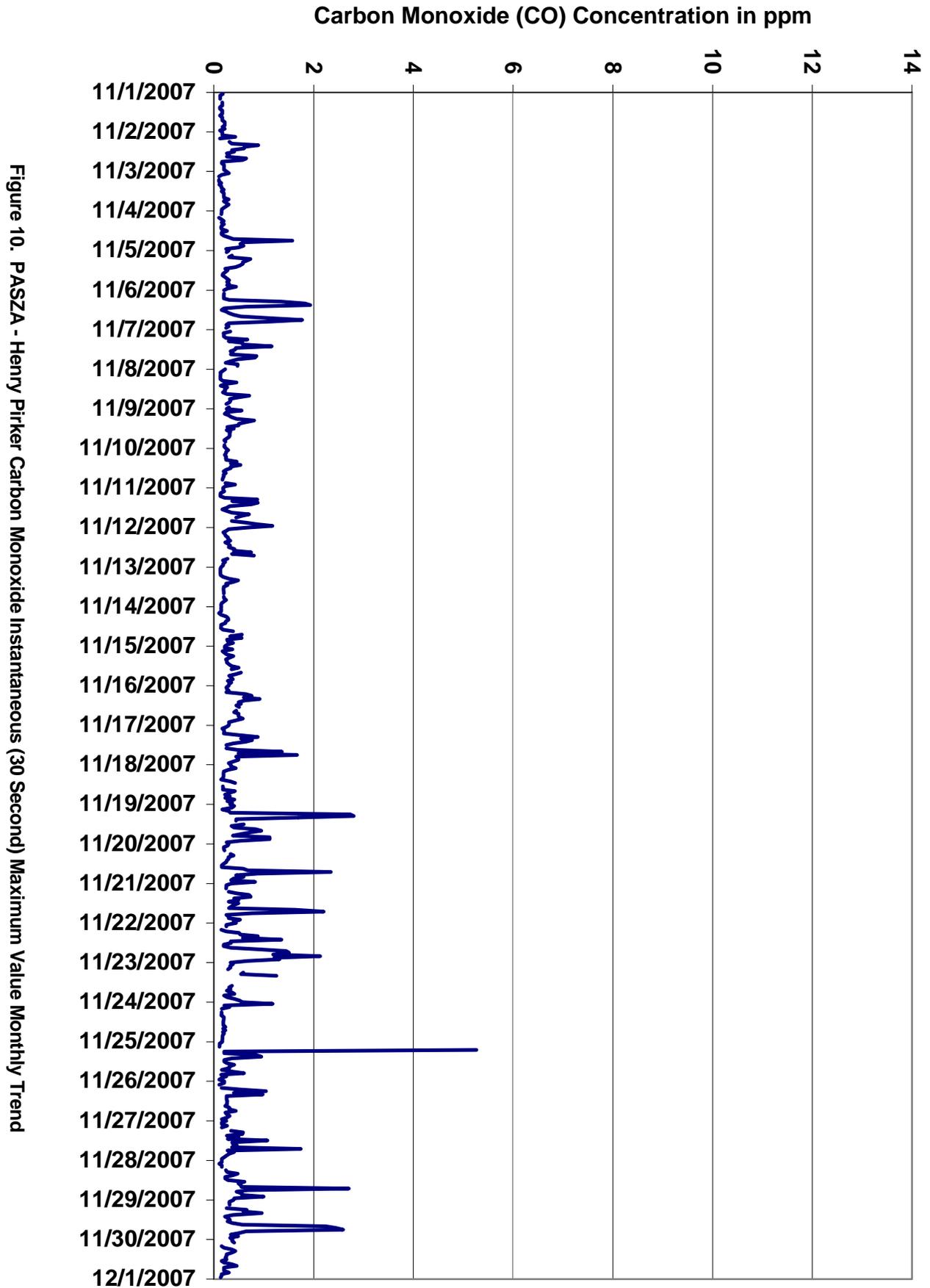
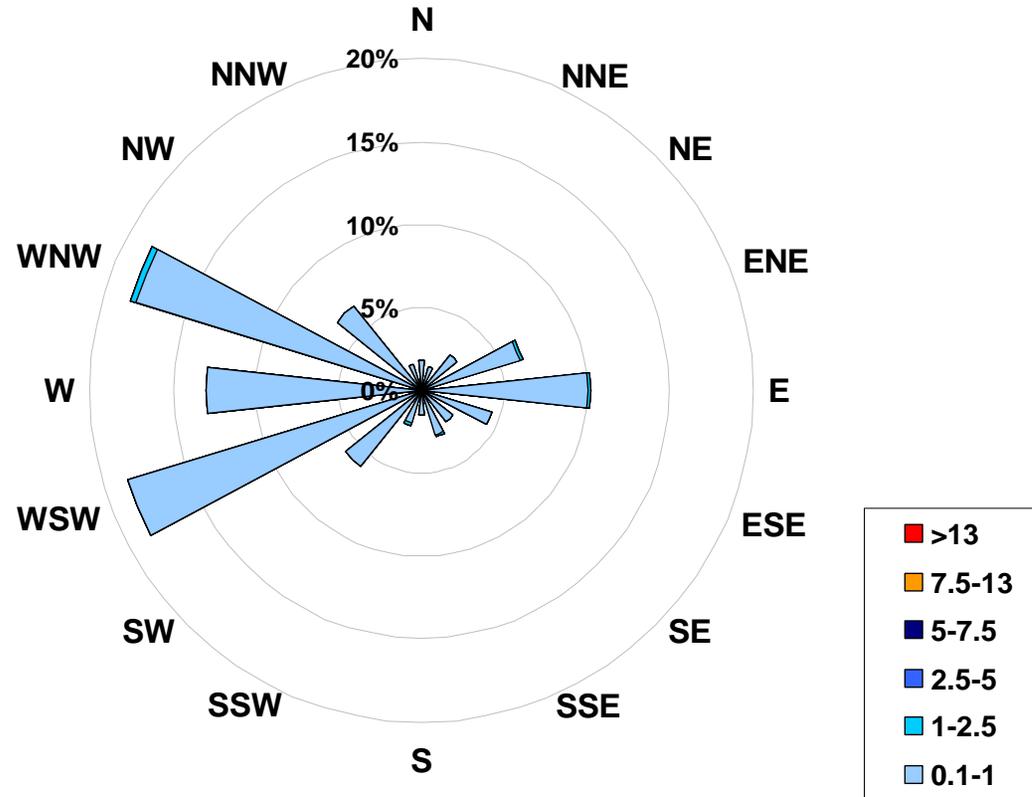


Figure 10. PASZA - Henry Pirkker Carbon Monoxide Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Carbon Monoxide (in ppm) Located at the Henry Pirker Site for November 2007**



**Calms: 0%**

Frequency Distribution of CO in ppm			Frequency (hrs)
Range			
0.1	<	1	678
1	to	2.5	6
2.5	to	5	0
5	to	7.5	0
7.5	to	13	0
	>	13	0
Total Non-Zero Values			684

# PASZA - Henry Pirker Carbon Monoxide Eight Hour Average Summary

Station: Henry Pirker  
 Station Owner: PASZA

## EIGHT HOUR RUNNING AVERAGE TABLE

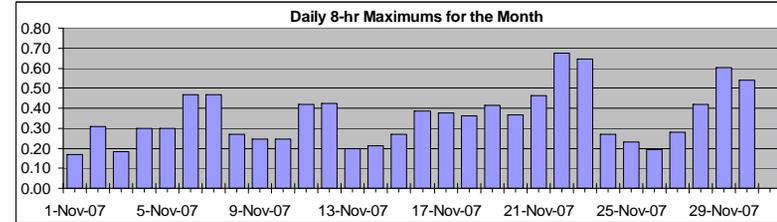
## Carbon Monoxide (CO)

Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: **8-hr 5 ppm**  
 Summary

Number of 8-hr Exceedances:	0
Maximum 8-hr Average:	0.7 ppm 22-Nov 23:00 0:00

Percentile	99	95	75	50	25	5	1
	0.6	0.4	0.3	0.2	0.2	0.1	0.1



**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								Daily Maximum	
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00		23:00 0:00
1-Nov-07	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.17
2-Nov-07	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	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.31
3-Nov-07	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
4-Nov-07	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.30
5-Nov-07	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.30
6-Nov-07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.47
7-Nov-07	0.5	0.4	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	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.47
8-Nov-07	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27
9-Nov-07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
10-Nov-07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
11-Nov-07	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.42
12-Nov-07	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.42
13-Nov-07	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.20
14-Nov-07	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
15-Nov-07	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.27
16-Nov-07	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.38
17-Nov-07	0.3	0.3	0.3	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	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.37
18-Nov-07	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.36
19-Nov-07	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.42
20-Nov-07	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.37
21-Nov-07	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.46
22-Nov-07	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.7	0.7	0.67
23-Nov-07	0.6	0.6	0.5	0.5	0.4	0.3	0.3	0.3	0.3	N	N	N	N	N	N	N	N	N	N	N	N	0.2	0.2	0.2	0.2	0.65
24-Nov-07	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.27	
25-Nov-07	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.23
26-Nov-07	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
27-Nov-07	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.28
28-Nov-07	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.42
29-Nov-07	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.60
30-Nov-07	0.5	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.54

Hourly Max	0.65	0.59	0.51	0.46	0.40	0.33	0.28	0.29	0.35	0.43	0.45	0.45	0.45	0.45	0.45	0.44	0.37	0.45	0.54	0.58	0.59	0.59	0.65	0.67
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# PASZA - Henry Pirker Total Hydrocarbons Monthly Summary

Station: Henry Pirker  
Station Owner: PASZA

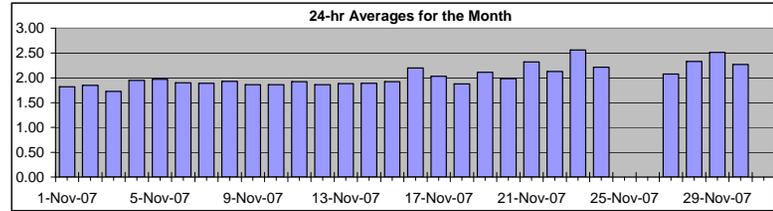
## HOURLY AVERAGE TABLE

## Total Hydrocarbons (THC)

Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 1-hr na ppm 24-hr na ppm

Maximum 1-hr Average:	3.4	ppm	23-Nov	11:00 12:00
Maximum 24-hr Value:	2.6	ppm	23-Nov	



AIC Time:	34 hrs	Operational Time:	660 hrs						
Calibration Time:	9 hrs	AMD Operational Uptime:	97.6%						
Percentile	99	95	75	50	25	5	1	Average	Median
	2.9	2.5	2.2	1.9	1.8	1.7	1.7	2.0 ppm	1.9 ppm

Status Flag Characters			
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00			
1-Nov-07	1.7	1.7	1.7	1.7	1.7	A	1.8	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8	2.0	2.1	2.1	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.82	2.08
2-Nov-07	1.9	1.9	1.8	1.8	1.8	A	1.8	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.85	2.00
3-Nov-07	1.7	1.7	1.7	1.7	A	1.7	1.7	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.73	1.82
4-Nov-07	1.8	1.8	1.8	A	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	1.95	2.23
5-Nov-07	2.2	2.2	A	2.4	2.4	2.2	2.1	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.9	1.97	2.39
6-Nov-07	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	2.3	2.3	2.0	1.7	1.7	1.7	1.7	1.8	1.8	2.0	2.3	2.1	1.8	1.8	1.8	1.8	1.8	1.90	2.29
7-Nov-07	A	1.8	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.0	2.0	2.0	2.1	2.1	1.9	1.9	1.9	1.7	1.8	2.1	A	1.89	2.14	
8-Nov-07	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	A	1.9	1.93	2.05	
9-Nov-07	2.0	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.86	1.96	
10-Nov-07	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.8	1.8	1.9	1.8	1.7	1.8	A	1.8	1.8	1.7	1.86	1.97	
11-Nov-07	1.8	1.8	1.8	1.7	1.8	1.8	1.8	1.9	2.0	2.1	2.1	2.0	2.0	1.7	1.8	1.9	2.0	2.0	1.9	A	2.0	2.0	2.1	2.2	1.92	2.19	
12-Nov-07	2.1	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	A	A	1.9	1.9	1.9	1.9	1.9	1.86	2.08
13-Nov-07	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.88	1.97
14-Nov-07	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.89	2.03	
15-Nov-07	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.92	2.04	
16-Nov-07	2.1	2.1	2.1	2.0	2.0	2.1	2.2	2.1	2.1	2.2	2.2	2.2	2.3	2.2	A	2.3	2.3	2.4	2.4	2.4	2.2	2.3	2.2	2.2	2.4	2.20	2.40
17-Nov-07	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	1.9	1.9	A	1.9	1.9	1.9	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.03	2.22	
18-Nov-07	2.2	2.2	2.2	2.2	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.88	2.19	
19-Nov-07	1.9	1.9	1.8	1.8	1.9	2.0	2.0	1.9	1.9	2.1	2.0	A	2.4	2.3	2.2	2.4	2.4	2.4	2.2	2.1	2.1	2.2	2.2	2.3	2.11	2.45	
20-Nov-07	2.3	2.2	2.0	2.0	2.0	A	1.9	2.0	2.0	1.9	2.0	1.9	1.8	1.8	1.8	1.9	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	1.99	2.30	
21-Nov-07	2.3	2.2	2.2	2.3	A	2.5	2.6	2.7	2.8	3.1	2.7	2.3	2.3	2.2	2.1	2.2	2.3	2.6	2.2	1.9	1.9	1.9	2.0	2.2	2.32	3.08	
22-Nov-07	2.2	2.0	2.0	A	1.9	2.1	1.9	1.9	2.2	2.5	2.2	2.4	2.4	2.0	1.9	2.0	2.3	2.1	2.2	2.1	2.2	2.3	2.2	2.1	2.13	2.45	
23-Nov-07	2.1	2.2	2.3	2.4	2.4	A	2.7	2.9	3.1	3.2	3.1	3.4	C	C	C	C	A	2.3	2.3	2.3	2.3	2.4	2.4	2.5	2.56	3.41	
24-Nov-07	2.6	2.4	2.4	2.4	2.1	A	2.1	2.1	2.1	2.1	2.0	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.21	2.60	
25-Nov-07	2.1	2.1	2.1	2.1	A	2.1	1.9	D	D	D	D	D	D	D	D	D	D	D	D	D	1.6	1.7	1.8	1.9	N	2.12	
26-Nov-07	2.0	2.1	2.2	A	2.2	2.2	2.1	2.0	1.9	1.8	1.7	N	N	M	M	C	C	C	C	C	1.7	1.7	1.7	1.7	N	2.20	
27-Nov-07	1.7	1.7	1.7	1.8	1.9	A	1.9	2.0	2.0	2.0	2.1	2.1	2.3	2.2	A	A	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.07	2.32	
28-Nov-07	2.2	2.2	2.2	2.2	2.2	A	2.3	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.6	2.6	2.7	2.7	2.33	2.68	
29-Nov-07	2.6	2.5	2.4	2.4	A	2.4	2.5	2.5	2.5	2.4	2.3	2.4	2.4	2.3	2.3	2.3	2.5	2.7	2.6	2.5	2.6	2.7	2.9	2.9	2.51	2.95	
30-Nov-07	3.0	3.0	2.4	A	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.27	3.01	
Hourly Avg	2.08	2.04	1.98	1.99	1.95	1.97	1.99	2.02	2.05	2.08	2.03	2.05	2.03	1.99	1.95	2.00	2.06	2.09	2.06	2.02	2.00	2.01	2.04	2.06			
Hourly Max	2.95	3.01	2.43	2.43	2.39	2.46	2.65	2.89	3.08	3.20	3.07	3.41	2.40	2.34	2.34	2.38	2.50	2.66	2.59	2.47	2.58	2.71	2.90	2.95			

### Total Hydrocarbons (THC) Concentration in ppm

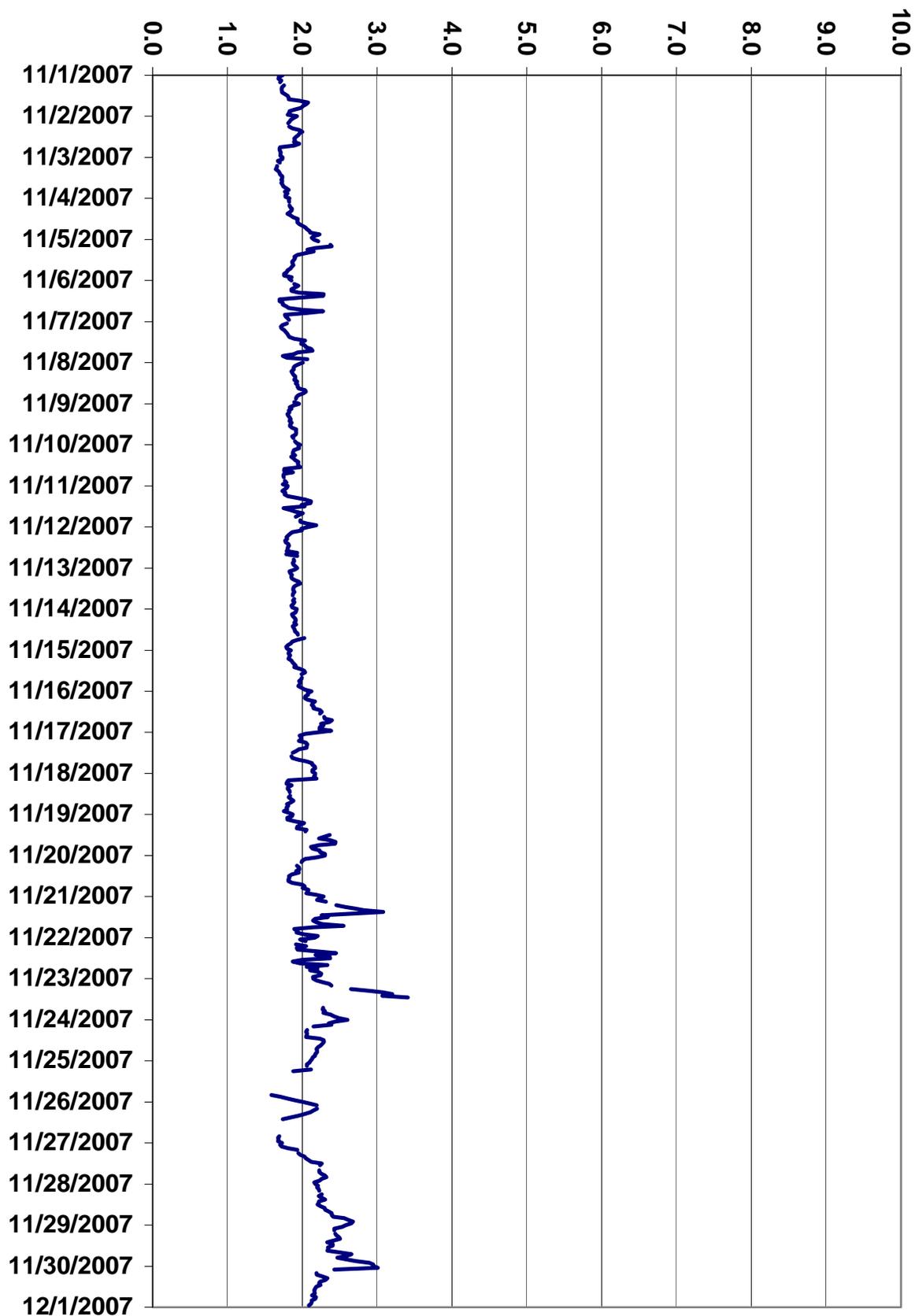


Figure 11. PASZA - Henry Pirker Total Hydrocarbons 1-hr Average Monthly Trend

Station: Henry Pirker  
 Station Owner: PASZA

**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

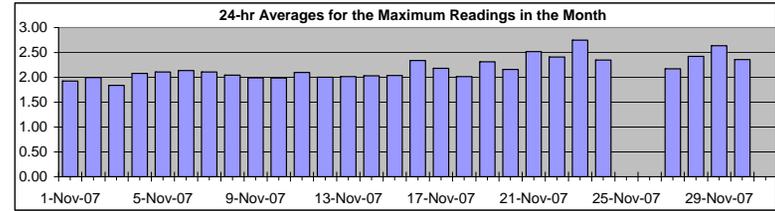
**Total Hydrocarbons (THC)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	3.7	ppm	6-Nov	10:00 11:00
Maximum 24-hr Value:	2.7	ppm	23-Nov	

AIC Time:	34 hrs	Operational Time:	660 hrs						
Calibration Time:	9 hrs	AMD Operational Uptime:	97.6%						
Percentile	99	95	75	50	25	5	1	Average	Median
	3.2	2.7	2.3	2.1	2.0	1.8	1.8	2.2 ppm	2.1 ppm



**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum		
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00			
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
1-Nov-07	1.9	1.8	1.8	1.8	1.8	A	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	2.1	2.2	2.2	2.1	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.93	2.20
2-Nov-07	2.1	2.0	2.0	2.0	1.9	A	1.9	2.1	2.1	2.1	2.1	2.2	2.2	2.0	2.0	2.0	2.2	2.1	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.99	2.24	
3-Nov-07	1.9	1.9	1.8	1.8	A	1.8	1.8	1.7	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.84	1.92	
4-Nov-07	1.9	1.9	2.0	A	1.9	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.4	2.4	2.3	2.08	2.43		
5-Nov-07	2.3	2.4	A	2.5	2.6	2.4	2.2	2.3	2.2	2.1	2.0	2.1	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	2.11	2.59	
6-Nov-07	2.0	A	2.0	2.1	2.1	2.0	2.0	2.2	2.6	2.7	3.7	1.8	1.8	1.8	1.9	1.9	2.3	2.6	2.3	1.9	1.9	1.9	1.9	1.9	1.9	2.14	3.73	
7-Nov-07	A	1.9	1.8	1.8	1.8	1.9	1.9	1.9	2.0	2.0	2.1	2.5	2.3	2.1	2.2	2.2	2.3	2.3	2.1	3.2	1.8	2.1	2.2	A	2.11	3.25		
8-Nov-07	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	2.2	2.2	2.1	2.1	2.0	2.0	A	2.0	2.04	2.17		
9-Nov-07	2.1	2.1	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.1	1.99	2.08		
10-Nov-07	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	1.9	1.9	2.3	1.8	1.8	1.8	A	1.9	1.9	1.9	1.98	2.27	
11-Nov-07	1.9	1.9	1.9	1.8	1.9	1.8	1.9	2.1	2.3	2.3	2.3	2.2	2.5	1.9	2.0	2.0	2.2	2.1	2.0	A	2.2	2.1	2.5	2.3	2.10	2.52		
12-Nov-07	2.2	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	1.9	2.4	1.9	2.3	A	2.0	2.0	2.0	2.0	2.0	2.00	2.39		
13-Nov-07	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.29	
14-Nov-07	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.2	2.1	2.3	1.9	1.9	1.9	1.9	2.03	2.33	
15-Nov-07	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1	A	2.1	2.1	2.0	2.1	2.1	2.0	2.1	2.1	2.04	2.20		
16-Nov-07	2.3	2.2	2.2	2.1	2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	A	2.4	2.4	2.5	2.5	2.4	2.4	2.3	2.5	2.6	2.34	2.65		
17-Nov-07	2.4	2.3	2.3	2.1	2.1	2.1	2.2	2.3	2.2	2.2	2.1	2.0	2.4	2.4	A	1.9	2.0	2.3	2.2	2.4	2.3	2.3	2.3	2.2	2.18	2.39		
18-Nov-07	2.3	2.3	2.3	2.3	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	2.0	2.01	2.31		
19-Nov-07	2.0	2.0	2.0	2.0	2.1	2.3	2.5	2.4	2.1	2.2	2.2	A	2.5	2.4	2.4	2.5	2.6	2.6	2.7	2.2	2.3	2.4	2.4	2.4	2.31	2.71		
20-Nov-07	2.4	2.3	2.2	2.1	2.1	A	2.0	2.1	2.1	2.0	3.0	2.0	1.9	1.9	1.9	1.9	2.0	2.4	2.1	2.1	2.2	2.2	2.3	2.3	2.16	2.97		
21-Nov-07	2.4	2.4	2.4	2.5	A	2.6	2.7	3.0	3.0	3.2	3.0	2.4	2.5	2.4	2.3	2.3	2.7	2.9	2.3	2.0	2.1	2.1	2.2	2.4	2.52	3.20		
22-Nov-07	2.3	2.1	2.2	A	2.1	2.2	2.1	2.1	2.5	2.7	3.1	2.5	2.5	2.3	2.0	2.1	3.5	2.2	2.4	2.4	2.6	2.5	2.6	2.5	2.41	3.46		
23-Nov-07	2.4	2.4	2.5	2.5	2.5	A	2.9	3.1	3.3	3.4	3.2	3.6	C	C	C	C	A	2.4	2.5	2.5	2.5	2.5	2.6	2.6	2.75	3.60		
24-Nov-07	2.9	3.0	2.4	2.6	2.4	A	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.35	3.02		
25-Nov-07	2.2	2.1	2.1	2.1	A	2.8	2.1	D	D	D	D	D	D	D	D	D	D	D	D	D	1.6	1.8	1.9	2.0	N	2.77		
26-Nov-07	2.1	2.2	2.3	A	2.2	2.2	2.3	2.1	2.2	1.9	1.8	N	N	M	M	C	C	C	C	C	1.8	1.8	1.8	1.7	N	2.27		
27-Nov-07	1.8	1.8	1.8	1.9	2.0	A	2.0	2.1	2.2	2.1	2.4	2.2	2.4	2.3	A	A	2.3	2.6	2.3	2.4	2.4	2.3	2.3	2.2	2.17	2.59		
28-Nov-07	2.2	2.2	2.2	2.3	2.3	A	2.3	2.3	2.3	2.4	2.3	2.3	2.2	2.3	2.4	2.4	2.5	2.9	2.5	2.5	2.7	2.7	2.8	2.7	2.42	2.93		
29-Nov-07	2.7	2.6	2.5	2.5	A	2.5	2.6	2.6	2.6	2.5	2.4	2.5	2.5	2.4	2.4	2.4	2.9	3.0	3.0	2.6	2.7	2.8	2.9	3.0	2.64	3.01		
30-Nov-07	3.0	3.2	2.9	A	2.2	2.2	2.4	2.4	2.4	2.3	2.3	2.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.1	2.36	3.17		
Hourly Avg	2.20	2.19	2.12	2.10	2.07	2.11	2.12	2.16	2.20	2.21	2.28	2.19	2.16	2.11	2.07	2.12	2.27	2.29	2.22	2.21	2.13	2.14	2.18	2.17				
Hourly Max	3.01	3.17	2.88	2.57	2.59	2.77	2.87	3.06	3.34	3.38	3.73	3.60	2.51	2.43	2.45	2.49	3.46	3.00	2.95	3.25	2.69	2.83	2.95	3.01				

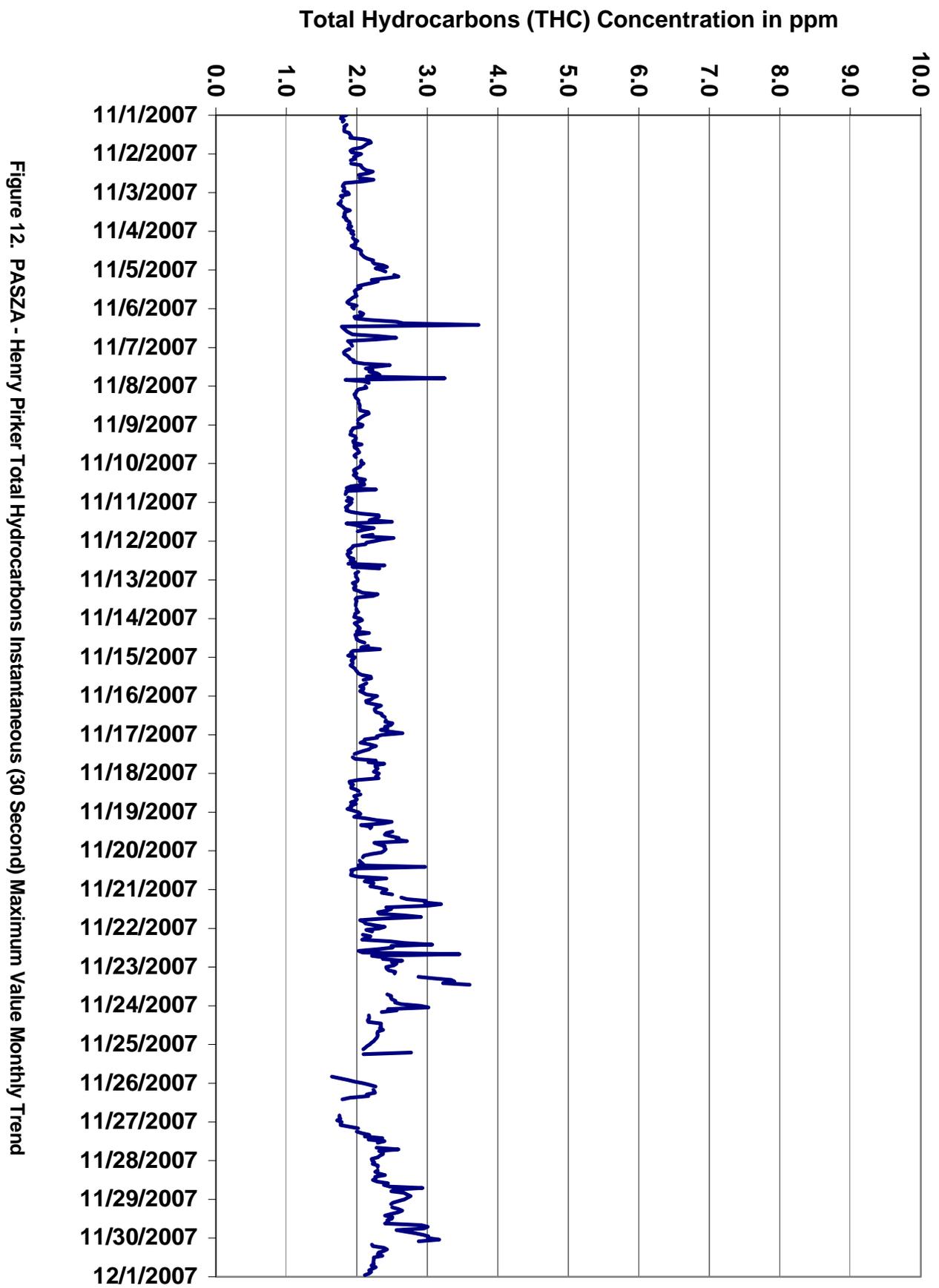
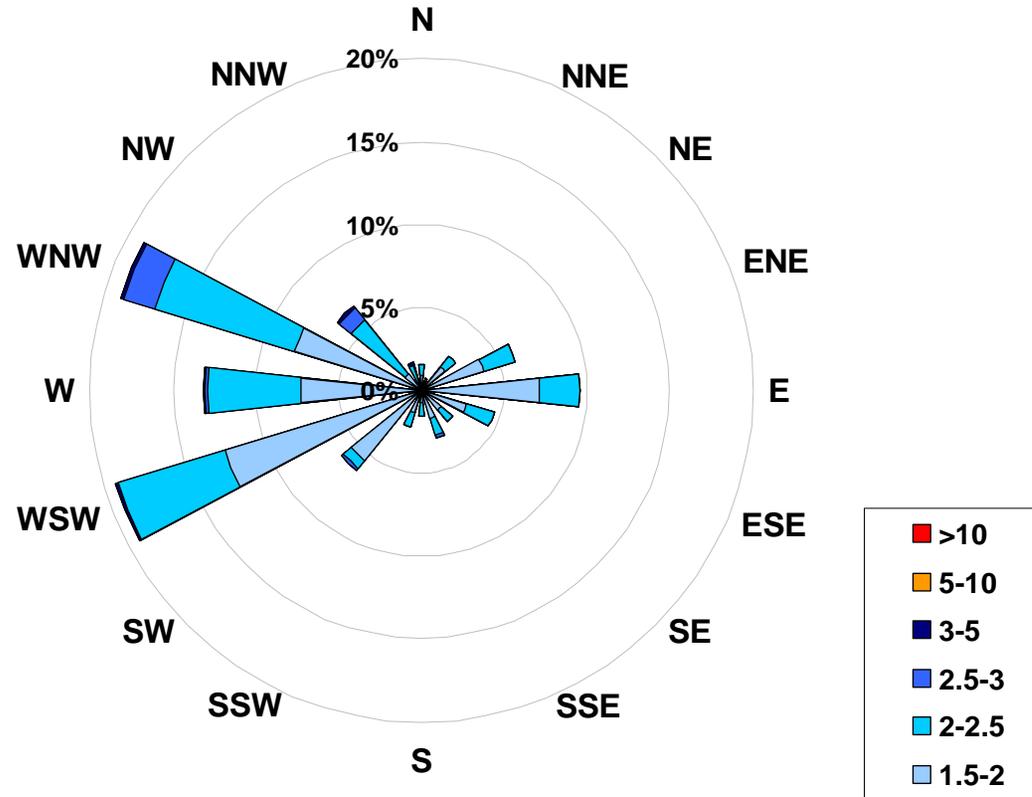


Figure 12. PASZA - Henry Pitker Total Hydrocarbons Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Total Hydrocarbons (in ppm)  
Located at the Henry Pirker Site for November 2007**



**Calms: 0%**

Frequency Distribution of THC in ppm			Frequency (hrs)
Range			
1.5	<	2	379
2	to	2.5	253
2.5	to	3	22
3	to	5	6
5	to	10	0
	>	10	0
Total Non-Zero Values			660

# PASZA - Henry Pirker Total Reduced Sulphur Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

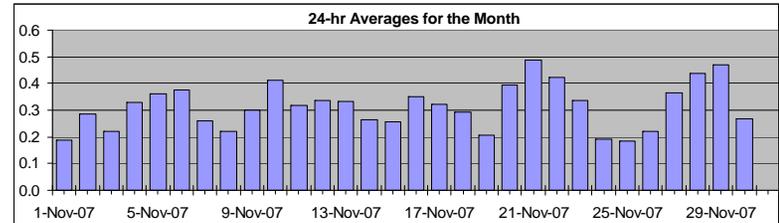
## Total Reduced Sulphur (TRS)

Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 1-hr na ppb 24-hr na ppb

Maximum 1-hr Average:	1.1	ppb	29-Nov	17:00 18:00
Maximum 24-hr Value:	0.5	ppb	21-Nov	

AIC Time:	32 hrs	Operational Time:	685 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	0.8	0.6	0.4	0.3	0.2	0.2	0.1	0.3 ppb	0.3 ppb



### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00		
1-Nov-07	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
2-Nov-07	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
3-Nov-07	0	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
4-Nov-07	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.3	0.5
5-Nov-07	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
6-Nov-07	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0.4	0.9
7-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.5
8-Nov-07	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
9-Nov-07	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
10-Nov-07	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0.4	0.7
11-Nov-07	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	0.6
12-Nov-07	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.8
13-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.5
14-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.4
15-Nov-07	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
16-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	0	0	0	0	0	0	0	0	0.4	0.6
17-Nov-07	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	0.5
18-Nov-07	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
19-Nov-07	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	C	C	C	A	0	0	0	0	0	0.2	0.4
20-Nov-07	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0.4	0.6
21-Nov-07	0	0	0	0	A	1	1	1	1	1	1	1	1	0	0	0	1	1	0	0	0	0	0	0	0.5	0.9
22-Nov-07	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0.4	0.7
23-Nov-07	0	0	0	0	0	A	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
24-Nov-07	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
25-Nov-07	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
26-Nov-07	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
27-Nov-07	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.4	0.6
28-Nov-07	0	0	0	0	1	A	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.4	0.7
29-Nov-07	0	0	0	0	A	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	0	0	0	0	0.5	1.1
30-Nov-07	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
Hourly Avg	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3		
Hourly Max	0.8	0.7	0.5	0.5	0.6	0.7	0.8	0.6	0.9	0.9	0.6	0.6	0.6	0.5	0.4	0.6	0.5	1.1	1.0	0.6	0.6	0.7	0.6	0.6		

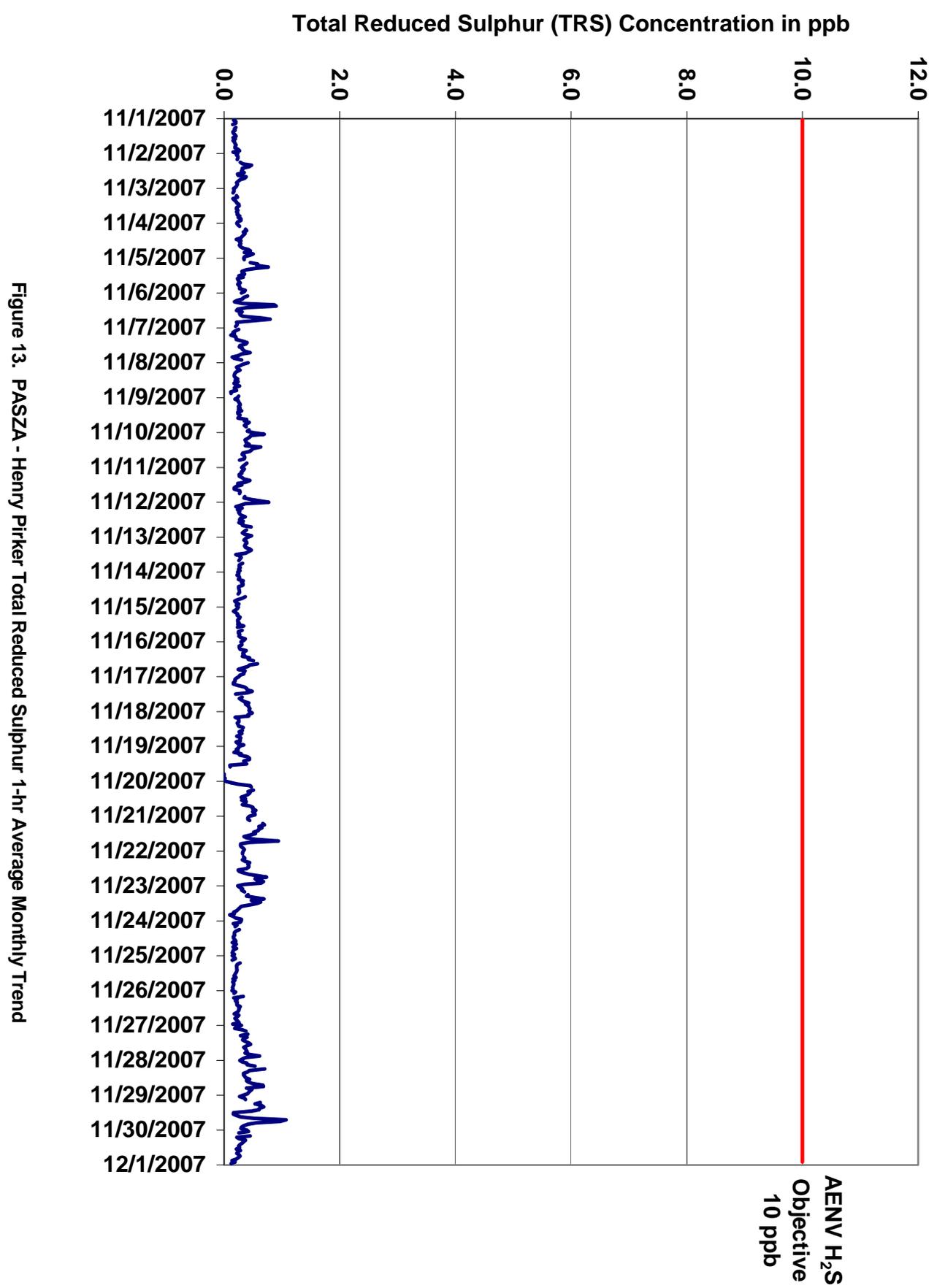


Figure 13. PASZA - Henry Pirker Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Henry Pirker  
 Station Owner: PASZA

**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

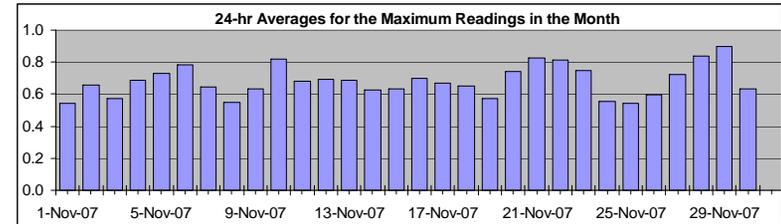
**Total Reduced Sulphur (TRS)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	2.4	ppb	10-Nov	10:00 11:00
Maximum 24-hr Value:	0.9	ppb	29-Nov	

AIC Time:	32 hrs	Operational Time:	685 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	1.3	1.0	0.7	0.7	0.6	0.5	0.4	0.7 ppb	0.7 ppb



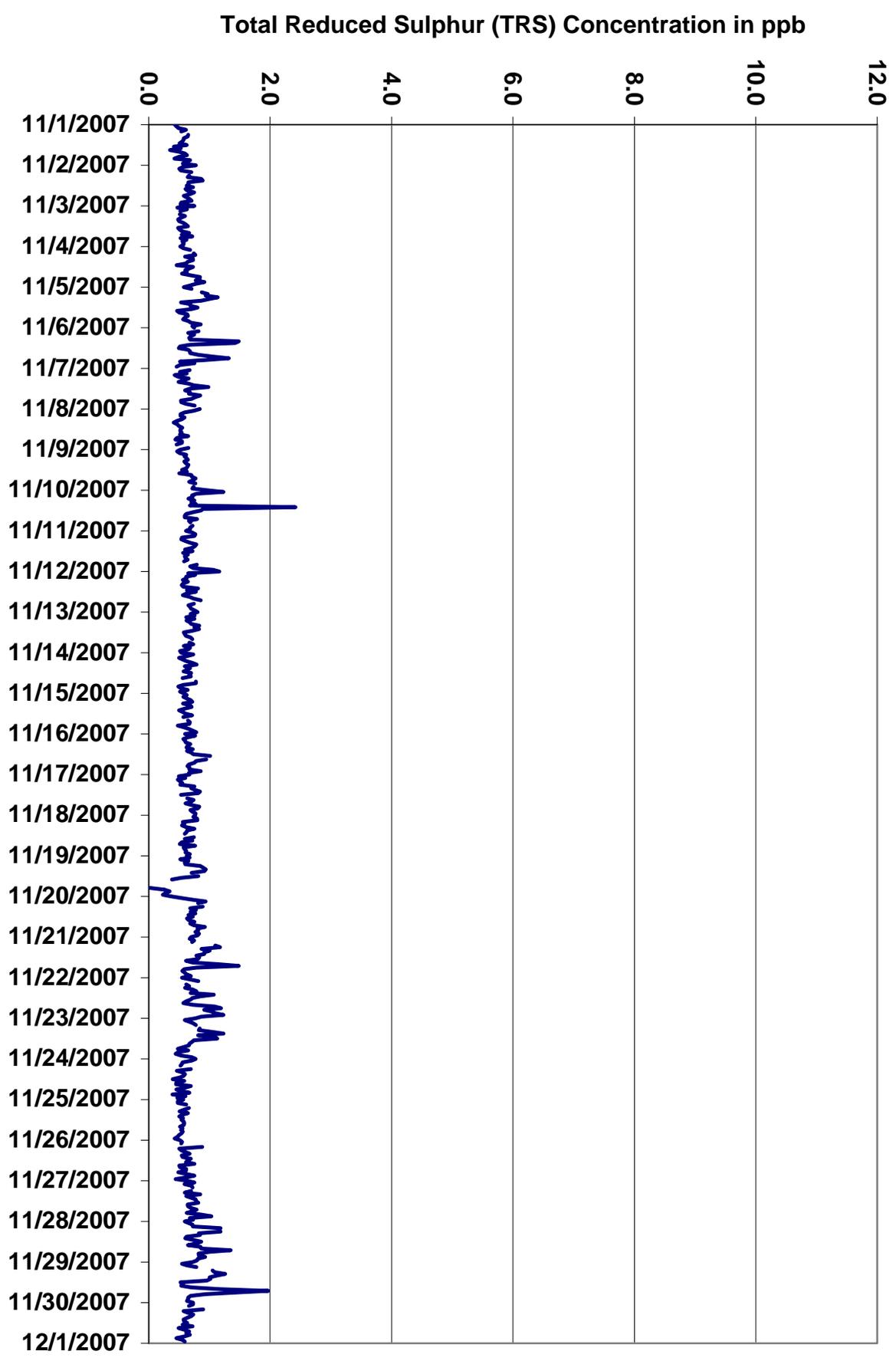
**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

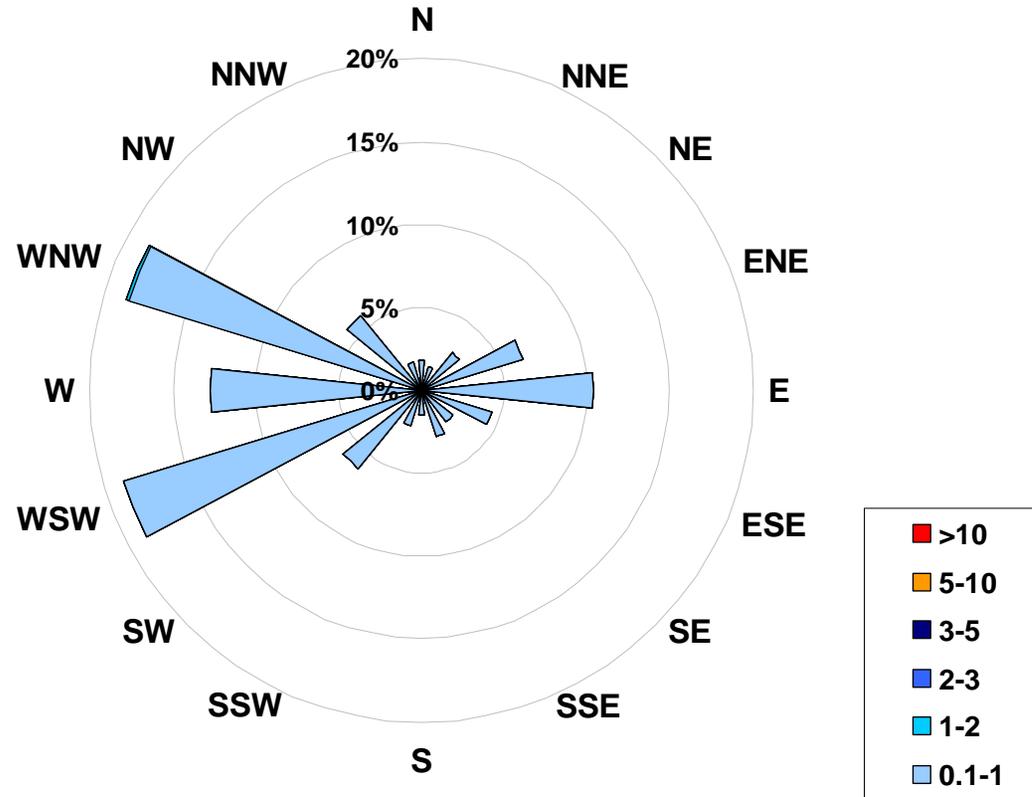
**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	0	0	0	1	1	A	1	1	1	1	1	1	1	0	1	0	0	1	1	0	0	1	1	1	0.5	0.7
2-Nov-07	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
3-Nov-07	1	0	1	1	A	1	1	1	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.6	0.8
4-Nov-07	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
5-Nov-07	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0.7	1.1
6-Nov-07	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	0.8	1.5
7-Nov-07	A	1	1	1	0	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.6	1.0
8-Nov-07	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	1	0	0	1	1	0	A	1	1	0.5	0.8
9-Nov-07	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.6	0.8
10-Nov-07	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	2.4
11-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	1.1
12-Nov-07	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	1.2
13-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.7	0.8
14-Nov-07	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	0.6	0.8
15-Nov-07	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	A	1	1	1	0	1	1	1	1	0.6	0.8
16-Nov-07	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	1.0
17-Nov-07	1	0	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	0.8
18-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
19-Nov-07	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	C	C	C	A	0	0	0	0	0	0.6	0.9
20-Nov-07	0	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
21-Nov-07	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
22-Nov-07	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
23-Nov-07	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	1	1	0.7	1.2
24-Nov-07	1	1	1	1	1	A	1	0	1	1	1	0	1	0	0	1	1	0	1	1	0	0	1	0	0.6	0.8
25-Nov-07	1	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0.5	0.7
26-Nov-07	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0.6	0.9
27-Nov-07	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
28-Nov-07	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4
29-Nov-07	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	0.9	2.0
30-Nov-07	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	0.6	0.9
Hourly Avg	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.7	0.8	0.7	0.6	0.6	0.7	0.7	0.6		
Hourly Max	1.2	1.2	0.8	0.9	1.2	1.1	1.2	1.3	1.5	1.4	2.4	1.1	1.1	1.0	0.8	0.9	1.2	2.0	1.5	0.9	1.0	1.1	1.2	1.1		

Figure 14. PASZA - Henry Pirker Total Reduced Sulphur Instantaneous (30 Second) Maximum Value Monthly Trend



**1-hr Average Concentration Rose for Total Reduced Sulphur (in ppb)  
Located at the Henry Pirker Site for November 2007**



**Calms: 0%**

Frequency Distribution of TRS in ppb			Frequency (hrs)
Range			
0.1	<	1	684
1	to	2	1
2	to	3	0
3	to	5	0
5	to	10	0
	>	10	0
Total Non-Zero Values			685

## PASZA - Henry Pirker Particulate Matter (less than 2.5 microns) Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

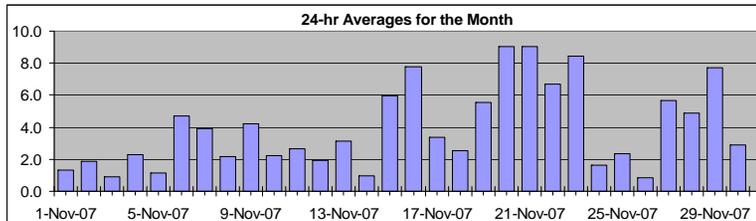
### Particulate Matter (PM<sub>2.5</sub>)

Monitoring Dates: November 1, 2007 to December 1, 2007

Draft Objective Limit: Alberta Environment: 1-hr - µg/m<sup>3</sup> 24-hr 30 µg/m<sup>3</sup>  
 Summary

Number of 24-hr Exceedances (draft):	0		
Maximum 1-hr Average:	31.9 µg/m <sup>3</sup>	20-Nov	23:00 0:00
Maximum 24-hr Value:	9.0 µg/m <sup>3</sup>	21-Nov	

AIC Time:	0 hrs	Operational Time:	710 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	99.4%
Percentile	99	95	75
	18.2	11.5	6.0
	50	25	5
	2.7	1.0	0.0
	1	0.0	0.0
	Average / Median		4.0
			3 µg/m <sup>3</sup>
			3.1 µg/m <sup>3</sup>



#### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00		
1-Nov-07	3	2	2	2	1	2	2	2	2	2	2	0	0	0	C	C	C	C	C	C	1	0	1	1	1.3	2.9
2-Nov-07	2	1	2	1	1	0	1	1	6	7	4	3	0	1	0	2	3	5	0	0	1	1	2	2	1.9	7.1
3-Nov-07	2	1	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	2	2	1	2	2	2	3	0.9	2.7
4-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	3	6	5	8	6	6	5	1	2.3	7.9
5-Nov-07	2	2	3	3	5	4	2	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	3	2	1.2	4.5
6-Nov-07	2	2	3	3	2	1	2	3	12	12	4	1	0	1	2	4	7	14	17	10	3	3	3	3	4.7	16.9
7-Nov-07	2	3	3	2	2	2	3	3	3	5	5	7	6	5	7	6	9	7	3	0	0	0	5	6	3.9	8.8
8-Nov-07	6	3	3	2	2	1	1	1	2	2	4	1	2	1	1	2	3	3	2	1	1	2	4	3	2.2	6.0
9-Nov-07	2	1	2	6	6	9	6	4	3	2	2	3	2	4	5	6	5	5	2	5	5	5	6	5	4.2	9.1
10-Nov-07	7	4	3	1	3	1	2	0	3	3	2	4	8	8	0	1	1	0	0	0	0	1	1	1	2.2	8.5
11-Nov-07	1	0	0	0	0	0	2	2	3	4	4	3	2	0	1	1	4	6	5	5	3	5	6	7	2.7	7.4
12-Nov-07	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	6	7	6	6	5	4	3	2.0	7.3
13-Nov-07	1	4	3	3	3	2	2	3	4	5	1	3	5	1	1	2	6	11	3	1	6	2	0	0	3.1	11.2
14-Nov-07	1	1	2	2	0	0	1	3	2	3	1	1	0	0	0	1	3	2	0	0	0	0	0	0	1.0	3.5
15-Nov-07	2	2	2	3	3	3	4	4	5	4	5	7	8	19	14	10	7	5	5	6	6	5	6	6	6.0	19.2
16-Nov-07	7	5	5	5	4	4	6	6	7	7	6	13	10	8	14	15	10	11	10	9	11	7	4	5	7.8	15.3
17-Nov-07	3	0	0	0	0	0	0	1	4	3	0	0	0	0	0	4	2	4	8	7	9	12	12	10	3.4	12.3
18-Nov-07	10	10	9	9	3	2	5	3	0	0	1	1	0	0	0	0	0	1	1	1	0	1	1	4	2.6	9.9
19-Nov-07	4	4	2	2	3	3	3	6	5	9	9	4	11	8	6	4	7	7	7	6	7	7	5	5	5.5	11.0
20-Nov-07	5	5	5	4	6	6	6	5	5	5	5	4	1	1	2	2	5	15	18	15	17	18	29	32	9.0	31.9
21-Nov-07	26	17	15	15	13	11	10	10	11	11	8	3	4	4	10	5	7	13	6	3	2	2	5	7	9.0	25.7
22-Nov-07	7	4	5	2	2	5	3	3	6	10	2	4	5	3	4	8	9	13	15	8	13	12	10	9	6.7	15.1
23-Nov-07	7	6	8	7	8	7	9	10	17	17	9	18	22	14	6	5	1	4	4	2	D	3	5	7	8.5	21.7
24-Nov-07	7	D	0	1	0	1	0	1	1	0	0	0	1	2	2	3	7	0	1	1	1	2	2	2	1.6	7.3
25-Nov-07	2	2	1	0	1	1	2	2	3	6	3	2	1	3	2	3	4	4	3	3	2	1	1	3	2.3	6.4
26-Nov-07	1	1	2	0	1	0	1	1	0	0	0	D	0	D	0	0	0	0	0	1	2	2	3	4	0.8	3.8
27-Nov-07	4	4	4	12	4	0	9	4	6	3	4	6	9	8	6	6	6	6	6	7	7	5	10	1	5.7	11.7
28-Nov-07	3	2	2	1	1	1	2	1	3	0	2	2	2	8	4	10	10	10	8	8	10	7	10	9	4.9	10.3
29-Nov-07	8	6	8	6	7	6	8	9	11	9	9	8	5	2	2	3	6	19	16	8	7	7	6	6	7.7	18.5
30-Nov-07	6	8	15	5	1	1	3	3	4	3	3	3	0	2	0	1	0	1	1	7	1	0	0	0	2.9	15.4
Hourly Avg	4.6	3.4	3.6	3.3	2.7	2.5	3.2	3.0	4.3	4.5	3.2	3.5	3.6	3.6	3.1	3.8	4.5	6.1	5.4	4.4	4.5	4.3	5.0	4.9		
Hourly Max	25.7	16.7	15.4	14.5	12.6	11.4	10.4	10.0	16.7	16.7	9.4	18.2	21.7	19.2	14.2	15.3	10.3	18.5	18.0	15.1	17.1	18.3	29.3	31.9		

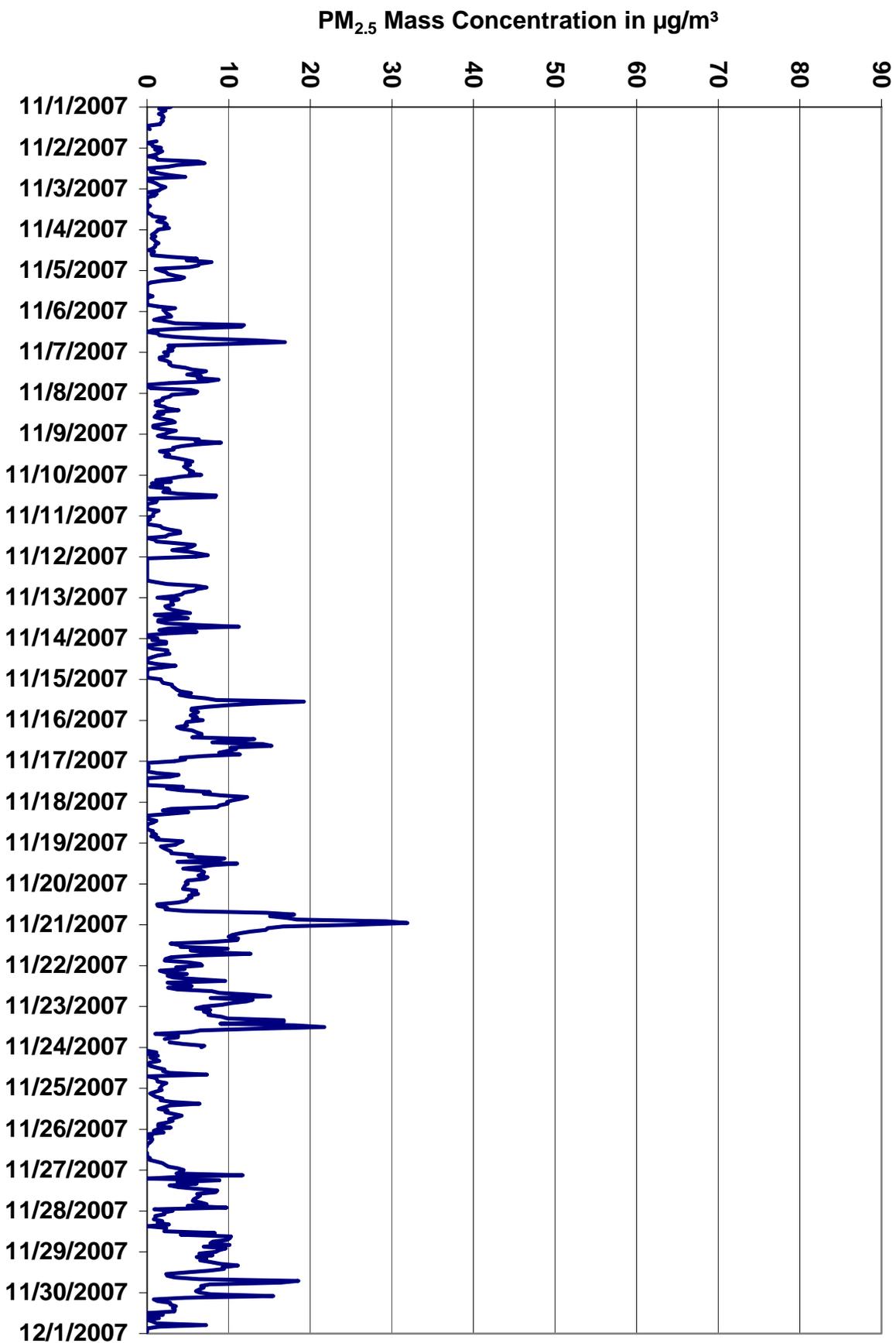


Figure 15. PASZA - Henry Pirker Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Henry Pirker  
 Station Owner: PASZA

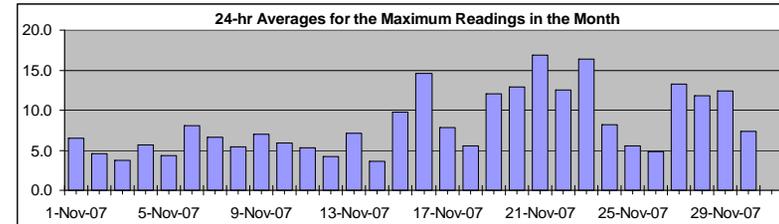
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

**Particulate Matter (PM<sub>2.5</sub>)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Average:	43.2	µg/m <sup>3</sup>	27-Nov	3:00 4:00
Maximum 24-hr Value:	16.8	µg/m <sup>3</sup>	21-Nov	



AIC Time:	0 hrs	Operational Time:	714 hrs						
Calibration Time:	6 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average / Median	Geomean
	34.4	23.9	9.8	6.3	4.0	2.1	0.9	8.4 6 µg/m <sup>3</sup>	7.5 µg/m <sup>3</sup>

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	9	9	8	9	8	8	8	8	8	7	5	3	4	C	C	C	C	C	C	6	3	3	5	6.5	9.0	
2-Nov-07	4	3	5	4	4	3	4	5	8	10	8	7	2	2	3	3	7	7	3	3	2	3	3	5	4.6	9.6
3-Nov-07	4	6	4	5	3	3	2	2	3	3	3	4	2	2	2	3	3	5	4	4	6	5	5	6	3.7	6.5
4-Nov-07	4	4	4	3	5	4	5	4	5	4	3	3	2	3	3	2	6	14	8	11	12	11	11	5	5.7	14.4
5-Nov-07	6	7	6	7	7	7	5	5	2	2	2	3	2	2	1	4	4	3	3	3	3	6	7	8	4.3	7.6
6-Nov-07	4	4	6	6	5	5	6	7	17	17	10	2	3	4	4	7	17	15	23	14	4	5	4	5	8.1	23.0
7-Nov-07	5	5	6	4	4	5	6	6	6	8	10	11	9	7	9	8	13	11	5	2	3	4	8	8	6.7	13.0
8-Nov-07	10	6	6	6	5	4	5	4	5	6	8	4	6	4	3	4	6	6	6	4	5	5	8	6	5.5	9.7
9-Nov-07	6	4	5	10	10	11	9	7	5	6	5	5	6	5	6	6	8	8	7	7	7	8	8	8	7.0	11.3
10-Nov-07	12	8	7	4	8	5	6	3	7	6	6	7	23	13	5	3	3	1	2	2	2	4	3	3	5.9	23.1
11-Nov-07	3	2	2	2	2	3	5	5	7	7	7	5	6	2	3	3	8	8	9	7	6	8	8	9	5.3	9.4
12-Nov-07	12	2	2	2	2	2	1	0	0	1	2	0	3	2	2	3	5	9	11	8	9	8	8	6	4.2	12.2
13-Nov-07	5	8	6	7	7	5	6	6	7	9	6	6	8	5	3	7	10	23	9	5	11	6	3	2	7.1	22.9
14-Nov-07	5	4	6	6	3	4	4	7	5	6	3	2	1	2	2	4	6	5	2	2	2	1	3	3	3.7	7.2
15-Nov-07	5	5	6	6	6	6	7	7	8	7	7	11	12	29	21	15	11	10	9	9	9	8	9	9	9.7	29.5
16-Nov-07	10	9	9	8	7	8	9	8	9	8	15	35	25	31	39	29	12	13	13	13	15	10	6	6	14.6	38.8
17-Nov-07	6	7	2	3	3	0	2	6	6	4	5	23	1	0	6	25	5	7	11	10	13	16	15	13	7.9	25.0
18-Nov-07	13	13	13	12	7	5	9	6	3	3	4	6	3	3	2	1	2	3	2	5	3	5	4	9	5.6	13.4
19-Nov-07	8	7	7	6	8	7	6	11	8	13	12	38	31	19	16	8	11	11	10	11	13	13	10	8	12.1	38.3
20-Nov-07	9	7	7	7	10	7	8	7	8	7	6	7	14	4	6	6	10	20	21	20	23	24	35	36	12.9	36.2
21-Nov-07	30	26	17	17	15	15	14	14	14	14	12	31	22	29	29	23	13	17	12	5	5	6	10	12	16.8	31.3
22-Nov-07	11	7	8	5	6	9	7	5	10	14	10	8	10	5	23	32	17	17	19	13	17	16	15	15	12.5	32.4
23-Nov-07	10	8	11	10	10	10	12	14	24	22	16	21	30	18	12	8	4	33	22	4	25	5	33	31	16.4	33.1
24-Nov-07	20	8	2	26	3	5	2	4	7	17	1	4	3	4	5	31	31	2	3	4	4	5	5	4	8.2	30.9
25-Nov-07	4	4	4	3	3	3	4	5	5	18	9	5	4	6	6	7	7	6	5	7	4	5	5	5	5.6	17.7
26-Nov-07	4	3	4	4	7	2	4	4	4	1	3	11	13	1	1	18	2	3	2	3	7	5	6	5	4.9	17.6
27-Nov-07	7	6	6	43	23	6	30	5	9	9	7	8	11	11	8	10	9	7	8	9	9	29	27	20	13.3	43.2
28-Nov-07	12	4	4	4	4	3	4	3	6	6	5	5	10	34	28	38	23	23	10	11	13	10	13	11	11.8	37.7
29-Nov-07	11	9	11	8	10	10	10	13	14	13	12	20	10	6	5	6	14	40	27	11	10	9	10	8	12.4	40.3
30-Nov-07	10	13	19	14	2	3	7	7	14	10	6	6	3	6	4	4	1	4	4	4	27	4	4	0	7.4	26.5
Hourly Avg	8.7	6.9	6.8	8.4	6.5	5.6	6.9	6.2	7.9	8.6	7.0	10.1	9.2	8.8	8.8	11.1	9.3	11.4	9.4	8.0	8.4	8.3	9.6	9.0		
Hourly Max	30.0	26.4	18.8	43.2	23.4	14.8	30.1	14.4	24.0	22.3	15.8	38.3	30.7	34.0	38.8	37.7	30.9	40.3	27.2	26.5	24.7	29.4	34.5	36.2		

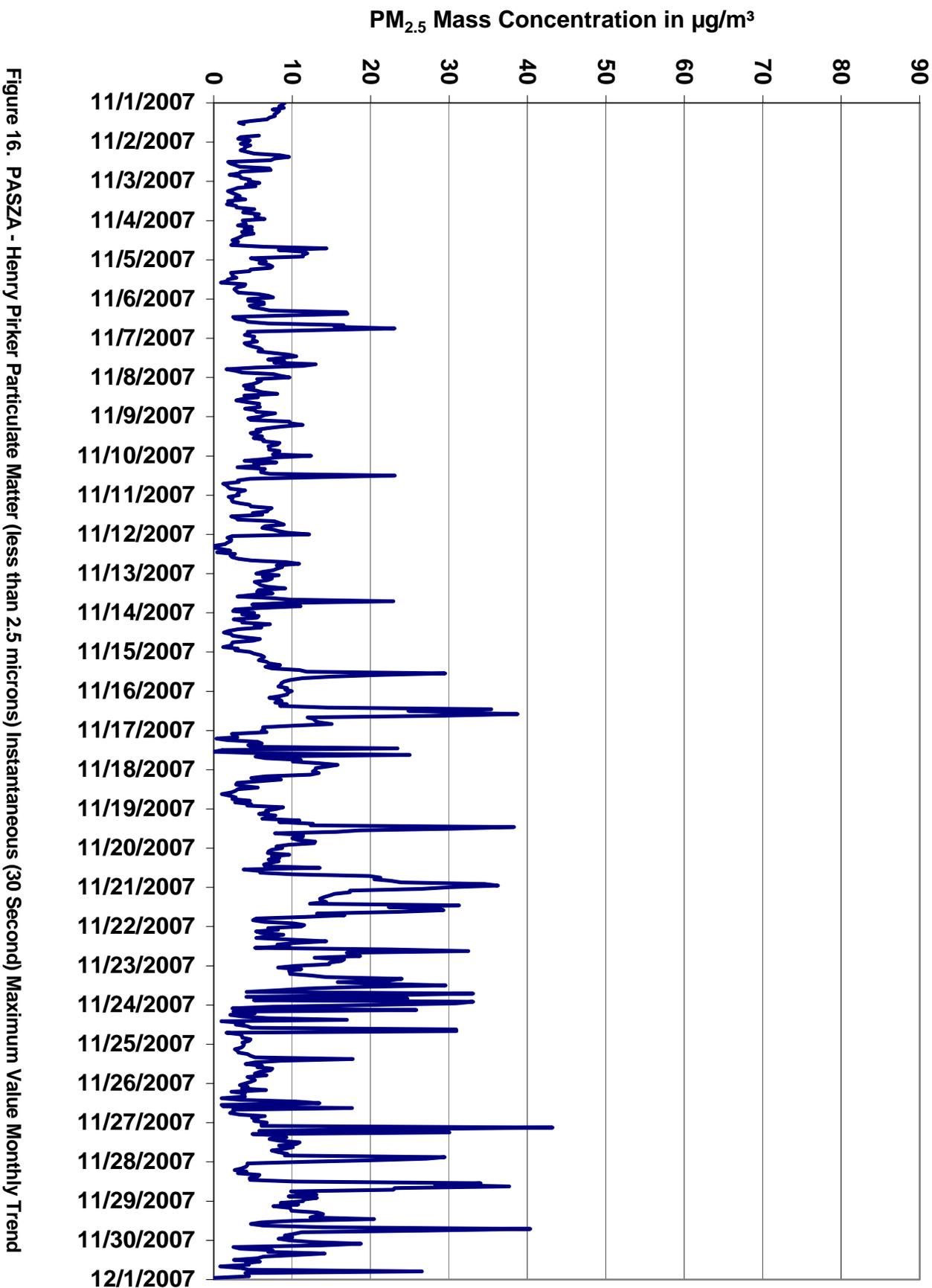
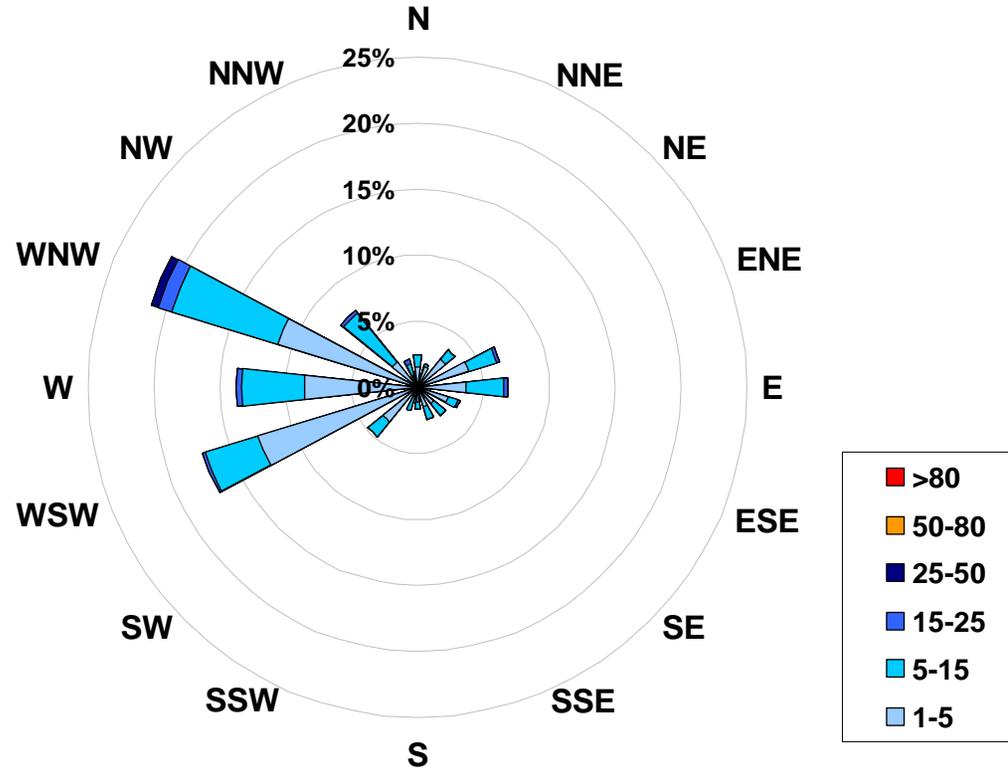


Figure 16. PASZA - Henry Pirkker Particulate Matter (less than 2.5 microns) Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Particulate Matter (less than 2.5 microns) (in micrograms per cubic meter) Located at the Henry Pirker Site for November 2007**



**Calms: 0%**

Frequency Distribution of PM <sub>2.5</sub> in µg/m <sup>3</sup>			
Range			Frequency (hrs)
1.0	<	5	495
5	to	15	196
15	to	25	16
25	to	50	3
50	to	80	0
	>	80	0
Total Non-Zero Values			710

# PASZA - Henry Pirker Relative Humidity Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

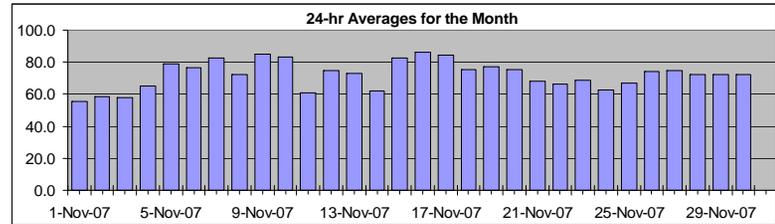
## HOURLY AVERAGE TABLE

## Relative Humidity (RH)

Monitoring Dates: November 1, 2007 to December 1, 2007

### Summary

Maximum 1-hr Average:	93.7 %	10-Nov	2:00 3:00
Maximum 24-hr Value:	86.1 %	16-Nov	



AIC Time:	0 hrs	Operational Time:	720 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	92.7	89.7	80.1	73.5	63.6	51.7	46.0	72.2 %	73.5 %

### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Nov-07	66	69	66	64	64	64	63	61	59	55	50	44	39	37	39	41	43	47	55	58	61	62	62	61		55.4	68.5
2-Nov-07	62	63	63	63	66	65	58	59	61	61	58	54	52	50	47	47	50	54	54	56	59	63	67	68		58.3	68.4
3-Nov-07	69	66	59	67	61	54	51	52	51	50	49	48	47	47	46	46	49	56	61	65	70	73	74	73		57.6	73.9
4-Nov-07	71	71	71	69	72	73	76	77	67	58	55	54	51	50	50	50	58	62	65	71	74	74	74	69		65.2	77.0
5-Nov-07	75	81	84	84	82	82	80	79	78	76	73	73	71	62	57	65	84	87	89	89	88	88	88	86		79.2	88.8
6-Nov-07	87	87	87	87	86	85	85	88	89	82	71	67	64	64	62	62	64	71	75	75	72	74	76	79		76.6	88.7
7-Nov-07	78	81	84	84	85	87	88	89	89	89	89	86	83	83	79	77	79	81	77	72	75	76	83	87		82.5	89.4
8-Nov-07	88	83	79	78	77	77	78	79	82	79	75	66	53	47	49	53	64	67	71	74	76	78	79	79		72.1	87.7
9-Nov-07	77	76	75	74	74	79	87	91	92	91	90	88	81	84	85	85	87	87	87	88	90	92	93	93		85.2	93.1
10-Nov-07	93	94	94	94	93	93	93	92	93	92	92	93	89	93	75	74	77	75	70	68	66	64	64	59		82.9	93.7
11-Nov-07	63	66	67	64	64	61	66	72	76	69	65	58	50	47	51	54	56	58	56	57	56	58	62	65		60.8	75.8
12-Nov-07	64	63	65	65	65	76	83	85	86	83	78	77	69	65	68	65	61	65	73	81	89	92	92	90		75.0	92.1
13-Nov-07	82	83	81	79	80	80	80	83	84	84	80	72	70	65	63	60	59	62	66	69	67	67	67	67		72.9	84.0
14-Nov-07	70	70	71	66	67	67	69	68	67	65	58	57	54	51	49	50	57	61	62	62	62	59	58	62		61.8	71.2
15-Nov-07	65	66	67	71	87	87	88	89	89	88	85	80	79	79	80	84	86	87	88	88	88	88	89	89		82.8	89.2
16-Nov-07	90	88	88	88	87	88	89	87	86	86	82	80	79	80	78	82	84	84	86	89	90	91	91	91		86.1	91.4
17-Nov-07	90	80	80	83	86	87	88	90	91	89	87	81	76	74	73	75	80	84	87	87	88	89	90	90		84.3	90.7
18-Nov-07	90	90	91	92	91	84	85	83	78	74	64	62	62	60	61	62	68	63	67	69	74	76	80		75.0	91.8	
19-Nov-07	83	85	85	84	85	85	85	84	83	78	71	63	59	60	62	64	68	76	77	78	79	82	84	84		76.9	85.5
20-Nov-07	79	79	78	77	76	78	77	78	78	76	74	73	65	62	60	58	63	80	87	88	83	82	81	81		75.5	88.3
21-Nov-07	80	80	79	79	79	79	79	79	79	79	77	69	56	52	56	55	60	66	58	52	55	56	61	65		68.0	80.1
22-Nov-07	64	63	68	63	65	70	70	68	73	68	63	57	54	52	52	55	59	69	72	73	76	79	78	81		66.4	81.1
23-Nov-07	82	81	79	79	80	81	80	80	80	79	75	68	65	56	52	55	57	60	62	63	56	55	61	62		68.7	82.3
24-Nov-07	65	57	57	60	55	62	63	64	71	77	67	60	58	61	59	59	65	61	61	66	65	63	61	61		62.4	76.7
25-Nov-07	63	63	62	63	64	67	70	73	74	73	67	63	58	60	62	65	69	74	72	71	70	70	68	69		67.0	74.0
26-Nov-07	68	69	68	66	70	70	74	75	75	75	74	74	74	74	74	75	77	77	77	77	77	78	78	78		74.1	77.9
27-Nov-07	77	77	78	79	78	77	76	75	75	73	72	70	72	74	74	74	75	75	75	75	76	75	73	73		74.9	79.5
28-Nov-07	78	78	78	75	74	74	75	76	75	73	70	64	66	60	59	67	75	78	76	76	76	73	73	73		72.6	78.1
29-Nov-07	73	72	73	73	76	75	74	75	75	75	74	72	67	62	61	62	70	79	79	76	72	72	73	74		72.2	79.5
30-Nov-07	74	75	77	76	74	74	74	76	75	74	71	72	70	68	71	72	70	69	72	70	70	68	71	67		72.2	76.7
Hourly Avg	75.5	75.1	75.1	74.9	75.5	76.1	76.9	77.5	77.6	75.7	72.2	68.2	64.4	62.6	61.8	63.2	66.9	70.7	71.8	72.7	73.1	73.9	75.0	75.2			
Hourly Max	93.1	93.7	93.7	93.6	93.3	93.1	92.7	92.5	92.5	92.3	92.5	92.5	89.1	92.6	85.2	84.9	86.6	87.4	88.8	89.1	90.3	92.1	92.7	93.1			

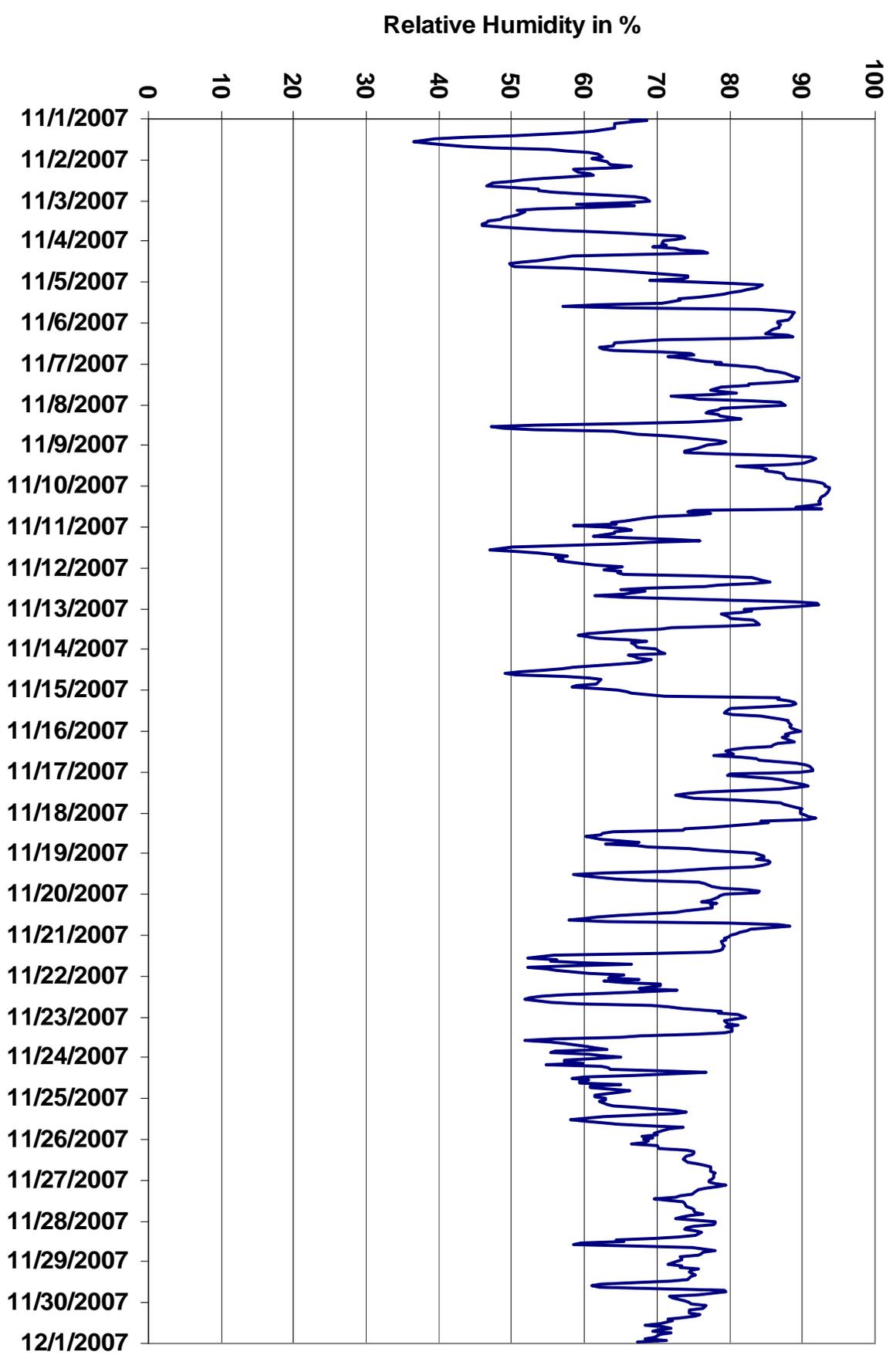


Figure 17. PASZA - Henry Pirkler Relative Humidity 1-hr Average Monthly Trend

## PASZA - Henry Pirker Temperature Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

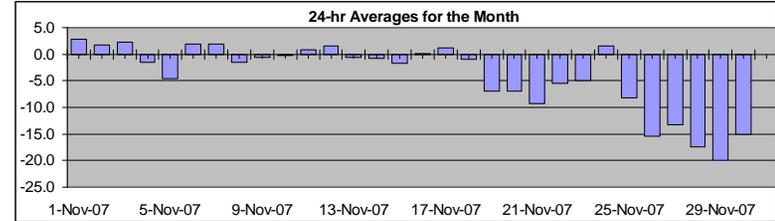
### HOURLY AVERAGE TABLE

### Ambient Temperature (T)

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Average:	7.2 °C	6-Nov	12:00 13:00
Maximum 24-hr Value:	2.8 °C	1-Nov	



AIC Time:	0 hrs	Operational Time:	720 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%
Percentile	99	95	75
	6.4	4.0	1.0
	-1.5	-7.6	-17.4
	-23.8	Average	Median
	-4.0 °C	-1.5 °C	

**Status Flag Characters**

C Calibration	A AIC - Zero / Span Check
S Instrument out of Service	X Filter Exchange
N No Data	M Equipment Maintenance
D Excessive Instrument Drift	P Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00		
1-Nov-07	2	3	2	2	2	1	1	1	2	3	4	5	6	7	7	6	5	4	2	1	1	0	-1	-1	2.8	6.9
2-Nov-07	-1	-1	-2	-2	-2	-1	0	0	0	1	1	3	3	4	4	5	4	4	5	5	4	4	3	3	1.8	5.2
3-Nov-07	2	2	3	1	1	2	3	2	2	3	3	4	4	4	4	4	4	2	2	1	0	0	0	0	2.3	4.4
4-Nov-07	0	0	-2	-2	-3	-3	-4	-5	-3	0	1	2	2	3	3	2	0	-1	-2	-4	-5	-6	-6	-5	-1.6	3.2
5-Nov-07	-7	-8	-9	-9	-8	-8	-7	-7	-7	-6	-5	-4	-3	-2	-2	-2	-3	-2	-2	-2	-2	-2	-2	-2	-4.5	-1.6
6-Nov-07	-2	-2	-1	-1	-1	-2	-2	-3	-3	0	4	7	7	7	7	7	6	4	3	3	3	3	2	1	1.9	7.2
7-Nov-07	0	0	0	0	0	0	0	0	-1	0	0	1	3	3	5	5	5	4	4	5	5	5	2	1	1.9	5.3
8-Nov-07	0	-1	-3	-4	-4	-4	-4	-3	-4	-4	-2	0	3	4	2	2	0	-1	-2	-2	-2	-3	-3	-2	-1.5	3.6
9-Nov-07	-2	-2	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	2	1	0	1	0	0	0	0	-1	-1	-1	-1	-0.6	1.6
10-Nov-07	-1	-1	-2	-2	-2	-2	-3	-3	-3	-3	-2	-1	1	0	3	3	3	2	2	2	1	1	-1	0	-0.3	3.0
11-Nov-07	-1	-1	-1	-1	-1	-1	-2	-3	-4	-1	0	2	6	6	5	4	3	3	3	2	1	1	0	-1	0.9	6.4
12-Nov-07	0	0	0	0	1	2	1	1	1	1	1	1	2	3	4	4	5	4	3	2	1	1	0	0	1.7	4.7
13-Nov-07	0	-1	-2	-2	-2	-2	-2	-3	-4	-4	-2	1	2	3	3	3	3	1	0	0	-1	-1	0	-1	-0.5	3.4
14-Nov-07	-1	-2	-3	-1	-2	-2	-3	-3	-3	-2	0	2	3	3	3	2	1	0	-1	-1	-1	-1	-1	-1	-0.7	2.8
15-Nov-07	-2	-2	-2	-2	-3	-3	-3	-3	-3	-3	-2	-1	-1	-1	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1.8	-0.5
16-Nov-07	-2	-2	-2	-1	-1	-1	-1	-1	-1	-1	0	1	1	1	2	1	1	1	1	1	1	1	1	1	0.1	2.2
17-Nov-07	1	2	2	2	1	1	1	-1	-1	0	1	2	3	4	4	4	3	1	1	0	0	-1	-1	-1	1.2	4.5
18-Nov-07	-1	-1	-1	-1	0	1	-1	-2	-2	-2	1	2	2	3	2	0	-2	0	-1	-2	-5	-6	-6	-6	-1.0	2.5
19-Nov-07	-7	-8	-10	-11	-11	-10	-10	-10	-11	-11	-7	-3	0	0	-1	-2	-4	-5	-6	-6	-6	-7	-9	-9	-6.9	0.3
20-Nov-07	-8	-7	-6	-6	-6	-6	-6	-6	-6	-6	-5	-4	-3	-3	-3	-2	-4	-6	-8	-9	-12	-14	-15	-15	-6.8	-2.4
21-Nov-07	-16	-16	-17	-16	-17	-17	-16	-17	-16	-15	-12	-7	-3	0	-2	-1	-2	-4	-4	-2	-3	-4	-6	-8	-9.3	-0.5
22-Nov-07	-7	-6	-8	-6	-7	-8	-8	-7	-9	-7	-5	-2	0	1	1	0	-1	-4	-5	-6	-7	-8	-9	-12	-5.4	1.1
23-Nov-07	-12	-13	-12	-11	-11	-10	-11	-11	-11	-10	-7	-4	-2	1	2	1	1	0	-1	-2	1	1	0	0	-4.9	2.2
24-Nov-07	-2	0	1	0	2	4	3	3	3	2	3	3	4	3	3	3	2	2	1	-1	-1	-1	-1	0	1.5	3.6
25-Nov-07	-1	-1	-1	-2	-3	-4	-4	-6	-6	-6	-6	-7	-7	-8	-9	-11	-12	-13	-13	-14	-15	-16	-17	-17	-8.2	-1.0
26-Nov-07	-17	-17	-17	-18	-18	-18	-18	-18	-18	-18	-17	-16	-15	-14	-14	-13	-13	-13	-13	-13	-13	-13	-13	-13	-15.5	-12.8
27-Nov-07	-13	-13	-14	-14	-14	-14	-16	-17	-17	-16	-14	-12	-11	-11	-11	-11	-11	-11	-12	-12	-12	-12	-13	-13	-13.2	-11.0
28-Nov-07	-15	-15	-16	-16	-16	-16	-16	-17	-17	-16	-16	-15	-15	-12	-12	-14	-16	-19	-22	-23	-23	-24	-24	-24	-17.3	-11.8
29-Nov-07	-24	-25	-23	-22	-21	-21	-22	-22	-22	-20	-17	-15	-14	-12	-12	-12	-14	-17	-19	-22	-26	-26	-25	-24	-19.9	-11.6
30-Nov-07	-23	-22	-19	-16	-15	-16	-17	-18	-17	-16	-14	-12	-11	-10	-11	-12	-12	-12	-13	-14	-15	-15	-16	-16	-15.1	-10.3
Hourly Avg	-5.3	-5.4	-5.5	-5.4	-5.4	-5.4	-5.6	-5.9	-6.0	-5.3	-3.9	-2.3	-1.0	-0.5	-0.3	-0.7	-1.6	-2.7	-3.3	-3.8	-4.3	-4.8	-5.3	-5.6		
Hourly Max	2.5	2.6	2.6	2.2	2.4	3.6	3.3	3.3	2.6	2.9	4.5	6.8	7.2	6.9	6.8	6.7	5.9	4.2	5.0	5.3	4.7	4.8	3.1	3.0		

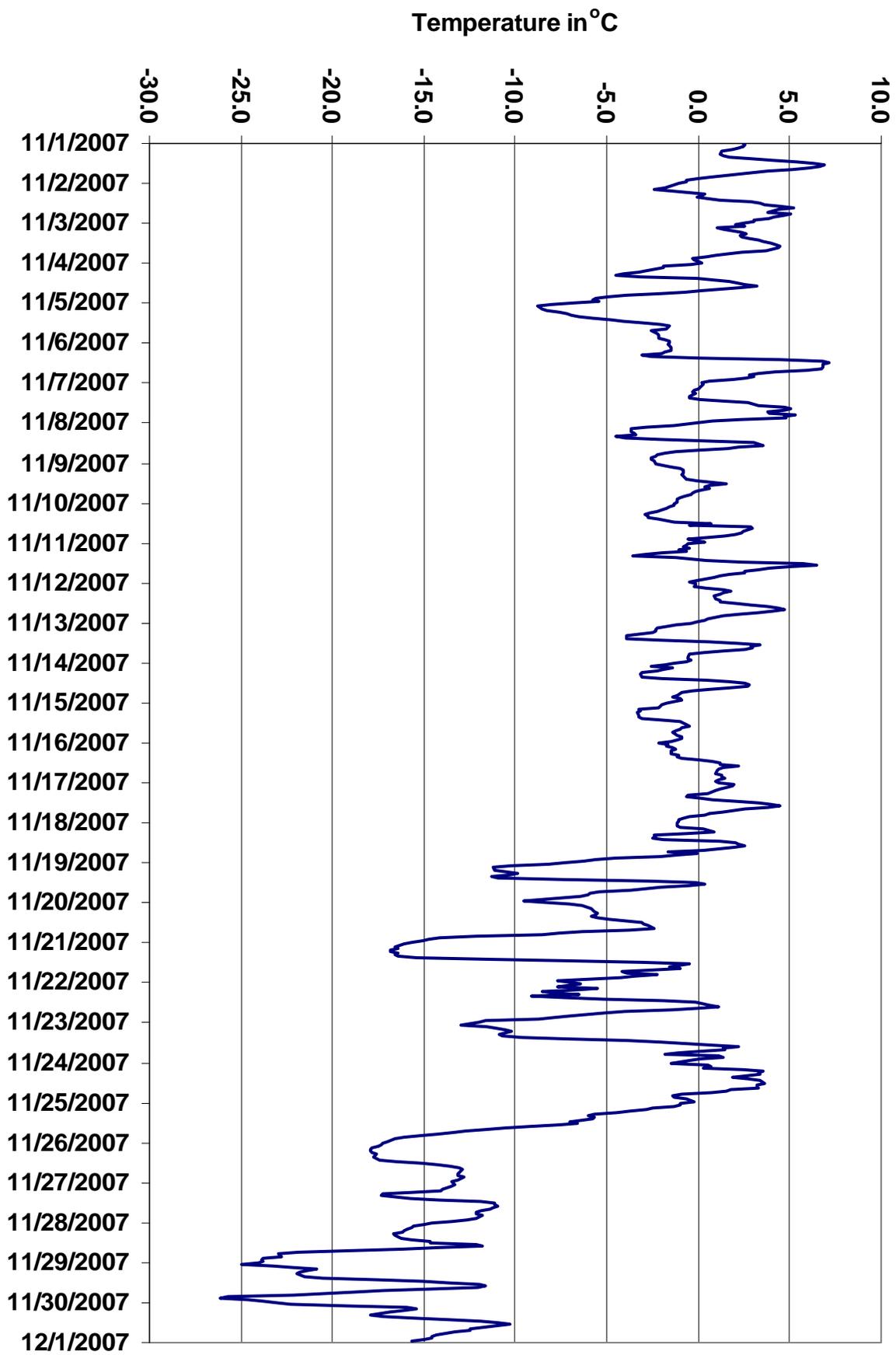


Figure 18. PASZA - Henry Pirkler Temperature 1-hr Average Monthly Trend



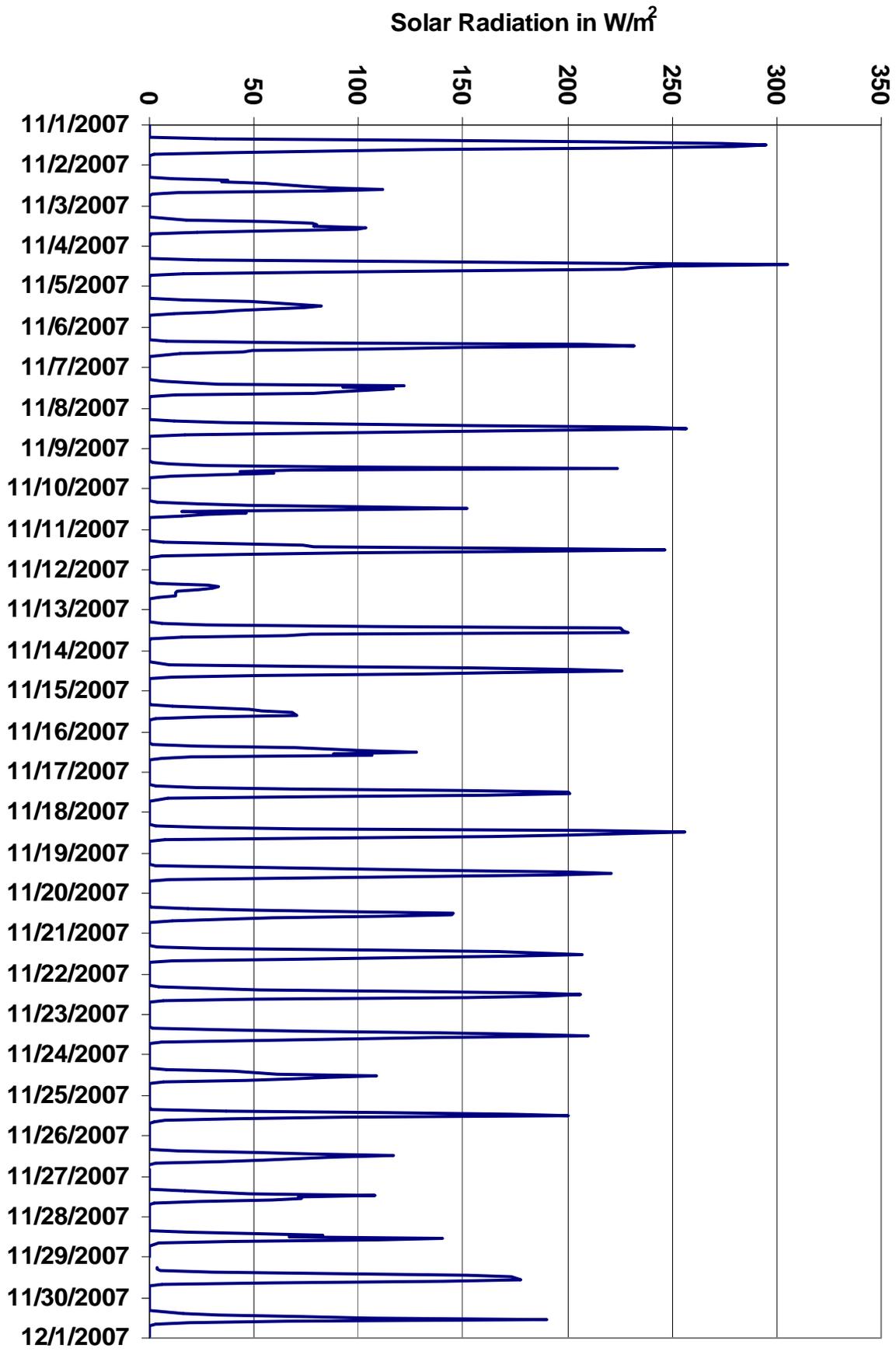


Figure 19. PASZA - Henry Pirkler Solar Radiation 1-hr Average Monthly Trend

# PASZA - Henry Pirker Scalar Wind Speed Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

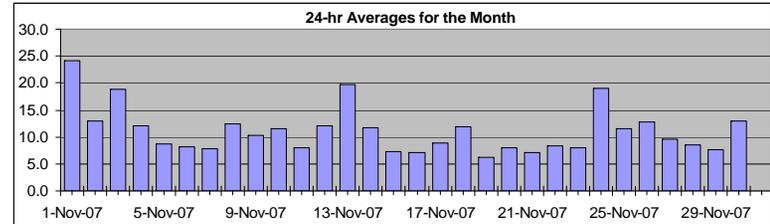
## Wind Speed (WSs)

Monitoring Dates: November 1, 2007 to December 1, 2007

### Summary

Maximum 1-hr Average:	34.1	km/hr	1-Nov	14:00 15:00
Maximum 24-hr Value:	24.2	km/hr	1-Nov	

Calm Time:	0 hrs	0% calms	Operational Time:	720 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageS
	29.9	23.6	13.5	9.3	6.8	5.4	4.8	11.1 km/hr



### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hr Scalar Average	Daily Max	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00		
1-Nov-07	23	25	25	21	23	22	22	26	28	30	32	32	33	33	34	34	27	22	17	18	15	12	11	16	24.2	34.1	
2-Nov-07	13	13	12	6	8	10	12	7	6	7	10	10	11	11	11	9	7	8	27	29	28	23	17	19	13.0	28.9	
3-Nov-07	19	19	22	15	16	20	27	30	30	27	29	20	24	25	23	16	15	14	11	10	9	8	9	12	18.7	30.0	
4-Nov-07	15	13	13	13	14	13	11	10	14	16	20	20	19	18	16	14	9	7	8	7	6	4	7	6	12.1	19.8	
5-Nov-07	5	5	5	5	6	7	7	9	11	11	14	12	10	11	9	9	12	11	10	7	9	6	6	8	8.6	14.3	
6-Nov-07	6	6	6	8	9	11	11	6	5	6	8	11	12	11	10	8	7	5	6	7	11	10	9	7	8.1	12.4	
7-Nov-07	7	10	10	9	9	7	6	6	5	6	7	7	6	7	6	7	5	9	10	15	12	9	7	6	7.9	15.0	
8-Nov-07	20	22	22	22	20	16	12	11	10	10	10	10	6	7	8	9	9	9	10	9	11	11	13	15	12.5	21.8	
9-Nov-07	16	16	18	16	14	14	15	15	13	11	10	9	8	7	6	5	6	7	8	8	7	8	7	6	10.4	18.5	
10-Nov-07	7	7	7	7	7	7	7	7	6	7	6	7	6	10	22	26	17	13	16	21	24	19	10	7	10	11.5	25.6
11-Nov-07	10	8	7	13	13	13	7	5	6	5	6	7	7	7	6	7	7	9	9	10	8	7	6	8	7.9	13.2	
12-Nov-07	7	8	9	9	11	9	12	13	13	13	13	12	14	12	11	10	9	6	9	12	17	15	21	29	12.2	29.2	
13-Nov-07	29	30	28	30	26	21	16	11	8	8	10	11	14	22	26	25	23	22	21	18	18	19	20	17	19.6	30.2	
14-Nov-07	14	8	11	17	16	14	12	12	15	11	9	12	14	11	8	6	8	9	11	12	12	13	14	14	11.8	16.7	
15-Nov-07	10	8	7	7	5	6	6	6	6	8	5	5	6	6	8	8	7	8	9	7	10	11	9	7	7.4	10.6	
16-Nov-07	7	7	7	7	6	6	6	7	7	5	5	6	7	7	6	8	8	8	9	7	8	10	9	8	7.1	9.9	
17-Nov-07	8	14	10	7	9	8	9	7	7	7	11	14	13	13	13	11	7	7	6	7	6	6	9	5	8.9	14.0	
18-Nov-07	6	6	10	10	21	18	15	10	12	12	7	13	15	13	16	16	14	13	16	11	11	7	7	6	11.9	21.1	
19-Nov-07	5	5	5	6	6	5	5	6	6	7	6	5	7	7	7	8	6	7	7	6	6	6	7	7	6.2	7.6	
20-Nov-07	6	6	8	11	8	7	8	9	9	10	9	10	12	12	8	6	6	9	9	6	6	6	6	5	8.0	12.0	
21-Nov-07	6	5	5	6	5	5	5	5	6	6	6	5	4	6	7	6	4	6	12	16	14	11	8	9	7.1	16.3	
22-Nov-07	8	10	8	12	9	7	10	10	7	7	8	6	10	14	13	11	8	6	7	7	6	5	7	6	8.4	13.5	
23-Nov-07	6	6	6	5	6	5	7	7	5	6	5	6	6	6	8	10	13	13	11	12	15	14	9	7	8.0	15.1	
24-Nov-07	6	11	7	7	14	21	20	24	25	17	17	26	28	22	22	23	17	23	20	16	22	20	24	25	19.0	27.9	
25-Nov-07	21	23	18	16	12	6	6	6	7	7	11	13	12	12	14	11	10	8	12	11	11	12	12	9	11.6	22.6	
26-Nov-07	11	12	11	13	14	15	13	15	15	18	18	16	16	15	14	14	13	14	11	10	7	6	8	8	12.8	17.9	
27-Nov-07	9	8	8	10	13	14	12	11	9	8	6	5	6	8	8	7	6	8	8	5	7	18	19	18	9.6	18.8	
28-Nov-07	16	14	12	12	11	9	8	8	8	9	11	8	7	6	6	7	7	6	6	7	6	6	7	7	8.6	16.1	
29-Nov-07	7	7	7	6	7	8	7	7	7	7	7	9	13	14	12	7	5	4	6	6	6	7	7	7	7.6	14.3	
30-Nov-07	7	7	10	14	13	12	12	8	9	11	16	15	15	18	17	13	12	12	16	17	15	13	12	14	12.9	18.3	
1-hr Average	11.0	11.3	11.0	11.4	11.7	11.2	10.9	10.5	10.5	10.4	11.0	11.3	12.1	12.7	12.6	11.4	10.1	10.1	11.4	11.2	11.3	10.5	10.4	10.7			
Hourly Max	29.3	29.6	27.7	30.2	25.6	22.2	27.0	30.0	29.6	29.7	32.2	31.6	33.2	32.8	34.1	33.5	26.8	22.6	27.1	28.9	27.8	23.0	24.3	29.2			

## PASZA - Henry Pirker Vector Wind Speed Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

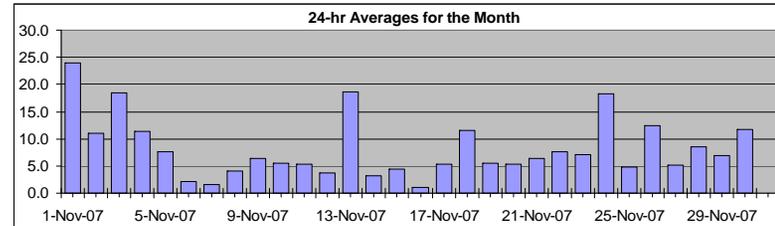
### HOURLY AVERAGE TABLE

### Wind Speed (WSv)

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Average:	33.9	km/hr	1-Nov	14:00 15:00
Maximum 24-hr Value:	23.9	km/hr	1-Nov	



Calm Time:	0 hrs	0% calms	Operational Time:	720 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageV
	29.9	23.5	13.3	8.9	6.1	3.5	1.7	22.0 km/hr

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hr Vector Average	Daily Max	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Nov-07	23	25	25	21	23	22	22	26	28	30	32	31	33	33	34	33	27	22	16	18	15	12	11	16	23.9	33.9	
2-Nov-07	13	13	12	3	8	9	11	6	5	7	9	9	11	11	10	9	7	6	27	29	28	23	17	19	11.0	28.8	
3-Nov-07	19	19	22	15	16	20	26	30	30	27	29	20	24	24	23	16	14	14	11	10	8	8	9	12	18.4	29.9	
4-Nov-07	15	13	12	13	14	13	11	10	14	16	20	20	18	17	16	14	9	7	7	7	3	1	5	4	11.4	19.7	
5-Nov-07	4	3	5	5	6	7	7	8	11	11	14	11	10	11	9	9	12	11	10	7	9	5	3	7	7.6	14.1	
6-Nov-07	2	4	1	7	9	10	10	4	1	3	6	11	12	11	9	8	7	0	5	6	11	10	9	7	2.1	12.2	
7-Nov-07	7	10	10	9	9	6	4	6	2	4	2	7	5	6	5	7	2	7	10	15	11	6	6	5	1.7	14.9	
8-Nov-07	20	21	22	22	19	16	12	11	10	10	10	8	5	5	7	9	8	9	10	9	11	11	13	15	4.0	21.7	
9-Nov-07	16	16	18	16	14	14	15	15	13	11	10	9	7	6	5	2	5	5	7	7	6	7	7	5	6.4	18.4	
10-Nov-07	7	7	6	6	6	6	7	7	3	7	5	5	9	22	25	16	13	16	21	23	19	9	5	9	5.6	25.4	
11-Nov-07	10	8	4	13	12	12	7	4	6	5	5	6	7	5	5	7	6	8	9	10	8	7	6	8	5.3	12.9	
12-Nov-07	6	7	9	9	10	7	11	13	13	13	12	12	13	12	11	10	8	5	6	11	17	15	20	29	3.7	29.1	
13-Nov-07	29	29	28	30	26	21	16	10	7	7	10	11	13	22	25	25	23	22	21	18	18	19	20	17	18.7	30.2	
14-Nov-07	14	6	10	17	16	14	12	12	14	10	8	11	13	11	6	5	7	9	11	12	12	13	14	14	3.2	16.6	
15-Nov-07	10	8	7	4	2	5	4	5	6	7	3	2	5	5	8	8	7	8	8	7	10	10	9	7	4.5	10.2	
16-Nov-07	6	4	5	5	5	2	4	7	7	5	1	5	7	3	4	7	8	7	8	5	8	10	9	7	1.1	9.7	
17-Nov-07	7	13	10	6	5	6	9	6	7	7	11	14	13	13	12	11	7	6	6	6	5	5	8	2	5.3	13.8	
18-Nov-07	6	4	10	10	21	18	15	10	12	12	6	12	15	13	16	15	14	13	16	10	11	7	7	4	11.6	20.9	
19-Nov-07	5	3	4	5	2	1	4	3	5	6	5	5	6	7	7	7	4	5	7	6	5	5	6	7	5.6	7.4	
20-Nov-07	3	4	8	11	8	7	8	9	9	9	10	12	12	7	4	5	9	9	5	5	6	5	5	5	5.3	11.8	
21-Nov-07	5	5	5	6	5	5	5	5	5	5	6	3	2	5	7	6	2	4	12	16	14	11	7	9	6.3	16.0	
22-Nov-07	8	9	6	12	9	7	10	10	5	7	7	6	9	13	13	11	6	5	7	5	5	4	7	5	7.6	13.4	
23-Nov-07	6	6	5	4	6	2	7	6	2	5	3	4	5	6	8	10	13	13	10	12	15	14	9	6	7.2	15.0	
24-Nov-07	3	9	4	3	14	21	20	23	25	17	17	26	28	22	22	23	17	23	19	16	22	20	24	25	18.3	27.8	
25-Nov-07	21	22	18	16	10	4	5	6	7	4	11	13	12	11	14	10	10	8	12	11	11	11	11	8	4.7	22.5	
26-Nov-07	10	12	11	13	14	14	13	15	15	18	18	16	16	15	14	14	13	13	11	10	7	5	8	7	12.4	17.8	
27-Nov-07	9	8	7	10	13	14	12	11	9	8	6	4	3	7	7	6	6	7	7	4	6	18	19	18	5.2	18.8	
28-Nov-07	16	13	12	12	11	9	8	8	8	9	11	7	7	5	6	7	6	6	6	6	4	6	7	7	8.5	16.0	
29-Nov-07	6	7	7	6	7	8	7	7	7	7	9	13	14	12	6	5	3	5	5	5	6	7	6	7	6.9	14.2	
30-Nov-07	6	6	10	14	13	12	12	8	9	11	16	15	15	18	16	13	12	11	16	17	15	13	12	13	11.7	18.2	
1-hr Vector	5.4	4.9	4.9	5.2	5.7	5.6	4.8	4.2	4.6	4.6	4.5	4.8	5.6	6.0	5.9	4.6	3.3	2.9	4.0	4.8	4.5	4.0	3.8	4.3			
Hourly Max	29.3	29.5	27.6	30.2	25.5	22.1	26.3	29.9	29.5	29.7	32.1	31.4	33.0	32.6	33.9	33.4	26.7	22.6	27.0	28.8	27.8	22.7	24.3	29.1			

## PASZA - Henry Pirker Wind Direction Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

### Wind Direction (WD)

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**


Calm Time: 0 hrs	0% calms	Operational Time: 720 hrs						
Calibration Time: 0 hrs		AMD Operational Uptime: 100.0%						
Percentile	99	95	75	50	25	5	1	Average
	349.2	313.4	284.9	245.0	117.3	56.2	20.1	263 deg

**Status Flag Characters**

C Calibration	A AIC - Zero / Span Check
S Instrument out of Service	X Filter Exchange
N No Data	M Equipment Maintenance
D Excessive Instrument Drift	P Power Failure

**Day Mountain Standard Time**

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	WD Sector
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Nov-07	239	234	243	249	243	240	237	239	242	244	250	257	261	261	248	246	250	250	235	242	240	235	234	238	246	WSW
2-Nov-07	230	228	230	224	281	239	245	205	209	157	157	173	151	160	158	202	215	225	242	237	239	249	258	251	225	SW
3-Nov-07	251	263	261	237	235	242	249	238	237	243	241	233	241	244	240	229	234	242	240	237	273	281	252	242	244	WSW
4-Nov-07	240	260	286	302	302	299	312	301	301	299	295	292	293	286	287	292	305	301	303	299	250	307	239	222	289	WNW
5-Nov-07	300	343	126	111	115	118	92	97	96	91	95	108	104	142	144	124	103	103	101	98	102	120	78	106	105	ESE
6-Nov-07	214	228	331	154	192	225	293	237	84	204	282	294	281	295	277	249	265	357	57	60	81	88	50	50	274	W
7-Nov-07	53	82	78	75	75	70	77	136	222	290	227	163	195	185	197	176	240	258	253	242	249	248	37	338	194	SSW
8-Nov-07	301	302	294	282	295	296	275	278	278	279	293	267	322	166	118	92	76	93	83	85	82	88	78	81	312	NW
9-Nov-07	82	82	82	82	76	74	84	82	79	71	65	58	52	22	26	354	259	239	235	239	221	174	153	141	83	E
10-Nov-07	116	103	102	77	89	73	71	83	6	313	356	346	235	248	260	230	222	221	224	219	225	261	273	257	234	SW
11-Nov-07	233	222	175	249	235	237	223	126	174	144	179	158	203	213	189	169	126	133	130	145	137	101	73	130	179	S
12-Nov-07	90	105	115	103	87	68	93	92	96	98	97	94	91	80	55	43	71	40	358	253	240	250	258	275	88	E
13-Nov-07	274	281	282	283	285	292	298	258	236	237	248	249	273	261	260	257	251	245	243	246	250	242	246	240	263	W
14-Nov-07	238	280	282	242	235	231	221	228	240	237	290	279	257	225	197	125	72	73	79	84	74	74	72	75	226	SW
15-Nov-07	81	75	54	103	108	57	148	264	282	313	258	270	166	84	93	88	56	70	86	69	68	85	82	65	78	ENE
16-Nov-07	53	70	3	77	104	333	4	87	124	105	357	290	266	309	232	273	251	238	216	180	141	149	166	155	166	SSE
17-Nov-07	177	161	155	200	193	152	116	115	125	114	97	97	102	102	94	93	80	57	47	28	50	310	322	310	110	ESE
18-Nov-07	263	269	273	249	263	257	243	276	287	282	266	268	260	293	277	274	256	269	258	240	250	253	236	272	264	W
19-Nov-07	223	283	292	278	273	292	247	259	293	280	282	244	234	273	312	318	265	297	307	290	306	311	301	313	284	WNW
20-Nov-07	286	343	283	280	296	302	306	305	279	276	258	296	298	297	282	300	102	89	95	118	286	285	285	284	293	WNW
21-Nov-07	290	297	288	306	292	315	322	320	297	297	285	272	247	245	278	273	252	158	263	272	288	281	290	273	281	WNW
22-Nov-07	246	280	250	279	287	306	286	298	287	268	315	283	290	291	279	264	264	300	324	285	354	201	297	327	285	WNW
23-Nov-07	281	298	338	313	345	215	302	295	339	331	273	238	295	293	288	288	273	274	277	279	278	277	246	252	284	WNW
24-Nov-07	235	245	193	168	261	261	243	253	260	253	249	245	246	252	258	262	283	267	251	241	242	242	244	242	250	WSW
25-Nov-07	242	243	250	242	272	285	295	274	285	318	41	46	42	30	10	23	18	27	3	18	35	47	50	39	343	NNW
26-Nov-07	53	61	67	71	82	86	82	80	79	81	82	82	85	82	79	75	78	80	81	86	79	45	20	22	75	ENE
27-Nov-07	350	352	315	290	289	291	298	311	308	301	309	330	88	105	99	76	66	69	88	104	243	296	299	301	318	NW
28-Nov-07	299	295	291	286	290	296	301	289	295	294	284	288	287	291	274	284	302	304	319	294	297	302	292	306	294	WNW
29-Nov-07	309	294	285	259	247	280	294	271	262	279	280	257	246	244	267	285	210	302	287	312	296	302	311	301	276	W
30-Nov-07	304	312	278	280	273	269	265	238	237	249	253	268	276	295	303	323	331	303	283	297	305	316	318	318	288	WNW
Hourly Avg	262	271	273	262	266	269	267	254	258	265	267	261	257	260	261	262	261	262	257	248	255	265	279	274		

## PASZA - Henry Pirker Standard Deviation of Wind Direction Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

**Wind Direction (WD)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

--

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	720 hrs			
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1
	79.6	58.6	25.5	13.4	7.5	4.8	3.8

**Status Flag Characters**

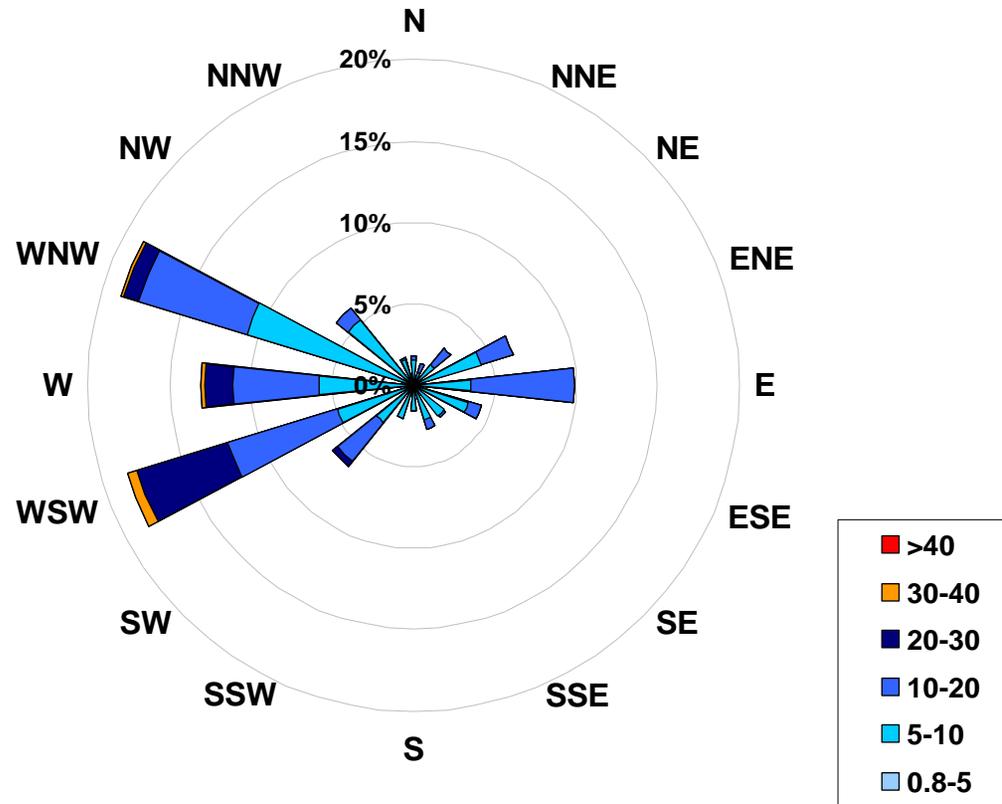
C Calibration	A AIC - Zero / Span Check
S Instrument out of Service	X Filter Exchange
N No Data	M Equipment Maintenance
D Excessive Instrument Drift	P Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	Daily Maximum	
1-Nov-07	5	6	5	8	4	5	4	5	3	5	6	7	6	6	6	5	5	5	7	4	3	5	6	11	5	10.7
2-Nov-07	10	8	8	67	15	29	20	39	19	26	15	18	9	10	15	15	19	45	6	4	4	8	5	7	67.5	
3-Nov-07	10	4	10	8	7	6	13	4	4	5	5	6	6	6	5	7	7	6	8	8	14	11	10	10	14.5	
4-Nov-07	5	20	16	12	7	4	7	12	5	5	6	7	9	11	12	14	8	14	12	14	64	90	42	53	89.5	
5-Nov-07	37	57	14	12	10	11	7	8	6	7	9	13	12	17	14	22	11	8	11	13	14	51	68	43	67.9	
6-Nov-07	77	38	93	31	20	28	25	45	83	76	44	11	9	8	21	16	31	95	43	26	6	13	14	21	94.9	
7-Nov-07	13	8	9	11	9	29	56	29	74	42	76	26	40	28	31	19	77	37	21	7	20	50	28	45	77.4	
8-Nov-07	7	8	9	7	7	9	9	9	12	7	11	33	43	48	37	14	6	8	8	12	7	7	5	5	48.0	
9-Nov-07	4	5	5	6	7	7	7	5	7	12	9	22	20	31	28	64	53	36	24	27	18	28	22	42	64.1	
10-Nov-07	26	25	25	32	35	26	22	22	58	21	60	45	38	7	7	11	10	6	5	6	6	27	50	41	60.1	
11-Nov-07	8	14	64	14	6	10	23	47	26	24	30	41	23	40	33	17	32	14	10	12	15	10	18	16	64.4	
12-Nov-07	40	18	11	9	18	35	10	6	6	7	8	9	15	9	13	17	35	49	53	20	10	14	9	4	53.4	
13-Nov-07	4	4	4	4	4	5	7	13	16	16	9	14	11	6	4	5	5	6	4	7	7	6	5	5	15.9	
14-Nov-07	9	48	26	6	5	5	7	6	5	19	24	15	10	18	33	35	13	8	5	5	6	7	6	6	47.6	
15-Nov-07	10	17	17	51	75	30	44	52	14	15	54	63	24	40	14	13	14	12	14	19	12	15	10	13	75.0	
16-Nov-07	16	71	44	49	41	80	50	21	26	24	85	44	23	75	51	54	20	29	36	54	12	12	12	35	84.9	
17-Nov-07	44	16	15	38	59	32	12	20	16	12	11	9	8	9	14	10	21	16	17	26	28	51	9	78	77.9	
18-Nov-07	18	41	7	22	8	6	6	12	11	9	34	18	5	15	5	6	8	9	7	15	20	21	23	44	44.3	
19-Nov-07	24	50	34	33	72	86	35	54	34	18	18	19	22	7	17	20	50	39	27	19	22	37	23	12	86.2	
20-Nov-07	76	44	8	6	13	19	10	13	12	13	12	15	11	11	19	43	43	13	9	35	62	18	20	25	76.2	
21-Nov-07	12	24	14	9	17	26	19	12	27	17	12	44	66	38	12	11	60	49	7	12	10	21	18	11	66.0	
22-Nov-07	24	22	52	13	11	8	9	16	47	15	24	23	16	9	7	10	34	39	24	45	43	36	14	33	52.3	
23-Nov-07	16	11	29	45	21	75	9	9	76	38	64	46	32	23	11	10	9	7	15	8	7	7	14	27	76.1	
24-Nov-07	63	40	83	71	12	6	6	6	8	7	5	6	5	4	4	8	5	8	7	4	5	4	4	4	82.7	
25-Nov-07	5	4	7	5	39	49	35	17	15	53	12	18	14	14	14	18	21	21	12	12	15	11	11	18	52.7	
26-Nov-07	15	13	14	11	9	10	8	7	7	6	7	7	9	8	7	8	9	8	10	14	17	25	17	19	25.3	
27-Nov-07	15	18	25	7	5	5	7	6	12	14	23	59	70	17	22	22	26	14	21	39	41	5	6	5	69.8	
28-Nov-07	5	5	7	7	9	10	15	9	15	24	10	14	12	26	20	7	17	10	18	34	56	21	13	14	55.6	
29-Nov-07	35	15	9	25	13	11	5	18	17	13	12	15	7	7	5	23	37	51	34	24	10	8	13	18	51.4	
30-Nov-07	16	26	17	4	5	7	11	12	10	9	7	9	11	7	7	12	18	11	4	7	5	11	6	5	25.7	

Hourly Max	77	71	93	71	75	86	56	54	83	76	85	63	70	75	51	64	77	95	53	54	64	90	68	78
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**1-hr Average Wind Rose (in km/hr) Located at the Henry Pirker Site for November 2007**



**Calms: 0%**

Frequency Distribution of Wind in km/hr			Frequency (hrs)
Range			
0.8	<	5	15
5	to	10	378
10	to	20	256
20	to	30	64
30	to	40	7
	>	40	0
Total Non-Zero Values			720

# PASZA – Evergreen Park Station

## Monthly Summary Tables, Graphs and Roses

### PASZA - Evergreen Park Sulphur Dioxide Monthly Summary

Station: Evergreen Park  
 Station Owner: PASZA

#### HOURLY AVERAGE TABLE

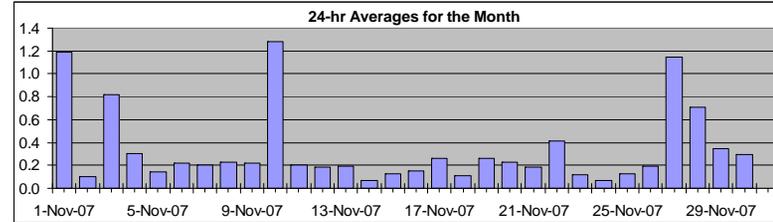
#### Sulphur Dioxide (SO<sub>2</sub>)

Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 1-hr 172 ppb 24-hr 57 ppb

**Summary**

Number of 1-hr Exceedances:	0				
Number of 24-hr Exceedances:	0				
Maximum 1-hr Average:	9.2	ppb	10-Nov	4:00	5:00
Maximum 24-hr Average:	1.3	ppb	10-Nov		



AIC Time:	32 hrs	Operational Time:	686 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	3.4	1.0	0.3	0.2	0.1	0.0	0.0	0.3 ppb	0.2 ppb

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00			
1-Nov-07	0	0	0	0	0	0	0	1	5	A	8	1	3	3	1	5	0	0	0	0	0	0	0	0	1.2	7.7	
2-Nov-07	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	0.4	
3-Nov-07	0	0	0	0	0	0	0	A	0	3	2	5	1	1	3	0	0	1	1	1	0	0	0	0	0.8	4.7	
4-Nov-07	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7	
5-Nov-07	0	0	0	0	0	A	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0.1	1.7	
6-Nov-07	0	0	0	0	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6	
7-Nov-07	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	
8-Nov-07	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0.2	1.5	
9-Nov-07	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
10-Nov-07	A	1	1	2	9	5	2	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	A	1.3	9.2
11-Nov-07	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	
12-Nov-07	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.7	
13-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0.2	1.2	
14-Nov-07	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.6	
15-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	C	C	A	0	0	0	0	0	0	0	0	0	0.1	0.4	
16-Nov-07	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.1	0.5	
17-Nov-07	0	0	0	0	A	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0.3	2.2	
18-Nov-07	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	
19-Nov-07	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.3	0.7	
20-Nov-07	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8	
21-Nov-07	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.5	
22-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	1	1	0	0	0	0	A	0	0.4	1.6	
23-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.4	
24-Nov-07	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	
25-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.4	
26-Nov-07	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	
27-Nov-07	0	1	1	2	2	1	1	0	1	2	1	1	1	1	1	3	2	A	1	1	1	3	2	0	1.1	2.9	
28-Nov-07	0	0	1	3	5	1	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0.7	4.7	
29-Nov-07	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	1	0	0.3	0.6	
30-Nov-07	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	
Hourly Avg	0.1	0.2	0.2	0.4	0.7	0.3	0.2	0.2	0.4	0.3	0.6	0.5	0.5	0.5	0.5	0.6	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1			
Hourly Max	0.4	0.7	1.0	2.8	9.2	4.6	1.9	0.8	5.5	3.1	7.7	4.7	3.2	2.8	2.6	5.1	1.7	1.2	1.2	0.8	0.7	2.9	2.0	0.5			

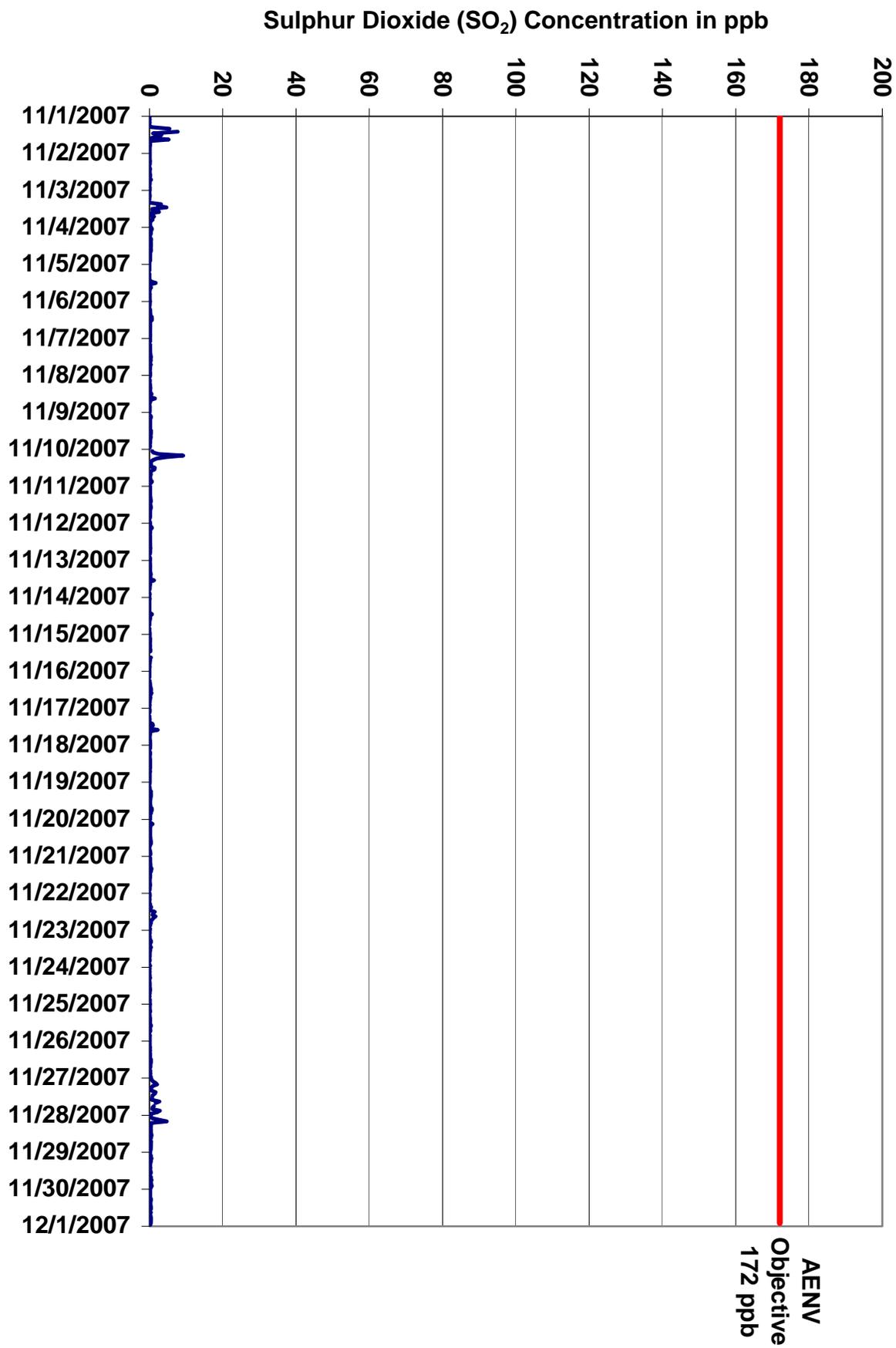


Figure 20. PASZA - Evergreen Park Sulphur Dioxide 1-hr Average Monthly Trend

Station: Evergreen Park  
 Station Owner: PASZA

**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

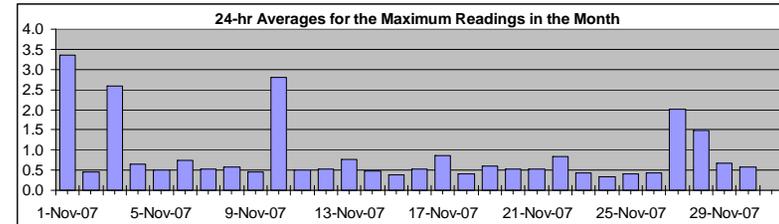
**Sulphur Dioxide (SO<sub>2</sub>)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	16.5	ppb	10-Nov	4:00 5:00
Maximum 24-hr Value:	3.4	ppb	1-Nov	

AIC Time:	32 hrs	Operational Time:	686 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	9.5	2.9	0.7	0.4	0.3	0.3	0.2	0.9 ppb	0.4 ppb



**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	0	0	0	0	0	0	0	3	10	A	13	6	8	11	5	15	0	0	0	1	0	0	0	3.4	15.4	
2-Nov-07	0	0	0	0	1	0	1	1	A	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0.4	1.8	
3-Nov-07	0	0	0	0	0	0	0	A	1	9	7	14	1	6	10	2	1	3	1	1	0	0	0	2.6	13.9	
4-Nov-07	1	1	1	1	1	0	A	1	2	1	1	1	1	1	1	1	1	0	1	1	0	1	0	0.6	1.5	
5-Nov-07	0	0	0	0	0	A	0	0	0	0	0	1	3	1	0	1	0	0	0	0	0	0	0	0.5	2.7	
6-Nov-07	1	0	0	0	A	0	1	0	1	1	2	3	3	1	0	1	0	1	0	0	1	0	0	0.8	3.4	
7-Nov-07	0	0	0	A	0	1	0	0	1	0	0	1	1	1	1	1	0	1	0	0	1	0	0	0.5	0.9	
8-Nov-07	0	0	A	0	0	0	0	1	1	1	1	1	1	1	1	3	1	0	0	0	0	0	0	0.6	2.7	
9-Nov-07	0	A	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1	0	1	0	0	0	0	0.5	0.6	
10-Nov-07	A	1	2	4	16	9	5	2	1	1	1	1	7	5	1	0	0	1	0	2	0	1	A	2.8	16.5	
11-Nov-07	0	0	0	0	0	0	0	1	1	1	1	0	0	1	1	1	0	0	0	0	0	0	A	0.5	0.7	
12-Nov-07	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	A	0	0	0.5	2.1	
13-Nov-07	0	0	0	1	1	0	0	0	1	1	1	1	2	7	0	0	0	0	0	A	0	0	0	0.8	7.3	
14-Nov-07	0	0	0	0	0	1	0	0	0	0	0	3	1	1	1	0	0	0	A	0	0	0	0	0.5	3.1	
15-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	C	C	A	1	0	0	0	0	0	0	0	0.4	0.6	
16-Nov-07	0	0	0	0	0	A	0	0	0	0	1	1	3	1	1	1	1	1	0	0	0	0	0	0.5	2.9	
17-Nov-07	0	0	0	0	A	0	0	0	0	0	3	3	1	1	5	1	0	0	0	0	0	0	0	0.9	5.4	
18-Nov-07	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6	
19-Nov-07	0	0	A	0	0	0	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	0	1	0.6	1.2	
20-Nov-07	0	A	1	2	1	1	0	1	0	0	1	1	1	0	1	1	0	0	0	0	1	1	1	0.5	1.8	
21-Nov-07	A	0	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	1	1	0	0	A	0.5	1.1	
22-Nov-07	0	0	0	0	0	0	0	0	1	1	1	0	3	2	1	2	2	1	1	1	0	0	A	0.8	3.1	
23-Nov-07	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	1	A	0	0.4	1.0	
24-Nov-07	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	A	1	0	0	0.3	0.7	
25-Nov-07	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	A	0	0	0	0	0.4	0.9	
26-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	A	1	0	1	1	0.4	0.6	
27-Nov-07	1	1	1	4	3	2	1	1	1	3	2	1	1	1	1	6	2	A	2	1	1	7	4	1	2.0	6.7
28-Nov-07	1	1	1	9	9	1	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.5	9.5	
29-Nov-07	0	0	1	1	1	1	1	1	1	0	0	0	0	1	1	A	1	1	1	1	1	1	1	0.7	1.0	
30-Nov-07	0	0	0	0	0	0	1	1	0	0	0	1	1	1	A	1	0	1	0	1	1	0	1	0.6	1.3	
Hourly Avg	0.4	0.5	0.5	1.0	1.4	0.8	0.6	0.7	0.9	0.9	1.3	1.5	1.5	1.5	1.3	1.4	0.6	0.7	0.5	0.6	0.5	0.7	0.6	0.4		
Hourly Max	0.9	1.4	1.6	8.8	16.5	8.8	5.4	3.3	9.9	9.0	12.5	13.9	8.3	11.2	10.2	15.4	2.2	2.9	1.7	2.2	1.2	6.7	4.0	0.8		

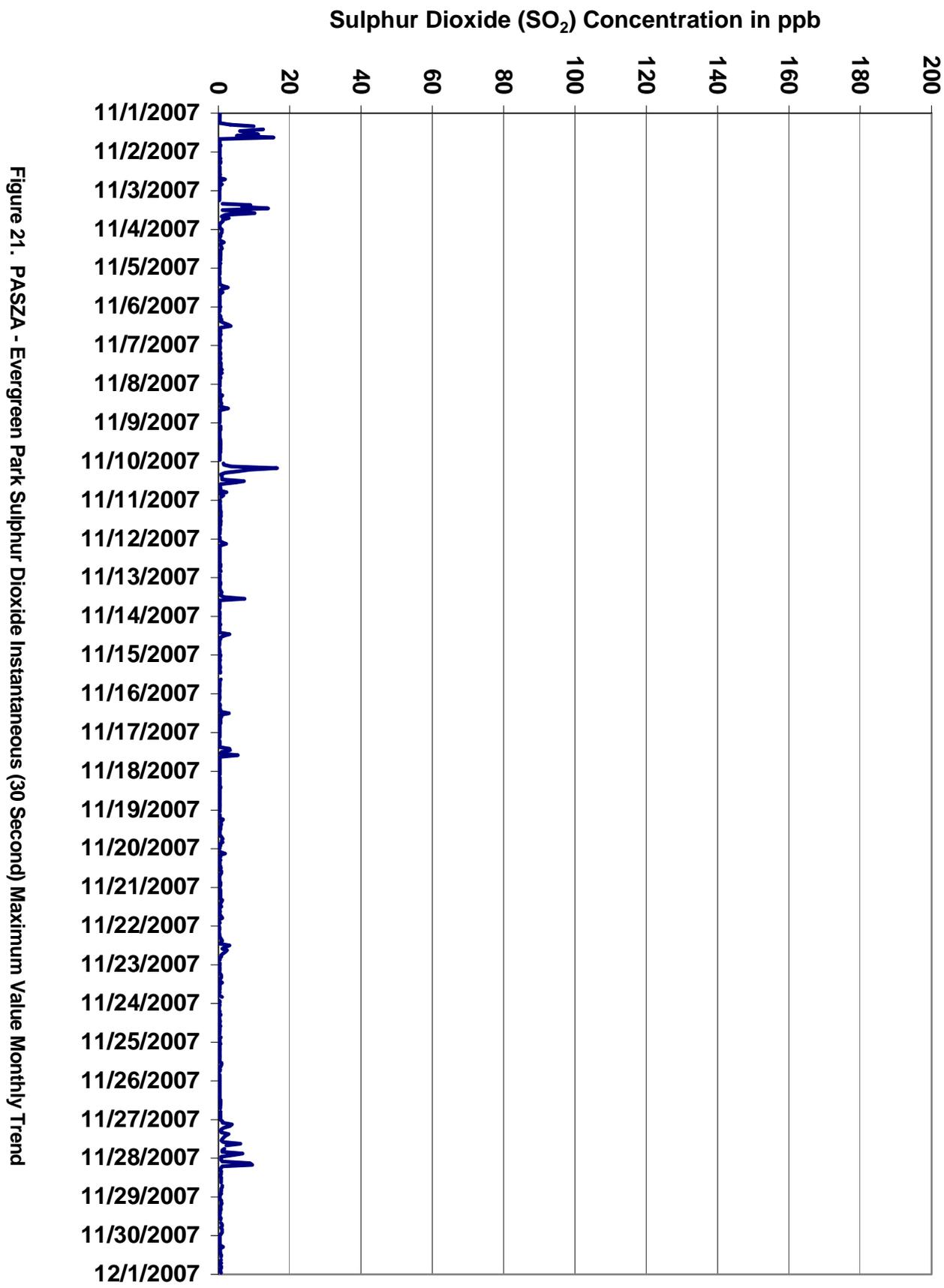
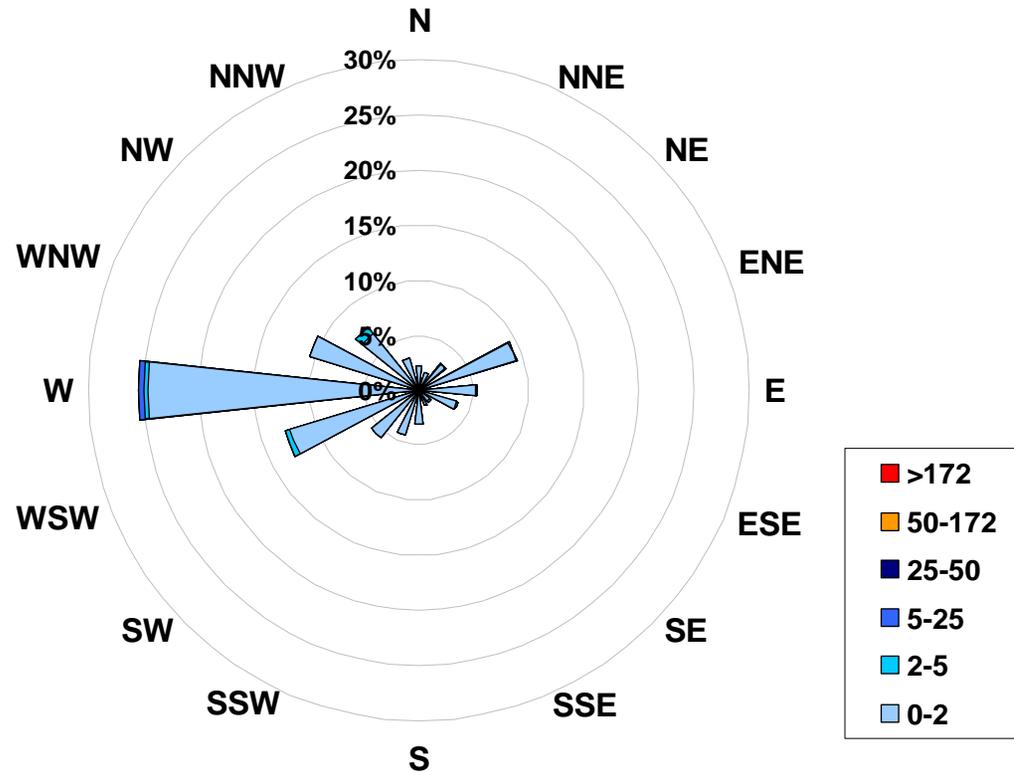


Figure 21. PASZA - Evergreen Park Sulphur Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Sulphur Dioxide (in ppb) Located at the Evergreen Park Site for November 2007**



**Calms: 0%**

Frequency Distribution of SO <sub>2</sub> in ppb			
Range		Frequency (hrs)	
0.0	< 2	667	
2	to 5	15	
5	to 25	4	
25	to 50	0	
50	to 172	0	
	> 172	0	
Total Non-Zero Values			686

### PASZA - Evergreen Park Total Reduced Sulphur Monthly Summary

Station: Evergreen Park  
 Station Owner: PASZA

#### HOURLY AVERAGE TABLE

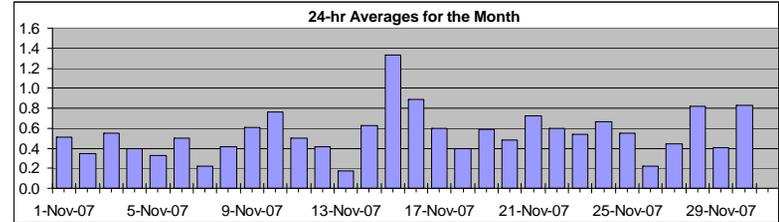
#### Total Reduced Sulphur (TRS)

Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 1-hr na ppb 24-hr na ppb

Maximum 1-hr Average:	2.0	ppb	15-Nov	8:00 9:00
Maximum 24-hr Value:	1.3	ppb	15-Nov	

AIC Time:	32 hrs	Operational Time:	685 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	1.7	1.1	0.7	0.5	0.3	0.0	0.0	0.5 ppb	0.5 ppb



#### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00		
1-Nov-07	0	0	1	0	0	0	0	1	1	A	1	0	0	0	1	1	0	0	1	1	1	0	0	0	0.5	1.3
2-Nov-07	0	0	0	0	0	0	0	1	A	0	0	0	0	0	1	1	0	0	0	0	1	1	1	1	0.3	0.9
3-Nov-07	1	1	1	1	1	1	1	1	A	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0.6	0.9
4-Nov-07	0	0	0	0	1	1	A	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.4	0.7
5-Nov-07	0	0	0	0	0	A	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0.3	0.8
6-Nov-07	0	1	0	0	A	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1	1	1	0	0	0.5	0.7
7-Nov-07	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
8-Nov-07	0	0	A	1	1	1	1	1	1	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0.4	1.0
9-Nov-07	0	A	0	0	0	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.6	1.0
10-Nov-07	A	1	1	1	2	1	1	1	0	0	1	0	1	1	1	0	1	0	1	1	1	1	1	A	0.8	1.7
11-Nov-07	1	1	1	0	0	0	0	1	0	0	1	1	1	1	1	1	1	0	0	0	0	0	A	1	0.5	1.0
12-Nov-07	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	A	1	0.4	0.7
13-Nov-07	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0.2	0.8
14-Nov-07	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	A	1	1	1	0.6	1.1
15-Nov-07	1	1	1	1	1	1	2	2	2	C	C	C	A	2	2	2	2	2	1	1	1	1	1	0	1.3	2.0
16-Nov-07	0	0	1	1	1	A	1	0	0	0	1	1	2	2	2	1	1	1	1	1	1	0	1	0	0.9	1.9
17-Nov-07	1	0	1	1	A	0	0	0	1	0	1	1	1	0	1	0	0	1	1	1	1	1	1	1	0.6	1.2
18-Nov-07	1	1	1	A	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0.4	0.9
19-Nov-07	1	1	A	0	0	0	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	0	0	1	0.6	0.9
20-Nov-07	0	A	1	1	0	1	1	0	1	0	0	0	0	0	1	1	0	0	1	0	0	0	1	1	0.5	0.8
21-Nov-07	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	A	0.7	1.2
22-Nov-07	0	0	0	0	0	1	1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	A	1	0.6	1.4
23-Nov-07	0	0	1	1	1	1	1	1	1	1	1	0	1	0	0	1	0	0	1	1	1	1	A	1	0.5	0.8
24-Nov-07	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	0.9
25-Nov-07	0	0	0	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	A	1	1	0	0	0.6	0.9
26-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	A	0	0	1	0	0	0.2	0.6
27-Nov-07	0	0	0	0	0	0	0	1	0	1	1	1	1	0	0	0	0	A	0	0	0	1	1	0	0.4	0.9
28-Nov-07	0	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	1.5
29-Nov-07	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	0	0	1	1	0.4	0.9
30-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	0	0.8	1.2
Hourly Avg	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.6		
Hourly Max	1.1	1.2	1.3	1.4	1.7	1.5	1.9	1.8	2.0	1.4	1.3	1.5	1.8	1.9	1.7	1.6	1.6	1.7	1.4	1.3	1.3	1.5	1.5	1.4		

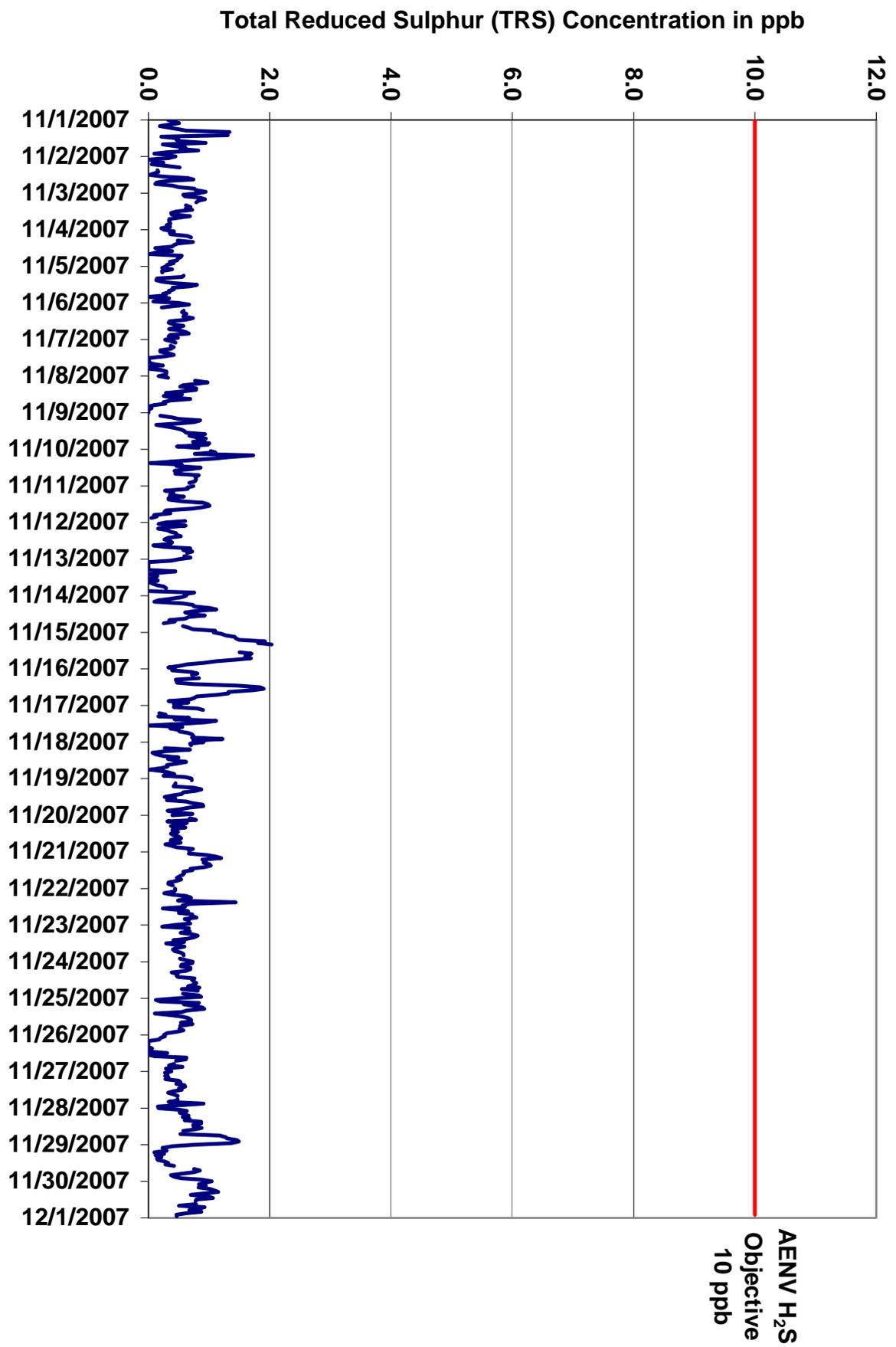


Figure 22. PASZA - Evergreen Park Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Evergreen Park  
 Station Owner: PASZA

**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

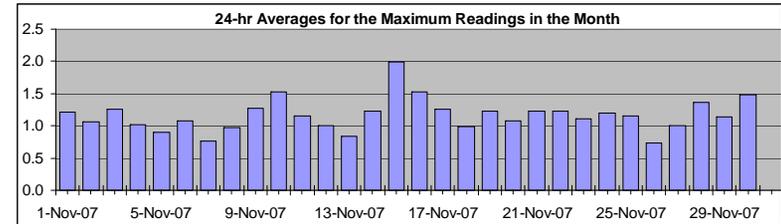
**Total Reduced Sulphur (TRS)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	3.3	ppb	22-Nov	15:00 16:00
Maximum 24-hr Value:	2.0	ppb	15-Nov	

AIC Time:	32 hrs	Operational Time:	685 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	2.4	2.0	1.4	1.1	0.9	0.6	0.4	1.2 ppb	1.1 ppb



**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	1	1	1	1	1	1	1	1	2	A	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1.2	2.3
2-Nov-07	1	1	1	1	1	1	1	2	A	1	1	1	1	1	1	1	1	1	2	1	1	1	1	2	1.1	1.6
3-Nov-07	1	1	1	1	2	2	1	A	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1.3	2.1
4-Nov-07	1	1	1	1	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.7
5-Nov-07	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	1.3
6-Nov-07	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.3
7-Nov-07	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	0.8	1.1
8-Nov-07	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1.0	1.5
9-Nov-07	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	1	2	2	1	2	1.3	1.8
10-Nov-07	A	2	2	2	3	2	2	1	1	1	1	2	2	1	1	1	2	1	2	1	1	1	A	1	1.5	2.7
11-Nov-07	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1.2	1.6
12-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	A	1	1	1.0	2.1
13-Nov-07	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.5
14-Nov-07	1	1	1	1	1	1	1	2	2	2	2	1	1	2	1	1	1	1	1	A	1	1	1	2	1.2	1.7
15-Nov-07	2	2	2	2	2	2	2	3	C	C	C	A	2	2	2	2	2	2	2	1	1	1	1	1	2.0	2.6
16-Nov-07	1	1	1	1	1	A	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1.5	2.5
17-Nov-07	1	1	1	1	A	1	1	1	1	1	2	2	1	1	2	1	1	1	1	1	1	1	2	1	1.3	2.2
18-Nov-07	2	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.6
19-Nov-07	1	1	A	1	1	1	2	2	2	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1.2	1.8
20-Nov-07	1	A	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.7
21-Nov-07	A	1	2	2	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.2	1.7
22-Nov-07	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	3	1	1	1	2	1	1	A	1	1.2	3.3
23-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.1	1.4
24-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	2	1.2	1.5
25-Nov-07	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.2	1.5
26-Nov-07	1	1	1	1	0	0	1	0	1	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.2
27-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	2	1	1.0	1.6
28-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	2	2	2	2	2	2	1.4	2.0
29-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	2	1	1	1	2	1	1.1	1.9
30-Nov-07	1	1	1	1	1	1	2	2	1	1	2	1	1	1	A	1	1	2	2	1	2	1	1	1	1.5	2.2
Hourly Avg	1.1	1.1	1.1	1.2	1.1	1.2	1.2	1.2	1.2	1.1	1.2	1.2	1.2	1.1	1.2	1.3	1.1	1.2	1.2	1.2	1.1	1.1	1.2	1.2		
Hourly Max	1.9	1.9	1.7	2.2	2.7	2.2	2.4	2.3	2.6	2.0	2.1	2.4	2.4	2.5	2.3	3.3	2.2	2.3	2.0	2.2	1.7	2.0	2.2	1.8		

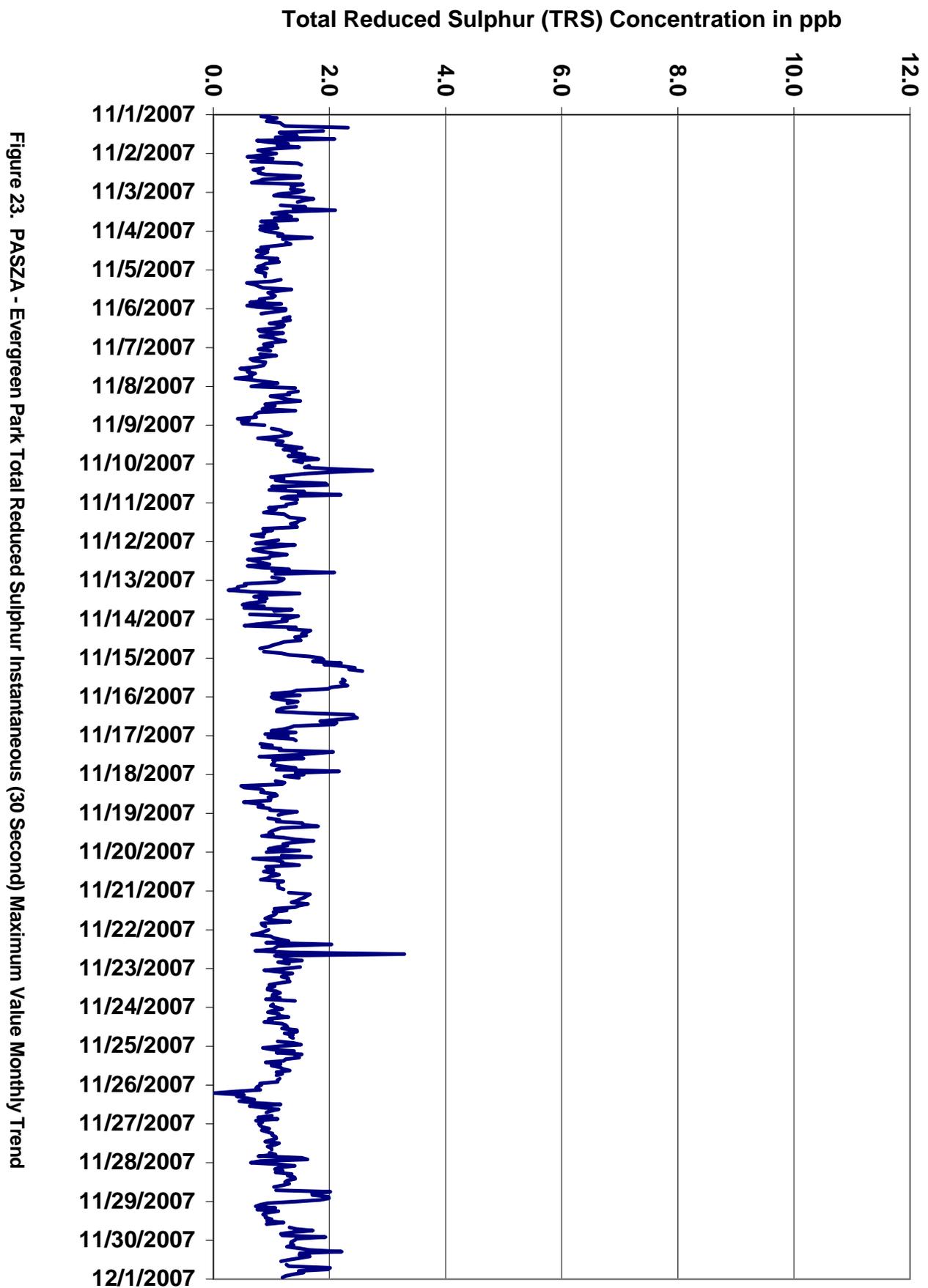
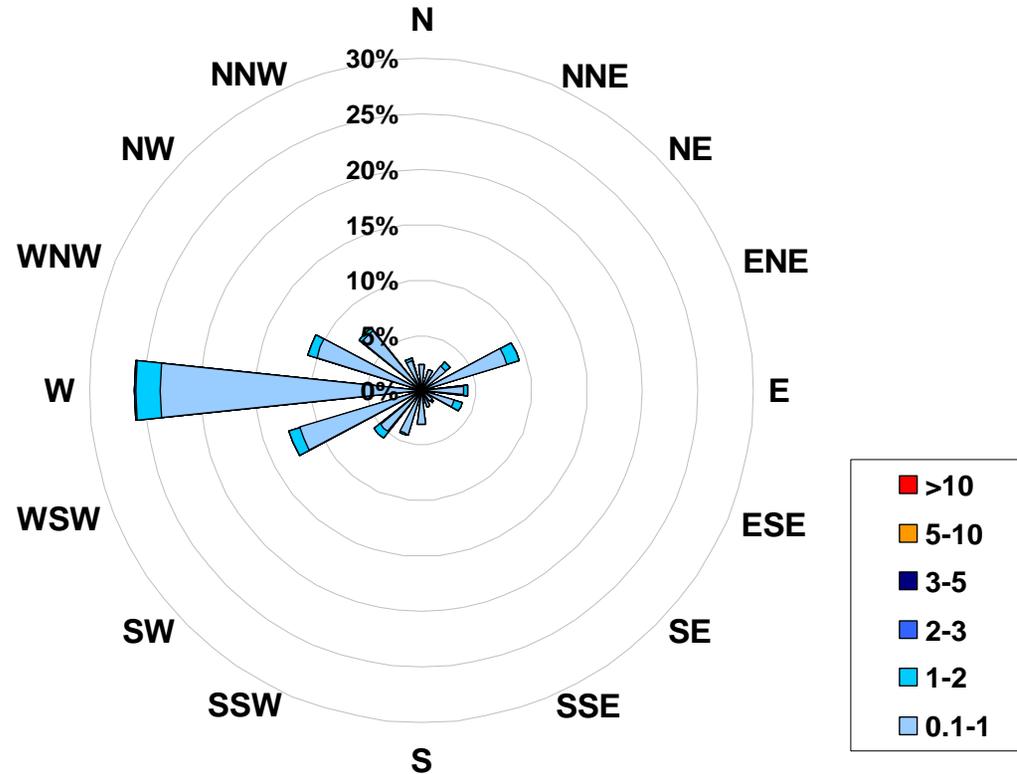


Figure 23. PASZA - Evergreen Park Total Reduced Sulphur Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Total Reduced Sulphur (in ppb)  
Located at the Evergreen Park Site for November 2007**



**Calms: 0%**

Frequency Distribution of TRS in ppb			Frequency (hrs)
Range			
0.1	<	1	631
1	to	2	52
2	to	3	1
3	to	5	0
5	to	10	0
	>	10	0
Total Non-Zero Values			685

## PASZA - Evergreen Park Particulate Matter (less than 2.5 microns) Monthly Summary

Station: Evergreen Park  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

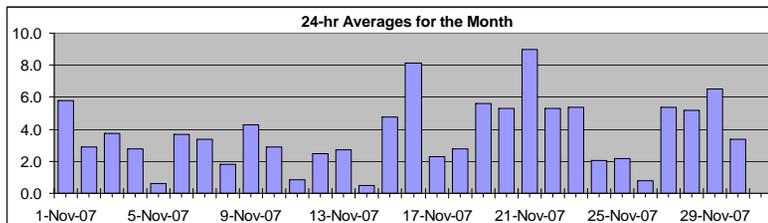
### Particulate Matter (PM<sub>2.5</sub>)

Monitoring Dates: November 1, 2007 to December 1, 2007

Draft Objective Limit: Alberta Environment: 1-hr - µg/m<sup>3</sup> 24-hr 30 µg/m<sup>3</sup>  
 Summary

Number of 24-hr Exceedances (draft):	0
Maximum 1-hr Average:	28.8 µg/m <sup>3</sup> 1-Nov 9:00 10:00
Maximum 24-hr Value:	9.0 µg/m <sup>3</sup> 21-Nov

AIC Time:	0 hrs	Operational Time:	712 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	98.9%						
Percentile	99	95	75	50	25	5	1	Average / Median	Geomean
	16.1	11.1	5.4	2.8	1.0	0.0	0.0	3.7 3 µg/m <sup>3</sup>	3.0 µg/m <sup>3</sup>



#### Status Flag Characters

C Calibration	A AIC - Zero / Span Check
S Instrument out of Service	X Filter Exchange
N No Data	M Equipment Maintenance
D Excessive Instrument Drift	P Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00			
1-Nov-07	2	2	2	2	1	1	2	3	24	29	23	D	7	8	0	21	0	1	0	0	0	1	2	3	5.8	28.8	
2-Nov-07	4	4	3	3	2	1	4	7	4	3	2	1	1	3	0	1	3	8	1	1	2	4	3	4	2.9	8.5	
3-Nov-07	3	3	2	1	2	0	4	3	2	16	9	15	D	0	10	0	0	2	2	2	2	2	2	2	3.7	15.9	
4-Nov-07	2	3	1	1	1	1	1	5	6	5	1	1	1	1	1	2	4	6	6	6	6	4	1	1	2.8	6.5	
5-Nov-07	1	0	1	0	1	0	0	2	3	1	0	0	0	0	0	2	0	0	0	0	0	1	0	1	0.6	2.8	
6-Nov-07	2	2	3	2	3	2	3	4	5	4	11	7	3	0	1	4	5	5	3	3	5	3	3	3	3.7	11.2	
7-Nov-07	3	2	2	2	2	2	3	2	3	4	6	6	6	4	5	5	5	6	0	0	0	2	4	5	3.4	6.5	
8-Nov-07	7	3	2	2	1	1	2	3	5	4	4	0	1	0	0	3	1	1	0	0	0	1	2	1.8	6.8		
9-Nov-07	2	0	0	2	3	7	7	5	4	5	4	7	3	3	4	4	8	7	5	3	4	4	5	6	4.2	7.9	
10-Nov-07	7	4	4	3	4	2	2	1	2	4	5	3	17	12	0	1	0	0	0	0	0	0	0	0	2.9	16.8	
11-Nov-07	1	0	0	0	0	0	1	2	2	5	2	0	0	0	0	3	0	1	1	1	1	1	0	0	0.8	4.6	
12-Nov-07	1	1	2	1	0	0	0	0	0	0	D	0	D	D	0	1	3	3	4	9	9	5	6	5	4	2.5	8.6
13-Nov-07	1	3	3	3	3	2	2	3	6	7	4	3	2	4	2	6	4	3	2	2	0	0	0	0	2.7	6.6	
14-Nov-07	1	1	1	1	0	0	0	1	1	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.2	
15-Nov-07	1	1	1	4	3	4	4	4	7	4	6	4	4	5	12	5	5	6	5	5	5	7	5	5	4.8	12.2	
16-Nov-07	6	8	6	7	6	7	8	7	6	7	11	11	12	10	11	13	12	9	13	8	5	4	3	4	8.1	13.4	
17-Nov-07	2	0	0	1	0	0	D	0	2	0	1	D	0	0	0	0	0	0	1	7	8	8	9	10	2.3	10.3	
18-Nov-07	11	10	8	6	3	5	0	1	0	1	0	0	0	0	0	0	0	1	1	1	1	1	8	8	2.8	11.0	
19-Nov-07	5	3	1	0	1	4	6	7	5	8	6	8	6	2	4	7	10	11	10	6	6	6	6	6	5.6	11.2	
20-Nov-07	5	5	5	4	6	4	3	4	5	P	6	7	3	3	1	3	3	2	2	2	8	14	15	12	5.3	14.5	
21-Nov-07	14	16	14	15	16	15	16	15	18	16	14	2	1	1	5	6	5	3	4	3	3	3	4	6	9.0	17.9	
22-Nov-07	6	4	1	2	2	2	2	4	6	14	6	4	4	4	5	8	7	8	8	8	6	5	5	7	5.3	13.8	
23-Nov-07	5	7	7	6	5	7	7	10	10	9	9	12	4	7	3	1	1	2	2	2	2	3	3	5	5.3	11.9	
24-Nov-07	3	3	3	3	3	3	2	3	2	1	0	1	2	2	3	1	3	1	1	1	2	2	2	2	2.1	3.4	
25-Nov-07	2	2	2	1	1	1	2	2	2	3	3	2	1	3	2	3	4	3	2	3	3	0	2	3	2.2	3.9	
26-Nov-07	2	1	3	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	1	1	3	4	0.8	3.6	
27-Nov-07	4	5	5	5	5	4	4	3	4	6	7	7	6	6	6	7	7	6	6	8	7	6	5	3	5.4	7.9	
28-Nov-07	2	2	2	2	2	1	1	2	2	3	3	3	4	7	5	5	5	7	11	10	11	11	13	11	5.2	13.4	
29-Nov-07	11	14	9	6	7	7	7	7	7	8	9	6	3	5	4	4	5	4	6	6	5	7	6	5	6.5	13.8	
30-Nov-07	6	6	6	9	10	7	5	5	6	4	4	3	2	1	1	2	0	0	1	0	1	0	0	0	3.4	10.0	
Hourly Avg	4.1	3.9	3.4	3.2	3.1	3.0	3.4	3.9	4.9	6.1	5.3	4.3	3.3	3.1	2.8	4.0	3.3	3.6	3.4	3.3	3.3	3.6	4.0	4.0			
Hourly Max	13.6	16.1	14.3	14.9	15.8	15.2	15.5	14.9	23.6	28.8	23.5	14.7	16.8	12.0	12.2	20.9	12.5	11.2	12.7	9.8	11.1	13.9	14.5	11.7			

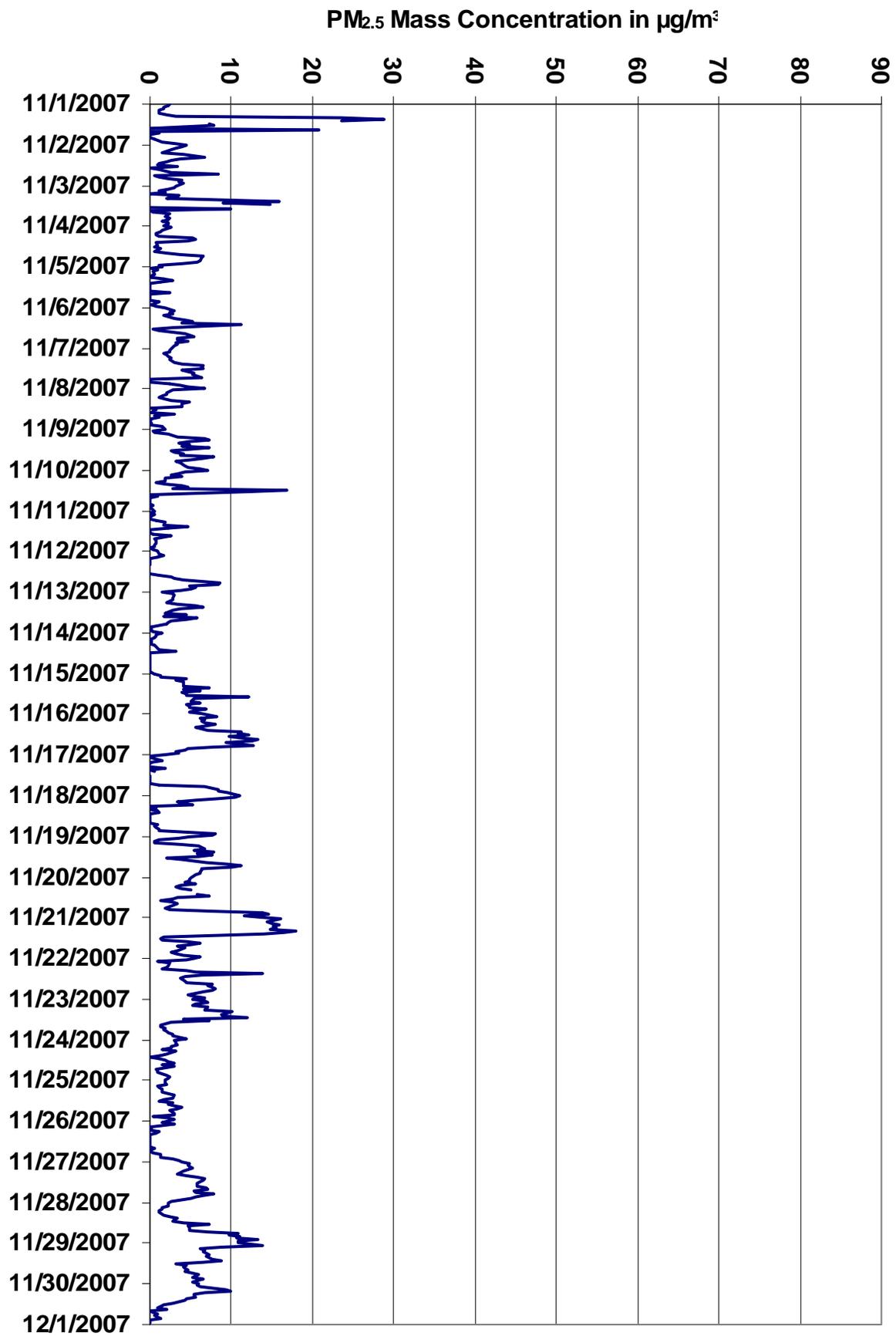


Figure 24. PASZA - Evergreen Park Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Evergreen Park  
 Station Owner: PASZA

**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

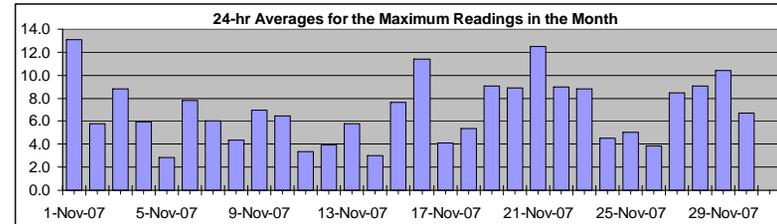
**Particulate Matter (PM<sub>2.5</sub>)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Average:	58.2	µg/m <sup>3</sup>	1-Nov	15:00 16:00
Maximum 24-hr Value:	13.0	µg/m <sup>3</sup>	1-Nov	

AIC Time:	0 hrs	Operational Time:	719 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	99.9%						
Percentile	99	95	75	50	25	5	1	Average / Median	Geomean
	33.1	16.7	8.9	5.6	3.5	1.3	0.0	7.0	6.4 µg/m <sup>3</sup>



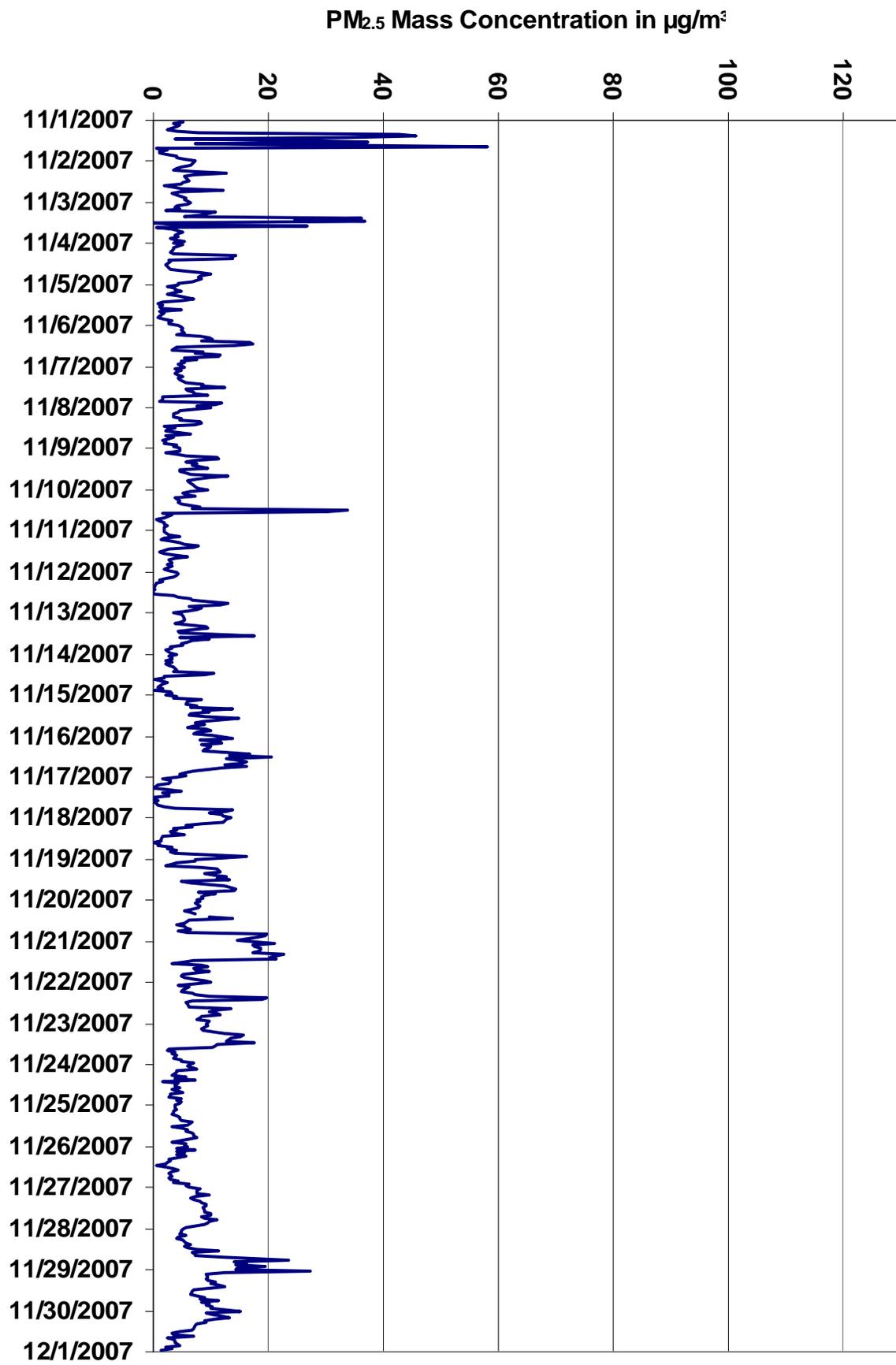
**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

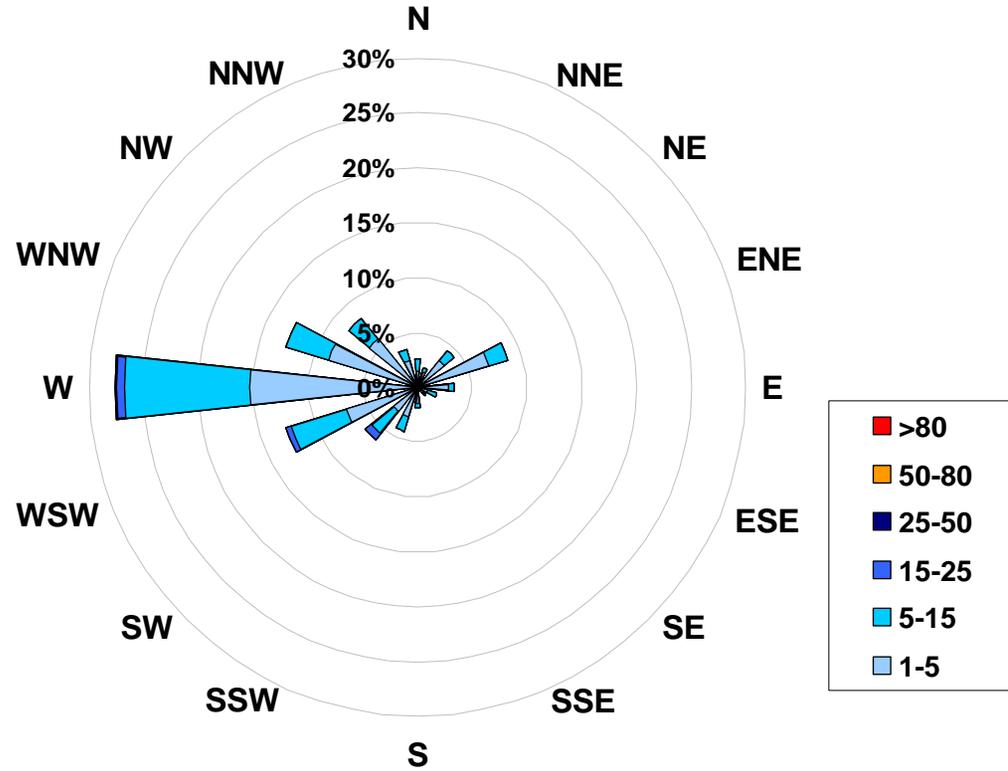
**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	5	5	4	5	4	2	4	8	43	46	34	4	26	37	7	58	1	3	1	1	2	4	4	5	13.0	58.2
2-Nov-07	7	7	6	5	4	3	7	13	7	5	6	6	5	5	2	3	5	12	5	3	4	6	5	6	5.8	12.7
3-Nov-07	6	6	4	4	5	2	11	8	5	36	24	37	0	3	27	1	3	5	4	4	4	3	4	5	8.8	36.8
4-Nov-07	4	5	3	3	3	3	3	14	13	14	3	3	2	3	3	3	6	8	10	8	8	8	7	4	5.9	14.3
5-Nov-07	4	2	4	4	5	4	3	4	7	5	2	1	2	1	1	5	1	2	1	1	2	3	3	3	2.8	6.9
6-Nov-07	4	5	5	5	5	4	8	10	10	8	17	17	14	4	3	9	7	12	11	6	7	5	5	4	7.8	17.2
7-Nov-07	5	4	5	4	4	4	5	4	5	6	9	8	13	6	6	7	7	9	2	2	1	12	11	8	6.0	12.5
8-Nov-07	10	7	5	4	4	3	5	4	8	8	7	2	4	2	2	7	2	3	3	2	2	2	4	3	4.4	10.0
9-Nov-07	5	4	2	4	6	11	11	7	6	7	7	10	5	5	6	6	13	10	8	6	6	7	7	8	6.9	13.0
10-Nov-07	9	7	5	6	7	4	5	4	5	6	8	7	34	30	2	3	2	1	1	2	2	2	2	2	6.5	33.7
11-Nov-07	2	2	3	5	2	1	3	5	5	8	7	3	1	2	4	6	4	3	3	3	3	3	2	3	3.4	7.9
12-Nov-07	4	4	4	4	2	1	1	0	0	0	0	0	0	0	4	4	6	7	13	12	6	8	8	6	4.0	13.0
13-Nov-07	4	5	5	5	5	5	4	7	9	9	7	4	5	18	5	10	7	6	5	5	3	3	2	3	5.8	17.6
14-Nov-07	4	3	3	3	2	3	2	3	4	4	3	11	9	2	2	0	1	2	2	1	2	0	3	3	3.0	10.6
15-Nov-07	2	4	4	8	6	6	8	6	14	9	10	6	6	9	15	9	7	9	7	6	9	10	8	7	7.7	14.8
16-Nov-07	10	14	8	12	12	8	10	10	9	9	17	13	20	13	15	16	15	13	16	12	7	6	5	6	11.4	20.5
17-Nov-07	4	2	3	3	3	1	0	3	5	2	3	3	0	0	1	0	1	2	4	14	13	10	12	12	4.1	13.9
18-Nov-07	13	13	12	8	6	7	4	4	3	3	5	2	1	1	0	1	1	3	2	4	3	4	16	12	5.4	16.3
19-Nov-07	7	7	4	3	2	8	11	12	9	10	13	11	13	5	6	10	12	14	14	8	11	9	8	9	9.0	14.3
20-Nov-07	8	8	7	8	8	7	5	6	7	P	10	14	6	5	4	5	6	6	4	6	20	19	18	14	8.9	19.7
21-Nov-07	18	21	17	18	19	19	18	17	23	20	21	7	5	3	8	9	7	7	10	5	5	5	7	9	12.5	22.7
22-Nov-07	10	7	4	6	5	5	7	7	10	20	19	7	6	6	6	14	11	10	11	12	8	8	8	10	9.0	19.7
23-Nov-07	9	9	9	8	9	11	12	16	15	13	13	18	11	11	10	3	3	4	3	4	4	5	5	7	8.8	17.5
24-Nov-07	6	6	7	8	4	4	3	6	4	7	2	4	4	4	5	3	5	3	3	3	5	4	5	5	4.5	7.5
25-Nov-07	4	4	4	3	3	3	4	5	5	5	7	6	3	5	6	6	7	7	7	8	6	3	6	6	5.1	7.5
26-Nov-07	6	4	7	4	6	4	6	3	3	2	2	1	2	3	4	3	3	3	3	3	4	4	6	6	3.8	7.2
27-Nov-07	6	8	8	8	10	7	6	7	8	8	9	9	9	9	9	10	10	8	9	11	10	9	9	6	8.5	11.2
28-Nov-07	5	5	5	5	6	4	4	5	6	7	6	6	8	11	7	7	7	12	24	14	16	14	20	15	9.1	23.6
29-Nov-07	14	27	13	9	9	9	10	11	10	11	12	10	7	7	6	7	9	8	11	8	10	9	10	10	10.4	27.3
30-Nov-07	15	9	10	12	13	11	9	9	8	7	7	7	5	3	3	7	3	4	4	4	5	2	3	1	6.7	15.2
Hourly Avg	7.1	7.1	6.0	6.1	5.9	5.5	6.3	7.3	8.8	10.3	9.6	7.8	7.5	7.1	6.0	7.8	5.7	6.5	6.7	5.9	6.3	6.3	7.0	6.6		
Hourly Max	17.7	27.3	17.4	17.7	18.7	18.7	18.4	17.3	42.8	45.6	34.2	36.8	33.7	37.3	26.6	58.2	15.3	14.3	23.6	13.9	19.7	19.5	19.5	14.7		

Figure 25. PASZA - Evergreen Park Particulate Matter (less than 2.5 microns) Instantaneous (30 Second) Maximum Value Monthly Trend



**1-hr Average Concentration Rose for Particulate Matter (less than 2.5 microns) (in micrograms per cubic meter) Located at the Evergreen Park Site for November 2007**



**Calms: 0%**

Frequency Distribution of PM <sub>2.5</sub> in µg/m <sup>3</sup>			
Range			Frequency (hrs)
1.0	<	5	513
5	to	15	187
15	to	25	11
25	to	50	1
50	to	80	0
	>	80	0
Total Non-Zero Values			712

## PASZA - Evergreen Park Temperature Monthly Summary

Station: Evergreen Park  
 Station Owner: PASZA

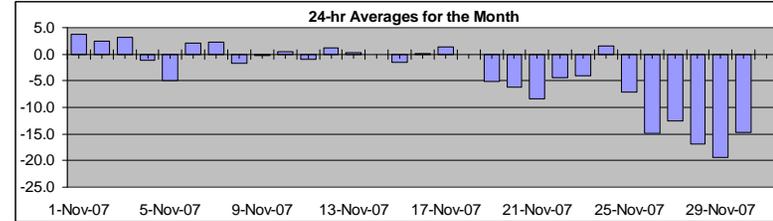
### HOURLY AVERAGE TABLE

### Ambient Temperature (T)

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Average:	8.6 °C	6-Nov	13:00 14:00
Maximum 24-hr Value:	3.8 °C	1-Nov	



AIC Time:	0 hrs	Operational Time:	720 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	6.9	4.5	1.3	-1.3	-7.7	-17.0	-23.9	-3.5 °C	-1.3 °C

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00			23:00
1-Nov-07	4	3	3	3	3	3	3	3	3	3	4	4	5	6	7	7	6	5	4	4	3	3	2	1	1	3.8	6.9
2-Nov-07	0	0	0	0	0	1	1	-1	-2	0	2	3	3	4	5	6	5	4	5	6	5	4	4	4	2.4	5.8	
3-Nov-07	3	3	2	3	4	4	4	4	3	3	4	4	5	5	5	5	4	3	3	2	2	1	1	1	3.2	5.1	
4-Nov-07	1	1	0	-1	-1	-2	-2	-3	-3	-1	1	2	2	2	3	3	2	0	-3	-4	-5	-6	-7	-8	-1.2	3.2	
5-Nov-07	-8	-9	-9	-10	-10	-10	-10	-10	-9	-7	-4	-3	-2	-1	-1	-1	-2	-2	-2	-2	-2	-2	-2	-2	-5.0	-0.8	
6-Nov-07	-2	-2	-2	-1	-1	-1	0	-1	-2	-1	5	7	8	9	8	7	6	3	2	1	2	2	2	1	2.1	8.6	
7-Nov-07	0	0	0	-1	-1	-1	-1	-1	0	0	0	1	3	4	4	5	5	4	7	7	7	6	4	1	2.4	7.4	
8-Nov-07	1	-1	-2	-3	-3	-3	-3	-3	-3	-3	-2	0	2	3	3	2	0	-2	-3	-4	-4	-4	-4	-3	-1.6	2.8	
9-Nov-07	-3	-2	-1	0	0	-1	-1	-1	0	0	0	0	1	1	1	1	0	0	0	0	0	-1	-1	-1	-0.3	1.3	
10-Nov-07	-1	-1	-1	-1	-2	-2	-2	-2	-2	-2	-2	-1	-1	0	3	3	3	3	3	3	3	3	3	2	0.4	3.4	
11-Nov-07	1	-1	-3	-3	-4	-5	-6	-5	-5	-3	0	3	6	6	5	4	1	0	0	-1	-2	-3	-3	-3	-0.9	6.0	
12-Nov-07	-3	-3	-2	-2	-1	0	1	2	1	1	1	2	3	3	4	4	5	3	3	3	3	2	1	0	1.2	4.6	
13-Nov-07	0	-1	-1	-1	-2	-2	-2	-3	-3	-2	-1	1	3	4	4	4	3	2	2	1	1	1	1	1	0.4	4.0	
14-Nov-07	1	1	-1	-1	0	0	0	-1	-1	0	1	2	3	3	3	2	0	-2	-2	-2	-2	-2	-2	-1	-0.1	3.3	
15-Nov-07	-2	-2	-2	-3	-3	-3	-3	-3	-3	-3	-2	-1	0	1	0	0	0	-1	-1	-1	-1	-1	-1	-2	-1.6	0.5	
16-Nov-07	-3	-2	-2	-2	-2	-2	-2	-1	-1	-1	0	1	1	1	3	2	1	1	1	1	1	2	1	1	0.1	2.7	
17-Nov-07	2	2	2	2	1	1	-1	-2	0	0	1	3	4	5	5	4	2	1	0	0	-1	-1	0	0	1.3	5.4	
18-Nov-07	-1	-1	-1	0	1	1	0	0	0	-2	-1	1	2	3	3	3	1	-1	-1	-1	-2	-3	-3	-4	-0.1	3.4	
19-Nov-07	-5	-6	-7	-8	-9	-10	-9	-9	-9	-8	-6	-3	0	1	1	1	-2	-4	-4	-5	-4	-5	-6	-7	-5.1	1.2	
20-Nov-07	-7	-6	-5	-4	-4	-4	-5	-5	-5	-5	-4	-4	-3	-2	-2	-1	-3	-7	-9	-11	-12	-12	-13	-14	-6.1	-1.3	
21-Nov-07	-15	-15	-15	-16	-16	-16	-17	-17	-17	-15	-10	-7	-4	-1	0	1	-2	-6	-3	-1	-2	-2	-3	-4	-8.4	1.3	
22-Nov-07	-5	-5	-4	-2	-4	-5	-7	-8	-10	-8	-3	0	1	1	2	1	0	-2	-4	-6	-8	-9	-10	-11	-4.4	1.9	
23-Nov-07	-11	-11	-11	-10	-11	-10	-11	-11	-11	-10	-7	-4	-1	2	5	5	4	3	1	1	2	1	0	-1	-4.0	4.7	
24-Nov-07	-3	-3	-2	-2	-2	3	4	4	3	2	4	4	4	4	4	4	4	3	2	1	1	0	1	1	1.6	4.4	
25-Nov-07	0	1	0	0	-1	-1	-2	-2	-2	-2	-5	-7	-7	-7	-9	-11	-12	-13	-14	-14	-15	-16	-16	-17	-7.1	0.5	
26-Nov-07	-17	-17	-17	-17	-17	-17	-17	-17	-17	-17	-17	-16	-16	-14	-13	-13	-12	-12	-12	-13	-13	-13	-13	-13	-14.9	-12.4	
27-Nov-07	-13	-13	-13	-13	-13	-13	-14	-15	-16	-14	-13	-12	-11	-10	-10	-11	-11	-12	-12	-12	-12	-12	-12	-13	-12.5	-10.1	
28-Nov-07	-14	-15	-15	-15	-15	-16	-16	-16	-16	-15	-15	-14	-14	-14	-12	-12	-13	-16	-19	-21	-22	-23	-24	-25	-16.9	-12.0	
29-Nov-07	-23	-24	-21	-20	-20	-20	-20	-20	-20	-20	-17	-16	-14	-12	-12	-12	-15	-19	-21	-22	-23	-24	-24	-24	-19.3	-11.5	
30-Nov-07	-24	-18	-16	-16	-17	-16	-16	-16	-16	-16	-14	-13	-11	-11	-11	-11	-12	-12	-13	-13	-14	-14	-15	-15	-14.6	-10.5	
Hourly Avg	-4.8	-4.9	-4.9	-4.8	-5.0	-4.9	-5.1	-5.3	-5.4	-4.8	-3.3	-1.9	-0.8	-0.1	0.3	0.0	-1.3	-2.6	-3.1	-3.5	-3.9	-4.3	-4.7	-5.1			
Hourly Max	3.7	3.2	3.1	3.2	3.7	3.6	3.8	3.9	3.2	3.5	5.1	7.3	8.4	8.6	7.8	7.4	5.6	4.5	6.8	7.4	6.9	6.3	4.3	3.6			

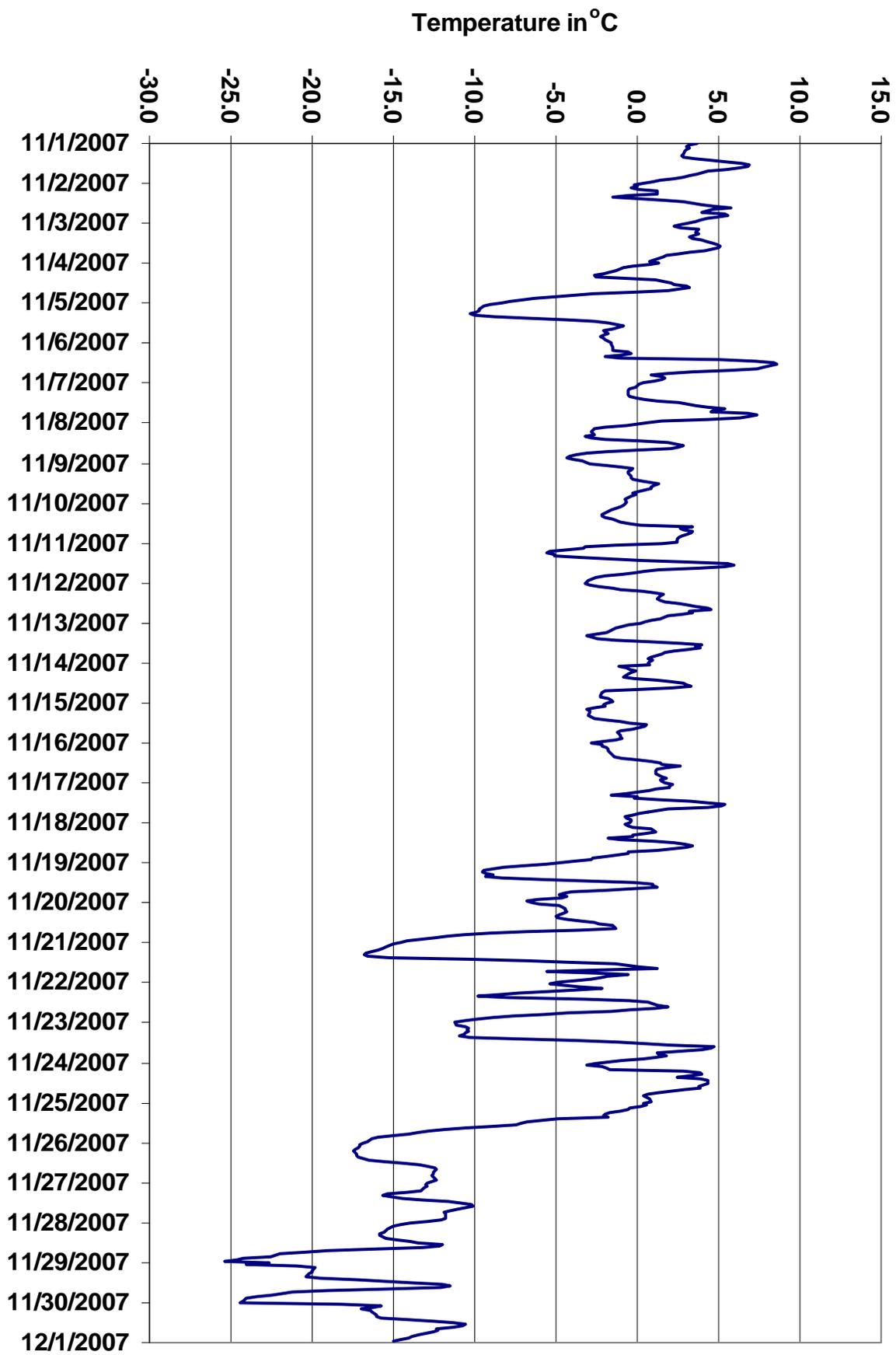


Figure 26. PASZA - Evergreen Park Temperature 1-hr Average Monthly Trend

# PASZA - Evergreen Park Sclar Wind Speed Monthly Summary

Station: Evergreen Park  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

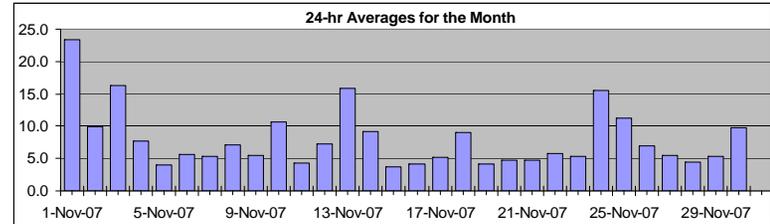
## Wind Speed (WSs)

Monitoring Dates: November 1, 2007 to December 1, 2007

### Summary

Maximum 1-hr Average:	30.2	km/hr	1-Nov	14:00 15:00
Maximum 24-hr Value:	23.4	km/hr	1-Nov	

Calm Time:	0 hrs	0% calms	Operational Time:	713 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	99.0%				
Percentile	99	95	75	50	25	5	1	AverageS
	27.6	21.0	10.3	5.8	3.7	2.4	1.9	7.9 km/hr



### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hr Scalar Average	Daily Max
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00		
1-Nov-07	22	23	21	21	21	22	27	26	28	29	30	28	27	27	30	30	24	23	21	19	18	15	14	15	23.4	30.2
2-Nov-07	12	11	12	13	13	12	8	4	3	3	6	6	5	6	8	9	5	6	15	23	21	14	11	13	9.9	23.3
3-Nov-07	15	12	11	16	23	19	27	29	26	26	25	19	21	18	18	16	15	12	8	7	7	8	7	16.3	29.0	
4-Nov-07	12	11	11	10	7	6	6	8	8	8	13	12	13	11	11	10	7	3	3	3	3	4	2	7.7	13.1	
5-Nov-07	2	2	2	2	2	3	4	4	3	4	6	6	6	5	4	6	6	5	5	3	3	3	4	4	4.0	6.3
6-Nov-07	3	4	4	3	6	13	7	5	4	4	6	9	10	9	7	5	3	3	3	4	5	5	7	6	5.6	12.6
7-Nov-07	6	4	5	4	4	4	2	3	3	3	3	5	4	5	4	3	3	6	11	16	13	8	6	5	5.4	15.8
8-Nov-07	13	17	18	12	11	9	7	6	6	6	6	5	4	4	5	5	5	4	4	3	3	5	6	7	7.1	17.8
9-Nov-07	7	8	9	9	7	8	9	8	7	6	6	6	4	3	3	5	3	3	5	4	4	3	2	5.5	9.5	
10-Nov-07	3	4	3	4	4	4	4	3	3	3	4	4	10	16	16	15	15	20	25	25	24	16	14	16	10.6	25.1
11-Nov-07	9	5	4	6	3	3	3	3	2	2	3	6	8	6	5	4	3	4	5	5	4	3	3	3	4.3	9.0
12-Nov-07	3	2	2	4	5	5	7	8	7	5	4	5	7	6	8	11	6	4	5	11	13	15	17	16	7.3	16.9
13-Nov-07	18	17	16	16	15	13	9	6	N	N	N	8	12	20	20	21	20	19	17	20	17	16	15	15.8	20.5	
14-Nov-07	17	12	4	9	13	13	14	14	13	13	15	11	8	9	6	4	4	5	6	5	7	8	7	6	9.2	16.8
15-Nov-07	3	3	3	3	3	2	4	4	4	4	4	3	3	4	4	4	4	5	3	4	6	5	3	3	3.7	6.2
16-Nov-07	3	4	4	3	4	3	2	3	3	2	3	4	5	4	4	5	4	5	6	5	5	7	6	7	4.2	7.1
17-Nov-07	7	10	9	7	4	4	4	5	4	3	5	7	8	8	7	6	3	4	4	3	3	3	4	4	5.2	9.7
18-Nov-07	4	3	5	10	14	14	15	N	N	N	N	11	12	9	10	11	11	8	10	9	8	6	4	4	9.0	14.8
19-Nov-07	4	4	4	3	3	4	5	5	4	5	5	3	3	5	6	4	4	3	3	4	5	5	4	4	4.1	6.0
20-Nov-07	4	4	5	7	6	6	5	6	7	5	7	6	8	7	5	3	4	3	3	3	2	3	2	2	4.7	8.0
21-Nov-07	2	2	2	2	2	2	3	2	3	3	3	4	6	8	4	2	2	3	10	15	12	10	6	6	4.7	14.6
22-Nov-07	4	6	9	12	5	4	3	4	4	5	7	8	13	11	9	9	6	5	3	3	2	2	2	2	5.8	13.0
23-Nov-07	3	3	3	2	3	2	3	3	2	2	2	3	5	4	12	13	14	7	8	10	8	7	5	3	5.3	13.9
24-Nov-07	3	3	5	5	4	9	15	21	18	16	19	28	27	24	18	14	11	14	17	18	21	22	21	23	15.6	27.8
25-Nov-07	20	21	20	16	14	8	6	7	8	9	10	13	13	12	12	10	10	7	7	8	11	11	9	7	11.2	21.1
26-Nov-07	8	7	7	7	7	8	7	8	8	10	10	10	10	9	8	7	6	6	4	3	2	4	3	5	6.9	10.4
27-Nov-07	5	5	3	7	7	7	7	5	5	5	2	2	3	4	5	5	5	4	3	3	10	11	12	5.5	12.3	
28-Nov-07	10	9	8	6	6	6	4	4	4	5	5	4	2	2	3	4	3	3	3	3	4	2	4	3	4.4	10.3
29-Nov-07	4	3	4	8	6	5	4	5	6	7	9	10	11	9	9	6	3	3	3	2	3	3	2	3	5.4	11.2
30-Nov-07	4	8	10	10	9	10	10	9	9	10	11	11	10	11	14	11	6	7	9	12	11	12	9	10	9.7	14.2
1-hr Average	7.7	7.5	7.5	7.9	7.7	7.6	7.6	7.4	7.3	7.3	8.2	8.6	9.3	9.2	9.1	8.6	7.2	6.8	7.5	8.4	8.3	7.8	7.2	7.2		
Hourly Max	21.8	22.6	20.9	21.3	23.1	22.2	27.0	29.0	27.6	29.4	30.1	28.0	27.4	27.2	30.2	29.8	24.3	22.9	25.1	24.6	23.7	21.5	20.8	22.6		

## PASZA - Evergreen Park Vector Wind Speed Monthly Summary

Station: Evergreen Park  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

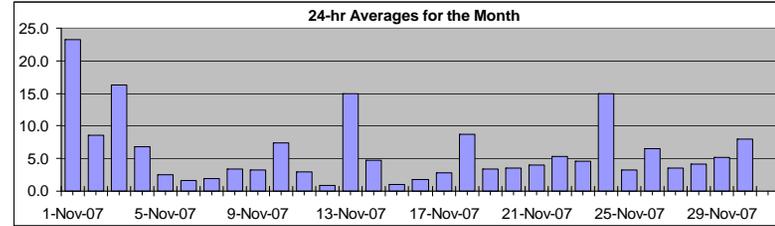
### Wind Speed (WSv)

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Average:	29.9	km/hr	1-Nov	14:00 15:00
Maximum 24-hr Value:	23.2	km/hr	1-Nov	

Calm Time:	0 hrs	0% calms	Operational Time:	713 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	99.0%				
Percentile	99	95	75	50	25	5	1	AverageV
	27.4	20.8	10.0	5.5	3.0	1.2	0.7	19.2 km/hr



**Status Flag Characters**

C Calibration	A AIC - Zero / Span Check
S Instrument out of Service	X Filter Exchange
N No Data	M Equipment Maintenance
D Excessive Instrument Drift	P Power Failure

Day	Mountain Standard Time																								24-hr Vector Average	Daily Max
	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Nov-07	22	22	21	21	21	22	27	26	27	29	30	28	26	27	30	30	24	23	20	19	18	15	14	15	23.2	29.9
2-Nov-07	12	11	12	13	13	12	7	3	2	1	6	6	5	6	7	9	4	6	15	23	21	13	11	13	8.6	23.2
3-Nov-07	15	12	11	16	23	19	26	29	26	26	24	19	21	18	17	16	15	11	7	7	7	7	8	7	16.2	28.8
4-Nov-07	11	10	11	10	7	6	6	7	8	7	13	12	12	10	10	10	6	2	2	3	1	1	3	1	6.9	12.7
5-Nov-07	1	1	2	0	1	1	4	4	3	4	6	6	6	5	4	5	6	5	4	2	2	1	2	2	2.6	6.0
6-Nov-07	2	3	1	3	6	13	4	4	4	2	5	8	9	8	7	4	2	1	3	3	5	5	6	5	1.6	12.6
7-Nov-07	5	4	5	3	4	3	1	1	2	1	2	5	3	5	4	2	1	4	11	16	13	8	5	4	1.9	15.7
8-Nov-07	13	17	17	12	10	9	5	6	6	5	6	4	3	2	4	4	5	4	3	3	3	4	6	7	3.4	17.5
9-Nov-07	6	7	9	9	7	7	8	8	7	6	6	6	4	2	2	0	5	3	2	4	3	4	2	1	3.3	9.2
10-Nov-07	2	3	3	3	3	3	3	2	2	3	3	3	10	16	15	15	15	20	25	24	24	16	14	16	7.4	25.0
11-Nov-07	9	2	1	2	1	2	1	2	1	2	2	6	8	6	5	3	3	4	5	4	4	4	2	2	2.9	8.9
12-Nov-07	0	0	2	1	4	5	7	8	7	5	4	4	6	5	8	11	3	4	3	10	13	14	17	16	0.9	16.7
13-Nov-07	18	17	16	16	14	12	9	5	N	N	N	8	11	19	20	20	20	19	17	20	17	16	16	15	15.0	20.4
14-Nov-07	17	11	3	9	13	12	14	14	12	13	15	10	7	9	5	3	4	5	6	5	7	8	7	6	4.7	16.8
15-Nov-07	3	3	3	3	2	1	3	3	4	3	3	2	2	3	4	3	5	3	3	3	6	4	3	3	1.1	6.0
16-Nov-07	3	2	4	1	1	2	1	1	1	1	3	3	5	1	2	4	3	4	4	4	4	7	6	7	1.8	6.9
17-Nov-07	6	9	9	6	2	2	2	4	4	3	5	6	7	7	6	5	3	4	3	3	2	2	3	3	2.8	9.1
18-Nov-07	4	3	5	10	14	14	15	N	N	N	N	10	12	9	10	11	11	8	10	9	8	6	4	3	8.7	14.7
19-Nov-07	3	3	3	2	2	4	5	5	4	5	5	3	2	5	6	4	4	1	2	4	4	5	4	4	3.4	5.8
20-Nov-07	4	2	5	6	6	6	5	5	6	5	7	6	8	6	4	3	4	2	2	2	2	2	2	1	3.5	7.5
21-Nov-07	1	1	2	2	2	2	2	1	3	2	2	4	6	8	4	2	1	1	10	15	12	9	6	6	3.9	14.6
22-Nov-07	4	6	9	11	5	4	2	3	4	5	6	8	13	11	9	9	6	5	1	3	1	1	1	2	5.3	12.8
23-Nov-07	2	3	3	2	2	1	2	3	2	1	1	2	4	4	12	13	14	7	8	10	8	7	5	3	4.6	13.8
24-Nov-07	3	1	4	2	3	9	15	21	17	15	19	28	27	24	18	14	11	14	17	18	21	21	23	15.0	27.7	
25-Nov-07	20	21	20	16	14	6	6	7	8	8	10	13	13	11	12	10	9	7	7	8	11	10	9	7	3.3	21.0
26-Nov-07	8	6	7	6	7	8	7	8	8	10	10	10	10	9	8	7	6	5	4	3	2	4	3	4	6.5	10.2
27-Nov-07	4	5	2	6	7	6	7	5	5	4	2	2	2	3	5	5	5	5	3	3	3	10	11	12	3.5	12.1
28-Nov-07	10	8	8	6	6	5	3	4	4	5	4	3	2	1	3	4	2	2	2	2	3	1	3	3	4.1	10.1
29-Nov-07	4	3	4	7	6	5	4	5	6	7	9	10	11	9	9	6	2	2	2	0	2	2	2	3	5.2	11.2
30-Nov-07	4	8	10	10	9	10	10	9	9	10	11	11	10	10	14	11	6	7	9	11	11	11	9	10	8.0	14.0
1-hr Vector	4.5	4.1	4.1	5.0	5.0	4.3	4.6	4.7	4.5	4.3	4.4	5.0	5.4	5.3	4.8	3.8	2.8	3.1	4.3	5.4	4.9	4.4	3.6	3.4		
Hourly Max	21.6	22.4	20.8	21.0	22.9	22.0	26.8	28.8	27.4	29.2	29.9	27.7	27.3	26.9	29.9	29.6	24.2	22.7	25.0	24.5	23.6	21.4	20.7	22.5		

# PASZA - Evergreen Park Wind Direction Monthly Summary

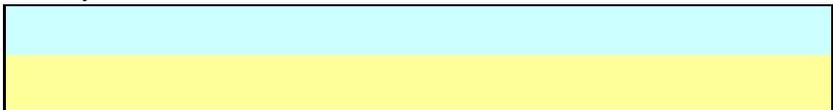
Station: Evergreen Park  
Station Owner: PASZA

## HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: November 1, 2007 to December 1, 2007

### Summary



Calm Time:	0 hrs	0% calms	Operational Time:	713 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	99.0%				
Percentile	99	95	75	50	25	5	1	Average
	349.2	322.4	276.9	256.1	128.4	51.9	10.9	271 deg

### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	WD Sector	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	Average	Sector
1-Nov-07	253	251	257	262	265	265	261	263	262	263	266	275	278	272	270	266	268	263	266	259	256	246	244	246	263	W	
2-Nov-07	239	235	244	225	229	240	253	257	130	146	199	198	180	178	190	209	233	273	258	255	259	273	282	267	241	WSW	
3-Nov-07	263	268	266	257	265	262	257	257	250	258	256	262	260	258	256	248	247	250	254	254	272	273	262	256	258	WSW	
4-Nov-07	265	273	275	278	301	303	295	277	271	301	320	317	306	297	317	298	312	299	266	255	193	205	202	243	290	WNW	
5-Nov-07	350	165	207	220	218	29	63	66	54	89	109	133	148	184	159	141	116	112	117	68	96	260	79	96	117	ESE	
6-Nov-07	236	265	189	198	226	216	330	319	207	171	260	281	302	332	332	264	215	146	47	70	82	71	72	69	276	W	
7-Nov-07	69	73	70	65	73	57	57	239	322	359	208	211	240	214	221	215	292	279	261	264	263	268	354	48	272	W	
8-Nov-07	333	331	327	310	302	301	298	265	272	297	307	261	351	237	153	123	101	102	81	62	68	65	77	83	327	NNW	
9-Nov-07	77	91	92	94	79	83	95	91	90	72	67	60	63	0	14	74	269	216	257	243	226	204	172	109	89	E	
10-Nov-07	145	113	118	101	113	71	73	67	11	333	49	338	256	276	282	230	233	244	244	244	245	253	256	251	249	WSW	
11-Nov-07	261	252	274	304	180	192	152	246	211	257	220	206	216	200	197	195	154	167	170	178	173	52	17	188	210	SSW	
12-Nov-07	14	350	198	29	76	99	101	107	120	114	102	101	104	85	68	62	71	23	337	265	268	267	280	290	30	NNE	
13-Nov-07	287	292	296	299	304	318	315	269	N	N	N	286	289	276	272	273	272	267	258	261	257	255	258	254	277	W	
14-Nov-07	261	264	355	253	250	249	243	249	242	243	248	254	278	260	217	145	103	77	79	80	71	70	73	78	249	WSW	
15-Nov-07	59	56	55	225	292	59	249	280	270	326	243	257	288	99	105	112	66	64	85	51	73	107	62	52	61	ENE	
16-Nov-07	53	68	47	209	309	2	1	171	278	303	277	275	281	337	248	266	297	263	228	176	183	186	194	196	245	WSW	
17-Nov-07	208	191	199	196	251	161	183	186	184	155	125	128	130	124	130	115	85	72	36	29	23	312	289	238	160	SSE	
18-Nov-07	262	262	294	275	276	267	262	N	N	N	N	266	277	299	291	287	282	270	261	267	265	272	297	308	276	W	
19-Nov-07	299	332	358	274	208	247	265	258	264	249	253	253	331	319	270	258	2	265	291	269	259	263	286	301	278	W	
20-Nov-07	269	287	287	303	286	299	301	311	286	280	279	306	279	297	320	49	84	78	85	34	349	312	276	288	301	WNW	
21-Nov-07	301	281	304	311	245	234	234	307	235	235	303	271	257	258	265	8	60	79	274	274	259	266	308	305	274	W	
22-Nov-07	286	316	277	285	301	321	272	314	205	248	253	271	284	281	285	272	278	268	305	254	220	288	247	220	277	W	
23-Nov-07	56	228	221	244	36	282	247	231	235	1	229	245	259	286	282	279	273	297	281	278	277	258	285	269	273	W	
24-Nov-07	222	184	194	156	230	273	261	270	272	268	268	268	266	269	271	277	275	270	268	265	263	265	265	264	265	W	
25-Nov-07	264	266	268	264	264	303	310	282	271	273	54	59	57	55	58	62	58	54	71	48	46	63	63	61	353	N	
26-Nov-07	65	86	85	84	93	98	95	95	92	94	99	101	102	99	90	80	70	75	72	68	6	35	42	32	85	E	
27-Nov-07	21	33	13	316	316	318	322	320	327	333	290	222	107	83	59	48	54	52	64	61	227	313	322	332	347	NNW	
28-Nov-07	330	323	323	316	317	327	311	304	326	291	319	291	260	282	255	283	258	291	310	269	274	275	288	265	304	NW	
29-Nov-07	292	269	281	261	262	272	272	243	254	270	266	269	274	276	272	269	282	225	247	247	243	280	237	223	265	W	
30-Nov-07	219	257	272	271	264	272	271	267	265	280	284	283	291	308	334	342	17	317	308	325	338	348	349	348	302	WNW	
Hourly Avg	276	275	279	270	272	275	272	265	259	268	267	268	274	276	277	268	276	269	266	266	263	272	285	277			

## PASZA - Evergreen Park Standard Deviation of Wind Direction Monthly Summary

Station: Evergreen Park  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

**Wind Direction (WD)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**


Determined by the Yamartino 15-min interval calculation

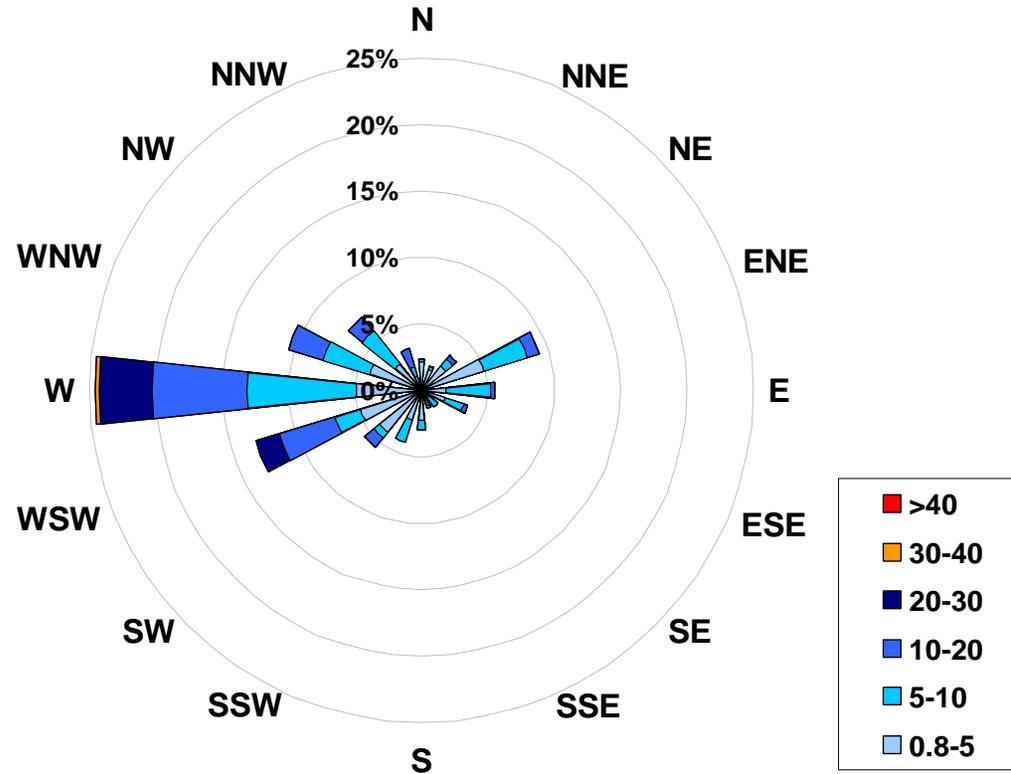
Calm Time:	0 hrs	0% calms	Operational Time:	713 hrs			
Calibration Time:	0 hrs		AMD Operational Uptime:	99.0%			
Percentile	99	95	75	50	25	5	1
	84.7	73.8	39.3	18.4	10.1	5.7	4.3

Status Flag Characters	
C Calibration	A AIC - Zero / Span Check
S Instrument out of Service	X Filter Exchange
N No Data	M Equipment Maintenance
D Excessive Instrument Drift	P Power Failure

Day	Mountain Standard Time																								Daily Maximum
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	
1-Nov-07	7	6	7	10	6	6	6	6	5	6	6	10	9	9	8	6	6	6	6	6	5	7	7	5	10.2
2-Nov-07	7	7	6	4	9	12	43	44	65	69	18	14	25	19	14	9	57	21	10	5	6	11	13	7	69.4
3-Nov-07	5	6	7	4	6	7	10	6	6	6	7	7	7	8	9	9	8	5	6	6	8	7	8	11	11.1
4-Nov-07	6	9	6	8	16	13	19	18	15	19	14	19	18	18	20	19	19	52	57	30	83	80	30	70	83.0
5-Nov-07	58	66	55	96	84	76	10	6	24	27	19	21	26	19	41	28	25	38	30	57	50	71	69	69	96.1
6-Nov-07	51	45	81	37	17	5	65	47	23	72	31	31	26	33	22	44	84	88	38	52	18	14	11	16	87.7
7-Nov-07	18	21	20	33	23	33	74	90	42	58	57	23	39	13	13	84	81	60	5	6	5	15	48	36	89.5
8-Nov-07	10	10	11	16	17	21	35	13	19	21	18	42	46	70	33	22	8	14	33	23	43	10	9	8	69.8
9-Nov-07	12	11	12	13	12	17	14	14	15	26	14	15	31	40	41	84	26	45	50	50	54	48	50	85	85.4
10-Nov-07	76	48	46	44	50	68	51	62	54	34	66	48	21	8	20	5	6	6	5	6	6	7	9	7	75.6
11-Nov-07	8	75	77	74	82	74	65	55	75	41	48	12	16	16	24	29	27	15	11	27	16	38	30	65	81.6
12-Nov-07	88	90	52	76	48	13	14	13	12	30	19	28	39	21	10	10	71	24	66	18	9	13	9	11	90.4
13-Nov-07	8	10	11	11	12	11	17	20	N	N	N	23	28	7	6	7	6	4	6	4	4	5	4	4	27.6
14-Nov-07	5	24	53	8	4	5	6	6	12	7	7	13	20	9	21	37	14	12	8	13	8	8	11	12	53.0
15-Nov-07	23	24	29	38	48	85	43	33	17	30	46	66	48	70	47	32	24	16	44	29	14	33	36	16	84.6
16-Nov-07	43	81	32	81	83	38	70	84	84	66	39	47	20	78	55	54	57	55	60	50	22	9	16	17	83.9
17-Nov-07	39	21	11	25	58	80	57	19	29	33	17	20	20	26	25	34	41	17	23	24	49	38	47	21	79.5
18-Nov-07	25	33	18	10	8	5	5	N	N	N	N	12	9	19	18	12	8	9	10	6	8	10	20	30	33.1
19-Nov-07	36	29	39	45	56	19	13	9	14	11	19	22	54	20	14	27	22	60	44	16	10	8	20	26	60.5
20-Nov-07	35	56	21	19	13	15	20	18	17	27	18	26	21	31	34	26	15	43	61	34	55	67	24	31	66.8
21-Nov-07	39	55	27	16	29	36	56	42	40	67	39	24	16	7	18	37	70	85	13	6	6	9	14	12	84.7
22-Nov-07	34	23	15	14	14	20	62	50	28	26	19	13	9	9	12	7	16	17	62	28	69	53	63	50	68.6
23-Nov-07	62	13	18	34	43	46	40	12	45	71	76	52	43	26	12	9	7	14	13	9	8	14	21	25	76.3
24-Nov-07	39	84	28	63	62	13	6	8	7	10	6	5	6	6	6	14	11	8	4	6	5	6	6	5	83.9
25-Nov-07	5	6	6	6	6	38	16	9	13	27	15	9	12	16	12	12	12	20	15	13	11	12	14	15	37.9
26-Nov-07	17	24	15	17	18	15	15	14	15	12	16	14	14	17	18	22	18	20	32	30	46	19	22	20	45.8
27-Nov-07	20	13	55	16	14	16	12	18	15	19	45	58	76	47	24	14	17	19	59	33	42	17	13	10	75.9
28-Nov-07	11	16	16	16	16	17	18	22	14	15	24	41	49	59	16	31	74	61	41	42	33	65	37	13	73.7
29-Nov-07	29	23	15	6	7	9	14	10	11	10	8	10	7	9	7	12	73	65	55	90	61	47	41	48	90.5
30-Nov-07	11	10	8	8	8	5	7	10	8	9	9	9	11	23	9	18	28	19	13	16	10	12	12	13	28.4

Hourly Max	88	90	81	96	84	85	74	90	84	72	76	66	76	78	55	84	84	88	66	90	83	80	69	85
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**1-hr Average Wind Rose (in km/hr) Located at the Evergreen Park Site for November 2007**



**Calms: 0%**

Frequency Distribution of Wind in km/hr			
Range			Frequency (hrs)
0.8	<	5	305
5	to	10	224
10	to	20	141
20	to	30	41
30	to	40	2
	>	40	0
Total Non-Zero Values			713

# PASZA – Smoky Heights Station

## Monthly Summary Tables, Graphs and Roses

# PASZA - Smoky Heights Sulphur Dioxide Monthly Summary

Station: Smoky Heights  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

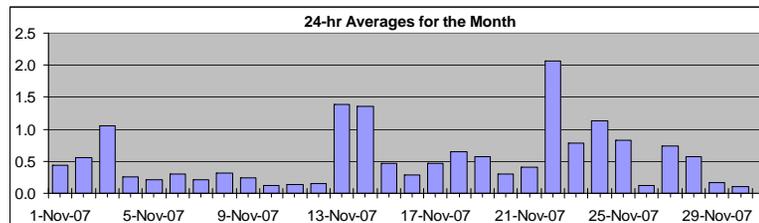
## Sulphur Dioxide (SO<sub>2</sub>)

Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 1-hr 172 ppb 24-hr 57 ppb  
 Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	7.1	ppb	13-Nov	23:00 0:00
Maximum 24-hr Average:	2.1	ppb	22-Nov	

AIC Time:	31 hrs	Operational Time:	684 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	3.8	2.2	0.6	0.3	0.1	0.0	0.0	0.5 ppb	0.3 ppb



### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00		
1-Nov-07	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0	1	2	2	1	0.4	2.2
2-Nov-07	2	3	A	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0.6	2.5
3-Nov-07	1	A	2	2	3	0	0	2	3	1	2	4	1	1	1	0	1	1	1	0	0	0	0	1.1	3.5	
4-Nov-07	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.5
5-Nov-07	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
6-Nov-07	0	0	0	0	0	0	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.6
7-Nov-07	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
8-Nov-07	1	0	0	0	A	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
9-Nov-07	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
10-Nov-07	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
11-Nov-07	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
12-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.4	
13-Nov-07	0	0	0	0	1	0	0	0	0	0	1	2	1	1	1	1	1	3	4	1	3	4	A	7	1.4	7.1
14-Nov-07	5	2	5	1	1	3	0	1	1	2	4	1	1	0	0	0	0	0	0	0	0	A	0	0	1.4	5.1
15-Nov-07	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	A	0	0	0	0.5	1.0
16-Nov-07	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	0.6
17-Nov-07	1	1	0	1	0	1	0	0	0	0	0	0	0	1	1	1	1	A	1	1	0	0	0	0	0.5	0.9
18-Nov-07	0	0	0	0	1	1	1	1	1	2	1	0	1	0	1	0	A	0	1	0	1	0	0	0	0.6	1.6
19-Nov-07	0	0	0	0	0	0	0	0	0	0	1	1	2	1	1	1	A	1	0	0	1	1	0	0	0.6	1.8
20-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	1	1	0.3	1.4
21-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	1	0	0.4	0.8
22-Nov-07	3	5	4	4	2	3	4	2	1	0	1	2	2	A	2	2	2	1	1	1	1	3	1	1	2.1	4.9
23-Nov-07	1	1	1	1	1	0	0	0	0	1	1	1	A	1	1	2	2	1	1	1	1	1	1	1	0.8	2.5
24-Nov-07	1	1	1	0	0	0	1	1	1	1	1	A	1	2	2	0	1	1	0	0	0	3	3	3	1.1	3.3
25-Nov-07	3	3	2	2	3	2	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	3.3
26-Nov-07	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
27-Nov-07	0	0	1	1	0	0	0	0	A	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.5
28-Nov-07	0	0	0	0	0	0	0	0	A	0	0	C	C	C	C	1	1	1	2	1	1	1	0	0	0.6	2.0
29-Nov-07	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
30-Nov-07	0	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
Hourly Avg	0.8	0.7	0.7	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.4	0.5	0.7	0.5	0.7		
Hourly Max	5.1	4.9	4.8	3.5	2.8	3.1	4.2	1.6	2.5	2.3	4.3	3.5	2.1	1.8	2.5	2.5	1.9	2.9	3.7	1.4	2.7	3.6	3.2	7.1		

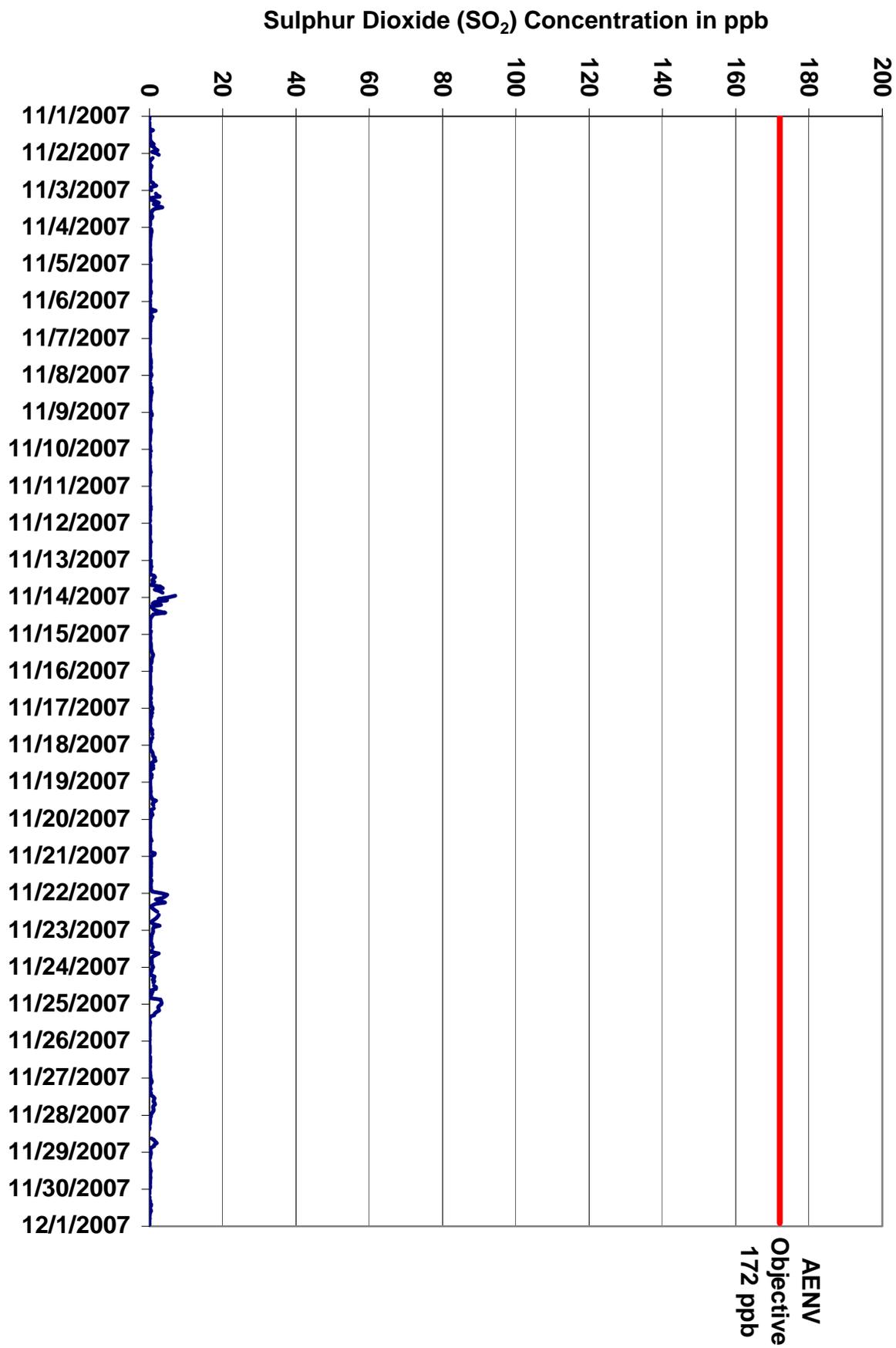


Figure 27. PASZA - Smoky Heights Sulphur Dioxide 1-hr Average Monthly Trend

Station: Smoky Heights  
 Station Owner: PASAA

**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

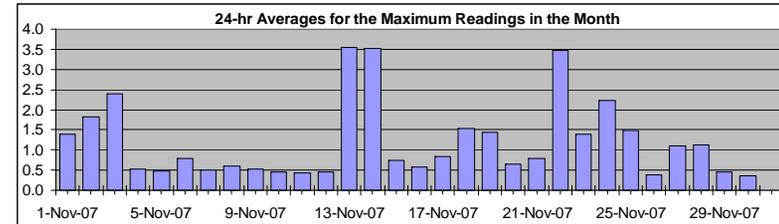
**Sulphur Dioxide (SO<sub>2</sub>)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	13.2	ppb	13-Nov	20:00 21:00
Maximum 24-hr Value:	3.6	ppb	13-Nov	

AIC Time:	31 hrs	Operational Time:	684 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	8.4	4.4	1.0	0.6	0.4	0.3	0.2	1.2 ppb	0.6 ppb



**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	0	0	0	A	0	0	0	0	0	2	1	0	0	0	0	1	1	3	3	3	2	3	7	1	1.4	6.6
2-Nov-07	8	5	A	3	3	0	0	0	3	3	0	1	0	0	0	0	0	0	0	3	3	4	1	1	1.8	8.3
3-Nov-07	1	A	4	4	9	1	0	3	7	4	4	5	3	1	2	0	2	2	1	0	0	0	0	0	2.4	8.6
4-Nov-07	A	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	0	1	1	1	1	0	A	0.5	0.9
5-Nov-07	0	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	1	0	0	A	1	0.5	0.7
6-Nov-07	0	0	0	0	0	2	4	1	1	1	1	1	1	1	0	0	0	1	1	0	0	0	0	0	0.8	4.0
7-Nov-07	0	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0.5	0.9
8-Nov-07	1	1	0	0	A	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0.6	1.0
9-Nov-07	1	1	1	A	1	1	1	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0.5	1.0
10-Nov-07	0	1	A	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0.5	1.7
11-Nov-07	0	A	0	0	0	0	0	0	0	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0.4	0.8
12-Nov-07	A	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	1	0	0	A	0.4	0.7
13-Nov-07	1	1	1	1	8	1	1	1	1	1	5	4	3	1	2	1	2	8	6	4	13	8	A	10	3.6	13.2
14-Nov-07	6	7	13	12	2	12	1	3	3	6	7	4	1	1	1	1	0	0	1	1	0	A	1	1	3.5	12.9
15-Nov-07	0	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.4
16-Nov-07	1	0	0	0	1	0	0	0	0	1	1	1	1	1	1	1	0	1	1	1	A	1	1	1	0.6	1.0
17-Nov-07	1	1	1	2	1	1	1	1	1	1	1	1	0	1	1	1	1	1	A	1	1	1	1	0	0.8	1.7
18-Nov-07	0	0	0	1	2	2	2	2	3	3	4	2	1	4	1	4	1	A	1	1	1	1	0	0	1.5	4.0
19-Nov-07	0	0	1	0	0	1	1	1	1	1	1	5	7	2	1	2	A	3	1	1	1	1	1	1	1.4	7.0
20-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	A	1	0	0	0	1	0	2	2	0.6	2.5
21-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	2	0.8	2.0
22-Nov-07	6	10	7	6	3	4	6	4	1	1	2	2	4	A	4	4	3	2	1	1	2	4	2	1	3.5	9.7
23-Nov-07	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	6	5	2	1	1	1	1	1	2	1.4	5.8
24-Nov-07	2	1	1	1	1	1	3	3	2	2	2	A	3	3	4	1	2	1	2	1	0	4	7	6	2.2	6.6
25-Nov-07	4	4	5	6	3	3	2	2	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1.5	6.2
26-Nov-07	0	0	0	0	0	0	0	0	0	A	1	0	0	1	1	0	0	0	0	0	0	0	1	0	0.4	0.6
27-Nov-07	1	1	1	1	1	0	1	1	A	1	1	1	2	2	2	1	2	2	1	1	1	1	1	1	1.1	1.9
28-Nov-07	1	1	0	0	0	0	0	A	0	0	C	C	C	C	C	2	2	3	3	2	2	1	1	1	1.1	3.5
29-Nov-07	1	1	1	0	0	A	0	0	0	0	0	1	1	1	0	0	1	1	0	0	0	0	0	0	0.5	0.7
30-Nov-07	0	0	0	0	A	0	0	0	1	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0.4	0.8
Hourly Avg	1.5	1.4	1.5	1.5	1.5	1.2	0.9	0.9	1.0	1.1	1.3	1.3	1.2	1.0	1.0	1.2	1.0	1.3	1.0	1.0	1.3	1.3	1.1	1.3		
Hourly Max	8.3	9.7	12.9	11.6	8.6	11.5	6.2	4.4	7.4	5.8	6.8	5.1	7.0	4.0	3.7	5.8	4.7	8.1	6.0	4.3	13.2	8.2	6.6	10.0		

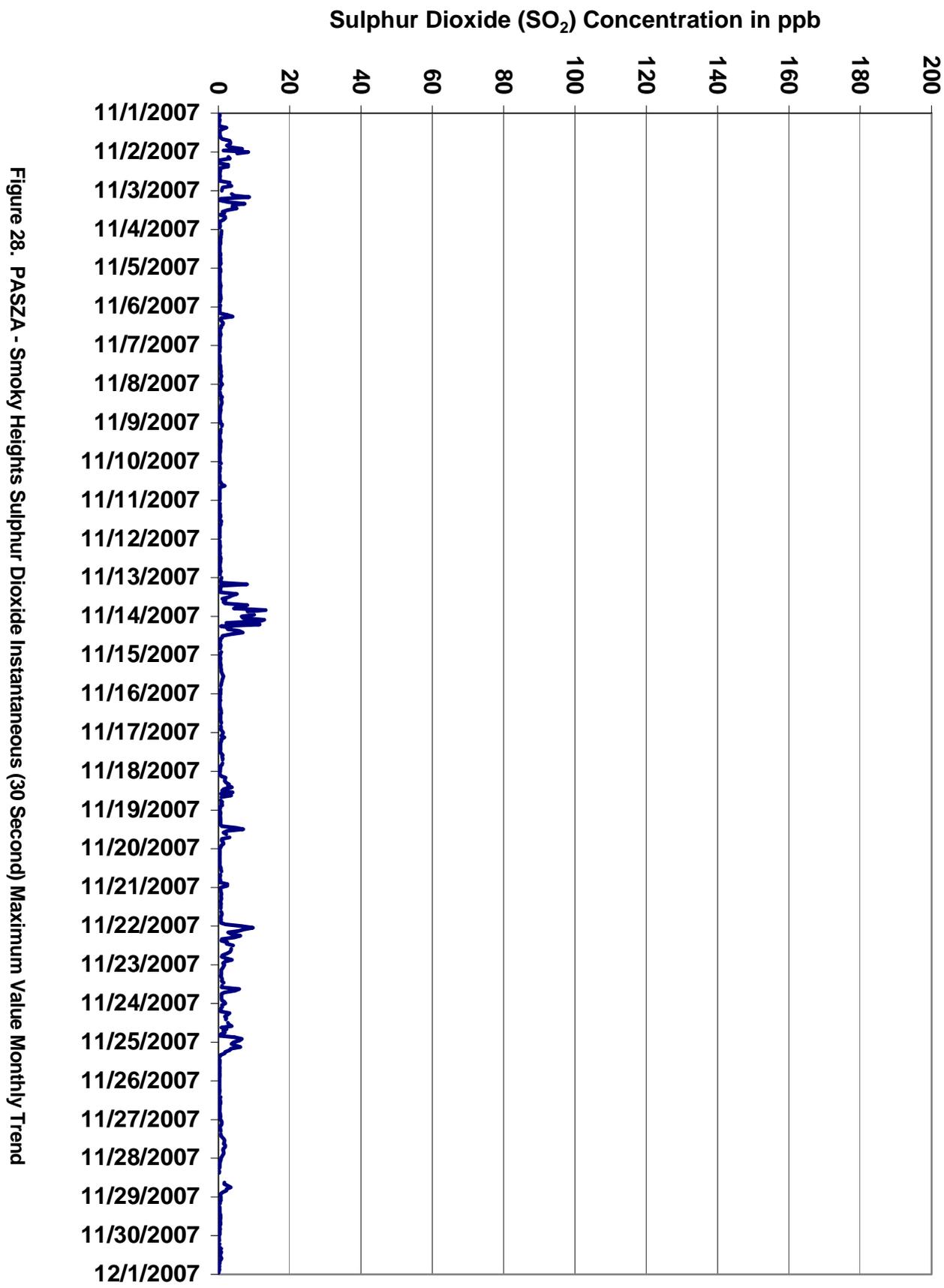
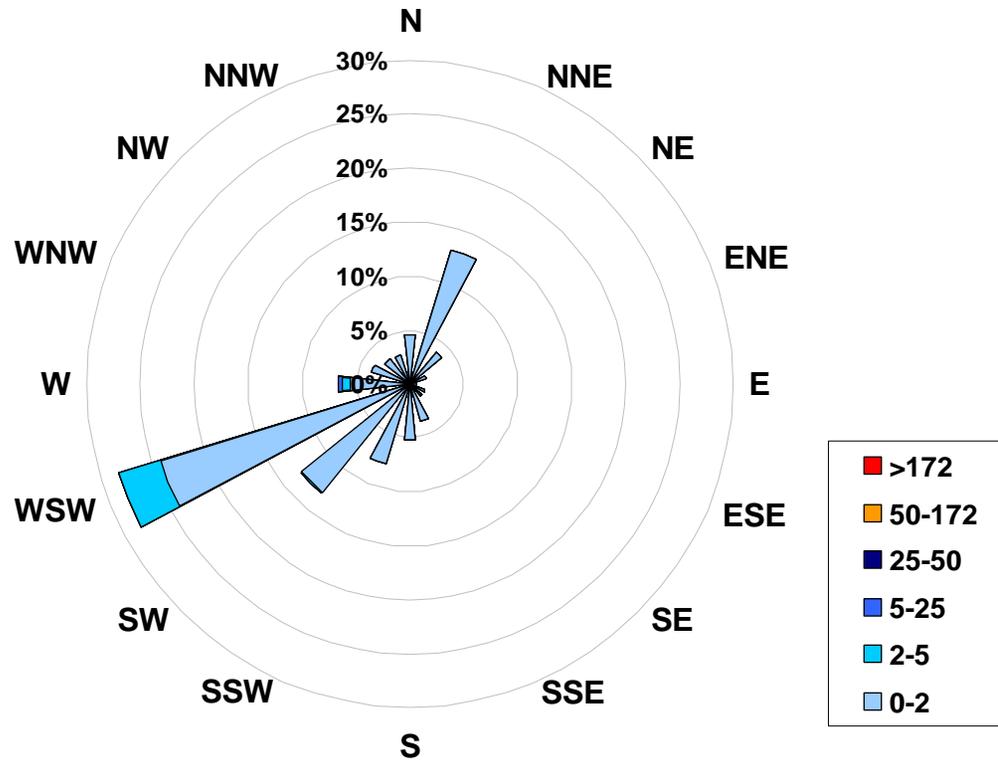


Figure 28. PASZA - Smoky Heights Sulphur Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Sulphur Dioxide (in ppb) Located at the Smoky Heights Site for November 2007**



**Calms: 0%**

Frequency Distribution of SO <sub>2</sub> in ppb			
Range	Frequency (hrs)		
0.0 < 2	648		
2 to 5	34		
5 to 25	2		
25 to 50	0		
50 to 172	0		
> 172	0		
<b>Total Non-Zero Values</b>	<b>684</b>		

## PASZA - Smoky Heights Total Reduced Sulphur Monthly Summary

Station: Smoky Heights  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

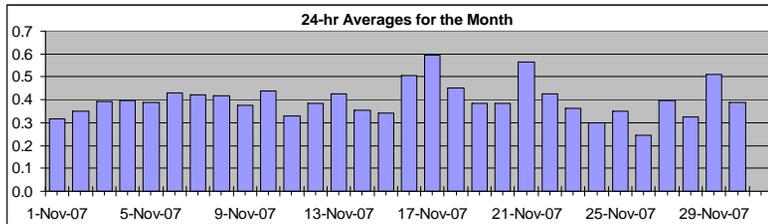
Total Reduced Sulphur (TRS)

Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 1-hr na ppb 24-hr na ppb

Maximum 1-hr Average:	1.1	ppb	9-Nov	20:00 21:00
Maximum 24-hr Value:	0.6	ppb	17-Nov	

AIC Time:	31 hrs	Operational Time:	686 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	0.7	0.6	0.5	0.4	0.3	0.2	0.2	0.4 ppb	0.4 ppb



**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00			23:00 0:00
1-Nov-07	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
2-Nov-07	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
3-Nov-07	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.4	0.5
4-Nov-07	A	0	1	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
5-Nov-07	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4	0.6
6-Nov-07	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0.4	0.6
7-Nov-07	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	0	0.4	0.7
8-Nov-07	0	1	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.4	0.6
9-Nov-07	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.4	1.1
10-Nov-07	0	1	A	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
11-Nov-07	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	0.3	0.5
12-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	A	0	0.4	0.7
13-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	0.4	0.7
14-Nov-07	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	0.4	0.5
15-Nov-07	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
16-Nov-07	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	1	1	1	A	1	1	1	1	1	0.5	0.7
17-Nov-07	1	1	1	1	1	1	0	1	1	1	1	1	0	0	0	1	1	1	A	1	1	1	1	1	1	0.6	1.0
18-Nov-07	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0.4	0.7
19-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0	0	0	0	0	0.4	0.6
20-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	1	1	0	0	0	0	0.4	0.6
21-Nov-07	1	1	1	1	1	1	0	1	0	0	0	1	1	1	A	0	0	0	1	1	1	1	1	1	1	0.6	0.9
22-Nov-07	1	1	1	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	1	0	0	0	0.4	0.6
23-Nov-07	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
24-Nov-07	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	0.3	0.4
25-Nov-07	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	0.4	0.4
26-Nov-07	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	0.4
27-Nov-07	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0.4	0.6
28-Nov-07	0	0	0	0	0	0	0	0	A	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0.3	0.4
29-Nov-07	0	0	1	0	0	A	1	1	1	0	0	0	1	1	1	1	0	0	1	0	1	1	1	1	1	0.5	0.6
30-Nov-07	0	1	1	1	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
Hourly Avg	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4		
Hourly Max	0.9	0.8	0.6	0.7	0.6	0.6	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	1.1	0.9	1.0	0.7		

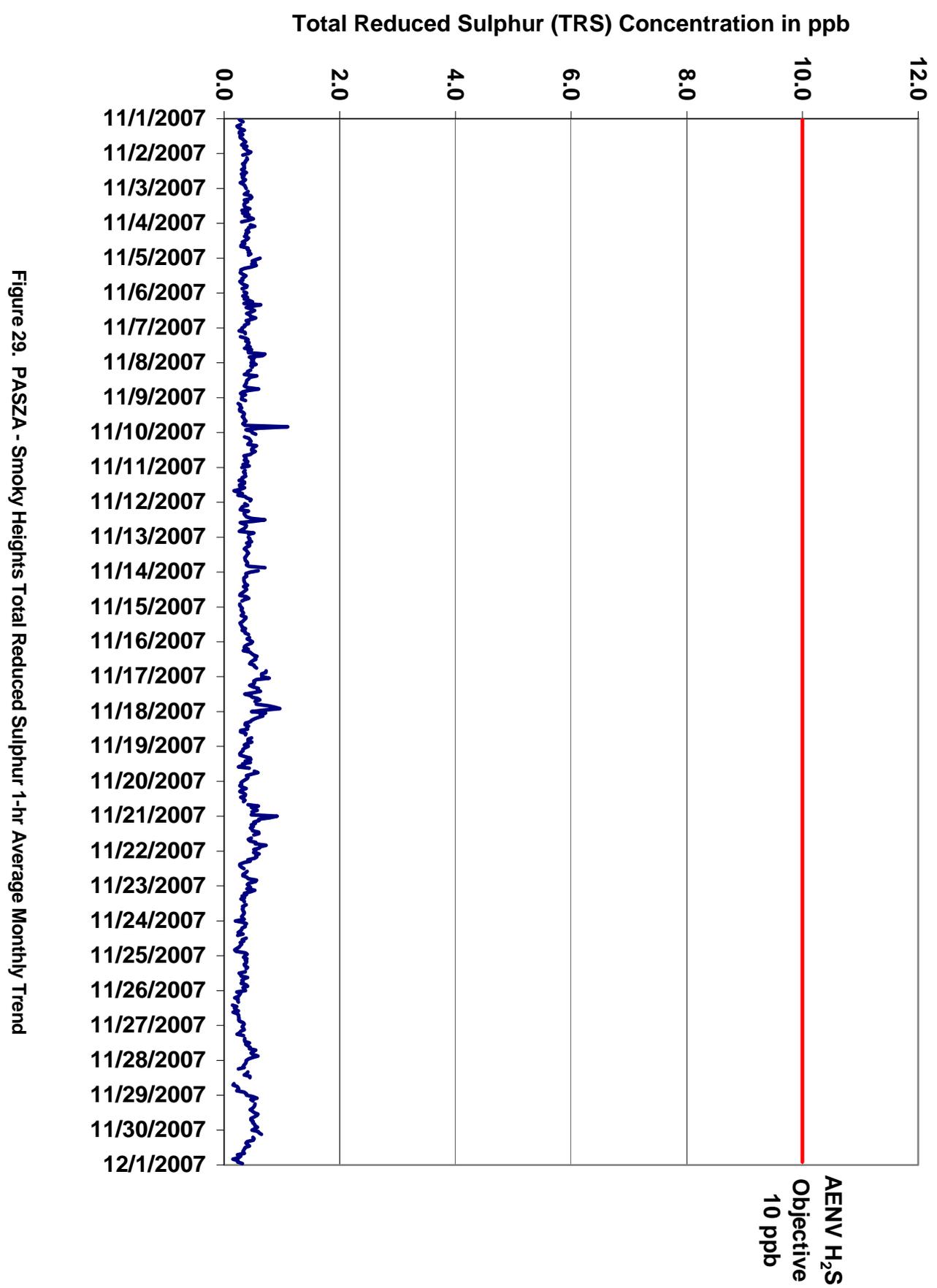


Figure 29. PASZA - Smoky Heights Total Reduced Sulphur 1-hr Average Monthly Trend

AENV H<sub>2</sub>S  
Objective  
10 ppb

Station: Smoky Heights  
 Station Owner: PASZA

**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

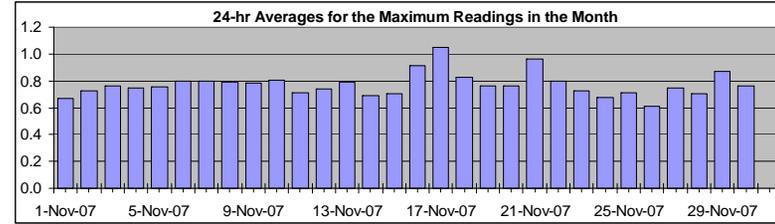
**Total Reduced Sulphur (TRS)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	2.2	ppb	9-Nov	20:00	21:00
Maximum 24-hr Value:	1.1	ppb	17-Nov		

AIC Time:	31 hrs	Operational Time:	686 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	1.3	1.0	0.8	0.7	0.7	0.6	0.5	0.8 ppb	0.7 ppb



**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	1	1	1	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
2-Nov-07	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
3-Nov-07	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	0.9
4-Nov-07	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.7	1.0
5-Nov-07	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
6-Nov-07	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	1.2
7-Nov-07	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
8-Nov-07	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
9-Nov-07	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	0.8	2.2
10-Nov-07	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
11-Nov-07	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0.7	0.9
12-Nov-07	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.7	1.0
13-Nov-07	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
14-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	0.9
15-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.0
16-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.1
17-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	2	1	1	1.1	1.9
18-Nov-07	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.8	1.8
19-Nov-07	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
20-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.0
21-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.0	1.4
22-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.8	1.0
23-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
24-Nov-07	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
25-Nov-07	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	0.8
26-Nov-07	1	1	1	0	1	1	1	1	1	A	0	1	0	1	1	0	1	1	1	1	1	1	1	1	0.6	0.8
27-Nov-07	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
28-Nov-07	1	1	1	1	1	1	1	A	1	1	1	1	1	C	C	C	1	0	1	1	1	1	1	1	0.7	1.0
29-Nov-07	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	1.0
30-Nov-07	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
Hourly Avg	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.8	0.8		
Hourly Max	1.4	1.8	1.1	1.1	1.0	1.0	0.9	0.9	1.2	1.1	1.2	0.9	1.1	1.0	1.0	1.0	1.0	1.0	1.3	1.1	2.2	1.9	1.4	1.4		

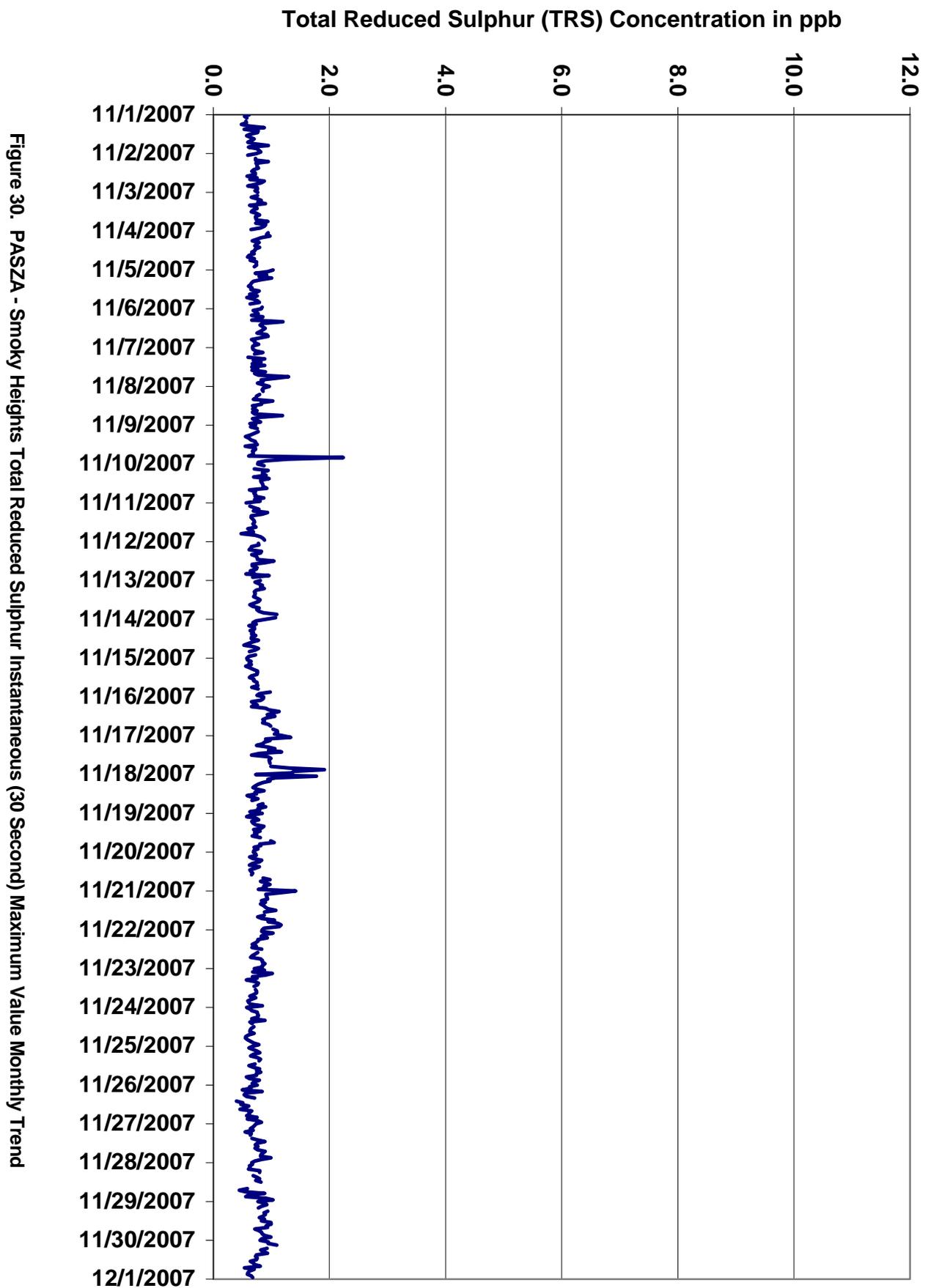
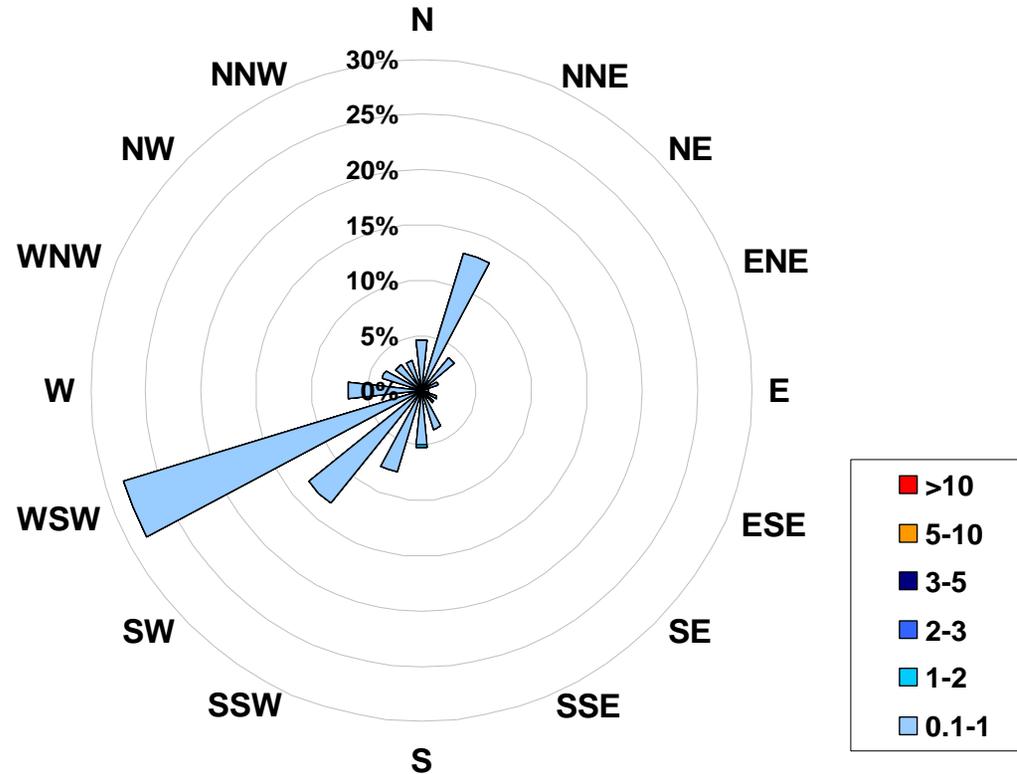


Figure 30. PASZA - Smoky Heights Total Reduced Sulphur Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Total Reduced Sulphur (in ppb)  
Located at the Smoky Heights Site for November 2007**



**Calms: 0%**

Frequency Distribution of TRS in ppb			Frequency (hrs)
Range			
0.1	<	1	685
1	to	2	1
2	to	3	0
3	to	5	0
5	to	10	0
	>	10	0
Total Non-Zero Values			686

## PASZA - Smoky Heights Particulate Matter (less than 2.5 microns) Monthly Summary

Station: Smoky Heights  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

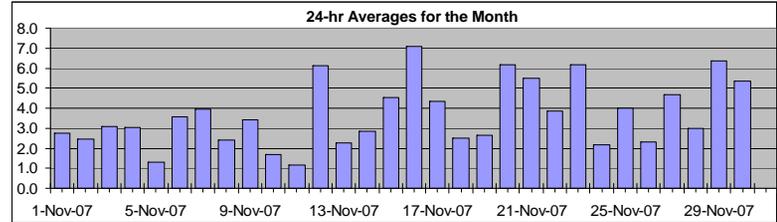
### Particulate Matter (PM<sub>2.5</sub>)

Monitoring Dates: November 1, 2007 to December 1, 2007

Draft Objective Limit: Alberta Environment: 1-hr - µg/m<sup>3</sup> 24-hr 30 µg/m<sup>3</sup>  
 Summary

Number of 24-hr Exceedances (draft):	0
Maximum 1-hr Average:	54.8 µg/m <sup>3</sup> 12-Nov 14:00 15:00
Maximum 24-hr Value:	7.1 µg/m <sup>3</sup> 16-Nov

AIC Time:	0 hrs	Operational Time:	716 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	99.4%
Percentile	99	95	75
	13.8	10.2	5.0
	5.0	2.9	1.3
	2.5	5	1
	0.0	0.0	0.0
	Average / Median		3.7
	3 µg/m <sup>3</sup>		3.3 µg/m <sup>3</sup>



Status Flag Characters	
C	Calibration
S	Instrument out of Service
N	No Data
D	Excessive Instrument Drift
A	AIC - Zero / Span Check
X	Filter Exchange
M	Equipment Maintenance
P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum				
	Hour Start	Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00			22:00	23:00	0:00	
1-Nov-07	4	4	3	3	2	2	2	2	1	1	2	2	0	0	2	2	4	3	4	4	6	5	4	3	3	2.8	5.7			
2-Nov-07	3	2	2	1	2	3	2	2	2	3	3	3	1	1	2	2	1	1	4	5	2	3	3	3	3	2.4	5.0			
3-Nov-07	2	3	3	2	2	2	1	1	1	1	1	1	0	0	0	1	2	12	9	6	8	4	5	4	3.1	12.0				
4-Nov-07	4	3	2	2	1	1	1	2	3	4	3	3	3	5	2	4	7	5	5	3	2	2	3	3	3.0	6.9				
5-Nov-07	2	2	2	1	2	1	1	1	1	1	4	0	0	0	0	0	1	1	1	1	1	5	3	0	1	1.3	4.5			
6-Nov-07	2	1	1	1	1	4	3	3	3	4	3	2	0	1	3	11	6	14	8	9	2	1	1	2	3.6	14.2				
7-Nov-07	1	2	2	2	2	3	5	2	5	7	6	1	2	3	3	5	5	6	8	7	6	3	5	4	3.9	8.0				
8-Nov-07	4	2	2	2	2	1	1	3	1	3	3	1	1	0	1	1	12	5	1	2	3	4	4	4	2.4	11.9				
9-Nov-07	3	6	9	7	2	0	0	0	0	1	10	2	3	3	3	3	12	4	4	1	1	1	4	4	3.4	12.3				
10-Nov-07	2	1	0	0	0	0	1	0	1	3	3	4	5	9	4	4	1	0	0	0	0	0	0	1	1.7	8.8				
11-Nov-07	1	0	1	0	0	0	1	1	0	2	2	2	1	1	0	1	0	3	3	1	1	3	3	1	1.1	3.1				
12-Nov-07	0	0	0	1	0	1	5	1	0	0	3	5	28	14	55	D	2	0	3	2	5	6	6	4	6.1	54.8				
13-Nov-07	2	P	3	3	4	3	2	1	2	3	3	3	2	2	2	2	1	2	1	2	2	2	1	2	2.3	4.2				
14-Nov-07	3	2	3	4	2	1	0	1	1	2	2	1	0	0	0	0	0	0	21	10	12	0	D	0	2.8	20.9				
15-Nov-07	1	5	8	5	3	4	6	3	6	6	4	4	5	4	5	5	4	3	3	9	6	3	3	5	4.5	9.2				
16-Nov-07	7	16	5	13	1	2	3	4	6	5	6	11	8	9	6	6	6	7	8	9	8	8	7	8	7.1	15.9				
17-Nov-07	5	5	5	4	3	1	1	0	0	3	2	7	D	0	0	5	6	5	8	7	7	8	9	6	4.3	9.0				
18-Nov-07	6	6	6	10	11	6	2	2	1	0	0	0	1	1	0	1	1	1	1	1	0	0	1	0	2.5	10.9				
19-Nov-07	0	1	1	1	1	1	1	2	2	3	2	3	2	1	1	2	2	3	3	3	7	5	6	9	2.6	9.2				
20-Nov-07	5	5	5	6	6	4	4	4	3	8	4	6	3	4	4	4	3	15	8	13	10	11	9	5	6.2	14.8				
21-Nov-07	8	10	11	9	6	5	4	3	4	7	11	9	5	5	4	1	1	1	3	3	4	5	6	6	5.5	11.4				
22-Nov-07	4	4	3	4	3	3	2	3	2	5	4	2	4	4	4	3	3	4	5	6	6	5	5	6	3.9	5.6				
23-Nov-07	8	9	12	11	10	10	9	9	6	6	7	5	4	4	4	5	6	2	2	2	3	4	4	4	6.2	12.1				
24-Nov-07	3	2	3	4	5	5	4	1	3	2	2	0	0	1	1	2	2	2	1	1	2	2	1	2	2.1	5.3				
25-Nov-07	2	1	2	0	1	1	1	3	4	8	7	2	12	8	5	1	3	7	2	5	8	6	1	6	4.0	12.0				
26-Nov-07	0	0	1	0	0	0	0	0	1	2	2	1	0	0	0	0	0	0	5	4	5	10	11	14	2.3	13.5				
27-Nov-07	3	1	2	3	2	5	1	1	4	5	3	3	4	4	3	3	4	23	14	7	7	4	3	3	4.7	23.4				
28-Nov-07	3	4	3	3	4	0	0	0	0	3	5	1	3	3	3	4	1	2	0	5	8	4	5	7	3.0	7.6				
29-Nov-07	8	8	7	7	7	7	8	7	5	9	10	9	9	7	5	3	3	3	4	5	4	3	6	9	6.3	10.2				
30-Nov-07	12	12	13	11	11	11	12	7	3	2	2	1	10	3	0	0	0	0	0	0	2	2	2	12	5.4	12.8				
Hourly Avg	3.6	4.2	4.0	4.0	3.4	2.9	2.9	2.3	2.5	3.7	3.8	3.0	4.0	3.4	4.1	2.7	2.9	4.8	4.7	4.3	4.6	3.8	4.1	4.6						
Hourly Max	12.1	15.9	12.8	13.4	11.5	10.7	12.2	9.0	6.3	9.0	11.2	10.6	28.3	13.8	54.8	10.8	12.3	23.4	20.9	12.6	11.7	10.8	10.7	13.5						

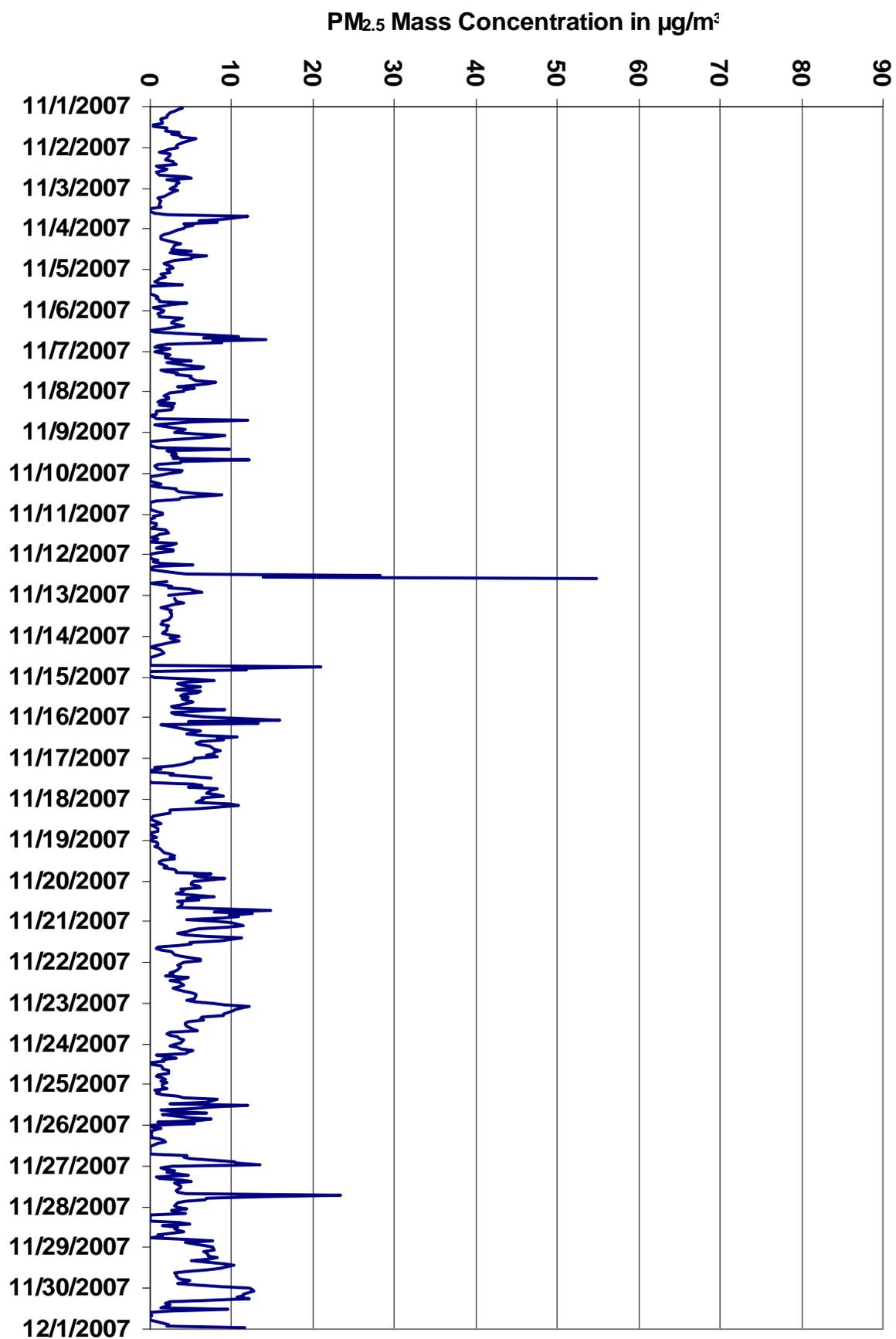


Figure 31. PASZA - Smoky Heights Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Smoky Heights  
 Station Owner: PASAA

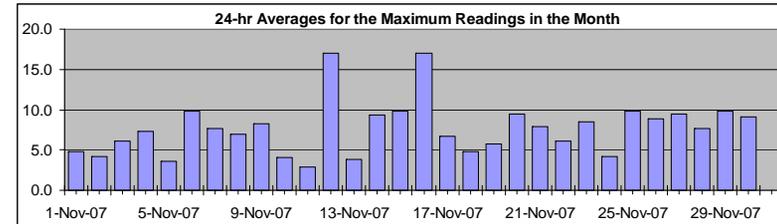
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

**Particulate Matter (PM<sub>2.5</sub>)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Average:	153.3	µg/m <sup>3</sup>	12-Nov	14:00 15:00
Maximum 24-hr Value:	17.0	µg/m <sup>3</sup>	16-Nov	



AIC Time:	0 hrs	Operational Time:	719 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	99.9%						
Percentile	99	95	75	50	25	5	1	Average / Median	Geomean
	45.0	21.0	8.8	5.3	3.3	1.4	0.0	7.7	5 µg/m <sup>3</sup>
									7.0 µg/m <sup>3</sup>

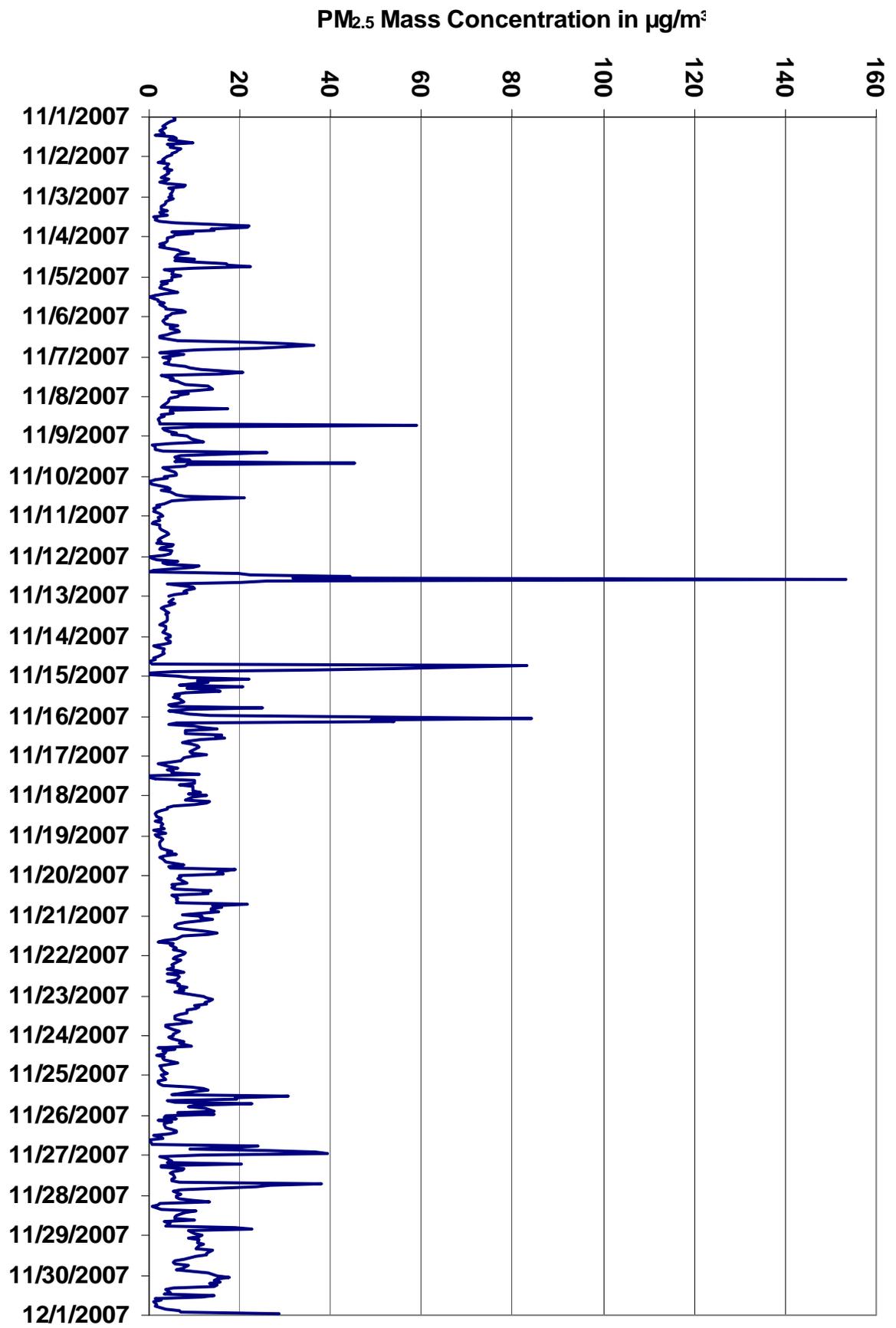
**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

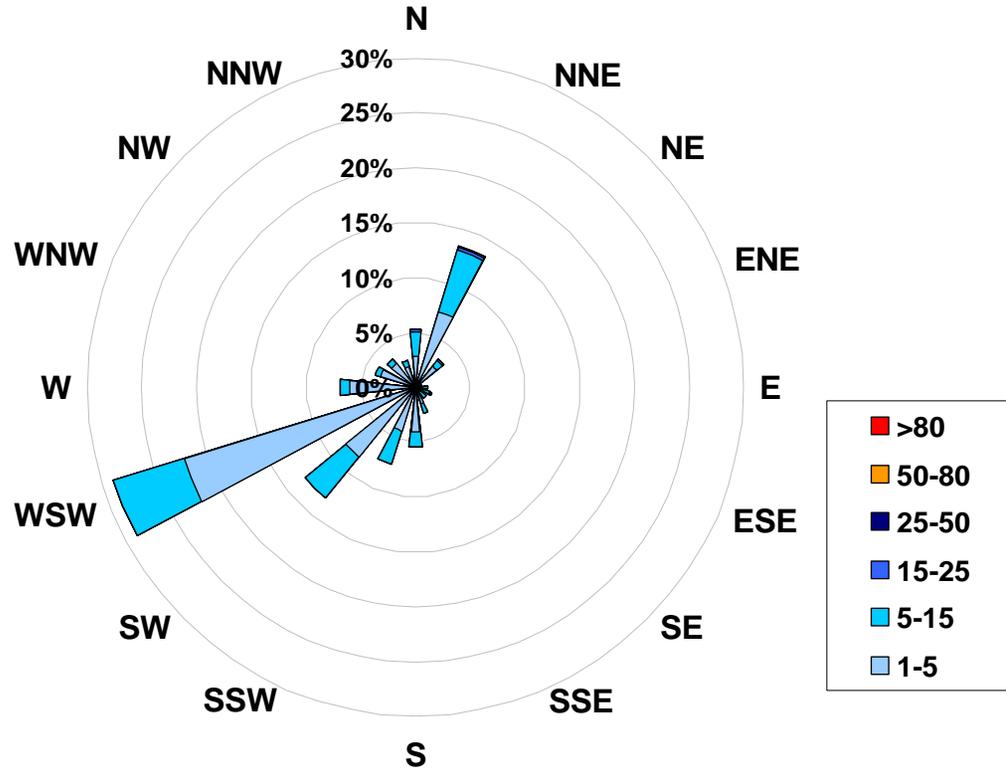
**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	5	6	6	5	4	3	4	3	2	3	3	1	5	6	4	10	4	5	7	6	6	5	5	4.7	9.8	
2-Nov-07	4	3	3	2	4	4	4	3	5	4	4	3	3	4	4	2	4	8	8	4	5	5	5	4.2	7.8	
3-Nov-07	4	5	4	4	4	3	3	3	4	2	3	4	1	2	1	2	6	22	22	14	14	5	10	6.1	21.9	
4-Nov-07	5	4	4	4	2	3	2	4	6	7	9	6	6	10	6	10	17	17	22	10	3	5	5	7.4	22.3	
5-Nov-07	5	5	5	3	4	3	3	2	5	6	3	1	0	1	2	2	3	2	4	4	7	8	5	5	3.6	7.8
6-Nov-07	4	4	3	3	4	6	5	5	6	6	5	4	2	2	6	22	31	36	30	24	11	6	2	8	9.8	36.1
7-Nov-07	3	5	4	4	3	5	8	9	11	21	16	3	4	5	5	6	7	8	13	14	10	5	8	7	7.7	20.6
8-Nov-07	6	5	4	4	4	3	3	17	5	5	5	3	3	2	2	2	2	59	10	3	3	4	6	5	6.9	58.8
9-Nov-07	8	9	10	12	5	1	1	1	1	3	26	7	6	6	9	6	45	8	8	3	4	6	6	6	8.2	45.2
10-Nov-07	3	4	1	0	0	1	4	5	3	5	5	6	8	21	10	5	3	2	2	1	1	1	2	3	4.0	20.9
11-Nov-07	3	2	2	1	1	2	2	2	3	3	4	4	3	2	2	3	2	5	5	3	2	5	3	3	2.9	5.2
12-Nov-07	0	1	2	6	3	4	11	10	1	0	20	22	44	32	153	26	20	4	10	10	8	8	8	6	17.0	153.3
13-Nov-07	4	P	5	4	6	5	3	3	3	4	4	4	4	4	4	3	2	4	3	4	3	3	5	3.8	5.5	
14-Nov-07	5	4	4	5	5	3	1	2	3	3	3	3	2	1	1	0	0	1	83	55	36	6	0	0	9.4	83.1
15-Nov-07	6	9	22	11	13	6	21	8	13	16	8	6	7	5	7	8	6	4	5	25	9	4	7	9	9.8	24.9
16-Nov-07	13	84	49	54	6	4	10	12	15	8	8	16	15	16	11	9	7	9	11	11	9	9	9	13	17.0	84.1
17-Nov-07	10	8	7	7	5	2	5	6	4	5	5	11	0	0	1	10	10	7	10	10	9	10	11	9	6.7	11.2
18-Nov-07	13	10	8	13	13	10	5	4	4	3	2	1	2	3	3	1	3	3	3	3	3	1	4	1	4.8	13.2
19-Nov-07	2	3	3	3	2	2	2	3	4	5	4	6	3	2	3	3	4	8	4	5	19	16	15	16	5.7	18.9
20-Nov-07	7	7	6	8	8	5	6	5	6	14	12	13	5	6	6	6	6	22	14	16	14	14	15	7	9.4	21.5
21-Nov-07	11	11	14	11	8	6	6	6	6	13	15	13	7	7	6	3	2	5	5	6	5	7	8	8	7.9	14.9
22-Nov-07	7	6	5	7	6	5	5	5	4	6	8	4	6	7	6	4	6	7	6	8	7	8	6	8	6.1	8.2
23-Nov-07	12	13	14	13	12	12	10	11	10	8	8	7	6	6	6	7	9	7	4	4	5	7	6	5	8.5	14.1
24-Nov-07	5	4	5	6	8	7	9	2	6	3	4	3	2	3	3	3	6	4	2	3	3	3	3	4	4.2	9.3
25-Nov-07	3	3	4	2	2	2	3	9	12	13	10	5	31	19	19	4	6	23	10	9	12	14	6	14	9.8	30.6
26-Nov-07	4	3	6	2	5	3	3	4	5	6	6	4	1	3	3	0	0	1	24	19	9	26	37	39	8.9	39.2
27-Nov-07	12	2	4	5	4	20	3	3	8	7	5	4	5	5	5	5	7	38	27	24	15	7	5	7	9.5	37.9
28-Nov-07	6	6	7	10	13	2	2	1	3	10	8	7	6	6	6	10	3	5	4	19	23	9	9	10	7.6	22.5
29-Nov-07	11	11	9	11	11	12	11	11	10	14	13	13	13	10	8	6	5	6	9	8	7	6	10	13	9.8	14.0
30-Nov-07	15	18	15	14	15	13	15	14	5	4	5	3	14	12	1	3	1	1	2	1	4	7	7	29	9.1	28.5
Hourly Avg	6.6	8.7	7.9	7.8	6.0	5.3	5.6	5.8	5.8	6.9	7.7	6.3	7.1	7.0	10.1	6.1	7.7	10.9	12.1	10.7	9.0	7.3	7.6	8.7		
Hourly Max	14.9	84.1	48.7	54.0	15.5	20.4	20.8	17.2	15.0	20.6	25.9	22.3	44.2	31.7	153.3	25.9	45.2	58.8	83.1	54.6	35.7	25.6	36.6	39.2		

Figure 32. PASZA - Smoky Heights Particulate Matter (less than 2.5 microns) Instantaneous (30 Second) Maximum Value Monthly Trend



**1-hr Average Concentration Rose for Particulate Matter (less than 2.5 microns) (in micrograms per cubic meter) Located at the Smoky Heights Site for November 2007**



**Calms: 0%**

Frequency Distribution of PM <sub>2.5</sub> in µg/m <sup>3</sup>			
Range			Frequency (hrs)
1.0	<	5	537
5	to	15	174
15	to	25	3
25	to	50	1
50	to	80	1
	>	80	0
Total Non-Zero Values			716

# PASZA - Smoky Heights Temperature Monthly Summary

Station: Smoky Heights  
 Station Owner: PASZA

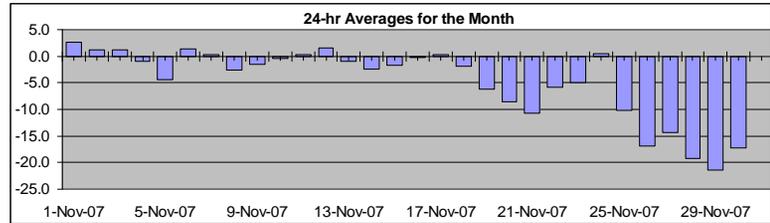
## HOURLY AVERAGE TABLE

## Ambient Temperature (T)

Monitoring Dates: November 1, 2007 to December 1, 2007

### Summary

Maximum 1-hr Average:	9.1	°C	6-Nov	13:00 14:00
Maximum 24-hr Value:	2.6	°C	1-Nov	



AIC Time:	0 hrs	Operational Time:	720 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	6.4	3.2	0.2	-1.9	-8.7	-19.7	-24.1	-4.8 °C	-1.9 °C

### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Nov-07	1	2	1	1	1	1	1	0	1	2	4	6	7	8	8	7	6	5	3	2	1	-1	-1	-2	2.6	7.9	
2-Nov-07	-2	-2	-2	-3	-3	-3	-1	0	1	1	2	3	3	3	4	5	5	3	3	3	3	3	2	2	1.2	5.4	
3-Nov-07	1	0	0	1	1	2	2	1	1	2	3	4	4	5	5	4	3	1	0	0	-2	-2	-3	-2	1.3	4.6	
4-Nov-07	-2	-2	-3	-1	-1	-1	-1	0	0	0	1	2	3	3	3	3	1	-1	-2	-3	-3	-4	-7	-8	-1.0	3.0	
5-Nov-07	-8	-8	-8	-9	-10	-10	-10	-10	-9	-6	-4	-3	-2	-1	0	0	0	-1	-1	-1	-1	-2	-1	-1	-4.4	-0.1	
6-Nov-07	-1	-1	-1	0	-1	-1	-1	-2	-2	0	2	6	8	9	8	6	4	2	0	-1	-1	-1	-1	-1	1.3	9.1	
7-Nov-07	-1	-2	-2	-2	-1	-1	-1	-1	-1	-1	0	1	2	2	3	3	3	2	2	2	1	1	0	0	0.2	3.4	
8-Nov-07	0	-1	-2	-3	-3	-3	-3	-4	-6	-5	-3	-1	0	1	1	0	-1	-3	-5	-4	-4	-4	-3	-2.6	0.8		
9-Nov-07	-3	-1	-1	0	-1	-1	-3	-3	-3	-3	-2	-2	-1	0	0	0	0	0	-1	-1	-2	-3	-2	-1	-1.5	-0.1	
10-Nov-07	-1	-1	-1	-1	-2	-2	-3	-3	-4	-3	-2	-1	-1	0	2	2	3	3	3	2	2	1	1	1	-0.3	3.1	
11-Nov-07	0	0	0	0	-1	-1	-2	-3	-2	-2	-1	1	4	5	4	2	2	2	1	2	0	-2	-1	-1	0.2	4.7	
12-Nov-07	-1	-2	-1	0	1	1	1	1	1	1	1	2	3	4	3	4	3	3	3	3	2	1	1	1	1.5	4.4	
13-Nov-07	1	0	-1	-1	-2	-2	-2	-2	-2	-3	-3	-1	0	2	3	3	2	0	0	-2	-3	-3	-3	-4	-1.0	3.1	
14-Nov-07	-4	-3	-4	-4	-5	-4	-5	-5	-6	-3	-2	-1	0	1	1	0	-2	-3	-3	-3	-3	-3	-2	-1	-2.5	1.1	
15-Nov-07	-2	-3	-2	-2	-2	-2	-2	-2	-3	-2	-2	-1	-1	-1	0	-1	-1	-1	-1	-1	-1	-2	-2	-1	-1.6	-0.2	
16-Nov-07	-1	-3	-2	-2	-2	-2	-2	-2	-2	-1	0	1	1	1	2	2	1	1	1	1	1	1	1	1	-0.2	1.6	
17-Nov-07	1	1	1	1	1	0	0	-2	-4	-4	-1	1	3	4	4	4	2	0	1	0	-1	-1	-1	-1	0.3	4.4	
18-Nov-07	-1	-1	-2	-1	0	0	0	-1	-2	-1	-1	0	0	0	1	1	-2	-2	-4	-3	-3	-5	-7	-8	-1.8	0.6	
19-Nov-07	-9	-9	-9	-9	-10	-10	-9	-10	-10	-9	-7	-5	-2	-1	0	-1	-3	-4	-5	-4	-5	-6	-7	-7	-6.2	-0.5	
20-Nov-07	-7	-7	-8	-8	-8	-8	-8	-8	-8	-8	-7	-7	-6	-5	-4	-5	-8	-11	-13	-13	-13	-13	-11	-12	-8.6	-3.8	
21-Nov-07	-15	-16	-15	-14	-14	-15	-16	-15	-16	-14	-12	-10	-9	-7	-5	-4	-6	-9	-9	-10	-8	-7	-7	-7	-10.8	-3.8	
22-Nov-07	-5	-6	-6	-8	-7	-8	-7	-8	-10	-8	-5	-3	-2	-1	0	-2	-4	-6	-7	-7	-7	-7	-8	-8	-5.8	-0.3	
23-Nov-07	-9	-9	-9	-9	-9	-9	-9	-10	-9	-9	-7	-6	-5	-3	0	1	0	1	-1	-2	-1	0	-1	-1	-4.9	1.2	
24-Nov-07	-1	-3	-2	-2	-2	-2	1	3	2	1	1	2	3	3	3	3	3	3	1	0	-1	-1	-1	-1	0.4	3.2	
25-Nov-07	-1	-1	-1	-2	-3	-5	-6	-6	-8	-10	-11	-10	-11	-12	-13	-14	-14	-15	-16	-16	-17	-17	-17	-18	-10.1	-0.8	
26-Nov-07	-18	-18	-18	-18	-19	-19	-19	-19	-19	-19	-19	-17	-16	-15	-15	-15	-16	-16	-16	-15	-15	-15	-15	-15	-16.9	-14.5	
27-Nov-07	-14	-14	-14	-14	-15	-15	-16	-18	-18	-17	-15	-15	-14	-13	-13	-13	-13	-13	-13	-13	-13	-12	-13	-14	-14.3	-12.4	
28-Nov-07	-15	-15	-16	-17	-17	-19	-20	-21	-24	-23	-20	-16	-14	-13	-13	-16	-18	-21	-24	-24	-23	-24	-24	-24	-19.3	-12.8	
29-Nov-07	-24	-24	-23	-24	-24	-25	-26	-26	-26	-26	-24	-21	-18	-16	-15	-16	-17	-19	-21	-19	-20	-20	-20	-20	-21.4	-15.1	
30-Nov-07	-20	-22	-22	-23	-22	-23	-23	-23	-21	-19	-17	-15	-15	-12	-12	-13	-13	-13	-13	-13	-13	-14	-15	-16	-17.2	-11.5	
Hourly Avg	-5.5	-5.7	-5.8	-5.9	-6.0	-6.3	-6.4	-6.6	-7.0	-6.3	-5.0	-3.6	-2.4	-1.6	-1.3	-1.6	-2.7	-3.8	-4.6	-4.8	-5.1	-5.4	-5.7	-5.8			
Hourly Max	1.3	1.5	1.1	1.2	1.4	1.7	1.5	2.9	1.9	2.4	4.0	6.1	8.4	9.1	8.3	7.1	6.5	4.5	3.4	3.0	2.9	3.2	1.7	2.0			

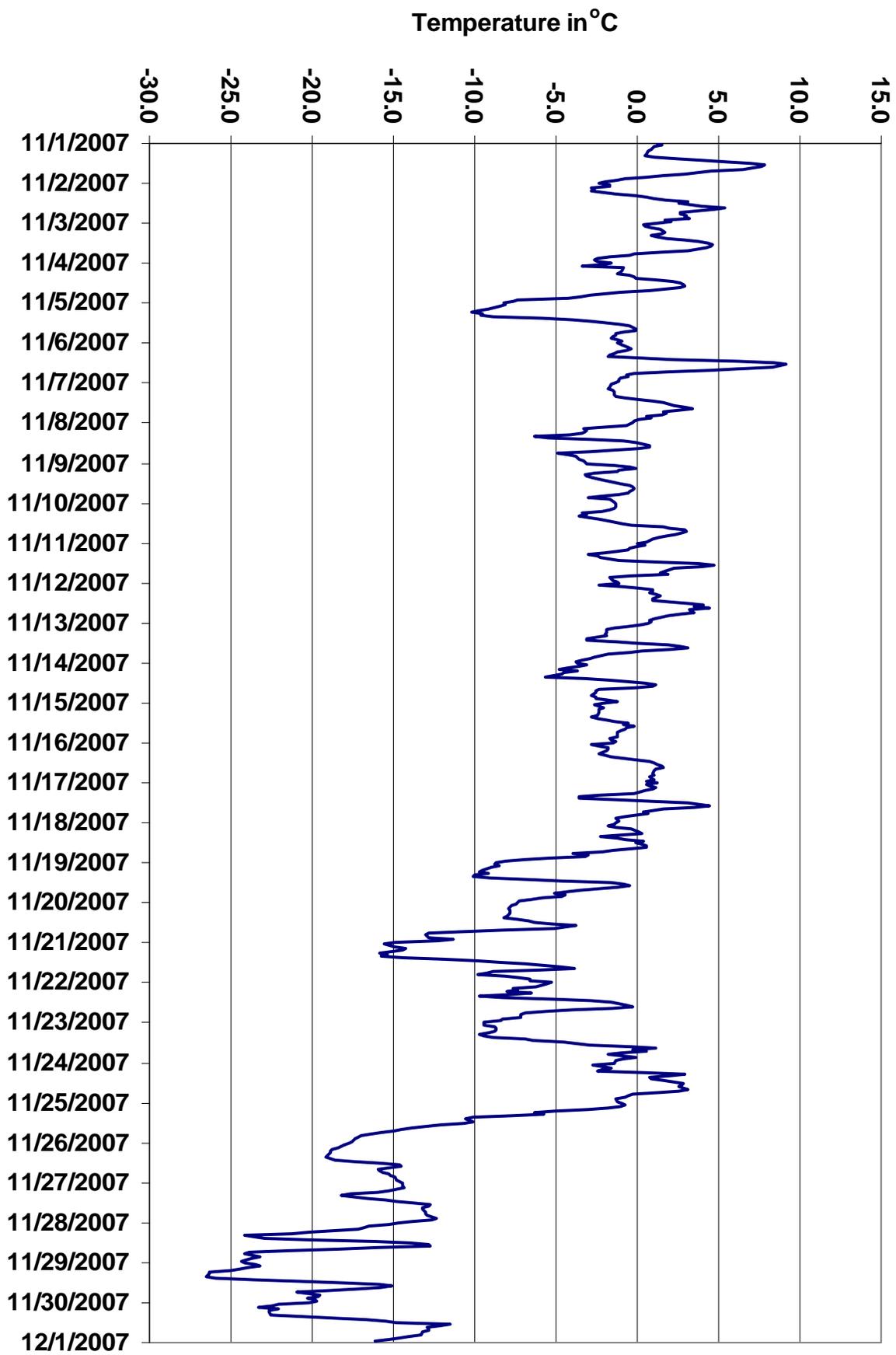


Figure 33. PASZA - Smoky Heights Temperature 1-hr Average Monthly Trend

# PASZA - Smoky Heights Scalar Wind Speed Monthly Summary

Station: Smoky Heights  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

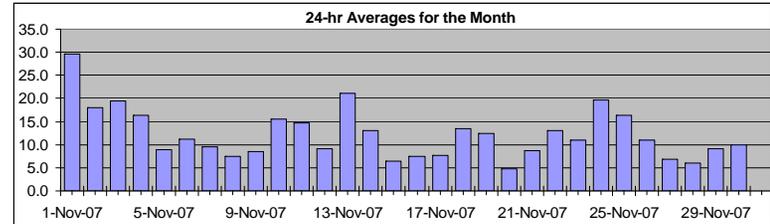
## Wind Speed (WSs)

Monitoring Dates: November 1, 2007 to December 1, 2007

### Summary

Maximum 1-hr Average:	39.9	km/hr	1-Nov	16:00 17:00
Maximum 24-hr Value:	29.6	km/hr	1-Nov	

Calm Time:	0 hrs	0% calms	Operational Time:	720 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageS
	34.4	26.4	15.9	10.5	6.9	3.6	2.8	12.2 km/hr



### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hr Scalar Average	Daily Max	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Nov-07	27	27	24	27	27	27	26	27	30	34	37	40	36	34	34	37	40	32	27	26	23	21	23	23	29.6	39.9	
2-Nov-07	19	20	19	18	20	16	16	19	16	12	15	18	16	16	15	16	19	15	12	22	20	26	23	25	18.0	25.6	
3-Nov-07	23	22	22	22	24	28	25	21	24	26	28	25	24	26	21	18	11	9	9	10	11	13	13	14	19.5	28.0	
4-Nov-07	17	15	14	18	17	18	19	21	24	24	23	23	27	24	20	14	9	8	12	12	10	7	7	7	16.3	26.9	
5-Nov-07	9	7	7	7	6	8	7	7	6	5	7	11	12	12	13	11	14	14	13	9	8	6	9	8	9.0	14.4	
6-Nov-07	7	6	11	15	14	15	14	10	9	8	10	12	23	20	14	9	6	4	5	7	11	11	13	11	11.1	23.1	
7-Nov-07	12	11	11	12	10	8	10	9	6	4	3	8	10	11	10	9	9	10	8	11	14	9	11	10	9.5	13.6	
8-Nov-07	10	17	20	18	12	10	5	7	7	4	4	6	8	7	8	7	5	3	3	4	5	5	3	3	7.5	19.8	
9-Nov-07	6	9	10	13	7	9	13	12	13	11	11	13	11	10	8	6	4	2	4	4	3	6	7	9	8.4	13.4	
10-Nov-07	8	10	8	8	5	6	3	5	5	3	4	6	5	19	29	19	18	23	24	31	35	36	33	29	15.5	35.5	
11-Nov-07	26	25	25	27	28	27	22	11	9	12	10	15	12	15	13	11	9	11	10	9	7	5	6	8	14.7	27.7	
12-Nov-07	6	3	4	8	9	7	6	9	9	8	6	7	10	11	9	11	13	11	9	7	14	9	11	22	9.1	22.5	
13-Nov-07	30	30	31	29	26	24	19	17	14	12	10	12	17	23	23	26	22	20	19	19	21	21	22	21	21.1	30.7	
14-Nov-07	19	19	16	14	12	17	17	18	12	17	17	16	17	17	15	8	8	3	3	5	7	10	14	15	13.1	19.2	
15-Nov-07	12	10	7	5	5	6	5	5	6	6	7	5	3	4	5	3	5	8	8	7	8	12	11	5	6.5	12.1	
16-Nov-07	4	6	8	7	6	5	5	5	4	3	4	5	5	8	8	7	10	12	11	9	8	13	13	13	7.5	13.5	
17-Nov-07	10	8	9	9	12	8	7	9	6	6	3	6	10	12	10	12	9	9	9	3	5	4	3	6	7.7	12.4	
18-Nov-07	4	3	6	10	17	19	14	17	17	16	18	20	20	21	18	13	9	8	6	9	12	14	16	16	13.5	21.4	
19-Nov-07	15	15	17	17	15	15	14	13	14	8	10	11	14	15	15	11	11	11	11	8	8	11	12	9	12.5	17.1	
20-Nov-07	6	4	5	6	5	5	4	5	3	3	3	3	5	4	3	4	4	3	6	6	7	7	7	6	4.8	7.4	
21-Nov-07	7	6	5	5	5	6	5	4	6	5	4	4	6	7	9	10	10	8	11	11	17	22	20	17	8.8	21.5	
22-Nov-07	22	21	16	9	14	7	14	14	9	11	9	11	13	14	11	12	12	16	16	16	16	13	7	7	13.0	22.0	
23-Nov-07	9	8	8	9	9	10	11	11	10	10	9	9	11	11	12	15	10	16	13	12	14	10	13	14	11.0	16.1	
24-Nov-07	13	11	7	8	8	5	19	28	34	28	23	15	26	24	23	22	24	19	21	18	23	26	25	24	19.8	33.7	
25-Nov-07	22	25	24	22	17	12	9	10	17	15	18	17	16	16	19	20	17	16	15	14	15	12	14	11	16.4	25.2	
26-Nov-07	13	12	10	11	10	10	12	11	10	10	10	11	13	10	11	13	15	12	10	11	10	8	11	11	11.0	15.2	
27-Nov-07	10	10	8	6	8	4	7	4	8	4	3	4	4	3	3	6	7	7	6	4	3	11	17	15	6.8	17.4	
28-Nov-07	14	13	10	6	5	4	5	4	3	4	6	5	3	4	3	4	5	7	7	5	4	5	7	9	5.9	14.5	
29-Nov-07	9	7	7	6	6	8	8	8	6	6	8	9	9	13	12	12	9	11	11	12	11	13	9	7	9.1	13.1	
30-Nov-07	10	8	7	7	7	5	5	5	7	10	12	5	3	15	15	11	10	5	3	12	22	25	19	13	10.0	25.2	
1-hr Average	13.3	13.0	12.5	12.6	12.3	11.7	11.5	11.5	11.4	10.9	11.1	11.7	13.0	14.3	13.5	12.6	11.8	11.1	10.8	11.2	12.4	13.0	13.3	12.9			
Hourly Max	30.3	29.5	30.7	28.6	27.7	28.0	25.8	28.4	33.7	34.5	36.9	39.9	36.1	34.2	33.7	37.3	39.9	32.1	27.4	31.3	34.7	35.5	32.5	29.2			

# PASZA - Smoky Heights Vector Wind Speed Monthly Summary

Station: Smoky Heights  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

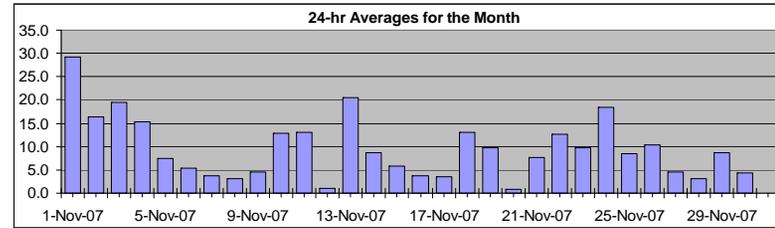
## Wind Speed (WSv)

Monitoring Dates: November 1, 2007 to December 1, 2007

### Summary

Maximum 1-hr Average:	39.8	km/hr	1-Nov	16:00 17:00
Maximum 24-hr Value:	29.2	km/hr	1-Nov	

Calm Time:	0 hrs	0% calms	Operational Time:	720 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageV
	34.3	26.3	15.8	10.3	6.4	2.9	1.6	45.4 km/hr



### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hr Vector Average	Daily Max	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Nov-07	27	27	24	27	27	27	26	27	30	34	37	40	36	34	33	37	40	32	27	26	23	20	23	22	29.2	39.8	
2-Nov-07	19	20	19	18	20	16	16	18	16	12	15	18	16	16	15	16	19	15	12	22	20	25	23	25	16.4	25.5	
3-Nov-07	23	22	22	22	24	28	25	21	24	26	28	25	24	26	21	18	10	9	9	10	11	13	13	14	19.5	27.9	
4-Nov-07	17	15	14	18	17	17	19	21	24	24	23	23	27	24	20	14	9	8	12	12	10	6	7	6	15.4	26.5	
5-Nov-07	8	6	7	7	6	8	6	7	6	5	7	11	12	12	13	11	14	14	12	9	8	6	9	5	7.4	14.3	
6-Nov-07	6	5	11	15	14	14	14	10	8	7	10	12	23	20	13	9	5	4	5	7	11	11	13	11	5.3	22.7	
7-Nov-07	12	11	11	12	10	8	10	9	6	3	3	8	10	11	10	9	9	9	8	11	13	9	11	10	3.8	13.2	
8-Nov-07	10	17	20	18	11	9	4	5	7	4	4	5	8	7	8	7	5	2	3	4	4	5	2	3	3.0	19.6	
9-Nov-07	6	9	10	13	7	9	13	12	12	11	11	13	11	10	8	6	3	2	4	4	3	5	7	9	4.7	13.2	
10-Nov-07	8	10	8	8	5	6	1	5	4	3	3	6	5	19	28	19	18	23	24	31	35	35	32	29	12.8	35.5	
11-Nov-07	26	25	25	27	28	26	21	11	9	11	10	15	12	15	13	11	9	11	10	9	6	4	5	7	13.0	27.7	
12-Nov-07	6	3	3	7	8	7	5	8	8	8	6	5	7	9	9	10	12	11	9	5	10	8	11	22	1.0	22.2	
13-Nov-07	30	29	31	28	26	24	19	17	14	12	10	12	17	23	23	26	22	20	19	19	21	21	22	21	20.4	30.5	
14-Nov-07	19	19	15	14	12	17	17	18	12	17	17	16	17	17	15	8	7	2	2	4	7	10	13	14	8.7	19.2	
15-Nov-07	12	10	7	4	5	6	4	5	6	6	7	5	1	4	4	3	4	8	8	7	8	12	11	5	5.8	12.0	
16-Nov-07	4	6	8	7	6	5	5	4	3	1	4	5	5	8	4	6	10	12	11	9	8	13	13	13	3.8	13.3	
17-Nov-07	10	5	6	8	12	8	7	8	6	5	2	5	10	12	9	12	9	8	8	0	3	3	3	6	3.6	12.3	
18-Nov-07	3	2	6	10	17	19	14	17	17	16	18	20	20	21	18	13	9	8	6	9	12	14	15	16	13.0	21.4	
19-Nov-07	15	15	17	17	15	15	14	13	13	8	10	11	14	15	15	11	11	9	10	5	8	11	12	9	9.7	17.0	
20-Nov-07	6	4	5	6	5	5	4	5	3	2	3	2	5	4	2	4	4	2	6	6	7	7	7	6	0.9	7.3	
21-Nov-07	7	6	5	5	5	6	5	3	6	5	4	4	6	7	9	10	10	8	11	11	16	21	20	17	7.8	21.5	
22-Nov-07	22	21	16	7	14	6	14	14	8	11	9	11	13	14	11	12	12	16	16	16	16	12	6	7	12.6	21.9	
23-Nov-07	9	8	8	9	9	10	11	11	10	10	8	9	11	11	11	15	10	16	13	12	14	9	13	14	9.8	16.1	
24-Nov-07	13	10	7	8	7	4	18	28	34	28	23	14	26	24	23	22	24	19	21	18	23	26	25	24	18.4	33.6	
25-Nov-07	22	25	24	22	17	12	9	6	17	15	18	17	16	16	19	19	17	16	15	14	15	12	14	11	8.4	25.1	
26-Nov-07	13	11	10	11	10	10	12	11	10	10	10	11	13	9	10	13	15	12	10	11	10	8	10	10	10.3	15.1	
27-Nov-07	10	10	8	6	8	4	6	4	8	3	3	4	3	2	2	6	6	7	6	4	1	11	17	15	4.6	17.1	
28-Nov-07	14	13	9	6	5	1	4	3	3	4	5	4	3	4	3	4	4	7	7	1	2	5	6	8	3.0	14.4	
29-Nov-07	9	7	6	6	6	8	8	8	5	6	8	9	9	13	12	12	9	11	11	11	11	13	9	7	8.8	13.1	
30-Nov-07	9	7	7	7	7	4	4	5	7	10	11	2	2	15	14	11	10	5	2	11	22	25	18	13	4.4	25.0	
1-hr Vector	8.5	8.2	7.7	7.2	7.9	7.8	7.2	6.8	6.6	6.6	6.5	6.0	6.1	7.8	6.1	5.8	5.5	5.7	6.2	6.5	7.1	7.7	7.0	7.4			
Hourly Max	30.3	29.2	30.5	28.5	27.7	27.8	25.8	28.4	33.6	34.4	36.8	39.8	35.8	33.9	33.5	37.1	39.8	32.0	27.4	31.2	34.6	35.5	32.5	29.2			



## PASZA - Smoky Heights Standard Deviation of Wind Direction Monthly Summary

Station: Smoky Heights  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

**Wind Direction (WD)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

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Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	720 hrs			
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%			
Percentile	99	95	75	50	25	5	1
	71.3	49.8	16.8	9.0	5.4	3.1	2.4

**Status Flag Characters**

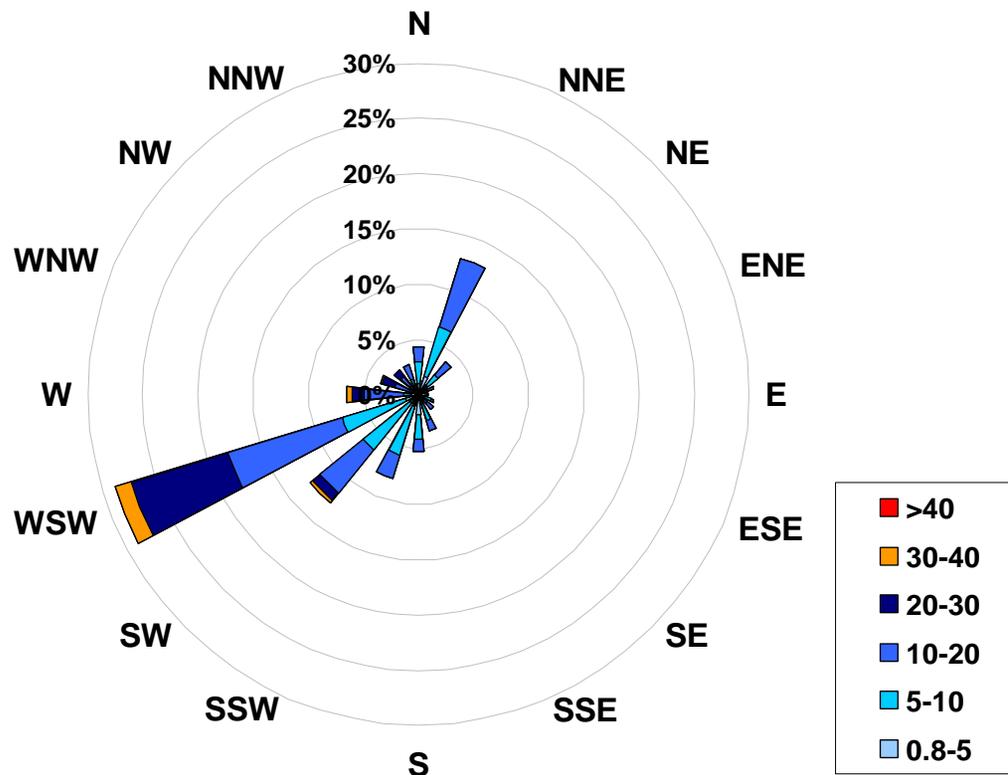
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	0:00	Daily Maximum
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Nov-07	4	6	6	3	4	3	3	3	3	3	4	5	7	8	7	6	3	4	3	2	9	5	5	4	9.4		
2-Nov-07	5	5	4	5	5	9	6	7	9	18	12	14	5	5	8	13	9	5	18	4	5	5	5	3	18.3		
3-Nov-07	5	4	3	3	5	5	6	5	3	3	4	5	5	7	6	4	7	4	4	5	6	6	4	6	6.8		
4-Nov-07	4	2	6	6	3	7	3	3	5	5	7	10	9	12	9	9	14	10	3	2	4	42	20	25	42.3		
5-Nov-07	17	15	10	5	6	6	7	7	9	18	7	8	5	7	6	7	6	8	6	12	8	23	27	65	65.4		
6-Nov-07	31	14	18	9	10	8	10	10	20	16	11	11	10	10	15	11	41	17	28	19	7	8	4	5	41.2		
7-Nov-07	4	5	4	5	6	5	4	7	21	42	50	12	12	7	6	6	6	9	24	18	13	17	13	12	49.8		
8-Nov-07	14	10	7	12	15	12	48	59	20	26	44	18	10	12	10	17	7	56	29	25	10	11	45	25	58.8		
9-Nov-07	18	25	15	13	17	16	7	8	5	5	5	6	6	7	6	7	19	58	18	13	32	18	12	9	58.4		
10-Nov-07	14	8	14	13	17	23	69	10	28	22	47	17	24	52	13	13	7	3	4	3	2	2	3	3	68.6		
11-Nov-07	5	7	5	3	3	8	9	9	15	9	9	7	12	9	11	6	8	6	5	7	18	53	31	28	52.8		
12-Nov-07	17	51	62	17	15	39	27	15	19	6	18	46	61	40	22	25	17	14	12	56	49	32	8	9	62.3		
13-Nov-07	3	9	6	5	5	5	5	5	6	9	6	7	5	5	4	5	2	4	3	3	4	3	3	2	9.1		
14-Nov-07	3	4	10	6	4	4	6	5	7	5	5	4	5	5	5	16	22	47	78	25	9	7	8	8	77.7		
15-Nov-07	6	7	17	24	20	11	12	12	13	9	11	9	79	23	25	37	62	6	3	11	6	8	6	25	79.0		
16-Nov-07	18	14	14	17	17	26	25	37	62	88	24	28	24	15	70	18	6	8	12	15	21	9	6	5	87.6		
17-Nov-07	16	49	49	23	7	16	18	22	22	33	52	34	10	5	7	7	9	10	24	94	49	48	41	6	94.5		
18-Nov-07	43	57	18	8	4	5	9	4	3	4	4	5	4	5	6	8	11	12	19	10	4	8	5	2	56.9		
19-Nov-07	4	4	4	4	3	3	3	4	6	11	6	10	4	5	4	13	10	39	8	53	10	6	10	8	53.2		
20-Nov-07	11	22	18	8	10	21	21	12	21	67	30	53	11	23	62	28	23	30	8	8	10	14	7	13	66.8		
21-Nov-07	8	15	6	17	13	8	11	12	12	23	11	11	6	8	15	14	9	12	9	7	4	3	2	5	23.5		
22-Nov-07	4	3	12	65	8	56	15	9	17	8	10	6	16	5	6	7	9	7	4	5	4	19	18	21	64.7		
23-Nov-07	10	16	10	8	4	6	7	7	7	10	21	8	6	7	6	8	19	3	7	5	3	16	3	5	21.1		
24-Nov-07	11	18	8	18	45	65	19	3	3	8	9	4	5	5	5	9	7	6	7	2	3	3	4	4	64.8		
25-Nov-07	4	3	3	2	3	6	10	56	8	5	6	7	14	10	6	6	6	7	6	10	6	6	7	10	56.3		
26-Nov-07	6	10	8	7	9	8	8	8	7	6	4	4	7	24	30	5	4	4	8	6	8	11	4	7	30.4		
27-Nov-07	7	6	10	14	11	41	29	26	11	37	17	11	32	43	42	12	15	9	10	30	72	35	11	7	71.6		
28-Nov-07	6	10	13	15	13	84	27	46	34	26	18	34	35	13	24	31	16	8	13	86	67	24	26	16	85.6		
29-Nov-07	10	16	16	13	9	7	5	9	21	14	11	4	6	5	4	6	5	3	16	17	9	6	12	24	23.9		
30-Nov-07	7	8	7	7	16	39	24	12	12	9	36	60	57	12	8	9	8	12	75	63	5	6	19	9	74.6		

Hourly Max	43	57	62	65	45	84	69	59	62	88	52	60	79	52	70	37	62	58	78	94	72	53	45	65
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1-hr Average Wind Rose (in km/hr) Located at the Smoky Heights Site for November 2007



Calms: 0%

Frequency Distribution of Wind in km/hr			
Range			Frequency (hrs)
0.8	<	5	94
5	to	10	238
10	to	20	277
20	to	30	94
30	to	40	17
	>	40	0
Total Non-Zero Values			720

# PASZA – Beaverlodge Station

## Monthly Summary Tables, Graphs and Roses

## PASZA - Beaverlodge AQI Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

### Air Quality Index (AQI)

Monitoring Dates: November 1, 2007 to December 1, 2007

Alberta's Air Quality Index

Good	1	to	25
Fair	26	to	50
Poor	51	to	100
Very Poor	>		100

**Summary**

Number of 1-hr Good Readings:	684
Number of 1-hr Fair Readings:	0
Number of 1-hr Poor Readings:	0
Number of 1-hr Very Poor Readings:	0

**Status Flag Characters**

C Calibration	A AIC - Zero / Span Check
S Instrument out of Service	X Filter Exchange
N No Data	M Equipment Maintenance
D Excessive Instrument Drift	P Power Failure

Day	Mountain Standard Time																								
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00
1-Nov-07	16	16	17	17	N	17	17	17	17	17	17	18	18	18	17	17	17	17	17	17	17	17	16	16	
2-Nov-07	16	15	15	13	N	17	16	11	12	9	7	13	16	17	17	19	20	19	18	17	17	17	17	16	
3-Nov-07	17	16	16	17	N	18	18	17	17	18	18	18	18	18	18	18	18	17	15	14	14	13	13	14	
4-Nov-07	16	16	15	16	N	15	14	15	15	15	17	17	18	17	17	17	15	14	15	13	12	12	11	12	
5-Nov-07	11	12	13	12	N	11	10	8	7	5	8	10	9	9	10	12	12	9	9	9	8	9	10	7	
6-Nov-07	7	6	8	7	N	4	6	10	11	10	11	7	12	15	13	12	12	12	11	13	10	11	10	11	
7-Nov-07	11	11	10	8	N	6	5	4	4	4	5	5	4	4	4	6	10	13	14	12	14	12	8	5	
8-Nov-07	7	10	10	10	N	9	7	6	4	8	9	10	14	17	16	14	14	14	11	10	11	12	12	13	
9-Nov-07	12	11	12	12	N	13	13	13	12	12	11	11	10	10	10	10	10	10	10	10	10	10	9	8	6
10-Nov-07	5	6	5	5	N	4	4	3	4	6	4	6	9	9	16	18	17	17	17	17	17	17	17	17	
11-Nov-07	17	16	16	15	N	16	16	15	15	14	15	15	16	16	15	14	11	12	12	14	14	13	14	15	
12-Nov-07	15	15	15	14	N	16	15	16	15	15	14	14	13	16	18	19	19	18	14	13	15	13	10	10	
13-Nov-07	13	14	14	14	N	15	12	5	13	12	13	14	N	N	N	15	15	15	16	16	15	14	16		
14-Nov-07	17	18	18	17	N	17	16	17	16	1	0	N	N	20	18	17	18	18	17	17	17	19	20	18	
15-Nov-07	17	16	14	15	N	13	13	11	7	10	13	14	13	13	12	11	9	9	9	11	9	8	7	6	
16-Nov-07	6	7	6	7	N	7	7	9	8	9	7	9	8	8	8	7	5	5	9	11	9	8	7	9	
17-Nov-07	10	12	15	16	N	15	15	16	15	15	15	14	13	13	13	9	9	11	10	7	6	6	5	7	
18-Nov-07	6	4	5	11	N	13	14	17	16	17	16	17	18	18	18	18	17	17	16	15	14	15	15	15	
19-Nov-07	15	15	15	14	N	14	13	11	11	13	14	14	12	13	15	12	13	18	17	15	15	15	16	16	
20-Nov-07	16	16	15	12	N	14	14	14	13	13	13	14	15	15	15	14	12	13	12	13	11	13	12	13	
21-Nov-07	13	11	12	12	N	13	13	12	12	14	16	14	11	14	14	15	16	16	17	17	17	17	17	17	
22-Nov-07	17	17	18	18	N	17	17	16	16	17	18	16	17	18	18	14	17	16	18	15	15	16	16	17	
23-Nov-07	17	18	17	17	N	15	15	15	12	9	13	16	15	15	16	17	19	20	21	22	21	20	21	21	
24-Nov-07	21	21	20	21	N	22	21	22	21	21	21	20	20	19	19	18	19	19	18	18	18	18	17	17	
25-Nov-07	17	17	18	18	N	18	18	18	17	17	17	14	13	13	14	14	13	14	15	15	14	15	18	18	
26-Nov-07	18	18	18	17	N	16	16	15	15	15	16	16	15	15	15	15	15	14	11	11	12	12	12	13	
27-Nov-07	14	14	13	12	N	12	11	8	6	9	10	11	11	10	9	8	8	10	8	12	12	11	13	14	
28-Nov-07	14	14	15	14	N	14	14	13	11	12	13	13	11	11	10	10	8	10	11	5	9	10	10	11	
29-Nov-07	11	11	12	12	N	13	12	13	13	11	12	11	12	13	14	15	15	15	14	13	11	11	15	16	
30-Nov-07	19	21	16	16	N	17	17	14	12	14	13	15	18	18	18	19	19	13	14	19	20	20	20	20	

# PASZA - Beaverlodge Sulphur Dioxide Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

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

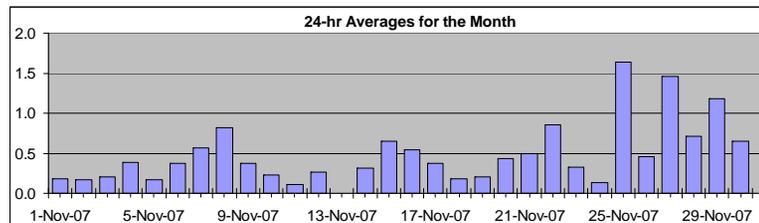
Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 1-hr 172 ppb 24-hr 57 ppb

### Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	10.0	ppb	25-Nov	13:00 14:00
Maximum 24-hr Average:	1.6	ppb	25-Nov	

AIC Time:	33 hrs	Operational Time:	679 hrs						
Calibration Time:	8 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	3.7	1.7	0.6	0.3	0.1	0.1	0.0	0.5 ppb	0.3 ppb



### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00			
1-Nov-07	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
2-Nov-07	0	0	0	0	A	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.2	1.6	
3-Nov-07	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0.2	1.8	
4-Nov-07	1	0	0	0	A	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.4	1.0	
5-Nov-07	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
6-Nov-07	0	0	0	0	A	0	0	0	0	0	1	2	1	0	0	1	0	0	0	0	0	0	0	0	0.4	1.6	
7-Nov-07	0	0	1	1	A	0	0	1	1	0	0	0	0	0	0	0	4	1	0	0	0	1	0	0	0.6	4.3	
8-Nov-07	0	0	0	0	A	0	0	0	0	0	2	3	1	1	1	1	0	1	2	1	1	1	1	1	0.8	3.2	
9-Nov-07	1	1	1	1	A	1	1	0	1	1	1	1	C	C	0	0	0	0	0	0	0	0	0	0	0.4	0.9	
10-Nov-07	0	0	0	0	A	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8	
11-Nov-07	0	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-Nov-07	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	
13-Nov-07	0	0	0	0	A	0	0	0	0	0	0	0	C	C	C	C	C	A	0	0	1	1	0	N	1.4		
14-Nov-07	1	0	0	0	A	0	0	0	0	0	0	0	A	A	0	0	0	0	0	1	1	0	0	1	0.3	1.5	
15-Nov-07	1	1	1	1	A	1	1	0	0	1	0	1	1	1	1	0	0	1	1	1	1	1	0	1	0.7	1.3	
16-Nov-07	1	1	1	0	A	0	1	1	1	1	1	1	1	1	1	0	0	0	0	1	0	0	0	0	0.5	0.9	
17-Nov-07	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0.4	1.2	
18-Nov-07	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
19-Nov-07	0	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-Nov-07	1	1	1	1	A	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.2	
21-Nov-07	1	1	1	1	A	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0.5	0.9	
22-Nov-07	1	1	1	0	A	0	0	0	0	0	0	0	0	1	1	1	2	2	2	2	2	1	0	0	0.8	2.4	
23-Nov-07	0	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	
24-Nov-07	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5	
25-Nov-07	0	0	0	0	A	0	0	0	0	0	0	1	4	10	4	1	7	2	1	0	0	2	4	0	1.6	10.0	
26-Nov-07	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0.5	1.1	
27-Nov-07	2	2	2	2	A	1	1	2	2	1	1	1	1	0	1	1	4	3	1	1	2	2	1	1	1.5	4.2	
28-Nov-07	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	0.7	1.1	
29-Nov-07	2	2	2	2	A	2	2	3	4	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1.2	3.9	
30-Nov-07	2	2	2	1	A	1	1	1	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0.6	2.4	
Hourly Avg	0.5	0.5	0.5	0.5	N	0.4	0.5	0.5	0.5	0.4	0.4	0.6	0.6	0.7	0.5	0.4	0.7	0.6	0.5	0.5	0.5	0.5	0.4				
Hourly Max	1.7	2.4	2.1	2.1	0.0	1.7	1.9	3.1	3.9	2.1	1.3	2.3	4.3	10.0	3.6	1.1	6.6	4.3	2.4	2.3	2.0	1.7	3.9	1.1			

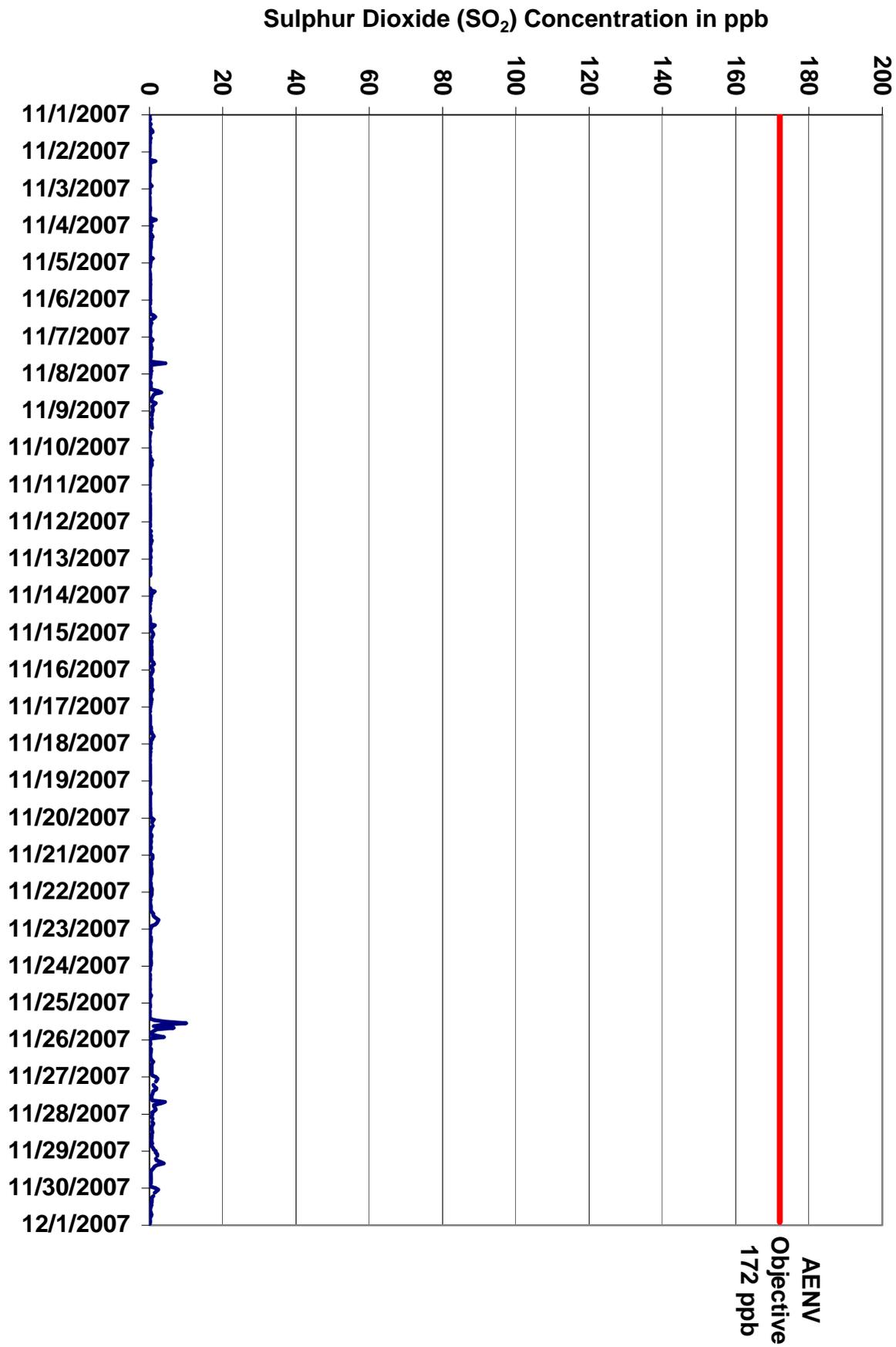


Figure 34. PASZA - Beaverlodge Sulphur Dioxide 1-hr Average Monthly Trend

Station: Beaverlodge  
 Station Owner: PASZA

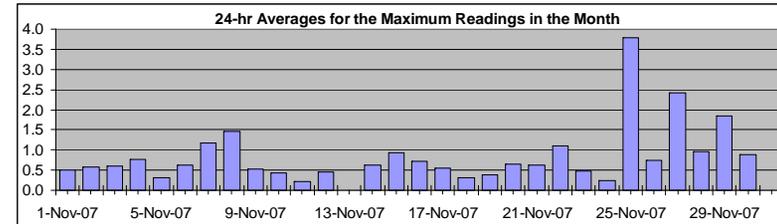
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	16.8	ppb	25-Nov	13:00 14:00
Maximum 24-hr Value:	3.8	ppb	25-Nov	



AIC Time:	33 hrs	Operational Time:	679 hrs						
Calibration Time:	8 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	7.3	2.5	0.8	0.5	0.3	0.2	0.1	0.9 ppb	0.5 ppb

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	24-hour Average	Daily Maximum
1-Nov-07	0	0	0	1	A	0	1	0	0	1	1	1	1	0	0	1	1	0	1	0	0	0	0	0	0.5	1.1
2-Nov-07	0	0	0	0	A	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.6	6.5
3-Nov-07	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	1	1	1	1	0.6	3.4
4-Nov-07	2	1	0	1	A	1	1	1	0	1	1	1	0	1	0	0	0	0	1	1	3	0	0	0	0.8	3.4
5-Nov-07	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.3	0.5
6-Nov-07	0	0	0	0	A	0	0	0	0	1	2	2	2	1	1	1	0	0	0	0	0	0	0	0	0.6	2.2
7-Nov-07	0	1	1	1	A	1	1	1	1	0	0	1	0	0	0	1	0	7	7	0	1	0	1	0	1.2	7.4
8-Nov-07	1	1	0	0	A	0	1	0	0	0	1	7	6	2	1	1	1	1	1	2	2	1	1	1	1.5	7.2
9-Nov-07	1	1	1	1	A	1	1	1	1	1	1	1	C	C	0	0	0	0	0	0	0	0	0	0	0.5	1.3
10-Nov-07	0	0	0	0	A	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.0
11-Nov-07	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
12-Nov-07	0	0	0	0	A	0	1	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0.5	1.0
13-Nov-07	0	0	0	0	A	0	0	1	1	0	1	0	C	C	C	C	C	A	0	0	2	2	0	0	N	2.3
14-Nov-07	1	0	0	1	A	0	0	0	0	0	0	A	A	0	0	0	0	0	4	2	0	1	1	1	0.6	3.8
15-Nov-07	1	1	1	1	A	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	0.9	2.3
16-Nov-07	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0	0	0.7	1.2
17-Nov-07	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	1	1	1	1	0.6	1.6
18-Nov-07	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
19-Nov-07	1	1	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.4	0.6
20-Nov-07	1	2	1	1	A	1	1	0	0	0	0	1	1	0	0	1	0	0	0	1	0	0	0	1	0.6	1.6
21-Nov-07	1	1	1	1	A	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	0.6	1.1
22-Nov-07	1	1	1	0	A	0	0	0	0	0	0	0	1	1	1	1	2	2	3	3	2	2	1	1	1.1	2.9
23-Nov-07	0	0	0	0	A	1	1	1	1	0	0	0	0	1	0	1	1	1	0	0	0	1	1	1	0.5	0.7
24-Nov-07	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0.2	0.7
25-Nov-07	0	0	0	0	A	0	0	0	0	0	0	5	12	17	8	4	14	3	2	1	0	6	14	0	3.8	16.8
26-Nov-07	0	0	1	1	A	0	1	0	0	0	0	0	0	1	4	1	1	1	1	1	1	1	1	1	0.7	4.0
27-Nov-07	2	3	2	2	A	1	2	2	3	1	1	1	1	1	1	1	15	7	2	2	2	2	2	1	2.4	14.7
28-Nov-07	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.0	1.7
29-Nov-07	2	2	3	5	A	3	3	5	7	3	2	1	1	1	0	0	0	0	1	1	0	0	0	1	1.8	6.5
30-Nov-07	2	3	2	2	A	1	1	1	1	1	1	1	0	0	1	0	0	1	1	0	0	0	0	0	0.9	2.7
Hourly Avg	0.7	0.7	0.7	0.8	N	0.6	0.9	0.7	0.7	0.7	0.6	1.0	1.2	1.1	0.9	0.6	1.4	1.0	0.9	0.9	0.8	1.0	1.1	0.6		
Hourly Max	2.2	2.9	2.5	5.4	0.0	2.9	6.5	4.6	6.5	3.5	2.0	7.2	11.7	16.8	8.0	3.7	14.7	7.4	6.7	3.8	3.4	5.9	13.7	1.7		

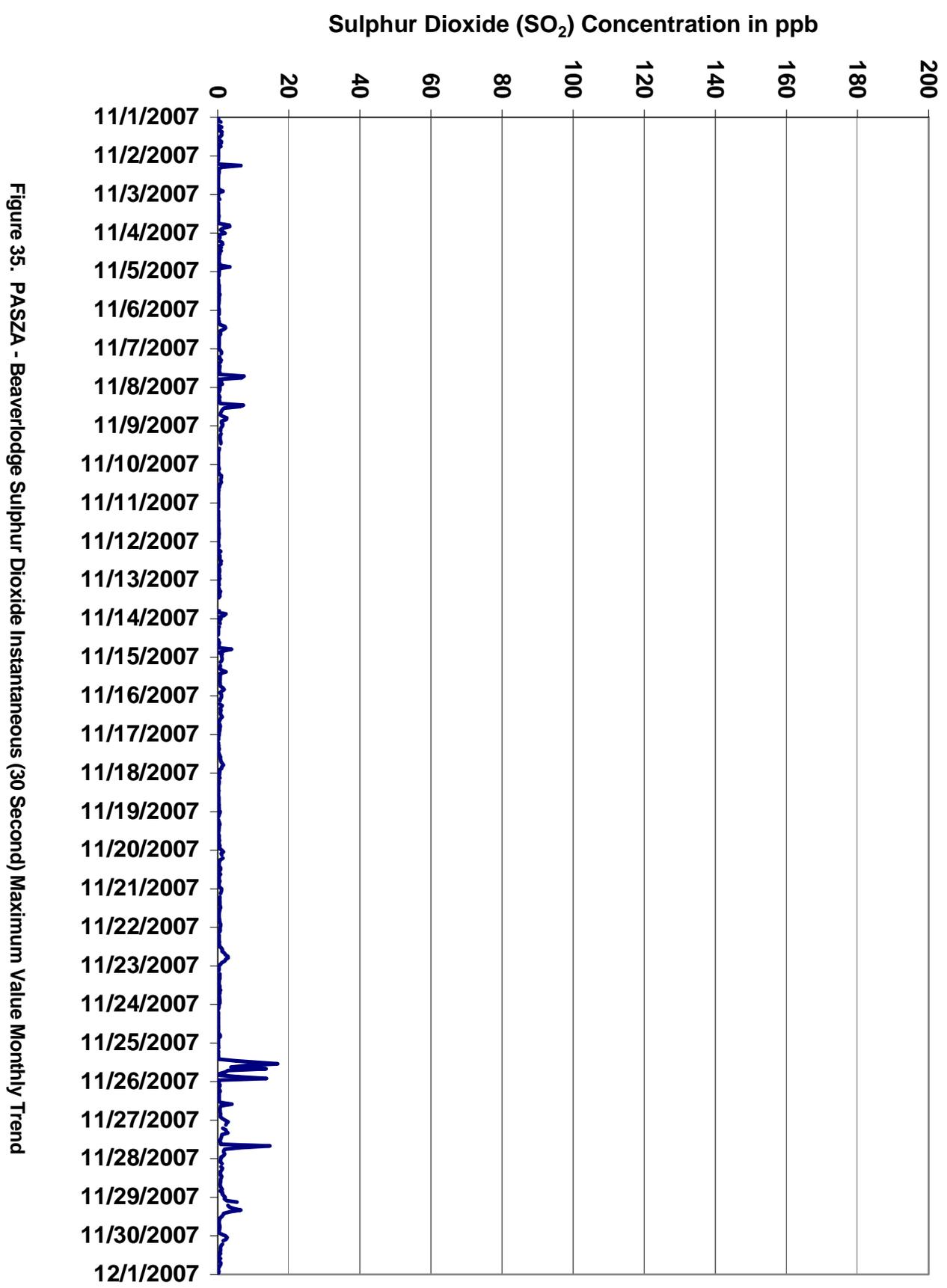
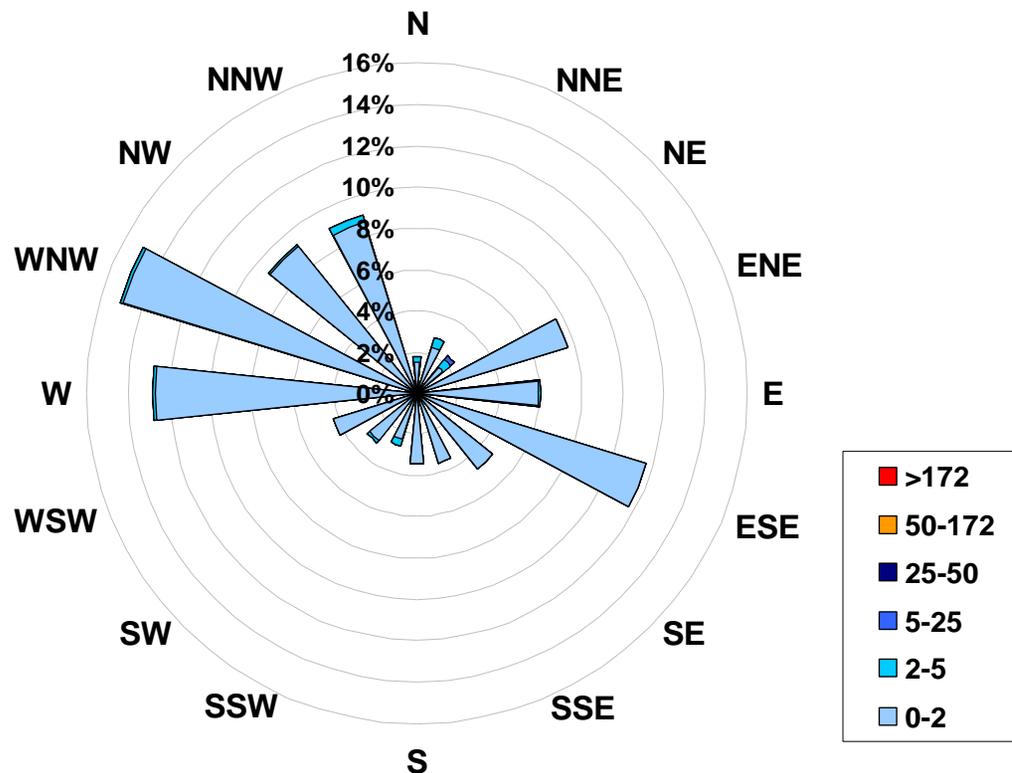


Figure 35. PASZA - Beaverlodge Sulphur Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Sulphur Dioxide (in ppb) Located at the Beaverlodge Site for November 2007**



**Calms: 0%**

Frequency Distribution of SO <sub>2</sub> in ppb			Frequency (hrs)
Range			
0.0	< 2		660
2	to 5		17
5	to 25		2
25	to 50		0
50	to 172		0
	> 172		0
Total Non-Zero Values			679

# PASZA - Beaverlodge Nitrogen Dioxide Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

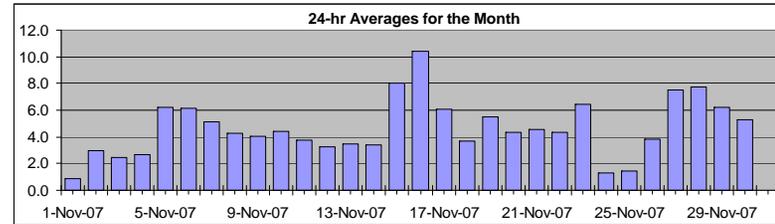
## HOURLY AVERAGE TABLE

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

Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 1-hr 212 ppb 24-hr 106 ppb

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	26.2	ppb	15-Nov	18:00 19:00
Maximum 24-hr Average:	10.4	ppb	16-Nov	



AIC Time:	34 hrs	Operational Time:	682 hrs					
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%					
Percentile 99	95	75	50	25	5	1	Average	Median
15.7	11.7	6.2	3.8	2.0	0.9	0.7	4.7 ppb	3.8 ppb

### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00		
1-Nov-07	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	1.1
2-Nov-07	1	1	1	2	A	1	2	8	6	10	14	6	3	2	3	2	1	1	1	1	1	1	1	1	3.0	14.0
3-Nov-07	1	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2	3	6	4	8	9	5	2	2.4	9.0
4-Nov-07	1	1	2	1	A	1	2	2	2	2	1	1	1	1	1	2	4	6	4	5	6	6	5	3	2.6	6.1
5-Nov-07	5	3	2	2	A	3	4	6	9	11	8	6	6	6	5	4	5	9	10	9	10	7	5	9	6.2	11.2
6-Nov-07	9	9	6	5	A	11	11	5	6	6	6	13	4	3	3	4	4	4	4	3	8	7	7	4	6.1	12.7
7-Nov-07	2	3	4	4	A	6	5	9	10	6	4	4	6	4	5	6	8	5	3	4	3	6	6	4	5.2	10.2
8-Nov-07	3	1	2	1	A	3	6	8	15	5	3	4	3	1	1	4	4	3	6	8	5	5	4	3	4.3	15.1
9-Nov-07	4	3	3	3	A	3	3	3	4	3	3	4	5	5	5	5	5	4	4	4	4	4	4	7	4.0	7.2
10-Nov-07	8	6	6	6	A	5	7	10	12	7	7	6	6	5	2	1	1	1	1	1	1	1	1	1	4.4	12.2
11-Nov-07	1	1	1	1	A	2	2	4	3	4	4	4	2	2	3	7	10	7	7	4	5	6	4	3	3.8	10.3
12-Nov-07	2	2	3	4	A	1	3	3	2	2	3	3	6	4	3	2	2	3	9	7	3	3	2	2	3.3	8.8
13-Nov-07	2	1	1	2	A	1	7	22	4	4	3	C	C	C	C	A	2	2	2	1	1	2	3	1	3.5	21.9
14-Nov-07	1	1	1	1	A	1	3	2	4	4	2	A	A	A	5	8	5	4	6	8	6	3	2	3	3.4	7.7
15-Nov-07	3	3	4	3	A	6	5	9	16	9	4	3	5	5	6	8	12	12	26	16	7	6	6	10	8.0	26.2
16-Nov-07	9	13	8	9	A	9	12	16	15	11	6	8	8	7	8	11	12	13	13	14	11	11	8	6	10.4	15.7
17-Nov-07	4	3	2	2	A	3	4	4	4	4	4	5	5	4	10	14	13	6	5	9	9	9	8	8	6.0	14.0
18-Nov-07	8	14	13	4	A	2	4	2	2	2	5	2	1	2	2	1	2	1	2	4	5	3	3	2	3.7	13.6
19-Nov-07	3	3	3	5	A	3	4	7	7	5	4	6	8	8	6	12	11	3	4	7	6	6	4	3	5.5	12.0
20-Nov-07	3	2	2	6	A	4	4	4	5	4	4	3	2	3	3	4	9	6	7	5	8	4	5	4	4.3	8.7
21-Nov-07	3	5	4	4	A	3	4	6	6	4	2	5	10	6	5	5	5	5	4	4	3	4	3	3	4.6	9.5
22-Nov-07	3	2	2	2	A	2	2	3	5	3	2	6	5	3	2	11	5	7	3	10	8	6	4	3	4.4	10.6
23-Nov-07	2	2	4	3	A	5	6	6	11	16	10	8	9	11	10	11	7	5	3	2	3	6	4	4	6.4	16.2
24-Nov-07	2	2	2	1	A	1	1	1	1	1	1	1	1	1	1	2	2	1	2	2	1	1	1	1	1.3	2.1
25-Nov-07	1	1	1	1	A	1	1	1	2	2	2	2	1	2	1	1	3	3	2	2	2	1	1	1	1.4	2.8
26-Nov-07	1	0	1	1	A	1	2	3	3	3	2	3	3	3	3	3	3	4	11	11	8	7	7	5	3.8	11.4
27-Nov-07	3	4	5	5	A	5	7	13	19	9	7	6	6	7	10	13	13	8	11	5	6	5	4	2	7.5	18.6
28-Nov-07	2	3	2	4	A	3	3	5	9	7	4	7	10	10	12	11	15	10	8	21	10	8	7	5	7.7	21.2
29-Nov-07	5	4	4	4	A	5	6	5	6	9	6	8	7	5	5	4	5	5	6	8	13	13	6	5	6.2	13.1
30-Nov-07	6	5	4	4	A	3	3	8	13	8	10	9	3	3	3	2	3	16	13	3	1	1	2	1	5.2	15.5
Hourly Avg	3.3	3.3	3.1	3.0	N	3.2	4.1	5.9	6.8	5.5	4.5	4.8	4.5	4.1	4.3	5.5	5.8	5.3	6.1	6.1	5.5	5.0	4.1	3.6		
Hourly Max	9.4	13.6	12.7	8.7	0.0	10.8	12.2	21.9	18.6	16.2	14.0	12.7	10.5	10.6	12.0	14.0	15.1	15.5	26.2	21.2	12.6	13.1	8.8	10.1		

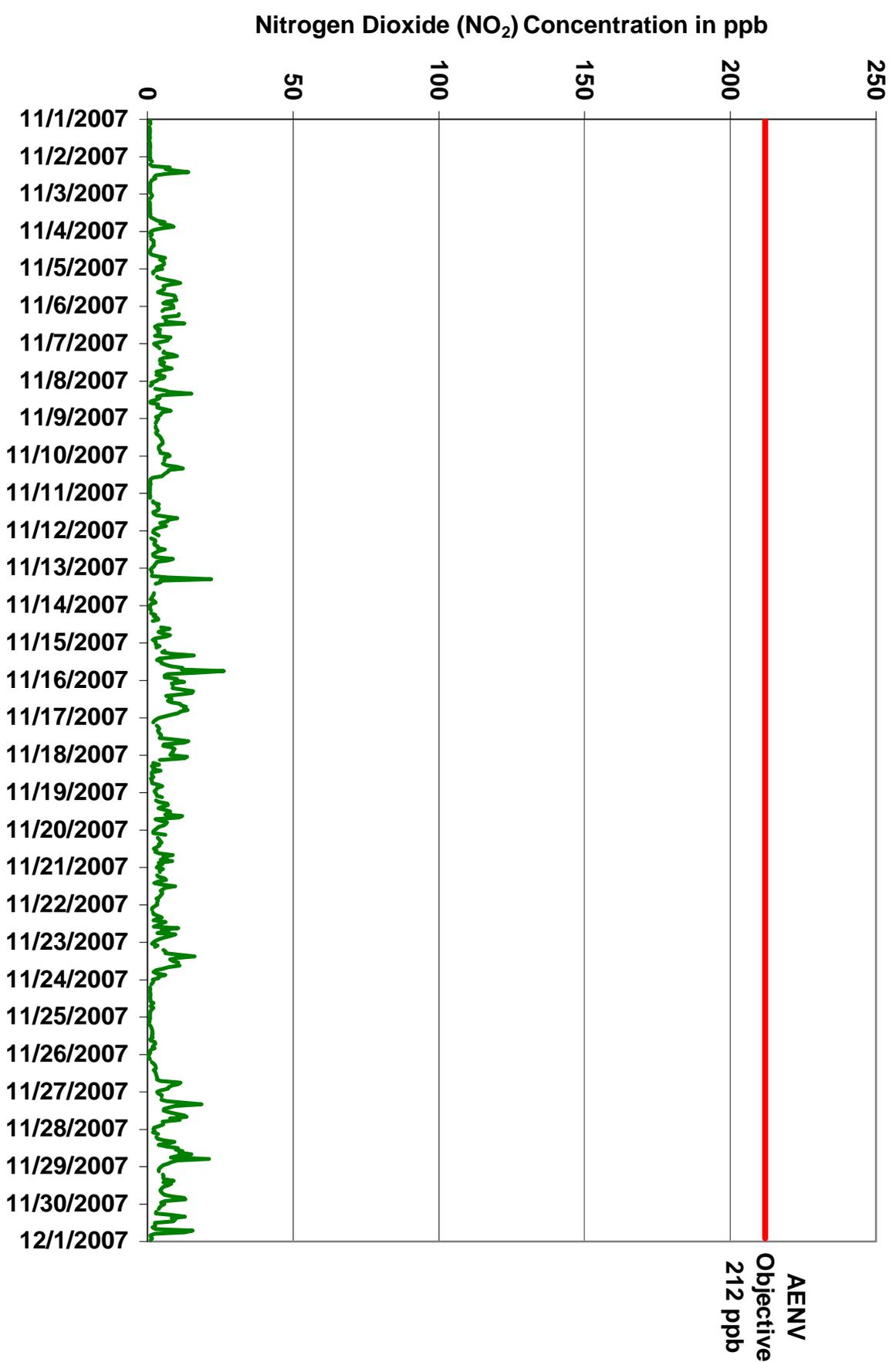


Figure 36. PASZA - Beaverlodge Nitrogen Dioxide 1-hr Average Monthly Trend

Station: Beaverlodge  
 Station Owner: PASZA

**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

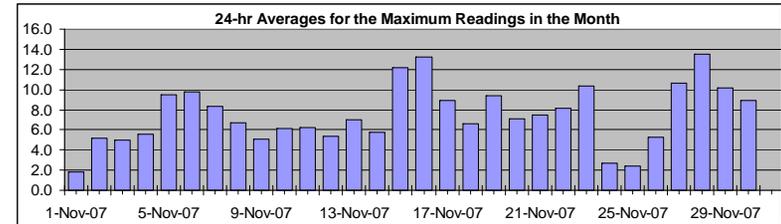
**Nitrogen Dioxide (NO<sub>2</sub>)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	34.7	ppb	28-Nov	19:00 20:00
Maximum 24-hr Value:	13.5	ppb	28-Nov	

AIC Time:	34 hrs	Operational Time:	682 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	26.2	18.6	10.0	5.8	2.9	1.6	0.9	7.5 ppb	5.8 ppb



**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	2	2	1	8	A	2	2	2	1	1	1	1	2	1	1	1	2	2	2	2	3	2	2	2	1.8	7.8
2-Nov-07	2	3	1	2	A	2	3	13	10	20	18	13	5	4	6	3	3	2	3	2	2	2	2	2	5.2	19.5
3-Nov-07	2	3	5	2	A	1	2	2	1	2	2	2	2	3	1	2	6	6	12	8	19	16	14	5	5.0	19.1
4-Nov-07	3	1	3	2	A	2	3	3	3	4	3	2	2	1	1	4	6	18	7	21	12	15	10	5	5.6	21.5
5-Nov-07	7	4	3	3	A	4	5	11	14	14	10	8	7	7	7	5	11	16	14	15	18	17	6	16	9.5	17.6
6-Nov-07	16	13	9	7	A	16	16	10	12	10	12	19	8	7	5	9	5	7	7	6	12	10	9	6	9.8	18.6
7-Nov-07	3	3	4	6	A	8	8	14	15	7	7	6	8	6	7	10	20	19	10	7	6	11	8	4	8.3	19.5
8-Nov-07	5	3	2	2	A	3	10	11	21	13	5	7	4	2	2	11	12	5	7	9	8	5	6	5	6.7	21.5
9-Nov-07	5	4	4	3	A	3	4	4	4	4	4	6	6	5	7	8	7	7	6	4	5	5	5	10	5.1	9.7
10-Nov-07	9	9	8	8	A	6	11	14	14	11	9	10	9	7	5	2	3	2	2	1	1	1	1	1	6.1	13.7
11-Nov-07	1	1	2	2	A	2	3	8	5	10	5	6	4	3	7	14	22	9	11	6	8	9	5	4	6.3	22.1
12-Nov-07	3	3	5	6	A	2	4	3	3	3	5	5	12	10	4	3	3	5	16	14	5	5	4	3	5.3	15.6
13-Nov-07	3	2	2	3	A	3	21	33	8	11	5	C	C	C	C	A	4	4	5	2	3	9	6	3	7.0	33.3
14-Nov-07	2	1	1	4	A	4	6	5	7	9	4	A	A	A	10	11	11	5	9	11	8	5	3	3	5.8	11.3
15-Nov-07	3	3	15	6	A	12	10	19	25	16	5	4	7	6	10	11	16	16	30	29	9	8	10	12	12.1	30.1
16-Nov-07	13	17	12	16	A	11	15	19	16	15	10	12	11	9	10	15	14	15	15	15	14	15	10	8	13.3	19.4
17-Nov-07	5	4	3	3	A	5	5	6	6	5	6	7	6	7	13	23	18	8	6	19	17	11	13	11	8.9	23.3
18-Nov-07	9	17	17	11	A	4	8	4	5	8	7	3	3	3	6	4	3	11	3	8	8	4	7	4	6.7	17.4
19-Nov-07	7	6	6	11	A	4	6	11	15	9	7	9	10	11	7	26	20	5	10	10	10	8	5	5	9.4	26.0
20-Nov-07	4	3	3	13	A	8	5	6	6	5	5	4	3	6	4	14	15	8	15	7	13	6	9	4	7.1	15.5
21-Nov-07	6	7	6	5	A	4	5	9	8	7	5	15	15	8	8	8	9	7	8	11	9	7	5	5	7.5	15.5
22-Nov-07	5	4	2	2	A	3	3	10	11	7	3	12	10	8	7	18	10	16	7	22	11	8	6	5	8.1	22.0
23-Nov-07	3	2	8	8	A	7	16	9	22	20	13	9	18	13	15	16	11	8	5	4	5	13	6	9	10.3	22.1
24-Nov-07	4	3	2	2	A	2	2	2	2	3	3	2	2	2	2	7	5	2	4	7	3	2	1	1	2.7	6.8
25-Nov-07	2	1	1	1	A	2	3	3	4	3	4	3	2	2	2	2	4	4	3	3	4	2	1	1	2.4	3.8
26-Nov-07	1	1	1	2	A	3	3	4	3	4	4	3	4	4	4	4	4	8	15	14	12	8	9	9	5.2	15.5
27-Nov-07	4	4	7	7	A	7	10	25	28	13	11	7	7	10	15	15	21	11	14	10	8	6	6	3	10.6	27.8
28-Nov-07	3	4	3	6	A	5	5	12	12	13	6	10	15	20	17	22	27	34	18	35	16	12	12	7	13.5	34.7
29-Nov-07	6	5	5	6	A	10	13	8	11	23	10	21	9	8	9	6	7	7	8	14	15	15	11	9	10.2	23.3
30-Nov-07	9	5	6	4	A	4	5	17	21	10	16	18	4	4	4	2	17	21	23	7	2	2	2	2	8.9	23.3
Hourly Avg	4.7	4.5	4.7	5.2	N	4.8	6.9	9.8	10.3	9.2	6.7	7.9	6.8	6.1	6.6	9.4	10.4	9.5	9.8	10.7	8.7	7.8	6.3	5.3		
Hourly Max	15.6	17.4	16.5	15.5	0.0	15.8	20.6	33.3	27.8	23.3	17.9	21.0	18.4	20.3	17.4	26.0	27.2	33.6	30.1	34.7	19.1	17.4	13.9	15.6		

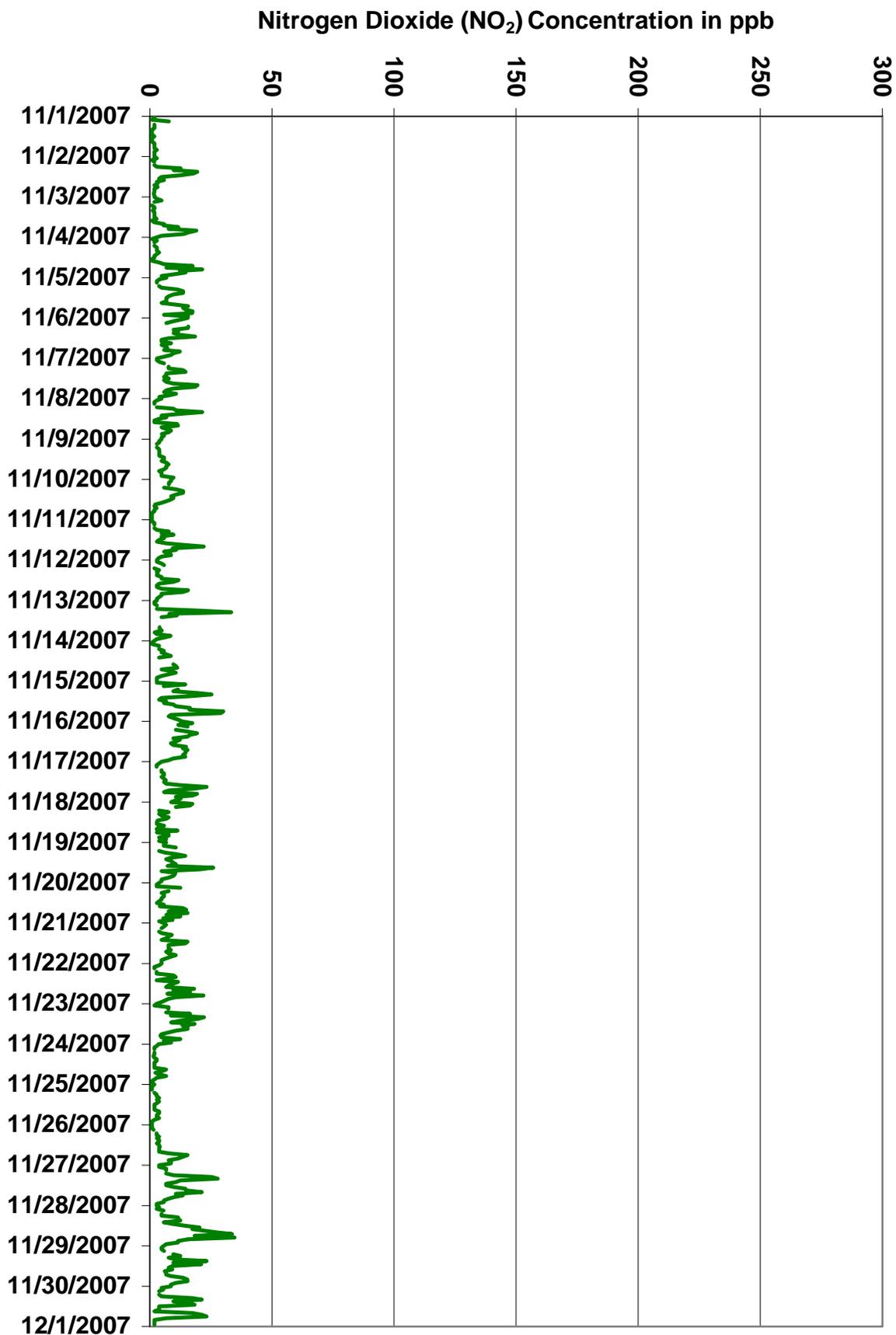
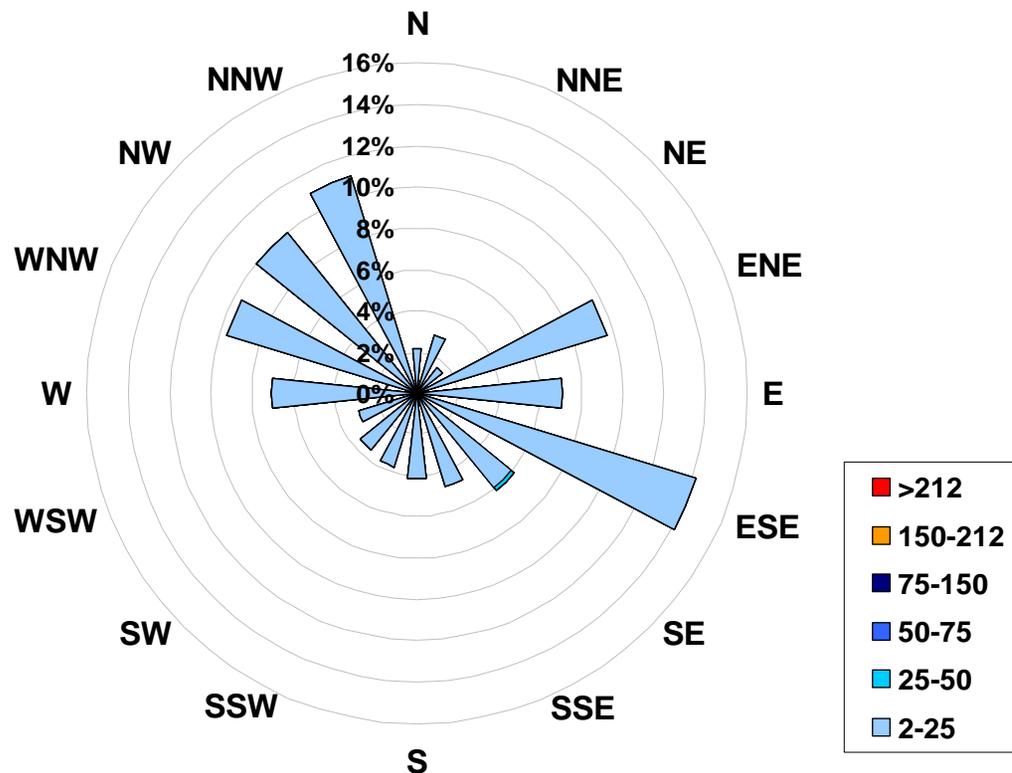


Figure 37. PASZA - Beaverlodge Nitrogen Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Nitrogen Dioxide (in ppb) Located at the Beaverlodge Site for November 2007**



**Calms: 0%**

Frequency Distribution of NO <sub>2</sub> in ppb			
Range		Frequency (hrs)	
2.0	< 25	682	
25	to 50	0	
50	to 75	0	
75	to 150	0	
150	to 212	0	
	> 212	0	
Total Non-Zero Values		682	

# PASZA - Beaverlodge Nitric Oxide Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

## Nitric Oxide (NO)

Monitoring Dates: November 1, 2007 to December 1, 2007

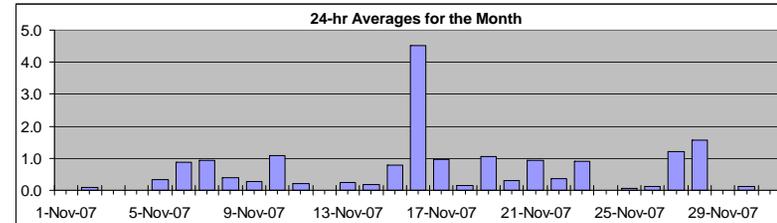
Guideline Limit: 

1-hr	na	ppb	24-hr	na	ppb
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 Summary

Maximum 1-hr Average:	13.2	ppb	16-Nov	9:00 10:00
Maximum 24-hr Average:	4.5	ppb	16-Nov	

AIC Time:	34 hrs	Operational Time:	682 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	9.7	3.4	0.1	0.0	0.0	0.0	0.0	0.6 ppb	0.0 ppb



### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00			
1-Nov-07	0	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
2-Nov-07	0	0	0	0	A	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.6
3-Nov-07	0	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
4-Nov-07	0	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
5-Nov-07	0	0	0	0	A	0	0	0	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	2.3
6-Nov-07	0	0	0	0	A	0	0	0	0	1	3	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0.9	12.8
7-Nov-07	0	0	0	0	A	0	0	0	1	1	1	3	4	4	3	3	1	0	0	0	0	0	0	0	0	0.9	4.1
8-Nov-07	0	0	0	0	A	0	0	0	2	1	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.6
9-Nov-07	0	0	0	0	A	0	0	0	0	0	1	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0.3	1.7
10-Nov-07	0	0	0	0	A	0	0	0	2	3	5	10	3	2	0	0	0	0	0	0	0	0	0	0	0	1.1	9.6
11-Nov-07	0	0	0	0	A	0	0	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.6
12-Nov-07	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
13-Nov-07	0	0	0	0	A	0	0	2	0	1	1	C	C	C	C	A	0	0	0	0	0	0	0	0	0	0.2	2.3
14-Nov-07	0	0	0	0	A	0	0	0	0	1	0	A	A	A	1	1	0	0	0	0	0	0	0	0	0	0.2	1.3
15-Nov-07	0	0	0	0	A	0	0	0	1	1	1	1	2	2	2	2	1	0	4	1	0	0	0	0	0	0.8	4.4
16-Nov-07	0	0	0	0	A	0	4	13	11	13	6	12	13	10	6	6	3	2	3	1	0	0	0	0	0	4.5	13.2
17-Nov-07	0	0	0	0	A	0	0	0	0	0	1	2	2	2	5	7	1	0	0	2	0	0	0	0	0	1.0	7.1
18-Nov-07	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.1
19-Nov-07	0	0	0	0	A	0	0	0	0	1	1	3	6	5	3	4	1	0	0	0	0	0	0	0	0	1.0	5.8
20-Nov-07	0	0	0	0	A	0	0	0	0	0	1	1	1	2	1	1	1	0	0	0	0	0	0	0	0	0.3	1.6
21-Nov-07	0	0	0	0	A	0	0	0	0	0	1	4	9	4	2	1	0	0	0	0	0	0	0	0	0	0.9	9.4
22-Nov-07	0	0	0	0	A	0	0	0	0	0	0	3	2	1	0	2	0	0	0	0	0	0	0	0	0	0.4	2.9
23-Nov-07	0	0	0	0	A	0	0	0	0	3	3	5	4	2	1	0	0	0	0	0	0	0	0	0	0	0.9	4.7
24-Nov-07	0	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
25-Nov-07	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	0.1	0.8
26-Nov-07	0	0	0	0	A	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
27-Nov-07	0	0	0	0	A	0	0	0	2	1	2	2	3	4	6	4	2	0	0	0	0	0	0	0	0	1.2	5.9
28-Nov-07	0	0	0	0	A	0	0	0	0	0	1	3	7	7	8	4	2	1	0	4	0	0	0	0	0	1.6	7.8
29-Nov-07	0	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
30-Nov-07	0	0	3	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	2.6
Hourly Avg	0.0	0.0	0.1	0.0	N	0.0	0.1	0.5	0.7	1.0	1.2	2.5	2.3	1.8	1.4	1.3	0.4	0.1	0.3	0.2	0.0	0.0	0.0	0.0			
Hourly Max	0.0	0.5	2.6	0.5	0.0	0.3	4.1	12.5	10.6	13.2	6.3	12.8	12.6	10.0	7.8	7.1	2.6	1.9	4.4	4.0	0.1	0.1	0.2	0.0			

# PASZA - Beaverlodge Oxides of Nitrogen Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

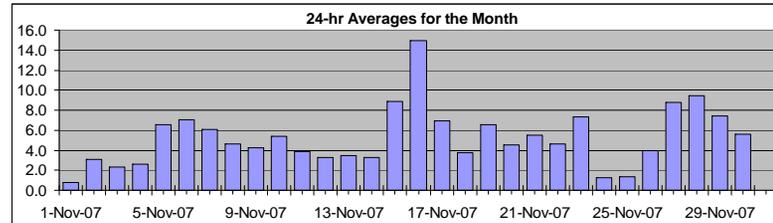
## Oxides of Nitrogen (NO<sub>x</sub>)

Monitoring Dates: November 1, 2007 to December 1, 2007

Guideline Limit: Alberta Environment: 1-hr na ppb 24-hr na ppb

Maximum 1-hr Average:	30.7	ppb	15-Nov	18:00 19:00
Maximum 24-hr Average:	15.0	ppb	16-Nov	

AIC Time:	34 hrs	Operational Time:	682 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	21.9	15.1	6.9	4.0	1.9	0.8	0.3	5.3 ppb	4.0 ppb



### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00			
1-Nov-07	1	1	1	1	A	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.8	1.0
2-Nov-07	0	1	1	1	A	1	2	8	6	10	16	7	3	2	3	2	1	1	1	1	1	1	1	1	3.1	15.6	
3-Nov-07	1	2	1	0	A	0	1	1	1	1	1	1	1	1	1	1	2	3	6	4	8	9	5	2	2.3	8.9	
4-Nov-07	1	1	1	1	A	1	2	2	2	2	1	1	1	1	1	2	4	6	4	5	5	6	5	3	2.6	6.0	
5-Nov-07	5	3	2	2	A	3	4	7	10	14	9	7	7	6	5	4	6	9	10	9	10	6	5	9	6.5	13.5	
6-Nov-07	9	9	6	5	A	11	11	5	7	7	10	26	5	3	3	5	4	4	4	3	8	7	7	4	7.0	25.6	
7-Nov-07	2	3	4	4	A	6	6	9	11	6	6	7	10	8	9	10	9	5	3	4	3	6	6	4	6.1	11.2	
8-Nov-07	3	1	2	1	A	3	6	8	18	6	5	7	4	1	1	4	4	3	6	8	5	4	4	3	4.6	17.5	
9-Nov-07	4	3	3	3	A	3	3	3	3	3	3	4	6	6	6	5	5	4	4	4	4	4	4	7	4.2	7.0	
10-Nov-07	8	6	6	6	A	5	7	11	14	10	13	16	9	7	2	1	1	1	1	1	1	1	0	0	5.4	15.8	
11-Nov-07	0	1	1	1	A	2	2	4	3	4	5	5	3	3	4	7	11	7	7	4	5	6	4	2	3.9	10.6	
12-Nov-07	2	2	3	4	A	1	3	3	2	3	4	4	7	4	3	2	2	3	9	7	3	3	2	2	3.3	8.8	
13-Nov-07	1	1	1	2	A	1	7	24	4	5	4	C	C	C	C	A	2	1	1	1	1	2	2	1	3.5	24.3	
14-Nov-07	0	0	0	1	A	1	2	2	3	4	1	A	A	A	6	9	5	4	5	8	6	3	2	3	3.2	8.9	
15-Nov-07	3	3	4	3	A	6	5	9	17	10	5	4	7	7	9	10	13	12	31	17	7	6	6	10	8.8	30.7	
16-Nov-07	9	13	8	9	A	9	17	28	26	25	13	21	21	17	14	18	14	15	16	15	12	11	8	6	15.0	28.3	
17-Nov-07	4	3	2	2	A	3	4	4	4	4	5	7	7	6	14	21	14	6	5	10	10	9	9	8	7.0	21.3	
18-Nov-07	8	14	13	4	A	2	4	1	2	2	6	2	2	2	3	1	2	2	2	4	5	3	3	2	3.8	14.2	
19-Nov-07	3	3	3	5	A	3	4	7	7	6	5	9	14	13	9	16	12	3	4	7	6	6	4	3	6.5	16.5	
20-Nov-07	2	2	2	6	A	3	4	4	5	4	5	4	3	5	4	5	10	5	7	4	8	4	5	3	4.6	9.5	
21-Nov-07	3	5	4	4	A	3	4	6	6	4	3	9	19	10	8	5	5	5	4	4	3	4	3	3	5.5	19.0	
22-Nov-07	3	2	1	1	A	2	2	3	5	4	2	9	7	5	3	13	5	7	3	10	8	6	4	3	4.7	13.0	
23-Nov-07	2	2	3	2	A	5	6	6	11	19	13	11	13	15	13	12	7	5	3	2	3	6	4	4	7.3	19.1	
24-Nov-07	2	2	2	1	A	1	1	1	1	1	1	1	1	1	1	2	1	1	2	1	1	1	1	1	1.2	2.2	
25-Nov-07	1	0	0	0	A	0	1	1	2	2	2	2	2	2	1	1	2	3	2	1	2	1	1	0	1.3	2.5	
26-Nov-07	0	0	0	0	A	1	2	2	3	3	3	3	4	4	4	4	3	4	11	11	8	7	7	4	3.9	11.3	
27-Nov-07	3	3	5	5	A	5	7	14	21	11	10	8	9	12	16	17	16	8	11	5	5	5	4	2	8.8	21.0	
28-Nov-07	2	2	2	3	A	3	3	5	9	8	5	10	18	17	20	15	18	12	8	26	10	8	7	5	9.4	25.7	
29-Nov-07	5	4	4	4	A	5	5	5	6	13	8	17	13	9	7	6	5	5	6	8	13	13	6	5	7.5	17.4	
30-Nov-07	6	5	4	4	A	3	3	8	13	9	12	13	3	3	3	2	3	16	13	3	1	1	1	1	5.6	15.6	
Hourly Avg	3.1	3.2	3.0	2.9	N	3.1	4.2	6.4	7.4	6.7	5.9	7.8	7.1	6.1	5.9	6.9	6.2	5.4	6.3	6.2	5.4	4.9	4.0	3.4			
Hourly Max	9.3	14.2	12.8	9.2	0.0	11.2	16.5	28.3	26.0	24.8	15.6	25.6	20.9	17.2	20.2	21.3	17.8	15.6	30.7	25.7	12.6	13.0	9.0	9.9			

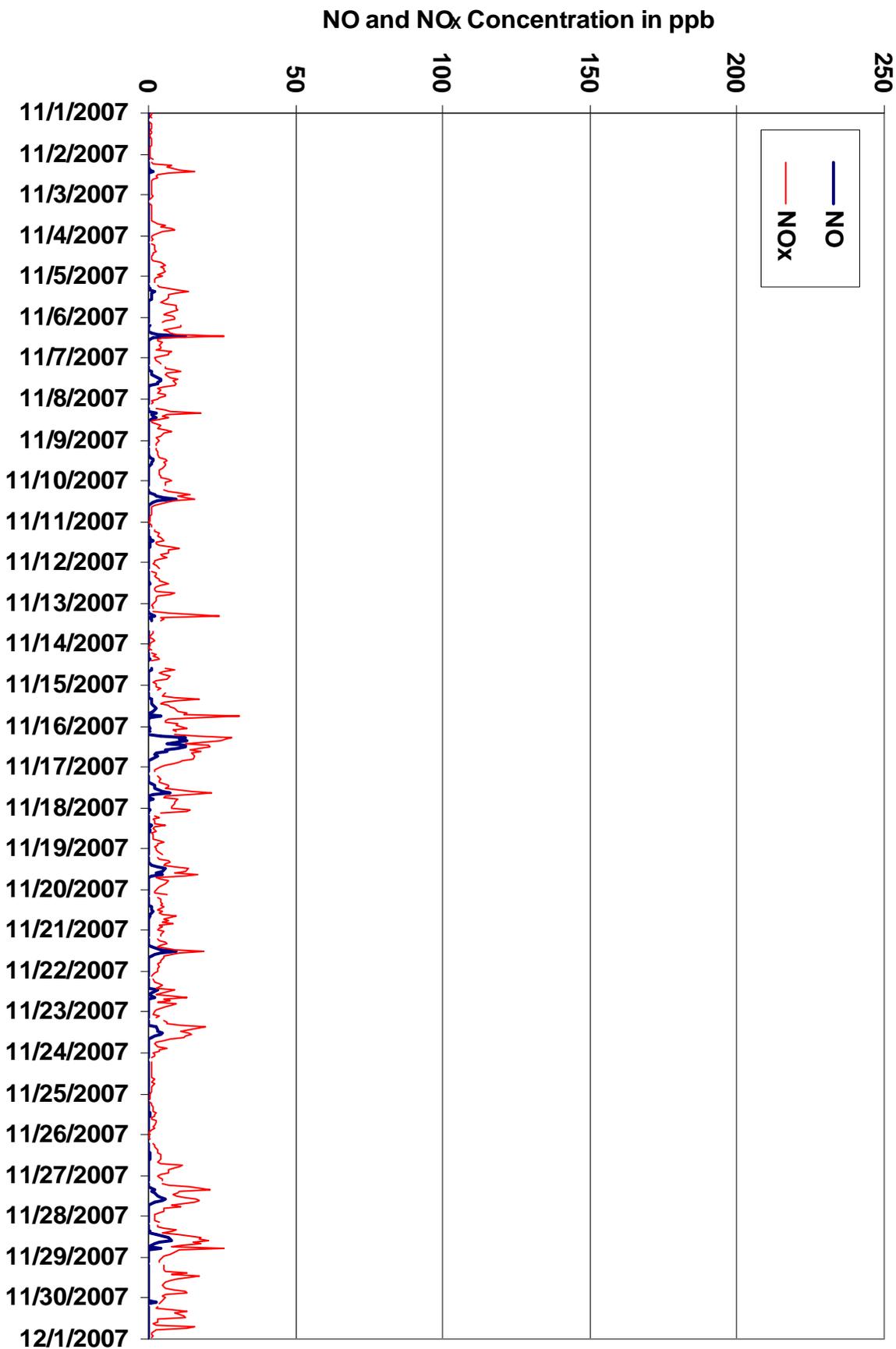


Figure 38. PASZA - Beaverlodge Oxides of Nitrogen 1-hr Average Monthly Trend

Station: Beaverlodge  
 Station Owner: PASZA

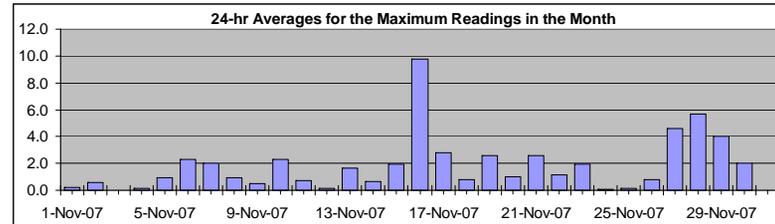
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

**Nitric Oxide (NO)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	49.0	ppb	27-Nov	8:00 9:00
Maximum 24-hr Value:	9.7	ppb	16-Nov	



AIC Time:	34 hrs	Operational Time:	682 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	22.6	9.8	1.6	0.0	0.0	0.0	0.0	1.8 ppb	0.0 ppb

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	0	0	0	4	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	3.7
2-Nov-07	0	0	0	0	A	0	0	1	0	4	3	1	1	1	0	0	0	1	0	0	0	0	0	0	0.5	3.9
3-Nov-07	0	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
4-Nov-07	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	1	0	0	0.2	1.9
5-Nov-07	0	0	0	0	A	0	0	4	2	3	2	2	1	1	1	1	1	0	0	0	1	1	0	1	0.9	3.9
6-Nov-07	1	0	0	0	A	1	1	0	1	3	10	28	6	1	1	1	0	0	0	0	0	0	0	0	2.3	27.6
7-Nov-07	0	0	0	0	A	0	0	1	4	2	2	4	6	6	5	12	4	1	1	0	0	0	0	0	2.0	12.1
8-Nov-07	0	0	0	0	A	0	0	0	6	4	3	6	2	0	0	1	1	0	0	0	0	0	0	0	1.0	5.9
9-Nov-07	0	0	0	0	A	0	0	0	0	0	1	3	3	1	2	1	1	0	0	0	0	0	0	0	0.5	2.9
10-Nov-07	0	0	0	0	A	0	0	2	4	4	12	19	6	4	1	1	0	1	0	0	0	0	0	0	2.3	18.6
11-Nov-07	0	0	0	0	A	0	0	0	0	3	2	3	2	1	1	2	3	0	0	0	0	0	0	0	0.7	2.9
12-Nov-07	0	0	0	0	A	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.1	1.0
13-Nov-07	0	0	0	0	A	0	1	18	0	6	4	C	C	C	C	A	1	0	0	0	0	0	0	0	1.6	17.7
14-Nov-07	0	0	0	0	A	0	0	0	1	2	2	A	A	A	3	3	2	0	0	0	0	0	0	0	0.6	2.9
15-Nov-07	0	0	2	0	A	0	0	1	4	2	2	2	2	3	4	3	2	0	13	6	0	0	0	0	1.9	12.7
16-Nov-07	1	3	1	6	A	1	19	25	19	26	9	24	17	15	8	21	5	6	14	3	1	1	0	0	9.7	26.0
17-Nov-07	0	0	0	0	A	0	0	0	0	1	2	4	3	3	8	21	4	0	0	15	2	0	3	1	2.8	20.5
18-Nov-07	0	3	1	0	A	0	0	0	0	1	3	1	1	1	3	0	0	4	0	0	0	0	0	0	0.8	3.9
19-Nov-07	0	0	0	0	A	0	0	1	2	1	2	6	8	8	4	23	6	0	0	0	0	0	0	0	2.6	22.7
20-Nov-07	0	0	0	0	A	0	0	0	0	1	2	2	2	4	2	4	3	1	1	0	0	0	1	1	1.0	3.9
21-Nov-07	0	1	1	1	A	0	0	0	0	1	4	21	19	5	4	3	0	0	0	0	0	0	0	0	2.6	20.5
22-Nov-07	0	0	0	0	A	0	0	0	0	1	1	7	5	4	2	5	1	0	0	1	0	0	0	0	1.1	6.8
23-Nov-07	0	0	0	0	A	0	1	0	2	5	4	4	17	6	5	2	0	0	0	0	0	0	0	0	1.9	16.6
24-Nov-07	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.0	0.9
25-Nov-07	0	0	0	0	A	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.2	0.9
26-Nov-07	0	0	0	0	A	0	0	0	1	0	1	2	2	2	1	1	0	0	1	1	1	1	0	1	0.8	2.2
27-Nov-07	1	1	1	1	A	1	0	3	49	2	4	4	6	7	10	6	7	1	1	1	0	0	0	0	4.6	49.0
28-Nov-07	1	1	0	1	A	1	1	0	0	2	2	5	11	28	15	13	11	16	1	21	1	0	0	0	5.6	27.8
29-Nov-07	0	0	0	4	A	10	11	10	10	9	0	23	0	0	0	6	1	0	0	1	5	0	0	2	4.0	22.6
30-Nov-07	4	5	11	4	A	3	2	2	3	3	3	5	0	0	1	0	0	0	0	0	0	0	0	0	2.0	11.4
Hourly Avg	0.3	0.4	0.6	0.7	N	0.6	1.2	2.3	3.6	2.8	2.7	6.2	4.3	3.6	2.8	4.4	1.8	1.0	1.1	1.7	0.4	0.2	0.2	0.2		
Hourly Max	4.3	5.5	11.4	5.8	0.0	9.7	18.6	25.5	49.0	26.0	11.8	27.6	18.6	27.8	15.1	22.7	11.3	16.1	13.7	20.5	5.1	1.1	2.9	1.7		

Station: Beaverlodge  
 Station Owner: PASZA

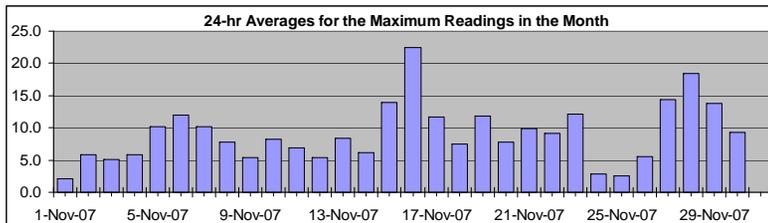
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	67.8	ppb	27-Nov	8:00 9:00
Maximum 24-hr Value:	22.4	ppb	16-Nov	



AIC Time:	34 hrs	Operational Time:	682 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	46.3	25.2	11.7	6.5	2.9	1.7	0.9	9.1 ppb	6.5 ppb

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	3	2	1	12	A	2	2	3	1	1	2	1	2	1	1	2	2	2	2	3	2	2	1	2.1	11.5	
2-Nov-07	2	3	1	2	A	2	3	14	10	23	21	14	6	5	7	3	4	2	5	2	2	2	2	5.8	23.2	
3-Nov-07	2	3	5	2	A	1	2	2	2	2	2	2	3	3	1	2	6	6	12	8	19	16	13	5.0	19.1	
4-Nov-07	3	1	2	2	A	2	3	3	3	4	3	3	3	1	1	4	7	18	7	23	12	16	10	5.8	23.5	
5-Nov-07	7	4	2	3	A	4	4	12	16	17	12	10	9	8	8	5	11	17	14	15	19	18	6	10.2	18.5	
6-Nov-07	16	13	10	7	A	18	17	10	12	13	22	46	13	6	5	10	5	7	7	6	12	10	9	12.0	46.1	
7-Nov-07	3	3	4	6	A	8	8	15	18	9	8	10	13	11	11	22	23	20	9	7	6	11	8	10.2	23.5	
8-Nov-07	5	3	2	2	A	3	10	11	26	17	8	13	6	2	2	13	13	5	7	9	8	5	6	7.7	26.5	
9-Nov-07	5	4	4	3	A	3	4	4	4	4	4	9	9	6	8	8	8	7	6	4	5	5	5	5.4	9.7	
10-Nov-07	9	9	8	7	A	6	11	16	16	14	21	28	13	11	5	3	3	4	2	2	1	1	1	8.2	28.2	
11-Nov-07	1	1	2	2	A	2	3	8	5	13	7	9	5	4	8	15	25	9	11	6	8	9	5	6.9	25.1	
12-Nov-07	3	3	5	6	A	2	4	3	4	4	5	6	12	10	5	3	3	5	16	13	4	5	5	5.5	15.6	
13-Nov-07	3	2	2	3	A	3	22	51	8	16	8	C	C	C	C	A	4	3	4	2	2	8	6	8.3	51.0	
14-Nov-07	2	1	1	4	A	4	6	4	7	9	5	A	A	A	13	13	13	5	9	11	8	4	3	6.1	13.3	
15-Nov-07	3	3	17	6	A	12	10	19	29	18	6	6	9	9	14	13	18	17	42	34	9	8	10	13.9	42.0	
16-Nov-07	14	20	13	21	A	11	34	44	35	38	17	37	25	21	18	36	18	19	29	18	15	16	10	8	22.4	44.0
17-Nov-07	5	4	3	3	A	5	5	6	6	6	8	10	9	10	20	44	21	8	6	34	19	11	16	12	11.6	43.6
18-Nov-07	9	20	18	11	A	4	8	4	5	9	9	5	4	4	9	4	3	15	3	7	8	4	7	4	7.4	20.5
19-Nov-07	7	6	6	11	A	4	6	12	16	10	9	14	18	18	11	49	26	5	10	10	10	8	5	5	11.8	48.8
20-Nov-07	4	3	3	13	A	8	5	6	6	5	7	6	5	10	7	18	17	7	16	7	13	5	9	4	7.7	17.5
21-Nov-07	6	7	6	5	A	4	5	10	8	7	8	36	32	13	12	11	9	7	8	12	9	7	5	4	9.9	36.1
22-Nov-07	5	4	2	2	A	3	3	10	11	8	4	18	15	12	9	23	10	17	7	22	11	8	6	5	9.2	23.1
23-Nov-07	3	2	8	7	A	7	17	9	24	25	16	13	35	19	19	18	11	8	5	4	5	13	6	9	12.2	35.2
24-Nov-07	3	3	2	2	A	2	2	1	2	3	3	2	2	3	3	7	5	2	4	8	3	2	1	1	2.8	7.5
25-Nov-07	2	1	1	1	A	2	3	3	4	3	4	4	3	3	2	2	4	4	3	3	4	2	1	1	2.5	3.9
26-Nov-07	1	1	1	2	A	3	3	4	4	4	4	4	5	6	5	5	4	8	16	14	12	8	9	8	5.5	15.5
27-Nov-07	4	4	7	7	A	7	10	27	68	14	15	10	13	16	24	19	28	11	14	10	8	6	6	3	14.3	67.8
28-Nov-07	3	3	3	5	A	4	5	12	12	13	7	16	25	47	32	35	34	50	19	55	17	13	12	6	18.5	54.7
29-Nov-07	6	5	4	6	A	10	13	9	11	43	13	55	18	15	15	10	7	7	9	13	16	16	11	10	13.8	55.4
30-Nov-07	9	5	5	4	A	4	5	18	21	11	24	28	5	5	5	3	5	21	24	6	2	2	2	2	9.3	28.3
Hourly Avg	4.8	4.7	4.8	5.4	N	4.8	7.7	11.5	13.0	12.0	9.3	14.8	11.1	9.9	9.5	13.6	11.5	10.4	10.7	12.1	8.8	7.9	6.4	5.2		
Hourly Max	16.0	20.5	17.5	21.4	0.0	17.6	34.2	51.0	67.8	43.0	23.9	55.4	35.2	46.9	32.2	48.8	34.2	49.8	42.0	54.7	19.1	18.4	15.6	16.6		

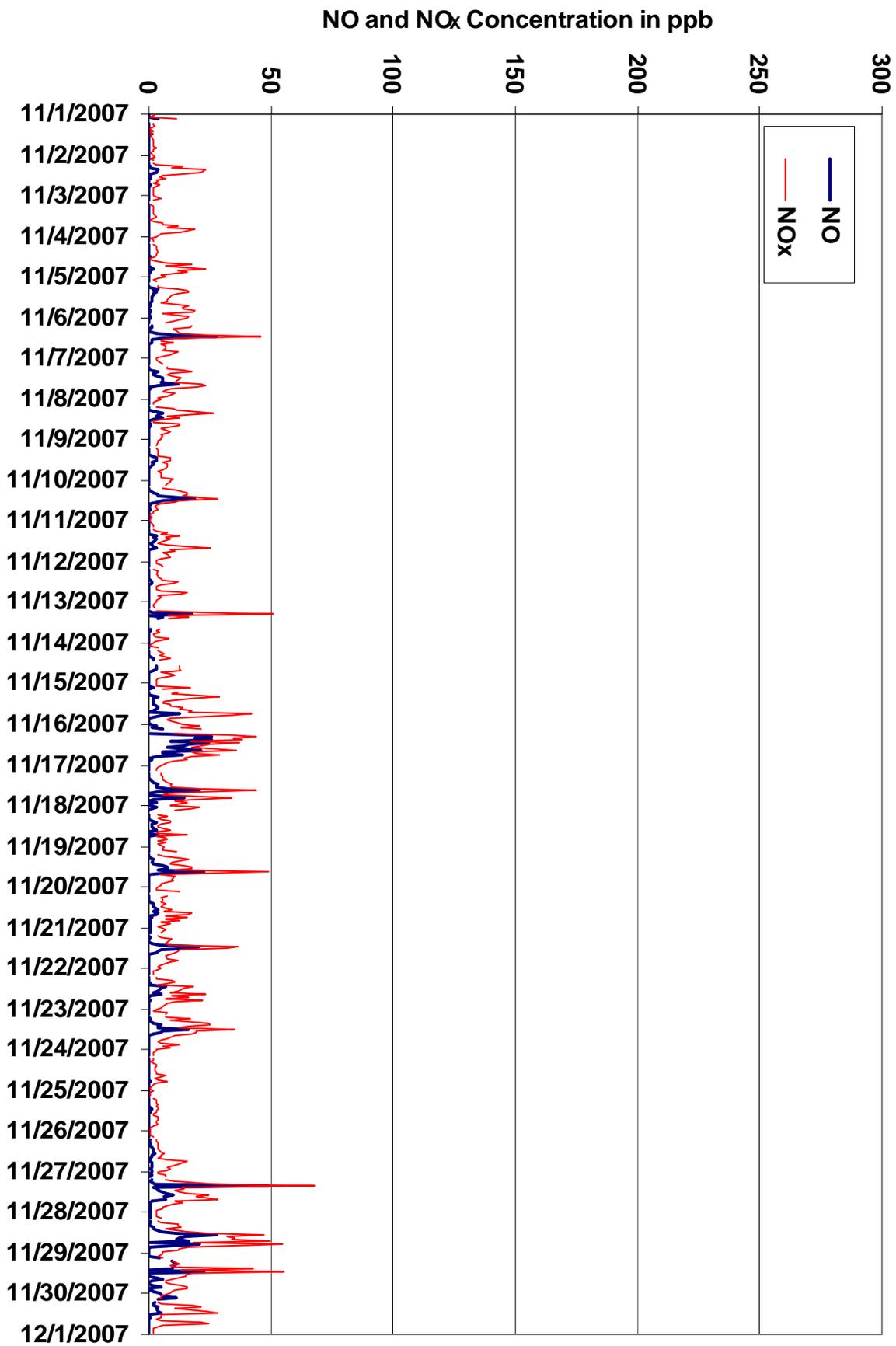


Figure 39. PASZA - Beaverlodge Oxides of Nitrogen Instantaneous (30 Second) Maximum Value Monthly Trend

# PASZA - Beaverlodge Ozone Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

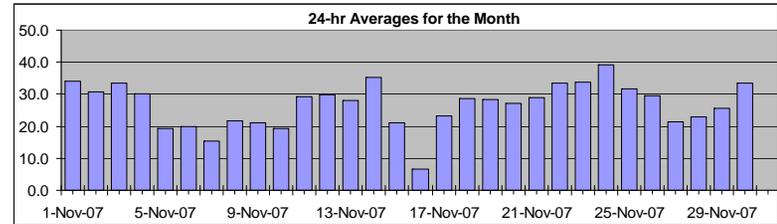
## Ozone (O<sub>3</sub>)

Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 1-hr 82 ppb 24-hr na ppb  
 Summary

Number of 1-hr Exceedances:	0			
Maximum 1-hr Average:	43.6 ppb	24-Nov	5:00	6:00
Maximum 24-hr Average:	39.2 ppb	24-Nov		

AIC Time:	31 hrs		Operational Time:	686 hrs					
Calibration Time:	3 hrs		AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average	Median
	42.5	38.0	33.4	28.2	22.3	8.6	3.0	26.7 ppb	28.2 ppb



Status Flag Characters	
C Calibration	A AIC - Zero / Span Check
S Instrument out of Service	X Filter Exchange
N No Data	M Equipment Maintenance
D Excessive Instrument Drift	P Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00		
1-Nov-07	32	32	34	34	A	35	35	34	34	34	35	35	35	35	35	35	35	34	34	34	34	33	33	32	34.1	35.5
2-Nov-07	32	31	31	27	A	33	31	22	25	19	14	26	32	34	34	37	39	38	36	35	34	34	35	32	30.9	39.3
3-Nov-07	34	33	33	33	A	35	35	35	35	35	35	37	37	37	37	37	36	35	31	29	28	25	27	29	33.3	37.0
4-Nov-07	31	31	30	31	A	30	29	29	31	30	34	35	35	34	34	34	31	29	30	26	24	24	23	24	30.0	35.1
5-Nov-07	22	25	25	25	A	22	21	15	14	11	17	19	18	17	21	24	23	18	19	18	17	18	19	14	19.2	25.4
6-Nov-07	15	11	17	13	A	8	11	21	23	20	21	14	25	29	26	23	24	24	23	27	20	22	20	22	19.9	29.2
7-Nov-07	23	22	20	15	A	12	11	8	6	9	10	10	8	8	8	11	21	26	27	23	27	24	17	10	15.5	27.2
8-Nov-07	14	20	21	21	A	18	14	13	6	15	17	20	27	34	33	29	28	28	23	20	23	24	24	26	21.6	34.1
9-Nov-07	23	23	24	24	A	26	26	25	24	23	23	21	21	20	19	19	19	20	21	20	20	18	16	11	21.2	25.9
10-Nov-07	9	11	11	10	A	9	7	3	2	5	6	7	6	15	32	35	35	35	33	34	34	34	35	35	19.3	35.0
11-Nov-07	34	33	32	31	A	32	32	31	31	28	29	29	32	32	31	27	23	24	25	28	27	25	28	30	29.2	34.5
12-Nov-07	31	31	30	28	A	33	30	31	31	30	28	29	27	32	35	38	39	37	27	26	31	26	19	20	29.9	38.6
13-Nov-07	26	28	29	29	A	29	23	10	27	24	25	28	29	30	31	31	29	30	31	32	32	30	29	31	28.0	32.2
14-Nov-07	34	35	36	34	A	35	32	34	32	C	C	C	A	41	36	33	36	36	34	33	34	38	39	35	35.3	40.7
15-Nov-07	33	32	28	29	A	26	25	21	14	20	25	28	25	26	24	22	18	18	3	10	18	16	15	10	21.2	33.4
16-Nov-07	9	5	7	7	A	6	3	1	1	4	9	8	8	10	9	4	4	2	1	2	8	11	14	18	6.5	18.0
17-Nov-07	21	24	30	32	A	30	31	31	31	30	31	28	26	26	24	17	17	22	20	14	12	12	10	13	23.2	32.2
18-Nov-07	12	5	7	22	A	26	27	33	33	34	32	34	36	35	35	36	34	33	33	30	28	30	30	30	28.6	35.5
19-Nov-07	30	30	31	29	A	27	26	23	23	26	29	28	24	26	29	24	26	35	33	30	30	30	32	32	28.4	35.0
20-Nov-07	32	32	30	25	A	29	28	27	26	27	27	29	30	30	29	28	23	26	24	27	22	26	24	26	27.1	31.7
21-Nov-07	26	23	24	25	A	27	26	23	24	29	31	29	22	27	28	30	32	32	34	34	34	34	35	35	28.8	34.7
22-Nov-07	35	35	36	35	A	35	34	33	33	34	35	32	34	35	36	28	34	32	37	29	29	32	33	34	33.4	36.8
23-Nov-07	35	35	33	34	A	30	29	29	24	18	27	31	29	31	32	34	38	40	42	43	42	39	42	42	33.9	43.4
24-Nov-07	43	41	39	43	A	44	43	43	43	42	41	41	40	39	38	37	38	39	36	36	35	35	35	34	39.2	43.6
25-Nov-07	34	35	36	36	A	36	36	35	34	34	34	29	26	26	27	27	27	28	29	30	27	30	35	36	31.8	36.4
26-Nov-07	36	36	35	35	A	32	31	31	30	31	31	31	31	31	30	30	29	28	21	21	23	24	24	27	29.5	35.8
27-Nov-07	28	27	26	25	A	25	23	16	12	19	21	23	22	20	18	15	15	21	16	24	23	23	26	29	21.5	28.8
28-Nov-07	29	29	29	28	A	28	28	26	23	24	27	25	22	22	20	21	16	21	22	10	18	20	20	21	22.9	29.0
29-Nov-07	21	23	25	25	A	25	25	25	25	21	25	23	24	26	27	29	30	29	28	26	21	21	30	32	25.5	32.0
30-Nov-07	32	32	33	33	A	33	34	29	23	28	26	29	37	37	37	39	39	26	28	38	40	40	40	40	33.6	40.5
Hourly Avg	27.2	27.0	27.3	27.2	N	27.1	26.2	24.6	23.9	24.3	25.7	26.1	26.5	28.2	28.5	27.7	27.9	28.1	26.7	26.3	26.6	26.7	26.9	27.1		
Hourly Max	43.0	41.3	39.2	42.5	0.0	43.6	42.9	43.2	42.5	41.5	41.4	40.9	39.8	40.7	38.0	38.8	39.3	39.5	42.5	43.4	42.3	40.3	42.0	41.7		

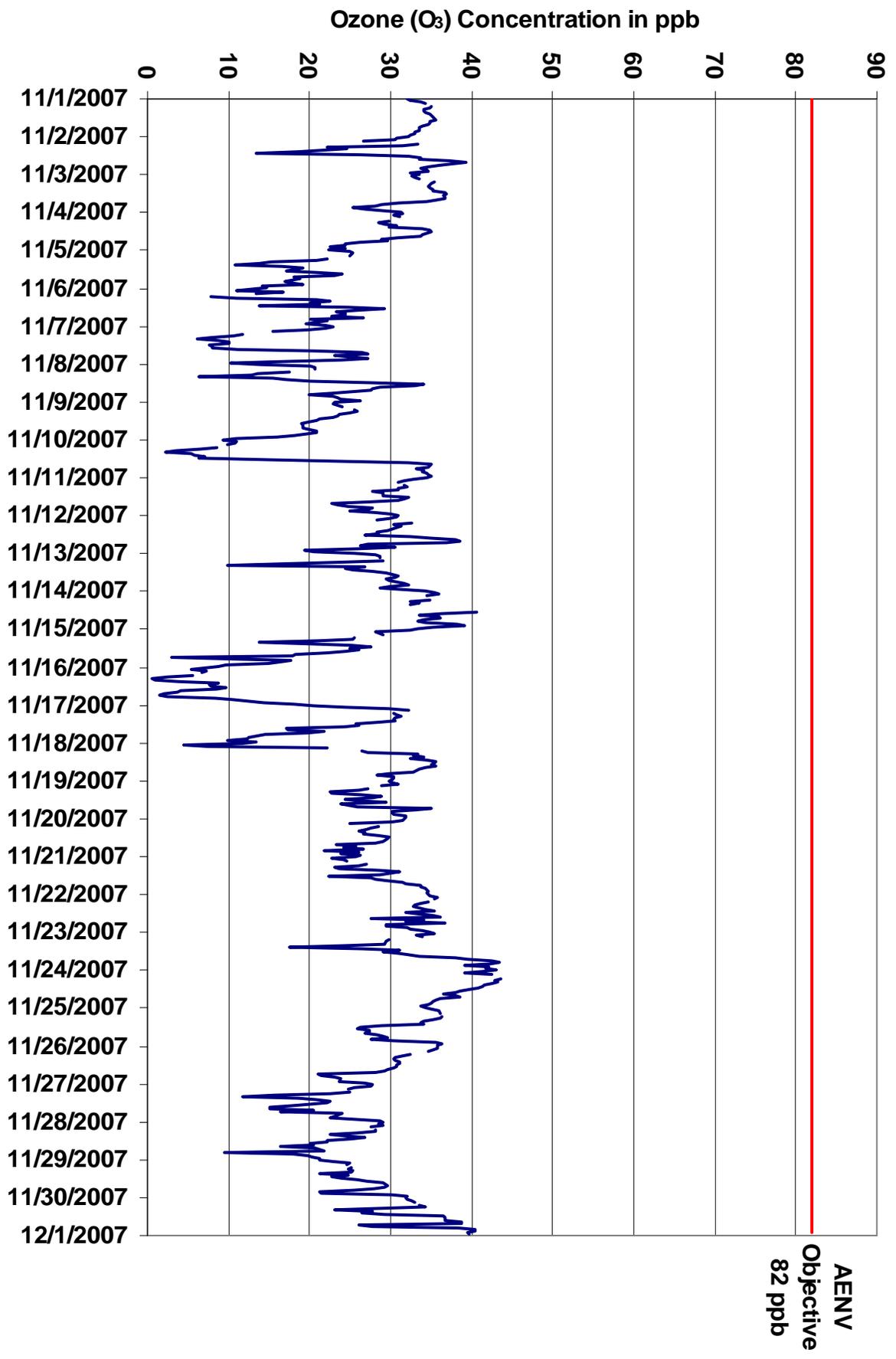


Figure 40. PASZA - Beaverlodge Ozone 1-hr Average Monthly Trend

Station: Beaverlodge  
 Station Owner: PASZA

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

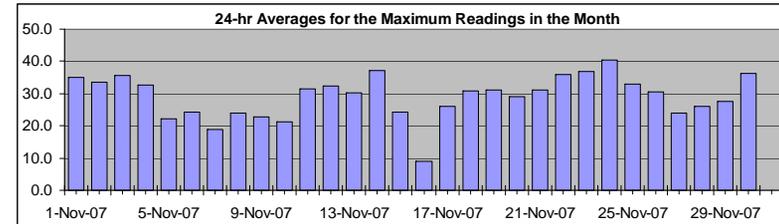
Ozone (O<sub>3</sub>)

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	45.2	ppb	24-Nov	3:00 4:00
Maximum 24-hr Value:	40.5	ppb	24-Nov	

AIC Time:	31 hrs	Operational Time:	686 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	43.8	39.8	35.3	30.6	25.0	11.0	6.0	29.0 ppb	30.6 ppb



**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	33	34	35	36	A	36	36	35	35	35	36	36	37	36	36	35	35	35	35	34	34	34	33	35.0	36.8	
2-Nov-07	33	32	32	32	A	34	34	28	29	24	17	32	35	35	38	39	41	39	37	36	35	36	34	33.6	41.0	
3-Nov-07	34	34	35	36	A	36	36	35	36	36	37	38	38	38	37	38	38	37	37	35	35	30	30	31	35.5	38.5
4-Nov-07	33	32	32	32	A	30	30	31	32	32	35	36	36	35	35	36	33	34	33	34	32	33	26	26	32.5	36.4
5-Nov-07	24	26	27	26	A	25	22	25	19	16	19	20	20	19	25	26	26	22	22	21	19	20	21	19	22.1	26.6
6-Nov-07	19	17	21	17	A	11	21	25	24	24	25	21	28	32	29	27	27	27	28	31	31	27	22	24	24.2	31.7
7-Nov-07	24	23	21	19	A	15	12	10	9	10	11	11	9	10	11	28	31	32	30	26	29	27	25	12	18.9	31.7
8-Nov-07	15	22	22	22	A	18	18	15	10	18	19	27	35	36	34	32	30	29	27	21	25	24	27	28	24.1	35.8
9-Nov-07	25	25	24	25	A	28	27	26	24	24	23	23	22	21	20	21	21	22	22	22	21	20	18	15	22.6	28.1
10-Nov-07	11	13	13	11	A	9	8	6	4	6	7	8	8	27	36	36	35	35	34	35	34	35	35	35	21.1	36.4
11-Nov-07	35	34	33	32	A	33	33	33	33	33	30	32	34	34	33	32	30	25	27	30	29	27	30	31	31.4	34.9
12-Nov-07	32	32	32	32	A	34	33	32	31	31	29	30	29	34	39	40	40	39	37	30	33	31	21	23	32.4	40.1
13-Nov-07	27	30	30	30	A	30	28	23	29	29	27	30	30	31	32	32	31	31	32	32	33	33	32	33	30.2	33.3
14-Nov-07	36	36	36	36	A	36	35	35	35	C	C	C	A	43	40	37	38	38	36	36	37	40	41	37	37.2	42.6
15-Nov-07	34	33	32	30	A	28	28	25	21	25	27	29	27	28	27	25	20	20	15	17	19	18	16	12	24.2	34.1
16-Nov-07	10	8	8	8	A	7	4	1	2	7	10	10	9	11	11	6	6	4	3	8	14	16	18	22	8.9	21.8
17-Nov-07	22	28	34	34	A	32	32	33	31	32	32	30	27	27	30	23	21	22	21	20	16	17	16	15	25.9	34.5
18-Nov-07	13	8	15	28	A	27	33	35	35	35	34	35	37	37	37	36	36	35	34	33	30	32	33	33	30.8	37.0
19-Nov-07	32	32	32	34	A	28	28	25	26	29	31	31	26	28	31	32	36	36	36	33	32	32	33	33	31.1	36.4
20-Nov-07	32	33	31	29	A	30	29	28	27	28	28	30	31	31	31	31	29	28	26	28	25	27	27	27	29.1	32.5
21-Nov-07	27	24	25	26	A	28	28	28	26	31	33	34	28	29	29	31	34	35	36	36	37	37	36	35	31.1	37.4
22-Nov-07	37	36	36	36	A	35	35	35	36	36	36	35	36	37	37	31	37	36	39	39	34	34	34	35	35.8	38.9
23-Nov-07	35	36	36	35	A	31	32	30	30	24	30	35	36	34	36	38	40	42	43	44	43	42	44	45	36.7	44.8
24-Nov-07	45	42	42	45	A	44	44	44	44	43	43	42	41	40	39	38	39	40	38	37	37	36	36	35	40.5	45.2
25-Nov-07	35	36	36	36	A	37	37	36	36	35	36	33	27	27	28	28	28	29	30	30	29	36	37	37	32.9	37.1
26-Nov-07	37	37	36	35	A	34	32	31	31	31	32	31	31	31	31	30	30	29	26	23	25	25	30	30	30.6	36.6
27-Nov-07	28	28	28	27	A	26	24	24	18	20	23	24	23	22	20	17	24	23	20	26	24	23	28	29	24.1	29.3
28-Nov-07	29	29	30	30	A	29	29	28	25	30	30	27	26	26	26	24	23	27	26	14	20	22	23	22	25.9	29.8
29-Nov-07	23	25	26	26	A	27	27	27	27	27	28	29	25	27	29	30	31	31	29	28	22	26	33	34	27.7	33.7
30-Nov-07	33	33	33	33	A	34	35	34	30	30	32	36	38	38	38	40	41	35	35	41	41	41	40	40	36.2	41.0
Hourly Avg	28.5	28.6	29.1	29.3	N	28.4	28.4	27.5	26.5	27.0	27.6	28.9	28.7	30.1	30.9	30.8	31.0	30.6	29.8	29.4	29.2	29.3	29.1	28.8		
Hourly Max	44.8	42.4	41.8	45.2	0.0	44.3	43.8	43.8	43.5	42.8	42.8	41.9	41.4	42.6	39.9	40.0	41.0	41.8	43.3	44.3	43.3	42.3	43.8	44.8		

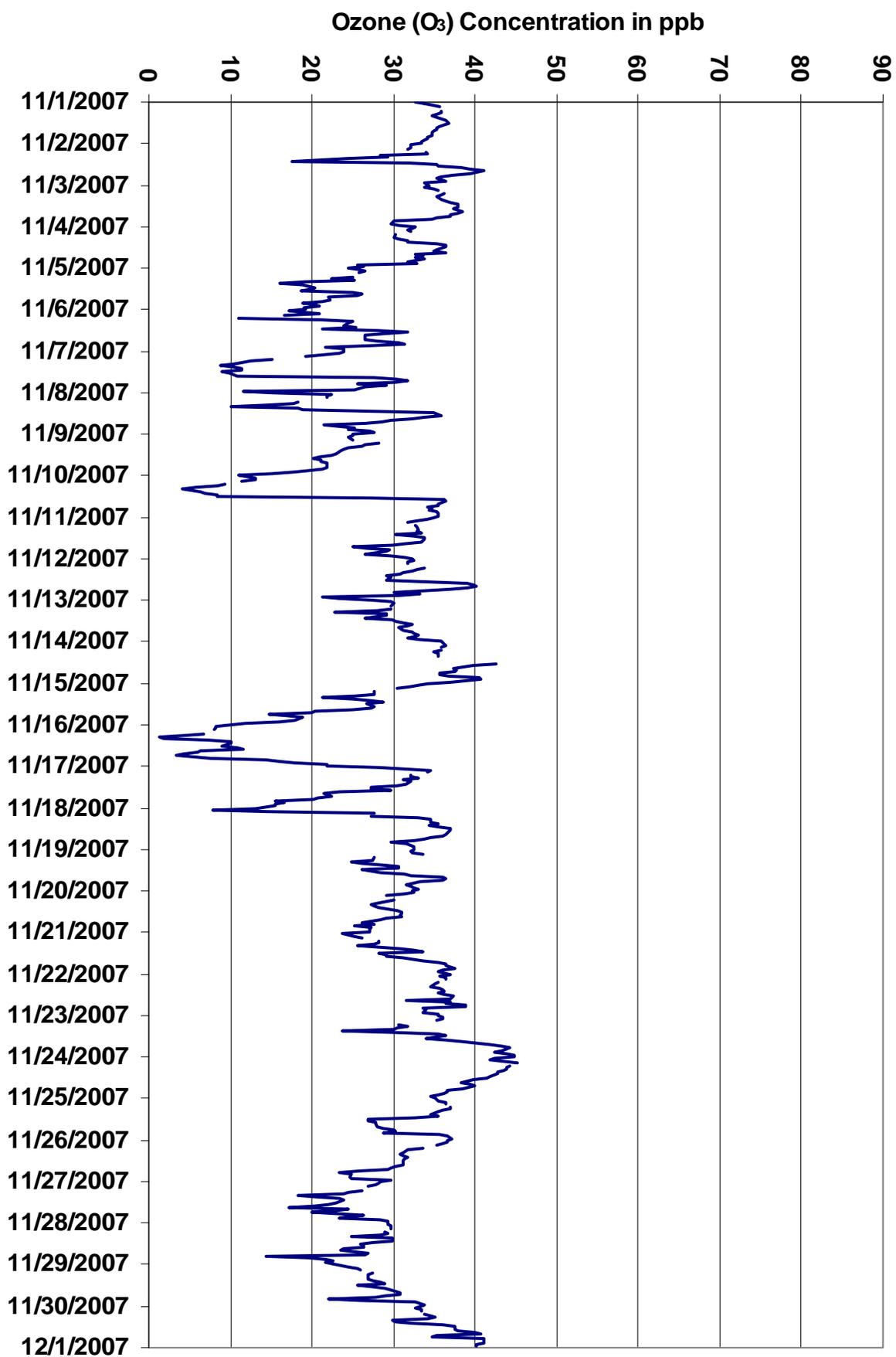
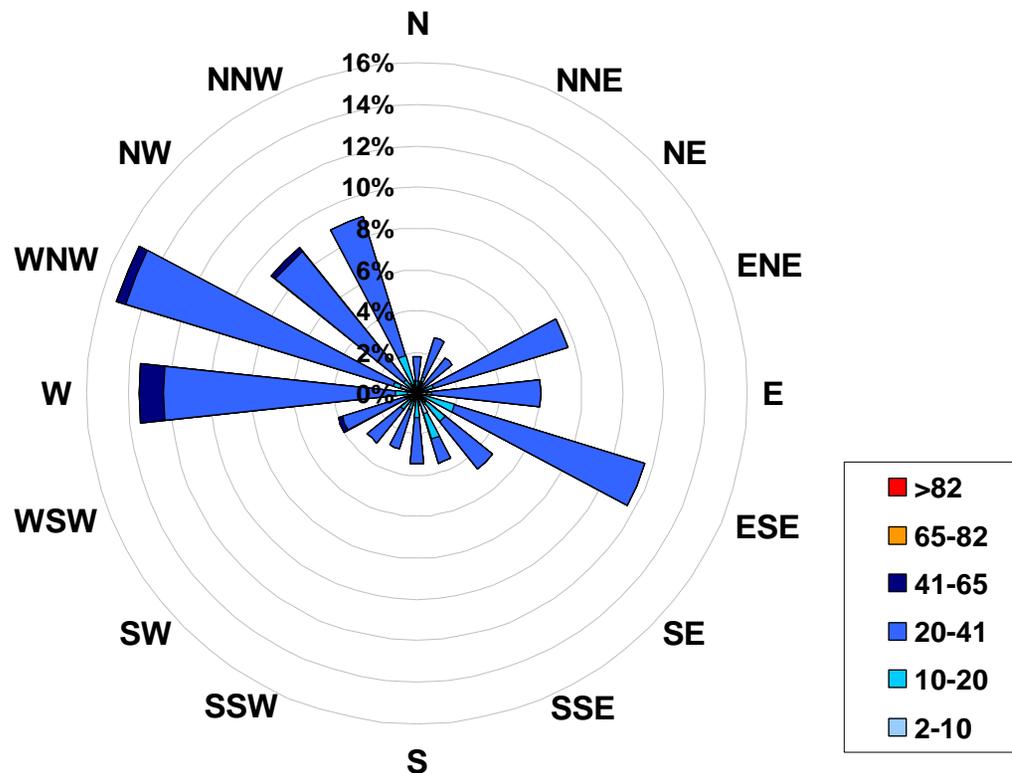


Figure 41. PASZA - Beaverlodge Ozone Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Ozone (in ppb) Located at the Beaverlodge Site for November 2007**



**Calms: 0%**

Frequency Distribution of O <sub>3</sub> in ppb			
Range		Frequency (hrs)	
2.0	< 10	46	
10	to 20	80	
20	to 41	546	
41	to 65	14	
65	to 82	0	
	> 82	0	
Total Non-Zero Values			686

## PASZA - Beaverlodge Ozone Eight Hour Average Summary

Station: Beaverlodge  
 Station Owner: PASZA

### EIGHT HOUR RUNNING AVERAGE TABLE

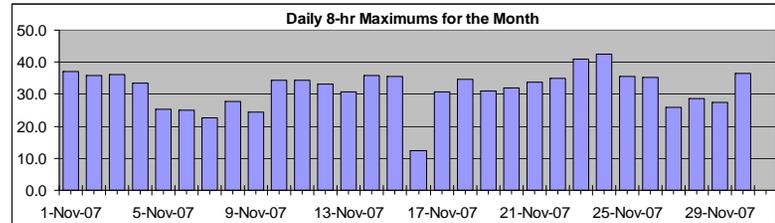
**Ozone (O<sub>3</sub>)**

Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 8-hr 65 ppb

Number of 8-hr Exceedances:		0	
Maximum 8-hr Average:	42.5 ppb	24-Nov	10:00 11:00

Percentile							
99	95	75	50	25	5	1	
41.9	35.9	32.8	27.7	22.6	10.3	5.2	



Status Flag Characters	
C Calibration	A AIC - Zero / Span Check
S Instrument out of Service	X Filter Exchange
N No Data	M Equipment Maintenance
D Excessive Instrument Drift	P Power Failure

Day	Mountain Standard Time																							Daily Maximum	
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00		22:00 23:00
1-Nov-07	37	36	35	34	34	34	34	34	34	34	35	35	35	35	35	35	35	35	35	35	34	34	34	33	37.1
2-Nov-07	33	33	32	32	31	31	31	30	29	27	24	24	25	25	26	27	29	32	35	36	36	36	36	35	36.0
3-Nov-07	35	34	34	33	33	34	34	34	34	35	35	35	36	36	36	36	36	36	36	35	34	32	31	30	36.2
4-Nov-07	29	29	29	29	29	30	30	30	30	30	31	32	32	33	33	33	33	33	32	30	29	28	26	26	33.4
5-Nov-07	25	25	24	24	24	24	24	22	21	19	18	17	17	16	16	18	19	20	20	20	20	19	18	18	25.4
6-Nov-07	17	16	16	15	15	14	13	14	15	16	17	17	18	20	22	23	23	23	24	25	25	24	23	23	25.1
7-Nov-07	23	22	22	20	21	19	18	16	13	11	10	9	9	9	8	9	11	13	15	17	19	21	22	22	22.6
8-Nov-07	21	20	20	19	18	17	17	17	16	15	15	15	16	18	21	23	25	27	28	28	27	26	25	24	27.6
9-Nov-07	24	23	23	24	24	24	25	24	24	24	24	24	24	23	22	21	21	20	20	20	20	19	18	18	24.5
10-Nov-07	17	16	15	13	12	11	10	9	8	7	6	6	6	6	10	14	18	21	25	28	32	34	34	34	34.4
11-Nov-07	34	34	34	34	33	33	33	32	32	31	30	30	30	30	30	30	29	28	28	28	27	26	26	26	34.3
12-Nov-07	27	28	29	29	29	30	30	31	31	30	30	30	30	30	30	31	32	33	33	33	33	32	30	28	33.1
13-Nov-07	27	25	26	26	25	26	26	25	25	24	24	24	24	25	26	28	28	29	30	30	31	31	30	30	30.7
14-Nov-07	31	32	32	33	33	34	34	34	34	N	N	N	N	N	N	N	N	N	N	36	36	35	36	36	35.8
15-Nov-07	35	35	34	34	34	32	30	28	25	23	23	23	23	23	23	23	24	23	21	18	17	16	15	13	35.5
16-Nov-07	12	11	11	11	10	8	7	5	4	4	4	4	5	5	6	6	7	7	6	5	5	5	6	8	12.3
17-Nov-07	10	13	16	20	21	24	27	28	30	31	31	30	30	29	28	27	25	24	23	21	19	17	16	15	30.9
18-Nov-07	14	12	11	12	12	14	16	19	22	26	30	32	33	34	34	35	35	35	34	33	32	32	31	31	34.6
19-Nov-07	31	30	30	30	30	30	29	28	27	26	26	26	26	26	26	26	27	28	28	29	29	30	30	31	31.1
20-Nov-07	32	31	31	30	30	30	30	29	28	27	27	27	28	28	28	28	28	28	27	27	26	26	25	25	31.8
21-Nov-07	25	25	25	24	25	25	25	25	24	25	26	27	26	26	27	27	28	29	29	30	31	32	33	34	33.6
22-Nov-07	34	34	35	35	35	35	35	35	34	34	34	34	34	34	34	33	34	33	33	33	33	32	32	33	34.9
23-Nov-07	33	33	33	33	34	33	33	32	31	28	27	27	27	27	28	28	30	33	35	36	38	39	40	41	41.0
24-Nov-07	42	42	41	41	41	42	42	42	42	42	43	42	42	41	41	40	39	39	38	38	37	37	36	36	42.5
25-Nov-07	35	35	35	35	35	35	35	36	36	35	35	34	33	32	31	30	29	28	27	28	28	29	30	30	35.6
26-Nov-07	32	32	33	34	35	35	35	34	33	32	32	31	31	31	31	31	30	30	29	28	27	26	25	25	35.1
27-Nov-07	25	24	25	25	26	26	26	24	22	21	20	20	20	19	19	19	19	19	19	19	19	19	20	22	25.9
28-Nov-07	24	25	26	27	27	28	28	28	27	27	26	26	25	25	24	23	22	22	21	19	19	18	18	18	28.5
29-Nov-07	19	19	20	22	22	23	24	24	25	24	24	24	24	24	24	24	25	26	27	27	27	26	27	27	27.3
30-Nov-07	27	28	28	29	30	32	33	32	31	30	30	29	30	30	31	32	34	34	34	35	35	36	36	36	36.4

Hourly Max    41.7   41.9   41.5   41.4   41.2   41.9   42.0   42.2   42.2   42.2   42.2   42.5   42.3   42.0   41.3   40.7   39.9   39.4   39.0   38.3   37.6   37.8   38.8   40.0   41.0

## PASZA - Beaverlodge Particulate Matter (less than 2.5 microns) Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

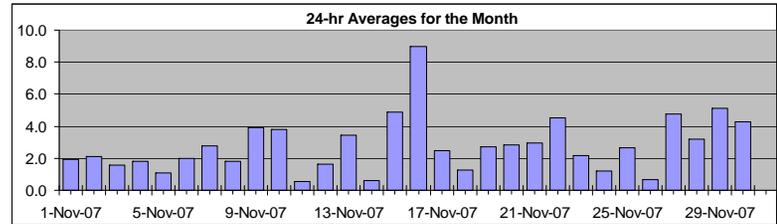
### Particulate Matter (PM<sub>2.5</sub>)

Monitoring Dates: November 1, 2007 to December 1, 2007

Draft Objective Limit: Alberta Environment: 1-hr - µg/m<sup>3</sup> 24-hr 30 µg/m<sup>3</sup>  
 Summary

Number of 24-hr Exceedances (draft):	0
Maximum 1-hr Average:	25.5 µg/m <sup>3</sup> 30-Nov 1:00 2:00
Maximum 24-hr Value:	8.9 µg/m <sup>3</sup> 16-Nov

AIC Time:	0 hrs	Operational Time:	720 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%
Percentile	99	95	75
	13.3	8.3	3.9
	50	25	0.6
	0.0	0.0	0.0
	Average / Median		2.8
	2 µg/m <sup>3</sup>		2.3 µg/m <sup>3</sup>



#### Status Flag Characters

C Calibration	A AIC - Zero / Span Check
S Instrument out of Service	X Filter Exchange
N No Data	M Equipment Maintenance
D Excessive Instrument Drift	P Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00			23:00
1-Nov-07	4	2	0	3	1	1	1	1	1	2	1	1	1	1	0	2	3	6	6	5	2	2	2	1	2	1.9	6.3
2-Nov-07	3	4	3	2	1	1	3	4	4	4	3	0	0	0	1	1	0	0	1	3	3	2	3	3	3	2.1	4.4
3-Nov-07	2	3	2	1	0	1	0	1	1	1	1	0	0	0	0	2	1	3	3	3	3	4	3	3	3	1.6	3.5
4-Nov-07	2	2	2	1	2	1	2	3	2	3	2	2	1	1	0	0	1	2	3	2	3	3	2	1	1	1.8	3.0
5-Nov-07	2	0	0	0	0	0	0	0	0	2	1	1	0	1	1	0	0	0	9	2	2	1	2	2	2	1.1	9.5
6-Nov-07	2	2	2	1	1	1	3	3	2	2	3	3	1	1	2	1	2	2	2	1	2	3	4	4	4	2.0	3.7
7-Nov-07	3	3	4	3	3	3	3	4	4	3	5	4	4	3	3	2	0	1	0	0	1	1	5	5	5	2.8	5.0
8-Nov-07	6	2	2	2	2	2	2	1	3	3	3	1	0	0	0	1	0	1	4	3	1	1	1	0	1	1.8	5.8
9-Nov-07	0	1	1	2	2	4	6	5	5	3	2	3	7	1	2	6	7	7	7	7	5	3	4	3	3	3.9	7.2
10-Nov-07	5	5	6	5	5	5	5	4	5	7	5	7	11	10	3	0	0	1	1	0	0	0	1	1	1	3.8	10.9
11-Nov-07	1	1	0	0	0	0	0	0	1	2	1	0	0	0	0	1	3	1	0	0	0	0	0	1	1	0.5	2.9
12-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	3	1	2	5	5	5	5	3	3	3	1.6	5.4
13-Nov-07	2	3	4	3	4	3	2	3	3	4	1	4	5	2	2	0	2	2	3	2	1	16	11	0	3	3.4	15.5
14-Nov-07	2	0	1	2	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0.6	4.4
15-Nov-07	3	2	5	4	3	4	3	3	4	2	3	4	5	4	5	4	5	7	11	13	5	3	7	7	7	4.9	12.6
16-Nov-07	7	9	8	9	8	8	8	10	10	11	8	10	9	9	9	8	7	6	11	13	11	10	8	6	6	8.9	13.4
17-Nov-07	4	0	0	1	0	0	0	0	0	0	0	0	0	0	3	15	9	7	2	1	0	4	5	4	5	2.5	15.4
18-Nov-07	4	5	5	3	2	3	1	0	0	0	0	0	0	0	0	0	0	1	2	1	1	1	0	1	1	1.2	5.5
19-Nov-07	0	1	0	0	0	1	2	3	5	5	0	1	2	1	1	4	4	6	5	5	5	4	5	4	4	2.7	5.6
20-Nov-07	4	4	5	5	2	3	5	5	3	3	1	2	2	0	1	2	1	2	3	4	5	3	2	2	2	2.8	5.0
21-Nov-07	2	2	2	2	1	2	2	3	2	2	3	3	3	2	4	3	3	3	4	4	3	5	7	6	6	3.0	7.0
22-Nov-07	3	5	3	2	3	2	1	3	2	3	2	4	4	2	4	4	4	10	13	8	13	5	4	4	4	4.5	13.5
23-Nov-07	1	1	1	1	0	0	0	0	0	2	0	1	3	3	3	5	7	3	4	3	4	4	4	3	3	2.2	7.1
24-Nov-07	1	0	0	0	4	1	2	2	0	0	0	1	2	2	1	2	1	0	1	1	2	1	2	2	2	1.2	3.7
25-Nov-07	2	1	1	1	0	1	1	1	1	1	2	1	3	5	3	5	8	9	7	4	3	1	2	1	1	2.6	9.1
26-Nov-07	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	2	2	2	2	2	0.6	2.5
27-Nov-07	5	4	4	3	3	3	4	4	5	4	5	6	6	5	5	6	6	6	7	4	4	6	5	3	3	4.8	7.1
28-Nov-07	3	3	2	2	1	2	1	2	3	3	2	1	2	3	4	4	3	3	3	5	4	4	7	7	7	3.2	7.0
29-Nov-07	6	5	7	7	9	7	7	10	12	10	8	8	5	3	2	5	2	1	2	1	1	1	1	5	5	5.1	12.3
30-Nov-07	23	25	18	8	4	3	1	1	4	4	3	2	1	0	0	0	0	2	2	0	0	0	0	0	0	4.3	25.5
Hourly Avg	3.4	3.2	3.0	2.5	2.2	2.1	2.1	2.5	2.8	2.8	2.2	2.3	2.6	2.3	2.5	2.7	2.8	2.8	3.9	3.4	3.0	3.5	3.3	2.9			
Hourly Max	23.0	25.5	17.7	8.9	8.6	8.4	8.4	10.2	12.3	11.2	8.3	10.5	10.9	10.3	15.4	8.8	7.9	9.1	11.0	13.5	10.6	15.5	10.6	7.2			

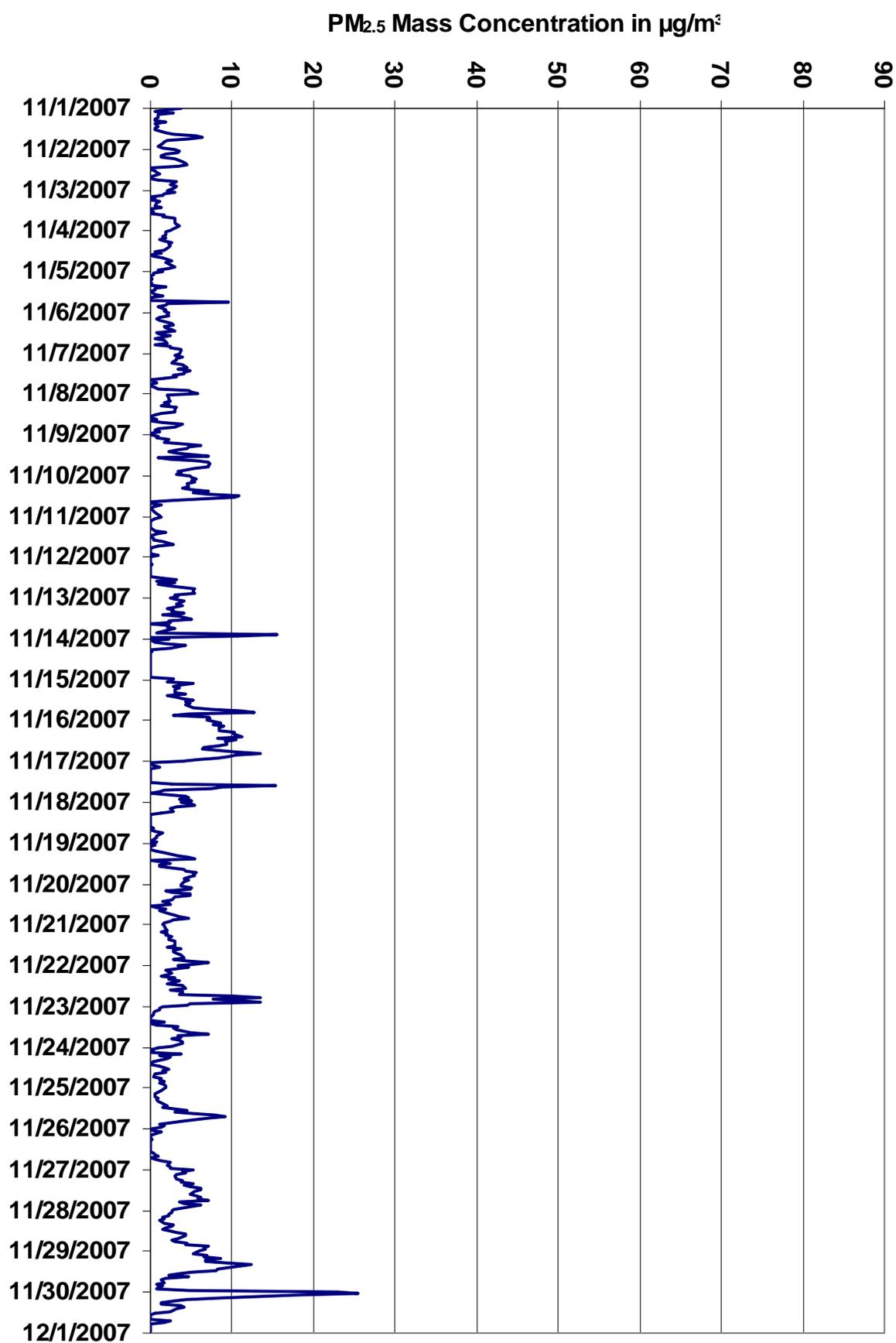


Figure 42. PASZA - Beaverlodge Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Beaverlodge  
 Station Owner: PASZA

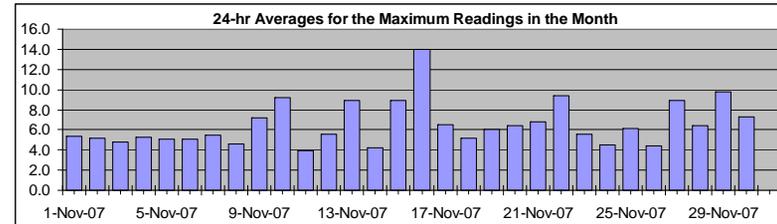
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

**Particulate Matter (PM<sub>2.5</sub>)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Average:	40.8	µg/m <sup>3</sup>	5-Nov	18:00 19:00
Maximum 24-hr Value:	14.0	µg/m <sup>3</sup>	16-Nov	



AIC Time:	0 hrs	Operational Time:	720 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average / Median	Geomean
	22.4	14.1	7.9	5.8	4.1	2.3	0.8	6.5 6 µg/m <sup>3</sup>	6.2 µg/m <sup>3</sup>

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	7	5	5	6	4	6	5	5	6	5	5	6	4	3	7	7	8	9	5	4	4	4	4	4	5.4	8.6
2-Nov-07	6	6	6	5	6	5	6	6	7	7	7	4	2	3	3	3	3	4	5	7	5	6	6	7	5.2	7.1
3-Nov-07	5	7	4	5	4	7	4	4	4	4	5	2	3	4	2	5	4	6	6	7	6	7	6	6	4.8	7.3
4-Nov-07	5	4	5	4	6	5	5	6	6	5	7	5	4	5	4	4	6	6	6	7	6	8	5	4	5.2	7.7
5-Nov-07	5	3	3	3	3	1	0	3	4	8	4	3	2	3	5	2	2	2	41	8	4	5	5	4	5.0	40.8
6-Nov-07	5	5	5	4	4	5	7	7	4	7	6	9	4	3	6	3	4	4	4	3	8	5	6	6	5.1	8.7
7-Nov-07	7	5	7	5	6	5	4	6	8	6	8	6	7	7	6	5	4	4	2	1	2	3	10	9	5.5	9.6
8-Nov-07	8	7	5	5	5	4	4	5	5	6	6	4	5	2	3	3	2	5	7	7	4	4	5	1	4.6	8.2
9-Nov-07	2	4	5	5	5	7	8	6	6	6	4	5	13	8	7	8	10	10	10	12	9	6	8	7	7.2	13.2
10-Nov-07	8	8	11	9	9	8	8	7	7	12	8	13	24	22	19	3	5	6	8	4	5	6	6	5	9.2	24.0
11-Nov-07	5	4	3	4	3	3	2	3	3	6	4	5	2	6	3	6	8	3	3	3	3	3	3	5	4.0	7.6
12-Nov-07	3	2	2	1	3	1	4	4	3	0	0	0	16	19	5	5	4	8	10	8	10	7	8	8	5.6	18.5
13-Nov-07	8	8	8	7	7	7	5	6	5	10	8	18	13	7	7	5	8	6	7	8	5	28	20	4	9.0	27.9
14-Nov-07	7	5	5	6	9	8	3	4	4	14	4	5	2	3	3	3	0	0	1	4	1	1	4	5	4.3	13.8
15-Nov-07	6	7	11	10	6	7	6	6	8	7	7	7	9	7	7	9	11	19	21	8	6	10	11	11	8.9	20.9
16-Nov-07	11	14	13	14	14	12	13	15	15	16	12	18	15	14	13	14	10	12	16	18	15	15	13	11	14.0	18.2
17-Nov-07	9	2	3	5	4	2	1	1	3	4	0	3	2	7	26	16	13	5	5	6	10	9	10	10	6.5	26.4
18-Nov-07	9	10	9	7	9	7	6	4	4	5	5	3	2	2	3	4	3	4	4	4	5	5	4	4	5.1	10.1
19-Nov-07	3	5	3	3	5	5	6	8	9	10	4	4	4	3	3	8	7	9	8	8	8	7	8	8	6.1	10.1
20-Nov-07	7	7	8	8	5	6	8	9	6	6	5	6	7	4	4	4	4	6	7	8	10	9	8	5	6.5	10.0
21-Nov-07	5	5	6	7	6	6	6	6	7	6	8	8	8	5	7	6	6	6	7	6	7	8	11	10	6.8	11.2
22-Nov-07	7	9	8	8	6	7	5	8	8	8	7	7	8	8	8	6	7	8	17	22	16	18	12	9	9.4	22.3
23-Nov-07	5	5	4	4	3	3	2	3	3	7	3	4	11	6	6	10	11	7	7	6	6	7	7	5	5.6	10.8
24-Nov-07	4	3	4	3	7	5	6	6	3	2	3	4	6	6	5	5	5	3	4	4	4	5	6	5	4.5	7.1
25-Nov-07	5	5	3	3	4	3	3	3	3	4	8	6	6	9	7	10	14	13	11	8	8	4	5	4	6.2	13.7
26-Nov-07	2	4	5	6	4	4	4	3	3	3	4	3	5	4	5	5	6	5	4	4	5	6	6	6	4.4	6.4
27-Nov-07	9	8	8	7	7	9	8	7	9	8	9	10	9	9	8	9	11	9	10	9	9	11	11	10	8.9	11.1
28-Nov-07	7	6	6	6	4	5	6	6	6	5	5	4	5	6	9	7	5	6	7	9	8	10	9	10	6.4	10.0
29-Nov-07	10	9	10	13	16	10	11	17	17	16	16	11	8	9	7	9	4	4	4	4	5	5	4	14	9.8	17.4
30-Nov-07	28	29	26	13	8	5	3	4	7	6	6	5	4	3	2	3	4	7	4	1	1	1	2	1	7.2	29.1
Hourly Avg	6.9	6.7	6.6	6.2	6.0	5.6	5.3	5.9	6.1	6.9	5.9	6.3	7.0	6.6	6.6	6.2	6.2	6.2	8.5	7.4	6.6	7.2	7.4	6.7		
Hourly Max	27.8	29.1	25.5	13.7	16.3	12.2	13.3	17.2	17.4	16.3	15.8	18.2	24.0	22.4	26.4	15.5	13.7	12.9	40.8	22.3	16.0	27.9	19.6	14.1		

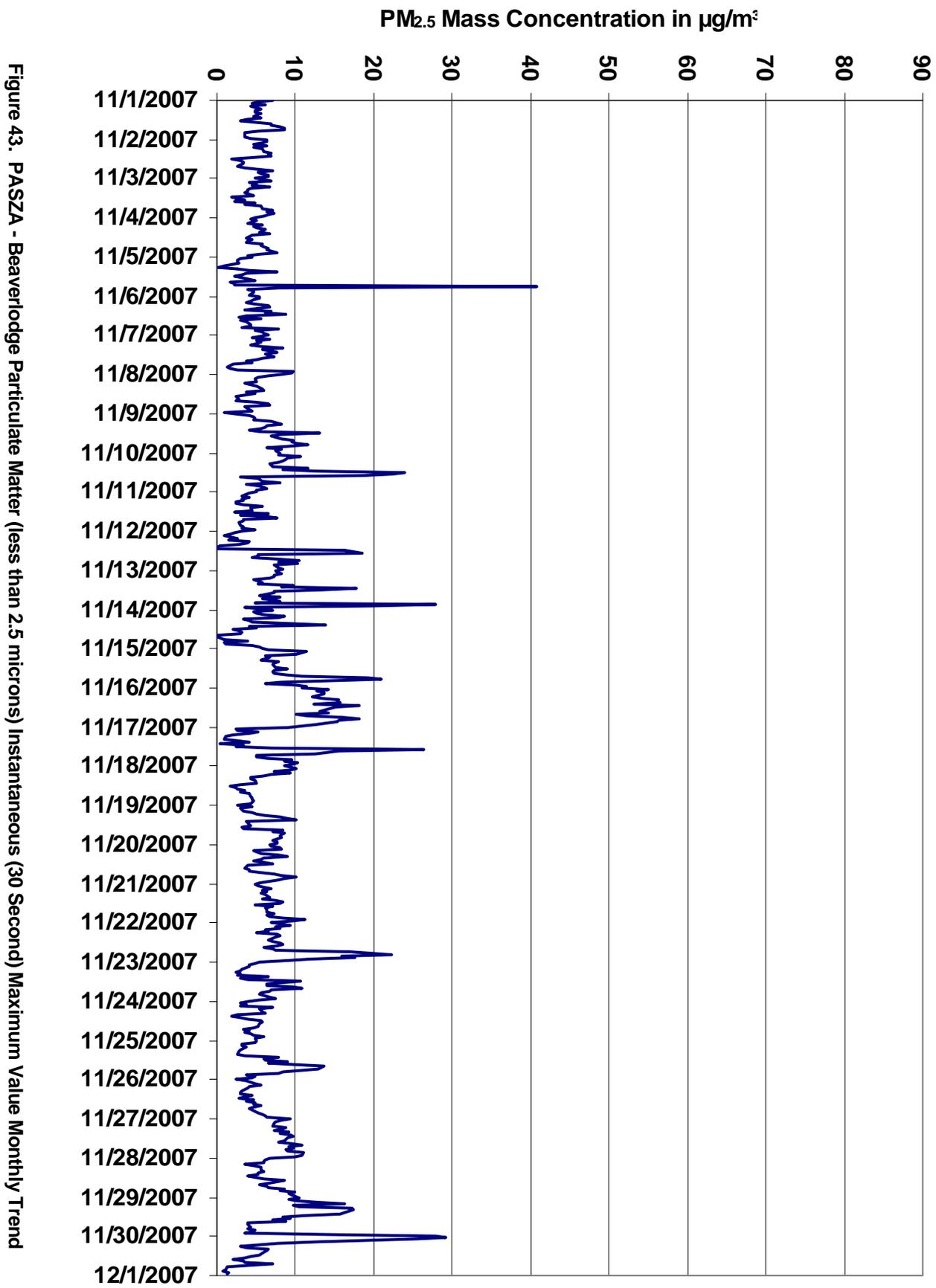
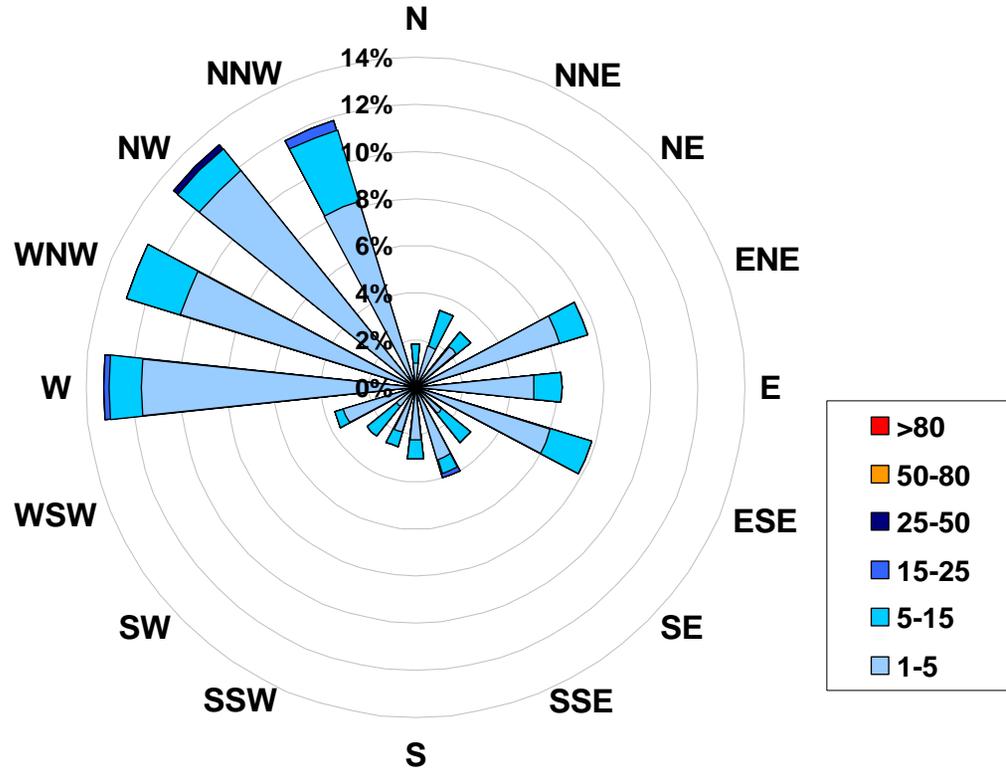


Figure 43. PASZA - Beaverlodge Particulate Matter (less than 2.5 microns) Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Particulate Matter (less than 2.5 microns) (in micrograms per cubic meter) Located at the Beaverlodge Site for November 2007**



**Calms: 0%**

Frequency Distribution of PM <sub>2.5</sub> in µg/m <sup>3</sup>			
Range		Frequency (hrs)	
1.0	< 5	609	
5	to 15	106	
15	to 25	4	
25	to 50	1	
50	to 80	0	
	> 80	0	
Total Non-Zero Values			720

# PASZA - Beaverlodge Relative Humidity Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

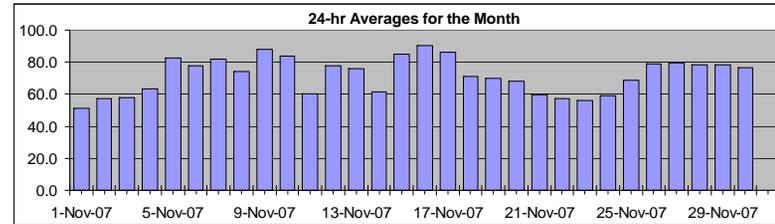
## Relative Humidity (RH)

Monitoring Dates: November 1, 2007 to December 1, 2007

### Summary

Maximum 1-hr Average:	97.4	%	9-Nov	21:00 22:00
Maximum 24-hr Value:	90.1	%	16-Nov	

AIC Time:	0 hrs	Operational Time:	720 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	97.0	94.4	83.0	72.8	60.3	47.0	40.0	71.8 %	72.8 %



### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Nov-07	72	70	63	59	59	57	55	56	55	49	43	38	34	33	36	37	41	48	50	52	54	57	58	59	59	51.5	72.0
2-Nov-07	58	61	64	68	57	49	52	57	56	59	60	53	49	47	46	49	50	52	56	59	64	64	69	73	73	57.2	72.6
3-Nov-07	66	66	61	59	50	51	53	56	55	52	50	47	47	47	48	49	54	63	65	69	67	69	74	75	75	58.0	75.4
4-Nov-07	70	70	70	68	70	69	69	72	79	73	76	65	60	55	46	44	46	46	49	57	62	62	70	70	70	63.3	78.5
5-Nov-07	72	74	78	77	76	77	78	79	79	79	75	74	74	76	86	89	87	88	91	94	95	95	94	94	94	82.5	94.9
6-Nov-07	92	92	93	93	91	90	86	83	82	83	68	68	60	56	66	70	72	74	78	73	73	69	75	77	77	77.6	93.3
7-Nov-07	79	82	84	88	89	91	92	93	93	93	92	83	84	79	75	73	64	64	68	75	73	75	81	90	90	81.6	93.1
8-Nov-07	90	84	83	82	84	84	86	90	90	87	74	61	55	49	52	57	62	65	72	75	74	73	73	70	70	73.9	90.1
9-Nov-07	75	74	75	75	72	84	92	93	94	94	88	82	84	88	90	91	92	93	94	96	97	97	97	97	97	88.1	97.4
10-Nov-07	97	97	97	97	97	96	96	96	96	96	96	96	96	97	97	83	71	69	68	70	62	60	55	54	57	83.4	97.3
11-Nov-07	61	67	69	74	70	67	65	57	59	56	57	45	46	50	52	55	59	64	61	59	58	60	62	66	66	59.9	73.9
12-Nov-07	71	73	71	65	67	75	72	83	85	78	72	66	65	60	59	73	83	85	88	92	96	97	96	92	92	77.6	96.7
13-Nov-07	88	87	86	85	86	87	90	93	92	91	71	64	67	60	60	58	62	67	68	67	68	72	76	73	73	75.7	93.1
14-Nov-07	67	64	64	68	69	67	70	68	66	67	62	57	53	52	56	57	59	60	61	59	57	55	51	59	59	61.2	70.0
15-Nov-07	62	60	72	91	93	93	94	94	93	91	86	78	78	69	76	85	87	87	89	91	91	93	94	95	95	85.0	94.7
16-Nov-07	94	94	95	97	96	95	95	95	95	93	79	81	80	71	81	88	89	90	94	93	92	91	91	91	91	90.1	96.6
17-Nov-07	92	87	88	92	92	93	92	94	93	88	79	73	76	69	64	64	86	88	91	91	94	93	94	94	94	86.2	94.4
18-Nov-07	95	96	95	95	90	87	82	72	71	67	60	52	51	49	47	53	59	63	67	69	70	70	72	78	78	71.2	95.6
19-Nov-07	79	79	75	77	89	88	89	90	90	80	64	61	56	56	50	49	54	58	59	62	64	66	69	69	69	69.8	90.5
20-Nov-07	70	71	73	76	75	74	74	74	74	72	68	59	52	47	43	46	58	67	70	72	79	75	81	79	79	67.9	81.1
21-Nov-07	79	82	82	80	77	77	81	82	77	64	52	40	37	42	44	43	46	52	50	48	51	48	49	52	52	59.9	82.4
22-Nov-07	53	58	60	64	65	65	69	62	58	54	47	42	42	42	41	49	52	56	59	63	66	70	69	70	70	57.3	70.3
23-Nov-07	68	71	69	71	70	70	68	70	67	65	53	43	36	42	45	48	49	49	48	47	48	49	47	50	50	55.9	71.4
24-Nov-07	51	50	55	49	56	63	63	66	67	62	60	58	56	57	58	57	58	58	62	63	63	62	60	62	62	59.1	67.5
25-Nov-07	61	61	59	59	59	58	58	60	64	60	54	69	68	75	76	77	79	80	80	81	80	80	77	76	76	68.9	81.3
26-Nov-07	78	76	75	74	74	78	79	80	79	79	79	78	77	77	78	77	78	81	83	84	84	84	84	84	84	79.1	84.5
27-Nov-07	83	81	81	81	81	80	81	80	80	81	80	77	75	79	76	79	82	82	82	80	79	79	77	77	77	79.7	82.9
28-Nov-07	81	80	81	80	80	81	78	78	79	76	74	67	66	68	59	72	83	84	83	87	87	86	86	85	85	78.2	86.9
29-Nov-07	84	84	83	83	83	83	84	83	84	81	66	61	65	66	69	70	77	81	84	85	86	84	80	79	79	78.5	86.3
30-Nov-07	75	73	70	75	78	80	80	82	86	82	79	76	73	74	77	78	75	81	82	71	68	71	77	74	74	76.4	85.8
Hourly Avg	75.4	75.5	75.7	76.7	76.5	77.0	77.4	78.0	77.9	75.1	68.8	63.8	62.0	61.0	61.3	63.6	67.1	69.8	71.8	72.5	73.4	73.4	74.6	75.5	75.5		
Hourly Max	97.3	97.1	97.0	96.8	96.6	96.4	96.2	96.4	96.4	96.3	96.4	96.4	96.8	97.2	90.2	91.5	91.9	93.0	93.9	95.7	97.1	97.4	97.4	97.3	97.3		

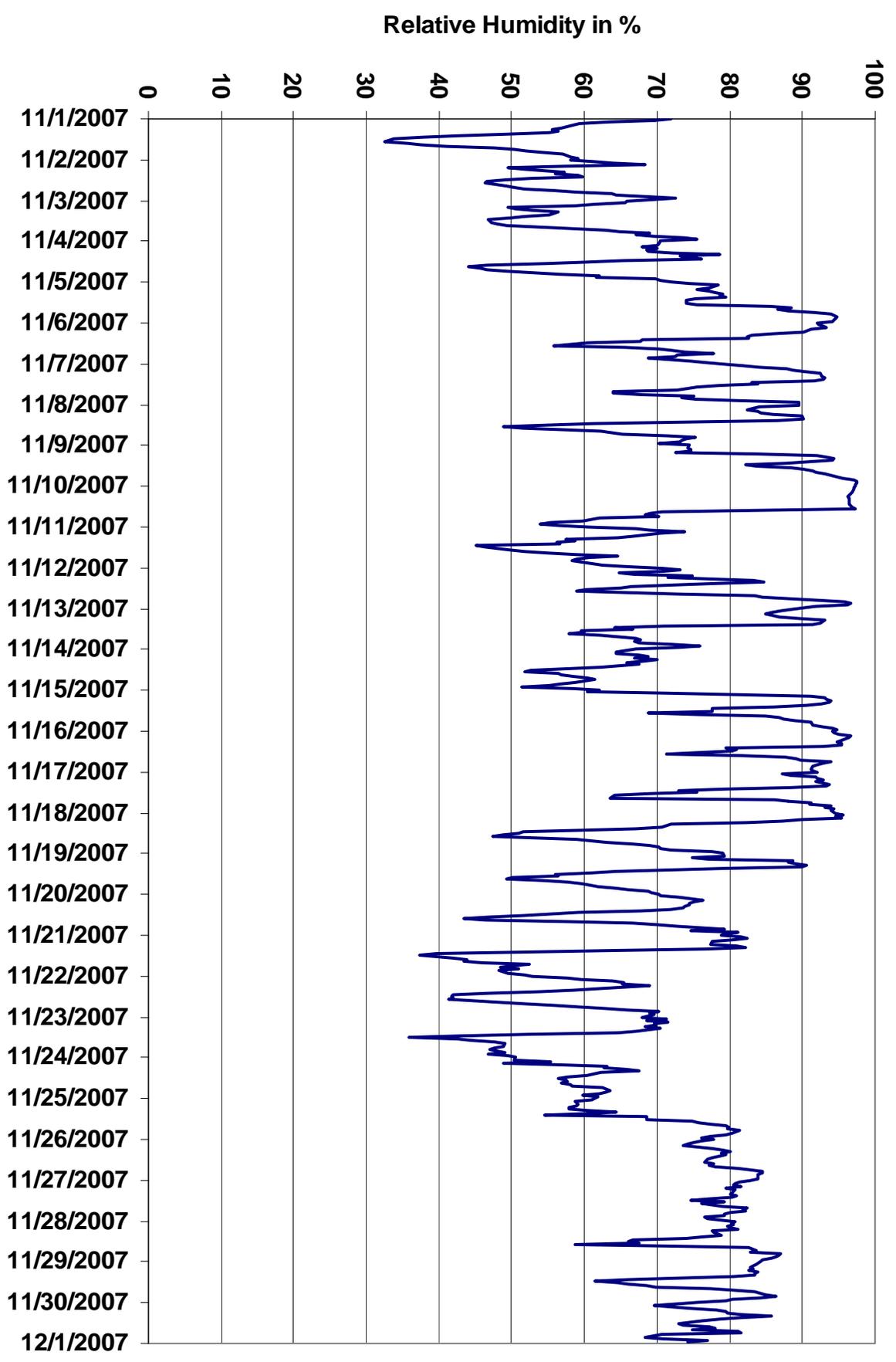


Figure 44. PASZA - Beaverlodge Relative Humidity 1-hr Average Monthly Trend

# PASZA - Beaverlodge Temperature Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

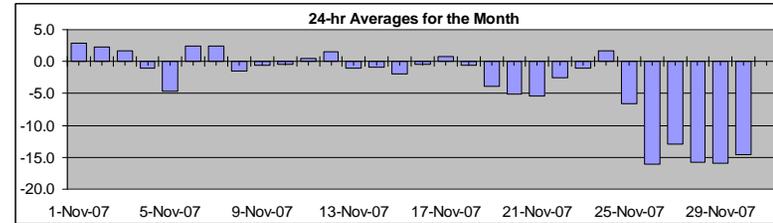
## HOURLY AVERAGE TABLE

## Ambient Temperature (T)

Monitoring Dates: November 1, 2007 to December 1, 2007

### Summary

Maximum 1-hr Average:	9.1 °C	6-Nov	13:00 14:00
Maximum 24-hr Value:	2.8 °C	1-Nov	



AIC Time:	0 hrs	Operational Time:	720 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	6.5	4.1	1.2	-1.4	-5.3	-16.3	-18.8	-3.2 °C	-1.4 °C

### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Nov-07	1	2	2	2	2	2	2	2	1	2	3	4	6	7	7	7	6	5	3	2	2	1	1	0	0	2.8	7.1
2-Nov-07	0	-1	-1	-2	1	2	2	1	1	1	1	1	2	4	4	5	5	6	5	4	4	3	4	3	2	2.3	5.6
3-Nov-07	2	1	2	2	3	2	2	1	1	2	3	3	3	4	4	3	2	1	1	0	0	0	-1	-1	1.7	3.7	
4-Nov-07	0	-1	-1	-1	-2	-2	-2	-2	-2	-2	-1	-1	1	2	3	4	2	1	0	-1	-3	-4	-4	-6	-6	-1.1	4.1
5-Nov-07	-6	-6	-6	-6	-6	-7	-7	-7	-6	-5	-5	-4	-4	-4	-4	-4	-3	-3	-3	-3	-3	-3	-4	-3	-3	-4.7	-2.9
6-Nov-07	-2	-3	-3	-3	-3	-3	-1	1	2	1	5	6	8	9	7	6	5	4	3	4	3	4	3	2	2.4	9.1	
7-Nov-07	2	1	1	0	0	0	0	0	0	-1	0	2	2	4	6	6	7	7	6	4	4	4	3	0	2.4	7.4	
8-Nov-07	-1	-3	-4	-4	-4	-3	-4	-5	-5	-4	-1	2	3	3	2	2	0	-1	-2	-2	-2	-1	-1	0	-1.5	2.5	
9-Nov-07	-1	-1	-1	-1	0	-1	-1	-1	-1	-1	0	1	1	0	0	0	0	0	-1	-1	-1	-1	-2	-2	-0.6	1.1	
10-Nov-07	-2	-2	-2	-2	-3	-3	-3	-3	-3	-3	-2	-1	-1	0	2	3	3	3	2	2	1	2	2	2	-0.4	3.2	
11-Nov-07	1	-1	-2	-3	-3	-2	-2	-1	-1	0	0	5	4	4	3	3	2	1	1	1	0	0	0	0	0.5	4.9	
12-Nov-07	0	0	1	1	2	2	2	1	1	1	1	2	2	4	4	3	2	2	2	1	1	0	0	-1	1.5	4.0	
13-Nov-07	-1	-2	-2	-2	-3	-3	-4	-5	-5	-5	0	3	2	4	3	3	2	0	0	0	-1	-2	-3	-2	-1.0	3.7	
14-Nov-07	-1	0	-1	-2	-3	-3	-3	-3	-2	-3	-1	1	2	3	2	1	0	-1	-1	-1	-1	-1	0	-1	-0.9	2.7	
15-Nov-07	-2	-1	-2	-4	-4	-4	-4	-4	-4	-3	-2	-1	0	2	0	-2	-2	-2	-2	-2	-1	-2	-2	-2	-2.0	1.7	
16-Nov-07	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	1	1	1	3	1	0	0	0	0	0	1	0	0	0	-0.5	3.0	
17-Nov-07	1	1	1	0	0	0	-1	-1	-2	-1	1	3	3	5	6	6	1	0	0	-1	-1	-1	-2	-1	0.8	6.0	
18-Nov-07	-1	-2	-1	0	0	-1	-2	-1	-1	-1	0	3	3	4	4	2	0	-1	-2	-3	-3	-3	-3	-5	-0.6	3.9	
19-Nov-07	-5	-5	-4	-5	-8	-8	-8	-8	-8	-6	-2	-2	0	0	1	1	-1	-2	-2	-3	-4	-4	-5	-5	-3.9	1.3	
20-Nov-07	-5	-5	-5	-6	-6	-6	-6	-6	-6	-6	-5	-3	-2	0	1	0	-3	-6	-7	-7	-8	-8	-9	-9	-5.0	1.2	
21-Nov-07	-9	-10	-10	-10	-10	-10	-11	-11	-11	-8	-5	-1	2	0	0	1	0	-2	-3	-3	-4	-3	-3	-3	-5.3	1.5	
22-Nov-07	-3	-5	-5	-6	-6	-6	-7	-5	-4	-3	0	1	2	3	3	2	0	-1	-2	-3	-4	-5	-5	-5	-2.6	3.4	
23-Nov-07	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-3	0	5	4	4	4	3	2	1	1	2	2	2	1	-1.0	4.8	
24-Nov-07	1	2	1	3	4	3	3	3	3	3	3	3	3	3	3	3	2	1	-1	-1	-1	-1	0	-1	1.7	4.0	
25-Nov-07	-1	-2	-1	-1	-1	-1	-1	-1	-3	-2	0	-4	-5	-7	-9	-10	-12	-13	-13	-14	-14	-15	-16	-16	-6.6	-0.1	
26-Nov-07	-17	-18	-18	-18	-18	-18	-18	-18	-18	-18	-17	-16	-15	-15	-15	-14	-14	-14	-14	-14	-14	-14	-14	-14	-16.0	-13.4	
27-Nov-07	-14	-14	-14	-14	-15	-15	-16	-16	-16	-15	-15	-13	-12	-10	-10	-9	-10	-10	-10	-10	-12	-13	-13	-14	-12.8	-9.2	
28-Nov-07	-15	-15	-16	-16	-16	-16	-17	-17	-16	-16	-15	-14	-13	-13	-11	-14	-16	-16	-16	-15	-17	-17	-19	-19	-15.8	-11.3	
29-Nov-07	-19	-18	-18	-19	-19	-19	-19	-19	-19	-19	-18	-13	-13	-15	-14	-14	-12	-13	-14	-14	-15	-15	-15	-16	-16.0	-12.3	
30-Nov-07	-15	-16	-15	-15	-16	-16	-15	-16	-18	-17	-15	-12	-11	-11	-12	-13	-13	-15	-15	-14	-14	-15	-15	-16	-14.6	-10.8	
Hourly Avg	-4.0	-4.3	-4.4	-4.7	-4.7	-4.7	-4.9	-5.0	-4.9	-4.3	-2.7	-1.3	-0.6	-0.2	0.0	-0.5	-1.5	-2.4	-2.9	-3.3	-3.6	-3.8	-4.1	-4.5			
Hourly Max	2.1	2.1	1.9	3.4	4.0	3.2	3.1	2.9	2.6	3.0	5.4	5.9	8.1	9.1	7.3	6.5	7.4	6.6	5.5	4.1	4.3	4.1	3.2	2.4			

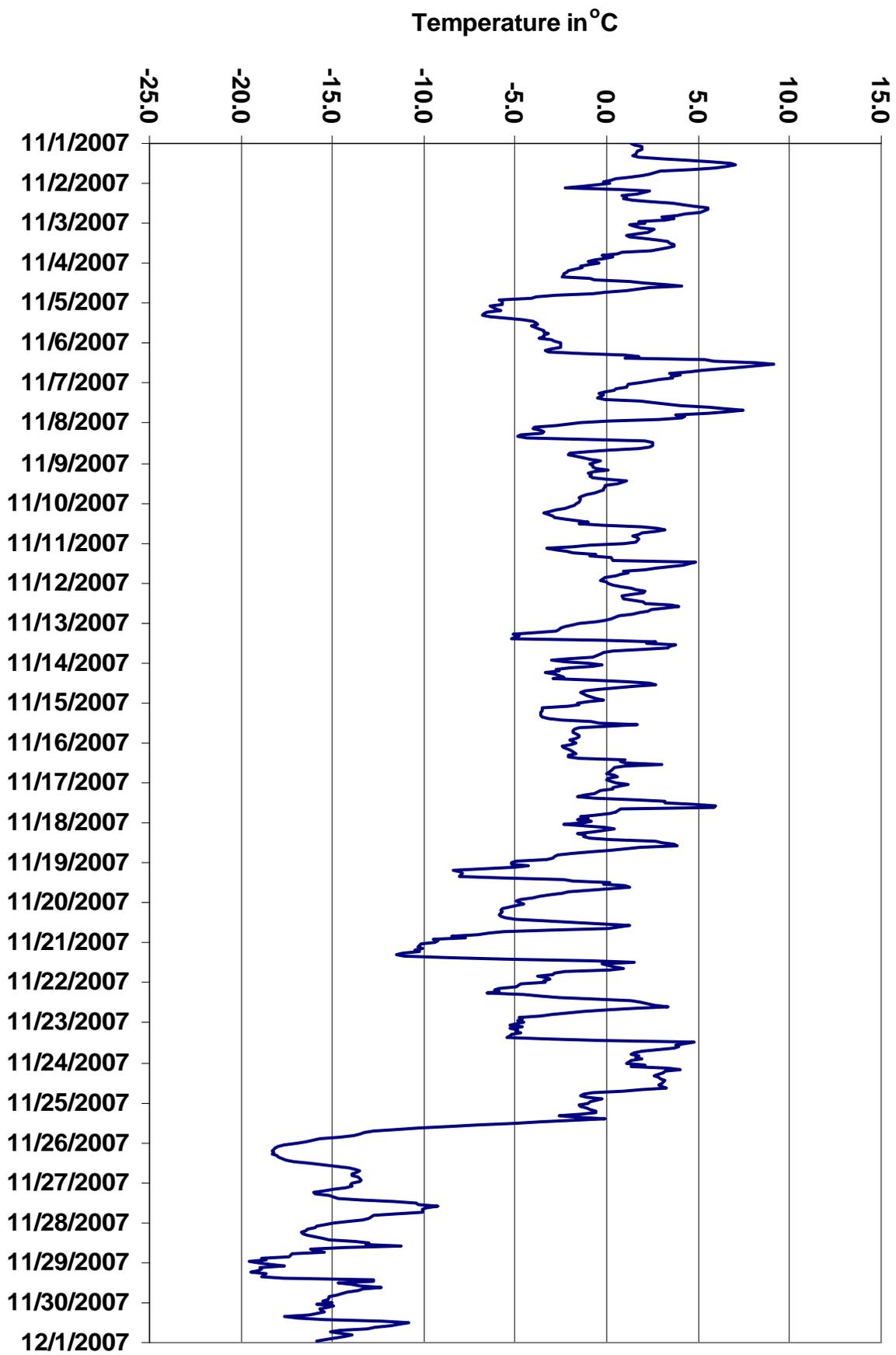


Figure 45. PASZA - Beaverlodge Temperature 1-hr Average Monthly Trend

# PASZA - Beaverlodge Scalar Wind Speed Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

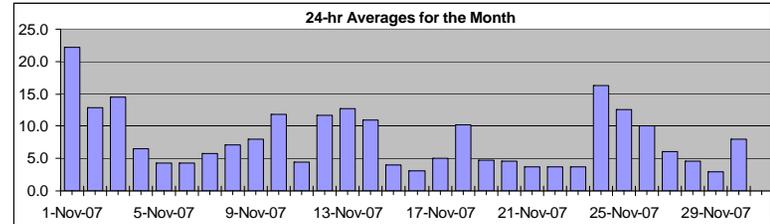
## Wind Speed (WSs)

Monitoring Dates: November 1, 2007 to December 1, 2007

### Summary

Maximum 1-hr Average:	31.3	km/hr	1-Nov	14:00 15:00
Maximum 24-hr Value:	22.1	km/hr	1-Nov	

Calm Time:	0 hrs	0% calms	Operational Time:	720 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageS
	27.1	21.1	11.3	5.7	3.3	1.6	0.9	8.0 km/hr



### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hr Scalar Average	Daily Max	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00		
1-Nov-07	16	19	24	19	22	21	25	26	24	27	27	27	26	28	31	30	27	21	19	18	14	13	13	13	13	22.1	31.3
2-Nov-07	15	13	9	4	11	20	13	6	6	2	1	6	10	8	6	11	24	27	27	21	18	19	21	13	13	12.9	27.4
3-Nov-07	14	3	7	14	23	28	26	21	26	26	20	19	22	17	20	16	11	7	4	2	3	4	6	7	7	14.4	28.2
4-Nov-07	6	9	9	9	8	8	7	8	6	7	9	8	8	9	9	10	5	4	4	3	2	2	2	3	3	6.5	9.6
5-Nov-07	2	2	2	2	2	3	4	5	4	6	7	6	5	6	6	8	7	7	6	5	3	1	2	2	2	4.3	7.7
6-Nov-07	2	2	3	5	4	5	7	8	3	3	4	3	4	6	4	5	4	2	4	6	2	4	7	7	7	4.3	8.1
7-Nov-07	7	7	4	3	4	4	4	5	4	3	4	3	5	5	3	3	7	10	12	5	9	6	8	13	5.8	12.5	
8-Nov-07	16	16	13	11	6	4	4	3	1	6	2	3	4	5	4	4	5	8	7	8	9	10	10	12	7.1	15.9	
9-Nov-07	13	14	17	17	16	15	13	14	11	8	5	3	3	3	4	3	3	3	3	4	5	5	5	5	5	8.0	16.8
10-Nov-07	6	5	3	3	1	0	0	0	0	0	1	3	10	8	16	22	27	27	26	25	24	25	27	24	24	11.8	27.1
11-Nov-07	17	8	7	3	5	4	2	4	2	3	3	3	5	4	3	3	5	4	4	3	4	3	5	5	5	4.5	16.7
12-Nov-07	5	5	6	7	10	10	14	18	17	15	13	16	15	14	17	15	9	10	10	8	6	13	15	15	15	11.7	17.7
13-Nov-07	18	18	16	16	12	8	5	3	4	3	3	14	18	19	21	23	18	17	17	15	14	8	4	11	11	12.7	22.7
14-Nov-07	13	20	15	11	12	12	13	14	12	9	10	10	8	7	6	4	5	7	7	11	14	15	15	13	13	11.0	20.0
15-Nov-07	9	5	6	6	3	4	3	3	3	2	3	1	1	1	3	6	5	3	4	6	6	4	3	3	3	3.9	9.4
16-Nov-07	1	5	7	6	4	2	3	4	0	2	3	3	4	2	3	3	1	3	5	2	3	3	3	4	4	3.1	7.0
17-Nov-07	4	6	6	5	5	5	5	4	6	7	7	7	6	7	4	2	4	5	4	5	5	5	4	5	5	5.0	7.2
18-Nov-07	2	5	6	13	13	10	9	11	10	13	9	11	16	14	13	16	16	15	11	8	6	7	6	4	4	10.2	16.4
19-Nov-07	4	4	7	5	3	4	3	4	2	2	1	2	2	3	3	4	9	12	11	6	7	6	5	6	6	4.8	11.7
20-Nov-07	6	7	8	6	5	5	8	7	6	5	4	6	6	5	3	3	3	4	3	3	1	4	2	2	2	4.7	7.6
21-Nov-07	3	2	3	2	3	3	2	2	2	3	3	1	2	3	4	3	6	3	9	6	4	7	7	7	7	3.7	9.1
22-Nov-07	6	4	2	2	3	3	2	6	5	6	5	4	5	6	6	5	4	2	3	2	2	2	3	2	2	3.7	6.3
23-Nov-07	1	1	1	2	2	3	1	1	4	3	4	3	2	8	5	4	6	5	4	4	7	5	5	3	3	3.6	7.9
24-Nov-07	5	6	3	11	21	22	18	17	16	16	20	18	19	17	19	13	21	20	13	16	17	19	23	20	20	16.3	23.2
25-Nov-07	21	16	18	18	17	16	16	13	10	11	12	15	12	13	13	11	10	11	9	7	7	10	9	8	8	12.5	20.7
26-Nov-07	9	10	12	13	14	14	14	15	17	17	16	15	14	13	9	6	4	2	3	4	5	4	4	6	6	10.0	17.0
27-Nov-07	7	5	4	9	11	9	5	4	2	2	3	2	3	3	2	3	4	4	6	12	9	12	13	12	12	6.0	12.7
28-Nov-07	9	8	7	7	8	5	5	5	2	1	3	2	3	3	1	1	1	3	5	8	8	5	6	3	3	4.5	8.9
29-Nov-07	5	5	6	2	3	2	2	3	2	2	0	2	3	3	4	4	4	3	3	3	4	2	1	2	2	2.9	5.8
30-Nov-07	5	6	12	12	9	10	10	5	1	3	4	7	10	11	11	11	7	6	5	10	9	11	8	9	9	8.0	12.1
1-hr Average	8.2	7.9	8.1	8.1	8.6	8.6	8.1	7.9	6.9	7.1	6.9	7.4	8.4	8.3	8.5	8.4	8.7	8.5	8.2	7.8	7.7	7.8	8.0	7.9	7.9	8.0	7.9
Hourly Max	20.7	20.0	24.0	19.2	23.0	28.2	25.7	26.4	25.6	26.9	27.0	27.2	26.0	28.2	31.3	29.9	27.1	27.4	26.7	25.2	23.9	25.3	26.5	23.6	23.6	31.3	

# PASZA - Beaverlodge Vector Wind Speed Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

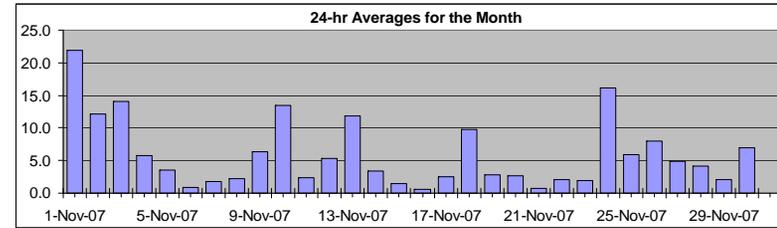
## HOURLY AVERAGE TABLE

## Wind Speed (WSv)

Monitoring Dates: November 1, 2007 to December 1, 2007

### Summary

Maximum 1-hr Average:	31.2	km/hr	1-Nov	14:00 15:00
Maximum 24-hr Value:	22.0	km/hr	1-Nov	



Calm Time:	0 hrs	0% calms	Operational Time:	720 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageV
	27.0	21.0	11.2	5.5	2.8	1.0	0.0	10.5 km/hr

### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hr Vector Average	Daily Max		
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	0:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
1-Nov-07	16	19	24	19	22	21	25	26	24	27	27	27	26	28	31	30	27	21	19	18	14	13	13	13		22.0	31.2	
2-Nov-07	15	12	9	4	10	20	13	5	5	2	1	6	9	7	5	11	24	27	27	21	18	19	21	13		12.1	27.2	
3-Nov-07	14	3	7	14	23	28	26	21	26	26	19	19	22	17	20	16	11	7	4	1	3	4	6	7		14.0	28.1	
4-Nov-07	6	9	9	9	8	8	7	8	6	7	9	7	8	9	9	9	4	4	3	1	0	1	2	1		5.8	9.5	
5-Nov-07	2	2	1	2	2	3	4	2	3	6	7	5	5	6	6	8	7	7	6	4	2	1	1	1		3.5	7.6	
6-Nov-07	2	1	3	4	3	4	6	8	3	2	3	3	3	5	3	4	4	2	4	6	1	4	7	7		0.9	7.7	
7-Nov-07	7	7	4	1	4	3	3	5	3	3	4	3	5	3	2	2	7	10	12	4	9	6	8	12		1.8	12.5	
8-Nov-07	16	16	13	11	6	4	4	2	1	6	2	3	4	5	4	4	5	8	7	8	9	10	10	12		2.2	15.8	
9-Nov-07	13	14	17	16	15	15	13	14	11	8	5	1	3	3	3	3	3	3	3	4	5	5	5	5		6.3	16.8	
10-Nov-07	6	4	3	3	1	0	0	0	0	0	0	3	10	7	16	22	27	27	26	25	24	25	27	23		13.5	27.1	
11-Nov-07	17	8	7	2	4	4	1	4	1	2	2	3	5	4	3	3	4	4	4	2	3	3	4	4		2.3	16.6	
12-Nov-07	5	5	6	7	10	10	14	18	17	15	13	16	15	14	17	14	9	10	8	7	6	13	15	15		5.4	17.5	
13-Nov-07	18	18	16	16	12	8	5	3	4	2	0	13	18	19	21	23	18	17	16	15	14	7	3	11		11.9	22.6	
14-Nov-07	13	20	15	11	12	12	13	14	12	9	10	10	8	6	5	3	5	6	7	11	14	14	15	13		3.5	19.9	
15-Nov-07	9	5	5	6	3	3	3	3	3	2	3	1	1	1	3	6	5	3	3	5	6	4	2	3		1.5	9.3	
16-Nov-07	1	2	3	5	3	1	2	3	0	2	2	2	1	2	2	2	1	2	4	2	2	2	3	3		0.5	5.4	
17-Nov-07	3	6	6	4	5	4	5	4	6	7	6	7	6	7	3	1	3	5	4	4	4	5	3	4		2.5	7.0	
18-Nov-07	2	3	5	13	13	10	9	11	9	12	9	11	16	13	13	16	16	15	11	8	6	7	6	4		9.8	16.3	
19-Nov-07	3	3	7	4	2	4	3	4	1	2	1	2	2	3	3	2	9	12	10	6	7	6	5	6		2.8	11.7	
20-Nov-07	6	6	8	6	5	5	8	7	6	4	4	6	6	5	2	3	3	4	3	3	1	4	1	2		2.7	7.6	
21-Nov-07	2	2	3	2	2	2	1	2	2	3	3	1	2	3	4	3	6	2	9	5	4	7	7	7		0.8	9.0	
22-Nov-07	6	3	1	2	2	3	2	5	5	6	5	4	5	6	6	4	3	2	2	1	2	1	2	1		2.1	6.0	
23-Nov-07	1	1	1	2	2	3	1	1	3	1	4	3	2	8	5	4	6	5	4	4	7	5	5	3		1.9	7.8	
24-Nov-07	4	6	3	11	21	22	18	17	16	16	19	18	19	17	19	13	21	20	13	16	17	19	23	20		16.1	23.1	
25-Nov-07	21	16	18	18	17	16	16	13	10	11	9	15	11	13	13	11	10	11	9	7	7	9	9	8		5.9	20.6	
26-Nov-07	9	10	12	13	14	14	14	14	17	17	16	15	14	12	9	5	4	2	3	4	5	4	3	5		8.0	17.0	
27-Nov-07	7	5	4	9	11	8	4	4	2	2	3	2	2	2	2	2	3	3	5	12	9	12	13	12		4.9	12.6	
28-Nov-07	9	8	7	7	8	5	4	4	2	1	2	2	2	1	1	1	1	3	4	8	8	5	6	3		4.2	8.8	
29-Nov-07	5	5	6	2	3	2	2	2	2	1	0	1	2	3	4	4	4	2	3	4	2	1	1	1		2.0	5.8	
30-Nov-07	5	6	12	12	9	10	10	4	1	3	4	6	10	10	11	11	6	6	5	9	9	11	8	9		7.0	12.0	
1-hr Vector	3.6	3.3	3.5	4.1	3.9	4.1	3.4	3.1	2.4	1.6	1.8	2.6	3.5	2.9	3.0	3.4	4.1	3.8	4.1	3.2	3.7	3.5	3.2	2.9				
Hourly Max	20.6	19.9	23.8	19.0	22.9	28.1	25.6	26.3	25.6	26.8	26.9	27.1	25.9	28.1	31.2	29.7	27.1	27.2	26.6	25.1	23.9	25.3	26.5	23.5				

## PASZA - Beaverlodge Wind Direction Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Calm Time:	0 hrs	0% calms	Operational Time:	720 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	Average
	347.7	333.9	291.2	249.1	111.6	49.5	8.4	288 deg

**Status Flag Characters**

C Calibration	A AIC - Zero / Span Check
S Instrument out of Service	X Filter Exchange
N No Data	M Equipment Maintenance
D Excessive Instrument Drift	P Power Failure

**Day Mountain Standard Time**

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	WD Sector	
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Nov-07	259	259	274	285	283	288	285	283	281	283	288	290	290	287	280	284	285	283	282	278	280	278	280	280	282	WNW	
2-Nov-07	279	275	269	247	276	282	275	244	262	169	123	231	223	211	240	245	274	274	277	266	263	280	283	286	268	W	
3-Nov-07	289	292	259	282	291	283	277	264	257	264	257	275	269	269	260	264	268	267	262	38	271	281	256	270	271	W	
4-Nov-07	294	297	301	314	323	332	327	329	329	322	317	306	297	304	317	314	331	328	336	288	312	64	102	158	315	NW	
5-Nov-07	85	93	97	86	89	130	70	305	155	133	137	149	157	169	101	109	140	144	149	156	165	186	115	153	133	SE	
6-Nov-07	252	278	230	197	165	203	31	21	277	84	348	232	211	301	181	187	82	105	68	61	70	150	116	107	121	ESE	
7-Nov-07	111	106	111	271	141	255	197	145	167	188	178	163	164	168	225	289	291	291	273	267	285	299	336	336	253	WSW	
8-Nov-07	341	339	327	332	330	335	324	343	18	49	68	214	195	181	169	135	102	96	97	98	109	116	112	114	51	NE	
9-Nov-07	105	108	111	115	111	104	107	112	108	95	87	199	195	190	212	213	215	222	199	185	187	196	189	150	126	SE	
10-Nov-07	156	145	122	106	177	86	159	169	2	88	332	274	269	255	265	262	258	256	250	258	259	261	261	270	257	WSW	
11-Nov-07	267	242	226	118	203	214	202	230	58	180	87	122	182	191	178	159	159	113	111	112	123	101	74	145	182	S	
12-Nov-07	144	122	109	131	110	100	123	122	120	132	131	129	124	116	102	59	55	31	329	303	292	294	303	306	104	ESE	
13-Nov-07	309	307	309	311	318	329	320	303	309	99	247	279	282	281	281	279	277	272	276	283	280	261	270	272	289	WNW	
14-Nov-07	277	280	283	273	272	272	265	276	271	246	255	257	252	241	177	106	81	96	91	109	111	107	110	113	246	WSW	
15-Nov-07	103	110	226	286	322	309	274	315	30	66	187	234	79	133	153	137	125	144	107	107	117	109	136	125	125	SE	
16-Nov-07	231	7	19	288	16	107	296	306	51	338	18	293	303	223	276	249	146	91	185	75	151	136	149	120	336	NNW	
17-Nov-07	183	224	201	187	183	116	113	118	104	112	120	136	134	132	159	275	98	77	72	68	319	327	27	344	125	SE	
18-Nov-07	69	300	348	292	290	285	289	276	289	291	295	287	292	297	290	283	283	285	286	290	303	294	296	284	291	WNW	
19-Nov-07	279	284	300	275	184	64	87	74	87	71	75	78	73	63	58	301	290	285	291	305	298	310	328	330	311	NW	
20-Nov-07	347	333	322	307	316	325	321	320	323	329	322	321	324	338	70	116	108	107	113	107	202	254	153	197	329	NNW	
21-Nov-07	212	191	73	84	267	77	120	95	80	77	75	89	108	70	68	64	252	234	256	262	264	292	312	309	287	WNW	
22-Nov-07	283	74	99	241	91	65	97	280	309	311	314	304	319	337	320	275	302	354	13	214	223	73	274	40	317	NW	
23-Nov-07	281	68	243	78	96	75	96	212	232	118	65	64	258	288	292	305	310	299	309	303	304	299	296	270	303	WNW	
24-Nov-07	249	269	228	275	278	277	281	277	282	276	275	280	287	293	292	297	294	291	282	282	278	278	280	282	282	WNW	
25-Nov-07	282	281	289	287	288	290	294	290	289	292	300	45	46	47	55	55	53	61	63	49	6	37	79	90	337	NNW	
26-Nov-07	114	119	120	124	123	124	126	116	114	114	123	128	123	124	121	99	110	142	304	317	326	346	318	1	117	ESE	
27-Nov-07	23	354	338	317	318	323	348	5	349	69	65	100	92	121	142	266	347	355	350	339	339	334	337	336	344	NNW	
28-Nov-07	337	328	324	313	316	323	346	313	335	26	55	319	315	337	312	61	54	23	334	324	332	322	333	349	332	NNW	
29-Nov-07	337	333	330	21	30	345	60	32	52	268	111	124	85	71	56	67	69	92	87	79	60	64	282	18	38	NE	
30-Nov-07	327	322	330	327	332	332	326	321	167	234	254	296	330	342	347	16	2	304	320	8	3	23	16	12	341	NNW	
Hourly Avg	292	295	296	292	292	296	294	287	272	267	280	270	271	280	279	284	286	286	283	294	289	294	299	303			

## PASZA - Beaverlodge Standard Deviation of Wind Direction Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

**Wind Direction (WD)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**


Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	720 hrs			
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%			
Percentile	99	95	75	50	25	5	1
	84.8	64.7	29.7	12.4	6.0	3.4	2.6

**Status Flag Characters**

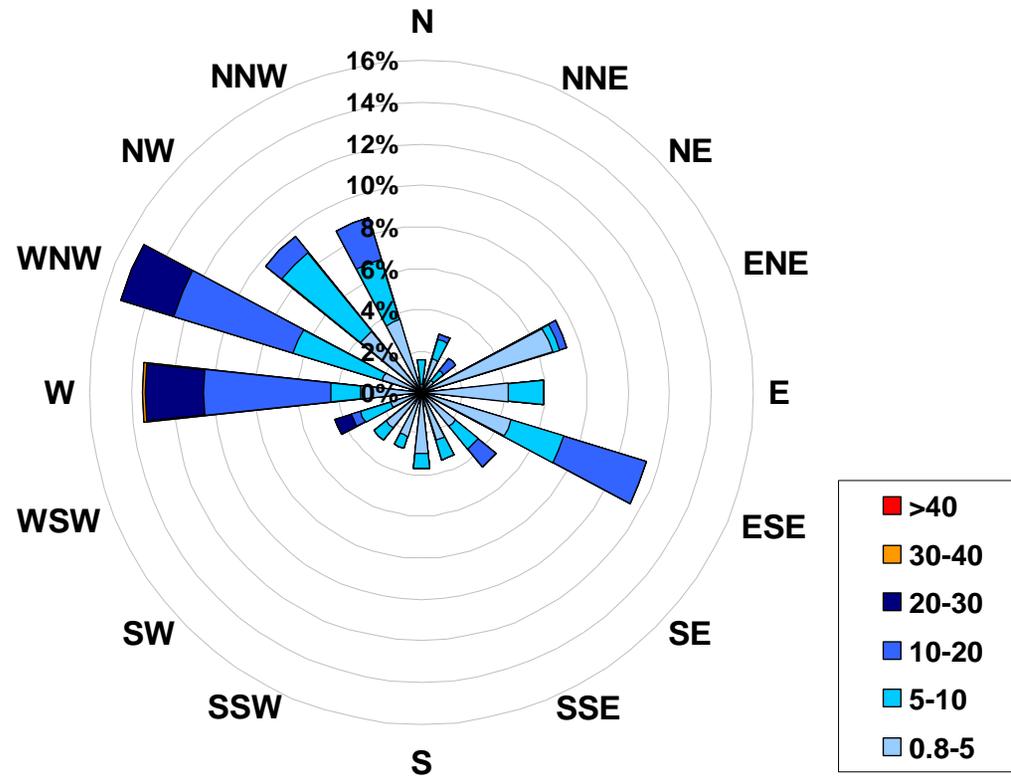
C Calibration	A AIC - Zero / Span Check
S Instrument out of Service	X Filter Exchange
N No Data	M Equipment Maintenance
D Excessive Instrument Drift	P Power Failure

**Day Mountain Standard Time**

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	0:00	Daily Maximum
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	0:00		
1-Nov-07	8	5	8	7	4	4	3	3	4	4	3	4	5	5	5	5	4	3	3	5	3	4	9	3		8.9	
2-Nov-07	3	6	5	35	20	6	8	14	30	49	34	40	14	12	26	13	7	7	6	6	5	8	4	3		49.3	
3-Nov-07	4	35	10	9	3	5	4	6	3	5	7	6	6	10	4	5	6	5	21	69	23	17	7	10		69.2	
4-Nov-07	4	3	4	5	4	4	8	5	5	10	11	18	16	12	14	7	13	20	40	75	74	85	32	60		84.8	
5-Nov-07	33	21	58	45	36	13	11	84	37	14	8	10	20	13	16	8	9	6	8	15	29	56	84	43		83.8	
6-Nov-07	28	59	28	9	29	31	64	21	28	58	48	18	23	16	66	44	19	20	17	9	85	26	13	12		84.7	
7-Nov-07	9	5	16	62	35	19	37	13	30	33	13	30	24	65	64	88	14	8	8	68	7	8	14	5		87.9	
8-Nov-07	9	6	6	8	12	19	17	30	59	8	41	42	29	20	27	10	5	6	7	4	6	6	5	6		59.2	
9-Nov-07	5	6	4	5	5	6	6	3	7	7	21	88	23	16	15	16	14	33	37	42	26	23	14	25		87.8	
10-Nov-07	9	21	17	24	76	17	29	27	73	29	75	71	17	31	5	4	3	3	3	2	4	3	3	4		76.4	
11-Nov-07	3	17	11	52	53	18	52	14	71	41	27	27	9	30	32	33	33	11	18	34	35	11	16	34		71.3	
12-Nov-07	11	16	8	10	5	11	4	7	6	9	5	2	9	4	9	14	14	4	35	14	15	12	4	4		35.0	
13-Nov-07	4	4	3	5	7	7	12	12	18	59	88	6	4	3	3	4	3	2	7	4	4	24	59	4		87.9	
14-Nov-07	5	4	2	6	4	4	3	5	12	14	6	6	8	25	15	37	12	7	4	4	3	3	7	8		36.7	
15-Nov-07	9	12	42	17	8	14	11	14	19	19	10	55	45	52	17	9	8	15	18	12	7	22	48	51		55.0	
16-Nov-07	65	58	67	17	45	63	63	23	55	56	52	77	88	53	55	62	55	44	38	68	40	39	29	32		87.8	
17-Nov-07	43	16	9	40	12	29	13	10	12	12	9	13	9	7	45	62	29	12	15	55	45	35	41	29		61.6	
18-Nov-07	53	56	38	4	7	4	6	8	13	10	6	7	4	7	9	5	3	2	3	4	7	7	14	52		55.8	
19-Nov-07	38	58	4	42	52	15	14	9	58	11	44	43	10	18	13	73	5	2	20	6	4	8	15	6		72.9	
20-Nov-07	16	7	8	7	10	8	7	6	6	13	11	6	6	15	44	15	11	10	22	27	52	14	31	31		51.8	
21-Nov-07	32	26	12	44	77	12	43	26	28	15	17	39	22	7	6	20	19	59	8	9	46	9	7	6		77.2	
22-Nov-07	24	20	62	52	64	59	58	22	13	10	9	15	10	14	11	32	22	35	49	72	28	89	66	69		88.6	
23-Nov-07	85	81	82	32	18	12	70	57	60	66	8	41	14	9	7	12	9	11	23	11	5	10	5	26		85.1	
24-Nov-07	21	13	56	20	6	4	4	6	5	5	6	5	6	5	3	9	5	5	7	3	10	7	4	3		55.7	
25-Nov-07	3	3	3	3	3	3	3	4	4	4	44	7	5	5	6	9	7	4	9	11	13	14	20	15		43.6	
26-Nov-07	6	6	5	10	5	4	5	5	5	5	5	4	5	5	9	18	18	35	38	7	5	12	16	23		38.4	
27-Nov-07	6	15	16	6	4	8	18	13	41	18	20	12	25	42	41	42	54	31	16	7	10	7	7	7		54.4	
28-Nov-07	7	8	8	7	6	8	17	20	45	51	23	51	43	64	79	46	52	29	15	16	7	40	16	36		78.9	
29-Nov-07	23	13	7	32	25	39	37	25	13	86	33	40	17	10	9	7	7	38	62	22	13	24	77	45		85.6	
30-Nov-07	18	11	6	4	5	5	7	32	21	25	22	35	9	10	13	10	25	5	11	17	12	8	9	12		34.9	

Hourly Max	85	81	82	62	77	63	70	84	73	86	88	88	88	88	65	79	88	55	59	62	75	85	89	84	69
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**1-hr Average Wind Rose (in km/hr) Located at the Beaverlodge Site for November 2007**



**Calms: 0%**

Frequency Distribution of Wind in km/hr			Frequency (hrs)
Range			
0.8	<	5	320
5	to	10	195
10	to	20	159
20	to	30	45
30	to	40	1
	>	40	0
Total Non-Zero Values			720

# PASZA – Portable-Spirit River Station

Monthly Summary Tables, Graphs and  
Roses

# PASZA - Portable-Spirit River Sulphur Dioxide Monthly Summary

Station: Portable-Spirit River  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

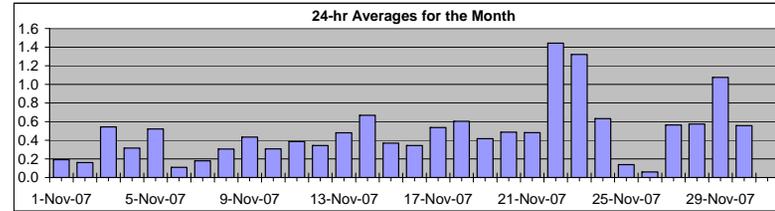
## Sulphur Dioxide (SO<sub>2</sub>)

Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 1-hr 172 ppb 24-hr 57 ppb

**Summary**

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	5.2 ppb	3-Nov	6:00 7:00	
Maximum 24-hr Average:	1.4 ppb	22-Nov		



AIC Time:	31 hrs	Operational Time:	684 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	2.0	1.4	0.6	0.4	0.2	0.0	0.0	0.5 ppb	0.4 ppb

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00			
1-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0.2	0.5
2-Nov-07	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
3-Nov-07	0	0	0	0	1	1	5	0	0	1	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.5	5.2
4-Nov-07	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0.3	0.7
5-Nov-07	1	1	0	0	0	0	0	0	A	0	1	1	1	1	1	0	1	2	1	0	0	0	1	0	0	0.5	1.6
6-Nov-07	0	0	0	0	0	0	0	A	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0.1	0.3
7-Nov-07	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
8-Nov-07	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
9-Nov-07	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0	0.4	1.2
10-Nov-07	0	0	A	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
11-Nov-07	0	A	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	1	1	1	0	0.4	1.1
12-Nov-07	A	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	1.1
13-Nov-07	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	A	1	0.5	1.1
14-Nov-07	1	1	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	1	2	1	1	A	1	1	0.7	2.0	
15-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0.4	0.5
16-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	0	0	0.3	0.9
17-Nov-07	1	0	1	0	0	1	0	1	1	2	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0.5	1.7
18-Nov-07	0	0	0	0	1	1	1	0	0	0	0	1	1	1	1	0	0	A	1	1	1	1	1	1	1	0.6	1.2
19-Nov-07	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0.4	0.5
20-Nov-07	0	0	0	0	1	1	1	1	0	0	1	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0.5	1.4
21-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	1	1	0	0.5	1.2
22-Nov-07	1	1	2	1	1	1	2	2	2	2	2	2	1	A	1	1	1	2	2	2	2	2	1	1	1	1.4	2.3
23-Nov-07	1	2	2	1	1	1	1	1	1	1	0	1	A	1	1	1	2	2	2	2	2	2	1	1	1	1.3	2.3
24-Nov-07	1	1	1	1	1	1	1	0	0	1	1	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0.6	1.4
25-Nov-07	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
26-Nov-07	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	0.3
27-Nov-07	0	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0.6	1.4
28-Nov-07	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2	2	2	0.6	2.2
29-Nov-07	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.9
30-Nov-07	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.6	0.9
Hourly Avg	0.5	0.5	0.5	0.4	0.5	0.6	0.6	0.4	0.4	0.6	0.5	0.5	0.5	0.4	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		
Hourly Max	1.9	1.7	1.8	1.4	1.4	1.3	5.2	1.8	2.2	2.2	2.3	1.6	1.2	1.2	1.2	1.1	1.6	1.9	2.3	2.0	1.8	1.8	2.2	1.9			

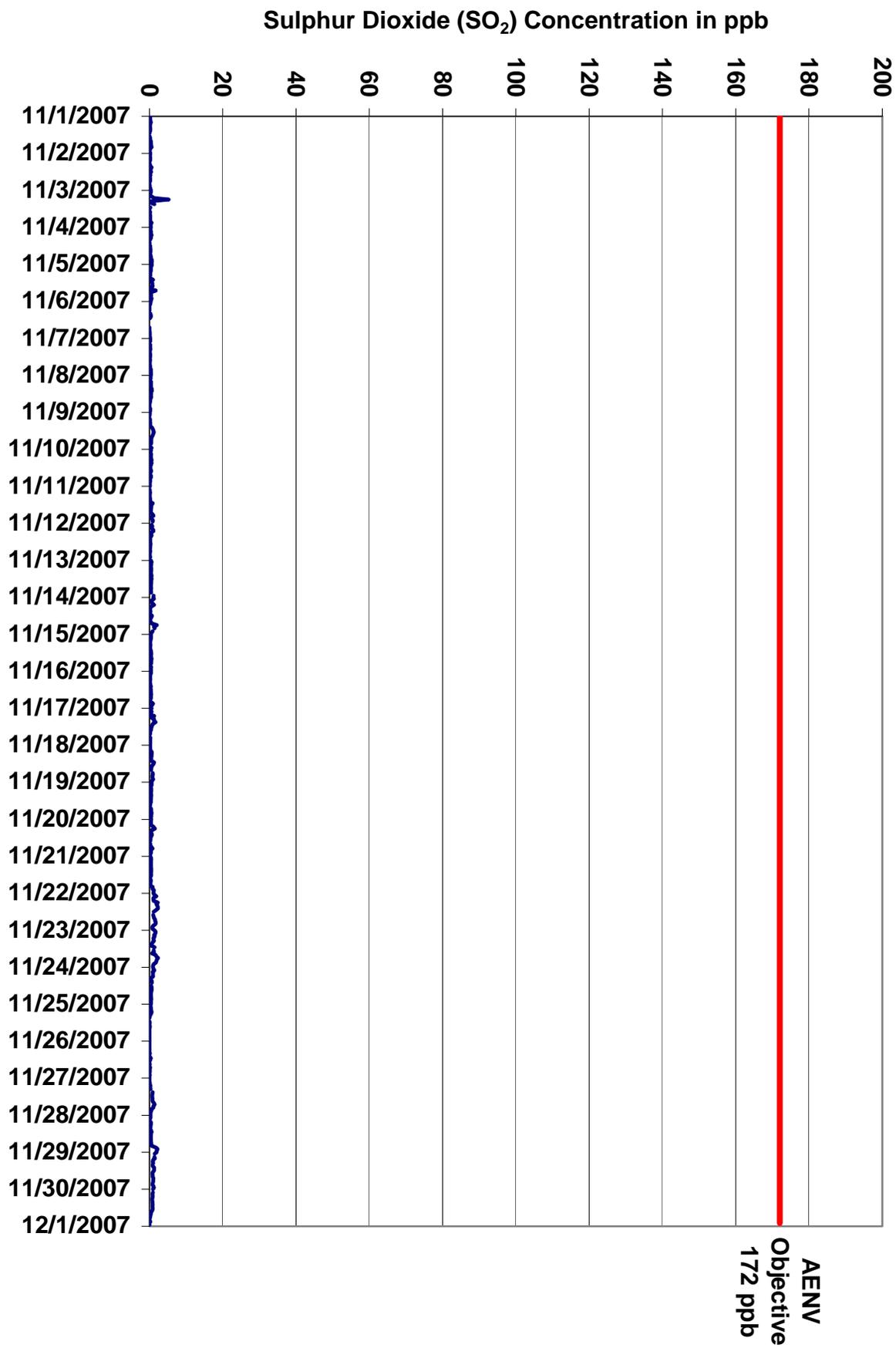


Figure 46. PASZA - Portable-Spirit River Sulphur Dioxide 1-hr Average Monthly Trend

Station: Portable-Spirit River  
 Station Owner: PASZA

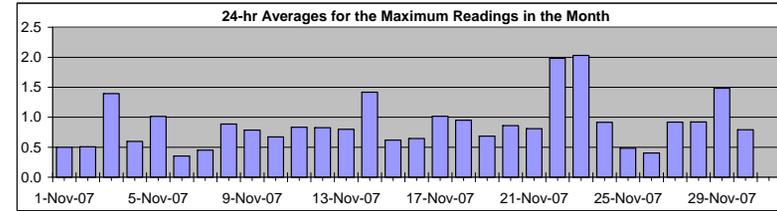
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	12.4	ppb	3-Nov	6:00 7:00
Maximum 24-hr Value:	2.0	ppb	23-Nov	



AIC Time:	31 hrs	Operational Time:	684 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	3.2	2.4	1.0	0.5	0.5	0.4	0.3	0.9 ppb	0.5 ppb

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum			
	Hour Start	Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00			22:00	23:00	0:00
1-Nov-07	0	1	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	1	1	0	0	0	0.5	1.0
2-Nov-07	0	0	0	0	0	0	0	0	0	0	0	1	0	A	1	0	0	0	0	0	0	0	0	0	0	0	1	0.5	1.0
3-Nov-07	1	1	0	0	1	5	12	0	2	3	A	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1.4	12.4	
4-Nov-07	1	0	0	1	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0.6	1.2	
5-Nov-07	1	1	0	1	1	0	0	0	0	A	1	2	1	1	1	1	3	2	1	1	1	1	1	1	1	1	1.0	2.8	
6-Nov-07	0	0	0	0	0	0	0	0	A	1	1	1	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0.4	0.8	
7-Nov-07	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	0.5	
8-Nov-07	0	0	0	A	0	1	0	0	1	8	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.9	7.8	
9-Nov-07	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.5	
10-Nov-07	1	1	A	1	1	1	1	1	1	1	1	0	1	0	1	1	1	0	0	1	1	0	0	0	0	0	0.7	1.0	
11-Nov-07	0	A	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	1	2	0	1	1	2	0.8	2.0	
12-Nov-07	A	1	1	1	2	3	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	A	0.8	3.0	
13-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	0	1	A	2	0.8	2.0		
14-Nov-07	2	3	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	3	2	A	1	1	1.4	3.5	
15-Nov-07	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	0.6	1.0	
16-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	A	1	2	1	1	0.6	1.9	
17-Nov-07	1	0	1	1	0	2	1	2	2	3	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.0	3.0	
18-Nov-07	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	A	1	1	2	2	2	1	0.9	1.5	
19-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	A	0	1	1	1	1	1	1	0	0.7	1.0	
20-Nov-07	0	0	1	0	1	1	2	1	1	1	1	1	0	0	0	A	0	0	0	1	1	1	1	1	0	0	0.9	2.0	
21-Nov-07	0	0	1	1	0	1	1	0	1	1	1	1	1	1	0	A	0	0	0	0	0	0	2	1	1	1	0.8	1.9	
22-Nov-07	1	2	3	1	1	2	3	2	3	3	2	2	1	A	1	2	2	3	2	2	2	2	2	1	1	1	2.0	2.9	
23-Nov-07	2	2	2	1	2	1	2	2	1	1	1	3	A	1	2	1	2	2	3	3	2	2	2	2	1	1	2.0	3.4	
24-Nov-07	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	0	1	0	1	0	0	0	0.9	1.5		
25-Nov-07	0	0	0	0	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.9	
26-Nov-07	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	0.4	0.4	
27-Nov-07	0	0	0	0	1	1	0	1	A	2	1	1	1	1	1	1	2	2	1	1	1	1	1	0	0	0	0.9	1.8	
28-Nov-07	0	0	0	A	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	2	0.9	2.9	
29-Nov-07	2	2	A	2	2	1	1	1	1	1	1	2	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1.5	2.4	
30-Nov-07	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.8	1.4	
Hourly Avg	0.8	0.9	0.8	0.7	0.9	1.1	1.3	0.8	0.9	1.2	0.9	0.9	0.8	0.8	0.8	0.7	0.8	0.9	1.0	1.0	0.9	0.9	0.8	0.9	0.9	0.8	0.9		
Hourly Max	2.5	3.5	2.9	1.5	2.0	5.1	12.4	2.5	2.9	7.8	2.4	3.4	1.5	1.5	1.9	1.6	2.3	2.9	3.5	3.4	2.4	2.4	2.9	2.4	2.9	2.4			

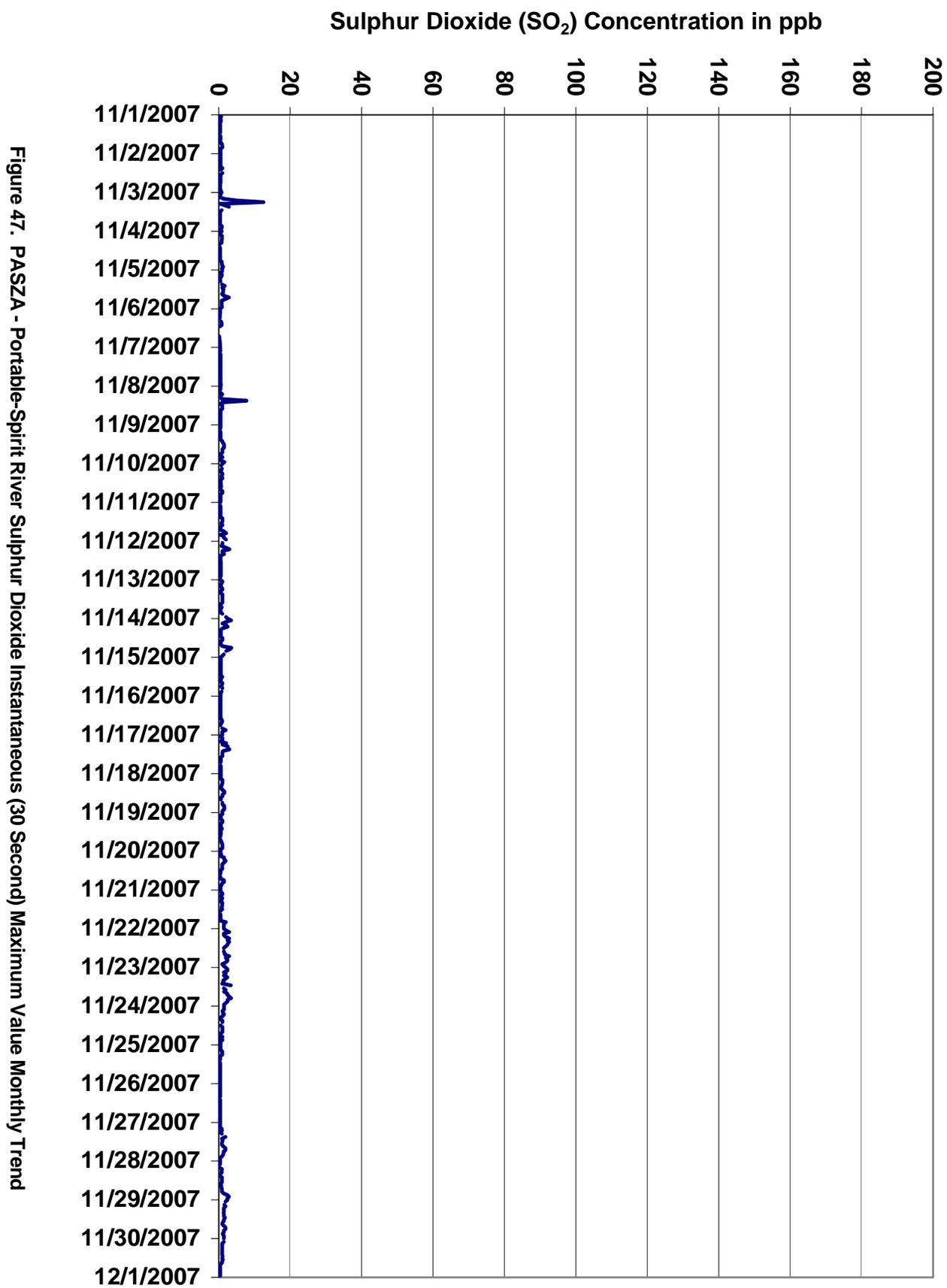
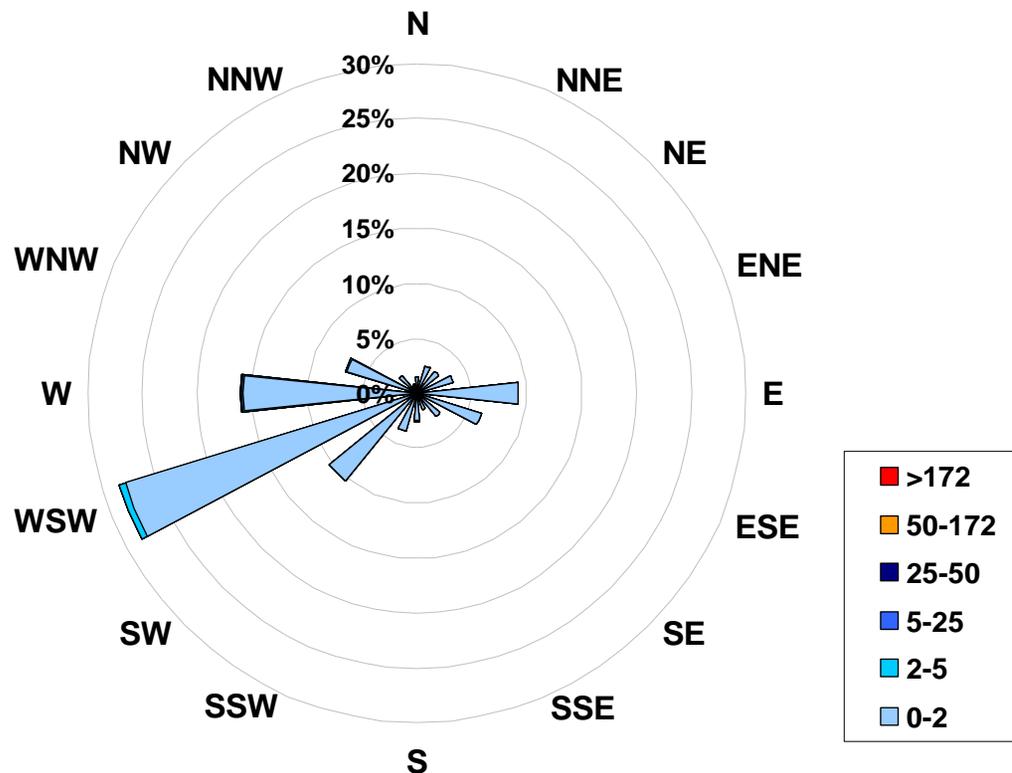


Figure 47. PASZA - Portable-Spirit River Sulphur Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Sulphur Dioxide (in ppb) Located at the Portable-Spirit River Site for November 2007**



**Calms: 0%**

Frequency Distribution of SO <sub>2</sub> in ppb			
Range			Frequency (hrs)
0.0	<	2	676
2	to	5	7
5	to	25	1
25	to	50	0
50	to	172	0
	>	172	0
Total Non-Zero Values			684

## PASZA - Portable-Spirit River Nitrogen Dioxide Monthly Summary

Station: Portable-Spirit River  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

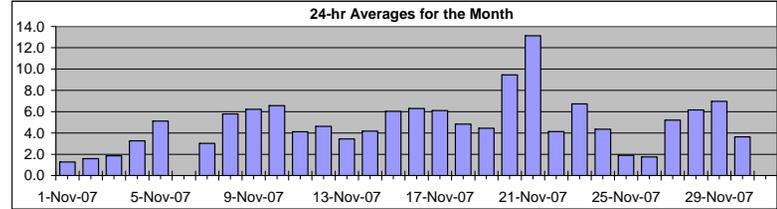
### Nitrogen Dioxide (NO<sub>2</sub>)

Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 1-hr 212 ppb 24-hr 106 ppb

**Summary**

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	24.9 ppb 27-Nov 7:00 8:00
Maximum 24-hr Average:	13.1 ppb 21-Nov



AIC Time:	39 hrs	Operational Time:	675 hrs						
Calibration Time:	6 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	18.1	11.8	6.2	4.1	2.7	1.3	1.0	4.9 ppb	4.1 ppb

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum		
	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00			23:00	24:00
1-Nov-07	Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	1.3	2.4	
2-Nov-07	1	1	1	2	1	1	A	2	2	2	1	1	1	1	2	1	1	3	3	1	1	1	1	1	1	1.6	3.2	
3-Nov-07	1	1	1	1	A	A	5	1	1	1	1	1	1	1	1	1	1	2	3	4	4	2	2	2	2	1.9	5.0	
4-Nov-07	2	2	2	A	4	3	2	3	2	2	1	1	1	2	2	2	3	5	7	7	6	7	5	4	4	3.3	7.1	
5-Nov-07	4	7	A	7	7	6	8	8	8	6	6	4	3	4	3	3	4	5	4	5	5	4	4	4	4	5.1	8.2	
6-Nov-07	A	A	5	5	5	5	5	8	4	3	3	2	C	C	C	C	C	C	9	6	4	3	3	3	3	N	9.4	
7-Nov-07	3	3	2	A	3	3	2	2	2	3	4	4	2	2	3	3	2	2	3	4	4	4	4	4	4	3.0	4.2	
8-Nov-07	3	2	2	A	4	3	4	6	5	4	4	4	4	5	6	6	6	8	10	11	9	8	8	9	9	5.8	11.0	
9-Nov-07	9	8	7	A	7	5	3	3	3	3	4	4	4	4	5	5	6	6	6	6	7	8	11	13	10	6.2	13.5	
10-Nov-07	9	A	A	11	12	12	11	11	12	9	7	6	5	7	7	3	3	3	3	3	3	3	3	3	3	3	6.6	12.0
11-Nov-07	A	4	3	3	4	3	2	3	3	3	3	3	3	3	4	5	5	5	6	6	6	8	7	6	A	4.1	7.7	
12-Nov-07	8	8	7	6	5	4	3	3	5	4	3	3	2	2	3	4	4	5	5	6	4	5	A	A	5	4.6	7.7	
13-Nov-07	4	3	3	3	2	3	9	3	3	3	4	6	4	3	3	3	3	3	3	3	A	4	3	3	3	3.4	8.9	
14-Nov-07	3	2	2	2	2	2	2	3	3	3	3	3	3	3	4	6	8	8	8	6	A	9	7	5	5	4.2	8.8	
15-Nov-07	5	4	4	5	6	8	7	8	7	9	7	7	5	5	5	5	5	6	A	6	6	6	6	7	6	6.0	9.0	
16-Nov-07	7	6	6	6	5	5	5	6	7	6	5	5	5	6	6	7	A	A	17	5	5	7	7	7	6	6.3	16.7	
17-Nov-07	7	6	6	5	4	5	4	4	5	5	6	8	7	4	4	A	8	7	7	8	8	8	8	8	8	6.1	8.5	
18-Nov-07	9	8	7	11	11	6	5	4	3	3	3	3	3	3	4	A	4	4	4	3	3	4	3	3	4	4.8	10.9	
19-Nov-07	3	3	3	3	3	3	3	4	4	3	3	3	A	A	4	6	6	7	9	5	5	7	6	6	6	4.5	8.6	
20-Nov-07	7	6	5	5	8	7	7	5	5	6	7	A	6	4	5	6	7	15	19	18	14	17	18	18	18	9.4	19.2	
21-Nov-07	14	14	15	18	15	13	14	14	20	18	A	9	14	10	10	12	15	18	14	19	11	8	3	3	3	13.1	19.8	
22-Nov-07	3	3	4	4	6	5	3	3	A	A	4	4	4	4	2	3	3	5	5	5	5	5	5	5	5	4.1	5.9	
23-Nov-07	7	8	7	6	7	6	8	A	11	12	9	10	8	6	5	7	6	5	5	5	5	5	4	4	4	6.7	11.7	
24-Nov-07	5	5	5	6	7	7	A	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	4.3	6.8	
25-Nov-07	3	3	3	4	A	A	4	3	1	1	1	1	2	1	2	2	2	1	1	1	1	1	1	1	1	1.9	3.7	
26-Nov-07	1	1	1	A	3	2	2	2	2	2	2	2	2	2	1	1	1	2	2	2	2	2	2	2	2	1.8	2.6	
27-Nov-07	2	2	A	3	3	5	4	25	7	8	5	6	6	5	5	4	5	5	6	5	3	2	2	2	2	5.2	24.9	
28-Nov-07	2	2	2	A	3	3	3	7	8	8	5	5	6	5	5	8	17	14	7	5	5	6	7	8	8	6.2	16.8	
29-Nov-07	7	6	A	5	5	4	4	4	4	4	4	4	4	4	6	6	7	8	12	10	14	15	9	5	7.0	15.4		
30-Nov-07	4	A	5	4	4	4	3	20	3	4	4	4	3	3	4	3	3	3	1	1	2	2	1	1	1	3.6	20.3	
Hourly Avg	4.8	4.5	4.3	5.3	5.2	4.7	4.9	6.1	4.9	4.7	3.8	4.0	4.0	3.8	4.1	4.5	5.1	5.9	6.3	5.8	5.5	5.5	5.0	4.7	4.7			
Hourly Max	14.4	14.3	15.4	17.7	14.5	13.2	14.0	24.9	19.8	17.8	8.8	10.1	14.1	9.5	10.1	12.0	16.8	18.5	19.2	19.1	14.9	16.5	18.5	17.8	17.8			

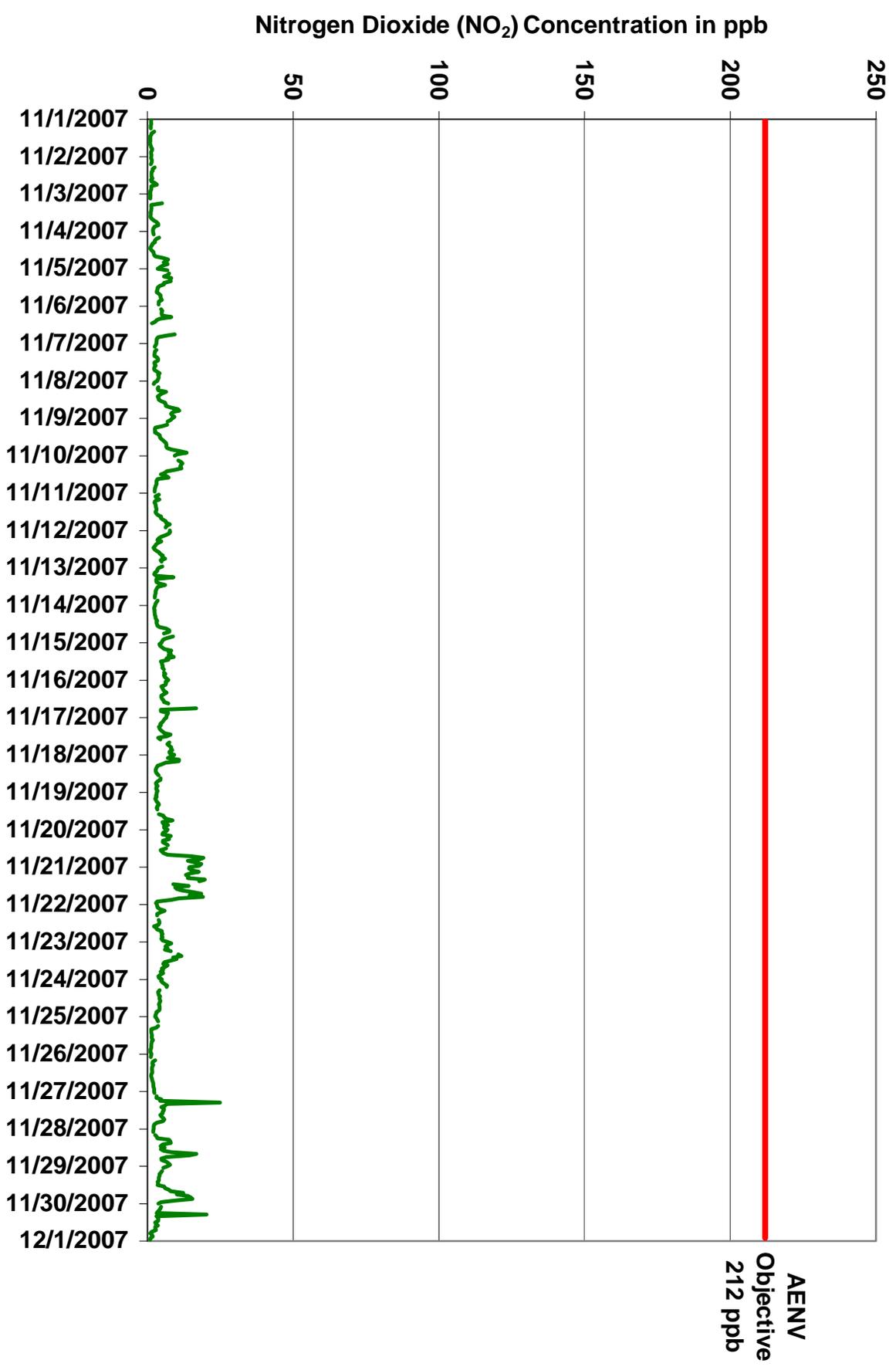


Figure 48. PASZA - Portable-Spirit River Nitrogen Dioxide 1-hr Average Monthly Trend

Station: Portable-Spirit River  
 Station Owner: PASZA

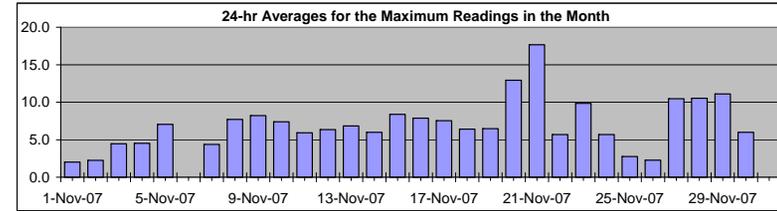
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

**Nitrogen Dioxide (NO<sub>2</sub>)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	113.0	ppb	27-Nov	7:00 8:00
Maximum 24-hr Value:	17.7	ppb	21-Nov	



AIC Time:	39 hrs	Operational Time:	675 hrs						
Calibration Time:	6 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	26.7	18.0	8.9	5.4	3.4	1.7	1.2	7.1 ppb	5.4 ppb

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00		
1-Nov-07	2	1	1	1	1	1	4	A	5	2	3	5	2	1	1	1	1	2	2	2	2	1	2	2	2.0	4.8
2-Nov-07	2	1	2	2	2	A	4	2	2	2	2	2	2	2	2	2	2	6	5	2	2	2	1	2	2.2	5.6
3-Nov-07	1	1	1	1	A	A	37	1	2	2	2	2	2	2	1	1	2	11	5	9	5	4	2	2	4.4	36.9
4-Nov-07	2	3	3	A	7	3	3	4	2	2	2	1	2	3	3	3	4	10	10	8	7	12	6	5	4.5	12.3
5-Nov-07	5	10	A	12	8	8	11	11	10	7	7	6	4	4	4	6	5	5	7	6	11	5	5	4	7.1	11.6
6-Nov-07	A	A	A	6	6	6	7	17	12	4	4	3	C	C	C	C	C	17	9	5	4	5	4	N	16.8	
7-Nov-07	4	3	3	A	4	3	3	4	4	5	6	4	3	5	6	3	3	4	12	5	5	5	5	5	4.4	12.4
8-Nov-07	5	3	3	A	5	4	4	9	7	10	4	5	5	7	7	10	8	11	15	13	11	9	10	10	7.7	15.2
9-Nov-07	10	9	10	A	9	6	3	3	3	3	4	6	5	5	7	9	8	7	13	9	15	16	16	13	8.2	16.5
10-Nov-07	10	A	A	11	13	13	12	12	13	11	8	7	6	8	9	4	4	4	4	4	3	3	3	3	7.4	12.7
11-Nov-07	A	6	3	5	8	3	3	4	4	3	9	3	7	4	5	5	8	7	8	8	9	9	8	A	5.9	9.4
12-Nov-07	10	10	9	10	7	5	5	7	5	5	6	3	3	4	5	5	10	6	8	5	6	A	A	7	6.4	10.4
13-Nov-07	5	4	4	4	3	4	33	4	5	4	6	32	15	4	4	3	4	4	3	3	A	5	4	4	6.8	32.9
14-Nov-07	3	3	3	3	3	3	3	3	3	4	6	4	4	6	9	9	14	12	10	A	12	8	7	6	6.0	14.5
15-Nov-07	6	5	5	7	7	10	9	11	9	11	12	10	6	7	9	13	12	10	A	7	8	6	7	7	8.4	13.0
16-Nov-07	9	7	7	8	5	6	7	14	8	9	7	5	6	7	6	11	A	A	18	6	5	9	7	7	7.9	18.0
17-Nov-07	7	7	6	6	5	5	4	5	7	7	6	11	10	4	5	A	9	9	9	11	11	10	10	9	7.5	11.4
18-Nov-07	11	9	8	14	14	9	6	4	4	4	3	5	3	4	A	6	10	6	4	4	4	6	4	7	6.4	14.2
19-Nov-07	4	4	3	3	3	3	4	7	7	4	3	5	A	A	4	11	10	9	15	9	8	9	7	7	6.5	15.5
20-Nov-07	8	7	6	6	13	9	10	9	10	11	24	A	10	5	9	8	12	21	22	20	19	19	20	18	12.9	24.2
21-Nov-07	17	18	20	20	17	15	17	17	24	26	A	13	19	12	15	28	20	20	20	24	24	14	4	3	17.7	27.9
22-Nov-07	5	5	7	6	9	6	4	4	A	A	4	6	5	7	6	4	4	7	6	7	8	6	6	6	5.7	9.4
23-Nov-07	9	10	8	8	9	7	17	A	13	17	20	12	11	10	7	11	10	8	7	6	13	5	4	5	9.9	20.1
24-Nov-07	10	7	6	10	8	8	A	7	7	6	4	5	4	5	5	5	4	5	5	6	5	4	3	3	5.7	9.8
25-Nov-07	3	4	4	5	A	A	5	6	2	2	3	2	3	2	2	3	2	2	3	2	2	2	1	2	2.7	6.2
26-Nov-07	2	2	2	A	3	3	3	3	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	3	2.3	3.4
27-Nov-07	3	3	A	4	5	5	9	113	10	9	5	7	10	8	6	5	5	7	7	6	5	3	3	3	10.5	113.0
28-Nov-07	3	2	3	A	4	5	5	25	19	12	7	7	16	6	12	14	24	20	13	7	7	14	8	9	10.5	25.4
29-Nov-07	7	6	A	6	5	5	5	5	6	5	4	4	4	34	10	9	14	16	16	21	21	19	16	16	11.1	34.0
30-Nov-07	4	A	5	5	5	4	4	57	3	5	5	4	3	4	9	3	4	4	2	1	2	3	2	1	6.0	56.6
Hourly Avg	6.0	5.6	5.2	6.7	6.8	5.8	8.5	13.2	7.1	6.7	6.2	6.2	6.1	6.1	6.0	6.9	7.6	8.4	9.1	7.7	8.2	7.4	6.2	6.0		
Hourly Max	16.9	18.0	19.8	20.2	17.2	14.6	36.9	113.0	23.9	26.3	24.2	31.6	18.9	34.0	14.8	27.9	23.8	21.3	21.6	24.3	23.6	19.4	19.6	18.5		

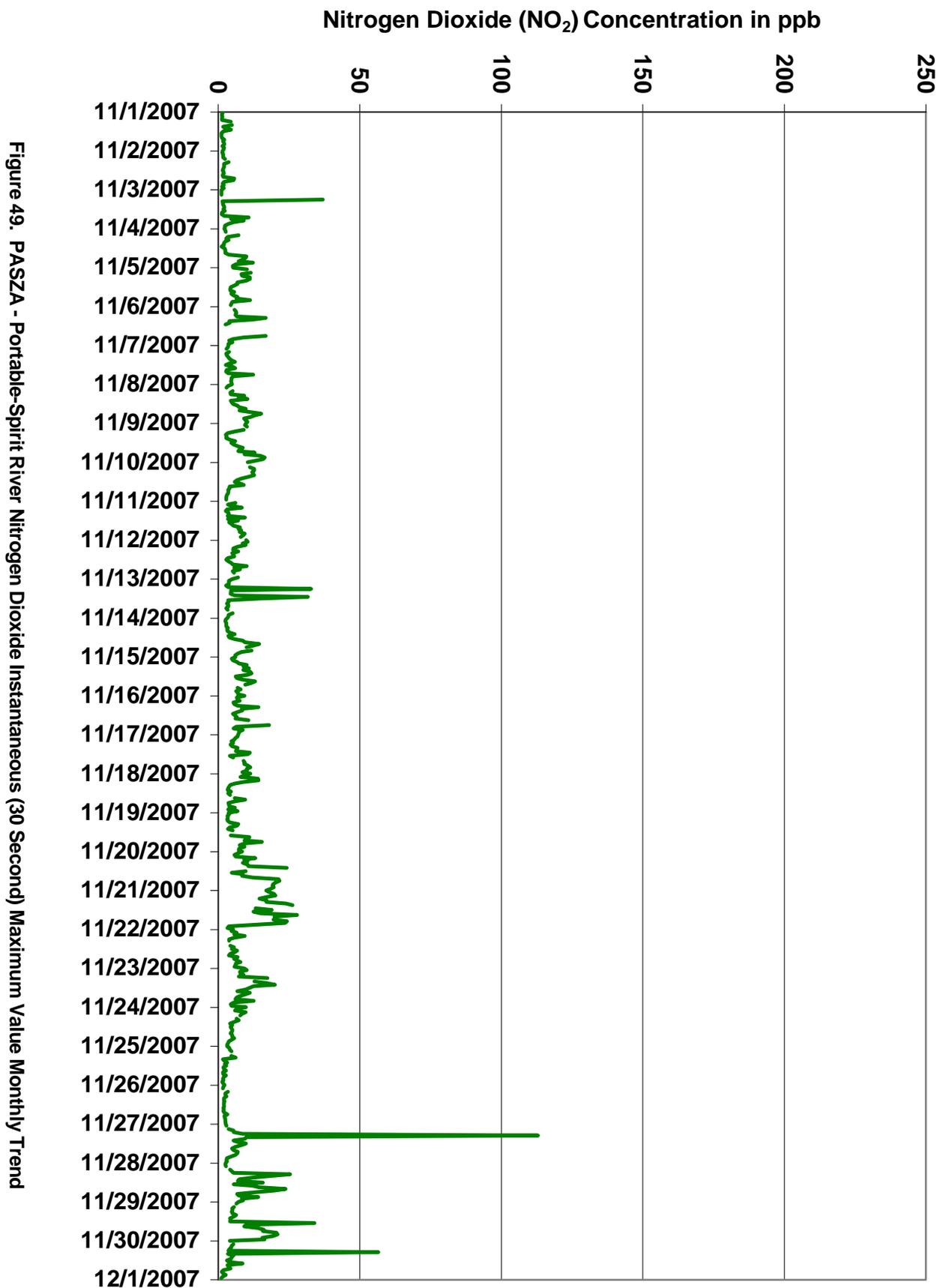
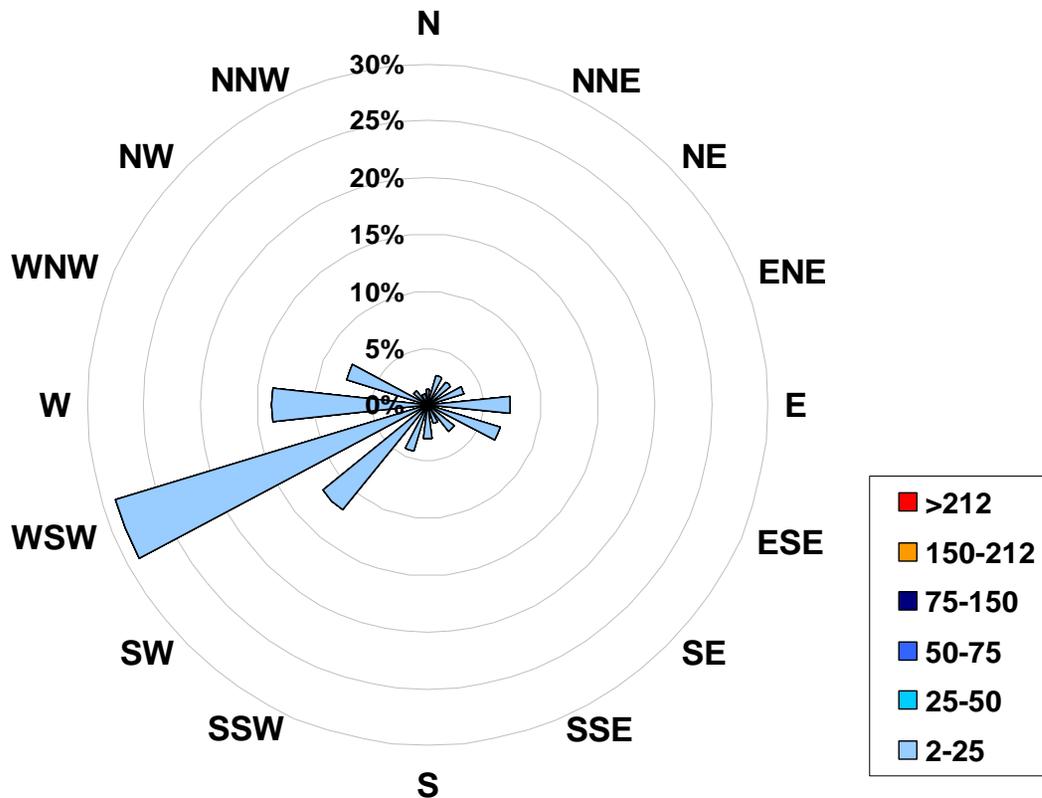


Figure 49. PASZA - Portable-Spirit River Nitrogen Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Nitrogen Dioxide (in ppb) Located at the Portable-Spirit River Site for November 2007**



**Calms: 0%**

Frequency Distribution of NO <sub>2</sub> in ppb			
Range			Frequency (hrs)
2.0	<	25	675
25	to	50	0
50	to	75	0
75	to	150	0
150	to	212	0
	>	212	0
Total Non-Zero Values			675

# PASZA - Portable-Spirit River Nitric Oxide Monthly Summary

Station: Portable-Spirit River  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

## Nitric Oxide (NO)

Monitoring Dates: November 1, 2007 to December 1, 2007

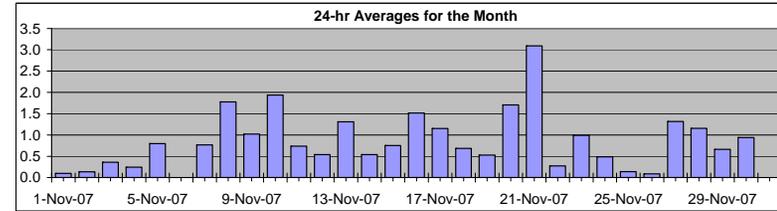
Guideline Limit: 

1-hr	na	ppb	24-hr	na	ppb
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 Summary

Maximum 1-hr Average:	18.5	ppb	27-Nov	7:00 8:00
Maximum 24-hr Average:	3.1	ppb	21-Nov	

AIC Time:	39 hrs	Operational Time:	675 hrs						
Calibration Time:	6 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	7.1	3.3	0.9	0.4	0.2	0.0	0.0	0.9 ppb	0.4 ppb



### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Nov-07	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	0.2
2-Nov-07	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
3-Nov-07	0	0	0	0	A	A	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	5.0
4-Nov-07	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0.2	0.6
5-Nov-07	0	1	A	1	1	1	1	1	3	2	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0.8	2.6
6-Nov-07	A	A	1	1	1	1	1	2	1	1	1	1	C	C	C	C	C	C	1	0	0	0	0	0	0	N	1.9
7-Nov-07	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	1	0	0	3	0	1	1	1	1	1	0.8	3.0
8-Nov-07	1	1	1	A	1	1	1	1	1	2	5	4	4	5	4	2	1	2	1	1	1	1	1	1	1	1.8	4.7
9-Nov-07	1	1	1	A	1	0	0	0	0	0	1	1	2	2	2	2	1	1	1	1	2	1	1	1	1	1.0	2.3
10-Nov-07	1	A	A	1	1	1	1	1	3	6	6	5	3	5	5	1	1	0	0	0	0	0	0	0	0	1.9	5.8
11-Nov-07	A	0	0	1	2	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	A	0.7	2.3
12-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	A	A	1	0.5	1.1
13-Nov-07	1	1	1	1	0	0	6	1	1	1	2	8	2	2	1	1	1	1	0	0	A	0	0	0	0	1.3	7.5
14-Nov-07	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	2	1	1	1	0	A	0	0	0	0	0.5	1.6
15-Nov-07	0	0	0	0	0	1	0	0	1	2	2	2	1	1	2	1	1	0	A	0	0	0	0	0	0	0.8	2.3
16-Nov-07	1	0	0	1	1	1	1	1	1	1	2	2	3	3	4	3	A	A	6	1	1	1	1	1	1	1.5	6.4
17-Nov-07	1	1	1	1	1	1	1	0	0	1	2	5	3	2	2	A	1	1	1	1	1	1	1	1	1	1.1	4.6
18-Nov-07	1	1	1	1	1	1	1	1	0	0	0	1	1	1	A	1	1	1	0	0	0	0	0	0	0	0.7	1.4
19-Nov-07	0	0	0	0	0	0	0	0	0	0	1	2	A	A	2	2	1	0	0	0	0	0	0	0	0	0.5	2.3
20-Nov-07	0	0	0	0	0	0	0	1	0	0	1	3	A	4	3	3	2	1	3	6	2	2	1	2	3	1.7	6.1
21-Nov-07	1	1	1	2	1	1	1	1	4	9	A	8	16	8	7	5	3	1	1	1	1	0	0	0	0	3.1	15.6
22-Nov-07	0	0	0	0	0	0	0	0	0	A	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0.3	0.9
23-Nov-07	0	0	0	0	0	0	0	0	A	0	2	4	4	4	2	1	1	0	0	0	0	0	0	0	0	1.0	4.3
24-Nov-07	0	0	0	0	0	0	0	A	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0.5	0.9
25-Nov-07	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
26-Nov-07	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	0.4
27-Nov-07	0	0	A	0	0	0	0	19	0	0	1	2	2	2	1	0	0	0	0	0	0	0	0	0	0	1.3	18.5
28-Nov-07	0	0	0	A	0	0	0	1	1	1	2	2	5	3	3	3	3	0	0	0	0	0	1	0	0	1.2	5.0
29-Nov-07	0	0	A	0	0	0	0	0	0	0	1	1	1	4	3	2	1	0	0	0	0	0	0	1	0	0.7	3.7
30-Nov-07	0	A	0	0	0	0	0	16	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.9	16.0
Hourly Avg	0.4	0.4	0.4	0.5	0.5	0.4	0.7	1.7	0.6	1.2	1.2	1.9	2.1	1.8	1.7	1.3	0.8	0.5	0.9	0.4	0.5	0.4	0.4	0.5			
Hourly Max	0.9	1.3	1.3	1.9	2.3	1.2	5.8	18.5	4.3	8.6	5.5	8.1	15.6	7.7	7.0	5.4	2.8	2.9	6.4	2.0	1.5	1.9	2.2	2.8			

# PASZA - Portable-Spirit River Oxides of Nitrogen Monthly Summary

Station: Portable-Spirit River  
 Station Owner: PASZA

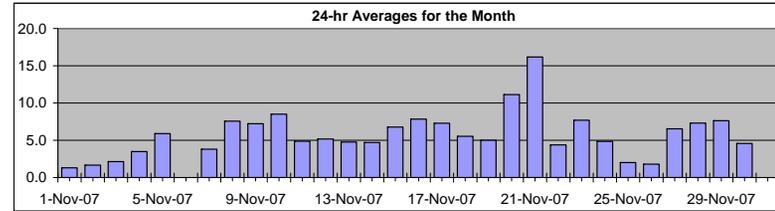
## HOURLY AVERAGE TABLE

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

Monitoring Dates: November 1, 2007 to December 1, 2007

Guideline Limit: Alberta Environment: 1-hr na ppb 24-hr na ppb

Maximum 1-hr Average:	43.5	ppb	27-Nov	7:00 8:00
Maximum 24-hr Average:	16.2	ppb	21-Nov	



AIC Time:	39 hrs	Operational Time:	675 hrs						
Calibration Time:	6 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	21.3	14.5	7.2	4.7	3.1	1.3	1.0	5.8 ppb	4.7 ppb

### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00		
1-Nov-07	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1.3	2.4
2-Nov-07	1	1	2	2	1	1	A	3	2	2	2	2	2	2	1	1	3	3	1	1	1	1	1	1.7	3.4	
3-Nov-07	1	1	1	1	A	A	10	1	1	2	1	1	1	1	1	1	3	3	4	4	2	2	2	2.1	9.9	
4-Nov-07	2	2	2	A	4	3	3	3	2	2	1	1	1	2	2	3	3	6	8	7	6	8	6	4	3.5	7.7
5-Nov-07	4	8	A	9	8	7	10	9	11	8	7	5	4	4	4	4	5	5	5	6	4	4	4	5.9	10.6	
6-Nov-07	A	A	5	6	6	6	6	10	5	4	4	2	C	C	C	C	C	C	10	6	4	3	3	3	N	10.1
7-Nov-07	3	3	3	A	3	3	3	3	3	4	5	5	3	4	4	3	3	3	6	5	4	5	5	4	3.8	6.2
8-Nov-07	4	3	3	A	4	4	4	4	7	6	6	8	8	9	11	10	8	9	13	12	10	9	9	10	7.6	12.5
9-Nov-07	9	9	8	A	7	5	3	3	3	3	4	5	6	7	7	8	8	7	7	8	9	13	15	11	7.2	14.8
10-Nov-07	10	A	A	11	13	13	13	12	14	15	12	11	8	11	13	4	4	4	4	3	3	3	3	3	8.5	15.2
11-Nov-07	A	4	3	4	6	3	3	3	3	3	4	4	4	5	6	6	6	6	7	7	8	7	7	A	4.9	8.3
12-Nov-07	8	8	8	7	5	4	4	5	4	3	3	2	3	4	5	5	6	6	7	5	6	A	A	6	5.2	8.2
13-Nov-07	5	4	4	3	3	3	15	4	4	4	6	14	6	5	4	4	4	3	3	3	A	4	3	3	4.8	14.8
14-Nov-07	3	3	3	3	3	3	3	3	3	3	4	4	4	5	6	8	8	8	6	A	9	7	6	5	4.7	9.1
15-Nov-07	5	4	5	5	6	9	8	8	8	11	9	9	6	6	7	7	6	6	A	6	6	6	6	7	6.8	10.7
16-Nov-07	8	7	7	7	5	6	6	7	7	7	6	7	8	9	9	10	A	A	23	6	5	8	8	7	7.8	23.1
17-Nov-07	7	7	6	6	5	5	5	5	5	6	8	13	10	5	6	A	9	7	8	9	9	9	8	9	7.3	12.5
18-Nov-07	10	9	8	12	12	7	6	4	4	3	3	4	4	5	A	6	6	4	3	3	4	4	3	4	5.5	12.3
19-Nov-07	3	3	3	3	3	3	3	4	4	4	4	5	A	A	6	8	7	7	9	5	6	6	6	6	5.0	9.1
20-Nov-07	7	7	6	5	8	7	8	6	6	8	10	A	10	7	8	8	8	18	25	20	15	18	21	21	11.1	25.3
21-Nov-07	15	15	17	20	16	14	15	15	24	26	A	17	30	17	17	17	18	19	15	20	11	8	3	3	16.2	29.6
22-Nov-07	3	3	4	4	6	5	3	3	A	A	4	5	5	5	3	3	4	5	5	5	5	5	5	5	4.4	6.0
23-Nov-07	7	8	7	6	7	6	8	A	11	14	13	14	12	8	7	8	7	5	6	5	6	5	4	4	7.7	14.3
24-Nov-07	5	5	5	6	7	7	A	5	4	4	4	5	5	5	5	5	5	5	5	5	4	3	3	3	4.9	7.1
25-Nov-07	3	3	4	4	A	A	4	3	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	2.0	4.1
26-Nov-07	1	1	1	A	3	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	1.8	2.7
27-Nov-07	2	2	A	3	3	5	4	43	7	7	6	7	8	7	6	5	5	6	6	5	4	3	2	2	6.5	43.5
28-Nov-07	3	2	2	A	3	3	4	9	8	9	7	7	11	8	8	11	20	15	7	5	5	7	7	8	7.3	19.6
29-Nov-07	7	6	A	5	5	4	4	4	4	4	4	4	5	5	9	9	9	9	12	10	14	15	16	9	7.6	15.5
30-Nov-07	4	A	5	5	4	4	3	36	3	4	4	5	3	4	5	3	3	3	1	1	2	2	1	1	4.6	36.3
Hourly Avg	5.2	4.9	4.7	5.8	5.6	5.1	5.6	7.8	5.5	5.9	5.0	5.9	6.1	5.6	5.8	5.8	5.8	6.3	7.2	6.2	6.0	5.9	5.4	5.1		
Hourly Max	15.2	15.1	16.6	19.6	15.6	13.8	14.8	43.5	24.1	26.3	12.5	16.9	29.6	17.1	17.0	17.3	19.6	19.3	25.3	20.1	15.4	17.9	20.6	20.6		

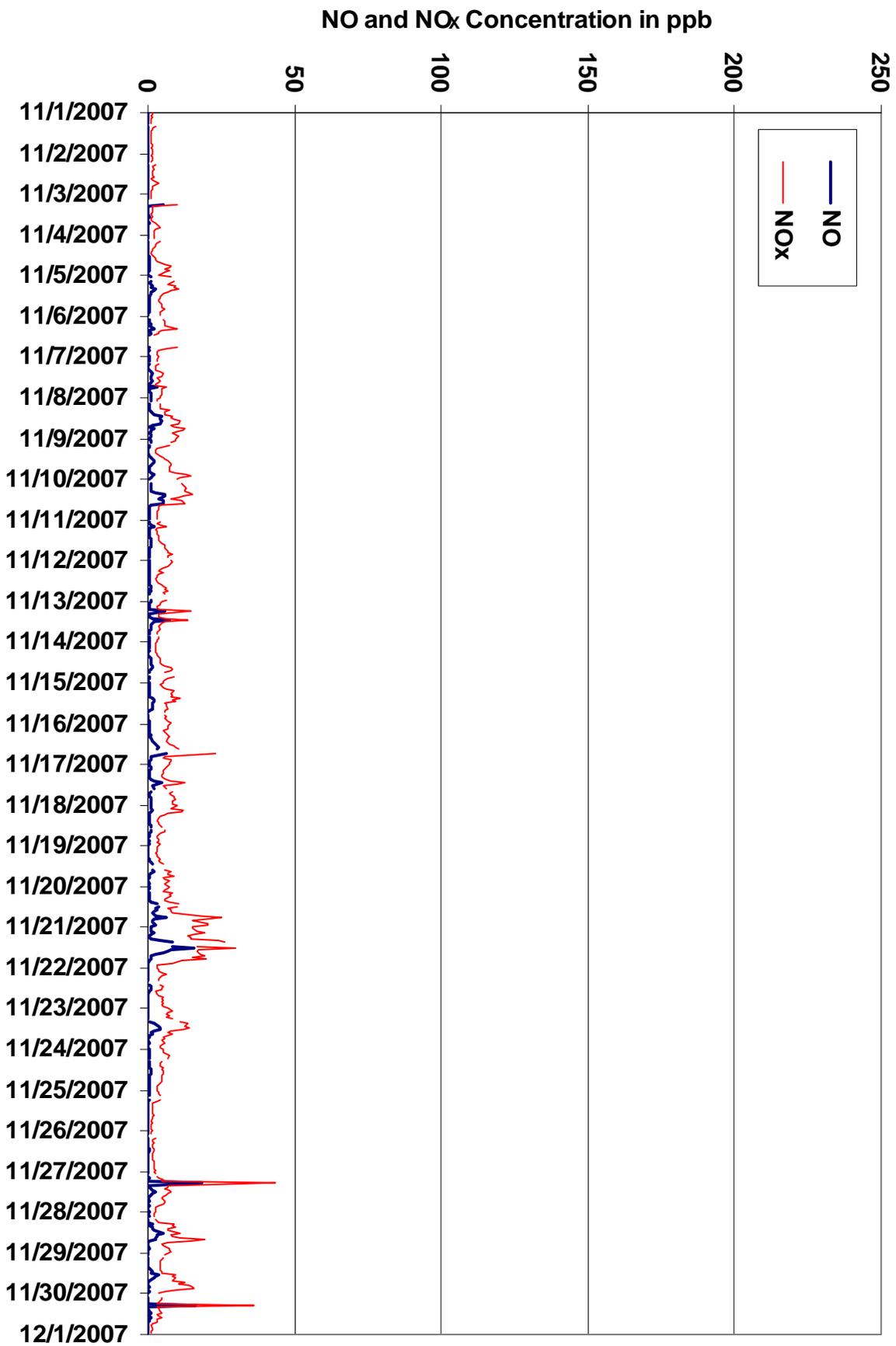


Figure 50. PASZA - Portable-Spirit River Oxides of Nitrogen 1-hr Average Monthly Trend

Station: Portable-Spirit River  
 Station Owner: PASZA

**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

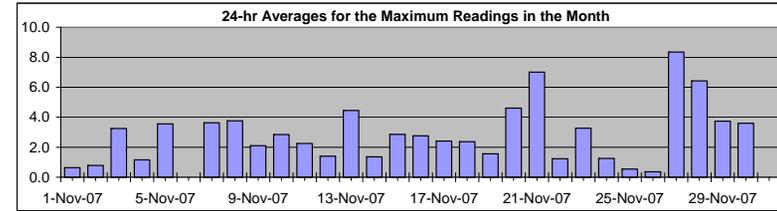
**Nitric Oxide (NO)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	136.3	ppb	27-Nov	7:00 8:00
Maximum 24-hr Value:	8.4	ppb	27-Nov	

AIC Time:	39 hrs	Operational Time:	675 hrs						
Calibration Time:	6 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	34.3	9.4	2.8	0.9	0.5	0.2	0.1	2.9 ppb	0.9 ppb



**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00		
1-Nov-07	0	0	0	0	0	0	2	A	0	0	1	3	1	0	0	0	0	1	0	0	1	0	4	0	0.6	3.5
2-Nov-07	0	0	0	0	0	1	A	1	0	0	1	0	1	1	1	1	1	5	2	0	0	1	0	1	0.8	4.9
3-Nov-07	0	0	0	0	A	A	49	0	3	1	1	1	2	5	0	0	0	5	1	1	1	1	0	1	3.3	48.7
4-Nov-07	0	2	0	A	0	0	0	0	0	0	0	0	0	1	1	1	1	3	5	2	2	7	0	0	1.2	6.7
5-Nov-07	1	7	A	6	3	5	8	6	5	3	5	2	2	1	1	2	2	3	3	3	12	1	0	0	3.6	12.2
6-Nov-07	A	A	1	3	1	2	1	20	2	1	4	9	C	C	C	C	C	2	1	4	0	1	0	0	N	19.9
7-Nov-07	1	1	1	A	0	0	1	2	3	4	4	2	1	6	4	1	1	0	46	0	2	2	1	1	3.6	46.2
8-Nov-07	1	1	1	A	1	1	1	1	1	7	4	9	6	7	7	11	2	3	9	3	5	1	2	3	3.8	10.7
9-Nov-07	2	2	4	A	1	1	0	0	0	0	1	2	2	3	3	3	2	1	1	1	8	7	2	1	2.1	8.3
10-Nov-07	1	A	A	1	2	2	3	3	6	8	7	5	5	6	8	1	1	1	1	1	0	1	1	1	2.9	8.1
11-Nov-07	A	1	1	4	11	0	1	0	1	1	5	1	7	2	2	2	4	2	1	1	2	4	0	A	2.3	10.9
12-Nov-07	1	1	0	1	0	0	1	1	1	1	2	2	1	1	1	1	11	2	1	1	2	A	A	1	1.4	10.7
13-Nov-07	1	1	1	1	1	1	29	2	2	1	4	38	11	2	2	1	1	1	1	1	A	0	0	1	4.4	37.6
14-Nov-07	0	0	0	0	0	2	1	0	0	1	2	1	2	2	5	3	2	3	1	A	2	0	0	0	1.4	5.4
15-Nov-07	1	1	1	0	1	9	0	1	4	3	5	4	2	4	5	15	4	1	A	1	1	0	1	0	2.9	15.1
16-Nov-07	3	1	1	1	1	1	3	8	1	2	4	3	4	4	4	6	A	A	10	1	2	1	1	1	2.8	9.6
17-Nov-07	1	1	1	1	1	1	1	1	0	2	2	10	6	2	3	A	1	2	1	2	6	6	3	2	2.4	9.7
18-Nov-07	1	2	1	3	1	1	1	1	1	1	1	2	1	2	A	2	12	6	0	0	0	7	0	7	2.4	12.3
19-Nov-07	0	0	0	0	0	0	0	0	1	1	1	5	A	A	2	7	3	1	5	4	0	0	1	0	1.6	7.0
20-Nov-07	0	0	0	0	0	0	3	0	2	5	10	A	9	3	9	8	6	11	13	5	6	5	4	5	4.6	12.8
21-Nov-07	2	2	6	7	2	1	1	2	8	17	A	17	29	12	14	19	7	5	3	5	3	1	0	0	7.0	28.5
22-Nov-07	1	0	1	0	0	0	0	0	A	A	1	3	1	5	8	1	0	1	0	1	1	1	0	0	1.2	7.8
23-Nov-07	0	0	0	0	1	0	0	A	1	7	27	7	8	5	2	5	1	1	1	0	7	0	0	0	3.3	26.6
24-Nov-07	4	0	0	0	0	1	A	1	4	4	1	1	1	2	2	1	1	1	1	2	0	0	0	1	1.3	4.3
25-Nov-07	0	0	0	0	A	A	0	1	0	1	2	1	1	1	0	0	0	0	2	0	0	0	0	0	0.5	2.1
26-Nov-07	0	0	0	A	0	0	0	1	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0.4	0.9
27-Nov-07	0	1	A	0	1	1	3	136	2	1	9	5	17	5	2	1	1	2	0	1	1	1	1	1	8.4	136.3
28-Nov-07	1	1	2	A	1	0	2	42	10	5	3	4	33	4	8	8	6	1	1	1	2	10	1	1	6.4	41.6
29-Nov-07	0	0	A	0	0	0	0	1	2	1	1	2	2	40	7	4	5	1	1	1	4	0	0	12	3.7	39.7
30-Nov-07	0	A	0	0	0	0	0	64	0	0	1	2	1	1	8	1	1	1	0	0	0	0	0	0	3.6	64.4
Hourly Avg	0.9	1.0	0.9	1.3	1.1	1.2	4.0	10.5	2.1	2.7	3.8	4.8	5.6	4.5	3.9	3.7	2.7	2.2	3.9	1.3	2.6	2.0	0.9	1.5		
Hourly Max	4.3	6.5	5.7	6.5	10.9	8.8	48.7	136.3	10.4	16.7	26.6	37.6	33.1	39.7	14.0	19.4	12.3	10.7	46.2	5.3	12.2	9.7	4.1	12.2		

Station: Portable-Spirit River  
 Station Owner: PASZA

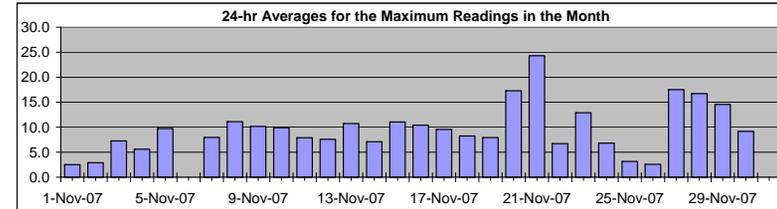
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	226.2	ppb	27-Nov	7:00 8:00
Maximum 24-hr Value:	24.3	ppb	21-Nov	



AIC Time:	39 hrs	Operational Time:	675 hrs						
Calibration Time:	6 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	53.8	25.1	11.1	6.5	4.0	1.8	1.2	9.7 ppb	6.5 ppb

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start	Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00			22:00
1-Nov-07	2	2	1	2	1	1	6	A	5	2	3	8	3	1	1	1	1	3	2	2	3	2	5	2	2.5	7.9	
2-Nov-07	2	1	2	2	2	4	A	5	2	2	3	2	2	3	2	2	2	11	7	2	2	2	1	3	2.9	10.5	
3-Nov-07	1	1	1	1	A	A	83	2	2	2	3	3	3	6	1	1	2	15	5	10	6	4	3	3	7.3	82.9	
4-Nov-07	2	4	3	A	7	3	3	4	3	2	2	1	3	3	3	3	5	12	14	11	9	19	6	5	5.6	19.0	
5-Nov-07	6	16	A	18	10	12	16	15	13	9	11	7	6	5	5	7	5	6	8	9	23	6	5	5	9.7	23.4	
6-Nov-07	A	A	A	7	8	8	8	8	36	14	5	7	3	C	C	C	C	C	17	9	9	4	6	4	N	36.1	
7-Nov-07	4	4	3	A	4	3	4	5	7	9	10	5	4	11	10	4	3	4	59	6	7	7	5	5	8.0	58.6	
8-Nov-07	6	5	4	A	6	5	5	10	8	17	8	14	11	14	14	20	9	14	23	15	14	10	11	13	11.1	23.1	
9-Nov-07	11	12	13	A	10	6	4	3	3	3	5	8	7	8	10	11	9	8	14	10	23	24	18	14	10.2	23.7	
10-Nov-07	11	A	A	12	14	14	15	14	17	17	14	12	11	14	17	5	5	4	4	4	3	3	3	3	9.9	17.1	
11-Nov-07	A	7	4	8	18	4	3	4	5	4	14	4	14	6	6	7	11	8	9	8	12	11	8	A	7.9	17.9	
12-Nov-07	10	11	9	10	7	6	6	8	6	7	7	4	3	4	5	6	21	7	8	6	6	A	A	8	7.6	20.7	
13-Nov-07	6	5	5	5	3	4	52	6	6	6	9	69	25	5	4	5	4	5	4	4	A	5	4	5	10.8	69.2	
14-Nov-07	4	3	3	3	3	3	4	4	3	5	8	5	6	8	14	12	16	14	11	A	13	9	7	6	7.1	16.4	
15-Nov-07	6	5	6	7	8	17	10	11	13	14	17	14	8	10	13	28	16	10	A	8	9	7	8	7	11.0	28.2	
16-Nov-07	12	7	7	8	6	7	10	22	9	10	11	7	10	10	10	16	A	A	27	8	6	10	8	8	10.4	26.8	
17-Nov-07	8	8	7	7	6	6	5	5	7	8	8	8	21	16	6	8	A	10	11	10	11	14	14	12	11	9.5	20.9
18-Nov-07	13	11	9	17	15	10	7	5	5	4	4	6	5	5	A	8	20	12	4	4	4	9	4	9	8.3	20.3	
19-Nov-07	4	4	3	4	3	4	4	7	8	5	5	10	A	A	6	18	13	11	20	13	8	10	8	7	7.9	20.4	
20-Nov-07	9	7	6	6	13	10	12	9	12	16	32	A	19	8	18	16	18	32	34	25	25	24	23	3	17.3	34.3	
21-Nov-07	19	20	25	27	19	16	18	18	31	43	A	30	47	24	29	47	26	23	22	29	27	14	4	3	24.3	47.2	
22-Nov-07	5	5	7	6	10	6	4	4	A	A	5	9	6	12	14	5	4	7	6	7	9	7	6	6	6.7	13.7	
23-Nov-07	9	10	8	8	9	7	18	A	13	24	47	18	18	15	9	16	10	8	8	6	20	6	5	5	12.9	46.7	
24-Nov-07	14	7	6	10	9	8	A	7	11	9	5	6	5	6	7	6	5	6	5	7	5	4	4	4	6.8	14.0	
25-Nov-07	4	4	5	5	A	A	5	6	2	3	5	3	4	2	2	3	2	2	4	2	2	2	1	2	3.2	6.4	
26-Nov-07	2	2	2	A	4	3	3	4	2	2	3	3	2	3	2	2	2	3	4	2	2	3	3	3	2.6	3.7	
27-Nov-07	3	4	A	4	7	6	12	226	10	10	15	11	26	13	8	5	6	8	7	7	5	4	3	4	17.5	226.2	
28-Nov-07	4	3	4	A	5	5	8	67	29	17	10	10	49	10	20	22	30	21	14	7	9	22	9	10	16.7	66.9	
29-Nov-07	7	6	A	6	5	5	5	6	8	6	5	6	6	6	74	17	13	19	17	16	21	25	20	16	14.6	73.8	
30-Nov-07	4	A	5	5	5	4	4	116	4	6	6	6	4	5	15	4	4	4	2	1	2	3	2	1	9.2	115.6	
Hourly Avg	6.7	6.5	6.0	7.8	7.8	6.7	11.8	22.4	8.9	9.2	9.8	10.6	11.5	10.4	9.8	10.5	10.0	10.2	12.7	8.8	10.4	9.0	6.8	7.1			
Hourly Max	18.9	20.1	25.4	26.5	19.2	17.1	82.9	226.2	30.7	42.8	46.7	69.2	48.6	73.8	28.8	47.2	29.8	31.9	58.6	28.8	26.6	24.1	23.2	27.1			

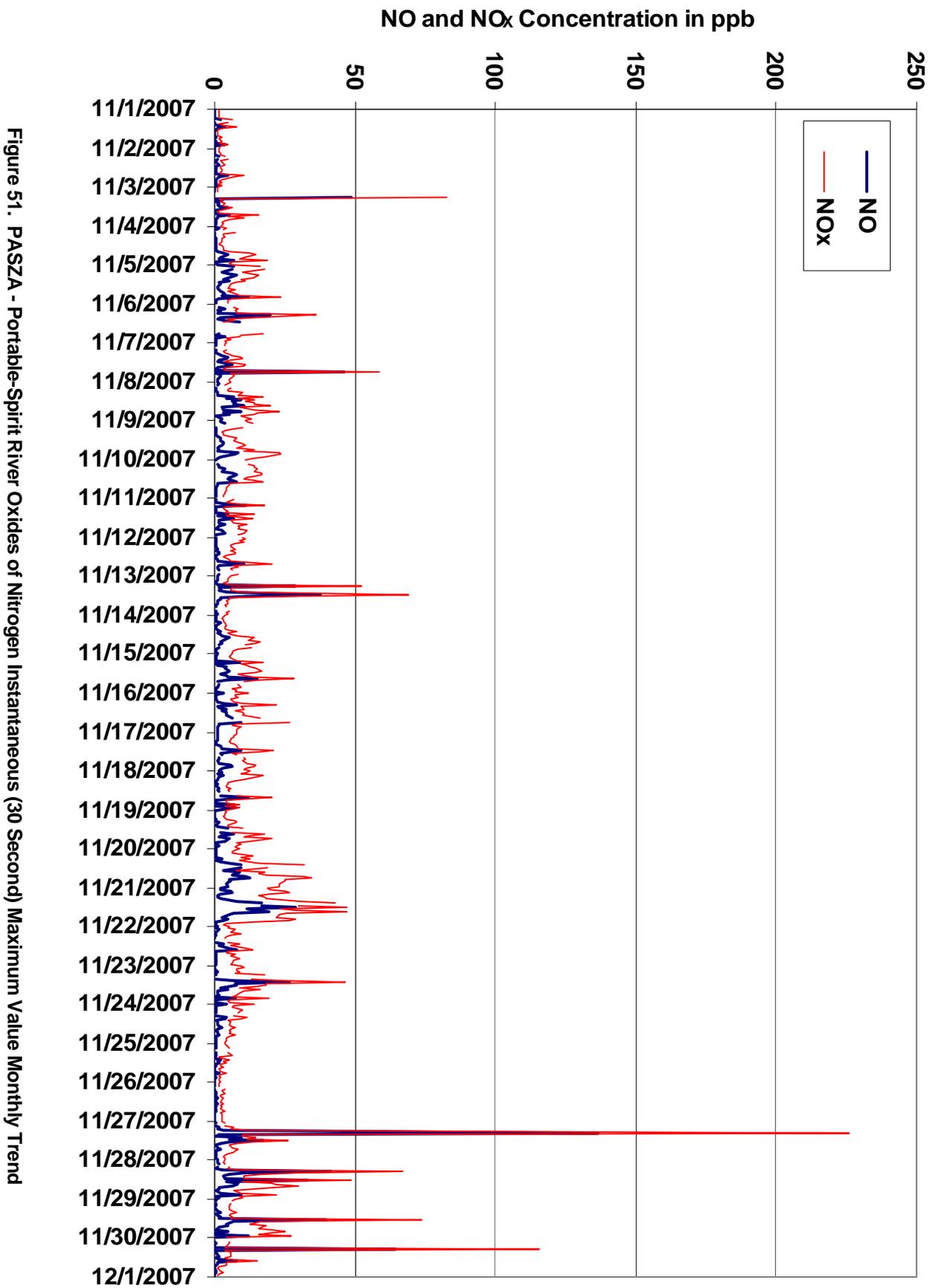


Figure 51. PASZA - Portable-Spirit River Oxides of Nitrogen Instantaneous (30 Second) Maximum Value Monthly Trend

# PASZA - Portable-Spirit River Ozone Monthly Summary

Station: Portable-Spirit River  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

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

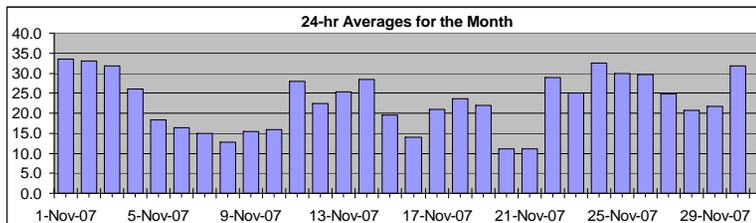
Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 1-hr 82 ppb 24-hr na ppb

### Summary

Number of 1-hr Exceedances:	0				
Maximum 1-hr Average:	38.4	ppb	2-Nov	15:00	16:00
Maximum 24-hr Average:	33.6	ppb	1-Nov		

AIC Time:	32 hrs		Operational Time:	685 hrs					
Calibration Time:	3 hrs		AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average	Median
	36.5	34.8	30.2	24.2	16.8	6.9	3.2	23.0 ppb	24.2 ppb



### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Nov-07	34	34	34	34	35	35	35	35	35	35	35	35	A	34	34	34	34	33	33	32	31	31	31	31	31	33.6	35.3
2-Nov-07	31	31	30	29	30	31	31	31	31	33	33	35	A	37	36	36	38	37	32	31	33	33	33	34	35	33.1	38.4
3-Nov-07	35	35	35	36	35	35	33	35	34	34	A	35	35	35	35	34	33	28	24	22	22	26	27	28	31.8	35.7	
4-Nov-07	28	26	25	24	24	24	26	27	30	A	34	35	35	35	35	34	32	20	17	17	18	15	18	19	26.1	35.4	
5-Nov-07	25	18	13	15	11	11	6	9	A	7	15	15	21	23	26	27	25	24	25	23	22	19	20	20	18.2	26.6	
6-Nov-07	15	13	9	9	11	9	11	A	18	20	24	21	21	27	28	25	21	18	12	10	13	14	15	15	16.5	27.7	
7-Nov-07	14	15	18	A	18	18	17	16	15	12	11	C	C	C	A	17	16	16	14	12	15	13	14	15	15.0	17.9	
8-Nov-07	14	15	15	A	16	17	14	11	13	18	20	15	17	18	15	13	13	10	7	6	8	9	6	5	12.8	19.9	
9-Nov-07	7	6	7	A	8	12	21	22	23	23	22	21	20	20	20	19	18	17	17	16	13	8	6	9	15.4	23.4	
10-Nov-07	9	9	A	4	3	3	3	4	4	5	8	8	9	7	10	31	31	30	30	31	31	31	31	31	15.9	31.4	
11-Nov-07	31	A	32	31	30	30	31	31	31	30	30	29	29	30	29	29	28	26	24	24	21	22	22	21	27.9	31.6	
12-Nov-07	A	18	18	22	26	27	29	26	26	27	26	25	25	24	23	20	19	18	18	23	20	17	16	A	22.5	29.3	
13-Nov-07	18	20	21	23	24	25	23	25	26	25	24	26	26	26	26	27	27	27	28	28	29	29	A	29	25.3	29.3	
14-Nov-07	29	30	30	31	31	31	31	31	31	31	30	31	31	31	30	27	26	25	28	22	23	A	23	22	28.4	31.4	
15-Nov-07	21	23	23	21	19	14	14	13	13	15	19	21	25	24	23	23	23	22	21	21	A	19	18	16	19.6	24.7	
16-Nov-07	14	14	14	14	15	14	13	13	12	13	14	14	14	13	13	11	8	4	2	A	28	22	22	22	14.1	27.5	
17-Nov-07	22	24	26	25	29	28	32	32	32	28	24	22	24	22	19	19	18	14	A	9	8	7	8	9	20.9	31.8	
18-Nov-07	7	8	8	3	10	18	20	26	29	30	30	31	31	32	32	31	30	A	28	28	28	28	28	27	23.5	32.0	
19-Nov-07	28	29	29	29	29	29	27	23	23	23	23	21	18	19	22	15	14	A	16	17	22	21	17	16	21.9	28.9	
20-Nov-07	14	15	17	17	13	14	13	15	15	14	14	14	15	17	16	A	13	5	2	1	5	3	1	0	11.0	17.0	
21-Nov-07	4	5	4	1	3	5	5	6	4	7	14	14	13	16	A	14	10	8	10	6	21	23	30	31	11.0	30.5	
22-Nov-07	30	31	31	30	27	28	30	30	28	29	29	29	30	A	31	31	30	29	28	27	29	28	26	25	29.0	31.3	
23-Nov-07	23	21	21	21	21	21	19	22	20	16	17	19	A	30	27	20	31	32	32	29	30	33	35	35	25.1	35.5	
24-Nov-07	34	33	32	30	28	29	31	37	37	36	35	A	34	33	32	33	33	33	31	30	31	32	31	32	32.5	37.3	
25-Nov-07	31	31	31	30	30	29	29	27	24	25	A	27	28	28	28	29	32	33	32	33	33	33	32	32	29.9	33.2	
26-Nov-07	32	32	30	29	28	28	28	28	29	A	29	28	29	30	31	31	31	31	31	30	30	29	29	28	29.6	31.6	
27-Nov-07	28	28	28	28	27	24	24	21	A	23	24	24	24	25	24	25	25	23	22	22	24	26	27	26	24.9	28.3	
28-Nov-07	26	26	26	A	25	24	23	19	19	19	21	22	21	21	20	18	11	14	22	23	22	20	18	17	20.6	25.8	
29-Nov-07	17	19	A	21	21	22	21	21	24	23	24	24	25	26	24	21	23	19	21	17	15	15	25	29	21.6	29.3	
30-Nov-07	29	A	28	27	27	28	29	26	31	30	30	30	32	31	31	34	35	35	37	37	36	36	36	36	31.9	37.4	
Hourly Avg	22.4	21.7	22.6	22.5	21.9	22.1	22.4	22.8	23.5	22.5	23.6	23.5	24.8	25.6	25.5	25.1	24.5	22.2	22.1	21.9	22.7	22.0	22.3	22.8			
Hourly Max	34.5	34.6	34.8	35.7	35.3	35.0	35.2	37.2	37.3	36.1	35.1	35.3	36.5	36.5	36.0	38.4	37.2	34.7	37.4	37.3	36.5	35.8	36.4	36.2			

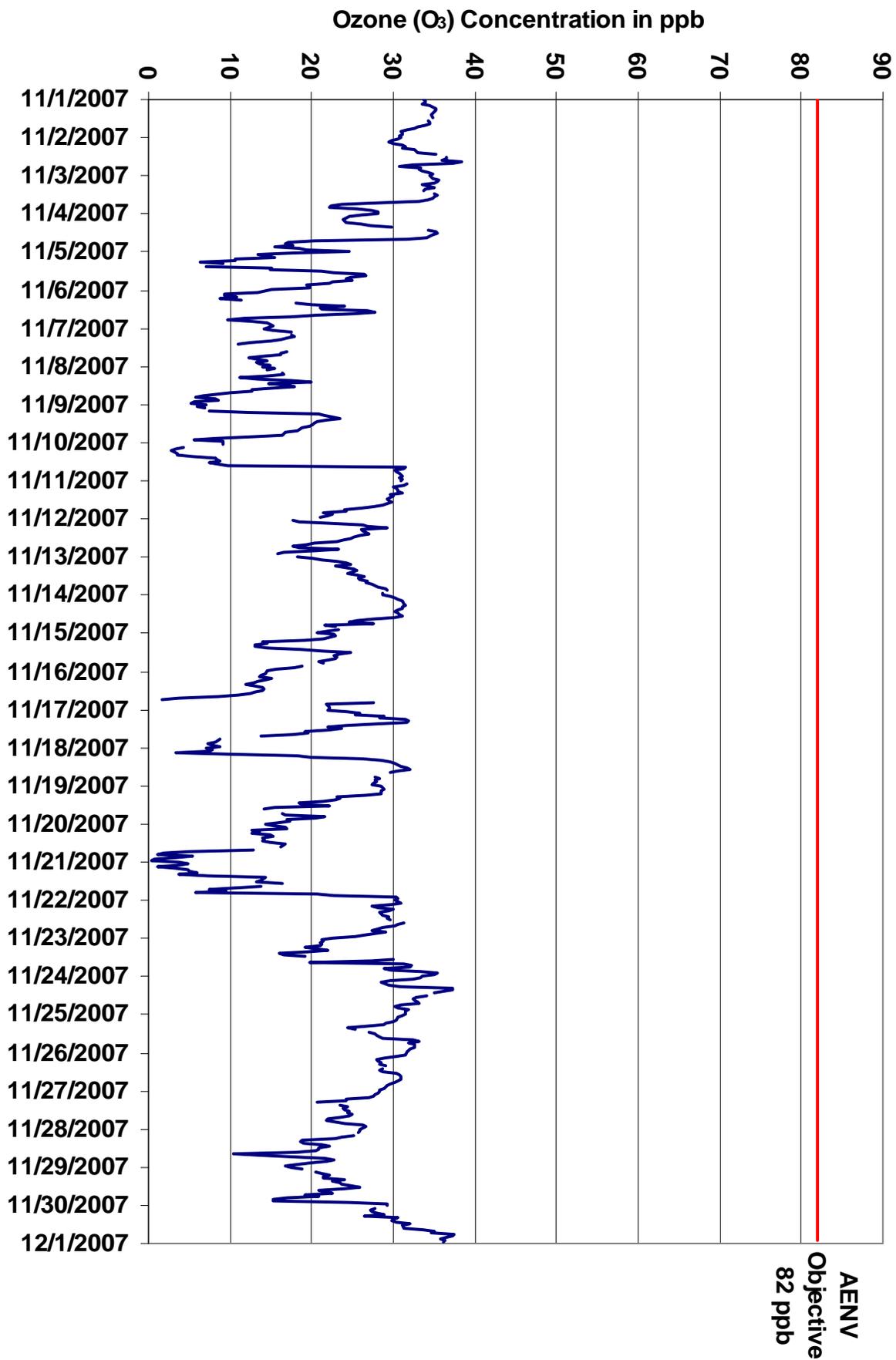


Figure 52. PASZA - Portable-Spirit River Ozone 1-hr Average Monthly Trend

Station: Portable-Spirit River  
 Station Owner: PASZA

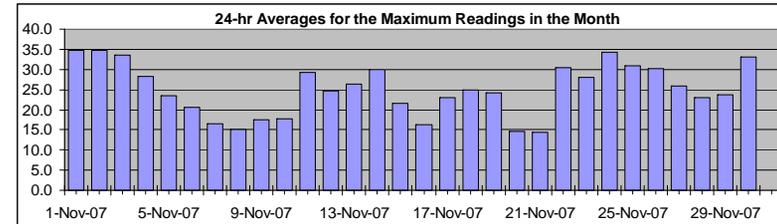
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

**Ozone (O<sub>3</sub>)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	39.3	ppb	2-Nov	15:00 16:00
Maximum 24-hr Value:	34.6	ppb	1-Nov	



AIC Time:	32 hrs	Operational Time:	685 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	37.9	36.1	31.3	26.4	19.4	9.8	5.1	25.1 ppb	26.4 ppb

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	35	35	35	34	36	36	36	36	36	36	36	A	36	36	36	35	34	34	33	32	32	32	32	34.6	36.3	
2-Nov-07	32	32	30	30	31	33	32	33	33	34	36	A	38	37	38	39	39	36	35	35	34	35	36	36	34.6	39.3
3-Nov-07	36	36	36	37	36	36	36	36	35	35	A	36	37	36	36	36	35	31	30	25	24	27	29	29	33.4	36.6
4-Nov-07	29	27	26	26	25	25	28	29	32	A	36	37	37	36	36	35	34	27	21	20	21	20	21	23	28.4	37.2
5-Nov-07	33	31	17	25	16	24	23	16	A	13	17	20	23	29	29	28	27	27	28	25	24	21	22	21	23.4	32.5
6-Nov-07	20	19	14	12	15	15	15	A	21	23	27	27	26	31	33	27	27	27	21	11	16	16	17	16	20.7	32.6
7-Nov-07	16	17	20	A	19	19	18	17	16	14	13	C	C	C	A	18	17	18	16	16	16	15	15	16	16.6	19.8
8-Nov-07	16	17	15	A	18	18	16	13	17	19	23	17	19	19	19	14	14	12	10	10	11	11	10	9	15.0	22.5
9-Nov-07	11	9	10	A	10	20	22	23	24	24	23	22	21	21	20	20	19	18	18	19	16	12	9	12	17.5	24.0
10-Nov-07	11	10	A	5	4	3	4	4	5	7	9	9	10	9	32	32	32	32	31	31	31	31	32	17.6	32.4	
11-Nov-07	32	A	32	32	31	31	31	32	32	31	31	30	30	30	30	30	29	28	26	26	24	24	24	24	29.3	32.4
12-Nov-07	A	20	21	28	28	29	30	28	28	28	27	26	26	25	24	22	21	21	22	25	25	19	17	A	24.6	30.3
13-Nov-07	20	21	22	24	25	25	25	26	26	26	26	28	27	27	27	27	27	28	28	29	30	30	A	30	26.3	29.8
14-Nov-07	30	30	31	32	32	32	32	32	32	31	31	31	32	32	32	30	29	29	30	28	26	A	25	23	30.0	32.2
15-Nov-07	23	24	25	25	21	19	18	15	15	18	22	24	26	25	24	25	24	23	22	22	A	19	19	17	21.5	25.7
16-Nov-07	15	15	15	15	16	16	14	14	13	14	15	15	15	14	13	12	10	7	25	A	30	26	24	23	16.4	29.8
17-Nov-07	23	26	27	28	30	31	33	33	33	33	26	25	26	25	21	21	19	15	A	13	11	10	10	10	23.1	33.4
18-Nov-07	10	9	9	6	13	21	23	29	30	30	31	32	32	33	33	32	31	A	29	29	29	29	28	29	25.0	32.7
19-Nov-07	29	30	30	29	29	29	29	24	25	25	23	20	24	30	17	17	A	20	25	23	22	20	19	18	24.2	29.9
20-Nov-07	16	19	18	19	14	14	14	16	16	15	16	15	17	17	17	A	15	10	39	5	10	6	5	1	14.6	39.1
21-Nov-07	7	8	7	2	7	7	9	10	7	15	15	16	16	18	A	16	14	10	13	9	31	31	31	31	14.5	31.2
22-Nov-07	31	32	32	31	30	31	31	31	29	30	30	33	30	A	32	32	31	31	30	29	31	30	29	27	30.5	33.0
23-Nov-07	25	23	24	23	24	24	21	25	21	19	19	26	A	34	34	31	33	33	33	33	32	35	36	36	28.1	36.1
24-Nov-07	36	35	34	32	35	35	34	38	38	37	36	A	35	34	33	33	34	34	32	32	31	32	32	32	34.2	38.5
25-Nov-07	32	32	31	31	31	30	30	31	25	27	A	28	28	29	29	31	34	34	33	34	33	33	33	33	31.0	34.2
26-Nov-07	32	32	31	29	29	29	29	29	29	A	29	29	30	31	31	31	31	31	31	31	30	30	30	29	30.3	32.3
27-Nov-07	29	29	28	28	28	26	26	24	A	25	25	25	25	25	25	25	25	24	23	23	26	27	27	27	26.0	28.9
28-Nov-07	26	26	26	A	26	26	24	23	20	21	23	23	25	22	21	21	20	23	23	24	23	22	20	18	22.9	26.4
29-Nov-07	18	20	A	21	23	23	22	23	25	23	24	24	25	28	29	25	25	23	23	22	17	19	30	31	23.7	30.6
30-Nov-07	30	A	28	28	28	29	30	31	31	31	31	34	33	32	33	35	36	37	38	38	37	37	37	37	33.1	37.9
Hourly Avg	24.2	23.7	24.1	24.4	23.7	24.5	24.6	25.0	24.9	24.5	25.0	25.5	26.3	27.3	28.0	27.0	26.5	25.0	26.5	24.0	24.9	24.1	24.1	24.2		
Hourly Max	35.8	36.3	36.3	36.6	36.4	36.0	36.3	38.5	38.5	37.0	36.5	37.2	37.9	37.5	38.5	39.3	39.0	37.5	39.1	37.7	37.2	36.7	37.2	36.7		

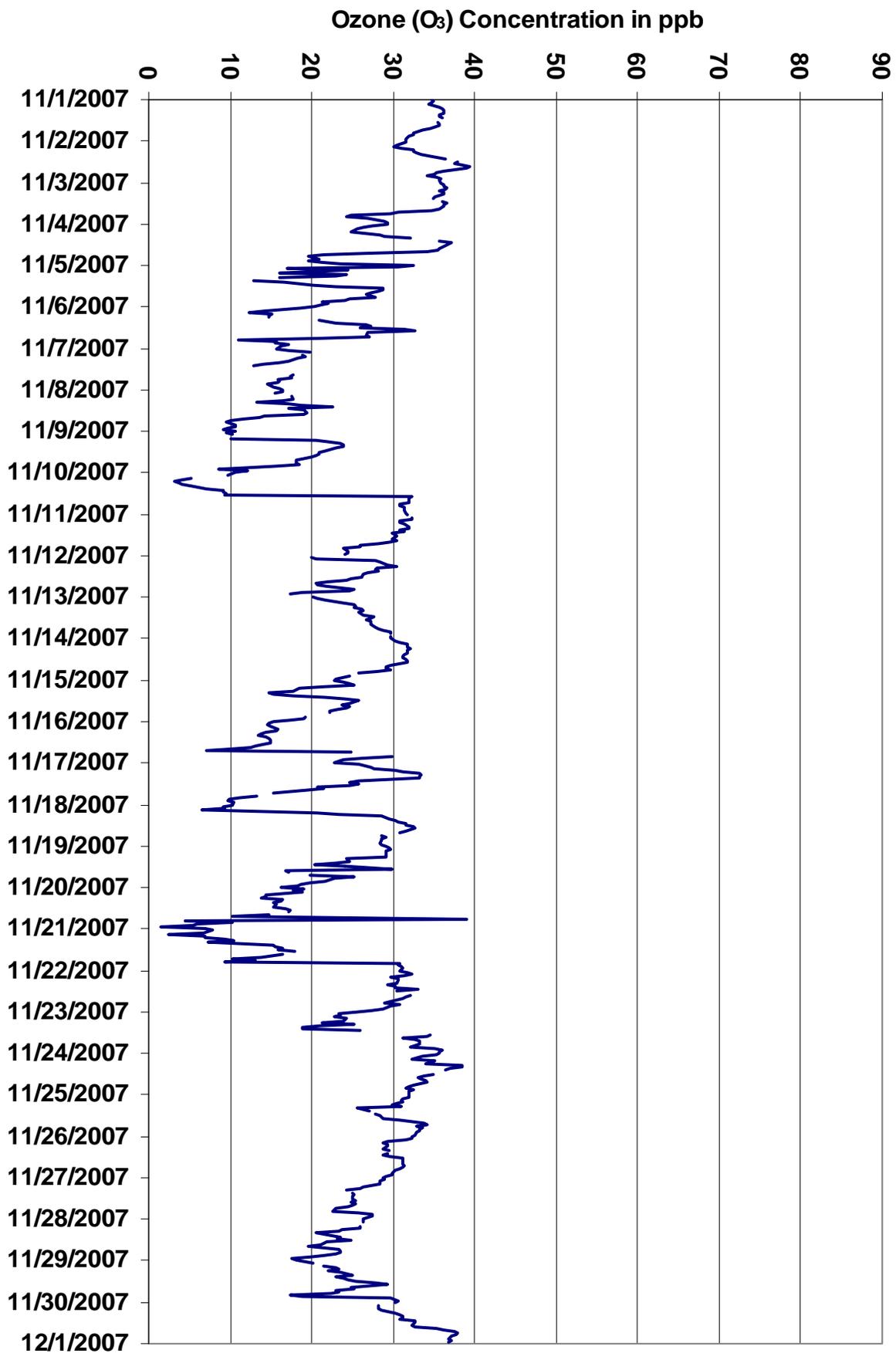
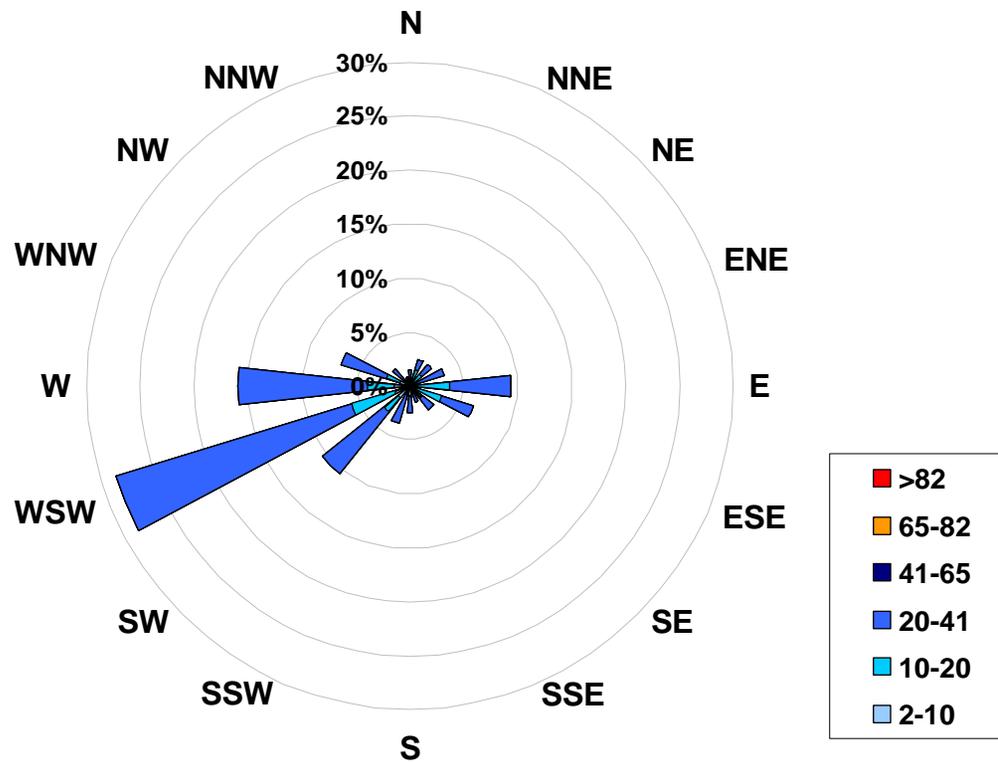


Figure 53. PASZA - Portable-Spirit River Ozone Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Ozone (in ppb) Located at the Portable-Spirit River Site for November 2007**



**Calms: 0%**

Frequency Distribution of O <sub>3</sub> in ppb			Frequency (hrs)
Range			
2.0	< 10		66
10	to 20		165
20	to 41		453
41	to 65		0
65	to 82		0
	> 82		0
Total Non-Zero Values			684

## PASZA - Portable-Spirit River Ozone Eight Hour Average Summary

Station: Portable-Spirit River  
 Station Owner: PASZA

### EIGHT HOUR RUNNING AVERAGE TABLE

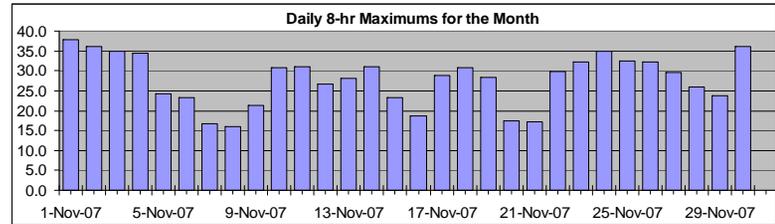
Ozone (O<sub>3</sub>)

Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 8-hr 65 ppb

Number of 8-hr Exceedances:		0	
Maximum 8-hr Average:	37.7 ppb	1-Nov	0:00 1:00

Percentile							
99	95	75	50	25	5	1	
35.4	34.5	29.7	24.0	17.3	7.9	3.8	



Status Flag Characters	
C Calibration	A AIC - Zero / Span Check
S Instrument out of Service	X Filter Exchange
N No Data	M Equipment Maintenance
D Excessive Instrument Drift	P Power Failure

Day	Mountain Standard Time																								Daily Maximum																								
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00
1-Nov-07	38	37	36	35	35	35	34	34	35	35	35	35	35	35	35	35	35	35	34	34	33	33	33	32	32	37.7																							
2-Nov-07	31	31	31	31	30	30	30	31	31	31	32	32	33	34	34	35	36	36	35	35	35	34	34	34	36.1																								
3-Nov-07	33	34	34	34	35	35	35	35	35	35	35	34	34	34	35	35	35	34	32	31	29	28	27	26	34.9																								
4-Nov-07	26	25	26	26	26	26	26	26	26	26	27	29	30	32	33	34	34	33	30	28	26	23	21	20	34.3																								
5-Nov-07	19	18	18	18	17	16	15	13	12	10	11	11	12	14	17	19	20	22	23	24	24	24	23	22	24.3																								
6-Nov-07	21	20	18	16	15	13	12	11	12	13	15	16	18	20	23	23	23	23	21	20	19	17	16	15	23.3																								
7-Nov-07	14	14	14	15	16	16	16	17	17	16	15	15	N	N	N	N	N	N	N	N	N	15	15	14	16.6																								
8-Nov-07	14	14	14	14	15	15	15	15	15	15	16	16	16	16	16	16	16	16	15	13	12	11	10	9	16.0																								
9-Nov-07	7	7	7	7	7	7	9	12	14	16	19	19	20	21	21	21	20	20	19	18	17	16	14	13	21.4																								
10-Nov-07	12	11	10	8	7	6	6	5	4	4	4	5	6	6	7	10	14	17	20	22	25	28	31	31	30.8																								
11-Nov-07	31	31	31	31	31	31	31	31	31	31	30	30	30	30	30	30	29	29	28	27	26	25	25	24	31.1																								
12-Nov-07	23	22	21	21	21	22	23	24	24	25	26	27	26	26	25	25	24	23	22	21	21	20	19	19	26.6																								
13-Nov-07	19	19	19	19	20	21	22	22	23	24	24	25	25	25	25	26	26	26	27	27	27	28	28	28	28.1																								
14-Nov-07	28	29	29	29	30	30	30	31	31	31	31	31	31	31	31	30	30	30	29	28	27	26	25	24	30.9																								
15-Nov-07	23	23	22	22	22	21	20	19	18	17	16	16	17	18	19	20	21	22	23	23	22	22	21	20	23.2																								
16-Nov-07	19	18	17	16	15	15	14	14	14	14	14	14	13	13	13	13	13	11	10	9	11	12	14	15	18.7																								
17-Nov-07	17	20	24	24	24	25	26	27	29	29	29	28	28	27	25	24	22	20	20	18	16	14	12	10	28.9																								
18-Nov-07	9	8	8	7	8	9	10	13	15	18	21	24	27	28	30	31	31	31	30	30	30	29	28	28	30.8																								
19-Nov-07	28	28	28	28	28	28	28	28	27	26	25	24	23	22	21	20	19	18	17	18	18	17	18	18	28.3																								
20-Nov-07	17	17	17	17	16	15	15	15	15	15	14	14	14	15	15	15	15	13	12	10	9	7	4	4	17.5																								
21-Nov-07	3	3	3	3	3	3	3	4	4	4	6	7	9	10	11	12	13	13	12	11	12	13	15	17	17.2																								
22-Nov-07	20	23	25	28	29	30	30	30	29	29	29	29	29	29	29	30	30	30	30	29	29	29	29	28	29.9																								
23-Nov-07	27	26	25	24	23	23	22	21	21	20	20	19	19	20	22	21	23	25	27	29	29	29	30	32	32.2																								
24-Nov-07	33	33	33	33	33	32	32	32	32	33	33	34	34	35	35	34	34	33	33	32	32	32	32	32	35.0																								
25-Nov-07	31	31	31	31	31	31	30	30	29	28	28	27	27	27	27	27	28	29	30	30	31	32	32	32	32.4																								
26-Nov-07	32	32	32	31	31	30	30	29	29	29	28	28	29	29	29	30	30	30	30	30	31	30	30	30	32.3																								
27-Nov-07	30	29	29	29	28	28	27	26	26	25	24	24	24	24	24	24	24	24	24	24	24	24	24	24	29.5																								
28-Nov-07	25	25	25	26	26	26	25	24	23	22	21	21	21	21	20	20	19	18	19	19	19	19	18	18	26.0																								
29-Nov-07	19	20	19	19	19	19	20	20	21	22	22	23	23	23	24	24	23	23	23	22	21	19	19	20	23.7																								
30-Nov-07	21	22	23	24	26	28	28	28	28	28	29	29	30	30	30	31	32	32	33	34	35	35	36	36	36.2																								

Hourly Max    37.7   36.9   36.1   35.4   35.0   34.9   34.8   34.8   34.7   34.7   34.8   34.9   35.0   34.9   35.0   35.4   36.1   36.0   35.4   35.2   34.7   35.2   35.9   36.2

# PASZA - Portable-Spirit River Total Reduced Sulphur Monthly Summary

Station: Portable-Spirit River  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

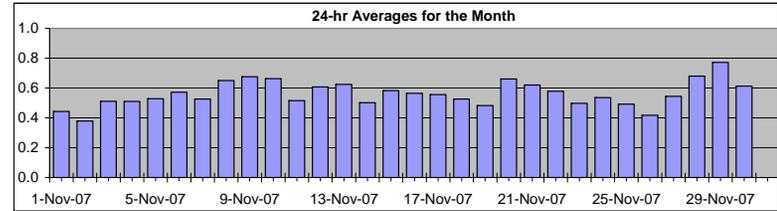
## Total Reduced Sulphur (TRS)

Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 1-hr na ppb 24-hr na ppb

Maximum 1-hr Average:	1.1	ppb	28-Nov	23:00 0:00
Maximum 24-hr Value:	0.8	ppb	29-Nov	

AIC Time:	32 hrs	Operational Time:	686 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	1.0	0.8	0.6	0.5	0.5	0.4	0.4	0.6 ppb	0.5 ppb



Status Flag Characters	
C	Calibration
S	Instrument out of Service
N	No Data
D	Excessive Instrument Drift
A	AIC - Zero / Span Check
X	Filter Exchange
M	Equipment Maintenance
P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00			
1-Nov-07	0	1	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0.4	0.5
2-Nov-07	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	0.4	0.4
3-Nov-07	0	1	1	0	0	1	1	0	0	1	A	1	1	0	0	0	0	0	0	1	1	1	1	1	1	0.5	0.7
4-Nov-07	1	0	1	1	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0.5	0.7
5-Nov-07	1	1	1	1	1	1	1	1	A	1	0	0	0	1	1	1	0	0	0	0	1	1	1	1	1	0.5	0.7
6-Nov-07	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	0.6	0.7
7-Nov-07	1	1	0	A	0	0	0	0	1	1	1	1	1	1	C	C	A	1	0	1	0	1	1	1	1	0.5	0.7
8-Nov-07	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8
9-Nov-07	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	0.7	1.0
10-Nov-07	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.7	1.0
11-Nov-07	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0.5	0.7
12-Nov-07	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.6	0.8
13-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.6	0.9
14-Nov-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	1	1	1	0.5	0.8
15-Nov-07	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	0.6	0.9
16-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	A	1	1	1	1	0.6	0.9
17-Nov-07	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.6	0.8
18-Nov-07	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	1	A	1	1	1	1	1	0	0	0.5	0.7
19-Nov-07	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	A	0	1	1	1	1	1	1	1	0.5	0.6
20-Nov-07	1	1	1	0	1	1	1	1	1	1	1	1	0	0	1	A	1	1	1	1	1	1	1	1	1	0.7	1.0
21-Nov-07	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	0.6	0.8
22-Nov-07	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	0	0.6	0.7
23-Nov-07	0	0	0	0	1	1	1	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	1	1	1	0.5	0.6
24-Nov-07	0	1	1	1	1	1	1	0	0	1	1	A	0	1	1	1	1	0	1	1	1	1	1	1	0	0.5	0.7
25-Nov-07	0	1	1	1	1	1	1	1	0	0	A	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0.5	0.7
26-Nov-07	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	0.4	0.5
27-Nov-07	0	0	0	0	0	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0.5	0.8
28-Nov-07	1	0	0	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
29-Nov-07	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	0.8	1.1
30-Nov-07	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0.6	0.8
Hourly Avg	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6		
Hourly Max	1.0	0.9	0.8	1.1	1.0	0.9	1.0	0.9	0.8	0.9	0.8	0.8	0.7	0.7	0.8	0.7	0.8	0.9	0.9	0.8	0.8	0.8	1.1	1.1	1.1		

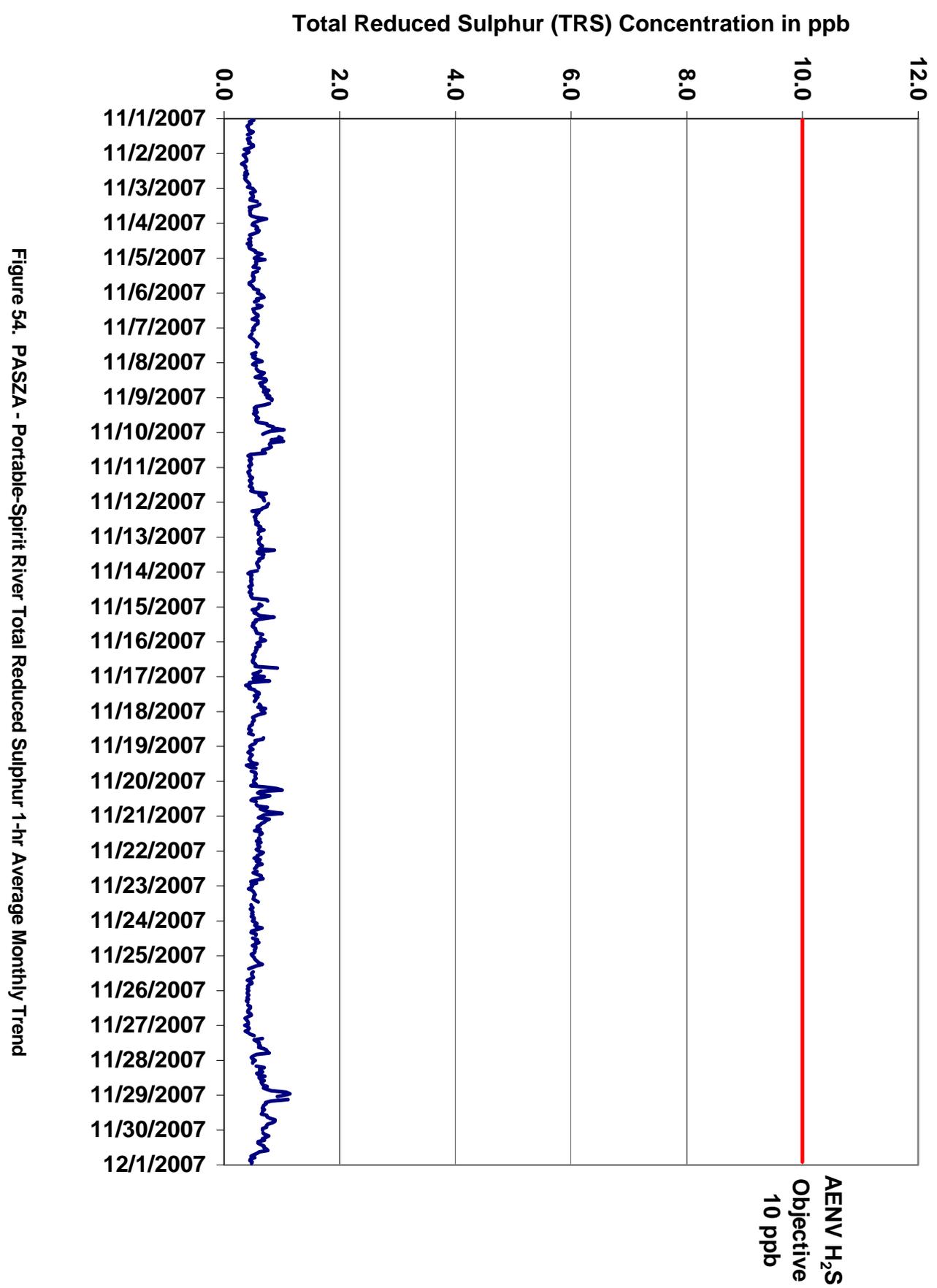


Figure 54. PASZA - Portable-Spirit River Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Portable-Spirit River  
 Station Owner: PASZA

**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

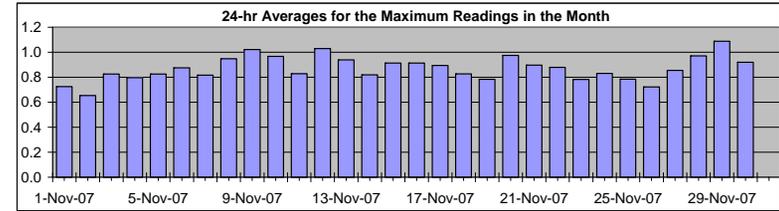
**Total Reduced Sulphur (TRS)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	2.2	ppb	9-Nov	18:00 19:00
Maximum 24-hr Value:	1.1	ppb	29-Nov	

AIC Time:	32 hrs	Operational Time:	686 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	1.4	1.2	0.9	0.8	0.8	0.7	0.6	0.9 ppb	0.8 ppb



**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum			
	Hour Start	Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00			22:00	23:00	0:00
1-Nov-07		1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
2-Nov-07		1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8
3-Nov-07		1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
4-Nov-07		1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
5-Nov-07		1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
6-Nov-07		1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.0
7-Nov-07		1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	C	C	A	1	1	1	1	1	1	1	1	0.8	1.0
8-Nov-07		1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2
9-Nov-07		1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1.0	2.2
10-Nov-07		1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3
11-Nov-07		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	1	0.8	1.2
12-Nov-07		A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	A	1.0	1.8	
13-Nov-07		1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	2.0	
14-Nov-07		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	0.8	1.3	
15-Nov-07		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	0.9	1.3	
16-Nov-07		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.3	
17-Nov-07		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	0.9	1.4	
18-Nov-07		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	0.8	1.0
19-Nov-07		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	1	0.8	0.9
20-Nov-07		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	1	1.0	1.4
21-Nov-07		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.9	1.1
22-Nov-07		1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1
23-Nov-07		1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
24-Nov-07		1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
25-Nov-07		1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	0.9
26-Nov-07		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	1	0.7	0.9
27-Nov-07		1	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	1.2
28-Nov-07		1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5
29-Nov-07		1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.8
30-Nov-07		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	1	0.9	1.2
Hourly Avg		0.8	0.9	0.9	0.9	0.9	0.9	0.8	0.9	0.8	0.9	0.8	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.0	0.9	0.9	0.9	0.9	0.9	0.9		
Hourly Max		1.4	1.3	1.4	1.8	1.3	1.3	1.3	1.2	1.1	2.0	1.1	1.0	1.0	1.0	1.1	1.2	1.1	1.2	2.2	1.8	1.3	1.3	1.4	1.5				

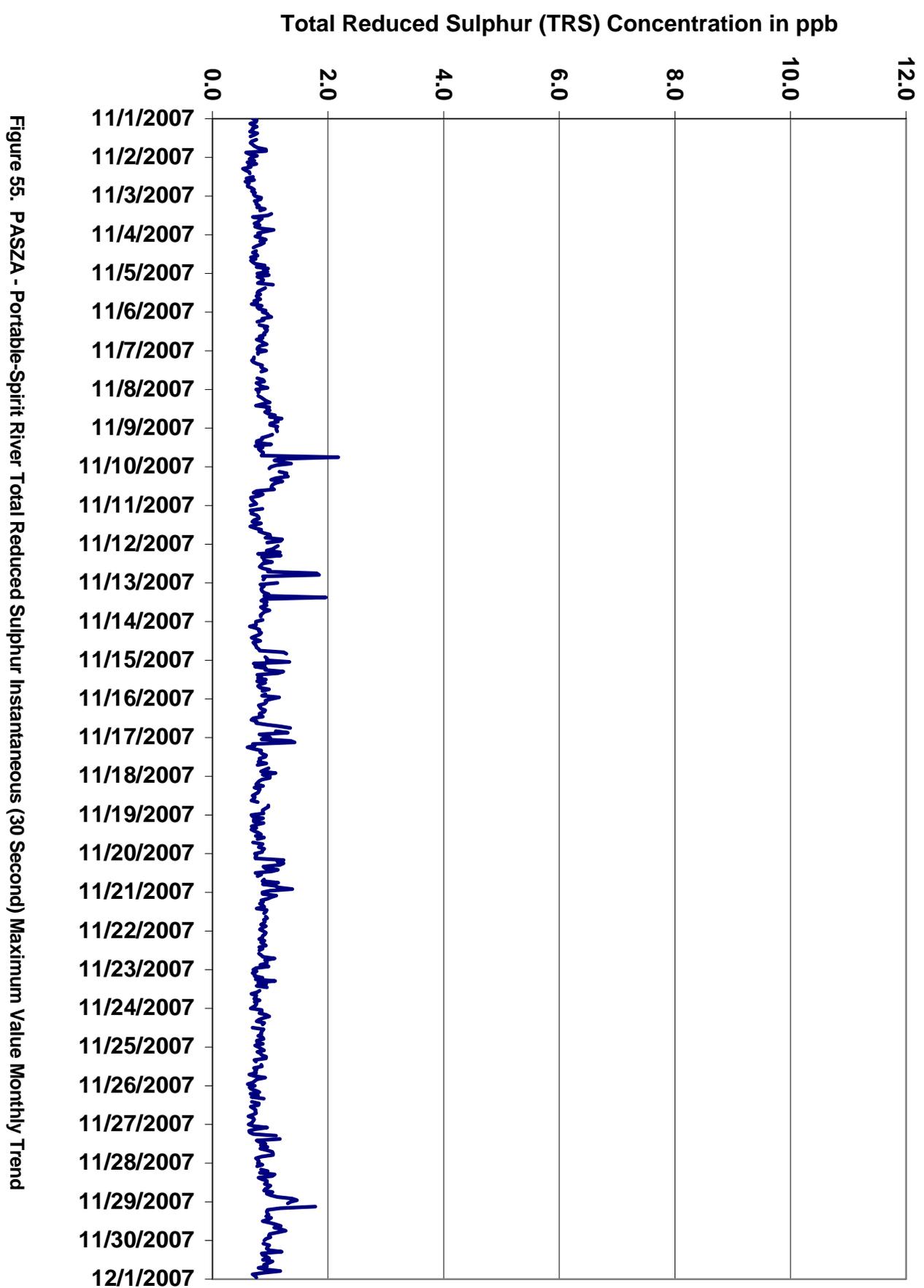
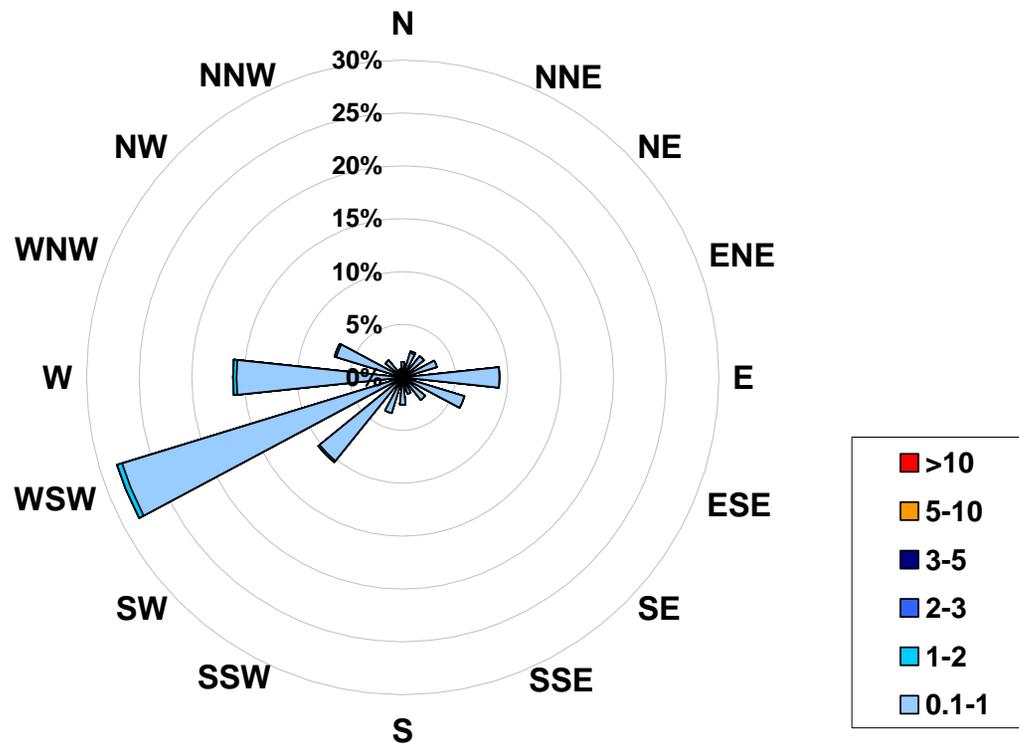


Figure 55. PASZA - Portable-Spirit River Total Reduced Sulphur Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Total Reduced Sulphur (in ppb) Located at the Portable-Spirit River Site for November 2007**



**Calms: 0%**

Frequency Distribution of TRS in ppb			Frequency (hrs)
Range			
0.1	< 1		676
1	to 2		8
2	to 3		0
3	to 5		0
5	to 10		0
	> 10		0
Total Non-Zero Values			685

# PASZA - Portable-Spirit River Scalar Wind Speed Monthly Summary

Station: Portable-Spirit River  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

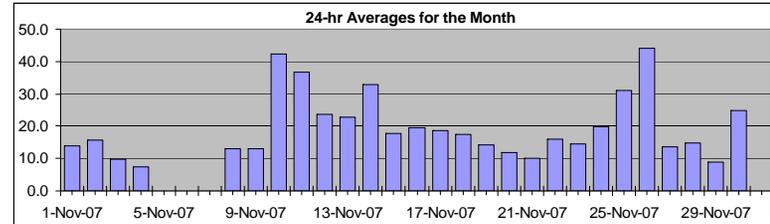
## Wind Speed (WSs)

Monitoring Dates: November 1, 2007 to December 1, 2007

### Summary

Maximum 1-hr Average:	118.2	km/hr	10-Nov	21:00 22:00
Maximum 24-hr Value:	44.0	km/hr	26-Nov	

Calm Time:	0 hrs	0% calms	Operational Time:	650 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	90.0%				
Percentile	99	95	75	50	25	5	1	AverageS
	77.5	46.8	22.9	15.4	10.5	6.2	4.8	19.6 km/hr



### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hr Scalar Average	Daily Max	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Nov-07	19	17	17	16	18	16	16	16	15	15	12	12	13	12	11	11	12	12	13	14	13	12	12	12		13.9	18.7
2-Nov-07	14	14	11	10	9	12	13	18	21	20	28	23	21	17	16	22	19	11	8	11	15	17	14	12		15.8	27.7
3-Nov-07	13	13	13	13	13	10	10	12	13	17	19	16	12	9	7	5	4	3	3	5	8	7	5	6		9.8	19.2
4-Nov-07	5	4	5	6	6	6	7	5	4	6	10	15	14	10	10	5	7	5	8	9	N	N	N	N		7.5	14.8
5-Nov-07	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	0.0
6-Nov-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	M	M	M	M	M	M	M	M		N	0.0
7-Nov-07	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	8	11	20	14	18	17		N	19.5
8-Nov-07	16	19	11	11	9	7	8	8	9	14	15	13	16	16	17	17	22	17	8	10	9	15	11	12		12.9	22.4
9-Nov-07	6	9	8	7	7	12	19	17	28	26	22	17	11	6	7	9	6	6	6	12	15	12	19	25		12.9	27.9
10-Nov-07	29	27	19	12	12	13	11	6	8	8	6	10	11	10	16	70	85	76	95	99	114	118	81	79		42.3	118.2
11-Nov-07	48	68	76	58	36	37	34	31	43	16	39	53	45	39	36	30	29	20	14	22	32	26	18	32		36.6	76.0
12-Nov-07	19	13	14	30	31	37	40	28	33	26	21	28	40	25	20	19	14	10	29	36	11	10	13	23		23.8	40.0
13-Nov-07	27	27	24	19	17	18	17	14	13	15	23	19	12	20	20	22	22	31	33	24	24	28	38	37		22.7	38.2
14-Nov-07	40	46	46	49	50	47	44	43	43	36	37	35	31	29	28	29	16	22	20	19	21	25	19	11		32.8	49.5
15-Nov-07	10	13	14	14	12	15	15	11	11	10	10	10	11	15	21	23	24	25	28	28	35	37	21	15		17.8	36.7
16-Nov-07	17	16	9	13	12	9	16	12	19	25	18	19	20	19	12	8	8	13	12	37	32	41	42	37		19.4	42.1
17-Nov-07	41	37	34	36	30	17	9	16	13	13	16	21	24	21	12	17	13	12	10	12	13	11	10	9		18.6	41.5
18-Nov-07	7	7	6	9	12	16	15	21	31	27	29	23	23	21	18	16	17	18	11	12	23	21	17	21		17.5	31.2
19-Nov-07	23	25	26	26	23	25	13	15	9	7	8	8	6	13	12	9	12	16	20	10	11	9	10	7		14.3	26.2
20-Nov-07	9	16	13	9	9	9	8	13	9	6	7	13	20	19	19	19	20	21	9	8	8	9	6	6		11.9	21.3
21-Nov-07	6	7	8	8	7	8	7	5	7	6	5	6	7	10	9	9	9	9	15	23	26	13	14	19		10.0	26.0
22-Nov-07	15	17	14	10	10	14	19	15	14	12	19	18	22	20	18	17	15	20	15	15	20	21	12	12		16.0	22.3
23-Nov-07	16	17	21	15	11	22	14	19	8	11	11	15	11	13	12	10	20	18	18	16	18	14	11	6		14.4	22.4
24-Nov-07	12	14	10	15	13	6	9	16	22	21	18	17	28	29	27	24	25	35	15	13	21	30	30	30		19.9	34.6
25-Nov-07	27	23	24	19	15	13	14	38	49	30	40	35	37	29	29	32	39	30	32	46	40	37	37	28		31.0	48.8
26-Nov-07	30	36	35	40	43	53	55	55	56	60	60	59	65	67	57	60	50	41	34	25	18	16	21	20		44.0	67.2
27-Nov-07	19	9	22	20	15	9	14	14	9	7	9	8	7	10	14	11	14	9	6	11	20	24	21	26		13.7	25.7
28-Nov-07	21	21	19	15	10	14	20	21	24	20	8	9	9	17	16	11	15	9	11	16	11	13	15	9		14.8	24.4
29-Nov-07	12	9	7	8	7	6	8	11	8	7	10	11	11	10	11	12	11	9	8	6	7	9	5	11		8.9	12.1
30-Nov-07	15	15	16	18	19	17	17	19	15	13	9	15	35	28	19	18	17	18	68	65	26	28	41	48		25.0	67.6
1-hr Average	19.1	20.0	19.4	18.7	16.9	17.4	17.5	18.5	19.8	17.4	18.8	19.5	20.7	19.7	18.3	19.8	20.2	19.2	19.8	22.0	22.5	22.8	20.8	21.1			
Hourly Max	47.6	68.3	76.0	58.4	49.5	52.8	54.7	54.6	55.8	60.3	59.5	59.0	64.9	67.2	56.7	70.2	85.4	75.7	94.6	99.2	113.7	118.2	80.7	78.9			

# PASZA - Portable-Spirit River Vector Wind Speed Monthly Summary

Station: Portable-Spirit River  
 Station Owner: PASZA

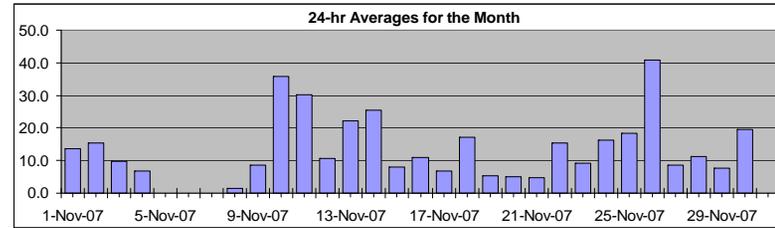
## HOURLY AVERAGE TABLE

## Wind Speed (WSv)

Monitoring Dates: November 1, 2007 to December 1, 2007

### Summary

Maximum 1-hr Average:	59.1	km/hr	10-Nov	21:00 22:00
Maximum 24-hr Value:	40.7	km/hr	26-Nov	



Calm Time:	0 hrs	0% calms	Operational Time:	650 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	90.0%				
Percentile	99	95	75	50	25	5	1	AverageV
	38.8	23.7	13.1	8.7	5.5	3.4	2.8	30.7 km/hr

### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hr Vector Average	Daily Max		
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	0:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
1-Nov-07	19	17	17	16	18	16	16	15	14	12	12	13	12	11	11	12	13	14	13	12	13	12	12	12	12	13.7	18.6	
2-Nov-07	14	14	11	10	9	12	13	18	21	20	28	22	21	16	16	22	19	11	7	11	15	17	14	12	12	15.4	27.6	
3-Nov-07	13	13	13	13	13	9	10	12	13	17	19	16	12	8	7	5	4	3	3	5	8	7	5	6	6	9.8	19.2	
4-Nov-07	5	4	5	6	6	6	7	5	4	6	10	15	14	10	10	5	7	5	8	9	N	N	N	N	N	6.7	14.7	
5-Nov-07	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	N	0.0	
6-Nov-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	M	M	M	M	M	M	M	M	M	N	0.0	
7-Nov-07	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	4	6	10	7	9	8	8	N	9.8	
8-Nov-07	8	9	5	5	5	4	4	4	4	7	8	7	8	8	9	9	11	9	4	5	4	8	6	6	6	1.4	11.2	
9-Nov-07	3	4	4	3	4	6	9	8	14	13	11	8	6	3	4	4	3	3	3	6	7	6	9	13	13	8.5	14.0	
10-Nov-07	14	14	10	6	6	7	5	3	4	4	3	5	5	5	8	35	43	38	47	50	57	59	40	39	39	35.7	59.1	
11-Nov-07	24	34	38	29	18	18	17	16	21	8	19	26	22	19	18	15	14	10	7	11	16	13	9	16	16	30.2	38.0	
12-Nov-07	10	7	7	15	15	19	20	14	17	13	11	14	20	12	10	9	7	5	14	18	6	5	7	12	12	10.5	20.0	
13-Nov-07	13	14	12	10	9	9	9	7	6	8	11	10	6	10	10	11	11	16	16	12	12	14	19	19	19	22.3	19.1	
14-Nov-07	20	23	23	25	25	24	22	22	21	18	19	18	16	14	14	14	8	11	10	10	11	12	9	6	6	25.5	24.8	
15-Nov-07	5	7	7	7	6	7	7	5	5	5	5	5	5	7	11	11	12	12	14	14	18	18	11	8	8	7.9	18.4	
16-Nov-07	8	8	5	6	6	4	8	6	10	13	9	9	10	9	6	4	4	7	6	19	16	20	21	19	19	11.0	21.0	
17-Nov-07	21	19	17	18	15	8	4	8	7	7	8	10	12	11	6	9	7	6	5	6	6	6	5	4	4	6.8	20.7	
18-Nov-07	4	3	3	4	6	8	8	10	16	14	14	12	11	11	9	8	8	9	5	6	12	10	8	10	10	17.3	15.6	
19-Nov-07	11	13	13	13	12	13	7	8	5	3	4	4	3	7	6	5	6	8	10	5	5	5	5	3	3	5.4	13.1	
20-Nov-07	4	8	7	5	4	5	4	6	5	3	3	6	10	9	9	9	10	11	5	4	4	4	3	3	3	5.0	10.7	
21-Nov-07	3	3	4	4	4	4	3	3	3	3	3	3	4	5	5	4	5	5	7	11	13	7	7	9	9	4.8	13.0	
22-Nov-07	7	9	7	5	5	7	10	8	7	6	9	9	11	10	9	8	7	10	7	7	10	10	6	6	6	15.5	11.1	
23-Nov-07	8	8	10	8	5	11	7	9	4	6	5	7	5	7	6	5	10	9	9	8	9	7	6	3	3	9.3	11.2	
24-Nov-07	6	7	5	8	7	3	4	8	11	10	9	8	14	14	14	12	12	17	7	7	10	15	15	15	15	16.2	17.3	
25-Nov-07	14	11	12	10	7	6	7	19	24	15	20	18	19	15	15	16	20	15	16	23	20	19	19	14	14	18.3	24.4	
26-Nov-07	15	18	18	20	22	26	27	27	28	30	30	30	32	34	28	30	25	20	17	13	9	8	10	10	10	40.7	33.6	
27-Nov-07	10	5	11	10	7	5	7	7	5	3	5	4	4	5	7	5	7	5	3	6	10	12	11	13	13	8.6	12.9	
28-Nov-07	11	11	9	7	5	7	10	10	12	10	4	5	5	8	8	5	7	5	6	8	5	7	7	5	5	11.3	12.2	
29-Nov-07	6	4	4	4	3	3	4	5	4	3	5	5	6	5	5	6	6	4	4	3	3	5	2	5	5	7.6	6.1	
30-Nov-07	7	8	8	9	9	9	9	10	8	6	5	7	17	14	10	9	9	9	34	32	13	14	21	24	24	19.6	33.8	
1-hr Vector	10.1	10.1	10.4	12.1	10.3	10.1	9.4	6.3	5.9	4.7	5.8	4.2	2.3	3.2	3.3	5.0	5.1	6.3	9.7	7.7	10.2	10.6	8.6	8.9	8.9			
Hourly Max	23.8	34.2	38.0	29.2	24.8	26.4	27.3	27.3	27.9	30.2	29.8	29.5	32.5	33.6	28.3	35.1	42.7	37.9	47.3	49.6	56.9	59.1	40.3	39.5	39.5			

## PASZA - Portable-Spirit River Wind Direction Monthly Summary

Station: Portable-Spirit River  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

### Wind Direction (WD)

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**


Calm Time:	0 hrs	0% calms	Operational Time:	650 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	90.0%				
Percentile	99	95	75	50	25	5	1	Average
	330.5	295.9	259.5	240.3	120.6	49.9	11.8	227 deg

**Status Flag Characters**

C Calibration	A AIC - Zero / Span Check
S Instrument out of Service	X Filter Exchange
N No Data	M Equipment Maintenance
D Excessive Instrument Drift	P Power Failure

**Day Mountain Standard Time**

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	WD Sector	
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Nov-07	253	254	256	255	257	256	258	259	263	267	273	277	279	280	276	273	267	261	256	256	256	257	257	257	257	262	W
2-Nov-07	253	254	257	257	259	258	257	248	238	235	235	232	230	221	222	242	240	235	252	259	255	255	260	264	264	244	WSW
3-Nov-07	262	261	259	258	257	264	261	259	259	253	252	255	261	264	269	269	275	288	275	262	253	257	264	270	260	W	
4-Nov-07	268	279	270	261	263	265	262	278	288	291	310	316	316	311	313	294	317	249	247	245	N	N	N	N	287	WNW	
5-Nov-07	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	N	-
6-Nov-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	M	M	M	M	M	M	M	M	M	N	-
7-Nov-07	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	279	279	295	298	300	284	N	-	
8-Nov-07	276	273	269	265	263	269	253	251	250	239	222	113	96	96	91	98	89	88	230	288	291	23	289	143	218	SW	
9-Nov-07	40	262	284	288	233	126	79	67	67	77	71	24	50	220	340	12	12	12	12	12	13	13	14	51	42	NE	
10-Nov-07	106	102	105	204	239	230	223	246	246	254	170	108	41	236	183	229	223	216	220	226	225	230	230	220	220	SW	
11-Nov-07	236	230	230	235	241	236	238	236	229	248	227	220	215	216	206	183	196	178	185	105	111	146	165	143	214	SW	
12-Nov-07	89	127	119	149	141	159	161	130	110	97	103	94	90	105	73	59	352	234	257	320	282	264	261	262	124	ESE	
13-Nov-07	261	263	267	272	270	265	262	259	259	246	237	239	269	251	255	253	247	241	240	249	249	245	237	239	251	WSW	
14-Nov-07	236	232	229	231	233	233	232	234	238	236	236	233	233	224	207	195	186	181	107	125	89	65	49	223	SW		
15-Nov-07	4	14	31	229	289	249	261	264	267	243	252	279	78	105	97	105	100	90	103	105	102	98	106	99	100	E	
16-Nov-07	91	94	130	85	113	104	99	101	88	99	97	84	109	92	55	243	176	147	170	218	206	208	206	205	148	SSE	
17-Nov-07	205	210	208	208	183	92	242	131	136	45	50	91	80	76	81	91	105	76	236	270	285	260	267	296	167	SSE	
18-Nov-07	237	271	260	258	261	258	255	246	240	245	242	250	263	268	267	263	255	244	258	247	237	244	247	241	251	WSW	
19-Nov-07	239	238	237	239	239	238	317	96	111	38	62	104	12	360	86	135	69	191	250	4	199	291	295	236	238	WSW	
20-Nov-07	210	108	45	257	242	255	291	52	77	156	144	80	112	112	107	111	108	111	70	277	269	236	264	241	116	ESE	
21-Nov-07	243	242	260	302	233	211	188	176	193	240	48	132	120	84	68	143	119	356	265	227	239	294	262	260	235	SW	
22-Nov-07	268	255	282	273	274	258	250	254	252	265	255	252	247	255	257	254	257	242	253	242	241	231	298	280	256	WSW	
23-Nov-07	197	196	204	187	237	252	263	230	254	219	134	228	118	250	336	46	237	241	290	35	213	247	263	254	232	SW	
24-Nov-07	253	120	89	179	141	172	280	263	250	251	255	258	257	256	254	255	252	296	260	258	256	243	247	248	250	WSW	
25-Nov-07	248	252	258	263	270	256	254	78	85	90	106	100	99	86	73	59	37	50	68	61	71	95	92	116	81	E	
26-Nov-07	128	114	122	113	111	100	101	96	93	95	99	97	93	94	91	91	92	92	92	77	70	7	26	334	95	E	
27-Nov-07	6	31	319	323	312	282	246	234	256	255	246	329	6	112	89	81	332	304	277	281	285	286	283	290	302	WNW	
28-Nov-07	289	297	300	298	292	239	233	227	232	236	252	259	301	105	162	207	221	247	254	246	249	245	243	251	249	WSW	
29-Nov-07	253	258	253	260	260	259	256	250	264	258	259	264	265	281	147	168	231	240	289	217	238	230	223	253	247	WSW	
30-Nov-07	251	253	250	246	243	246	248	243	250	258	254	273	296	291	280	282	280	274	300	304	290	296	9	17	289	WNW	
Hourly Avg	236	229	237	233	231	227	233	210	205	212	204	200	154	173	147	181	211	212	243	259	233	238	254	247			

# PASZA - Portable-Spirit River Standard Deviation of Wind Direction Monthly Summary

Station: Portable-Spirit River  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

**Wind Direction (WD)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

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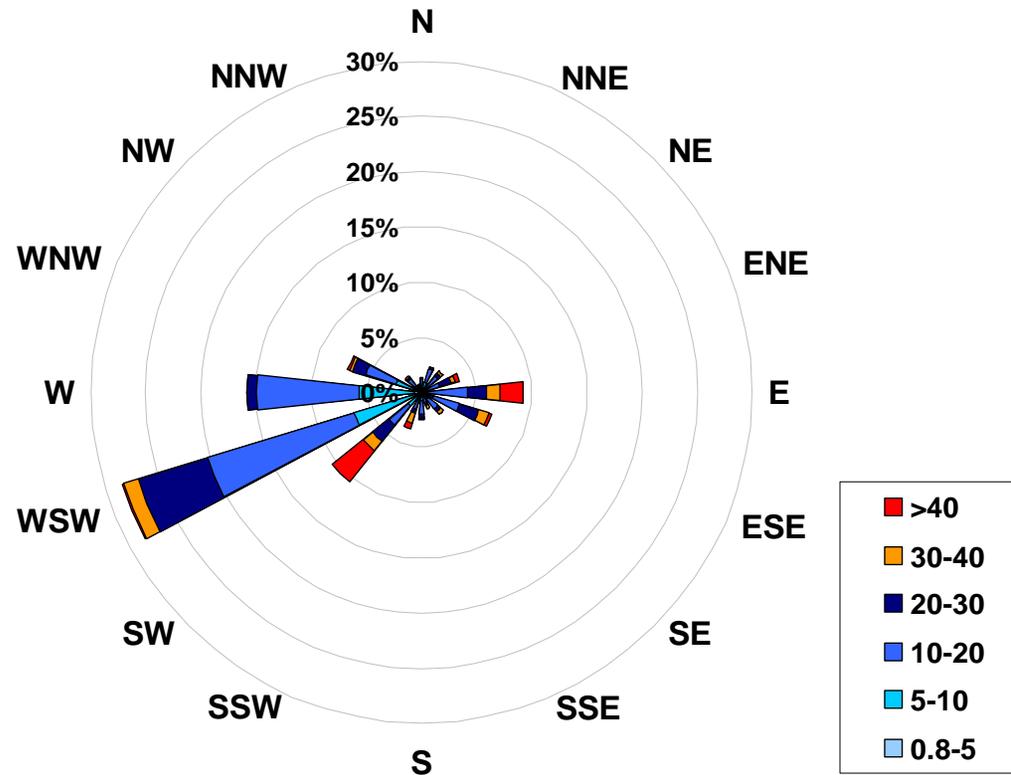
Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	650 hrs			
Calibration Time:	0 hrs	AMD Operational Uptime:	90.0%				
Percentile	99	95	75	50	25	5	1
	81.7	67.0	27.0	11.9	6.4	3.0	0.5

Status Flag Characters			
C Calibration	A AIC - Zero / Span Check	X Filter Exchange	M Equipment Maintenance
S Instrument out of Service			P Power Failure
N No Data			
D Excessive Instrument Drift			

Day	Mountain Standard Time																								Daily Maximum	
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00		23:00 0:00
1-Nov-07	4	4	4	3	4	4	5	4	6	7	8	9	9	9	10	9	6	4	4	4	4	4	4	4	9.9	
2-Nov-07	3	3	4	5	5	7	6	4	7	4	5	5	6	6	7	7	4	6	12	7	5	4	5	7	12.3	
3-Nov-07	6	6	5	5	5	6	7	5	6	4	4	5	7	10	12	12	14	16	11	4	4	6	11	15	15.8	
4-Nov-07	12	10	12	5	6	6	7	8	13	11	7	7	9	9	10	11	17	23	9	7	N	N	N	N	23.0	
5-Nov-07	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	
6-Nov-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	M	M	M	M	M	M	M	M	0.0	
7-Nov-07	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	44	24	10	9	8	10	43.9
8-Nov-07	34	21	46	48	52	61	18	14	23	11	64	23	12	13	7	8	5	12	72	23	29	22	71	60	72.3	
9-Nov-07	80	29	24	54	75	60	14	10	9	3	22	30	40	88	83	1	0	0	0	0	0	0	0	43	88.1	
10-Nov-07	7	8	12	35	14	15	18	2	8	12	35	33	80	34	74	3	3	3	3	3	3	2	4	3	80.3	
11-Nov-07	12	12	5	4	5	5	6	8	10	12	8	3	9	5	10	8	12	18	67	18	14	32	25	9	66.9	
12-Nov-07	40	37	13	18	14	28	10	10	6	8	6	4	7	20	21	9	33	43	71	9	24	17	14	16	71.0	
13-Nov-07	15	11	14	15	16	15	17	15	22	13	4	21	22	11	12	15	10	5	4	9	9	7	3	3	22.2	
14-Nov-07	3	3	2	3	3	3	4	3	3	5	3	4	3	3	6	8	6	25	20	17	16	22	12	13	24.9	
15-Nov-07	46	41	38	72	52	13	12	13	21	18	26	39	49	21	13	7	4	6	5	6	2	7	8	8	72.4	
16-Nov-07	8	10	34	57	67	65	13	14	11	5	12	23	13	11	26	78	37	26	61	10	5	3	3	3	78.1	
17-Nov-07	3	3	6	5	39	80	75	75	64	49	14	21	7	7	48	43	38	22	54	15	19	21	49	41	80.4	
18-Nov-07	54	27	31	28	27	16	11	7	4	7	7	12	14	13	17	17	12	10	6	4	5	4	6	7	54.1	
19-Nov-07	3	3	3	3	4	4	74	14	53	32	18	28	72	59	26	35	56	17	72	64	25	74	47	37	74.3	
20-Nov-07	33	41	22	73	31	36	41	30	41	63	46	9	11	7	6	6	5	6	71	12	27	11	31	26	73.4	
21-Nov-07	38	25	31	58	16	50	67	68	17	31	82	27	47	30	50	48	49	44	22	17	58	70	22	10	82.1	
22-Nov-07	15	22	31	35	22	10	8	5	13	24	12	12	9	12	11	9	6	9	9	7	8	16	63	37	62.7	
23-Nov-07	27	12	7	21	45	13	11	34	89	70	57	31	69	30	63	91	9	8	40	67	11	29	27	56	91.3	
24-Nov-07	38	88	50	19	22	83	22	17	13	15	16	11	13	10	12	12	20	22	27	13	7	9	8	8	88.1	
25-Nov-07	8	11	12	21	17	18	16	80	4	9	4	8	5	8	10	5	7	12	4	6	11	5	7	10	79.9	
26-Nov-07	6	7	5	10	7	4	4	3	3	2	3	3	3	3	4	3	3	3	4	10	7	20	12	18	20.3	
27-Nov-07	16	50	6	19	17	15	5	16	41	41	28	34	70	30	10	16	46	22	36	42	15	6	7	7	70.2	
28-Nov-07	5	9	8	10	19	17	4	5	7	8	26	10	65	21	16	15	8	16	11	8	20	6	7	44	65.4	
29-Nov-07	4	27	61	43	45	60	34	27	29	36	18	28	26	15	81	63	34	54	35	61	12	26	60	17	81.3	
30-Nov-07	11	13	15	9	11	10	9	9	18	21	29	15	4	7	7	7	7	21	8	6	5	11	19	5	29.3	
Hourly Max	80	88	61	73	75	83	75	80	89	70	82	39	80	88	83	91	56	54	72	67	58	74	71	60		

**1-hr Average Wind Rose (in km/hr) Located at the Portable-Spirit River Site  
for November 2007**



**Calms: 0%**

Frequency Distribution of Wind in km/hr			Frequency (hrs)
Range			
0.8	<	5	7
5	to	10	142
10	to	20	289
20	to	30	111
30	to	40	50
	>	40	50
Total Non-Zero Values			649

# PASZA – Valleyview Station

## Monthly Summary Tables, Graphs and Roses

# PASZA - Valleyview Sulphur Dioxide Monthly Summary

Station: Valleyview  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

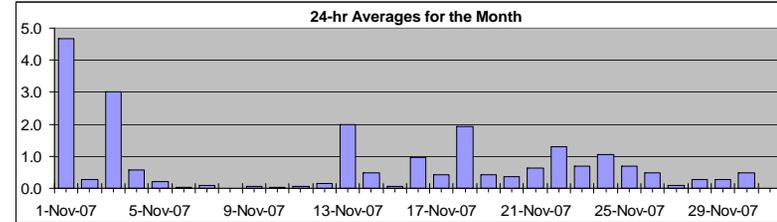
## Sulphur Dioxide (SO<sub>2</sub>)

Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: **1-hr 172 ppb** **24-hr 57 ppb**

### Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	12.9 ppb 1-Nov 8:00 9:00
Maximum 24-hr Average:	4.7 ppb 1-Nov



AIC Time:	30 hrs	Operational Time:	683 hrs					
Calibration Time:	4 hrs	AMD Operational Uptime:	99.6%					
Percentile 99	95	75	50	25	5	1	Average	Median
8.6	3.4	0.7	0.3	0.0	0.0	0.0	0.7 ppb	0.3 ppb

### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00		
1-Nov-07	A	0	0	0	11	12	12	12	13	4	4	1	0	0	0	0	2	3	2	5	8	4	8	5	4.7	12.9
2-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	0.3	2.5
3-Nov-07	A	0	1	2	2	2	10	5	1	3	5	8	9	7	6	3	0	0	0	1	0	0	2	1	3.0	9.6
4-Nov-07	A	2	3	1	0	1	1	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.6
5-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0.2	0.7
6-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
7-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0.1	0.8
8-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
9-Nov-07	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	0.4
10-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
11-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
12-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0.2	0.9
13-Nov-07	A	0	0	0	0	0	0	0	1	1	0	1	1	0	0	1	2	2	2	5	9	5	7	7	2.0	8.6
14-Nov-07	A	4	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	4.1
15-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	P	P	P	0	0	0	0	0	0	0	0	0.1	0.3
16-Nov-07	A	0	0	0	0	0	1	4	4	3	2	1	C	C	C	C	1	1	0	1	1	0	0	0	1.0	3.8
17-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4	4	0.4	4.0
18-Nov-07	A	2	1	1	0	2	0	1	2	6	4	6	8	4	0	0	0	0	0	1	1	1	1	1	1.9	7.8
19-Nov-07	A	1	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0.4	1.6
20-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.4	0.9
21-Nov-07	A	1	1	1	0	0	0	0	1	1	1	0	1	0	1	0	1	1	1	1	1	1	1	1	0.6	1.3
22-Nov-07	A	1	1	1	2	3	1	1	1	1	1	1	2	2	2	2	2	2	1	1	1	1	1	1	1.3	3.0
23-Nov-07	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	0.7	1.1
24-Nov-07	A	1	1	1	1	1	1	1	3	3	1	1	0	1	1	2	1	1	1	0	1	1	2	1	1.0	2.6
25-Nov-07	A	1	1	2	1	1	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1	1	0.7	2.0
26-Nov-07	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0.5	1.0
27-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.1	0.6
28-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	1	0	0	0	0	0	0	0.3	2.4
29-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
30-Nov-07	A	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	1	0	0	0	0	1	1	0.5	0.7
Hourly Avg	N	0.5	0.4	0.4	0.7	0.8	1.0	1.0	1.1	0.9	0.7	0.8	0.9	0.7	0.5	0.4	0.5	0.5	0.5	0.7	0.9	0.6	1.1	0.9		
Hourly Max	0.0	4.1	2.6	2.2	10.5	11.9	12.1	11.9	12.9	6.1	5.1	8.2	8.9	7.2	5.5	3.4	2.4	3.3	2.4	5.3	8.6	5.3	8.2	7.4		

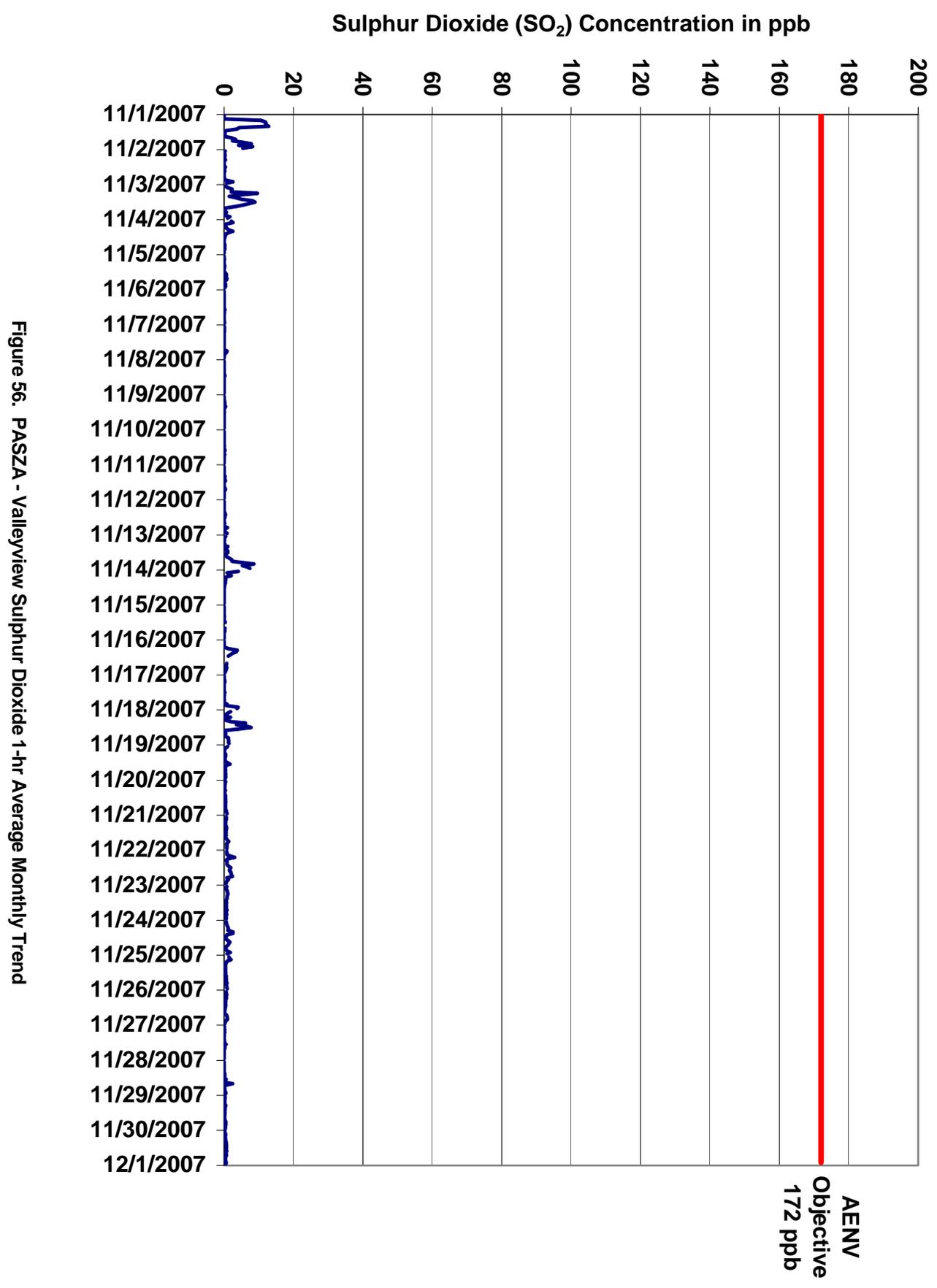


Figure 56. PASZA - Valleyview Sulphur Dioxide 1-hr Average Monthly Trend

Station: Valleyview  
 Station Owner: PASZA

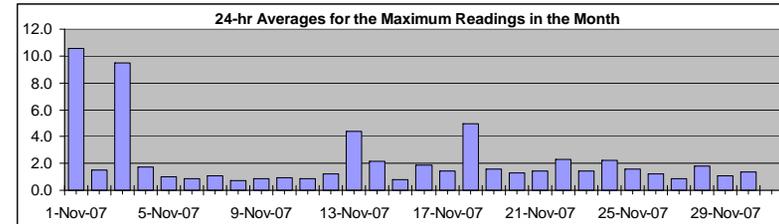
### INSTANTANEOUS (30 Second) MAXIMUM TABLE

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

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	29.1	ppb	3-Nov	6:00 7:00
Maximum 24-hr Value:	10.5	ppb	1-Nov	



AIC Time:	30 hrs	Operational Time:	683 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	99.6%						
Percentile	99	95	75	50	25	5	1	Average	Median
	20.7	8.8	1.5	1.1	1.0	0.4	0.0	2.2 ppb	1.1 ppb

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	A	1	1	0	21	19	17	19	12	11	2	1	1	1	2	7	6	7	19	16	17	24	18	10.5	23.8	
2-Nov-07	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	9	4	1.5	8.9
3-Nov-07	A	1	2	4	4	15	29	12	7	11	21	21	25	15	17	19	1	2	1	2	1	1	3	3	9.5	29.1
4-Nov-07	A	4	4	3	1	1	2	3	6	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.8	6.0
5-Nov-07	A	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	2	2	1	1	1	1	1	1	1.0	1.8
6-Nov-07	A	0	0	1	1	1	1	1	1	1	1	2	1	1	1	3	1	0	1	1	1	1	1	1	0.9	2.6
7-Nov-07	A	1	1	1	1	1	0	1	1	1	1	1	0	0	0	1	1	3	3	3	1	1	1	1	1.1	3.0
8-Nov-07	A	0	0	0	0	0	0	1	1	1	1	2	1	0	1	1	1	1	1	1	1	1	1	1	0.7	1.9
9-Nov-07	A	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	1	1	1	0.8	1.1
10-Nov-07	A	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	0	1	0	0	0	0.9	2.0
11-Nov-07	A	0	1	0	0	0	1	1	1	1	1	1	1	1	1	0	2	1	1	1	1	1	1	1	0.9	2.0
12-Nov-07	A	1	0	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	4	1	1	1	2	1.2	4.0
13-Nov-07	A	1	1	1	1	1	1	1	2	2	1	2	2	1	1	2	2	4	5	11	20	10	13	11	4.3	20.4
14-Nov-07	A	13	2	6	11	2	1	1	1	1	1	1	1	0	1	1	1	1	0	0	0	0	1	0	2.2	13.1
15-Nov-07	A	1	1	1	1	1	1	1	1	1	1	1	2	P	P	P	1	1	1	1	1	0	0	0	0.8	1.7
16-Nov-07	A	1	1	1	1	1	3	5	5	4	3	2	C	C	C	C	1	2	1	1	1	2	1	1	1.8	4.8
17-Nov-07	A	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	6	5	1.4	6.0
18-Nov-07	A	3	2	1	1	5	1	2	5	12	8	12	23	16	1	1	2	1	1	3	3	4	3	3	5.0	23.4
19-Nov-07	A	3	2	1	1	1	1	1	1	1	1	1	3	8	1	2	1	1	1	1	1	1	1	1	1.6	8.1
20-Nov-07	A	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	1.3	1.9
21-Nov-07	A	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	2	2	1	2	2	1	1.5	2.3
22-Nov-07	A	1	1	1	3	6	1	1	1	1	1	2	3	3	3	3	4	3	3	1	3	1	1	1	2.3	6.3
23-Nov-07	A	2	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1.4	2.2
24-Nov-07	A	1	1	2	2	2	2	2	6	4	2	1	1	1	2	3	3	2	1	1	1	2	3	2	2.2	6.3
25-Nov-07	A	3	3	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1.6	4.3
26-Nov-07	A	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	2	2	3	2	1	1	1	1	1.2	2.5
27-Nov-07	A	1	1	1	1	1	1	0	1	0	1	1	1	2	1	1	1	1	0	0	0	0	0	0	0.9	1.7
28-Nov-07	A	0	0	0	0	0	0	0	1	1	0	0	1	4	1	1	17	2	0	1	1	1	1	1	1.8	17.3
29-Nov-07	A	0	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	2	2	2	2	1	1	1	1.1	1.5
30-Nov-07	A	1	1	1	2	1	1	2	2	2	2	2	2	2	3	2	2	2	2	1	2	1	2	2	1.4	2.6
Hourly Avg	N	1.6	1.2	1.4	2.2	2.5	2.6	2.2	2.5	2.4	2.3	2.3	2.9	2.5	1.8	1.9	2.1	1.6	1.5	2.3	2.3	2.1	2.9	2.3		
Hourly Max	0.0	13.1	4.0	6.3	20.7	21.1	29.1	17.1	18.8	12.1	20.9	21.1	25.1	16.0	17.1	19.1	17.3	6.0	6.8	18.8	20.4	17.1	23.8	18.1		

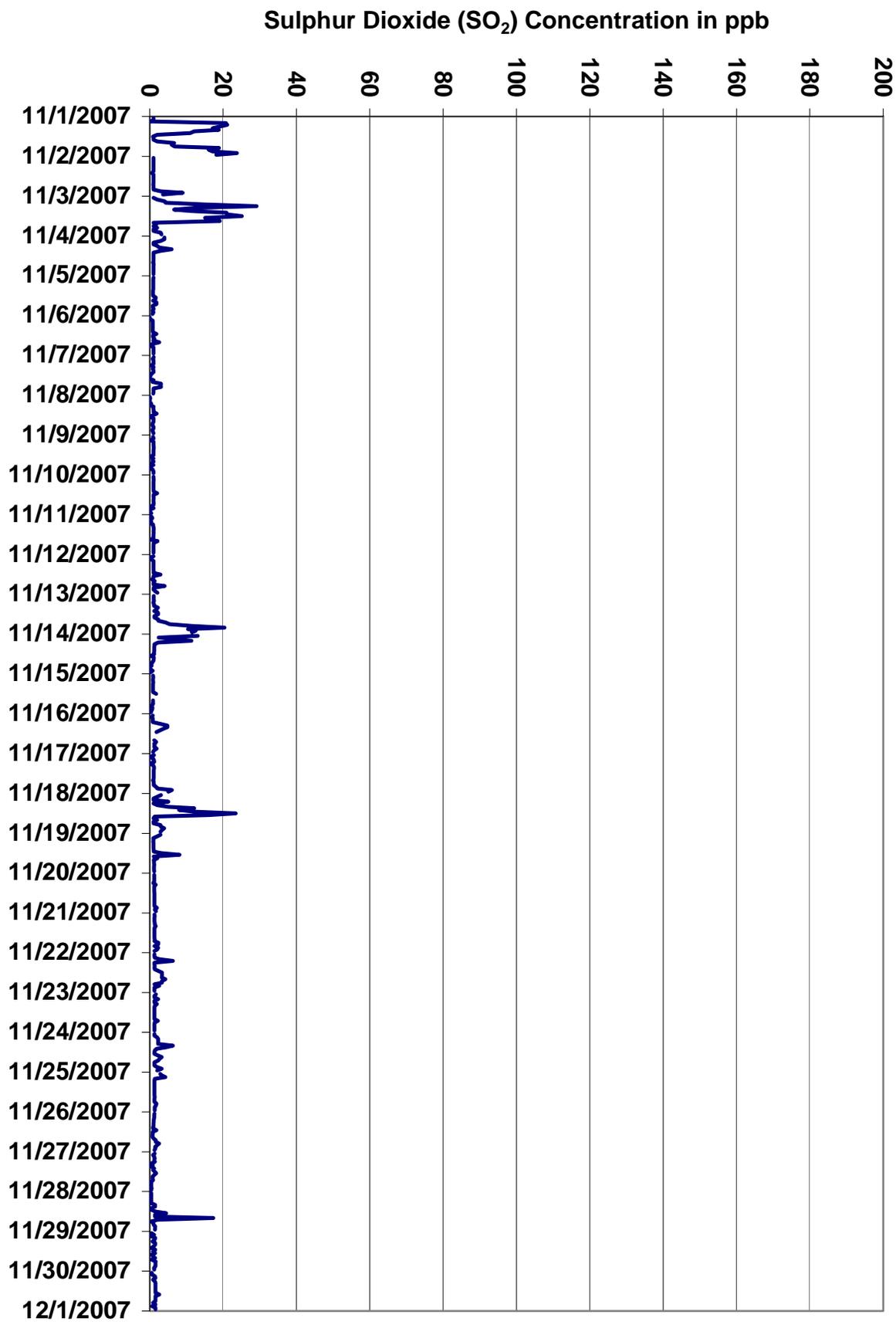
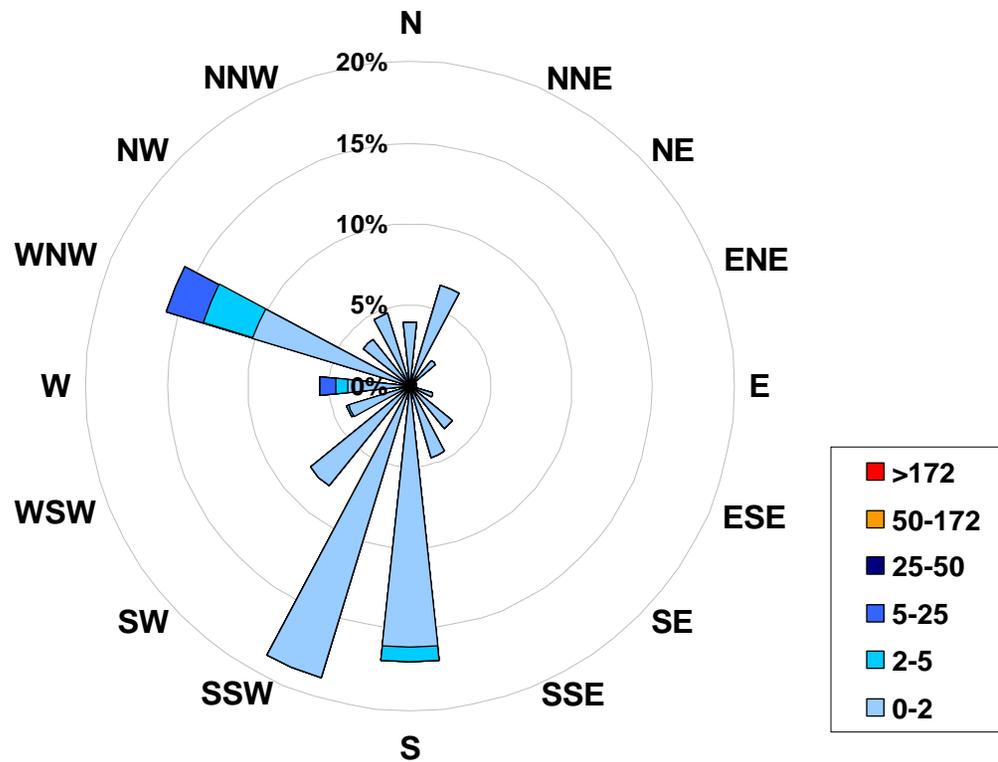


Figure 57. PASZA - Valleyview Sulphur Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Sulphur Dioxide (in ppb) Located at the Valleyview Site for November 2007**



**Calms: 0%**

Frequency Distribution of SO <sub>2</sub> in ppb			Frequency (hrs)
Range			
0.0	< 2		626
2	to 5		34
5	to 25		23
25	to 50		0
50	to 172		0
	> 172		0
Total Non-Zero Values			683

# PASZA - Valleyview Hydrogen Sulphide Monthly Summary

Station: Valleyview  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

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

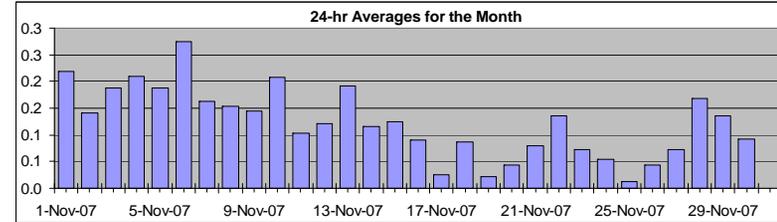
Monitoring Dates: November 1, 2007 to December 1, 2007

Objective Limit: Alberta Environment: 1-hr 10 ppb 24-hr 3 ppb

**Summary**

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	1.2	ppb	6-Nov	16:00 17:00
Maximum 24-hr Value:	0.3	ppb	6-Nov	

AIC Time:	31 hrs		Operational Time:	682 hrs					
Calibration Time:	4 hrs		AMD Operational Uptime:	99.6%					
Percentile	99	95	75	50	25	5	1	Average	Median
	0.5	0.3	0.2	0.1	0.1	0.0	0.0	0.1 ppb	0.1 ppb



**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																							24-hour Average	Daily Maximum			
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00				
1-Nov-07	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	0.2	0.5
2-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
3-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
4-Nov-07	A	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
5-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
6-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.3	1.2
7-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
8-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2
9-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
10-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
11-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
12-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
13-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.2	0.8
14-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
15-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	P	P	P	0	0	0	0	0	0	0	0	0	0	0.1	0.2
16-Nov-07	A	0	0	0	0	0	0	0	0	0	C	C	C	C	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
17-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
18-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
19-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
20-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
21-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
22-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0
23-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
24-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
25-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
26-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
27-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
28-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
29-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
30-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
Hourly Avg	N	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2			
Hourly Max	0.0	0.3	0.3	0.3	0.4	0.3	0.3	0.6	0.7	0.4	0.3	0.2	0.2	0.2	0.3	0.3	1.2	0.5	0.4	0.8	0.4	0.5	0.5	1.0				

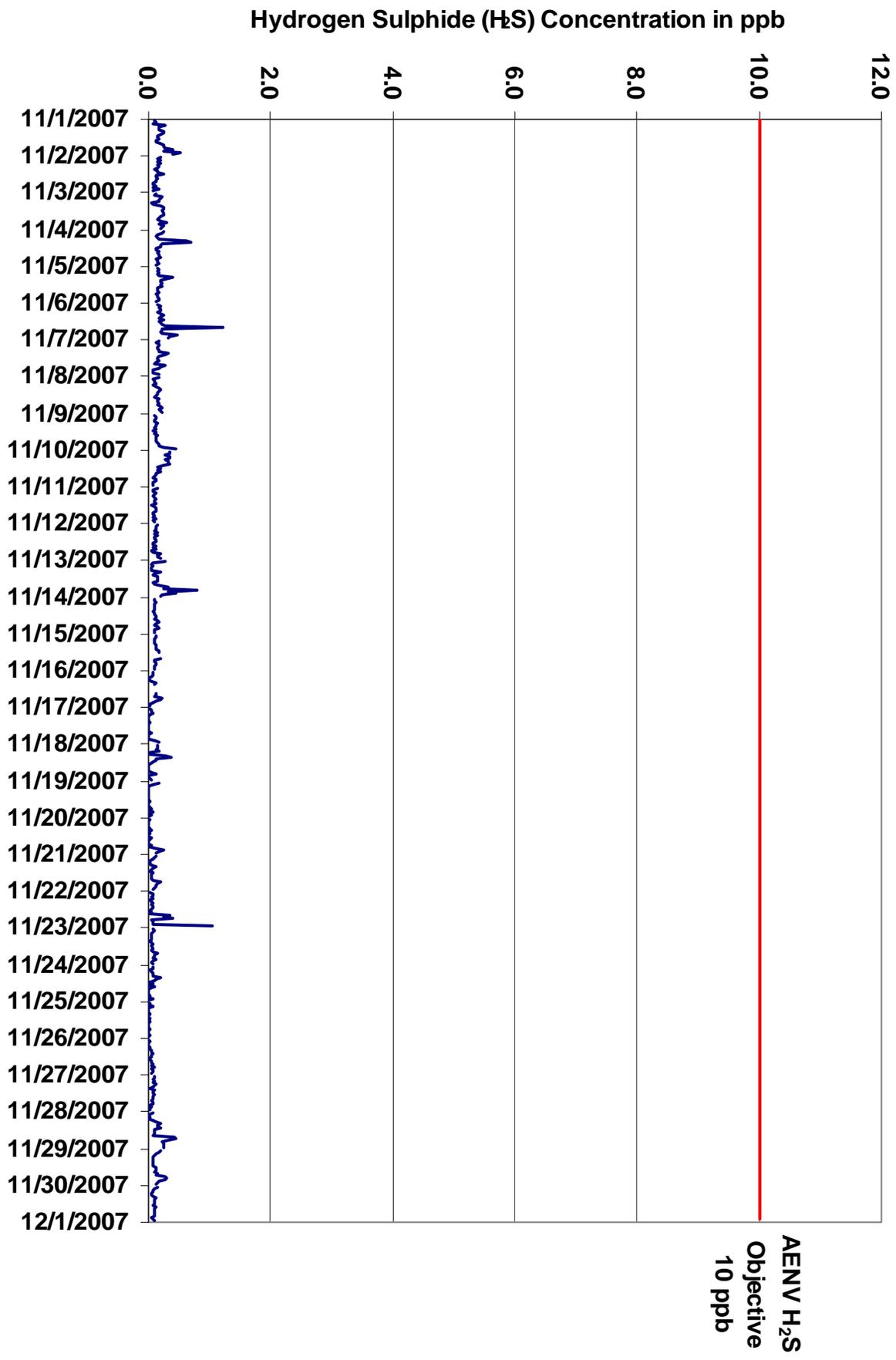


Figure 58. PASZA - Valleyview Hydrogen Sulphide 1-hr Average Monthly Trend

Station: Valleyview  
 Station Owner: PASZA

**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

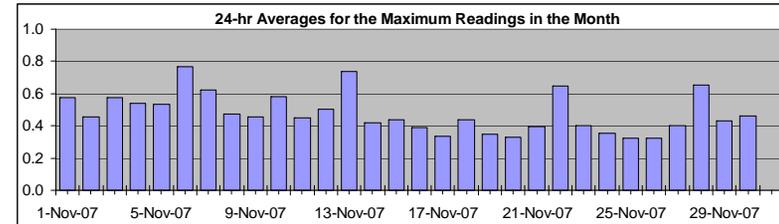
**Hydrogen Sulphide (H<sub>2</sub>S)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**

Maximum 1-hr Value:	4.8	ppb	6-Nov	16:00 17:00
Maximum 24-hr Value:	0.8	ppb	6-Nov	

AIC Time:	31 hrs	Operational Time:	682 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	99.6%						
Percentile	99	95	75	50	25	5	1	Average	Median
	1.5	0.8	0.5	0.4	0.3	0.3	0.2	0.5 ppb	0.4 ppb



**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Nov-07	A	0	1	0	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	0.6	0.9
2-Nov-07	A	1	1	0	0	1	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.5	0.6
3-Nov-07	A	0	0	1	1	1	1	0	0	1	1	1	0	1	1	1	1	0	0	1	0	1	1	1	0.6	0.9
4-Nov-07	A	1	1	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0.5	1.2
5-Nov-07	A	0	0	0	0	1	1	1	1	0	0	1	0	1	1	1	0	0	0	0	0	0	1	0	0.5	1.1
6-Nov-07	A	1	0	0	0	1	0	1	1	0	0	0	0	1	1	1	5	0	1	1	1	1	1	1	0.8	4.8
7-Nov-07	A	0	0	0	0	0	0	0	1	1	1	1	0	0	1	0	0	2	1	1	0	0	0	0	0.6	2.4
8-Nov-07	A	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	1	1	1	1	0	1	1	0.5	0.7
9-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	1	0.5	0.8
10-Nov-07	A	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0	0	2	0	0	0	0.6	1.5
11-Nov-07	A	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.4	1.2
12-Nov-07	A	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1	2	1	1	0.5	1.6
13-Nov-07	A	4	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1	0.7	3.9
14-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0.4	0.7
15-Nov-07	A	0	0	0	0	1	1	0	0	0	0	0	0	P	P	P	1	0	0	0	0	0	0	0	0.4	0.5
16-Nov-07	A	0	0	0	0	0	0	0	0	0	0	C	C	C	C	A	0	0	0	0	0	0	0	0	0.4	0.5
17-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.3	0.7
18-Nov-07	A	0	1	0	0	1	0	0	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0.4	0.9
19-Nov-07	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
20-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.3	0.5
21-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0.4	0.9
22-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	4	0.6	4.5
23-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.4	1.4
24-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.4	0.5
25-Nov-07	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
26-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
27-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0.4	1.0
28-Nov-07	A	0	0	0	0	0	0	1	1	0	1	1	0	0	1	0	3	1	1	1	1	1	1	1	0.7	3.4
29-Nov-07	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0.4	0.7
30-Nov-07	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0.5	1.5
Hourly Avg	N	0.6	0.4	0.4	0.5	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.6		
Hourly Max	0.0	3.9	0.7	0.8	1.2	0.9	0.6	1.2	1.1	1.1	0.8	0.6	0.6	1.0	0.7	0.7	4.8	2.4	1.0	1.3	1.5	1.6	0.9	4.5		

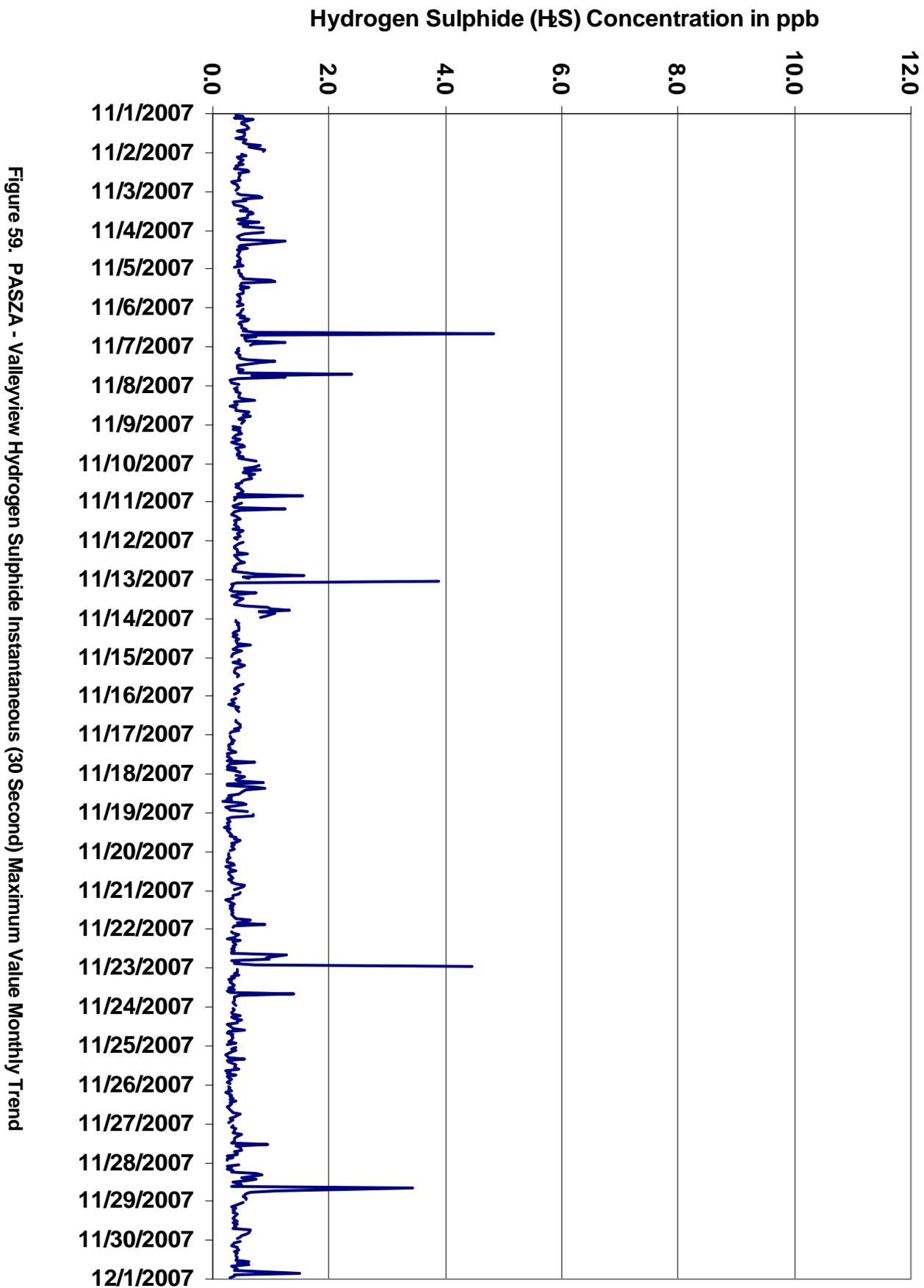
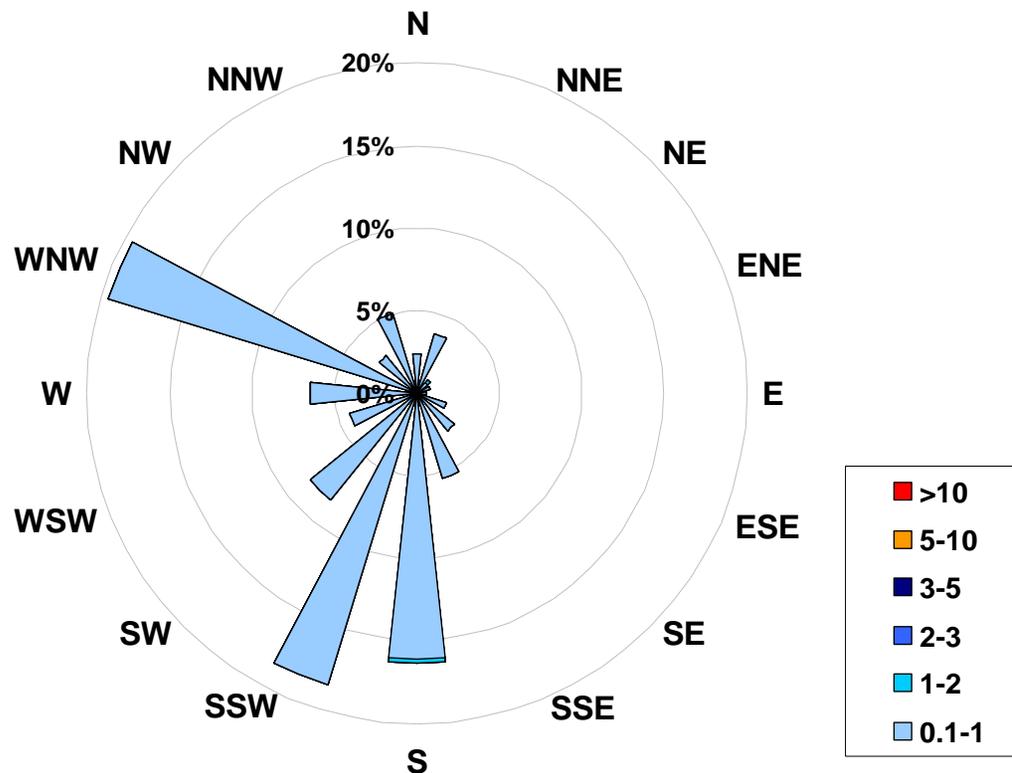


Figure 59. PASZA - Valleyview Hydrogen Sulphide Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Hydrogen Sulphide (in ppb) Located at the Valleyview Site for November 2007**



**Calms: 0%**

Frequency Distribution of H <sub>2</sub> S in ppb Range			Frequency (hrs)
0.1	<	1	680
1	to	2	2
2	to	3	0
3	to	5	0
5	to	10	0
	>	10	0
Total Non-Zero Values			682

# PASZA - Valleyview Relative Humidity Monthly Summary

Station: Valleyview  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

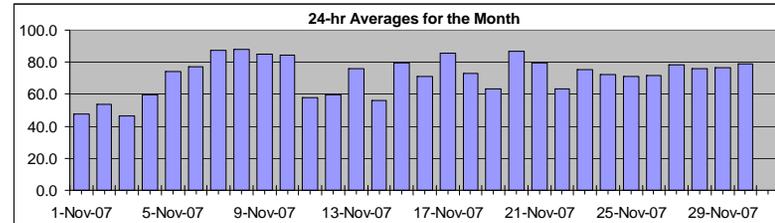
### Relative Humidity (RH)

Monitoring Dates: November 1, 2007 to December 1, 2007

#### Summary

Maximum 1-hr Average:	96.8	%	8-Nov	2:00 3:00
Maximum 24-hr Value:	87.8	%	8-Nov	

AIC Time:	0 hrs	Operational Time:	717 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	99.6%						
Percentile	99	95	75	50	25	5	1	Average	Median
	95.9	92.5	83.3	74.8	60.2	46.1	37.2	71.8 %	74.8 %



#### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Nov-07	58	59	61	62	58	55	55	53	51	48	43	40	37	35	33	33	37	41	42	45	47	49	50	53		47.7	61.9
2-Nov-07	58	61	63	59	57	57	57	55	55	55	53	48	52	55	51	50	44	46	48	48	53	56	50	54		53.6	63.1
3-Nov-07	55	53	53	54	53	44	45	46	47	44	41	40	37	35	34	35	36	39	43	48	52	55	60	63		46.3	63.4
4-Nov-07	65	67	68	68	69	70	70	69	65	60	55	53	49	43	42	44	44	49	53	54	60	67	69	76		59.5	75.8
5-Nov-07	78	85	84	87	88	89	91	89	85	79	76	69	64	58	52	48	49	70	76	76	75	72	72	71		74.3	91.0
6-Nov-07	73	76	80	79	80	79	79	82	84	83	81	74	61	56	56	58	63	72	79	87	92	93	93	93		77.3	93.4
7-Nov-07	93	91	91	93	95	95	96	96	96	96	94	92	91	88	85	85	84	84	75	70	70	70	77	95		87.6	96.5
8-Nov-07	96	96	97	95	91	88	89	88	89	88	87	80	78	76	74	77	83	88	92	95	92	92	91	86		87.8	96.8
9-Nov-07	81	78	76	74	72	74	86	85	85	87	88	88	84	83	82	84	86	87	88	91	94	94	95	96		85.0	96.1
10-Nov-07	97	94	91	91	91	93	92	93	92	90	85	82	84	80	85	87	82	89	88	86	70	63	59	62		84.5	96.6
11-Nov-07	57	56	59	65	66	62	63	61	63	66	62	60	52	44	44	47	53	56	58	58	58	57	62	64		58.0	65.8
12-Nov-07	66	58	59	60	58	59	59	52	53	54	49	41	39	47	57	56	55	52	60	63	74	82	91	91		59.8	90.9
13-Nov-07	92	89	85	80	81	87	88	87	85	80	80	78	78	77	74	73	73	68	64	59	59	60	61	60		75.7	92.0
14-Nov-07	60	62	62	63	63	61	64	67	70	66	58	50	46	43	43	43	47	51	55	57	56	55	52	51		56.1	70.4
15-Nov-07	50	61	83	83	85	80	83	86	84	84	82	78	78	P	P	P	79	80	79	81	84	86	84	83		79.6	86.2
16-Nov-07	76	74	74	73	72	71	73	73	72	71	68	66	61	63	60	58	62	66	70	71	76	80	89	92		71.2	92.4
17-Nov-07	93	87	88	91	93	93	92	90	90	87	87	86	83	80	73	79	85	86	86	85	83	81	77	79		85.6	93.4
18-Nov-07	84	91	95	96	96	93	88	81	77	74	71	63	60	57	56	57	60	64	72	66	61	62	63	66		73.0	95.9
19-Nov-07	66	65	66	67	71	76	77	75	68	67	60	51	47	47	47	46	53	56	60	63	67	72	73	75		63.1	76.6
20-Nov-07	77	83	89	90	90	90	90	90	90	89	88	86	83	83	83	79	81	84	87	93	93	92	91	89		87.0	93.2
21-Nov-07	88	88	87	87	87	86	86	86	85	84	83	78	70	62	57	58	61	65	71	78	87	88	89	89		79.2	89.4
22-Nov-07	86	82	66	57	53	55	59	68	76	73	68	55	51	49	49	51	55	57	58	62	64	69	75	79		63.3	86.3
23-Nov-07	81	84	86	85	85	85	86	85	87	85	79	75	69	62	58	58	61	63	67	71	74	75	71	72		75.2	86.9
24-Nov-07	74	77	80	79	75	74	75	75	83	90	93	93	92	84	65	56	56	58	73	72	59	56	52	51		72.5	92.6
25-Nov-07	52	52	51	52	53	55	59	60	67	84	84	83	82	82	83	81	80	80	79	78	78	77	77	78		71.1	84.4
26-Nov-07	76	76	75	75	76	77	77	71	74	78	78	77	69	65	67	69	70	70	70	67	66	67	68	71		72.0	78.0
27-Nov-07	74	80	82	82	83	84	85	83	80	77	74	74	73	75	76	75	76	78	79	74	74	80	82	83		78.4	84.8
28-Nov-07	83	79	76	73	72	73	77	80	80	79	71	75	67	69	68	68	75	82	83	80	81	79	78	78		76.1	83.3
29-Nov-07	78	78	77	78	77	76	76	74	76	75	76	76	71	69	67	67	73	83	83	84	83	81	80	80		76.6	84.5
30-Nov-07	79	79	78	78	77	77	79	80	81	80	79	77	76	75	76	77	79	82	80	81	80	80	81	83		79.0	83.2
Hourly Avg	74.9	75.4	76.1	75.9	75.5	75.3	76.5	76.0	76.3	75.8	73.1	69.6	66.2	63.4	62.0	62.1	64.7	68.2	70.6	71.5	72.1	73.0	73.8	75.4			
Hourly Max	96.6	95.8	96.8	95.7	95.9	95.5	96.2	96.5	96.4	95.9	93.5	92.6	91.9	88.0	85.5	87.1	86.3	88.9	92.4	94.6	93.8	94.2	95.0	96.1			

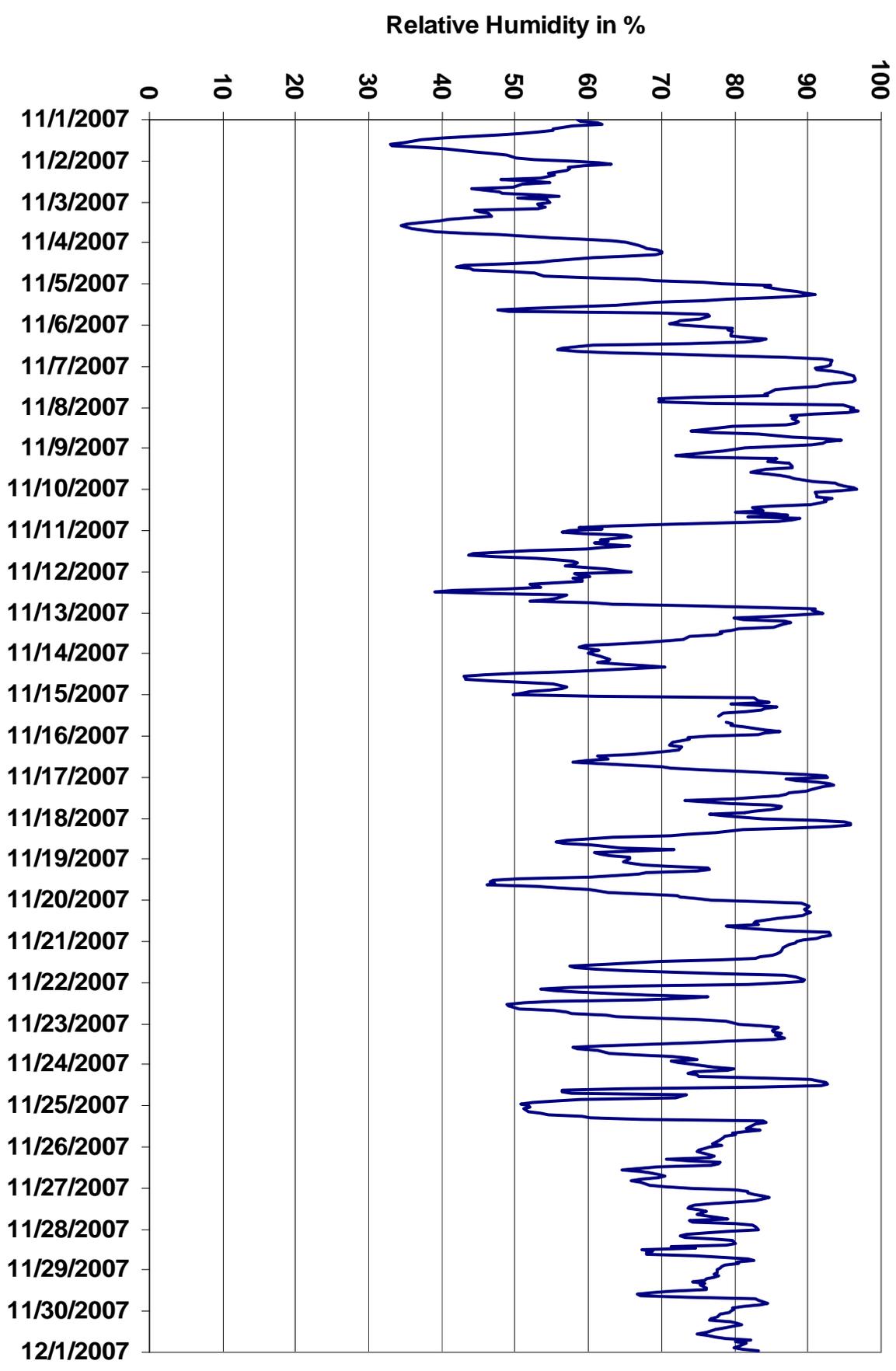


Figure 60. PASZA - Valleyview Relative Humidity 1-hr Average Monthly Trend

### PASZA - Valleyview Temperature Monthly Summary

Station: Valleyview  
 Station Owner: PASZA

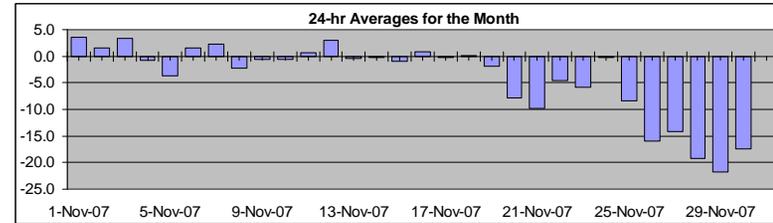
#### HOURLY AVERAGE TABLE

#### Ambient Temperature (T)

Monitoring Dates: November 1, 2007 to December 1, 2007

#### Summary

Maximum 1-hr Average:	7.1	°C	6-Nov	13:00 14:00
Maximum 24-hr Value:	3.5	°C	1-Nov	



AIC Time:	0 hrs	Operational Time:	717 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	99.6%						
Percentile	99	95	75	50	25	5	1	Average	Median
	6.5	4.6	0.9	-1.1	-7.7	-19.1	-26.4	-4.0 °C	-1.1 °C

#### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00		
1-Nov-07	3	3	2	2	2	3	3	2	2	3	4	5	5	6	6	7	5	4	4	3	3	2	2	1	3.5	6.5
2-Nov-07	0	-1	-2	-2	-1	-1	-1	0	-1	0	1	2	3	4	4	4	5	4	3	3	2	3	6	5	1.6	5.6
3-Nov-07	5	4	4	4	3	3	3	2	2	3	4	4	5	5	5	5	4	3	3	2	2	1	1	3.4	5.2	
4-Nov-07	1	0	0	0	-1	-2	-2	-2	-2	-2	0	1	1	2	2	2	1	0	-1	-1	-3	-4	-5	-6	-0.8	2.3
5-Nov-07	-6	-7	-7	-7	-8	-8	-9	-9	-8	-6	-4	-3	-2	-1	0	0	1	-1	-1	-1	-1	-1	-1	0	-3.7	0.5
6-Nov-07	0	0	0	0	0	0	0	0	-1	0	1	4	7	7	7	7	6	4	2	0	-1	-1	-2	-2	1.6	7.1
7-Nov-07	-2	-2	-1	-1	-1	-1	-1	0	0	0	2	3	4	4	5	5	5	5	6	7	6	6	5	2	2.3	6.7
8-Nov-07	1	0	-2	-2	-2	-3	-3	-4	-4	-4	-3	-2	-1	0	0	0	-1	-2	-3	-4	-4	-5	-4	-2.3	1.1	
9-Nov-07	-3	-2	-2	-1	0	0	-1	-1	-1	-1	0	0	0	0	1	1	1	0	0	0	-1	-1	-2	-2	-0.6	0.7
10-Nov-07	-3	-2	-2	-3	-3	-4	-4	-4	-4	-3	-1	0	1	2	2	2	2	1	1	1	2	2	1	0	-0.6	2.2
11-Nov-07	1	1	1	-1	-1	0	-1	-1	-2	-2	-1	0	2	5	5	4	3	2	2	1	1	1	0	-1	0.7	4.8
12-Nov-07	-1	0	0	0	1	2	3	3	2	2	3	6	7	7	6	5	5	5	4	4	5	3	1	1	3.0	7.0
13-Nov-07	1	0	0	-1	-2	-2	-3	-2	-2	-2	-2	-1	-1	-1	0	1	1	1	1	1	1	1	0	0	-0.5	1.3
14-Nov-07	0	-1	-1	-1	-1	-1	-2	-2	-3	-3	-1	1	2	3	3	2	1	0	-1	-1	-1	-1	-1	-1	-0.3	2.9
15-Nov-07	0	-1	-2	-2	-2	-2	-2	-2	-2	-2	-1	-1	0	P	P	P	0	0	0	0	0	-1	0	0	-0.9	0.3
16-Nov-07	0	0	0	-1	-1	-1	-1	-1	0	0	1	1	3	2	3	4	3	2	1	1	1	0	0	0	0.8	4.1
17-Nov-07	0	-1	-1	-1	-2	-2	-1	-1	-1	-1	-1	0	1	2	3	2	1	0	0	0	0	-1	0	0	-0.2	3.3
18-Nov-07	-1	-1	-1	-1	-1	0	1	1	1	0	1	1	2	2	2	1	1	0	-2	0	0	0	-1	-1	0.2	2.2
19-Nov-07	-1	-1	-2	-2	-3	-4	-4	-3	-3	-3	-2	0	1	1	1	1	0	-1	-2	-3	-3	-4	-4	-4	-1.9	1.5
20-Nov-07	-5	-6	-7	-7	-8	-8	-8	-8	-8	-8	-7	-7	-6	-6	-6	-6	-6	-7	-7	-9	-10	-12	-12	-13	-7.9	-5.3
21-Nov-07	-14	-14	-14	-14	-13	-13	-13	-13	-14	-14	-12	-10	-7	-4	-3	-3	-3	-4	-6	-7	-8	-9	-10	-11	-9.8	-2.5
22-Nov-07	-11	-10	-7	-4	-3	-3	-4	-7	-10	-10	-8	-3	-1	0	0	0	-1	-1	-2	-3	-4	-5	-6	-8	-4.6	0.3
23-Nov-07	-8	-9	-10	-10	-10	-10	-10	-10	-11	-11	-9	-6	-4	-2	-1	0	-1	-1	-2	-3	-3	-4	-4	-3	-5.9	-0.5
24-Nov-07	-4	-4	-5	-5	-4	-4	-4	-4	1	1	1	1	1	2	3	4	3	3	1	1	1	1	1	1	-0.3	3.5
25-Nov-07	1	1	1	0	0	0	-1	-1	-2	-7	-8	-8	-10	-11	-12	-13	-14	-15	-16	-16	-17	-17	-18	-18	-8.4	1.0
26-Nov-07	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-16	-14	-13	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-16.0	-13.4
27-Nov-07	-14	-15	-15	-15	-15	-14	-15	-15	-15	-15	-15	-15	-14	-13	-13	-13	-13	-13	-13	-13	-14	-14	-15	-15	-14.2	-12.9
28-Nov-07	-15	-17	-19	-19	-19	-19	-20	-21	-21	-21	-19	-19	-16	-15	-14	-14	-15	-18	-20	-22	-23	-25	-25	-26	-19.3	-13.8
29-Nov-07	-27	-27	-26	-26	-26	-28	-28	-29	-29	-28	-26	-22	-17	-13	-11	-11	-12	-15	-17	-19	-20	-20	-20	-21	-21.7	-10.8
30-Nov-07	-22	-23	-24	-24	-25	-26	-24	-21	-19	-16	-15	-14	-13	-13	-13	-13	-13	-13	-14	-14	-14	-14	-15	-15	-17.4	-13.0
Hourly Avg	-4.8	-5.1	-5.3	-5.4	-5.4	-5.5	-5.6	-5.8	-5.8	-5.5	-4.6	-3.3	-2.1	-1.3	-0.9	-1.0	-1.6	-2.3	-3.1	-3.6	-4.0	-4.4	-4.7	-5.2		
Hourly Max	4.6	4.3	3.9	3.5	3.2	3.4	3.0	2.7	2.4	2.9	3.9	5.6	7.0	7.1	6.9	6.5	5.6	5.0	6.2	6.7	6.3	6.3	5.6	5.2		

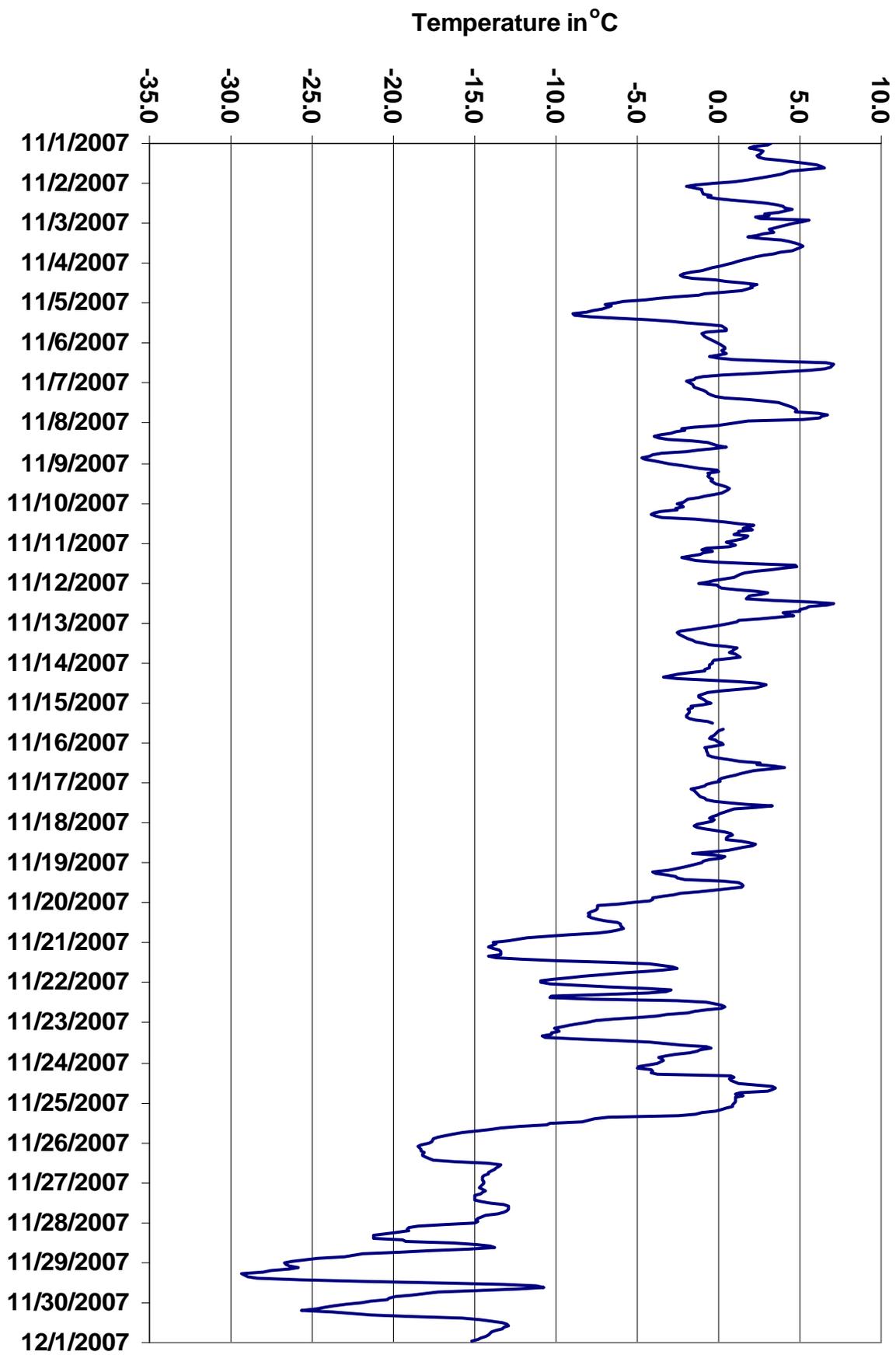


Figure 61. PASZA - Valleyview Temperature 1-hr Average Monthly Trend

# PASZA - Valleyview Scalar Wind Speed Monthly Summary

Station: Valleyview  
 Station Owner: PASZA

## HOURLY AVERAGE TABLE

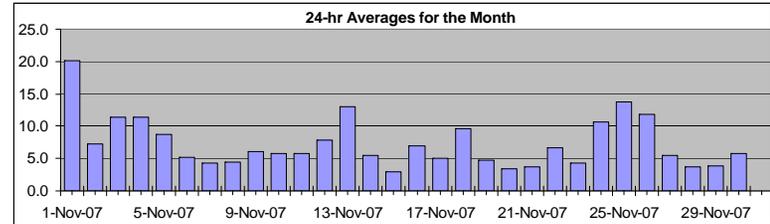
## Wind Speed (WSs)

Monitoring Dates: November 1, 2007 to December 1, 2007

### Summary

Maximum 1-hr Average:	28.5	km/hr	1-Nov	10:00 11:00
Maximum 24-hr Value:	20.1	km/hr	1-Nov	

Calm Time:	0 hrs	0% calms	Operational Time:	717 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	99.6%				
Percentile	99	95	75	50	25	5	1	AverageS
	25.1	18.7	9.9	5.4	3.5	1.9	1.2	7.3 km/hr



### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																							24-hr Scalar Average	Daily Max		
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Nov-07	9	10	8	11	17	21	19	20	22	25	29	27	26	25	26	26	25	22	24	22	20	20	16	10	20.1	28.5	
2-Nov-07	6	5	5	6	7	6	6	6	7	7	7	6	4	6	9	11	8	7	6	5	4	8	17	17	7.3	17.4	
3-Nov-07	18	17	16	14	16	19	12	11	5	11	17	16	13	13	11	5	5	6	6	6	6	7	11	10	11.3	18.8	
4-Nov-07	10	12	13	11	9	10	11	14	14	11	13	14	19	21	23	19	17	8	5	6	3	3	2	3	11.3	23.2	
5-Nov-07	4	3	4	3	2	1	2	3	2	4	5	9	11	14	14	12	15	16	15	16	16	11	10	8.7	16.2		
6-Nov-07	6	8	8	8	6	10	7	3	4	4	4	4	6	11	8	4	2	2	3	2	3	2	3	4	5.1	10.5	
7-Nov-07	3	2	3	3	3	3	3	3	1	2	5	7	4	7	5	5	4	4	8	9	6	4	4	5	4.3	8.8	
8-Nov-07	5	8	11	8	12	12	8	8	3	2	2	2	3	4	2	2	2	1	1	2	1	1	1	4	4.5	12.3	
9-Nov-07	9	10	9	7	10	11	10	9	8	6	8	10	9	7	5	2	2	2	1	3	2	2	1	2	6.0	10.7	
10-Nov-07	1	2	2	2	3	2	2	2	2	2	2	3	2	5	26	17	5	6	6	5	11	14	11	6	5.8	25.8	
11-Nov-07	9	11	8	5	8	5	6	7	7	6	8	6	6	7	6	6	5	5	5	3	4	5	2	2	5.8	10.7	
12-Nov-07	3	2	2	4	4	5	3	5	5	5	11	14	14	12	10	5	6	6	5	4	11	11	19	24	7.9	23.7	
13-Nov-07	18	20	24	22	19	17	14	12	12	13	10	11	9	9	12	13	9	10	7	12	14	11	6	9	13.1	24.4	
14-Nov-07	8	7	10	9	9	11	8	4	3	4	4	4	5	5	4	3	3	3	2	2	4	5	7	6	5.4	11.2	
15-Nov-07	4	5	3	2	2	2	2	3	3	3	4	4	3	P	P	P	2	3	3	1	4	3	2	2	2.9	4.9	
16-Nov-07	6	6	6	5	8	13	10	12	9	9	10	11	11	7	6	5	6	3	3	3	4	5	6	4	7.0	12.8	
17-Nov-07	6	4	3	2	4	3	4	5	5	4	3	4	3	2	5	10	6	4	5	5	6	8	12	9	5.0	12.4	
18-Nov-07	8	4	4	3	3	14	17	14	13	10	11	14	14	15	20	14	7	3	2	7	9	8	9	6	9.6	19.7	
19-Nov-07	6	7	7	6	5	3	3	3	4	4	5	4	5	9	9	7	6	4	4	1	2	3	2	5	4.8	8.9	
20-Nov-07	6	6	6	4	4	5	5	4	3	2	2	2	1	2	4	9	5	2	1	2	2	2	3	2	3.5	8.7	
21-Nov-07	2	3	2	2	3	3	4	3	3	4	3	4	5	4	3	4	4	3	4	4	5	5	5	5	3.6	5.4	
22-Nov-07	6	6	5	4	5	5	5	4	6	6	5	7	14	15	14	11	7	8	7	3	4	4	4	5	6.7	14.5	
23-Nov-07	3	2	4	5	6	4	5	5	4	4	5	6	7	6	4	4	3	2	4	3	5	4	4	4	4.3	7.0	
24-Nov-07	4	4	3	4	4	5	4	6	17	10	9	9	3	6	15	19	19	19	16	8	13	17	20	22	10.6	21.9	
25-Nov-07	15	16	18	17	14	10	4	9	7	11	11	13	15	14	17	16	17	18	17	16	18	15	13	10	13.7	18.5	
26-Nov-07	10	11	8	6	3	3	5	8	8	7	9	10	13	19	19	16	16	16	16	17	19	16	15	13	11.8	19.4	
27-Nov-07	12	6	5	6	4	2	2	5	6	8	5	5	4	3	7	7	5	4	6	11	10	5	2	1	5.5	12.5	
28-Nov-07	5	13	11	9	6	2	2	2	2	2	2	1	2	2	3	1	3	2	2	3	3	3	4	4	3.7	12.5	
29-Nov-07	4	4	3	5	4	5	5	5	4	6	4	5	4	4	2	2	3	4	3	2	3	4	4	2	3.8	5.8	
30-Nov-07	2	4	5	5	5	3	3	3	4	5	9	9	5	10	9	7	9	8	9	5	4	4	4	4	5.7	9.8	
1-hr Average	7.0	7.3	7.1	6.6	6.8	7.2	6.4	6.7	6.5	6.5	7.4	8.0	8.1	9.1	10.3	9.0	7.6	6.8	6.5	6.3	7.1	7.2	7.4	7.0			
Hourly Max	18.5	19.6	24.4	22.3	18.8	21.1	18.9	20.4	22.2	25.2	28.5	27.2	26.3	25.2	26.3	26.0	24.9	22.0	24.1	22.4	19.8	19.7	20.1	23.7			

# PASZA - Valleyview Vector Wind Speed Monthly Summary

Station: Valleyview  
 Station Owner: PASZA

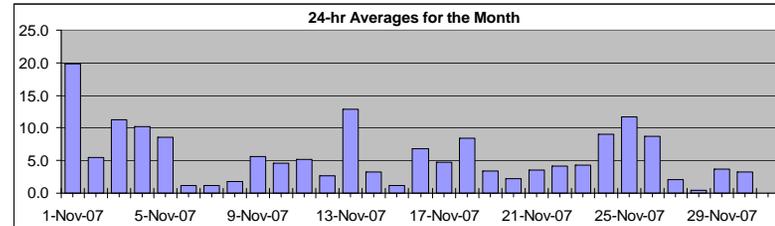
## HOURLY AVERAGE TABLE

### Wind Speed (WSv)

Monitoring Dates: November 1, 2007 to December 1, 2007

#### Summary

Maximum 1-hr Average:	28.3	km/hr	1-Nov	10:00 11:00
Maximum 24-hr Value:	19.8	km/hr	1-Nov	



Calm Time:	0 hrs	0% calms	Operational Time:	717 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	99.6%				
Percentile	99	95	75	50	25	5	1	AverageV
	24.9	18.5	9.8	5.2	3.2	1.3	0.3	10.8 km/hr

#### Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hr Vector Average	Daily Max	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Nov-07	9	10	8	11	17	21	19	20	22	25	28	27	26	25	26	26	25	22	24	22	20	20	16	10	19.8	28.3	
2-Nov-07	6	5	5	6	7	6	6	6	7	7	7	6	3	6	9	11	8	6	6	5	4	5	17	17	5.4	17.1	
3-Nov-07	18	17	16	14	16	19	12	11	4	11	17	16	13	13	10	5	5	6	6	6	6	7	11	10	11.2	18.6	
4-Nov-07	10	12	13	11	9	10	11	14	14	11	12	14	19	21	23	18	17	7	5	6	2	2	2	3	10.2	23.0	
5-Nov-07	4	3	4	3	2	1	2	3	1	4	5	9	11	14	14	12	15	15	15	16	16	16	11	9	8.6	16.2	
6-Nov-07	6	8	8	8	6	10	7	2	1	4	4	4	6	10	8	4	2	2	2	2	3	1	3	4	1.2	10.3	
7-Nov-07	3	2	2	3	3	3	3	3	0	2	5	7	4	7	5	5	4	3	7	9	6	4	3	5	1.2	8.6	
8-Nov-07	5	8	11	8	12	12	8	8	2	0	2	2	3	4	2	2	2	1	0	2	1	1	0	4	1.8	11.9	
9-Nov-07	9	10	8	7	10	10	9	9	8	6	7	10	9	7	5	2	2	1	0	1	2	2	1	1	5.6	10.4	
10-Nov-07	0	2	2	2	0	1	1	2	1	1	2	2	1	4	26	16	4	6	6	4	11	14	11	5	4.5	25.5	
11-Nov-07	9	11	8	5	8	5	5	7	6	6	8	6	6	7	6	5	5	4	5	3	4	4	2	2	5.2	10.6	
12-Nov-07	3	2	1	2	2	2	2	5	5	5	11	14	13	12	10	4	5	5	4	3	11	11	19	24	2.6	23.5	
13-Nov-07	18	19	24	22	19	17	14	12	12	13	10	11	9	9	11	12	9	10	7	12	14	11	6	8	12.9	24.2	
14-Nov-07	8	6	10	9	9	11	8	4	3	4	4	3	4	4	4	3	3	3	2	2	3	5	7	5	3.3	11.2	
15-Nov-07	4	4	1	1	2	2	2	3	3	4	4	3	P	P	P	1	3	3	1	3	3	0	2	1.2	4.3		
16-Nov-07	6	5	6	5	8	13	10	11	9	8	10	11	11	7	6	4	5	1	2	3	4	5	6	4	6.9	12.7	
17-Nov-07	6	4	1	2	3	3	4	4	4	3	3	3	2	2	5	10	6	4	5	4	6	8	12	9	4.8	12.3	
18-Nov-07	8	4	4	3	3	14	17	14	13	9	11	13	14	15	19	14	6	2	2	7	9	8	9	6	8.4	19.4	
19-Nov-07	6	7	7	6	5	3	3	3	4	4	5	4	4	8	8	7	6	4	4	0	1	3	0	5	3.5	8.5	
20-Nov-07	5	6	5	4	4	5	4	4	3	1	2	1	1	2	4	9	5	1	1	2	2	1	3	2	2.1	8.6	
21-Nov-07	2	2	2	2	3	3	4	3	3	4	3	4	4	4	3	4	4	3	4	4	5	5	5	5	3.5	5.3	
22-Nov-07	5	6	5	3	5	4	5	4	6	6	5	5	14	14	14	11	6	8	7	3	4	3	3	4	4.1	14.4	
23-Nov-07	3	2	4	4	6	4	5	5	4	4	5	6	7	5	4	4	3	2	4	3	5	4	4	4	4.3	6.9	
24-Nov-07	4	4	3	3	4	4	4	6	16	10	8	9	2	6	15	19	19	19	15	8	12	17	20	22	9.0	21.8	
25-Nov-07	15	16	17	17	14	10	4	9	7	11	11	13	15	14	17	15	17	18	17	16	18	15	13	10	11.7	18.4	
26-Nov-07	10	11	8	6	3	3	5	8	8	7	9	9	13	19	18	16	16	16	16	17	19	16	15	13	8.7	19.2	
27-Nov-07	12	6	5	6	4	2	2	4	6	8	5	5	4	3	7	7	5	4	6	11	10	5	2	1	2.1	12.3	
28-Nov-07	5	12	11	8	6	2	2	2	2	1	2	1	1	1	3	1	3	2	2	3	3	3	4	4	0.5	12.4	
29-Nov-07	4	4	3	4	4	4	5	5	4	6	4	5	4	4	2	2	3	4	3	2	3	4	4	0	3.6	5.7	
30-Nov-07	2	4	5	5	5	3	3	3	2	5	9	9	5	10	9	7	8	8	9	5	4	4	4	4	3.3	9.6	
1-hr Vector	3.1	3.1	3.3	3.2	3.7	3.6	3.1	3.0	3.3	3.4	3.6	3.7	3.6	3.7	4.3	3.9	2.4	2.3	2.3	2.7	3.4	3.6	3.7	3.2			
Hourly Max	18.3	19.4	24.2	22.1	18.6	21.0	18.8	20.3	22.0	25.0	28.3	27.0	26.0	24.9	26.0	25.8	24.7	21.9	24.0	22.3	19.7	19.6	20.0	23.5			

## PASZA - Valleyview Wind Direction Monthly Summary

Station: Valleyview  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

**Wind Direction (WD)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**


Calm Time: 0 hrs	0% calms	Operational Time: 717 hrs
Calibration Time: 0 hrs		AMD Operational Uptime: 99.6%
Percentile	99    95    75    50    25    5    1	Average
	354.7   331.1   282.3   204.5   180.0   17.2   6.7	260 deg

**Status Flag Characters**

C Calibration	A AIC - Zero / Span Check
S Instrument out of Service	X Filter Exchange
N No Data	M Equipment Maintenance
D Excessive Instrument Drift	P Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	WD Sector
1-Nov-07	248	256	255	266	283	280	281	283	288	289	294	297	297	296	295	290	290	289	288	287	289	288	280	287	WNW	
2-Nov-07	253	197	195	196	201	195	185	190	181	185	193	190	241	157	182	193	193	205	209	195	188	267	291	298	213	SSW
3-Nov-07	296	297	294	290	292	291	276	274	252	288	290	288	285	287	283	268	257	263	284	285	278	281	292	291	286	WNW
4-Nov-07	288	291	291	297	299	297	296	290	288	296	331	317	319	327	332	337	339	342	304	297	307	196	203	202	310	NW
5-Nov-07	191	180	198	179	181	208	206	193	190	182	158	180	182	176	178	180	184	186	182	184	186	188	185	189	183	S
6-Nov-07	180	187	190	194	187	193	195	332	56	206	196	182	309	336	328	302	54	44	56	346	358	5	357	24	229	SW
7-Nov-07	17	27	26	19	23	11	12	7	31	215	201	188	195	187	192	183	193	232	276	270	265	254	355	25	255	WSW
8-Nov-07	40	12	15	17	322	327	335	336	334	164	127	187	177	192	190	152	137	136	123	206	242	189	123	154	350	N
9-Nov-07	148	158	149	145	171	161	155	156	163	160	177	175	186	183	179	160	154	224	145	214	154	192	137	352	165	SSE
10-Nov-07	203	199	358	219	334	255	230	13	315	241	223	221	21	257	288	288	234	192	200	212	263	262	261	234	261	W
11-Nov-07	257	263	253	193	200	202	198	194	196	205	192	198	197	200	182	182	176	186	187	203	203	204	216	230	207	SSW
12-Nov-07	205	221	298	242	234	59	106	162	187	198	193	184	173	137	143	120	34	357	38	302	298	282	290	286	229	SW
13-Nov-07	285	289	296	300	305	301	302	299	288	295	293	290	289	291	293	292	287	284	272	286	287	285	267	275	292	WNW
14-Nov-07	275	258	267	266	267	265	256	218	230	208	224	227	241	221	199	163	134	144	119	126	123	130	136	124	227	SW
15-Nov-07	109	168	176	8	351	133	196	186	188	206	204	197	160	P	P	P	95	81	62	153	19	64	337	212	150	SSE
16-Nov-07	181	183	195	190	191	184	184	184	181	188	184	185	192	192	193	203	176	236	214	201	202	181	158	185	187	S
17-Nov-07	186	192	209	185	184	186	189	171	189	187	164	137	105	113	184	185	187	185	177	177	186	167	185	188	180	S
18-Nov-07	188	196	191	213	245	286	297	292	288	288	289	285	282	294	309	311	312	282	195	280	294	298	297	270	287	WNW
19-Nov-07	266	286	277	274	259	217	238	226	239	237	244	230	256	296	311	303	345	317	245	242	207	189	161	41	271	W
20-Nov-07	33	14	8	23	21	25	25	30	44	346	347	35	35	17	5	349	347	173	187	208	198	213	219	221	11	N
21-Nov-07	233	237	227	223	221	216	208	194	217	210	208	203	184	197	205	187	185	190	213	219	212	216	218	218	209	SSW
22-Nov-07	198	179	192	225	288	183	161	192	217	198	204	277	297	299	297	297	285	291	284	196	253	203	181	173	247	WSW
23-Nov-07	206	198	202	214	206	200	211	210	216	212	210	207	209	208	204	213	210	210	213	218	213	216	217	211	210	SSW
24-Nov-07	212	216	217	216	210	210	212	204	286	281	272	269	222	259	288	294	298	306	334	323	311	297	290	294	286	WNW
25-Nov-07	299	294	293	292	300	311	357	333	15	13	10	9	13	8	13	17	12	4	7	6	0	6	13	14	351	N
26-Nov-07	17	15	28	47	86	112	142	139	141	133	137	143	163	172	170	166	172	170	174	177	182	183	186	184	161	SSE
27-Nov-07	186	195	194	193	206	220	238	293	310	328	347	354	329	342	350	358	19	27	13	16	21	46	52	54	346	NNW
28-Nov-07	36	23	21	14	20	25	178	176	200	159	205	110	176	328	160	172	272	206	184	187	219	197	210	215	32	NNE
29-Nov-07	201	193	217	207	205	186	177	196	210	203	209	203	190	196	188	189	166	191	217	256	238	224	214	273	203	SSW
30-Nov-07	248	216	204	202	189	180	166	142	313	310	311	332	336	331	333	326	331	15	359	6	306	305	318	28	321	NW
Hourly Avg	250	262	270	263	264	258	246	247	253	252	250	247	255	267	279	281	276	268	265	259	265	252	260	264		

## PASZA - Valleyview Standard Deviation of Wind Direction Monthly Summary

Station: Valleyview  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

**Wind Direction (WD)**

Monitoring Dates: November 1, 2007 to December 1, 2007

**Summary**


Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	717 hrs			
Calibration Time:	0 hrs		AMD Operational Uptime:	99.6%			
Percentile	99	95	75	50	25	5	1
	88.3	63.4	21.5	11.9	8.6	6.1	4.9

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

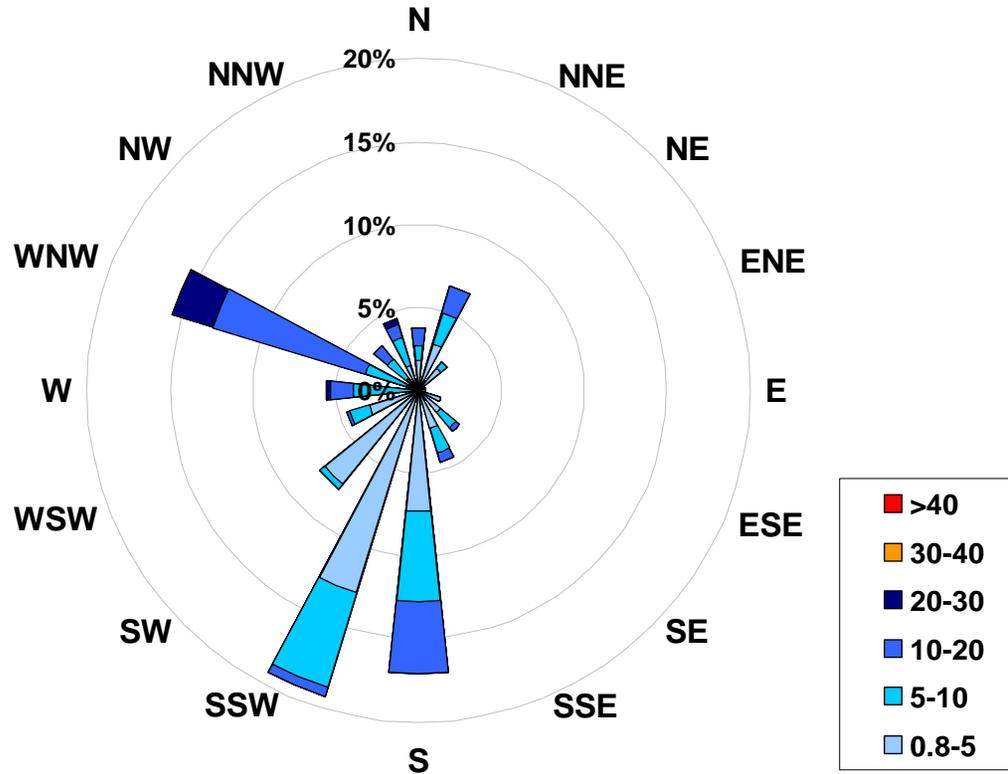
**Day Mountain Standard Time**

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	0:00	
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	0:00		
1-Nov-07	10	11	13	8	7	7	6	7	7	6	7	7	9	9	9	8	7	6	5	6	6	5	7	9			
2-Nov-07	18	13	14	8	6	9	12	17	23	14	11	14	42	12	11	7	7	6	10	17	27	51	9	10			
3-Nov-07	9	8	6	7	7	7	9	7	21	15	9	10	12	10	14	14	12	8	10	9	6	7	6	10			
4-Nov-07	8	6	4	6	8	7	7	5	6	8	13	12	10	9	7	12	6	17	25	7	82	32	22	14			
5-Nov-07	14	13	7	12	14	27	19	15	12	13	19	13	10	9	8	8	9	9	9	9	6	6	8	7			
6-Nov-07	12	9	9	7	13	6	10	59	83	11	14	14	48	12	12	16	62	39	51	46	28	49	23	15			
7-Nov-07	40	18	33	25	24	42	12	42	90	21	12	9	13	11	21	9	11	39	20	11	11	11	52	26			
8-Nov-07	16	16	10	10	22	11	8	13	59	81	29	40	36	19	45	15	13	29	70	20	24	39	81	12			
9-Nov-07	9	10	14	13	10	13	11	12	11	13	15	13	10	10	21	47	34	44	95	63	20	42	70	72			
10-Nov-07	91	65	68	45	90	57	60	80	64	56	30	64	88	28	9	18	35	12	9	23	7	6	9	14			
11-Nov-07	11	7	11	8	9	10	10	6	15	9	6	11	11	11	11	9	11	15	10	19	9	11	23	14			
12-Nov-07	10	10	51	63	55	70	67	15	10	7	6	13	17	13	12	37	38	64	21	63	19	17	9	7			
13-Nov-07	8	9	7	8	10	9	7	8	9	7	9	7	9	8	8	6	13	11	16	7	8	8	13	9			
14-Nov-07	8	11	5	7	7	6	10	11	9	8	19	24	25	21	11	32	14	14	28	26	23	10	7	12			
15-Nov-07	14	36	83	89	31	56	24	33	16	14	15	20	30	P	P	P	38	17	9	49	45	28	92	46			
16-Nov-07	12	14	11	14	7	8	8	10	9	10	8	11	9	16	12	14	22	64	18	27	16	13	28	22			
17-Nov-07	14	23	72	42	19	20	12	17	23	20	18	22	36	42	31	8	10	17	14	15	9	8	7	9			
18-Nov-07	8	12	11	21	31	12	8	7	7	10	11	10	12	14	9	9	17	53	32	12	7	8	8	16			
19-Nov-07	8	8	7	10	9	16	17	14	13	15	15	25	28	21	10	11	12	31	21	81	86	23	82	12			
20-Nov-07	14	10	7	15	14	12	14	17	19	30	31	55	66	29	22	9	10	79	35	19	19	20	6	6			
21-Nov-07	13	21	10	8	9	5	8	19	8	6	7	11	11	12	9	9	11	25	5	7	12	15	5	4			
22-Nov-07	20	11	22	34	31	49	22	44	9	29	13	65	7	7	7	6	26	11	10	39	23	28	25	6			
23-Nov-07	24	22	15	7	7	10	4	7	4	5	7	8	6	7	9	8	16	35	9	6	5	5	6	4			
24-Nov-07	7	7	8	9	10	8	15	12	14	9	14	11	37	38	9	7	6	7	10	13	13	8	6	5			
25-Nov-07	8	6	7	6	9	13	22	16	13	8	8	8	6	7	5	9	6	6	7	6	5	7	8	7			
26-Nov-07	9	8	11	17	45	27	19	13	13	10	9	12	11	9	12	10	10	11	10	10	7	9	9	9			
27-Nov-07	10	10	10	9	12	19	23	21	15	11	19	19	25	27	13	11	21	17	10	9	15	16	26	23			
28-Nov-07	23	9	9	9	11	51	34	22	20	50	40	62	90	70	25	50	21	25	22	23	26	23	14	6			
29-Nov-07	17	21	10	8	15	21	8	11	12	11	7	7	11	13	21	14	7	18	9	19	10	7	20	88			
30-Nov-07	35	10	12	13	14	20	47	25	88	23	13	14	17	9	9	8	22	8	8	8	25	17	8	20	57		

Daily Maximum
13.4
50.9
20.7
81.8
27.2
83.1
90.1
81.2
95.2
90.7
23.3
69.6
16.2
31.7
91.9
64.3
72.3
53.4
86.0
78.6
24.6
64.8
34.9
37.5
22.4
44.9
27.4
89.9
88.2
87.7

Hourly Max	91	65	83	89	90	70	67	80	90	81	40	65	90	70	45	50	62	79	95	81	86	51	92	88
------------	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

**1-hr Average Wind Rose (in km/hr) Located at the Valleyview Site for November 2007**



**Calms: 0%**

Frequency Distribution of Wind in km/hr			
Range			Frequency (hrs)
0.8	<	5	334
5	to	10	206
10	to	20	155
20	to	30	22
30	to	40	0
	>	40	0
Total Non-Zero Values			717

# PASZA

## Monthly Passive Data Summary

Table 1. PASZA Passive Stations for November 2007

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
<b>Duplicates</b>					
11a	Webber Creek	0.4	25.9	2.2	
11b	Webber Creek	0.4	25.3	2.4	
18a	Saddle Hills	0.6	29.4	1.6	
18b	Saddle Hills	0.7	28.3	1.7	
40a	McLennan	0.4	31.9	1.3	
40b	McLennan	0.5	31.4	1.4	
43a	High Prairie	0.2	27.8	1.9	
43b	High Prairie	0.2	27.2	2.1	
57a	Dixonville	0.2	29.8	1.3	
57b	Dixonville	0.2	32.3	1.5	
49a	Grande Prairie HP	0.3	20.2	9.5	
49b	Grande Prairie HP	0.4	19.8	10.3	
1	Silver Valley	0.5	29.4	2.1	08-27-081-11 W6M
2	Bay Tree	0.3	29.8	1.4	13-16-078-13 W6M
3	Forth Creek	0.5	33.4	1.3	04-13-082-07 W6M
4	Gordondale	0.5	31.9	1.6	04-34-078-10 W6M
5	Boone Creek	0.3	27.0	1.9	01-23-076-11 W6M
7	Steeprock Creek	0.4	33.9	1.2	09-35-072-13 W6M
9	Spirit River	0.5	28.5	1.9	08-12-079-07 W6M
10	Woking	0.4	30.3	1.1	01-13-076-07 W6M
11	Webber Creek	0.4	25.6	2.3	09-36-074-09 W6M
12	Hythe	0.3	29.6	2.2	14-36-072-11 W6M
14	Sylvester	0.1	27.7	1.2	08-06-069-12 W6M
16	Beaverlodge	0.4	31.5	2.8	15-36-071-10 W6M
17	Poplar	0.4	26.6	2.4	13-06-073-08 W6M
18	Saddle Hills	0.7	28.8	1.7	04-25-074-07 W6M
19	Wanham	0.5	32.9	1.7	16-22-077-03 W6M
20	Shaftesbury	0.2	27.2	1.6	04-03-082-23 W5M
21	Eaglesham	0.2	28.1	1.3	16-21-079-25 W5M
23	Bear Lake	0.3	25.0	2.7	15-31-072-06 W6M
24	Wembley	0.2	25.9	2.4	12-31-070-08 W6M
25	Pinto Creek	0.2	27.3	1.4	04-24-069-11 W6M
26	Flyingshot	0.3	27.8	2.8	15-36-070-07 W6M

**Table 1. PASZA Passive Stations for November 2007 (Continued)**

<b>Station Number</b>	<b>Station Name</b>	<b>SO2 ppb</b>	<b>O3 ppb</b>	<b>NO2 ppb</b>	<b>Site Legal</b>
27	Grande Prairie I	0.8	28.7	6.2	08-15-071-06 W6M
28	Clairmont Lake	0.4	29.0	2.4	09-06-073-04 W6M
29	Smoky Heights	0.6	28.3	2.3	04-06-075-02 W6M
30	Fitzsimmons	0.3	21.9	2.1	15-36-072-03 W6M
32	Gold Creek	0.2	16.5	3.0	06-33-067-05 W6M
33	Wapiti	0.2	24.6	2.2	02-25-071-03 W6M
34	Puskaskau	0.1	23.0	0.9	15-35-074-25 W5M
35	Jean Cote	0.4	28.8	1.5	12-35-079-21 W5M
36	Guy	0.3	30.5	1.5	03-04-076-22 W5M
37	Crooked Creek	0.3	24.6	2.3	16-01-071-26 W5M
38	Karr Creek	N/A	N/A	N/A	10-16-065-02 W6M
39	Clouston Creek	0.3	28.2	1.8	12-01-073-22 W5M
40	McLennan	0.5	31.7	1.4	03-29-077-19 W5M
41	Valleyview	0.7	31.9	1.7	09-30-069-22 W5M
42	Sunset House	0.5	33.2	1.5	05-32-070-19 W5M
43	High Prairie	0.2	27.5	2.0	16-13-074-17 W5M
44	Peavine	0.2	26.2	0.8	03-05-079-15 W5M
45	Gift Lake	0.1	26.4	0.9	10-07-079-12 W5M
46	Little Smoky	0.3	20.7	4.3	12-01-065-21 W5M
47	Kinuso	0.2	26.3	1.2	12-10-073-10 W5M
48	Deer Mountain	0.3	26.2	1.3	15-22-068-09 W5M
49	Grande Prairie HP	0.4	20.0	9.9	17-26-071-06 W6M
50	Clear River	0.6	32.0	1.7	SE-03-084-12 W6M
51	Bear Canyon	0.8	30.1	1.3	SE-28-085-12 W6M
52	Worsley	0.3	26.6	1.7	NE-34-085-07 W6M
53	Hines Creek	0.3	27.2	1.5	SW-09-084-04 W6M
54	Ronan	N/A	N/A	N/A	SE-03-082-04 W6M
55	Cadotte Lake School	0.1	21.0	1.8	NE-23-086-16 W5M
56	Simon Lake Store	0.9	27.3	1.4	SE-32-086-17 W5M
57	Dixonville	0.2	30.4	1.6	SE-14-087-24 W5M
58	Queen Elizabeth Park	0.3	34.8	1.6	NW-19-083-23 W5M
59	Blue Sky	0.4	31.4	2.3	SW-35-081-02 W6M
60	Gerry Lake	0.2	28.5	0.9	SW-22-084-02 W6M
61	Musreau Lake	0.2	29.9	0.7	NE-22-064-05 W6M

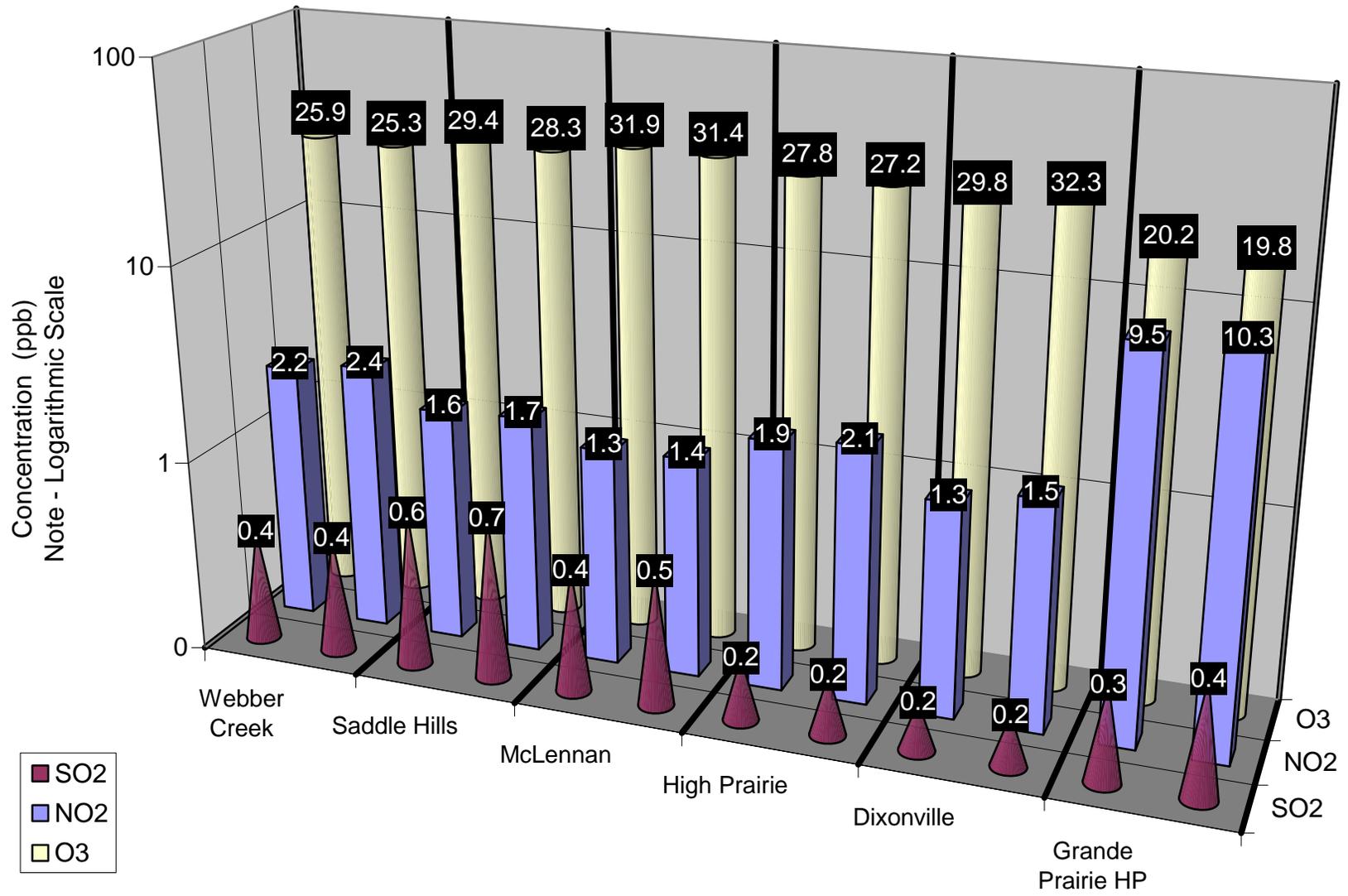


Figure 62. Duplicate Summary Chart

**Table 2. Passive Summary Results for November 2007**

Stats	Sulphur Dioxide SO <sub>2</sub>	Ozone O <sub>3</sub>	Nitrogen Dioxide NO <sub>2</sub>
	ppb	ppb	ppb
<b>Passive Summary for November 2007 (PASZA Zone)</b>			
Mean	0.4	28.0	2.0
Standard Deviation	0.2	3.7	1.4
Minimum	0.1	16.5	0.7
Minimum At	Sylvester (#14)	Gold Creek (#32)	Musreau Lake (#61)
Maximum	0.9	34.8	6.0
Maximum At	Simon Lake Store (#56)	Queen Elizabeth Park	Grande Prairie HP (#49)
<b>Comparison between Continuous and Passive monitoring at Beaverlodge (passive #16 Beaverlodge)</b>			
	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
AENV Beaverlodge station	0.5	26.7	4.7
PASZA Beaverlodge passive	0.4	31.5	2.8
<b>Comparison between Continuous and Passive monitoring at Henry Pirker (passive #49 Grande Prairie HP)</b>			
	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
PASZA Henry Pirker station	0.2	17.5	13.3
PASZA Grande Prairie passive	0.4	20.0	9.9
<b>Comparison between Continuous and Passive monitoring at Spirit River (passive #9 Spirit River)</b>			
	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
PASZA Portable Spirit River station	0.5	23.0	4.9
PASZA Spirit River passive	0.5	28.5	1.9

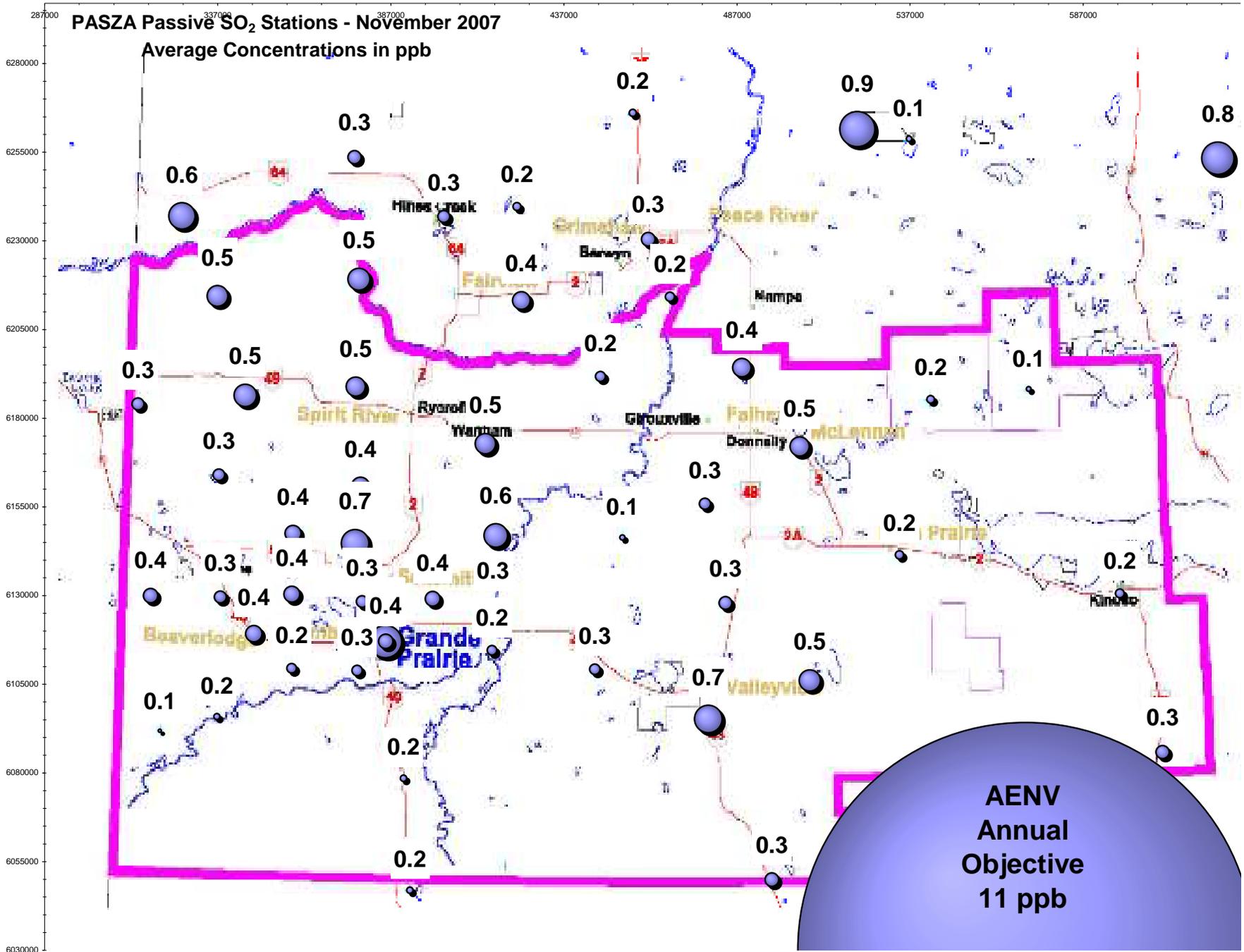
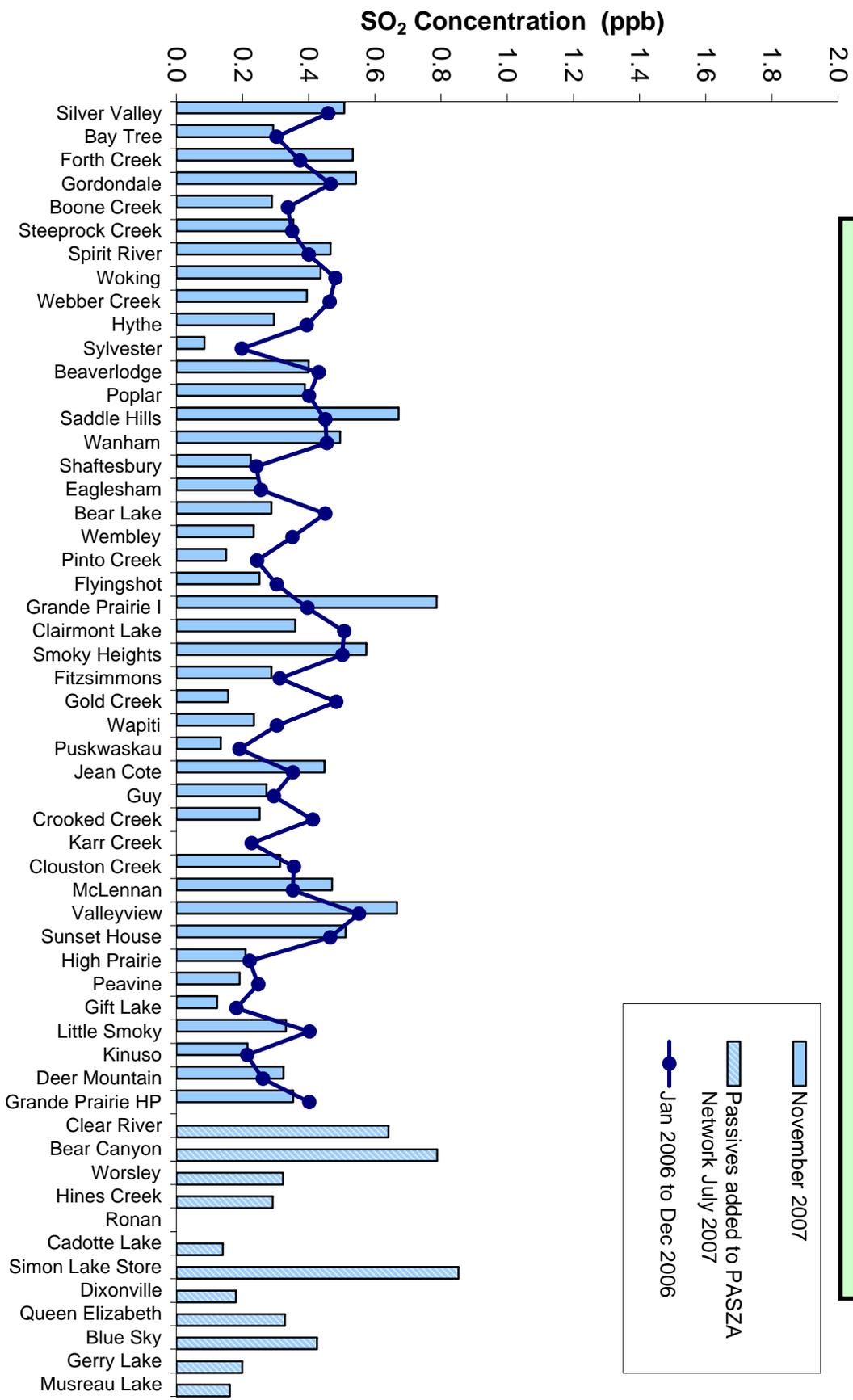


Figure 63. SO<sub>2</sub> Bubble Chart

**Alberta Ambient Air Quality Objective - Annual SO<sub>2</sub> Objective is 11 ppb**



**Figure 64. SO<sub>2</sub> Summary Chart**

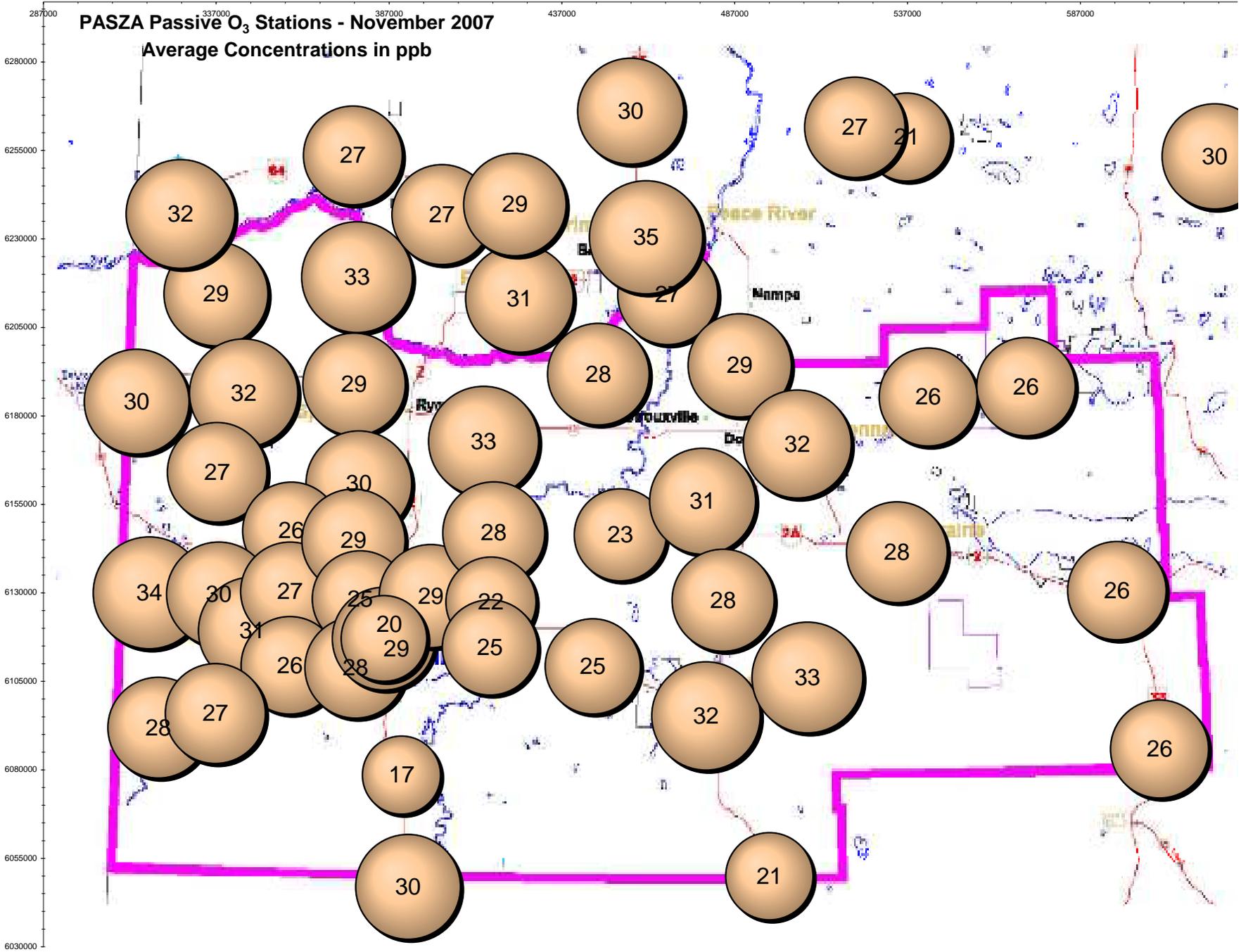
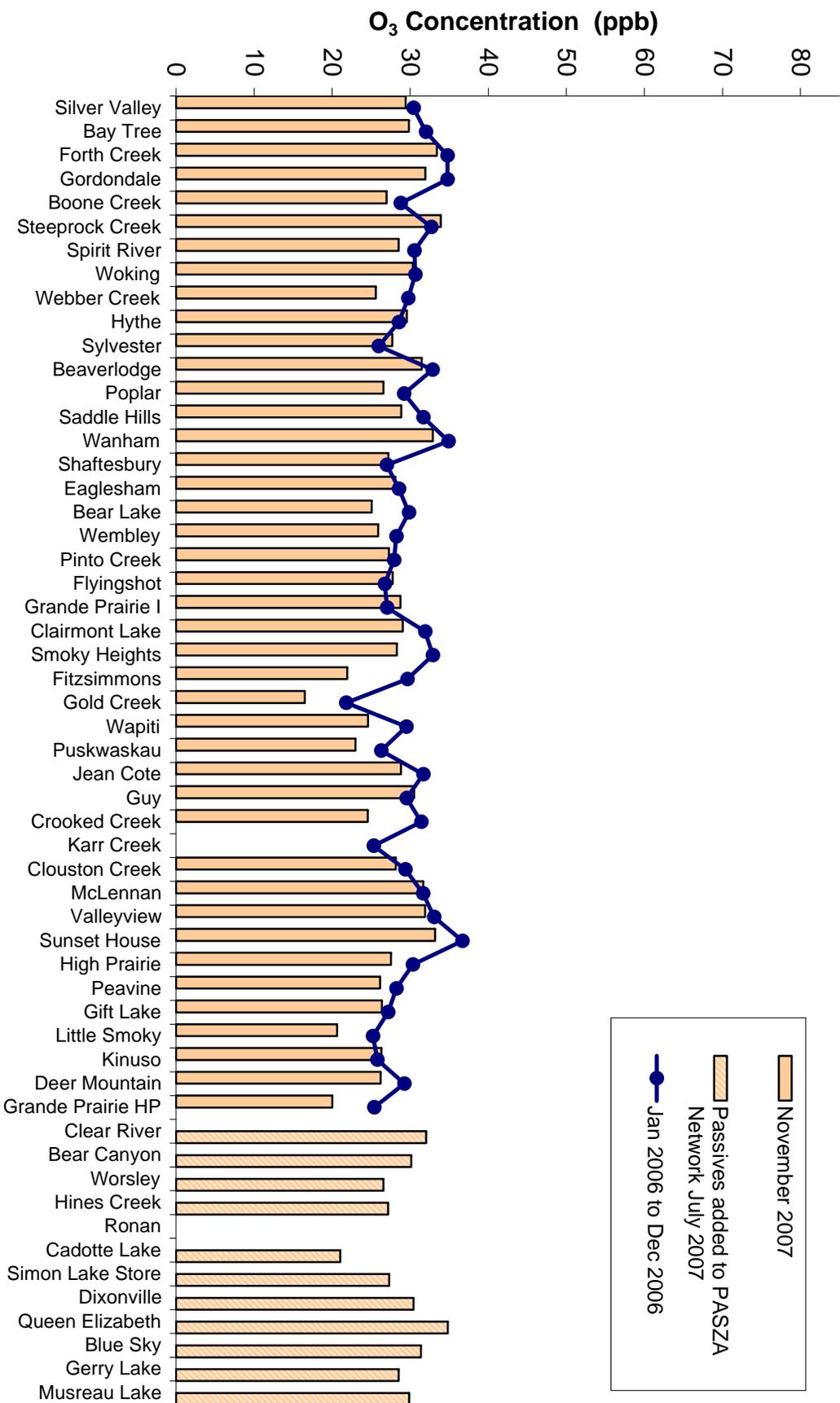


Figure 65. O<sub>3</sub> Bubble Chart

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



**Figure 66. O<sub>3</sub> Summary Chart**

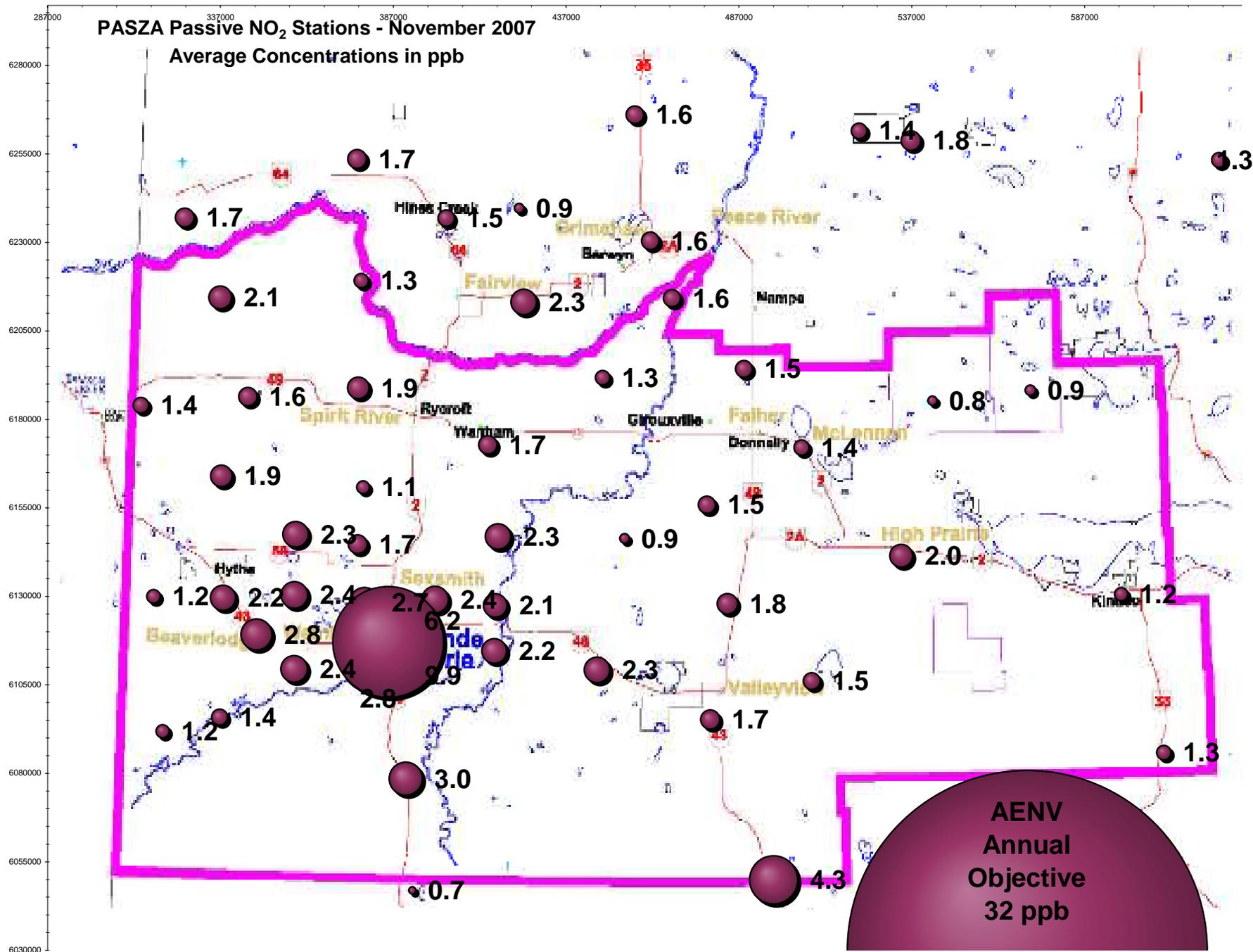


Figure 67. NO<sub>2</sub> Bubble Chart

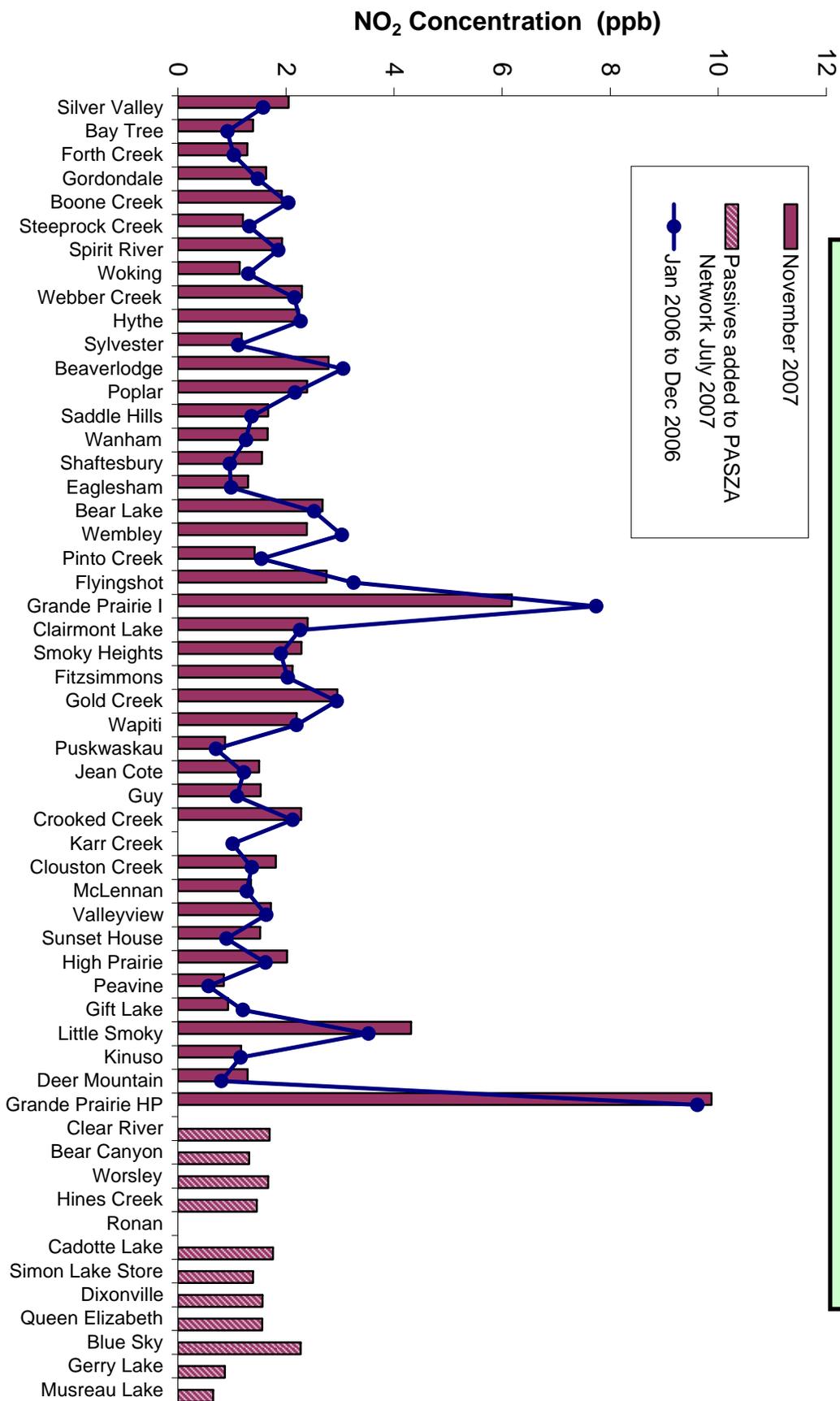


Figure 68. NO<sub>2</sub> Summary Chart

## **November 2007 Calibration Reports**

**PASZA - 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 and TRS**

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

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

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

**PASZA – Spirit River (Portable) Station with the following calibrations:  
SO<sub>2</sub>, TRS, NO, NO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>,**

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

**Calibration Report**Parameter **SO2**Air Monitoring Network **PASZA****Station Information**

Calibration Date	November 19, 2007	Previous Calibration	October 9, 2007
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			Other: <input type="checkbox"/>
Start Time (MST)	11:40	End Time (MST)	14:30
Barometric Pressure	0.923 ATM	Station Temperature	20.0 Deg C
Calibrator	Envionics 6100	Serial Number	3474
Cal Gas Conc	50.3 ppb	Cal Gas Expiry Date	1/2/2009
		Cal Gas Cylinder #	LL16161
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	1.015561	Calculated slope	1.018804
Calculated intercept	-1.091765	Calculated intercept	-0.803087
Analyzer make	TEI 43C	Analyzer serial #	610816292

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	7.3		7.4	
Coefficient	0.785		0.785	
Pressure	652.7	mm Hg	644.3	mm Hg
Flow	0.462	lpm	0.463	lpm
Lamp Voltage	44181	Hz	44088	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)
4991	0.00	0.0	0.1	N/A
4991	39.82	398.1	391.3	1.0175
4991	19.95	200.3	197.5	1.0140
4991	9.96	100.2	99.9	1.0023
4991	0.00	0.0	0.1	As Found Zero
4991	39.82	398.1	391.3	As Found Span
Average Correction Factor				1.0113

Calculated value of As Found Response: 396.2 ppb      Percent Change of As Found: 0.5%

	before calibration		after calibration	
Auto zero	0.5	ppb	0.5	ppb
Auto span	344.1	ppb	345.8	ppb

Notes: No Adjustments MadeCalibration Performed By: Conor Whiteley

## Calibration Summary

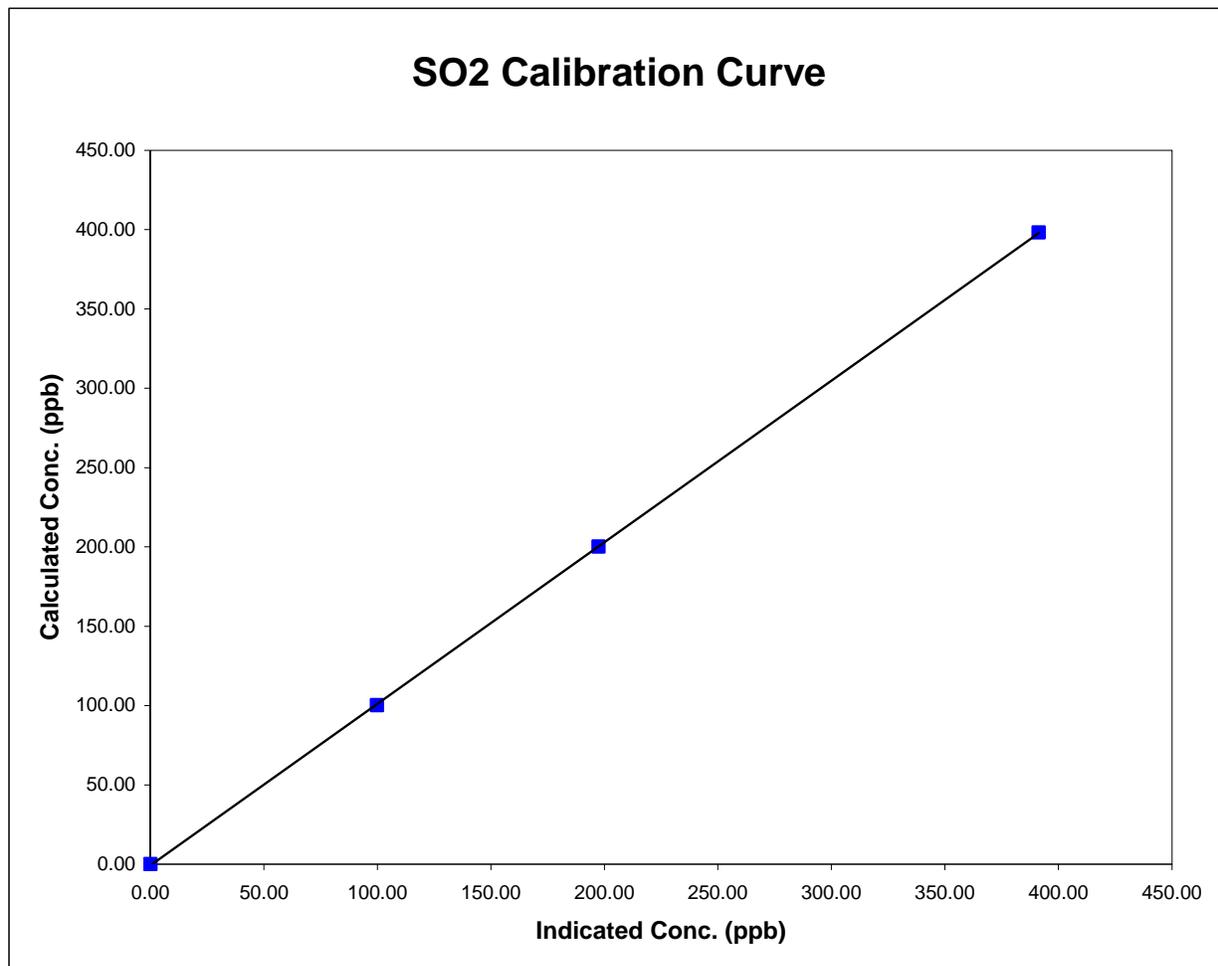
Parameter **SO2**Air Monitoring Network **PASZA**

### Station Information

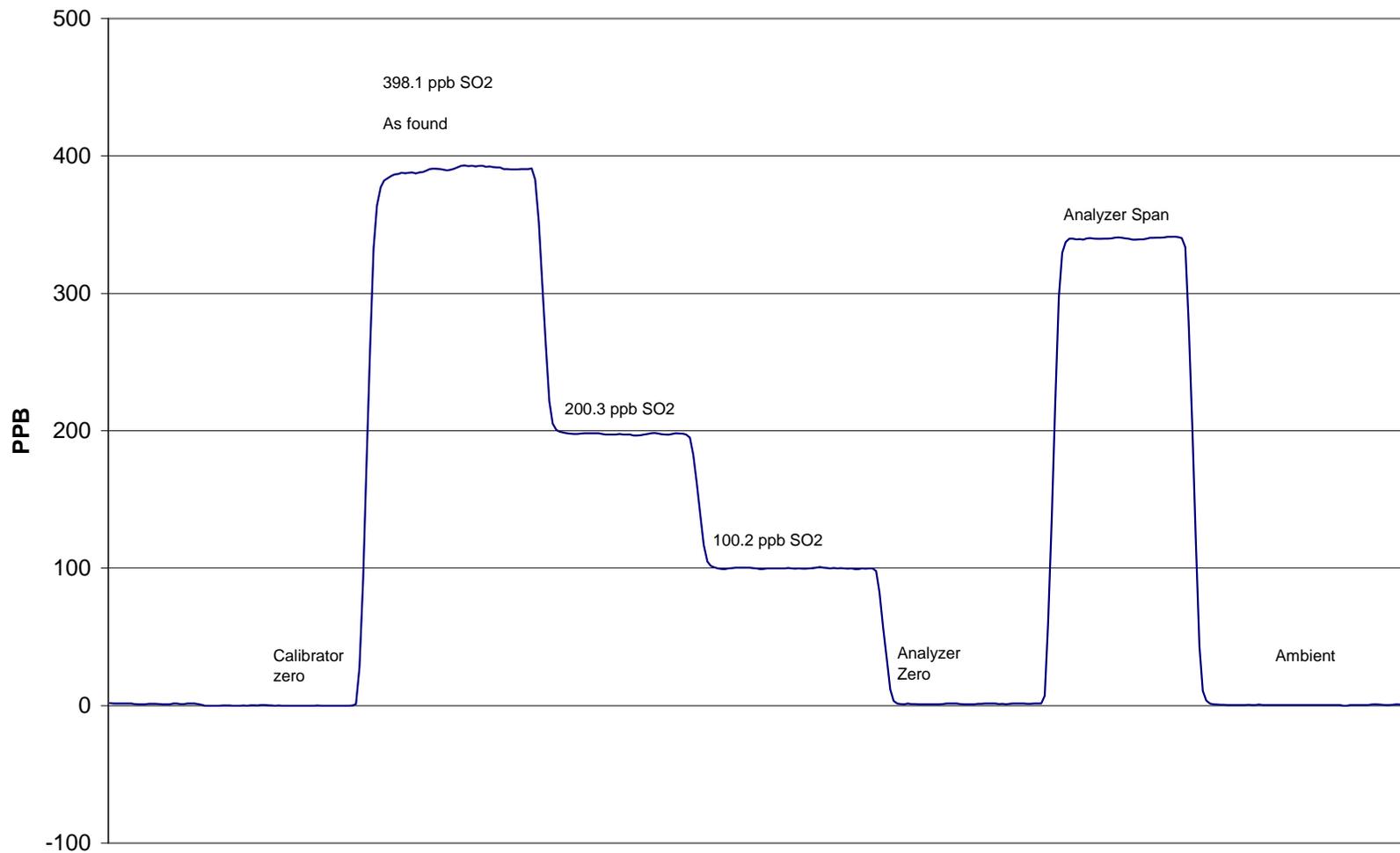
Calibration Date	November 19, 2007	Previous Calibration	October 9, 2007
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:40	End Time (MST)	14:30
Analyzer make/model	TEI 43C	Analyzer serial #	610816292

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
398.1	391.3	1.0175	Correlation Coefficient	0.999985
200.3	197.5	1.0140		
100.2	99.9	1.0023	Slope	1.018804
			Intercept	-0.803087



### Henry Pirker SO2 Calibration



November 19, 2007

# Calibration Report

Parameter

NOx-NO-NO<sub>2</sub>

Air Monitoring Network

PASZA



## Station Information

Calibration Date	November 19, 2007	Previous Calibration	October 9, 2007
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Installation	<input type="checkbox"/> Removal
Start Time (MST)	11:45	End Time (MST)	14:05
Barometric Pressure	0.923 Atm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
NO Cal Gas Conc	48.9 ppm	Cal Gas Expiry Date	1/2/2009
NOx Cal Gas Conc	48.9 ppm	Cal Gas Serial #	LL16161

## DACS Information

DACS make FOCUS AP1000 DACS serial No. 45269

Parameter		NO2	NOx	NO
Before	Data Slope	0.993843	0.997197	1.001047
	Data Offset	-0.206897	-1.706207	-1.352586
After	Data Slope	1.002362	1.002510	1.003047
	Data Offset	-0.892123	-2.156176	-1.442479
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

## Analyzer Information

Analyzer make/model Teco 42C Analyzer serial # 508011073

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO background	7.8	ppb	7.8	mV
NOx background	8.2	ppb	8.2	mV
NO coefficient	0.678		0.678	
NOx coefficient	1.000		1.000	
Chamber Temp	49.6	Deg C	49.8	Deg C
Cooler Temp	-2.4	Deg C	-2.5	Deg C
Converter Temp	319.0	Deg C	318.0	Deg C
Vacuum	167.3	mm Hg	165.5	mm Hg

Notes:

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# Calibration Report



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

## Station Information

Calibration Date: **November 19, 2007** Station Location: **Henry Pirker**

### Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NOx Correction factor	NO Correction factor
zero	4989	0.00	0.0	0.0	0.0	0.9	0.0	0.8	N/A	N/A
1	4989	39.88	387.8	387.8	0.0	388.3	387.3	0.9	0.9988	1.0013
2	4989	19.92	194.5	194.5	0.0	196.9	196.1	0.8	0.9878	0.9916
3	4989	9.96	97.4	97.4	0.0	100.6	100.0	0.5	0.9685	0.9741
AFZ	4989	0.00	0.0	0.0	0.0	0.9	0.0	0.8	0.0000	0.0000
AFS	4989	39.88	387.8	387.8	0.0	388.3	387.3	0.9	0.9988	1.0013
Average Correction Factor									0.9850	0.9890

As Found Concentrations: NO<sub>x</sub>= 385.7 NO= 385.9 As Found Percent Change NO<sub>x</sub>= -0.5% NO= -0.5%

### GPT Calibration Data

Dilution Flow 4989 ccm Source Gas Flow 39.88 ccm

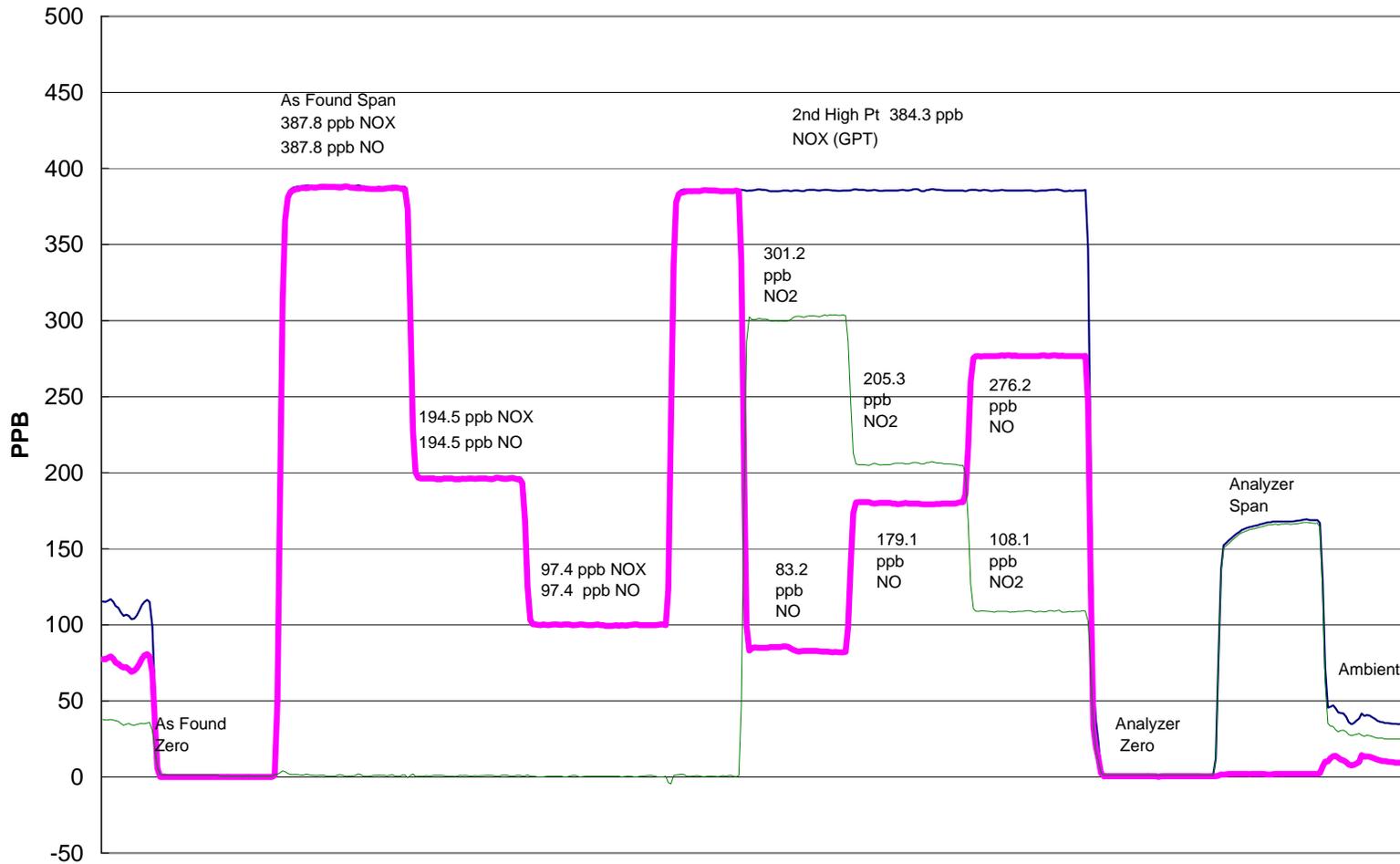
O3 Setpoint (ppb)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NOx Correction factor	NO Correction factor	NO <sub>2</sub> Correction factor	Converter Efficiency
0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A	N/A
NO point	384.3	384.9	-0.6	385.7	385.2	0.5	0.9964	0.9993	N/A	N/A
300	384.3	83.2	301.2	385.5	84.4	301.2	0.9971	0.9859	0.9998	100.0%
200	384.3	179.1	205.3	385.6	180.0	205.8	0.9967	0.9950	0.9974	100.3%
100	384.3	276.2	108.1	385.5	276.8	108.9	0.9970	0.9978	0.9930	100.7%
Average Correction Factor							0.9969	0.9929	0.9967	100.3%

### AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO <sub>2</sub>	NO		NOx	NO <sub>2</sub>	NO	
Auto zero	0.9	1.0	1.0	ppb	-1.7	0.8	0.4	ppb
Auto span	165.0	164.5	0.1	ppb	165.8	165.3	0.5	ppb

Calibration Performed By: Conor Whiteley

### Henry Pirker NOx Calibration



November 19, 2007

## Calibration Summary

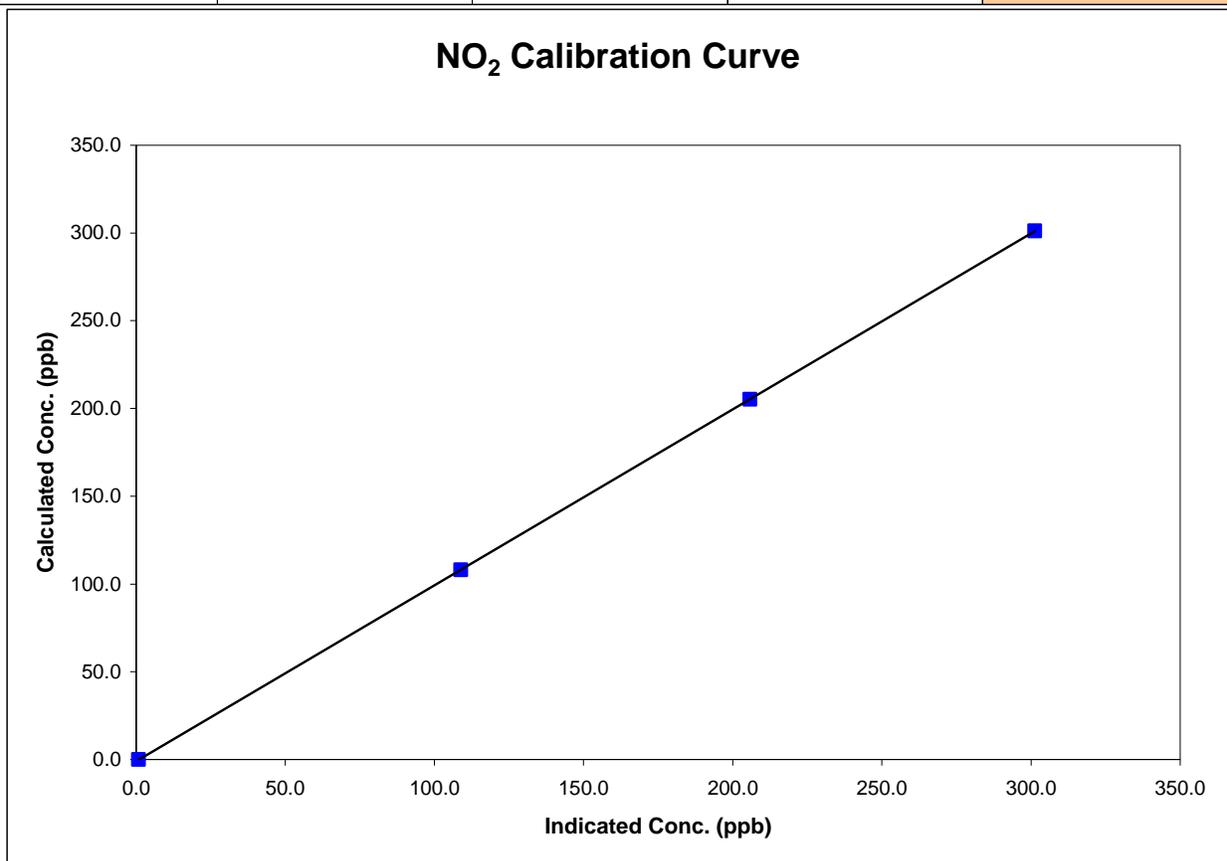
Parameter **NO<sub>2</sub>**Air Monitoring Network **PASZA**

### Station Information

Calibration Date	November 19, 2007	Previous Calibration	October 9, 2007
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:45	End Time (MST)	14:05
Analyzer make	Teco 42C	Analyzer serial #	508011073

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.8	0.0000	Correlation Coefficient	0.999999
301.2	301.2	0.9998		
205.3	205.8	0.9974		
108.1	108.9	0.9930		
			Slope	1.002362
			Intercept	-0.892123



## Calibration Summary

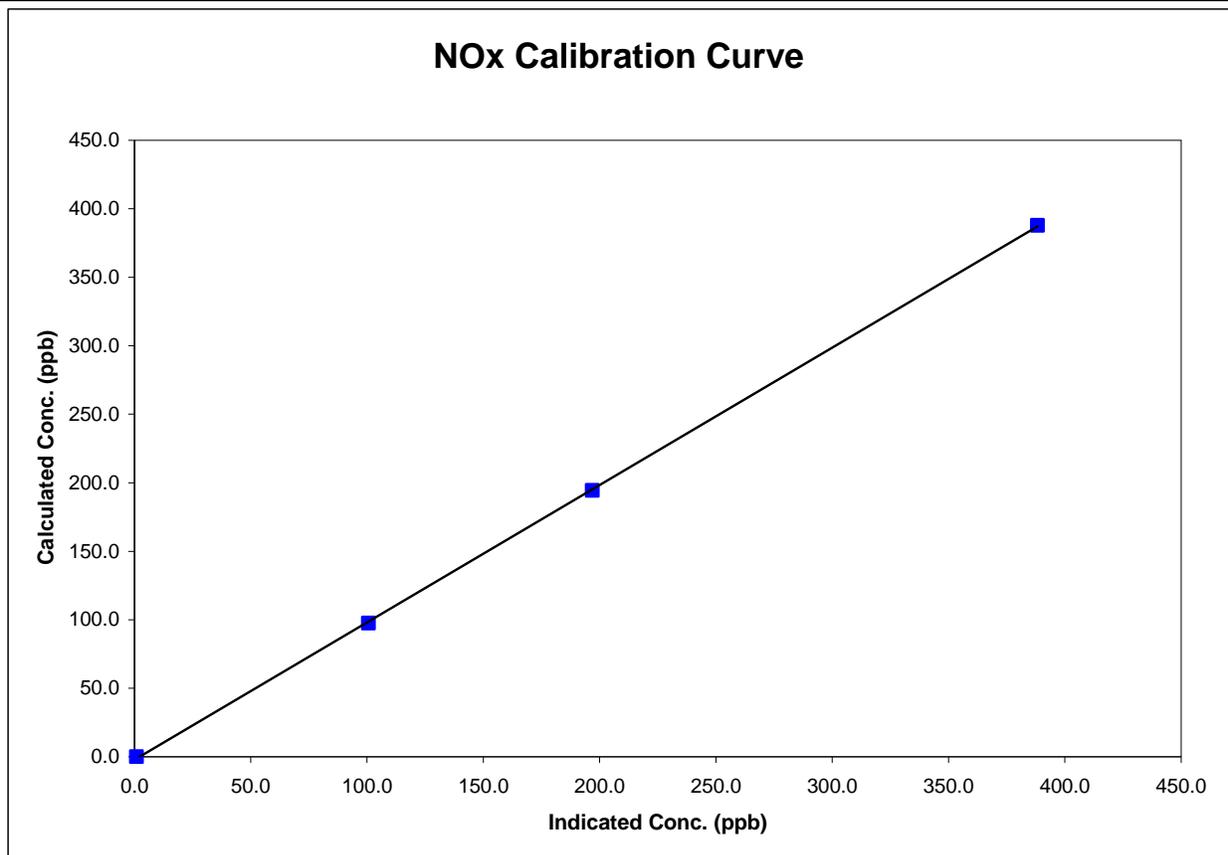
Parameter **NO<sub>x</sub>**Air Monitoring Network **PASZA**

### Station Information

Calibration Date	November 19, 2007	Previous Calibration	October 9, 2007
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:45	End Time (MST)	14:05
Analyzer make	Teco 42C	Analyzer serial #	508011073

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.9	0.0000	Correlation Coefficient	0.999948
387.8	388.3	0.9988		
194.5	196.9	0.9878		
97.4	100.6	0.9685		
			Slope	1.002510
			Intercept	-2.156176



## Calibration Summary

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

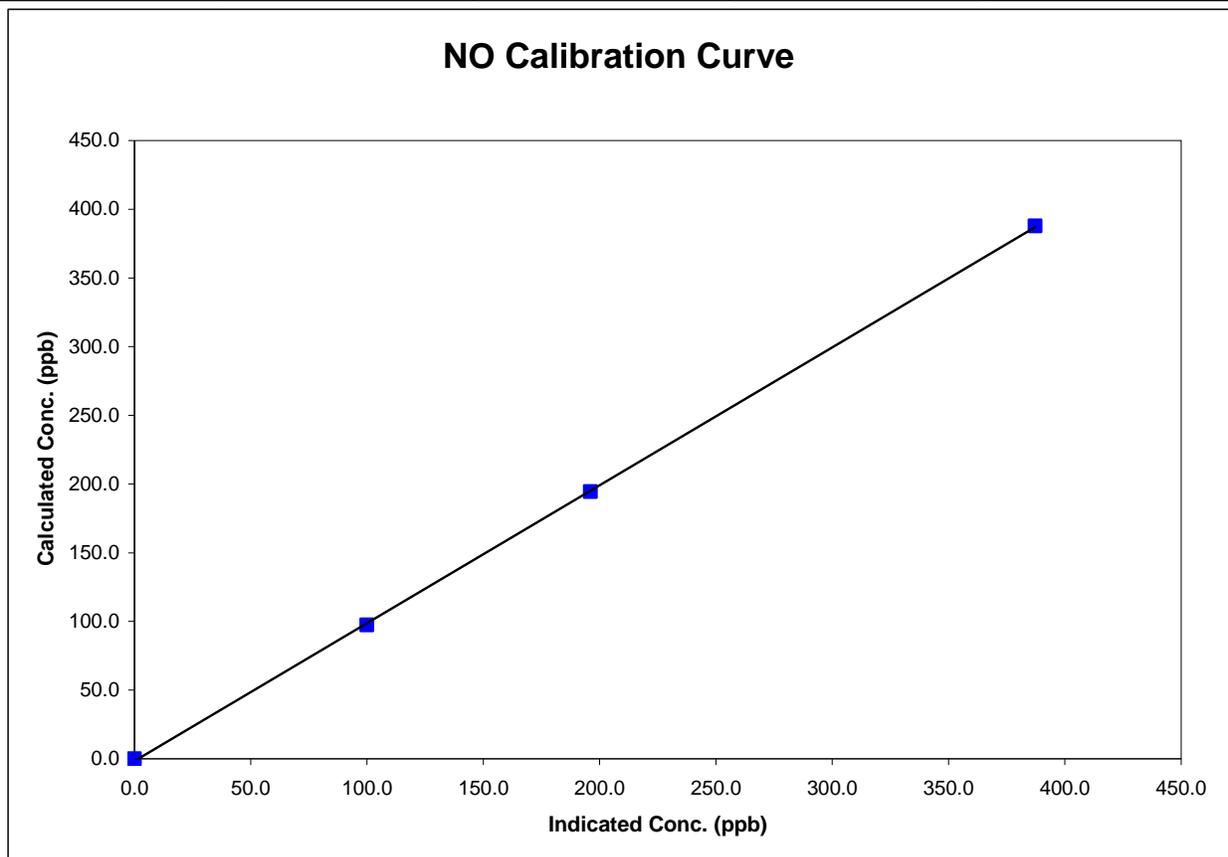


### Station Information

Calibration Date	November 19, 2007	Previous Calibration	October 9, 2007
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:45	End Time (MST)	14:05
Analyzer make	Teco 42C	Analyzer serial #	508011073

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
387.8	387.3	1.0013	Correlation Coefficient	0.999933
194.5	196.1	0.9916		
97.4	100.0	0.9741	Slope	1.003047
			Intercept	-1.442479



# Calibration Report

Parameter **O3**Air Monitoring Network **PASZA**

## Station Information

Calibration Date	November 22, 2007	Previous Calibration	October 9, 2007
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)	9:20	End Time (MST)	12:30
Barometric Pressure	0.911 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	2844
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA

DACS make	Focus AP1000	DACS serial No.	45269
DACS voltage range	0 - 1 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>

Calculated slope	0.982354	Calculated slope	1.006682
Calculated intercept	-0.920463	Calculated intercept	-2.344232

Analyzer make	TECO 49C	Analyzer serial #	607415761
---------------	----------	-------------------	-----------

	before		after	
Concentration range	500	ppb	500	ppb
offset	-0.7	ppb	-0.7	ppb
slope	1.042		1.042	
O3 Lamp temp	71.1	mV	71.1	mV
Intensities	97452/75415	mV	92374/74326	mV
Pressure	702.9	inches Hg	702.9	inches Hg
Flow A	669	ccm	665	ccm
Flow B	684	Deg C	688	Deg C

## Calibration Data

Referenced concentration (ppb)	Dilution air flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
0	4992	0.0	0.6	N/A
300	4992	301.2	300.5	1.0023
200	4992	205.3	206.2	0.9957
100	4992	108.1	112.6	0.9605
0	4992	0.0	0.6	As found zero
300	4992	301.2	322.6	As found span
Average Correction Factor				0.9861

Calculated value of As Found Response: 315.4 ppm      Percent Change of As Found: 4.7%

	before calibration		after calibration	
Auto zero	-2.8	ppb	-4.0	ppb
Auto span	327.4	ppb	338.6	ppb

Notes: Adjusted SpanCalibration Performed By: Conor Whiteley

## Calibration Summary



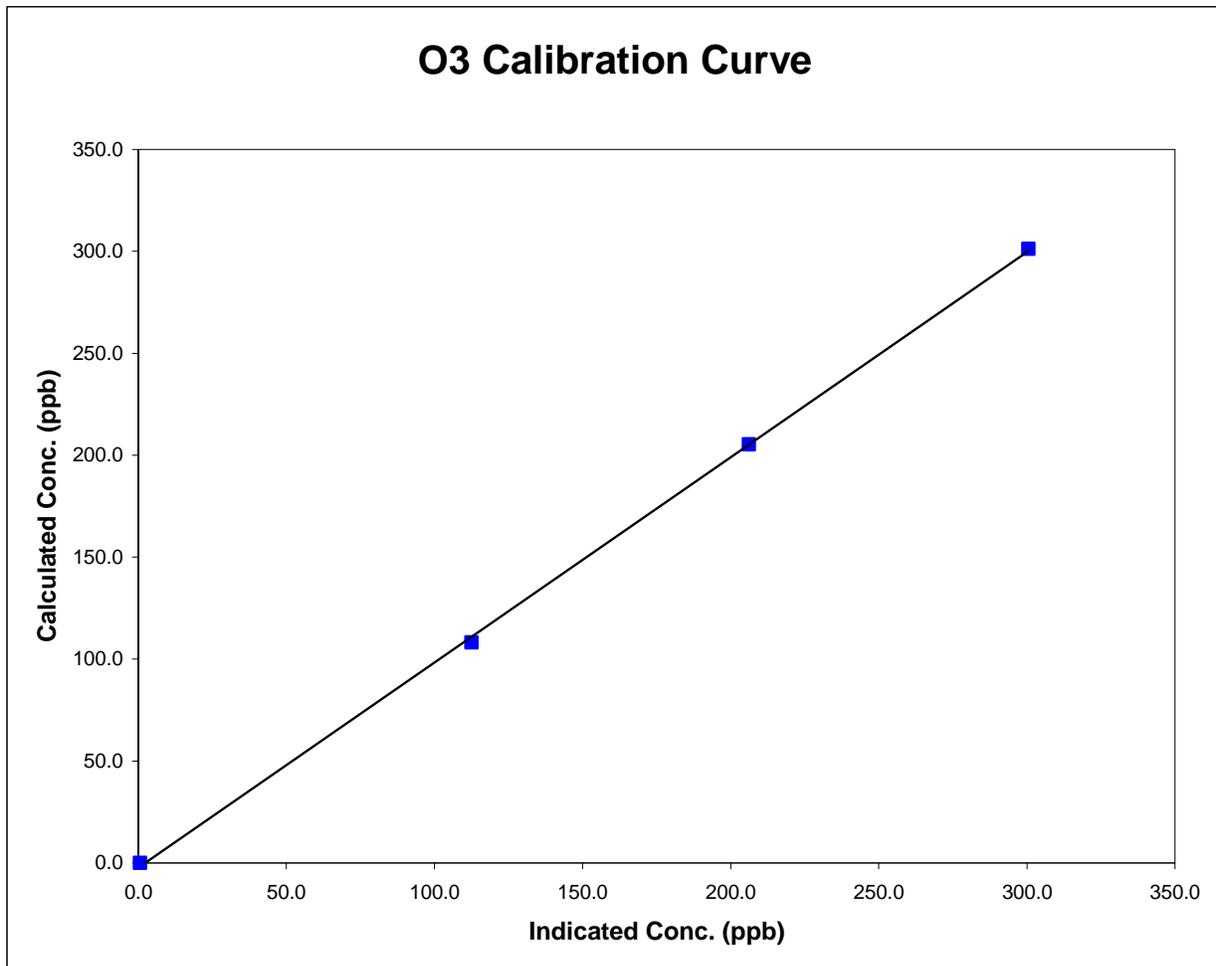
Parameter **O3**  
 Air Monitoring Network **PASZA**

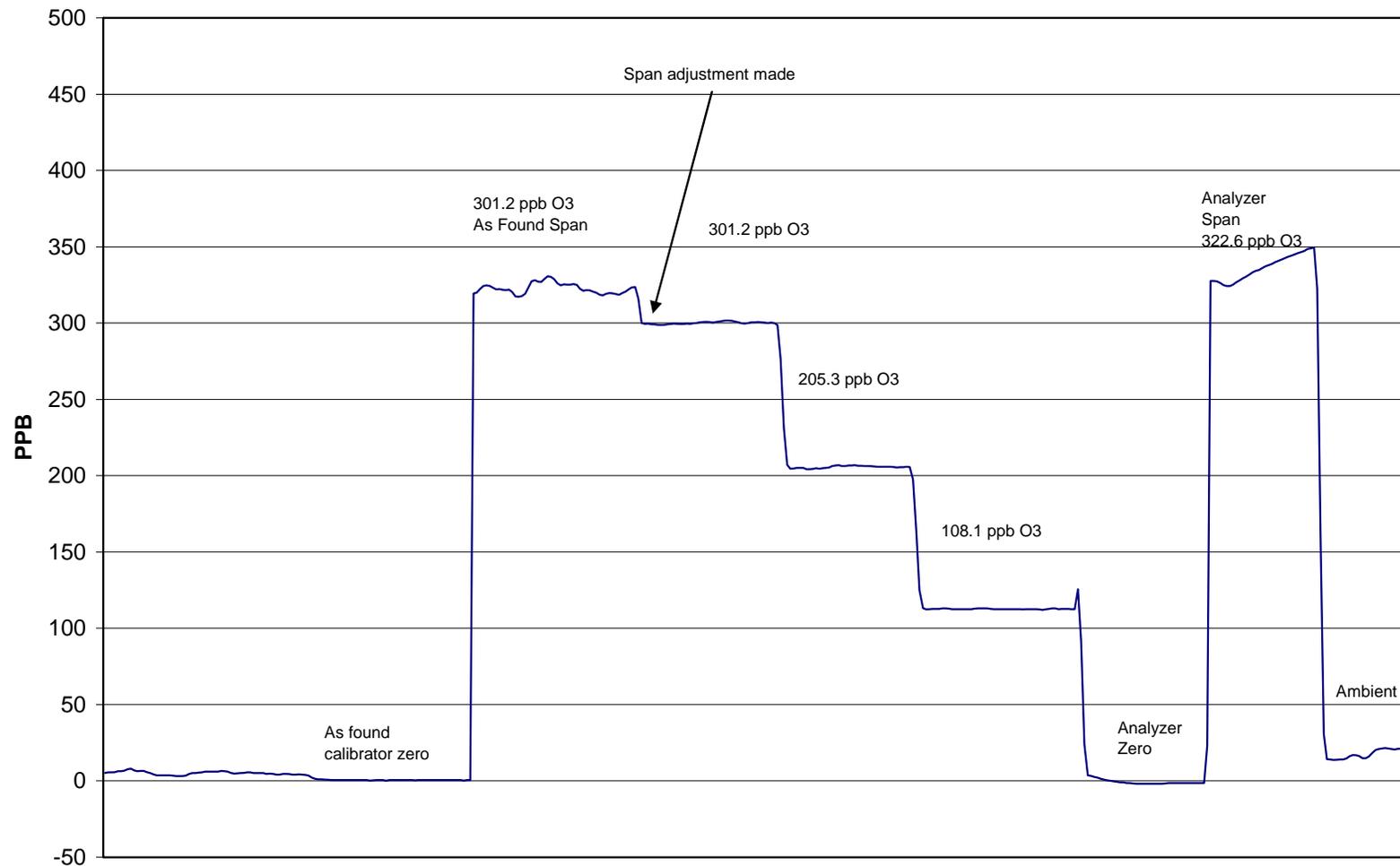
### Station Information

Calibration Date	November 22, 2007	Previous Calibration	October 9, 2007
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:20	End Time (MST)	12:30
Analyzer make/model	TECO 49C	Analyzer serial #	607415761

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	NA		
301.2	300.5	1.0023	Correlation Coefficient	0.999754
205.3	206.2	0.9957		
108.1	112.6	0.9605	Slope	1.006682
			Intercept	-2.344232



**Henry Pirker O3 Calibration****November 22, 2007**

**Calibration Report**
 Parameter **CO**  
 Air Monitoring Network **PASZA**
**Station Information**

Calibration Date	November 23, 2007	Previous Calibration	October 11, 2007
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)	9:15	End Time (MST)	13:15
Barometric Pressure	0.925 ATM	Station Temperature	20.0 Deg C
Calibrator	Envionics 6100	Serial Number	3474
Cal Gas Conc	3000 ppm	Cal Gas Expiry Date	AUG 28/05
		Cal Gas Cylinder #	AAL20565
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	0.985215	Calculated slope	1.036306
Calculated intercept	-0.970100	Calculated intercept	-0.134148
Analyzer make	TEI Model 48C	Analyzer serial #	508011062

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO span setting	1.049		1.049	
CO zero setting	9.937		-0.002	
Sample pressure	684.3	mm Hg	686.9	mm Hg
Sample Flow	1.112	LPM	1.118	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)
4987	0.00	0.00	0.04	N/A
4987	39.90	23.81	23.06	1.0328
4987	19.85	11.89	11.67	1.0193
4987	9.92	5.96	5.95	1.0006
4987	0.00	0.00	1.45	As Found Zero
4987	39.90	23.81	26.11	As Found Span
Average Correction Factor				1.0175

Calculated value of As Found Response: 23.322 ppm      Percent Change of As Found: 2.1%

	before calibration		after calibration	
Auto zero	0.07	ppm	-0.05	ppm
Auto span	20.85	ppm	20.86	ppm

 Notes: Adjusted the S/R ration from the initial 1.174346 to the current 1.152229  
This adjustment will allow me to adjust the zero which was out of range at the first attempt

 Calibration Performed By: Conor Whiteley

## Calibration Summary

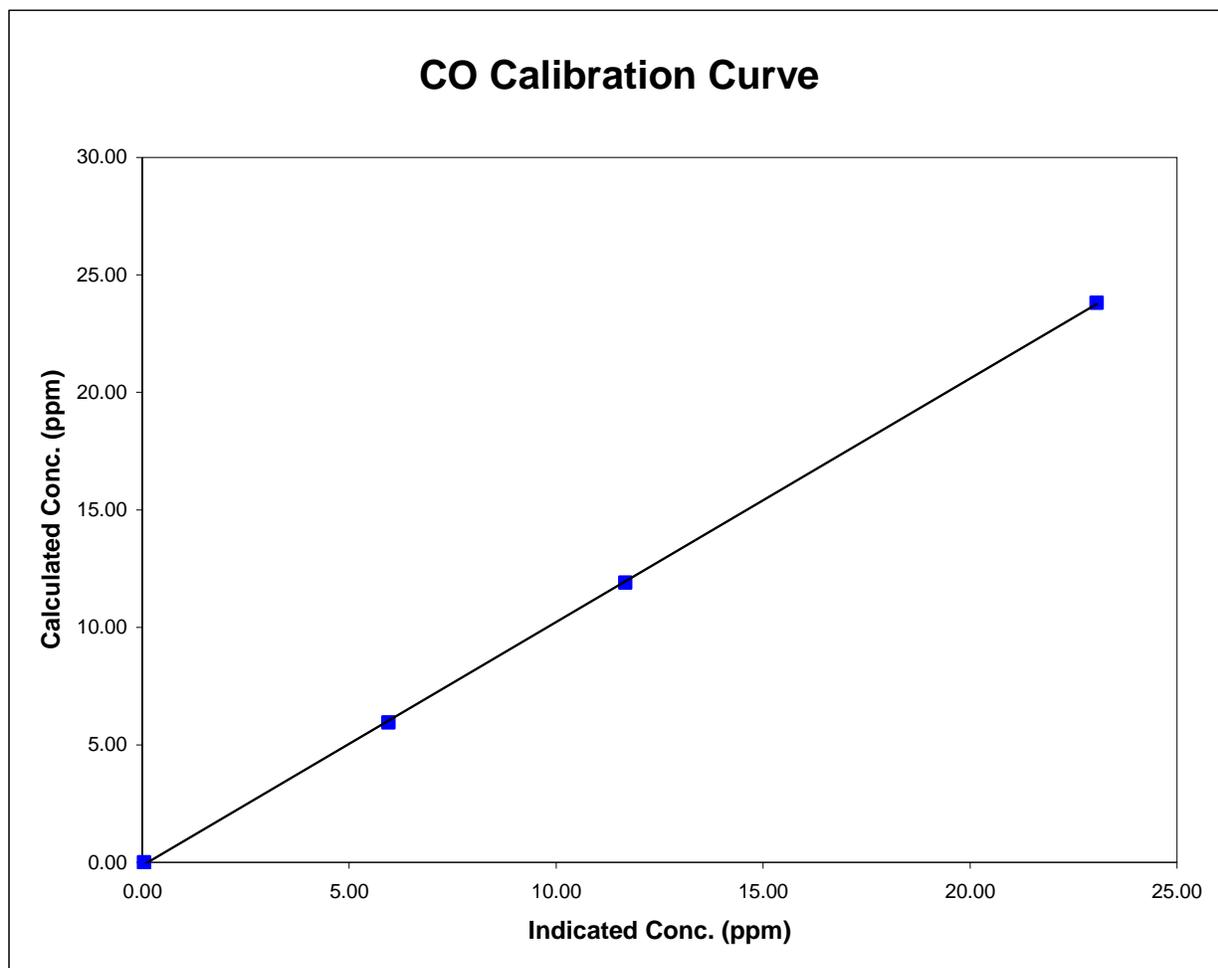
Parameter **CO**Air Monitoring Network **PASZA**

### Station Information

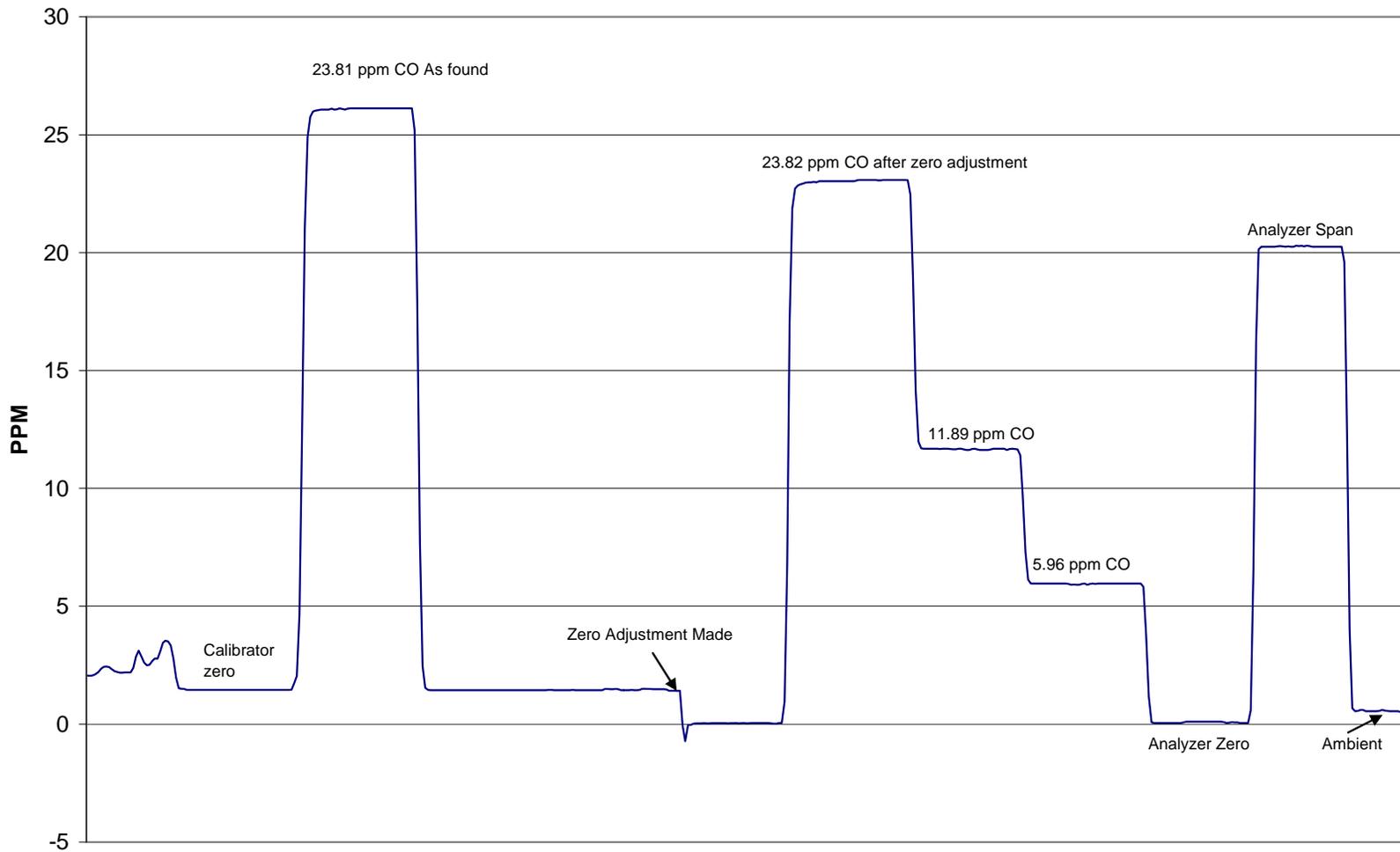
Calibration Date	November 23, 2007	Previous Calibration	October 11, 2007
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:15	End Time (MST)	13:15
Analyzer make/model	TEI Model 48C	Analyzer serial #	508011062

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.042	N/A		
23.812	23.056	1.0328	Correlation Coefficient	0.999931
11.894	11.669	1.0193		
5.956	5.952	1.0006	Slope	1.036306
			Intercept	-0.134148



### Henry Pirker CO Calibration



November 23, 2007

**Calibration Report**Parameter **THC**Air Monitoring Network **PASZA****Station Information**

Calibration Date	November 23, 2007	Previous Calibration	October 11, 2007
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)	12:00	End Time (MST)	16:15
Barometric Pressure	0.919 ATM	Station Temperature	20.0 Deg C
Calibrator	Envionics 6100	Serial Number	3474
Cal Gas Concentration	700 ppm CH4/ 299 ppm C3H8	Cal Gas Expiry Date	12/10/2005
Cal Gas CH4 equiv	1522.25 ppm	Cal Gas Cylinder #	ALM 005412
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	0.964348	Calculated slope	1.062209
Calculated intercept	-0.341680	Calculated intercept	0.093326
Analyzer make	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.26	psi	5.95	psi
THC span counts	6889	capture	6894	capture
THC zero counts	945	capture	1348	capture

**Calibration Data**

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4990	0.00	0.00	-0.27	N/A
4990	69.89	21.03	19.53	1.0765
4990	29.89	9.06	8.84	1.0257
4990	9.92	3.02	2.72	1.1097
4990	0.00	0.00	1.06	As Found Zero
4990	69.89	21.03	18.04	As Found Span
Average Correction Factor				1.0706

Calculated value of As Found Response: 16.035 ppm Percent Change of As Found: 23.7%

	before calibration		after calibration	
Auto zero	0.13	ppm	-0.19	ppm
Auto span	23.77	ppm	25.27	ppm

Notes: Calibration gas accidentally removed during first high point  
 Calibrated Zero  
 Calibrated Span

Calibration Performed By: Conor Whiteley

## Calibration Summary

Parameter **THC**  
 Air Monitoring Network **PASZA**

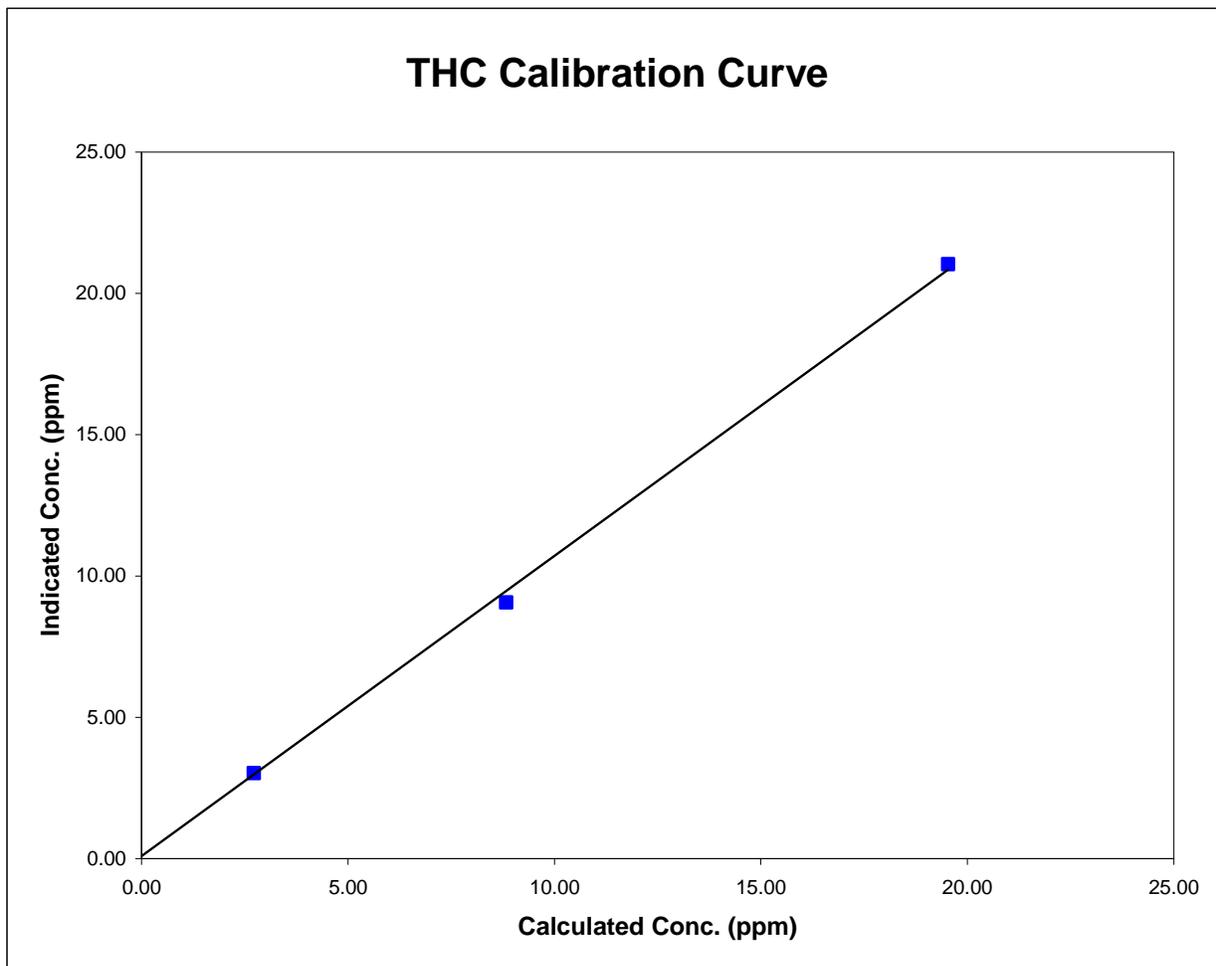


### Station Information

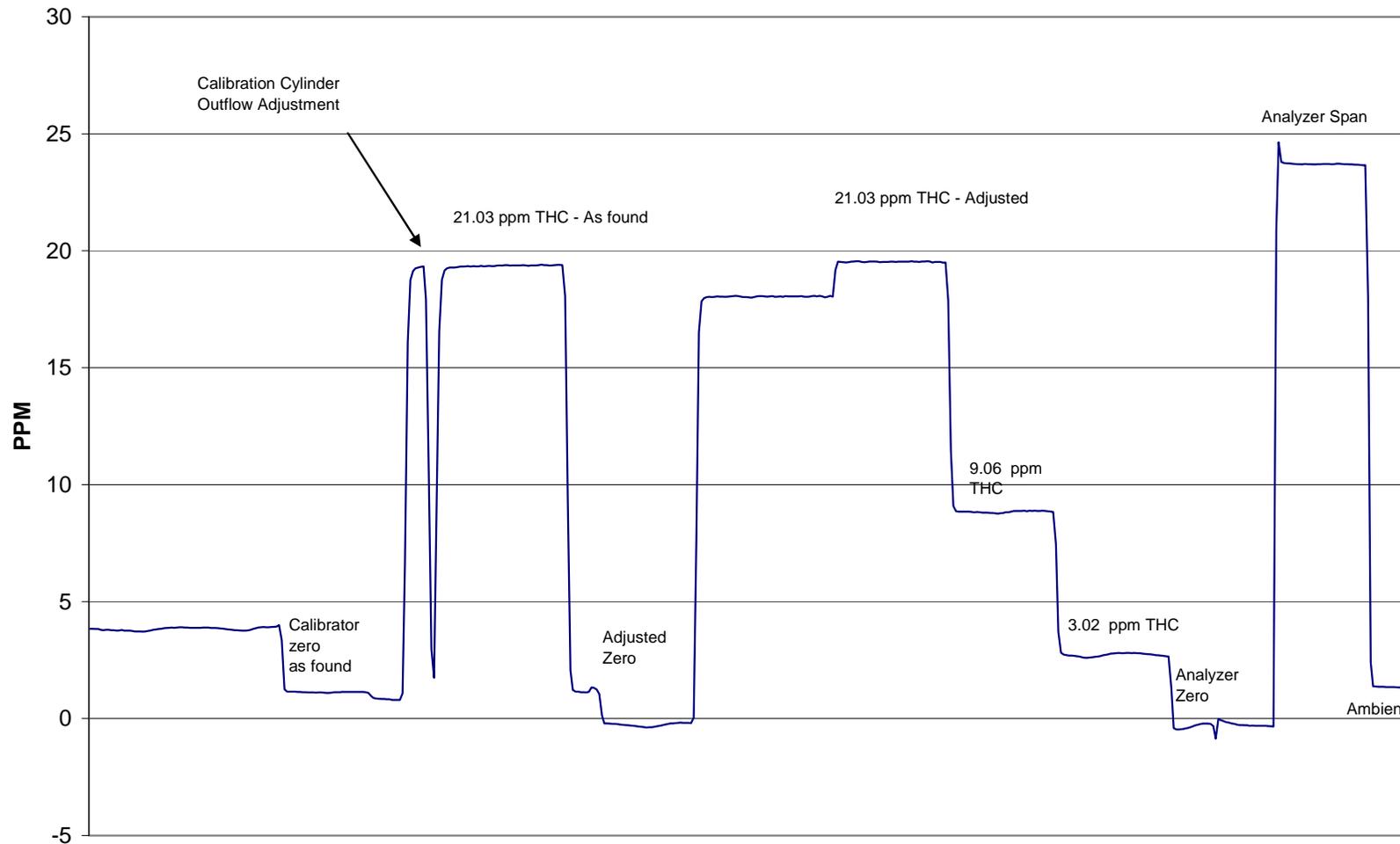
Calibration Date	November 23, 2007	Previous Calibration	October 11, 2007
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:00	End Time (MST)	16:15
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.271	N/A		
21.026	19.532	1.0765	Correlation Coefficient	0.999050
9.064	8.837	1.0257		
3.020	2.722	1.1097	Slope	1.062209
			Intercept	0.093326



### Henry Pirker THC Calibration



November 23, 2007

**Calibration Report**Parameter **THC**Air Monitoring Network **PASZA****Station Information**

Calibration Date	November 26, 2007	Previous Calibration	November 23, 2007
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			Other: <input type="checkbox"/>
Start Time (MST)	15:00	End Time (MST)	16:20
Barometric Pressure	0.920 ATM	Station Temperature	20.0 Deg C
Calibrator	Envionics 6100	Serial Number	3474
Cal Gas Concentration	700 ppm CH4/ 299 ppm C3H8	Cal Gas Expiry Date	12/10/2005
Cal Gas CH4 equiv	1522.25 ppm	Cal Gas Cylinder #	ALM 005412
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	0.964348	Calculated slope	1.062209
Calculated intercept	-0.341680	Calculated intercept	0.093326
Analyzer make	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.26	psi	5.95	psi
THC span counts	6889	capture	6894	capture
THC zero counts	945	capture	1348	capture

**Calibration Data**

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4990	0.00	0.00	-0.27	N/A
4990	69.89	21.03	19.53	1.0765
4990	29.89	9.06	8.84	1.0257
4990	9.92	3.02	2.72	1.1097
4990	0.00	0.00	1.06	As Found Zero
4990	64.92	19.55	18.04	As Found Span
Average Correction Factor				1.0706

Calculated value of As Found Response: 16.035 ppm Percent Change of As Found: 18.0%

	before calibration		after calibration	
Auto zero	0.13	ppm	-0.19	ppm
Auto span	23.77	ppm	25.27	ppm

Notes: pump rebuiltCalibration Performed By: Conor Whiteley

## Calibration Summary

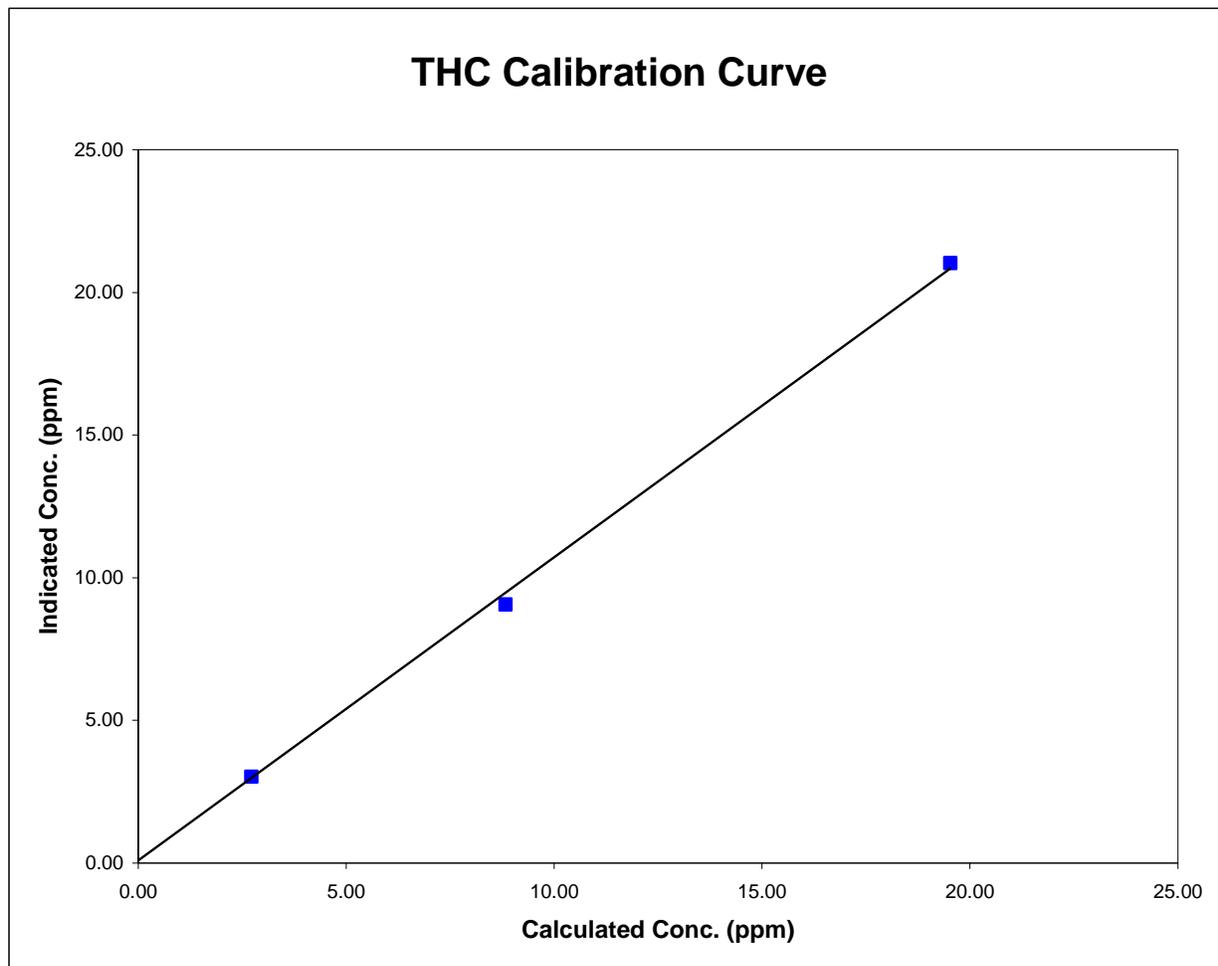
Parameter **THC**Air Monitoring Network **PASZA**

### Station Information

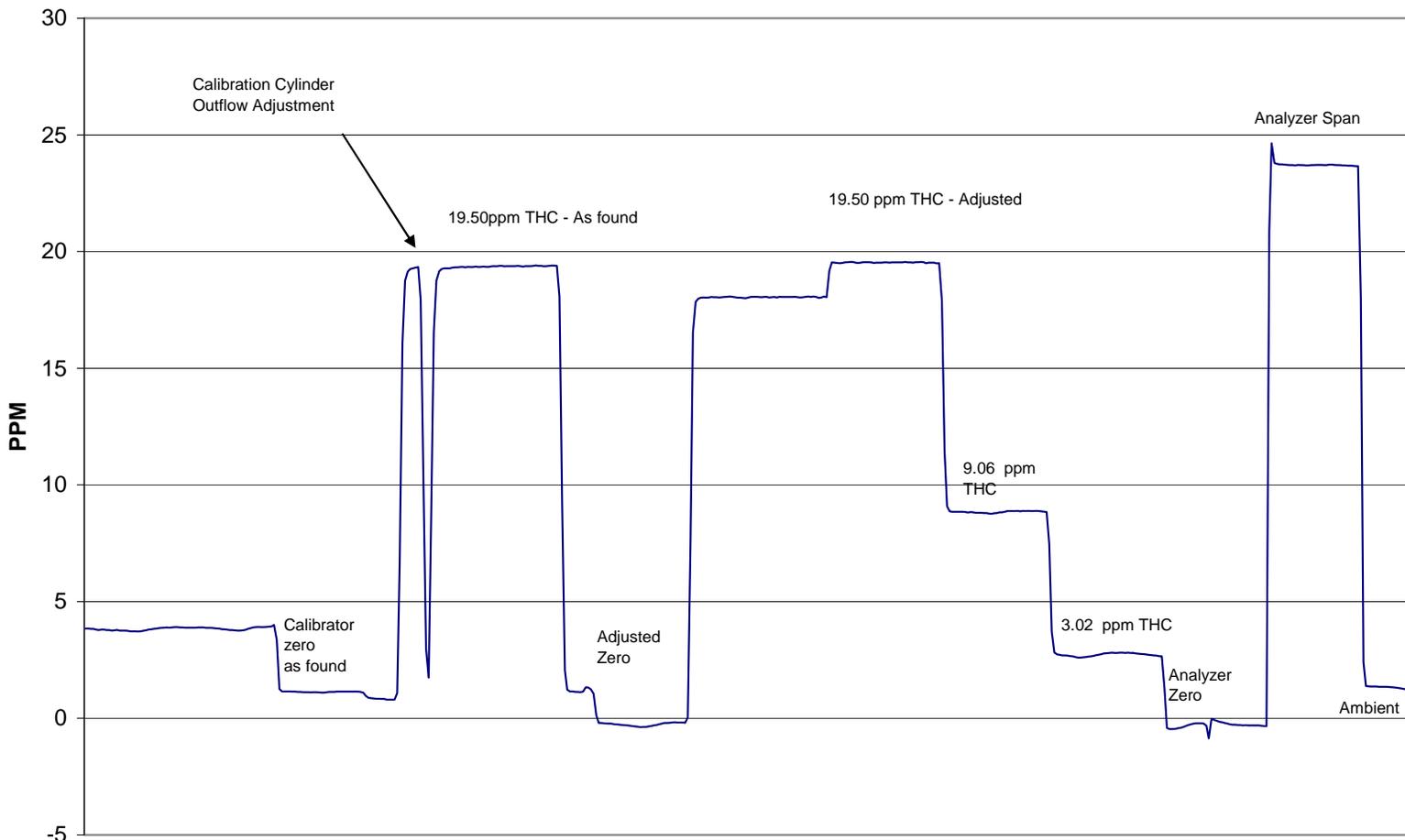
Calibration Date	November 26, 2007	Previous Calibration	November 23, 2007
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	15:00	End Time (MST)	16:20
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.271	N/A		
21.026	19.532	1.0765	Correlation Coefficient	0.999050
9.064	8.837	1.0257		
3.020	2.722	1.1097	Slope	1.062209
			Intercept	0.093326



### Henry Pirker THC Calibration



November 26, 2007

**Calibration Report**Parameter **TRS**Air Monitoring Network **PASZA****Station Information**

Calibration Date	November 19, 2007	Previous Calibration	October 10, 2007
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			Other: <input type="checkbox"/>
Start Time (MST)	15:00	End Time (MST)	18:10
Barometric Pressure	0.912 ATM	Station Temperature	20.0 Deg C
Calibrator	Envionics 6100	Serial Number	3474
Cal Gas Conc	5.14 ppb	Cal Gas Expiry Date	7/31/2008
		Cal Gas Cylinder #	LL 74274
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.012692	Calculated slope	1.018865
Calculated intercept	0.408826	Calculated intercept	-0.040509
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	0.871		0.871	
Background	16.9		16.9	
Pressure	667.6	mm Hg	659.7	mm Hg
Flow	462	ccm	458	ccm
Lamp Voltage	853	V	861	V

**Calibration Data**

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4990	0.00	0.00	0.06	N/A
4990	69.75	70.86	69.70	1.0166
4990	39.84	40.71	39.77	1.0237
4990	9.97	10.25	10.20	1.0056
4990	0.00	0.00	0.06	As Found Zero
4990	69.75	70.86	69.70	As Found Span
Average Correction Factor				1.0153

Calculated value of As Found Response: 70.9 ppb      Percent Change of As Found: -0.1%

	before calibration		after calibration	
Auto zero	0.28	ppb	0.46	ppb
Auto span	36.48	ppb	37.31	ppb

Notes: No adjustments preformedCalibration Performed By: Conor Whiteley

## Calibration Summary

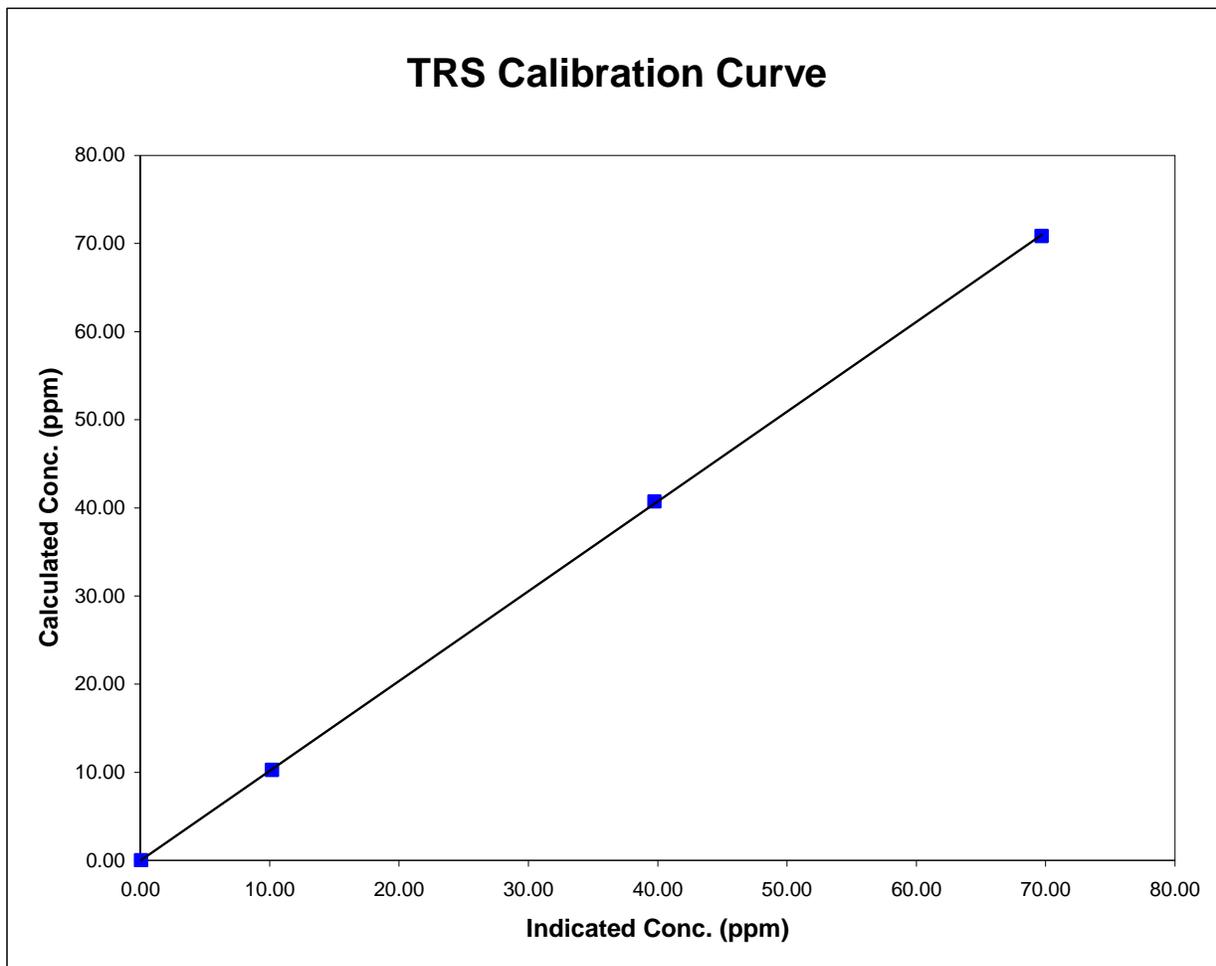
Parameter **TRS**Air Monitoring Network **PASZA**

### Station Information

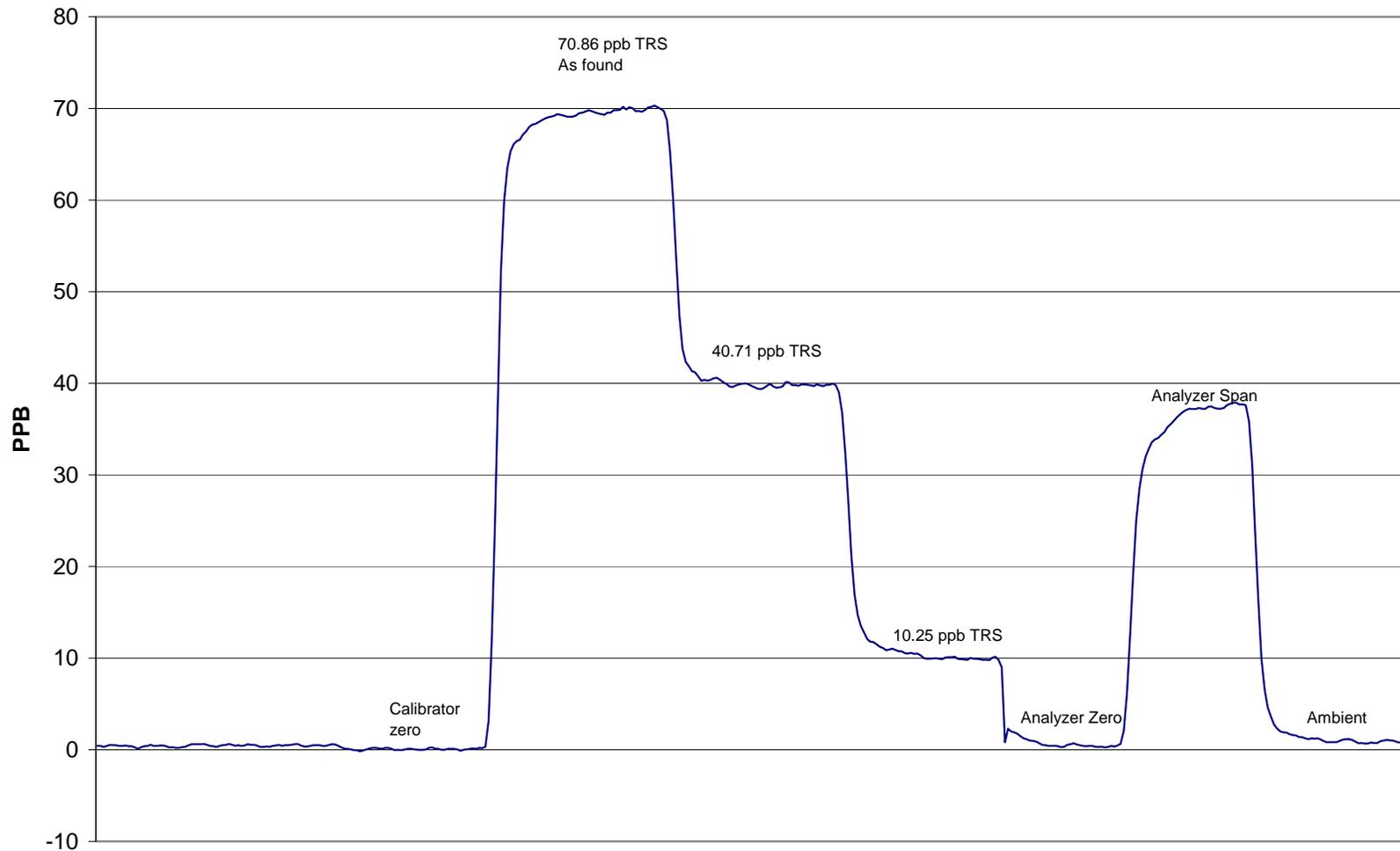
Calibration Date	November 19, 2007	Previous Calibration	October 10, 2007
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	15:00	End Time (MST)	18:10
Analyzer make/model	TEI 45C	Analyzer serial #	630718528

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.059	N/A		
70.856	69.701	1.0166	Correlation Coefficient	0.999975
40.713	39.769	1.0237		
10.253	10.196	1.0056	Slope	1.018865
			Intercept	-0.040509



### Henry Pirker TRS Calibration



November 19, 2007

# Calibration Report



Parameter

SO<sub>2</sub>

Air Monitoring Network

PASZA

## Station Information

Calibration Date	November 15, 2007	Previous Calibration	October 12, 2007
Station Number	2	Station Location	Evergreen Park
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	11:50	End Time (MST)	14:23
Barometric Pressure	0.911 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	50.3 ppm	Cal Gas Expiry Date	1/2/2009
Correction factor	0.030967	Cal Gas Cylinder #	LL16161
DACS make	Focus AP1000	DACS serial No.	52620
DACS voltage range	0 - 10 volt	DACS channel #	6
	Before		After
Calculated slope	1.004370	Calculated slope	0.997865
Calculated intercept	1.172309	Calculated intercept	-1.638222
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
Background	8.8		9	
coefficient	0.928		0.928	
Lamp Voltage	832	volts	836	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	44.99	Deg C
Pressure	679.5	mm Hg	656.2	mm Hg
Sample Flow	454	ccm	438	ccm
Lamp Intensity	90	%	90	%

## Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4990	0.0	0.00	0.7	N/A
4990	39.84	398.41	400.5	0.9948
4991	19.90	199.76	202.2	0.9880
4991	9.95	100.08	102.9	0.9726
zero	0.0	0.00	0.7	As Found Zero
4991	39.9	399.03	400.5	As Found Span
Average Correction Factor				0.9851

Calculated value of As Found Response: 402.652 ppm      Percent Change of As Found: -0.9%

	before calibration		after calibration	
Auto zero	1.9	ppm	-0.8	ppm
Auto span	283.3	ppm	280.2	ppm

Notes:

Calibration Performed By: Conor Whiteley

## Calibration Summary

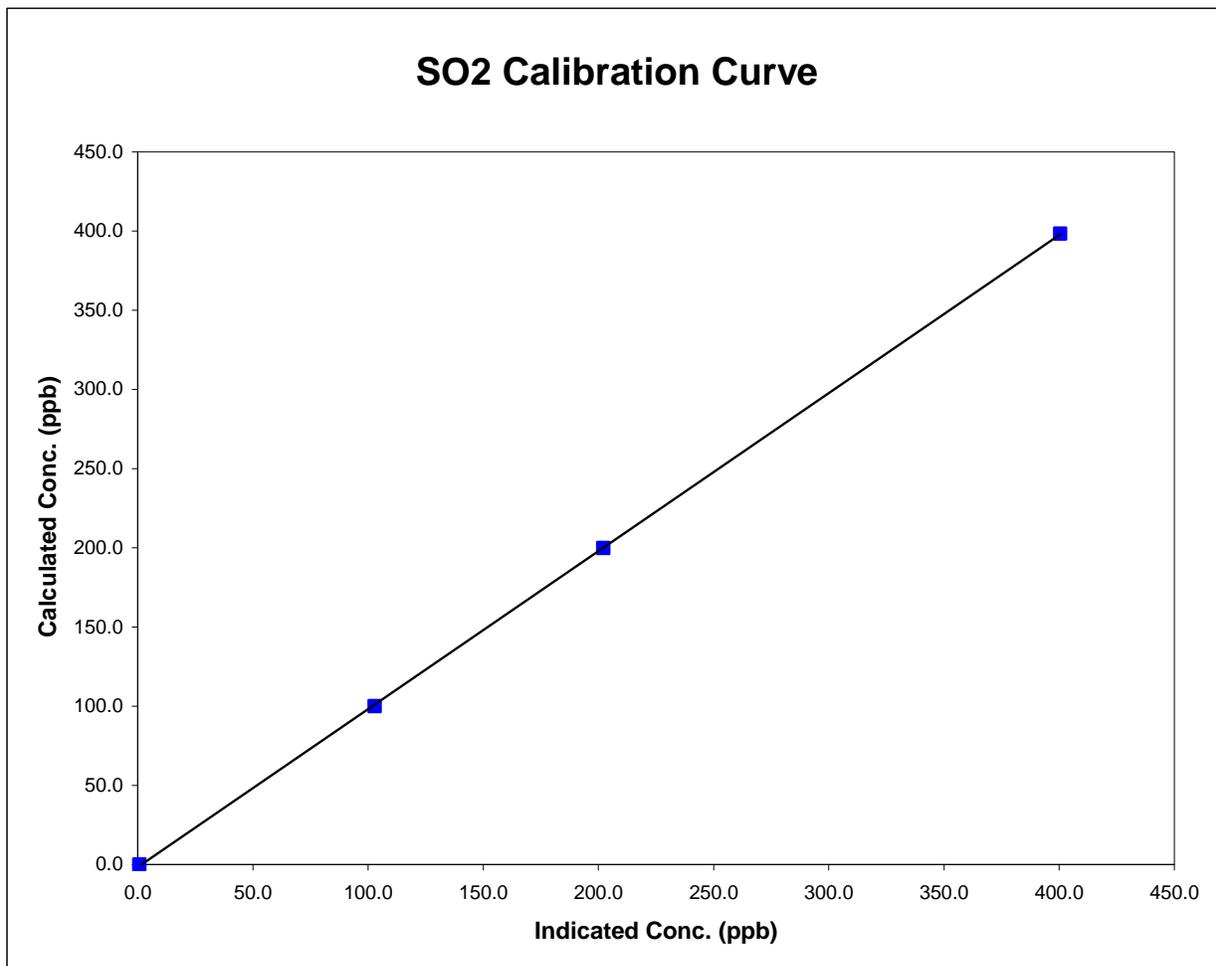
Parameter **SO2**Air Monitoring Network **PASZA**

### Station Information

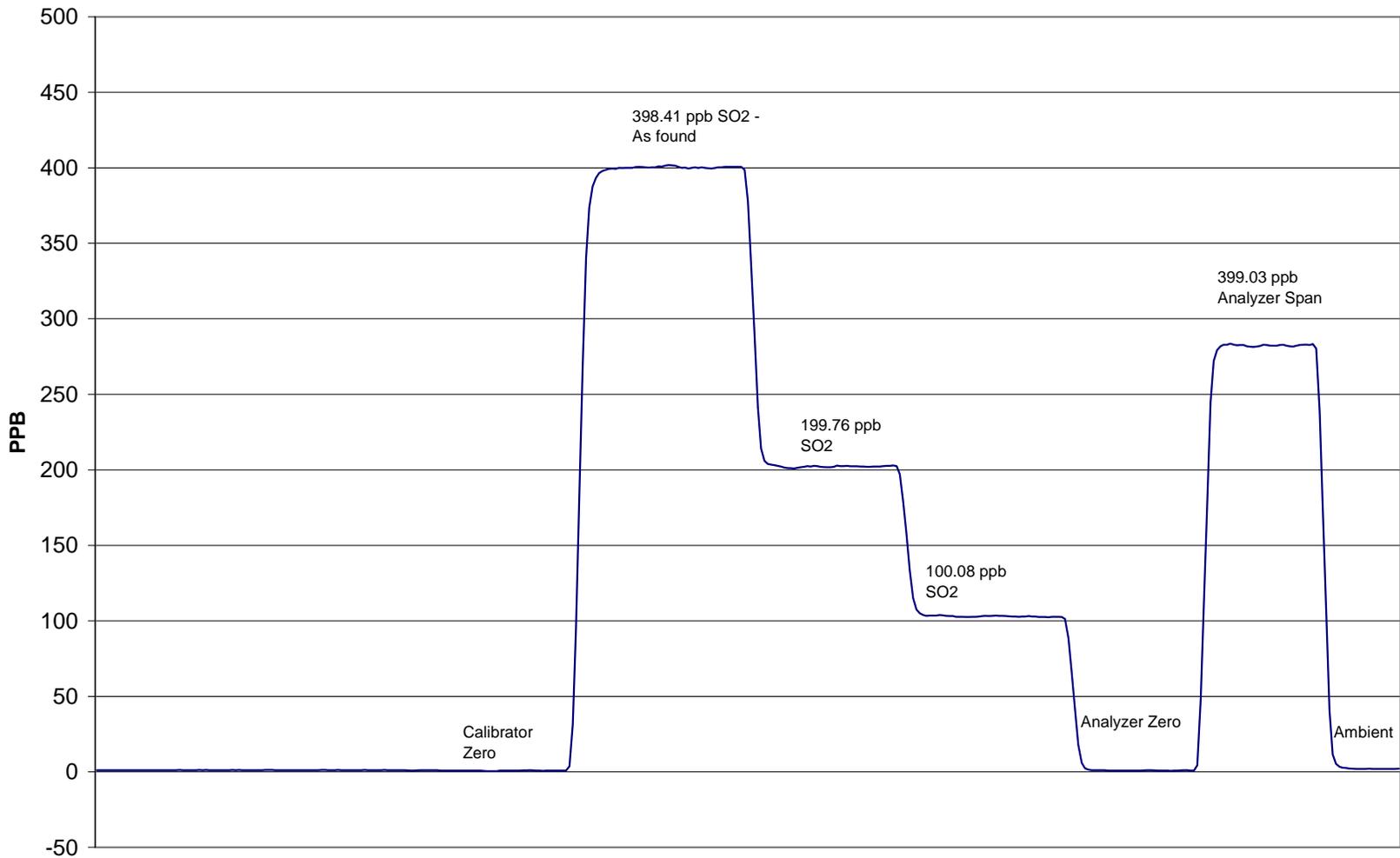
Calibration Date	November 15, 2007	Previous Calibration	October 12, 2007
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	11:50	End Time (MST)	14:23
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.7	N/A		
398.4	400.5	0.9948	Correlation Coefficient	0.999977
199.8	202.2	0.9880		
100.1	102.9	0.9726	Slope	0.997865
			Intercept	-1.638222



### Evergreen Park SO2 Calibration



November 15, 2007

# Calibration Report

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

## Station Information

Calibration Date	November 15, 2007	Previous Calibration	October 12, 2007
Station Number	2	Station Location	Evergreen Park
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	9:10	End Time (MST)	13:04
Barometric Pressure	0.911 ATM	Station Temperature	20.0 Deg C
Calibrator	Envionics 6100	Serial Number	3474
Cal Gas Conc	5.14 ppm	Cal Gas Expiry Date	7/31/2008
Correction factor	0.030967	Cal Gas Cylinder #	LL 74274
DACS make	Focus AP1000	DACS serial No.	52620
DACS voltage range	0 - 10 volt	DACS channel #	5
	Before		After
Calculated slope	1.010463	Calculated slope	0.985475
Calculated intercept	-0.311998	Calculated intercept	0.835791
Analyzer make	TEI Model 43C	Analyzer serial #	0436610005

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	14.1	ppb	15.9	ppb
coefficient	0.976		0.976	
Lamp Voltage	788	volts	786	volts
Chamber Temp	44.3	Deg C	44.3	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	647.3	mm Hg	639.9	mm Hg
Sample Flow	472	ccm	468	ccm
Lamp Intensity	46,177	mv	48,170	mv

## Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4990	0.00	0.00	0.1	N/A
4991	79.79	80.88	81.6	0.9915
4991	39.85	40.72	40.2	1.0118
4991	19.90	20.41	18.8	1.0835
zero	0.00	0.00	1.4	As Found Zero
4996	80.00	81.01	79.0	As Found Span
Average Correction Factor				1.0289

Calculated value of As Found Response: 78.08 ppm      Percent Change of As Found: 3.6%

	before calibration		after calibration	
Auto zero	0.9	ppm	0.4	ppm
Auto span	70.4	ppm	70.3	ppm

Notes: Calibrated ZeroCalibration Performed By: Conor Whiteley

## Calibration Summary

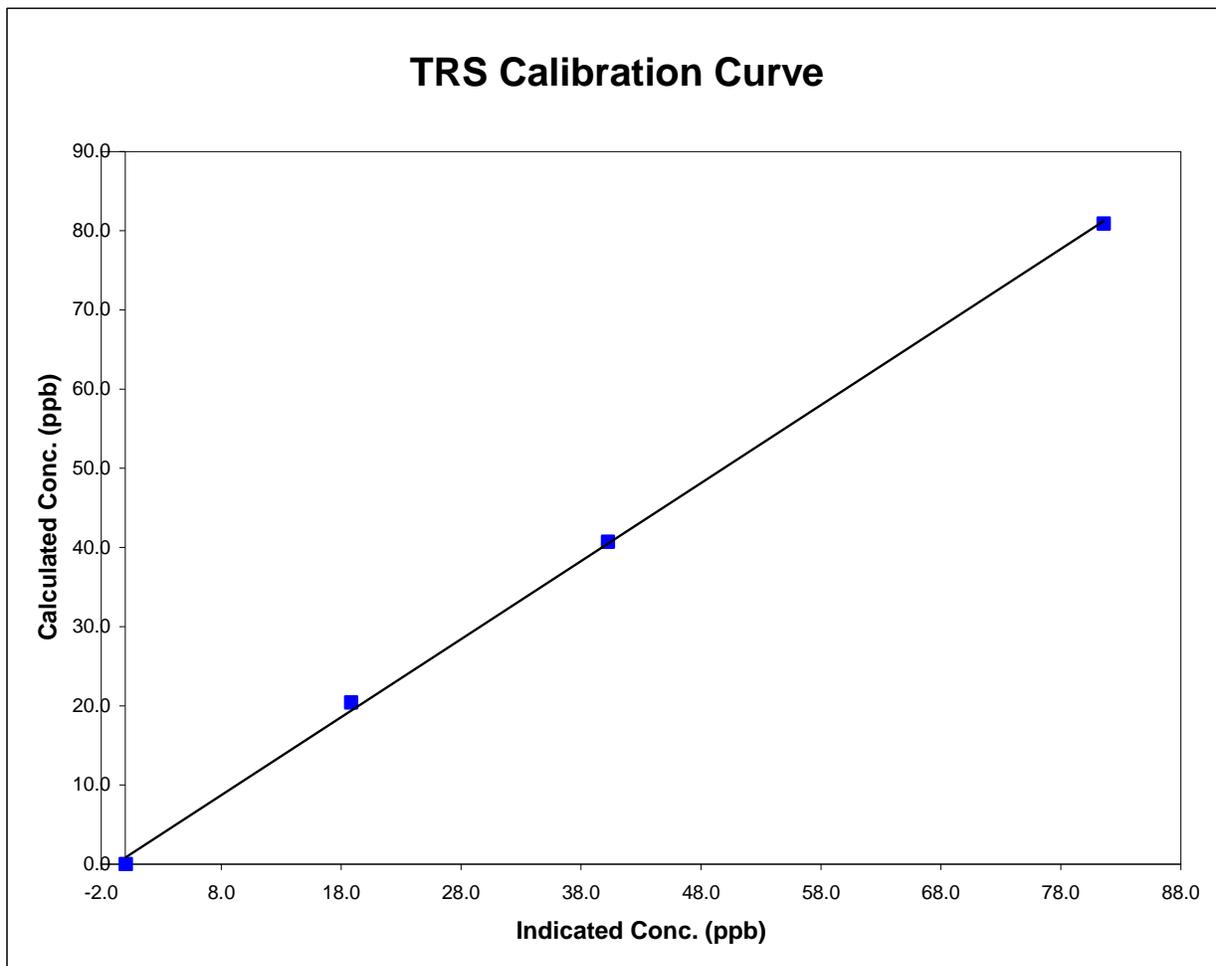
Parameter **TRS**Air Monitoring Network **PASZA**

### Station Information

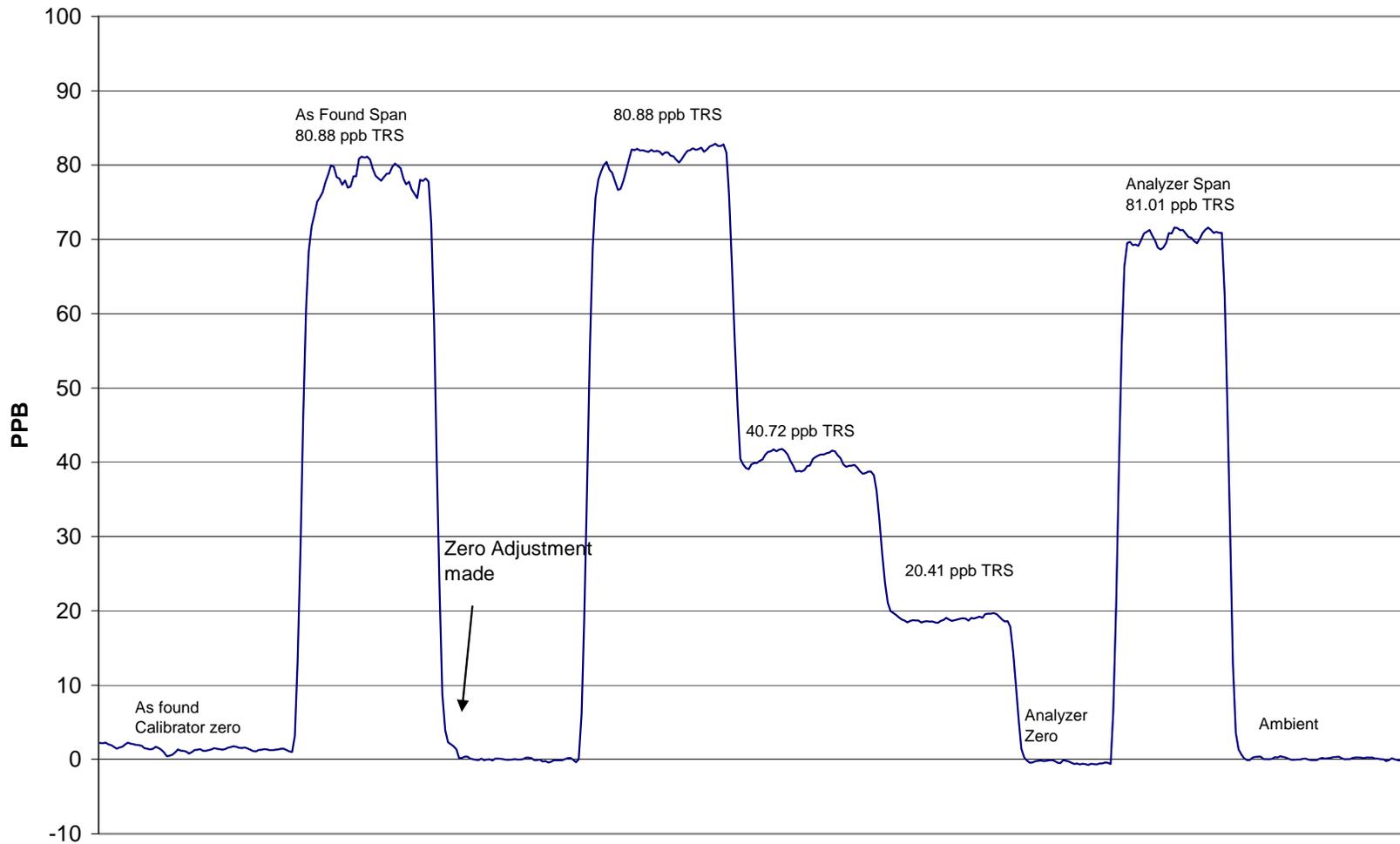
Calibration Date	November 15, 2007	Previous Calibration	October 12, 2007
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	9:10	End Time (MST)	13:04
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
80.9	81.6	0.9915	Correlation Coefficient	0.999445
40.7	40.2	1.0118		
20.4	18.8	1.0835	Slope	0.985475
			Intercept	0.835791



### Evergreen Park TRS Calibration



November 15, 2007

# Calibration Report



Parameter

SO<sub>2</sub>

Air Monitoring Network

PASZA

## Station Information

Calibration Date	November 28, 2007	Previous Calibration	October 5, 2007
Station Number	3	Station Location	Smoky Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	10:25	End Time (MST)	14:15
Barometric Pressure	0.934 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	50.3 ppm	Cal Gas Expiry Date	1/2/2009
Correction factor	0.031749	Cal Gas Cylinder #	LL16161
DACS make	Focus AP1000	DACS serial No.	45272
DACS voltage range	0 - 10 volt	DACS channel #	6
	Before		After
Calculated slope	0.999801	Calculated slope	1.001957
Calculated intercept	-2.896954	Calculated intercept	-1.421296
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	4.7		6.5	
coefficient	0.737		0.745	
Lamp Voltage	935	volts	938	volts
Chamber Temp	45.1	Deg C	45.2	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	670.2	mm Hg	680.1	mm Hg
Sample Flow	444	ccm	452	ccm
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)
4988	0.0	0.00	0.2	N/A
4988	39.83	398.47	398.3	1.0004
4988	19.91	199.98	202.1	0.9893
4988	9.99	100.57	102.6	0.9798
zero	0.0	0.00	1.7	As Found Zero
4988	39.83	398.47	394.4	As Found Span
Average Correction Factor				0.9898

Calculated value of As Found Response: 389.692 ppm      Percent Change of As Found: 2.2%

	before calibration		after calibration	
Auto zero	-1.5	ppm	-1.2	ppm
Auto span	310.4	ppm	305.3	ppm

Notes: Adjusted Zero, adjusted span

Calibration Performed By: Conor Whiteley

## Calibration Summary

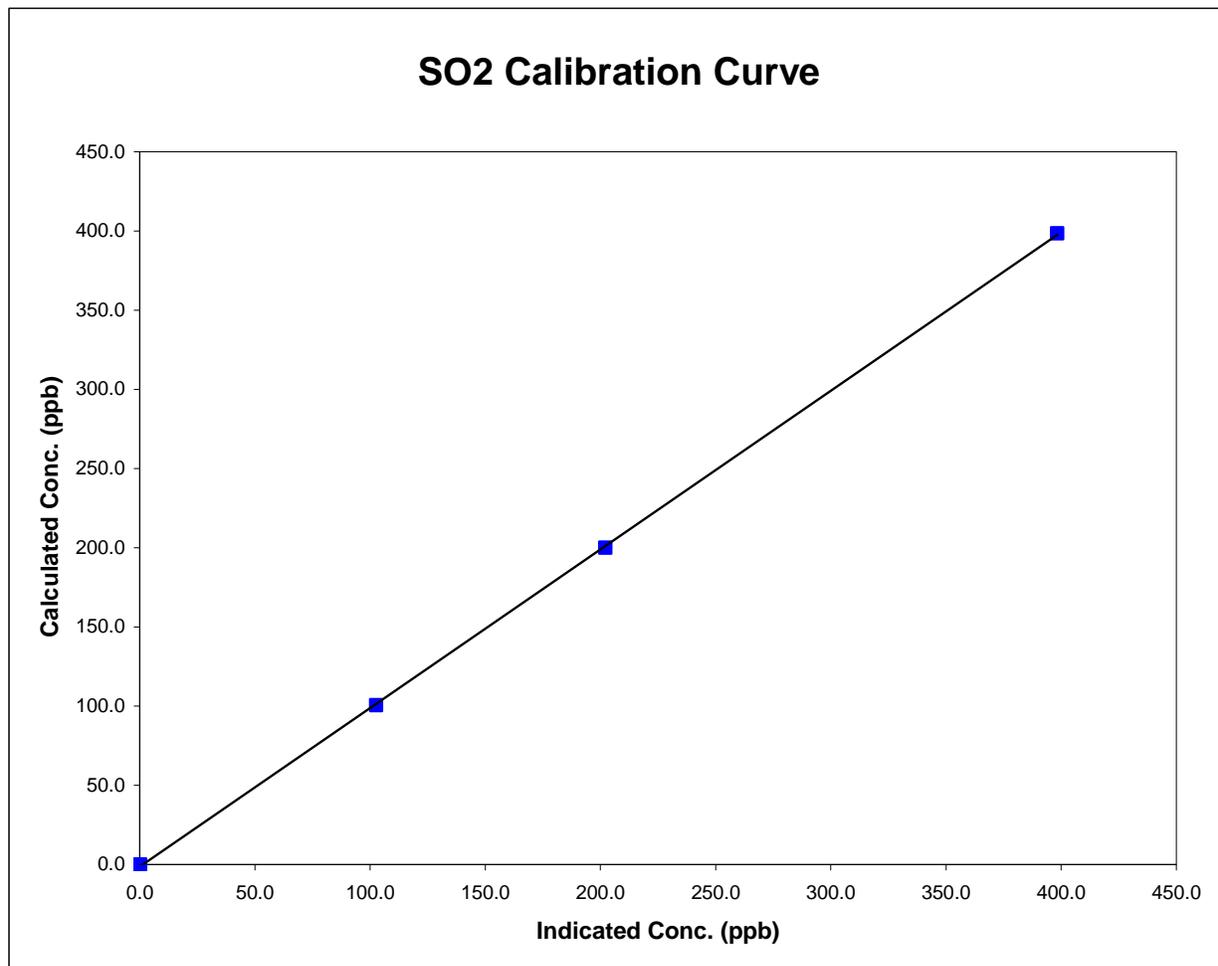
Parameter **SO2**Air Monitoring Network **PASZA**

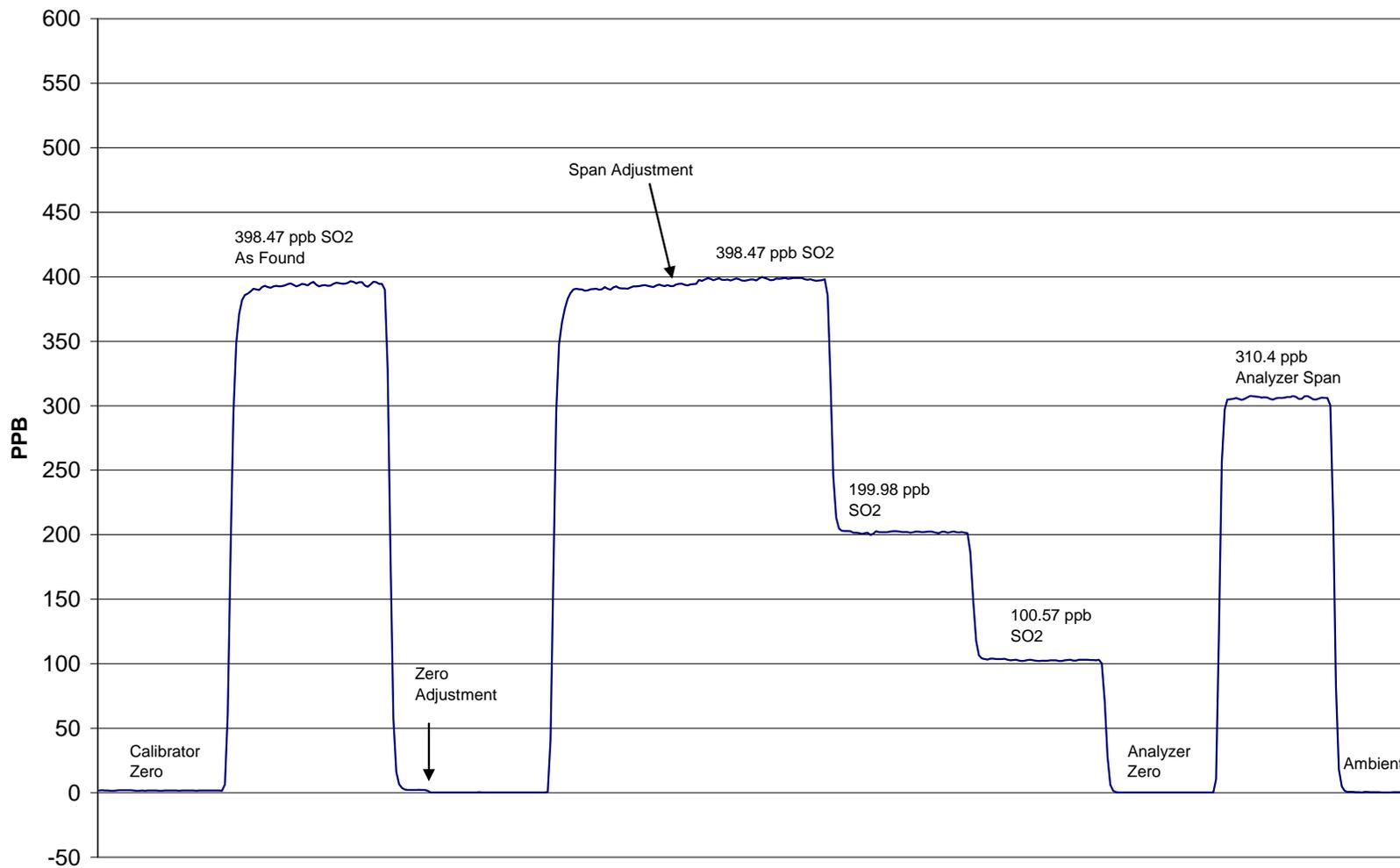
### Station Information

Calibration Date	November 28, 2007	Previous Calibration	October 5, 2007
Station Number	3	Station Location	Smoky Heights
Start Time (MST)	10:25	End Time (MST)	14:15
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
398.5	398.3	1.0004	Correlation Coefficient	0.999953
200.0	202.1	0.9893		
100.6	102.6	0.9798	Slope	1.001957
			Intercept	-1.421296



**Smoky Heights SO2 Calibration****November 28, 2007**

# Calibration Report

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

## Station Information

Calibration Date	November 28, 2007	Previous Calibration	October 4, 2007
Station Number	3	Station Location	Smoky Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	13:15	End Time (MST)	16:04
Barometric Pressure	0.934 ATM	Station Temperature	20.0 Deg C
Calibrator	Envionics 6100	Serial Number	3474
Cal Gas Conc	5.14 ppm	Cal Gas Expiry Date	7/31/2008
Correction factor	0.031749	Cal Gas Cylinder #	LL 74274
DACS make	Focus AP1000	DACS serial No.	52620
DACS voltage range	0 - 10 volt	DACS channel #	5
	Before		After
Calculated slope	1.028180	Calculated slope	1.026207
Calculated intercept	-0.065138	Calculated intercept	-0.620893
Analyzer make	TEI Model 43C	Analyzer serial #	0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	11.2	ppb	11.1	ppb
coefficient	1.006		1.006	
Lamp Voltage	768	volts	771	volts
Chamber Temp	44	Deg C	43.9	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	504.3	mm Hg	508.5	mm Hg
Sample Flow	781	ccm	781	ccm
Lamp Intensity	32,327	mv	32,390	mv

## Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4990	0.0	0.00	0.4	N/A
4990	79.72	80.83	79.2	1.0204
4990	39.83	40.70	40.6	1.0036
4990	9.93	10.21	10.6	0.9602
zero	0.0	0.00	0.4	As Found Zero
4990	79.7	80.83	79.2	As Found Span
Average Correction Factor				0.9947

Calculated value of As Found Response: 80.97 ppm      Percent Change of As Found: -0.2%

	before calibration		after calibration	
Auto zero	0.5	ppm	0.0	ppm
Auto span	44.8	ppm	43.1	ppm

Notes: No Adjustments Made

Calibration Performed By: Conor Whiteley

## Calibration Summary

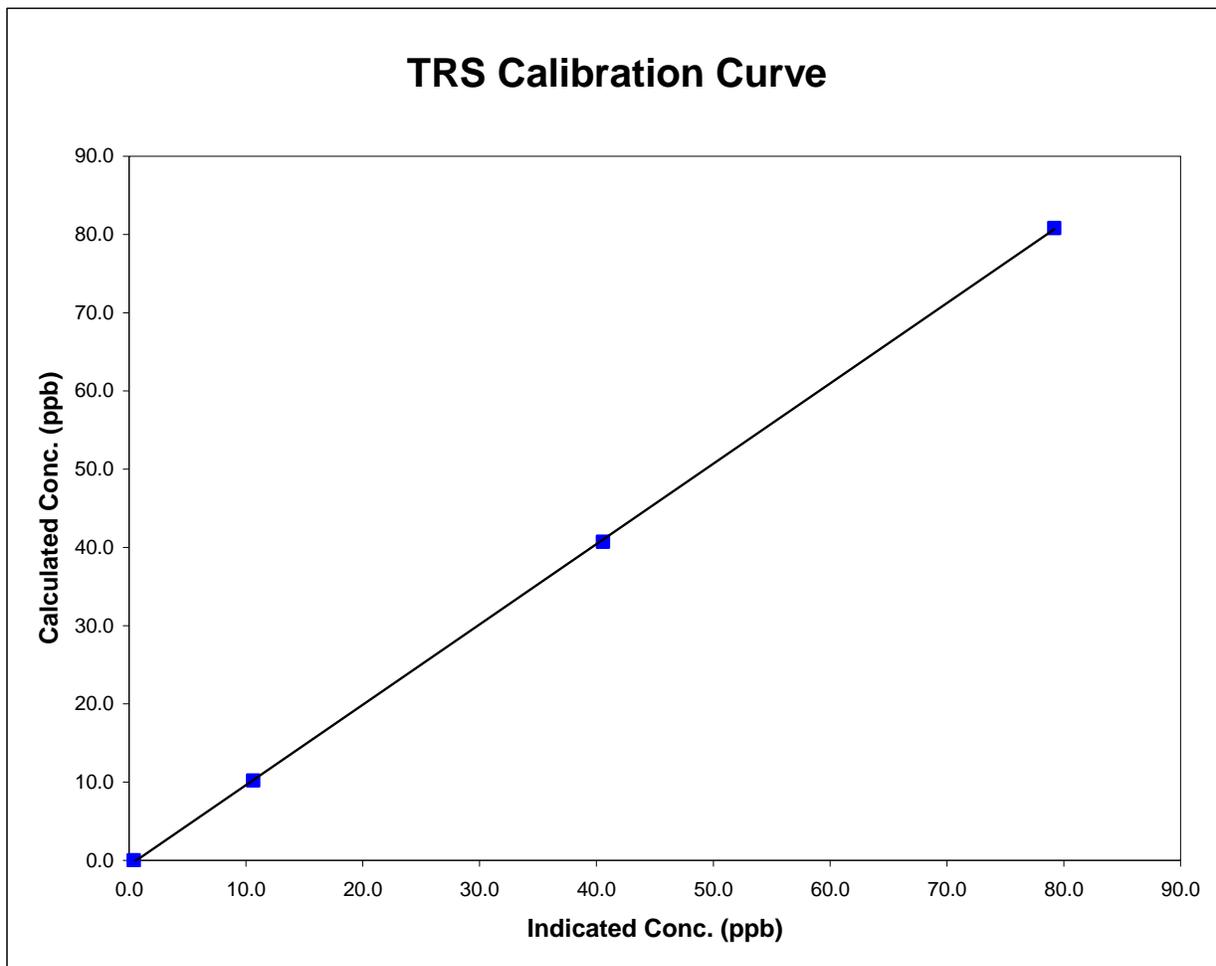
Parameter **TRS**Air Monitoring Network **PASZA**

### Station Information

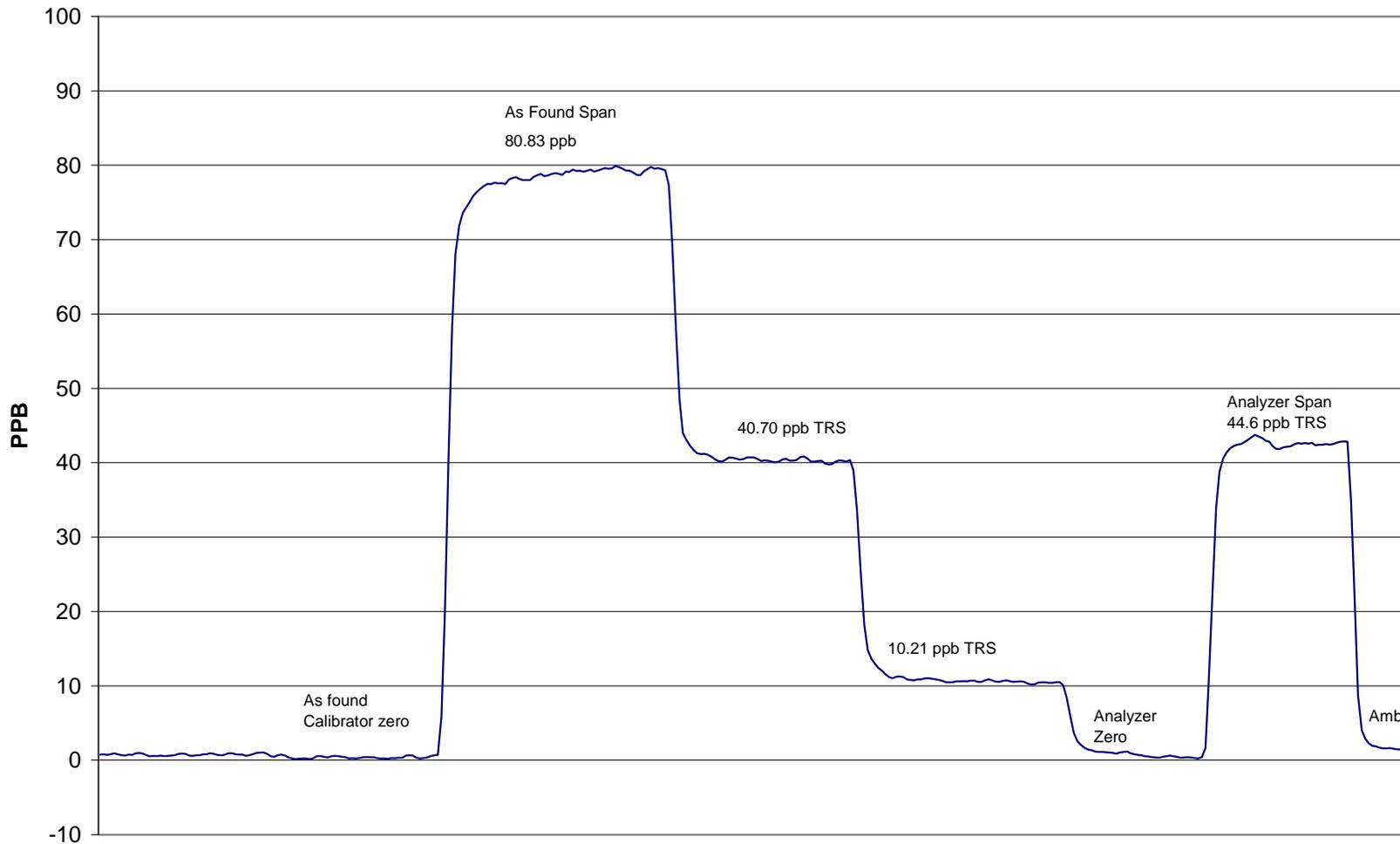
Calibration Date	November 28, 2007	Previous Calibration	October 4, 2007
Station Number	3	Station Location	Smoky Heights
Start Time (MST)	13:15	End Time (MST)	16:04
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A		
80.8	79.2	1.0204	Correlation Coefficient	0.999958
40.7	40.6	1.0036		
10.2	10.6	0.9602	Slope	1.026207
			Intercept	-0.620893



### Smoky Heights TRS Calibration



November 28, 2007

**Calibration Report**Parameter **SO2**Air Monitoring Network **PASZA****Station Information**

Calibration Date	November 9, 2007	Previous Calibration	October 25, 2007
Station Number	4	Station Location	Beaverlodge
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	12:20	End Time (MST)	13:50
Barometric Pressure	0.918 atm	Station Temperature	20.0 Deg C
Calibrator	Envionics 6100	Serial Number	3474
Cal Gas Concentration	10.06 ppm	Cal Gas Expiry Date	7/27/2009
Gas Cert Reference	CC 114395		
DACS make	Focus AP1000	DACS serial No.	45269
DACS voltage range	0 - 10 volt	DACS channel #	4
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.989268	Calculated slope	0.978898
Calculated intercept	1.336285	Calculated intercept	0.976445
Analyzer make	TEI Model 43CTL	Analyzer serial #	43CTL-74200-376

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	3		2.98	
Coefficient	0.769		0.769	
PMT	-705	v	-705	v
UV Lamp Voltage	901	v	906	v
Chamber Temp	44.6	Deg C	44.3	Deg C
Pressure	650.7	mm Hg	656.6	mm Hg
Sample Flow	0.604	LPM	0.614	LPM
Lamp Intesity	29411	Hz	29202	Hz

**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)
4990	0.00	0.0	-1.0	N/A
4990	39.83	79.7	80.4	0.9910
4992	0.00	0.0	-1.0	As found zero
4992	40.00	80.0	80.4	As found span
Average Correction Factor				0.9910

Calculated value of As Found Response: 81.843 ppm Percent Change of As Found: -2.3%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.7	ppm
Auto span	26.1	ppm	23.8	ppm

Notes: Investigating the doubling of the span since WednesdayCalibration Performed By: Conor Whiteley

## Calibration Summary

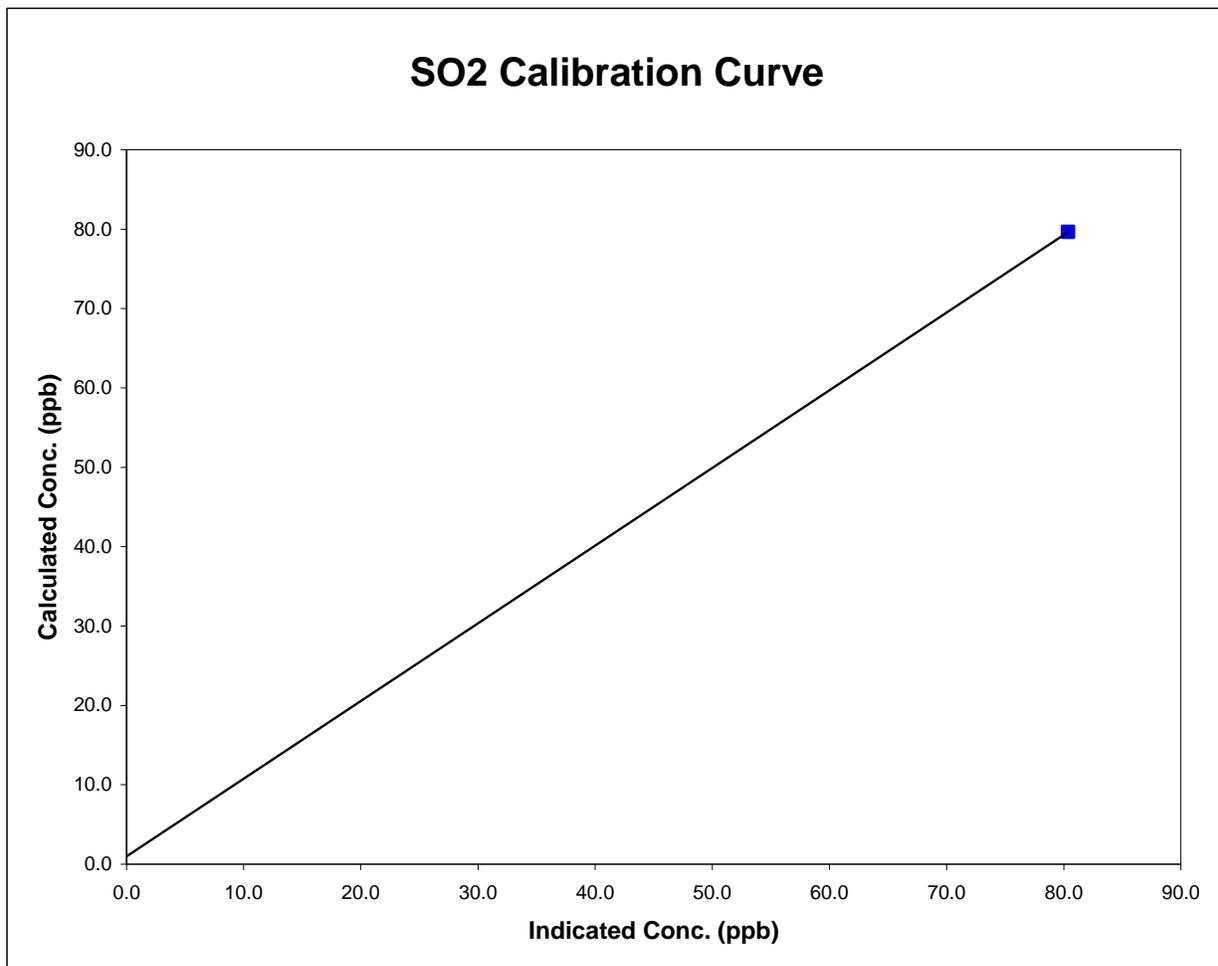
Parameter **SO2**Air Monitoring Network **PASZA**

### Station Information

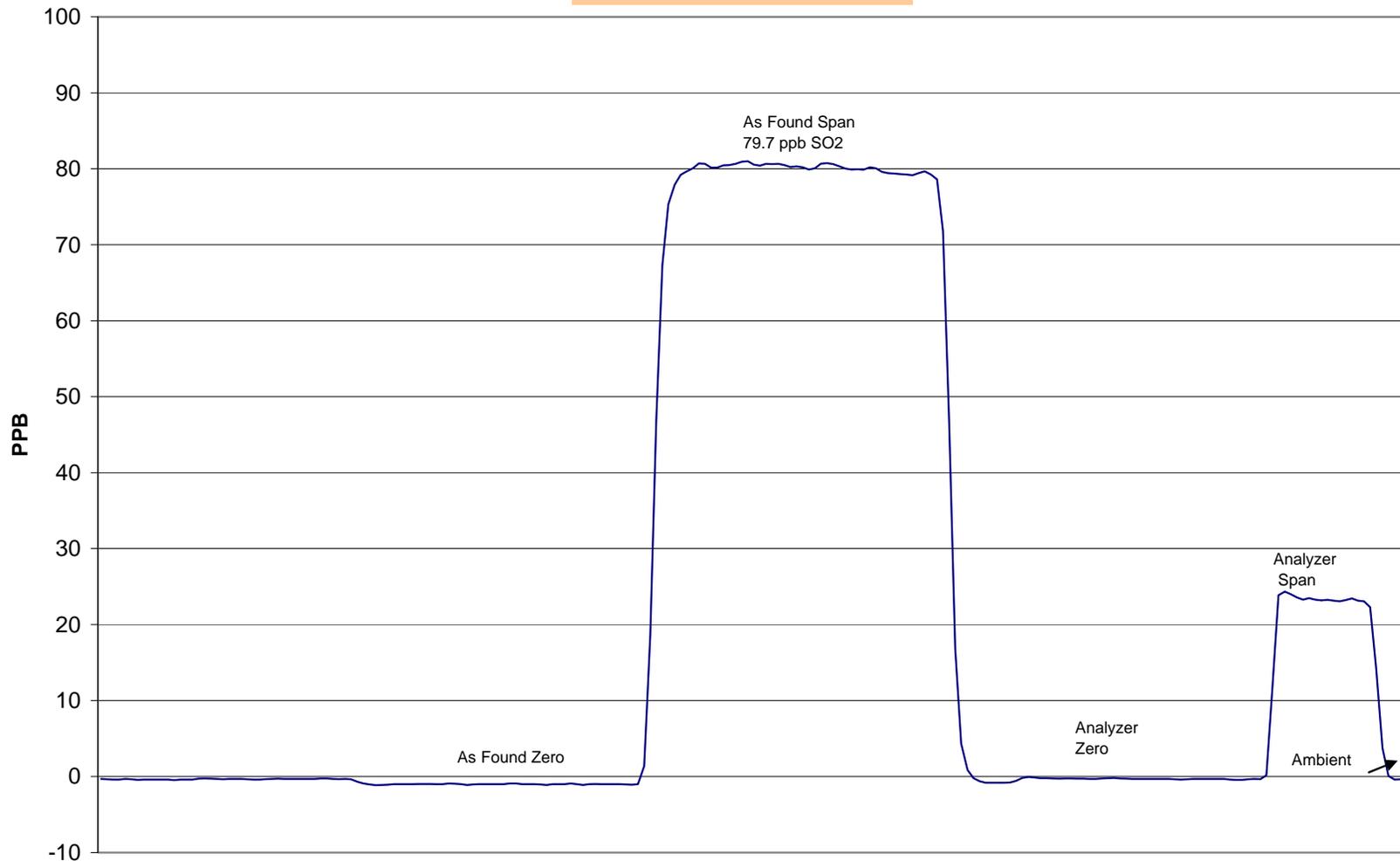
Calibration Date	November 9, 2007	Previous Calibration	October 25, 2007
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	12:20	End Time (MST)	13:50
Analyzer make/model	TEI Model 43CTL	Analyzer serial #	43CTL-74200-376

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-1.0	N/A		
79.7	80.4	0.9910	Correlation Coefficient	1.000000
			Slope	0.978898
			Intercept	0.976445



### Beaverlodge SO2 Calibration



November 9, 2007

## Calibration Report



Parameter **SO2**  
Air Monitoring Network **PASZA**

### Station Information

Calibration Date	November 13, 2007	Previous Calibration	November 9, 2007
Station Number	4	Station Location	Beaverlodge
Reason:	<input type="checkbox"/> Routine	<input checked="" type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	16:00	End Time (MST)	19:00
Barometric Pressure	0.909 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	10.06 ppm	Cal Gas Expiry Date	7/27/2009
Gas Cert Reference	CC 114395		
DACS make	Focus AP1000	DACS serial No.	45269
DACS voltage range	0 - 10 volt	DACS channel #	4
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	NA	Calculated slope	1.001394
Calculated intercept	NA	Calculated intercept	-0.011291
Analyzer make	TEI Model 43CTL	Analyzer serial #	43CTL-74200-376

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	NA		2.98	
Coefficient	NA		0.769	
PMT	NA	V	-705	V
UV Lamp Voltage	NA	V	906	V
Chamber Temp	NA	Deg C	44.3	Deg C
Pressure	NA	mm Hg	656.6	mm Hg
Sample Flow	NA	LPM	0.614	LPM
Lamp Intesity	NA	Hz	29202	Hz

### 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)
4992	0.00	0.0	0.0	N/A
4992	39.87	79.7	79.5	1.0020
4992	19.93	40.0	40.1	0.9973
4992	9.96	20.0	19.9	1.0041
4992	0.00	0.0	0.0	As found zero
4992	8.00	16.1	79.5	As found span
Average Correction Factor				1.0011

Calculated value of As Found Response: NA

Percent Change of As Found: NA

	before calibration		after calibration	
Auto zero	NA	ppm	0.0	ppm
Auto span	NA	ppm	51.3	ppm

Notes:

Calibration Performed By: Conor Whiteley

## Calibration Summary

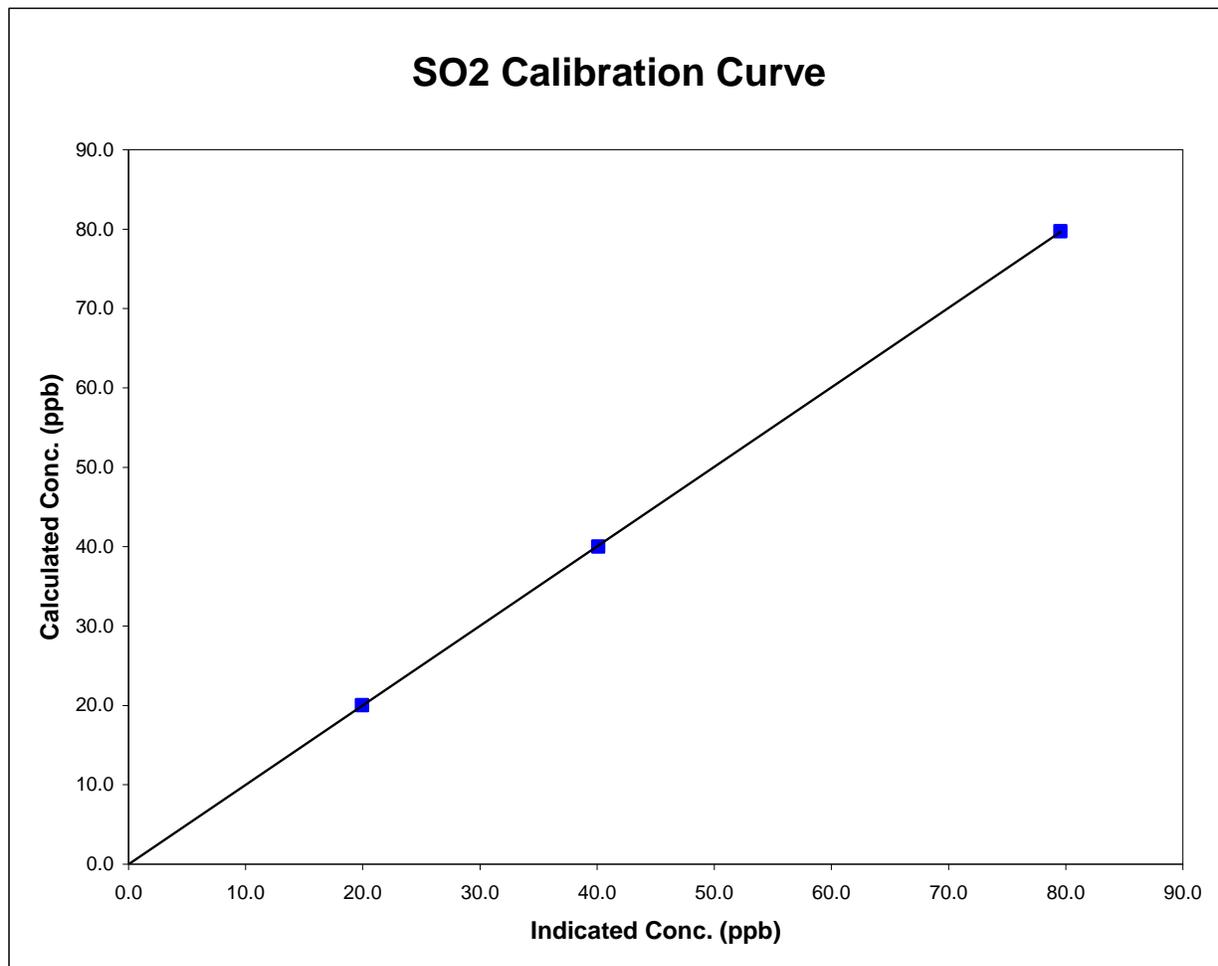
Parameter **SO2**Air Monitoring Network **PASZA**

### Station Information

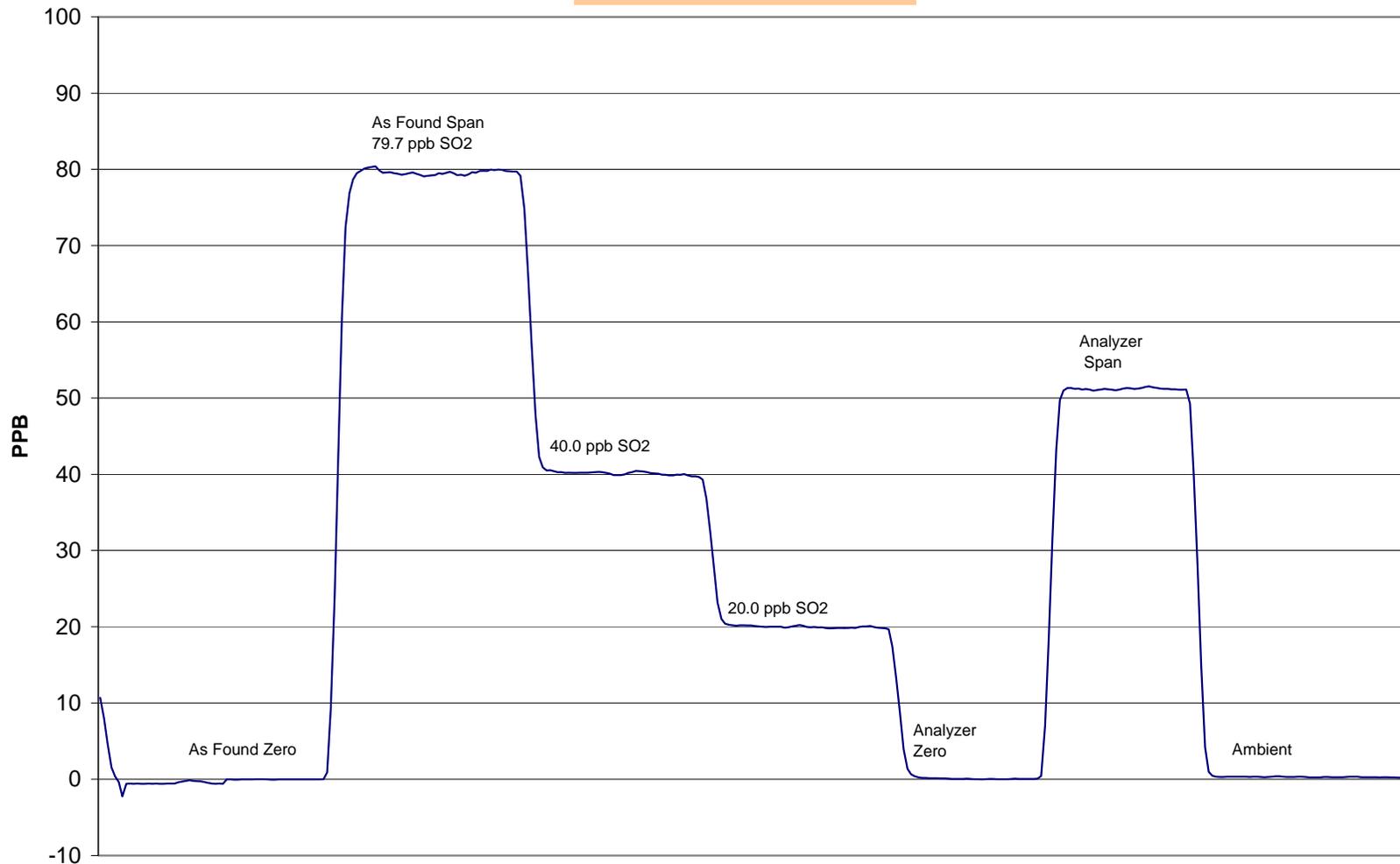
Calibration Date	November 13, 2007	Previous Calibration	November 9, 2007
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	16:00	End Time (MST)	19:00
Analyzer make/model	TEI Model 43CTL	Analyzer serial #	43CTL-74200-376

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
79.7	79.5	1.0020	Correlation Coefficient	0.999991
40.0	40.1	0.9973		
20.0	19.9	1.0041	Slope	1.001394
			Intercept	-0.011291



### Beaverlodge SO2 Calibration



November 13, 2007

# Calibration Report

Parameter

NOx-NO-NO<sub>2</sub>

Air Monitoring Network

PASZA



## Station Information

Calibration Date	November 13, 2007	Previous Calibration	October 25, 2007
Station Number	4	Station Location	Beaverlodge
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Installation	<input type="checkbox"/> Removal
Other:			
Start Time (MST)	11:30:00	End Time (MST)	15:50:00
Barometric Pressure	0.909 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
NO Cal Gas Conc	50.1 ppm	Cal Gas Cert. Date	2-Jan-07
NOx Cal Gas Conc	50.2 ppm	Cal Gas Serial #	CC 114395

## DACS Information

DACS make	FOCUS AP1000	DACS serial No.	45269
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Parameter		NO2	NOx	NO
Before	Data Slope	0.981793	0.982289	0.985725
	Data Offset	0.111003	-0.900604	-0.888744
After	Data Slope	0.973828	0.977952	0.980823
	Data Offset	0.275670	-1.707589	-1.167270
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

## Analyzer Information

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

Test Point	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
NO background	1.3	ppb	1.3	mV
NOx background	1.3	ppb	1.3	mV
NO coefficient	1.061		1.061	
NOx coefficient	0.999		0.999	
PMT Voltage	-635	V	-635	V
Chamber Temp	49.4	Deg C	49.4	Deg C
Cooler Temp	-2.1	Deg C	-2.1	Deg C
Converter Temp	324.0	Deg C	324.0	Deg C
Sample Flow	0.785	LPM	0.806	LPM
Ozonator Flow	0.085	LPM	0.086	LPM
Pressure	168.5	mm Hg	174.7	mm Hg

Notes: Zero air was cut off just as the second point was set, nox bloomed for a moment then zero air resumed.

# Calibration Report

Parameter  
Air Monitoring Network

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



## Station Information

Calibration Date: November 13, 2007

Station Location: Beaverlodge

### Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NO <sub>x</sub> conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NO <sub>x</sub> conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NO <sub>x</sub> Correction factor	NO Correction factor
zero	4991	0.00	0.0	0.0	0.0	0.3	-0.3	0.2	N/A	N/A
1	4991	39.92	398.3	397.5	0.8	408.2	405.6	2.2	0.9758	0.9800
2	4991	19.93	199.7	199.3	0.4	207.0	205.3	1.0	0.9648	0.9705
3	4991	9.96	100.0	99.8	0.2	105.3	104.3	0.5	0.9498	0.9563
AFZ	4991	0.00	0.0	0.0	0.0	0.3	-0.3	0.2	0.0000	0.0000
AFS	4991	39.92	398.3	397.5	0.8	408.2	405.6	2.2	0.9758	0.9800
Average Correction Factor									0.9635	0.9689

As Found Concentrations: NO<sub>x</sub>= 407.0 NO= 405.1 As Found Percent Change NO<sub>x</sub>= 2.2% NO= 1.9%

### GPT Calibration Data

Dilution Flow 4991 ccm Source Gas Flow 39.92 ccm

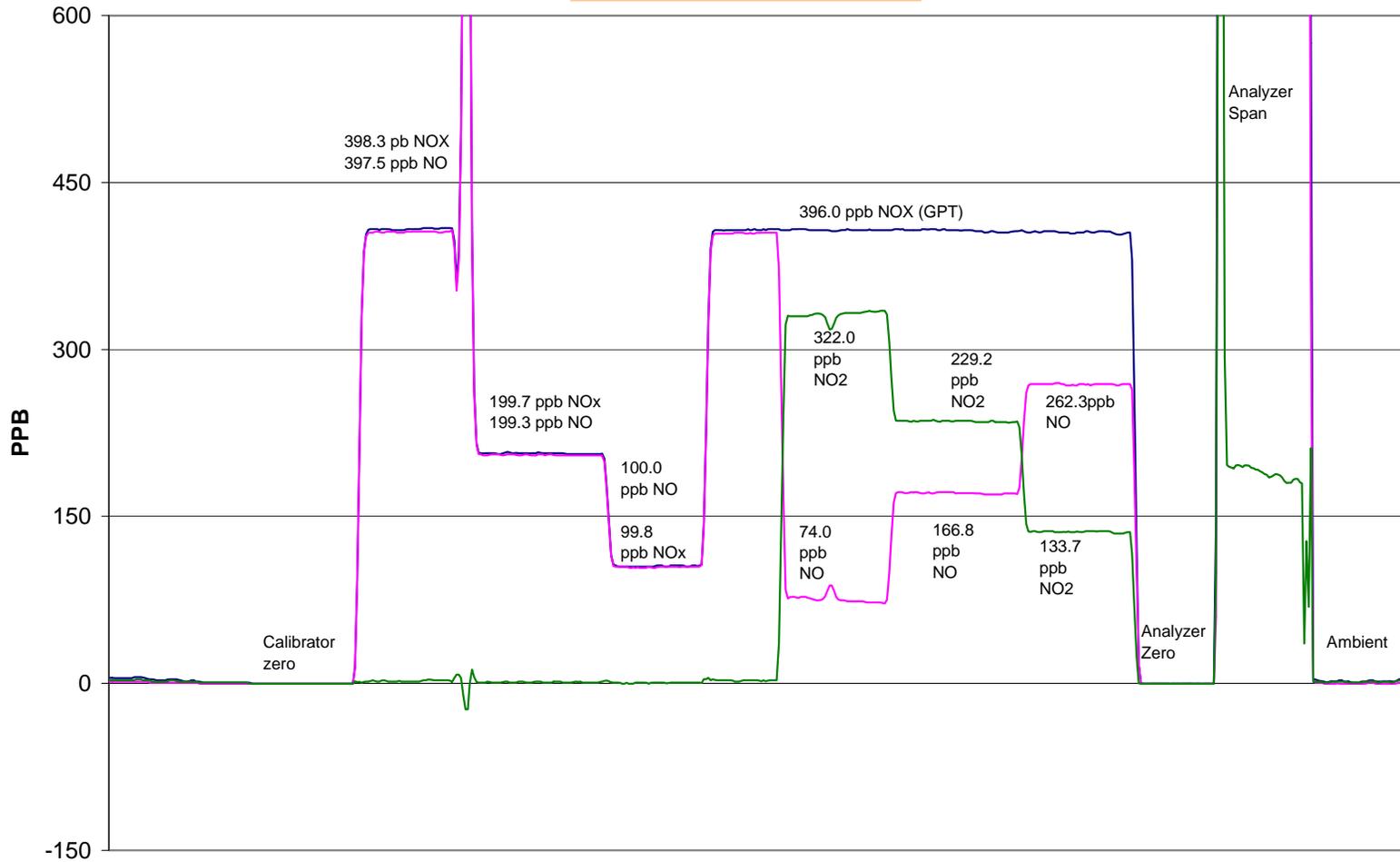
O <sub>3</sub> Setpoint (ppb)	Calculated NO <sub>x</sub> conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NO <sub>x</sub> conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NO <sub>x</sub> Correction factor	NO Correction factor	NO <sub>2</sub> Correction factor	Converter Efficiency
0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A	N/A
NO point	396.0	395.4	0.6	407.2	404.3	2.4	0.9725	0.9779	N/A	N/A
300	396.0	74.0	322.0	407.5	76.6	330.4	0.9717	0.9656	0.9745	102.6%
200	396.0	166.8	229.2	407.5	171.2	235.6	0.9718	0.9740	0.9726	102.8%
100	396.0	262.3	133.7	405.0	268.6	135.9	0.9778	0.9765	0.9837	101.7%
Average Correction Factor							0.9738	0.9720	0.9770	102.4%

### AIC Data

Parameter	Previous calibration				Current calibration			
	NO <sub>x</sub>	NO <sub>2</sub>	NO		NO <sub>x</sub>	NO <sub>2</sub>	NO	
Auto zero	-1.1	-0.2	-1.2	ppb	-1.9	0.0	-1.5	ppb
Auto span	484.9	13.8	472.1	ppb	974.9	183.6	977.2	ppb

Calibration Performed By: Conor Whiteley

### Beaverlodge NOx Calibration



November 13, 2007

## Calibration Summary

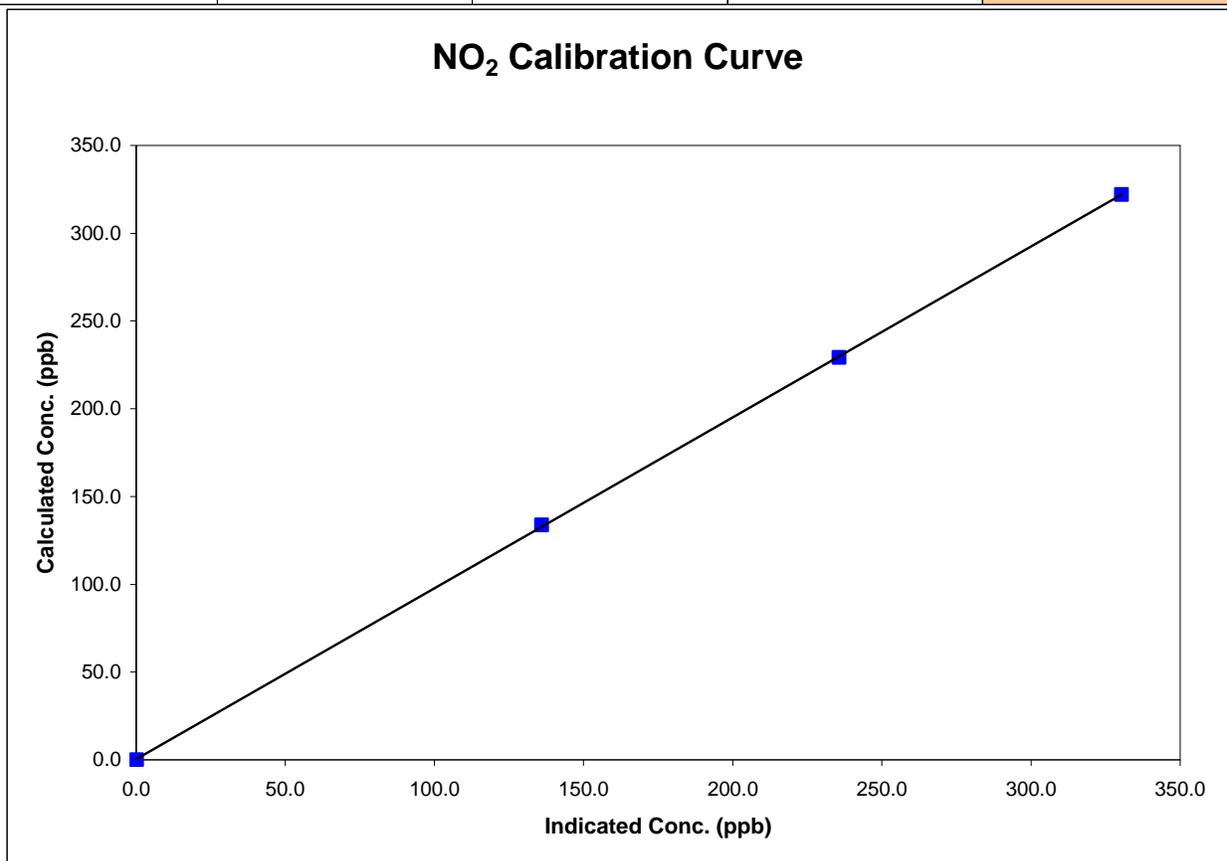
Parameter **NO<sub>2</sub>**Air Monitoring Network **PASZA**

### Station Information

Calibration Date	November 13, 2007	Previous Calibration	October 25, 2007
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	11:30	End Time (MST)	15:50
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	0.0000	Correlation Coefficient	0.999971
322.0	330.4	0.9745		
229.2	235.6	0.9726		
133.7	135.9	0.9837		
			Slope	0.973828
			Intercept	0.275670



## Calibration Summary

Parameter **NO<sub>x</sub>**  
 Air Monitoring Network **PASZA**

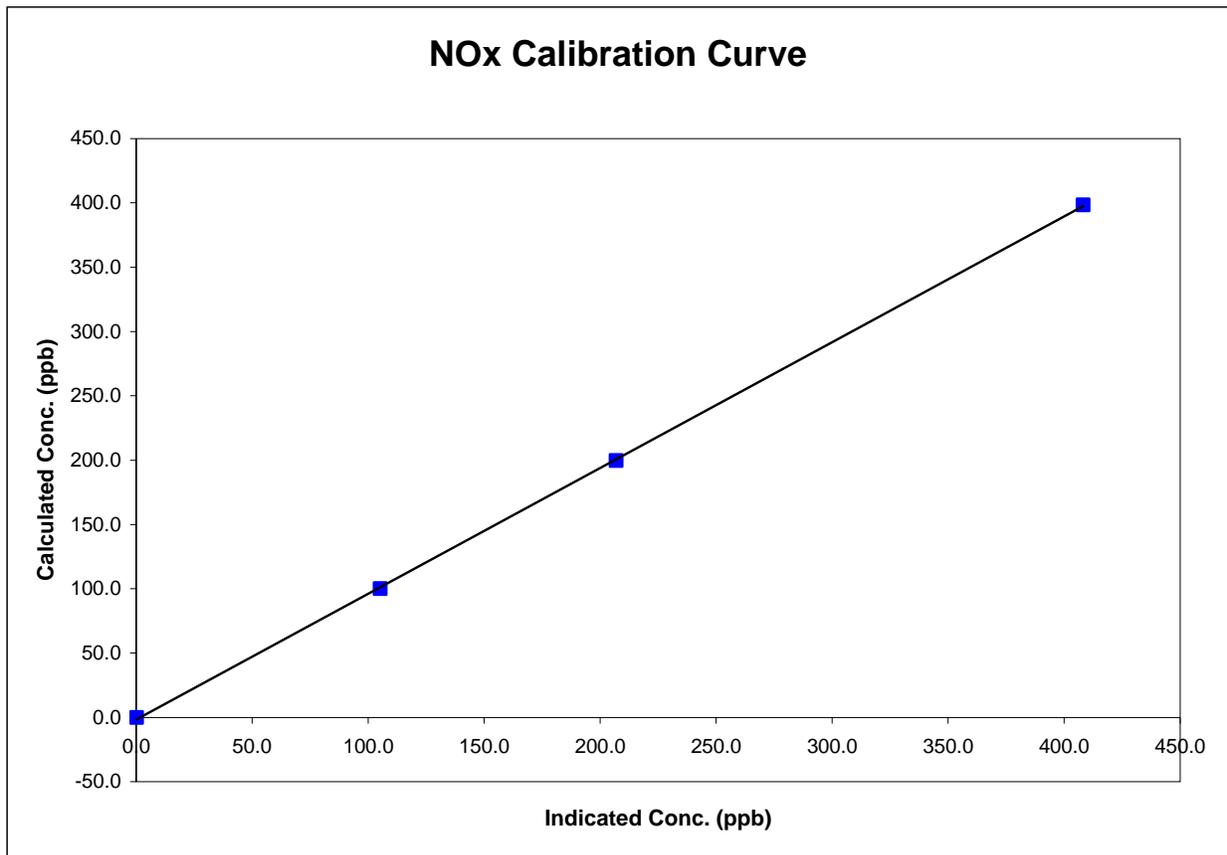


### Station Information

Calibration Date	November 13, 2007	Previous Calibration	October 25, 2007
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	11:30	End Time (MST)	15:50
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	0.0000	Correlation Coefficient	0.999938
398.3	408.2	0.9758		
199.7	207.0	0.9648		
100.0	105.3	0.9498		
			Slope	0.977952
			Intercept	-1.707589



## Calibration Summary

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

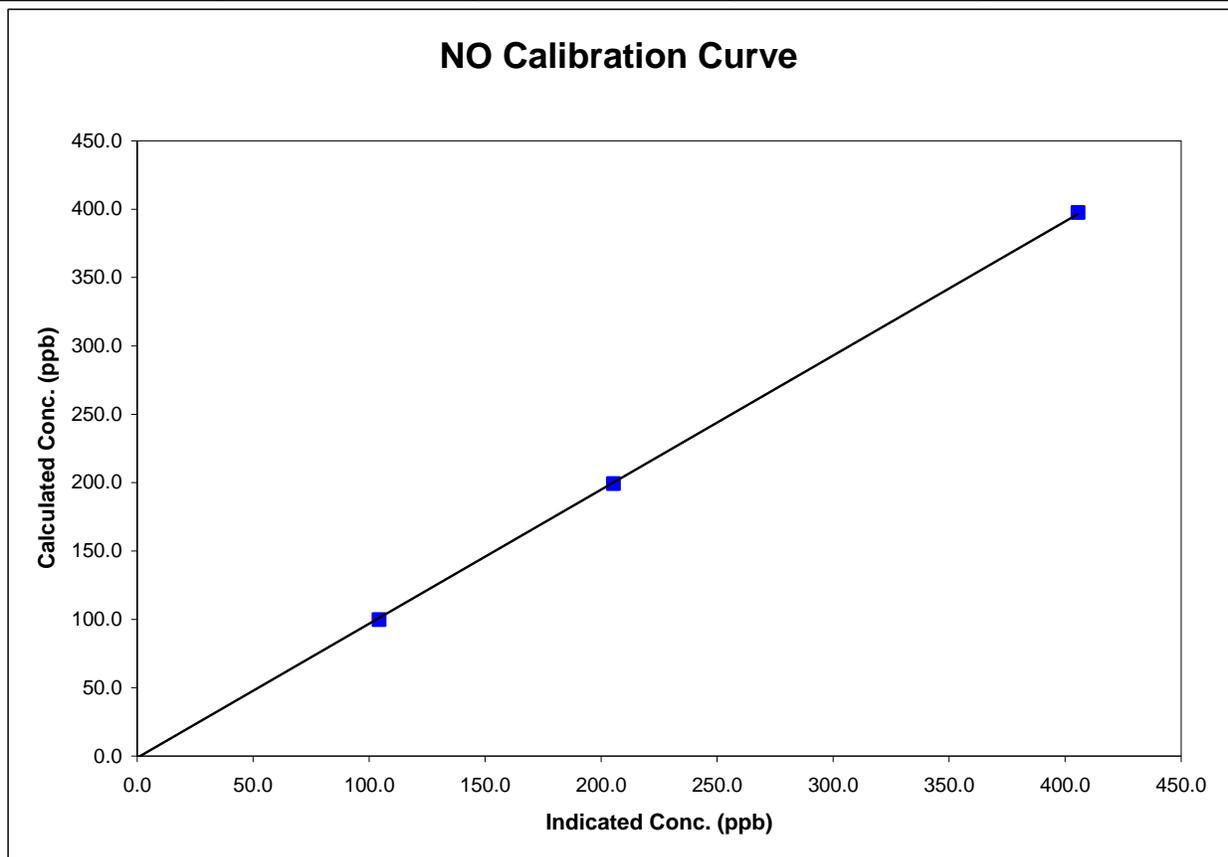


### Station Information

Calibration Date	November 13, 2007	Previous Calibration	October 25, 2007
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	11:30	End Time (MST)	15:50
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.3	N/A		
397.5	405.6	0.9800	Correlation Coefficient	0.999933
199.3	205.3	0.9705		
99.8	104.3	0.9563	Slope	0.980823
			Intercept	-1.167270



**Calibration Report**Parameter **O3**Air Monitoring Network **PASZA****Station Information**

Calibration Date	November 14, 2007	Previous Calibration	October 25, 2007
Station Number	4	Station Location	Beaverlodge
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			Other: <input type="text"/>
Start Time (MST)	9:30	End Time (MST)	12:50
Barometric Pressure	0.920 atm	Station Temperature	20.0 Deg C
Calibrator	Enviroics 6100	Serial Number	3474
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	45269
DACS voltage range	0 - 1 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	1.073143	Calculated slope	0.972885
Calculated intercept	0.826931	Calculated intercept	6.125586
Analyzer make	Teco 49C	Analyzer serial #	49C-76443-383

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.20	ppb	-0.20	ppb
slope	0.995		1.074	
Lamp temp	56.3	mV	56.3	mV
Lamp Intensity A/B	79469/76867	mV	79654/77070	mV
Pressure	674.1	mm Hg	672.7	mm Hg
Flow A	736	ccm	742	ccm
Flow B	693	ccm	697	ccm

**Calibration Data**

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4990	0.00	0.0	0.2	N/A
4990	0.00	322.0	330.1	0.9755
4990	0.00	229.2	226.2	1.0134
4990	0.00	133.7	122.3	1.0931
4990	0.00	0.0	0.2	As found zero
4990	0.00	322.0	306.7	As found span
Average Correction Factor				1.0273

Calculated value of As Found Response: 329.7 ppm Percent Change of As Found: 2.4%

	before calibration		after calibration	
Auto zero	0.9	ppb	6.1	ppb
Auto span	117.2	ppb	119.0	ppb

Notes: Adjusted O3 as found high pointCalibration Performed By: Conor Whiteley

## Calibration Summary

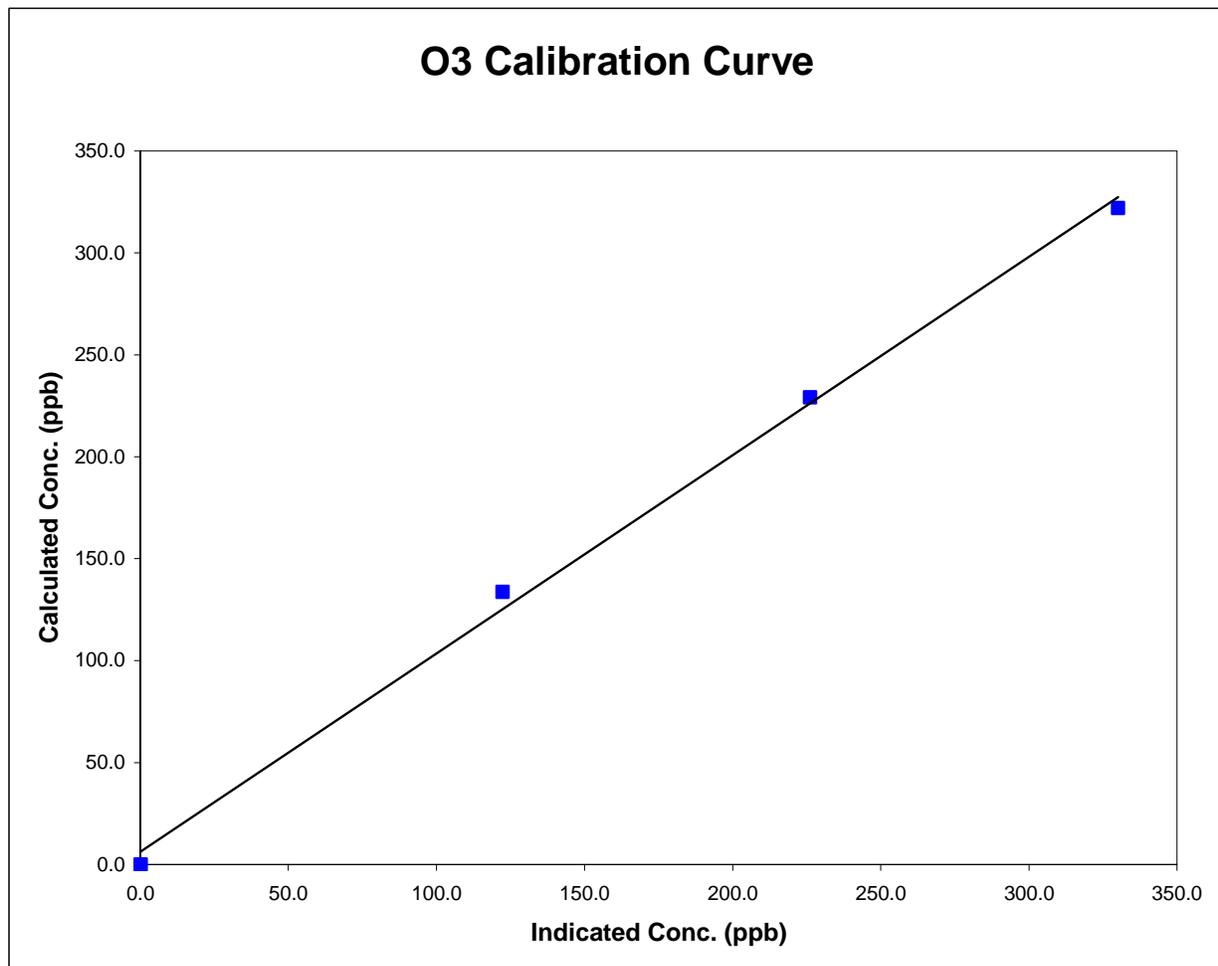
Parameter **O3**Air Monitoring Network **PASZA**

### Station Information

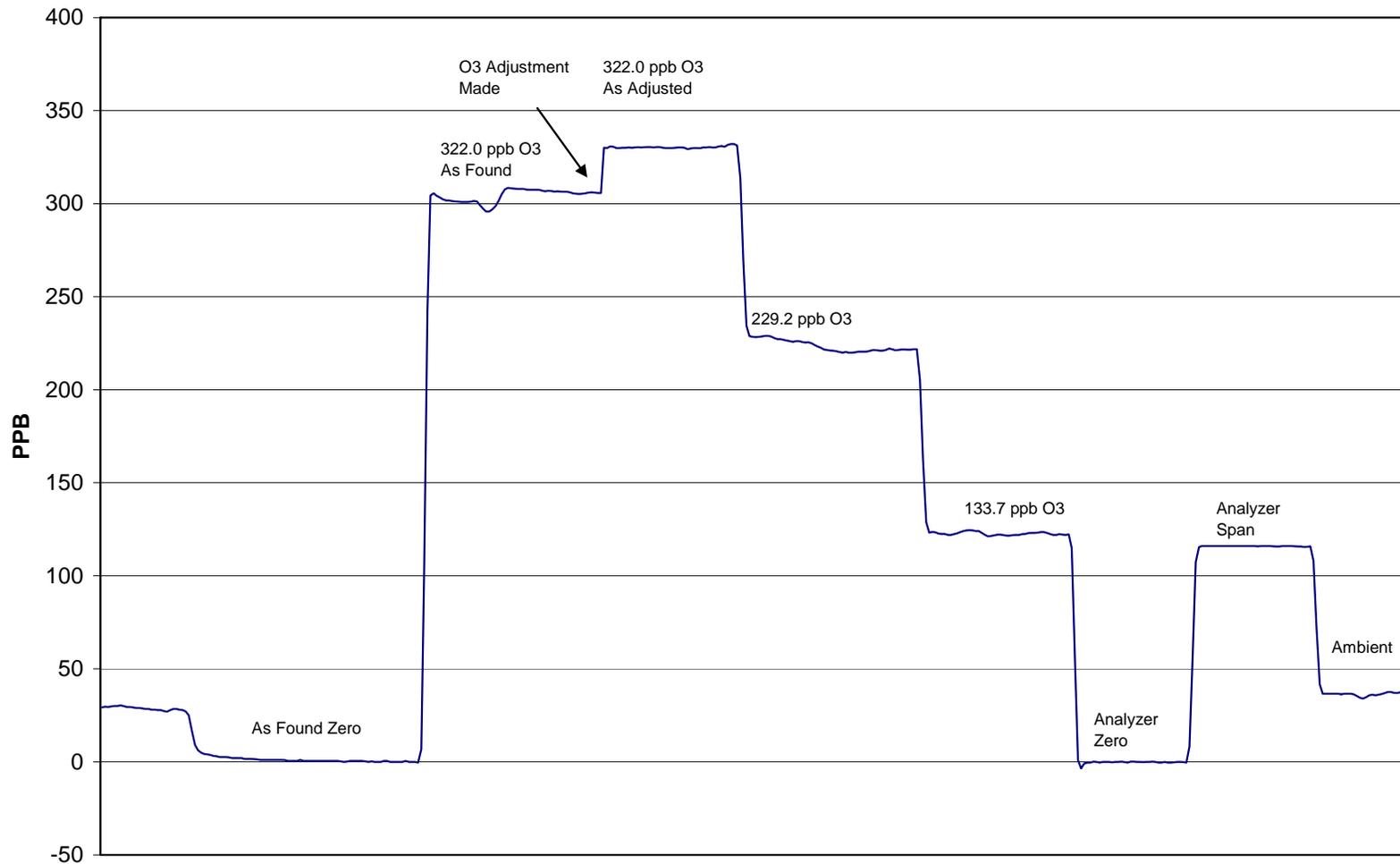
Calibration Date	November 14, 2007	Previous Calibration	October 25, 2007
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	9:30	End Time (MST)	12:50
Analyzer make/model	Teco 49C	Analyzer serial #	49C-76443-383

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	NA		
322.0	330.1	0.9755	Correlation Coefficient	0.997345
229.2	226.2	1.0134		
133.7	122.3	1.0931	Slope	0.972885
			Intercept	6.125586



### Beaverlodge O3 Calibration



November 14, 2007

**Calibration Report**Parameter **SO2**Air Monitoring Network **PASZA****Station Information**

Calibration Date	November 6, 2007	Previous Calibration	October 16, 2007
Station Number	8	Station Location	Rover - Spirit River
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	12:50	End Time (MST)	16:50
Barometric Pressure	27.43 inches Hg	Station Temperature	22.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	50.3 ppm	Cal Gas Expiry Date	7/27/2009
Gas Cert Reference	LL 16161		
DACS make	Focus AP1000	DACS serial No.	52662
DACS voltage range	0 - 10 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.006418	Calculated slope	0.997191
Calculated intercept	-0.366202	Calculated intercept	-0.632348
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	7.9		7.9	
Coefficient	1.137		1.156	
UV Lamp Voltage	736	V	740	V
Chamber Temp	44.4	C	44.4	C
Perm Gas Temp	45	C	45	C
Pressure	678.7	mm Hg	689.6	mm Hg
Sample Flow	489	LPM	494	LPM
Lamp Intesity	34290	Hz	33971	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)
4992	0.00	0.0	0.1	N/A
4992	39.84	398.3	400.6	0.9943
4992	19.85	199.2	198.2	1.0054
4992	9.93	99.8	103.0	0.9693
4992	0.00	0.0	0.1	As found zero
4992	39.94	399.2	391.2	As found span
Average Correction Factor				0.9896

Calculated value of As Found Response: 393.213 ppm      Percent Change of As Found: 1.5%

	before calibration		after calibration	
Auto zero	3.0	ppm	-0.5	ppm
Auto span	276.6	ppm	268.8	ppm

Notes: Adjusted SO2 SpanCalibration Performed By: Conor Whiteley

## Calibration Summary

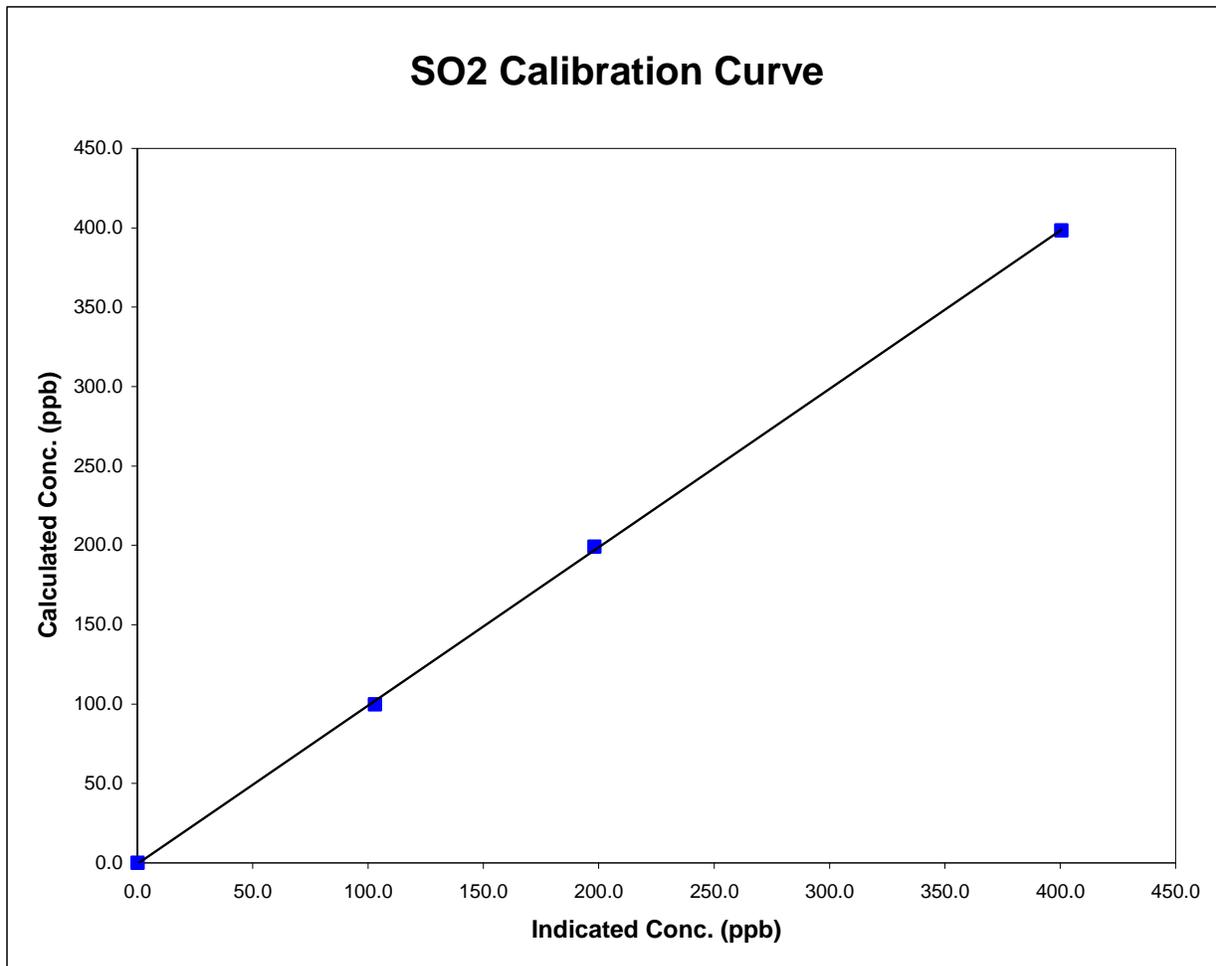
Parameter **SO2**Air Monitoring Network **PASZA**

### Station Information

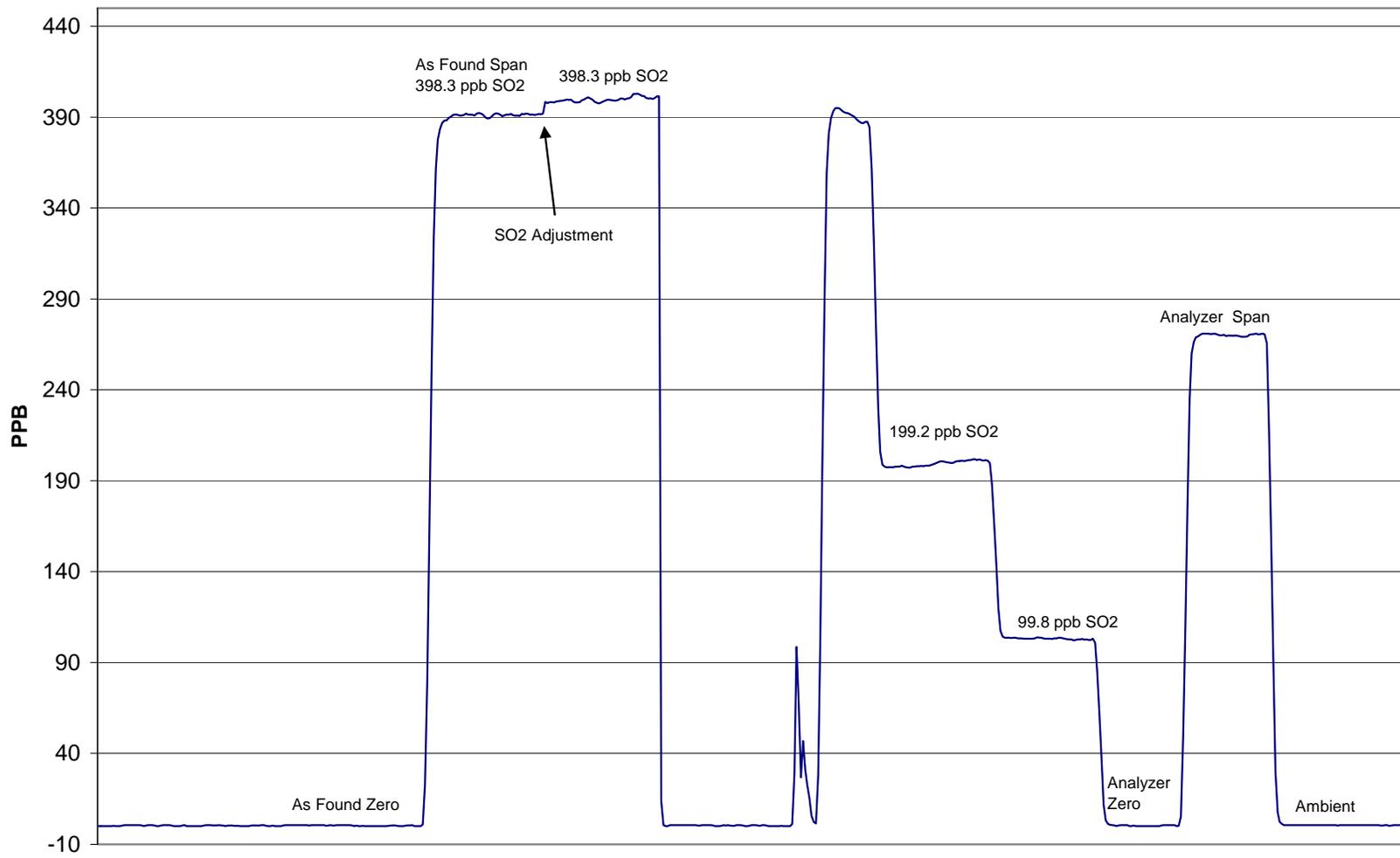
Calibration Date	November 6, 2007	Previous Calibration	October 16, 2007
Station Number	8	Station Location	Rover - Spirit River
Start Time (MST)	12:50	End Time (MST)	16:50
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
398.3	400.6	0.9943	Correlation Coefficient	0.999877
199.2	198.2	1.0054		
99.8	103.0	0.9693	Slope	0.997191
			Intercept	-0.632348



### Spirit River SO2 Calibration



November 6, 2007

# Calibration Report

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

## Station Information

Calibration Date	November 7, 2007	Previous Calibration	October 16, 2007
Station Number	6	Station Location	Portable - Spirit River
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	14:00	End Time (MST)	16:45
Barometric Pressure	28.0 inches Hg	Station Temperature	21.0 Deg C
Calibrator	Envionics 6100	Serial Number	3474
Cal Gas Concentration	5.14 ppm	Cal Gas Expiry Date	11/15/2005
Gas Cert Reference	LL 74274		
DACS make	Focus AP1000	DACS serial No.	52662
DACS voltage range	0 - 5 volt	DACS channel #	8
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.004783	Calculated slope	0.999356
Calculated intercept	0.584556	Calculated intercept	0.486632
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	4.8	ppb	4.8	ppb
Coefficient	1.055		1.055	
Lamp Voltage	801	V	800	V
Chamber Temp	43.9	C	44.0	C
Perm gas Temp	45	C	45	C
Pressure	675	mmHg	669	mmHg
Sample Flow	441	ccm	445	ccm
Lamp Intensity	38522.0	Hz	37857.0	Hz

## Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4992	0.0	0.0	-0.4	N/A
4992	69.74	70.8	70.4	1.0055
4992	39.93	40.8	40.3	1.0132
4992	9.96	10.2	9.7	1.0583
4992	0.00	0.0	-0.4	As found zero
4992	69.74	70.8	70.4	As found span
Average Correction Factor				1.0257

Calculated value of As Found Response: 71.74 ppm Percent Change of As Found: -1.3%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.1	ppm
Auto span	80.0	ppm	78.3	ppm

Notes: No adjustments madeCalibration Performed By: Conor Whiteley

## Calibration Summary

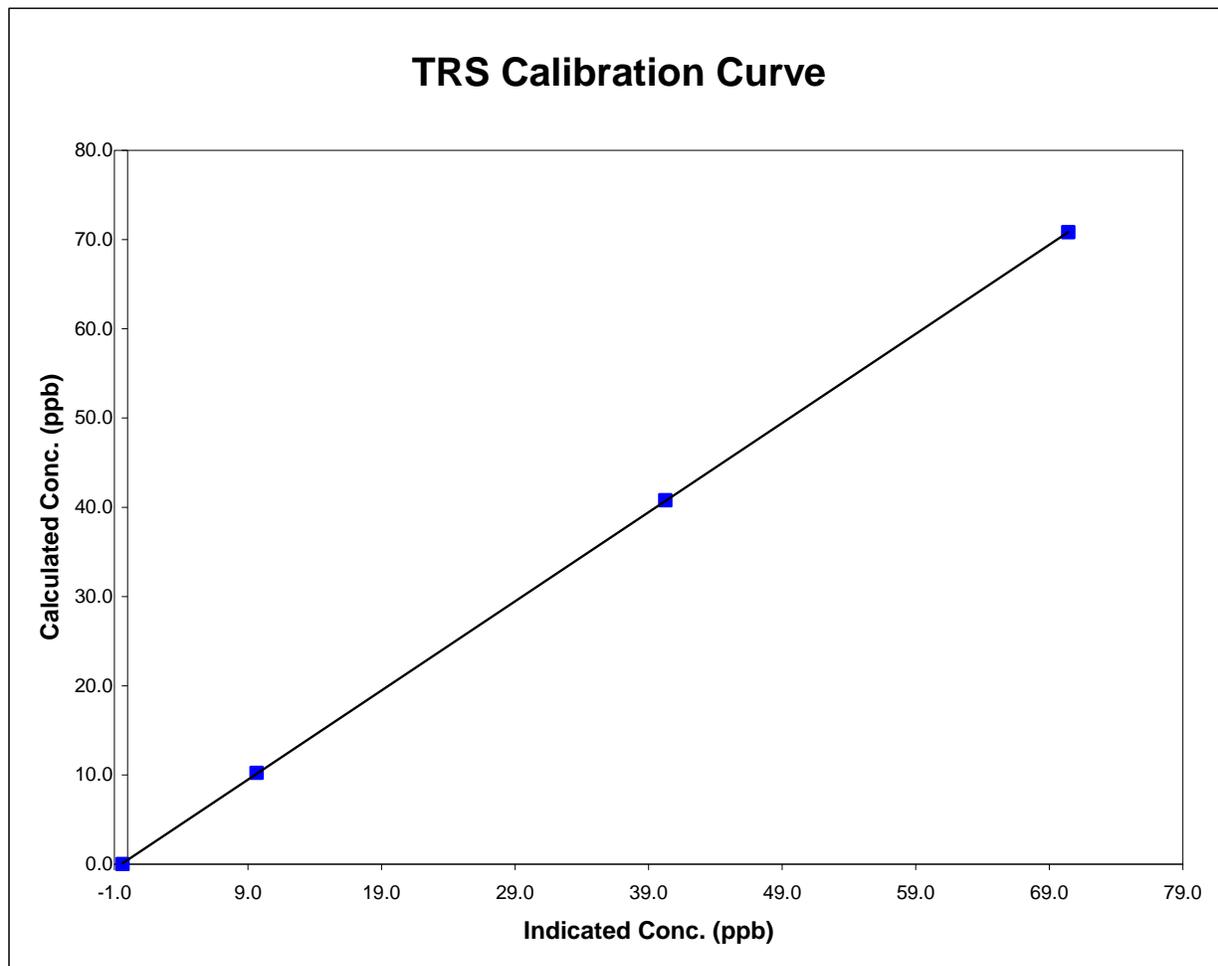
Parameter **TRS**Air Monitoring Network **PASZA**

### Station Information

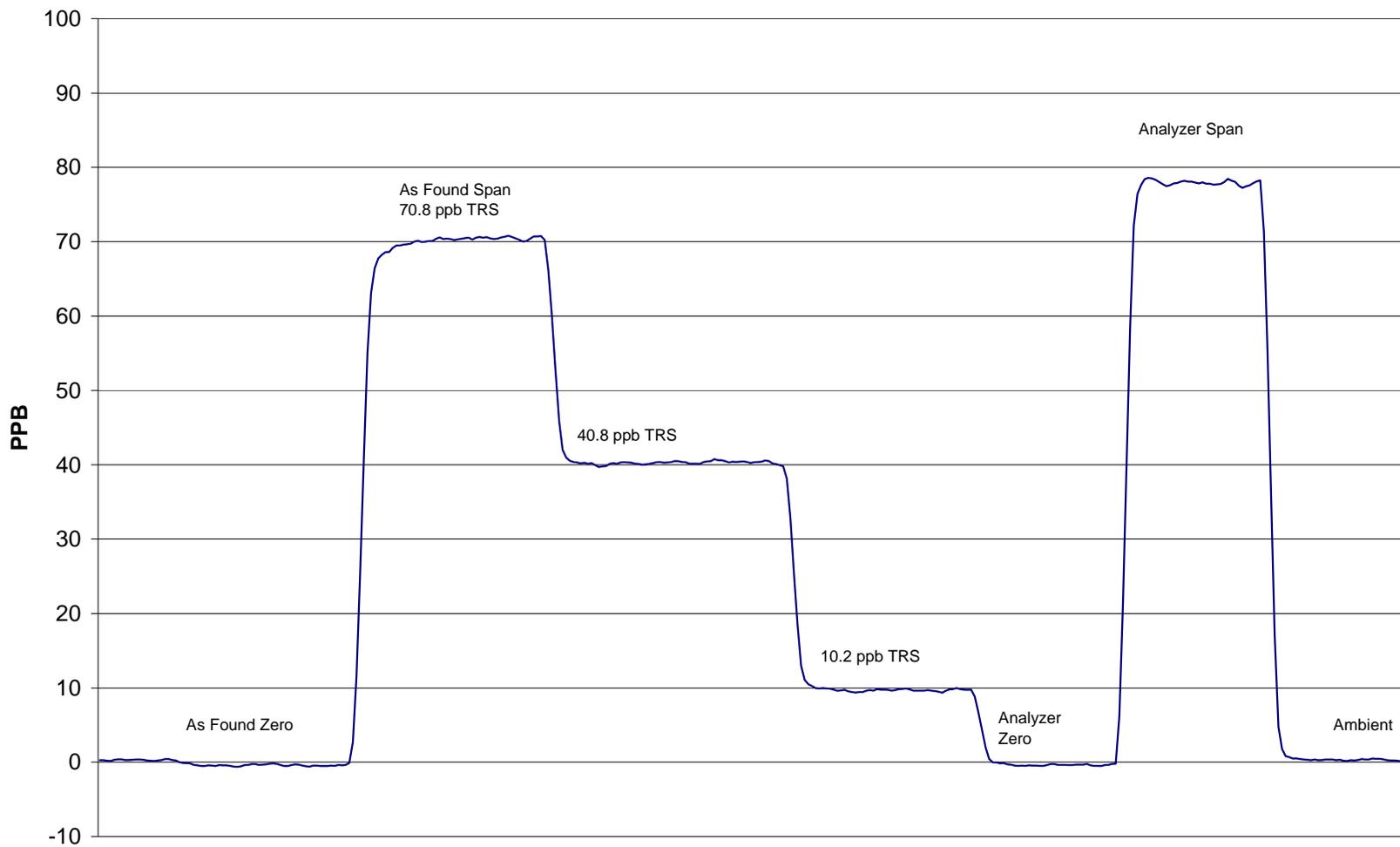
Calibration Date	November 7, 2007	Previous Calibration	October 16, 2007
Station Number	6	Station Location	Portable - Spirit River
Start Time (MST)	14:00	End Time (MST)	16:45
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	N/A		
70.8	70.4	1.0055	Correlation Coefficient	0.999992
40.8	40.3	1.0132		
10.2	9.7	1.0583	Slope	0.999356
			Intercept	0.486632



### Spirit River TRS Calibration



November 7, 2007

# Calibration Report

Parameter **O3**Air Monitoring Network **PASZA**

## Station Information

Calibration Date	November 7, 2007	Previous Calibration	October 16, 2007
Station Number	8	Station Location	Rover - Spirit River
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			Other: <input type="checkbox"/>
Start Time (MST)	11:30	End Time (MST)	14:45
Barometric Pressure	0.937 atm	Station Temperature	21.0 Deg C
Calibrator	Enviroics 6100	Serial Number	3474
DACS make	Focus AP1000	DACS serial No.	52662
DACS voltage range	0-5	DACS channel #	7
	Before		After
Calculated slope	0.972945	Calculated slope	0.989901
Calculated intercept	-2.109817	Calculated intercept	6.437945
Analyzer make	TEI Model 49C	Analyzer serial #	609-716240

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	0	ppb	0	ppb
Span	1.022		1.022	
Cell A	114243	Hz	114243	Hz
Cell B	111,177	Hz	111,177	Hz
Pressure	685	in Hg	685	in Hg
CellA Flow	668	ccm	668	ccm
Cell B Flow	669	cmm	669	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)
4992	0.00	0.0	0.2	N/A
4992	0.00	327.2	330.9	0.9888
4992	0.00	231.0	220.5	1.0473
4992	0.00	133.5	121.0	1.1029
4992	0.00	0.0	0.2	As found zero
4992	0.00	300.0	340.1	As found span
Average Correction Factor				1.0463

Calculated value of As Found Response: 328.5 ppm      Percent Change of As Found: 9.5%

	before calibration		after calibration	
Auto zero	-3.7	ppb	6.8	ppb
Auto span	345.3	ppb	337.1	ppb

Notes: Adjusted O3 High PointCalibration Performed By: Conor Whiteley

# Calibration Summary



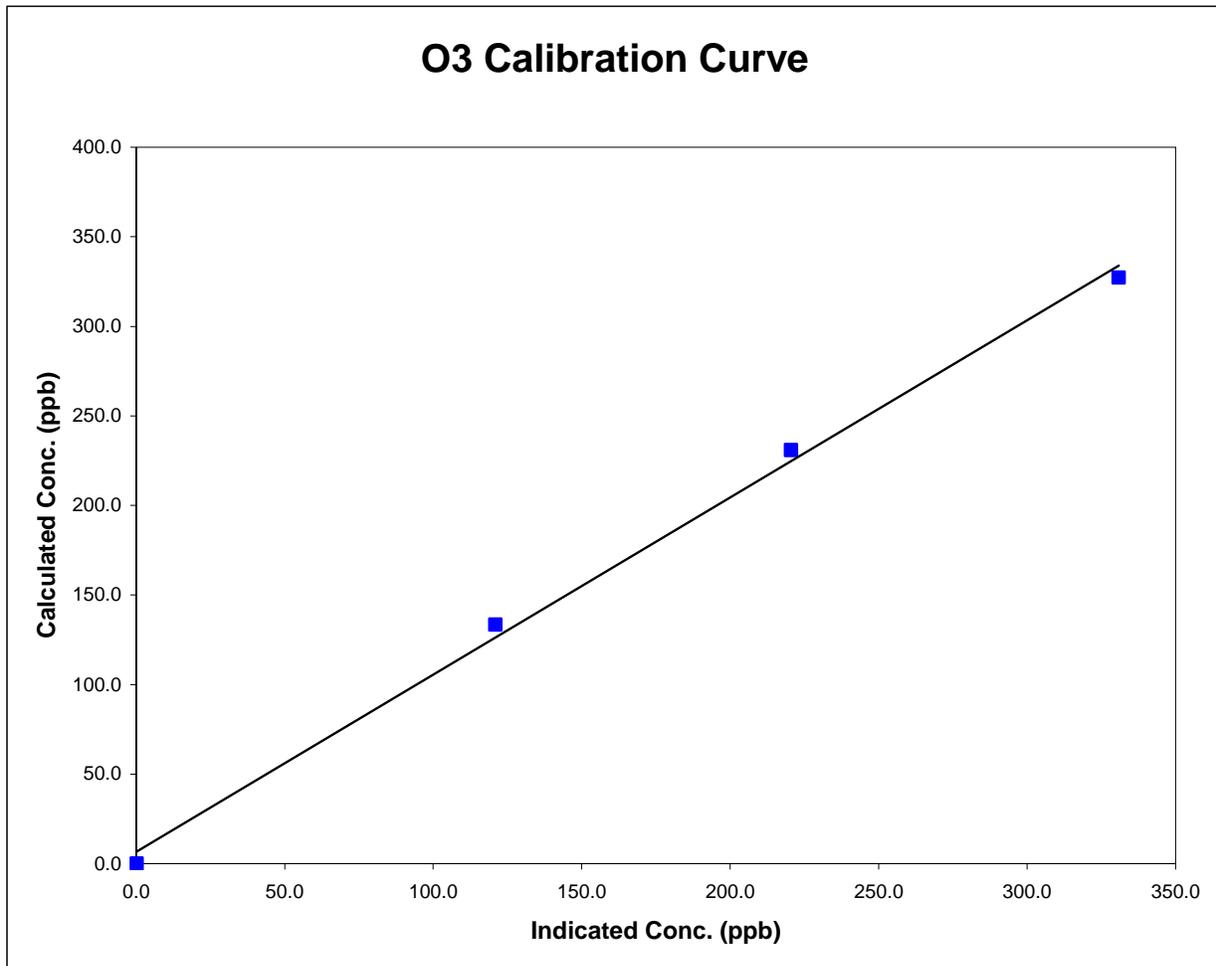
Parameter **O3**  
 Air Monitoring Network **PASZA**

### Station Information

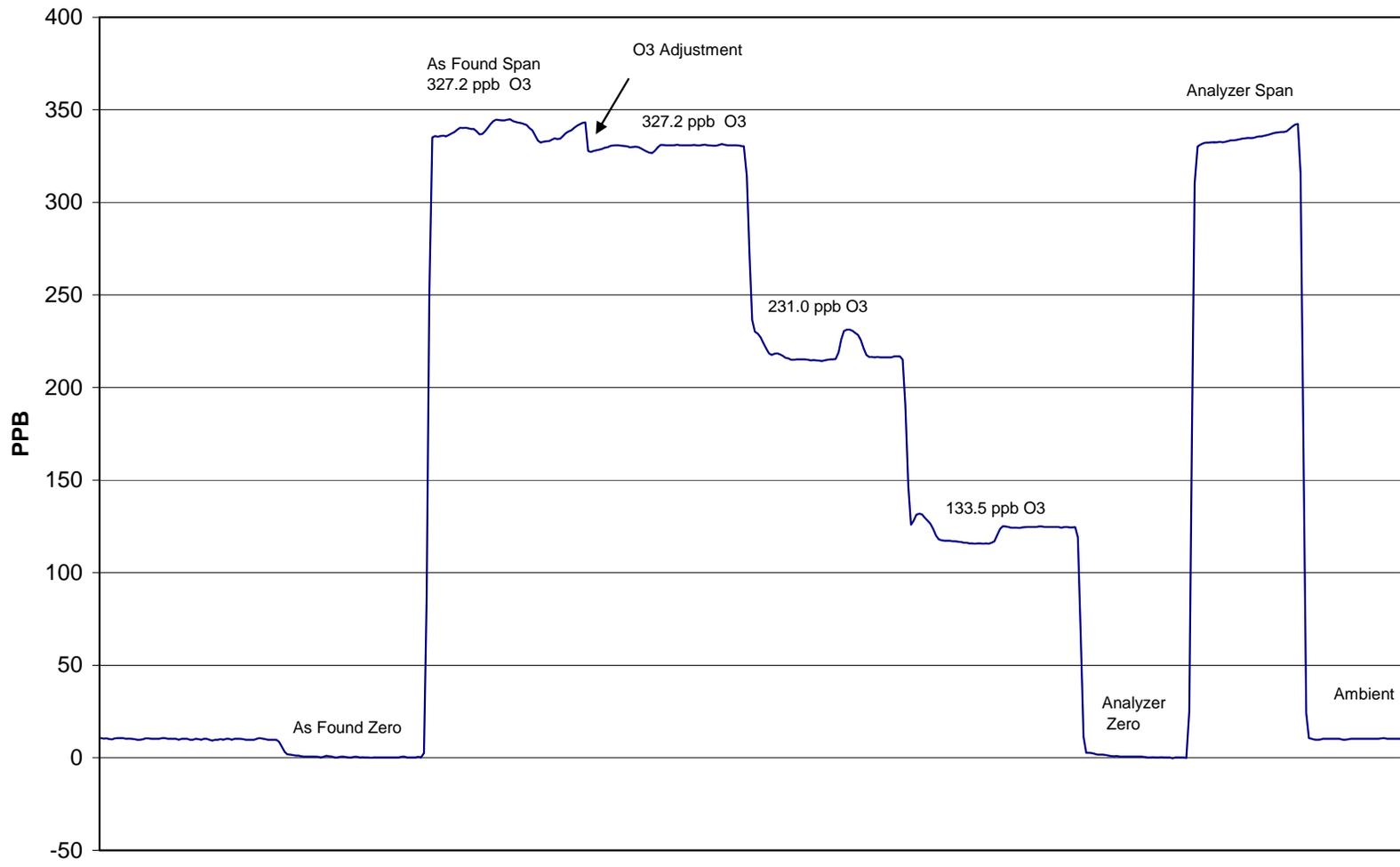
Calibration Date	November 7, 2007	Previous Calibration	October 16, 2007
Station Number	8	Station Location	Rover - Spirit River
Start Time (MST)	11:30	End Time (MST)	14:45
Analyzer make/model	TEI Model 49C	Analyzer serial #	609-716240

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	NA		
327.2	330.9	0.9888	Correlation Coefficient	0.996903
231.0	220.5	1.0473		
133.5	121.0	1.1029	Slope	0.989901
			Intercept	6.437945



### Spirit River O3 Calibration



November 7, 2007

**Calibration Report**

Parameter

**NOx-NO-NO<sub>2</sub>**

Air Monitoring Network

**PASZA****Station Information**

Calibration Date	<b>November 6, 2007</b>	Previous Calibration	October 16, 2007
Station Number	<b>8</b>	Station Location	<b>Rover - Spirit River</b>
Reason:	<b>Routine</b>	Installation	Removal
Start Time (MST)	<b>12:50</b>	End Time (MST)	<b>18:20</b>
Barometric Pressure	<b>27.43</b> Inches Hg	Station Temperature	<b>22.0</b> Deg C
Calibrator	<b>EnviroNics 6100</b>	Serial Number	<b>3474</b>
NO Cal Gas Conc	<b>48.9</b> ppm	Cal Gas Expiry Date	<b>2-Jan-09</b>
NOx Cal Gas Conc	<b>48.9</b> ppm	Cal Gas Serial #	<b>LL-16161</b>

**DACS Information**

DACS make	<b>FOCUS AP1000</b>	DACS serial No.	<b>52662</b>
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Parameter		NO2	NOx	NO
Before	Data Slope	0.996721	1.000107	1.000921
	Data Offset	-1.394613	-3.692769	-3.317014
After	Data Slope	<b>1.000355</b>	<b>1.003276</b>	<b>1.002388</b>
	Data Offset	<b>0.013704</b>	<b>-2.133688</b>	<b>-2.043094</b>
Channel #		<b>8</b>	<b>6</b>	<b>7</b>
Voltage Range		<b>0 - 10 VDC</b>	<b>0 - 10 VDC</b>	<b>0 - 10 VDC</b>

**Analyzer Information**

Analyzer make/model	<b>TECO 42i</b>	Analyzer serial #	<b>701120011</b>
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Test Point	before		after	
Concentration range	0-1000	ppb	0-1000	ppb
NO background	4.1	ppb	4.2	mV
NOx background	4.3	ppb	4.4	mV
NO coefficient	0.661		0.689	
NOx coefficient	0.999		0.999	
Chamber Temp	50.1	Deg C	50.4	Deg C
Cooler Temp	-2.6	Deg C	-2.8	Deg C
NO2 Converter Temp	325.8	Deg C	324.2	Deg C
Sample Flow	673.0	ccm	663.0	ccm
Ozonator Flow	OK	LPM	OK	LPM
Pressure	157.2	mm Hg	163.0	mm Hg

Notes: Span AdjustedCalibration Performed By: Conor Whiteley

# Calibration Report

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



## Station Information

Calibration Date: **November 6, 2007** Station Location: **Rover - Spirit River**

### Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NOx Correction factor	NO Correction factor
zero	4989	0.00	0.0	0.0	0.0	0.1	0.0	0.2	N/A	N/A
1	4989	39.84	387.4	387.4	0.0	387.1	387.5	0.4	1.0007	0.9998
2	4989	19.85	193.8	193.8	0.0	196.4	196.3	1.1	0.9865	0.9872
3	4989	9.93	97.1	97.1	0.0	100.9	101.0	0.6	0.9621	0.9611
AFZ	4990	0.00	0.0	0.0	0.0	0.1	0.0	0.2	0.0000	0.0000
AFS	4990	39.92	388.1	388.1	0.0	371.2	371.5	0.6	1.0455	1.0447
Average Correction Factor									0.9831	0.9827

As Found Concentrations: NO<sub>x</sub>= 367.5 NO= 368.2 As Found Percent Change NO<sub>x</sub>= -5.3% NO= -5.1%

### GPT Calibration Data

Dilution Flow 4989 ccm Source Gas Flow 39.82 ccm

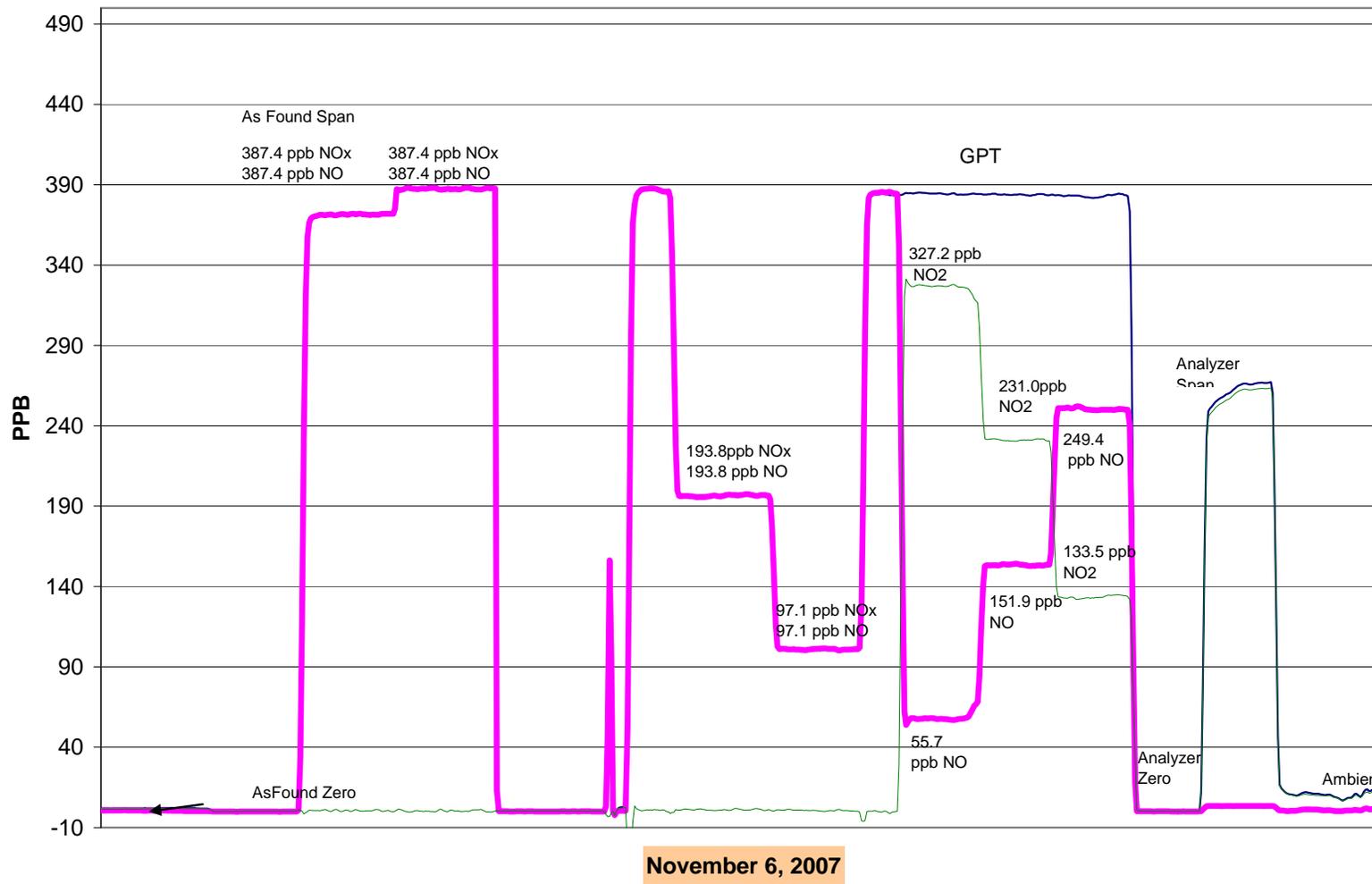
O <sub>3</sub> Setpoint (ppb)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NOx Correction factor	NO Correction factor	NO <sub>2</sub> Correction factor	Converter Efficiency
0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A	N/A
NO point	382.9	383.8	-0.9	383.9	384.9	-0.1	0.9972	0.9971	N/A	N/A
300	382.9	55.7	327.2	384.5	57.6	327.0	0.9958	0.9669	1.0004	100.0%
200	382.9	151.9	231.0	383.9	153.6	231.1	0.9972	0.9891	0.9992	100.1%
100	382.9	249.4	133.5	382.8	250.9	132.9	1.0001	0.9942	1.0040	99.6%
Average Correction Factor							0.9977	0.9834	1.0012	99.9%

### AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO <sub>2</sub>	NO		NOx	NO <sub>2</sub>	NO	
Auto zero	NA	NA	NA	ppb	0.1	0.7	0.5	ppb
Auto span	225.4	222.0	1.8	ppb	264.9	262.8	1.5	ppb

Calibration Performed By: Conor Whiteley

**Spirit River NOx Calibration**



## Calibration Summary

Parameter **NO<sub>2</sub>**  
 Air Monitoring Network **PASZA**

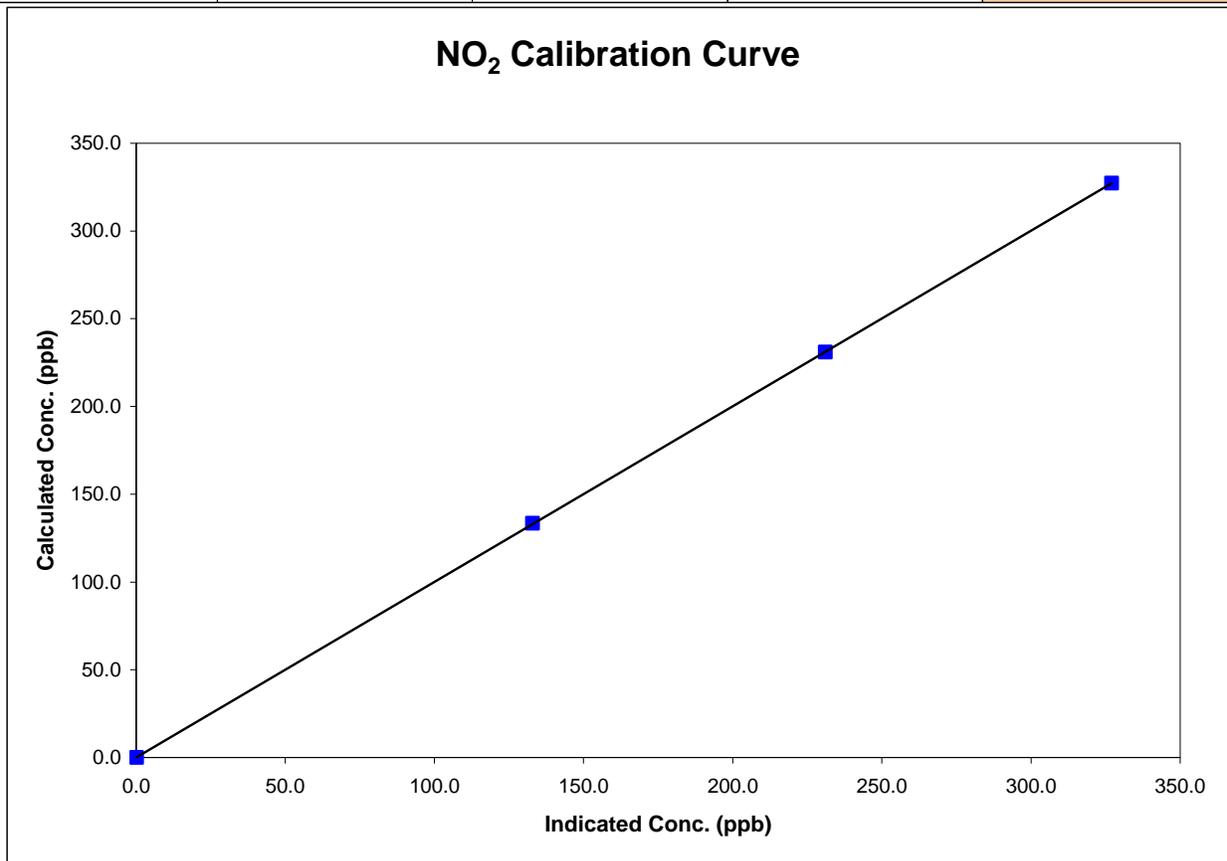


### Station Information

Calibration Date	November 6, 2007	Previous Calibration	October 16, 2007
Station Number	8	Station Location	Rover - Spirit River
Start Time (MST)	12:50	End Time (MST)	18:20
Analyzer make	TECO 42i	Analyzer serial #	701120011

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	0.0000	Correlation Coefficient	0.999994
327.2	327.0	1.0004		
231.0	231.1	0.9992	Slope	1.000355
133.5	132.9	1.0040		
			Intercept	0.013704



## Calibration Summary

Parameter **NO<sub>x</sub>**  
 Air Monitoring Network **PASZA**

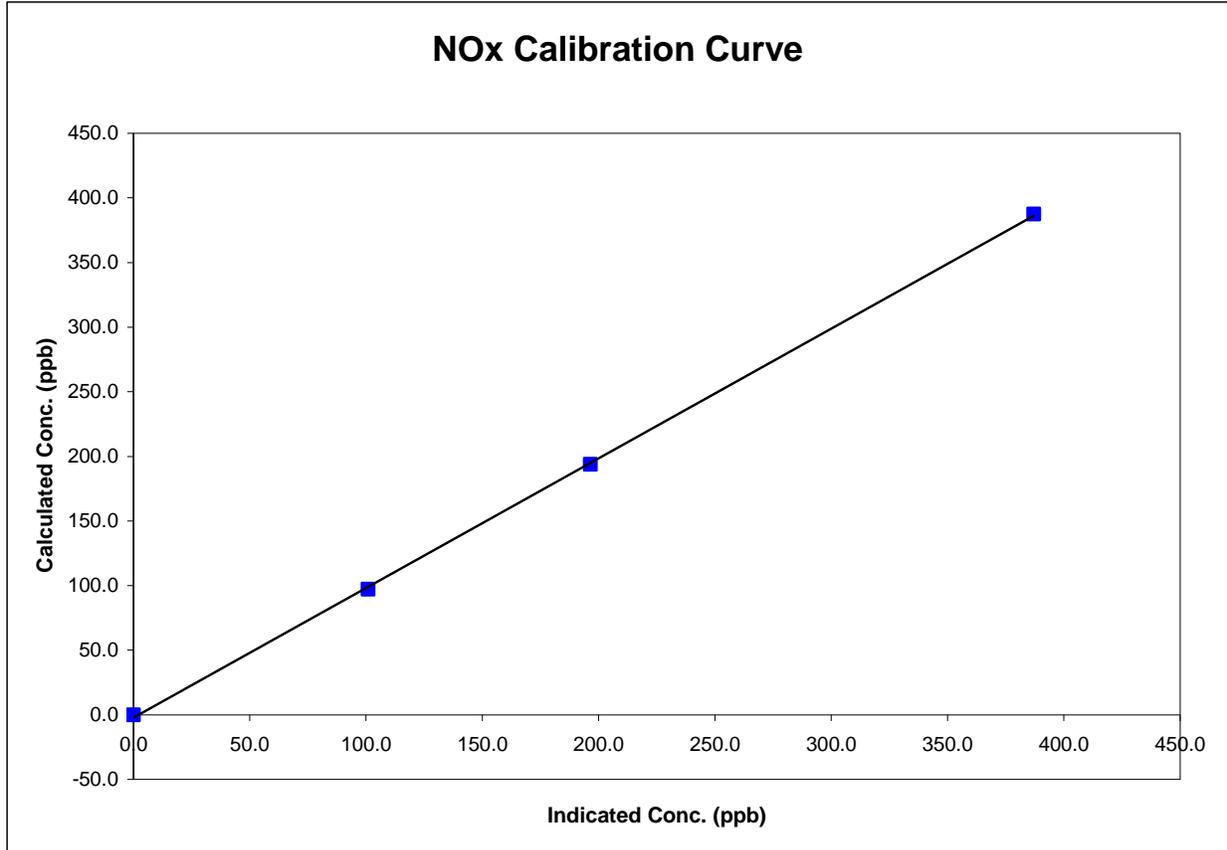


### Station Information

Calibration Date	November 6, 2007	Previous Calibration	October 16, 2007
Station Number	8	Station Location	Rover - Spirit River
Start Time (MST)	12:50	End Time (MST)	18:20
Analyzer make	TECO 42i	Analyzer serial #	701120011

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	0.0000	Correlation Coefficient	0.999866
387.4	387.1	1.0007		
193.8	196.4	0.9865	Slope	1.003276
97.1	100.9	0.9621		
			Intercept	-2.133688



## Calibration Summary

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

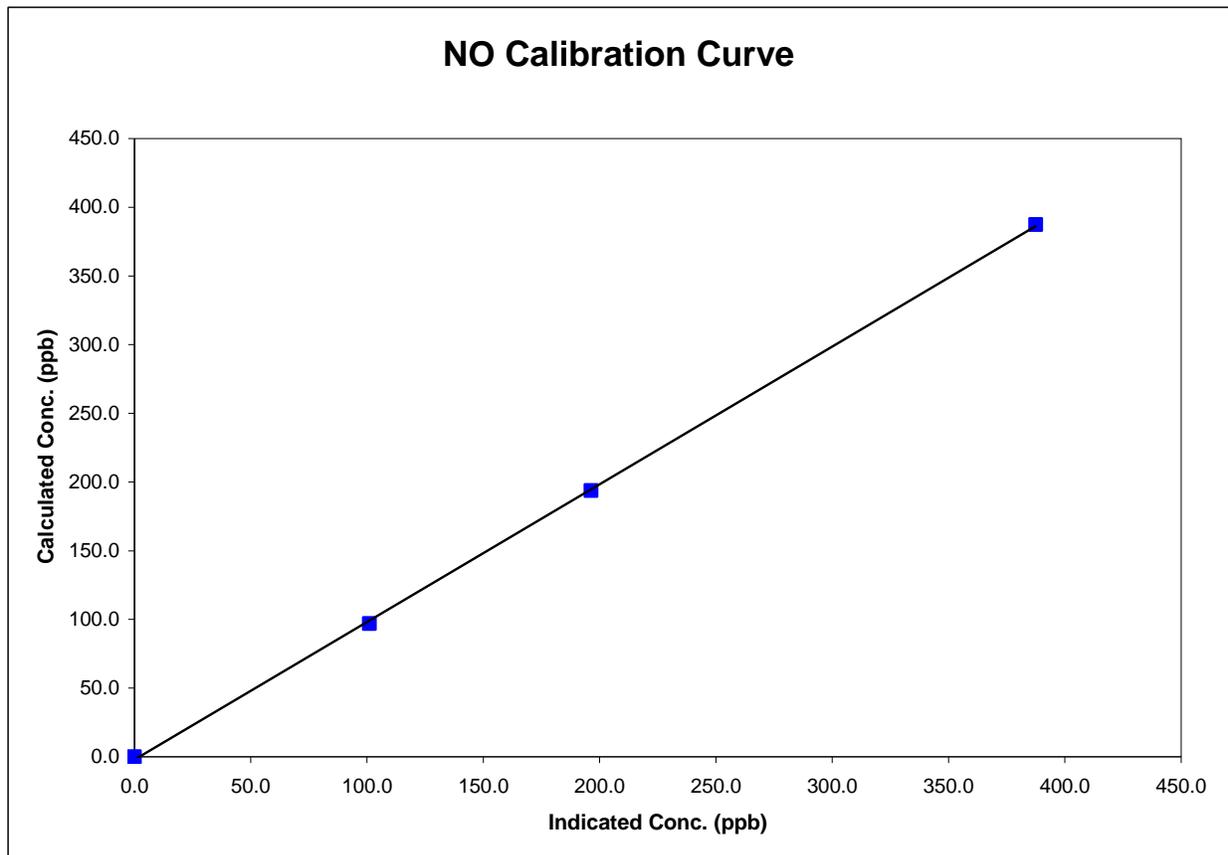


### Station Information

Calibration Date	November 6, 2007	Previous Calibration	October 16, 2007
Station Number	8	Station Location	Rover - Spirit River
Start Time (MST)	12:50	End Time (MST)	18:20
Analyzer make	TECO 42i	Analyzer serial #	701120011

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
387.4	387.5	0.9998	Correlation Coefficient	0.999871
193.8	196.3	0.9872		
97.1	101.0	0.9611		
			Slope	1.002388
			Intercept	-2.043094



**Calibration Report**Parameter **SO2**Air Monitoring Network **PASZA****Station Information**

Calibration Date	November 16, 2007	Previous Calibration	October 17, 2007
Station Number	6	Station Location	Valleyview
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	12:35	End Time (MST)	15:20
Barometric Pressure	27.28 inches Hg	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	50.3 ppm	Cal Gas Expiry Date	7/27/2009
Gas Cert Reference	LL16161		
DACS make	Focus AP1000	DACS serial No.	45274
DACS voltage range	0 - 10 volt	DACS channel #	4
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.003970	Calculated slope	1.003534
Calculated intercept	-0.925598	Calculated intercept	-0.468114
Analyzer make	TEI 43i	Analyzer serial #	43C-57351-313

	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
Background	27.8		27.8	
Coefficient	0.741		0.741	
UV Lamp Voltage	694	LPM	694	LPM
Chamber Temp	44.3	V	44.6	V
Perm Gas Temp	30.5	C	30.5	C
Pressure	632.5	in Hg	634.7	in Hg
Sample Flow	0.47	LPM	0.473	LPM
Lamp Intesity	45574	Hz	45261	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)
4990	0.00	0.0	-0.6	N/A
4990	39.91	399.1	397.4	1.0042
4990	19.90	199.8	200.6	0.9958
4990	9.99	100.5	101.4	0.9919
4990	0.00	0.0	-0.6	As found zero
4990	39.91	399.1	397.4	As found span
Average Correction Factor				0.9973

Calculated value of As Found Response: 398.688 ppm      Percent Change of As Found: 0.1%

	before calibration		after calibration	
Auto zero	-1.1	ppm	-0.8	ppm
Auto span	95.1	ppm	107.1	ppm

Notes: No adjustments madeCalibration Performed By: Conor Whiteley

## Calibration Summary



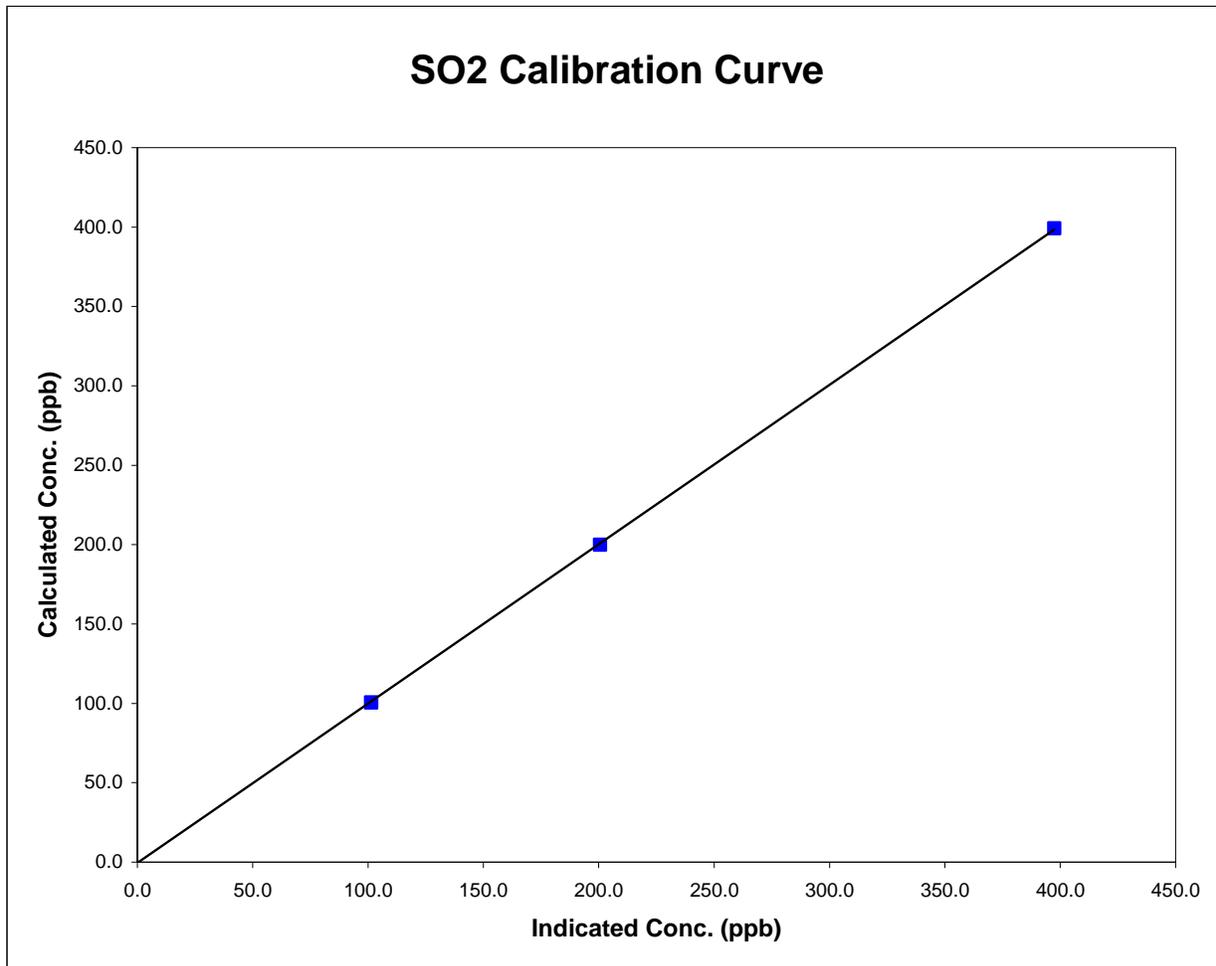
Parameter **SO2**  
 Air Monitoring Network **PASZA**

### Station Information

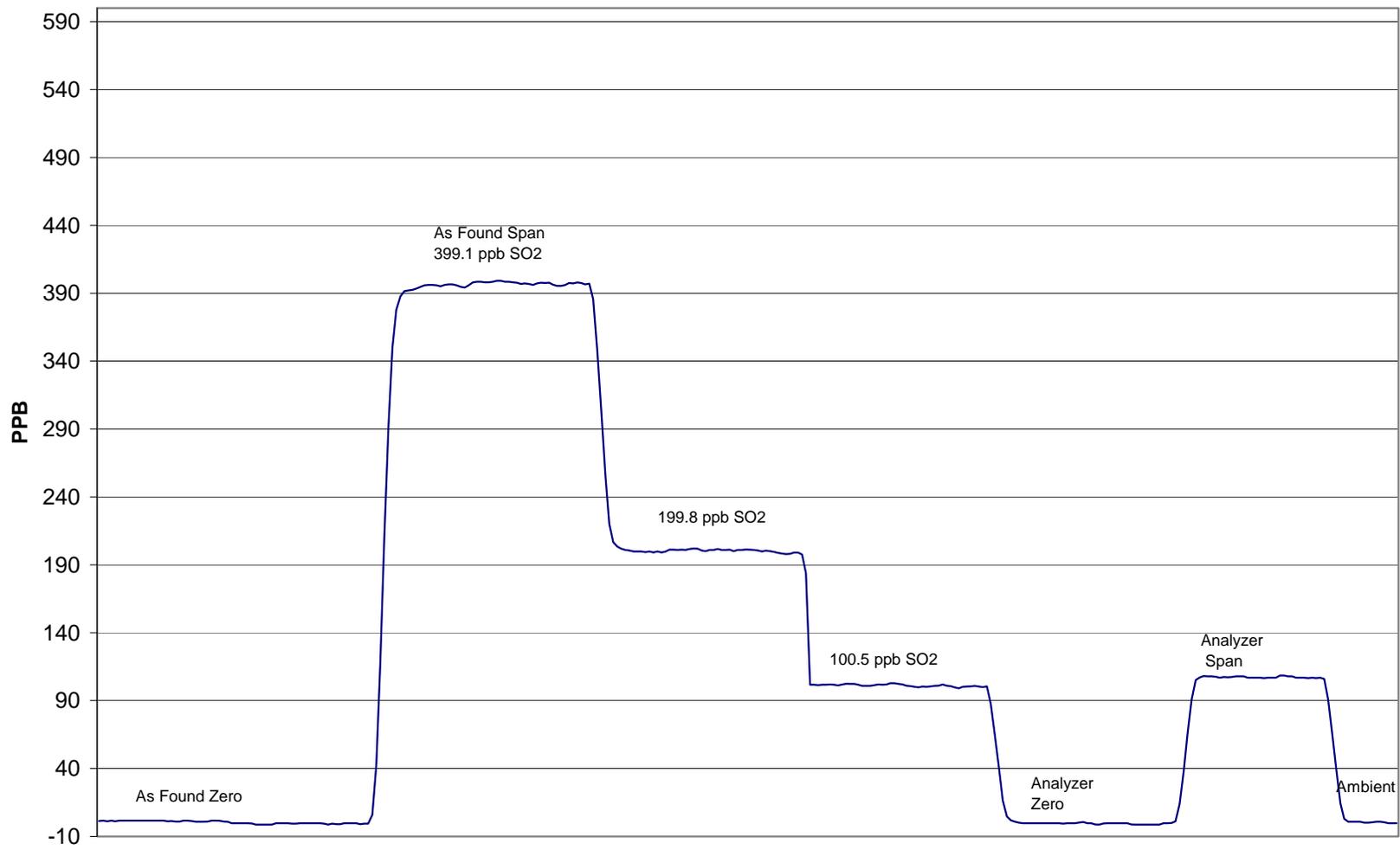
Calibration Date	November 16, 2007	Previous Calibration	October 17, 2007
Station Number	6	Station Location	Valleyview
Start Time (MST)	12:35	End Time (MST)	15:20
Analyzer make/model	TEI 43i	Analyzer serial #	43C-57351-313

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.6	N/A		
399.1	397.4	1.0042	Correlation Coefficient	0.999962
199.8	200.6	0.9958		
100.5	101.4	0.9919	Slope	1.003534
			Intercept	-0.468114



### Valleyview SO2 Calibration



November 16, 2007

## Calibration Report

Parameter **H2S**Air Monitoring Network **PASZA**

### Station Information

Calibration Date	November 16, 2007	Previous Calibration	October 17, 2007
Station Number	5	Station Location	Valleyview
Reason:	<input type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	10:20	End Time (MST)	13:36
Barometric Pressure	27.28 inches Hg	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	5.14 ppm	Cal Gas Expiry Date	11/29/2006
Gas Cert Reference	LL 74274		
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 10 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	0.997614	Calculated slope	1.017433
Calculated intercept	0.188330	Calculated intercept	0.422495
Analyzer make	TEI Model 43A	Analyzer serial #	43A-25575-221

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	4.8	ppb	4.6	ppb
Coefficient	1.055		1.026	
Lamp Voltage	803	v	795	v
Chamber Temp	45	c	45	c
Perm Oven Temp	44.99	c	45.1	c
Pressure	635	mm Hg	646	mm Hg
Sample Flow	426	ccm	430	ccm
Lamp Intensity	91.0	%	90.0	%

### Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4990	0.00	0.0	-0.1	N/A
4990	69.78	70.9	69.6	1.0185
4990	39.83	40.7	39.0	1.0440
4990	9.96	10.2	9.6	1.0643
4990	0.00	0.0	-0.1	As found zero
4990	69.78	70.9	74.3	As found span
Average Correction Factor				1.0423

Calculated value of As Found Response: 74.44 ppm      Percent Change of As Found: -5.0%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.4	ppm
Auto span	68.1	ppm	68.4	ppm

Notes: Adjusted H2S Span

On last point, while noting the various calibration factors, I hit the run button once too many scrolling through the menu thus the spike at the end of the last point before the AIC

Calibration Performed By: Conor Whiteley

## Calibration Summary

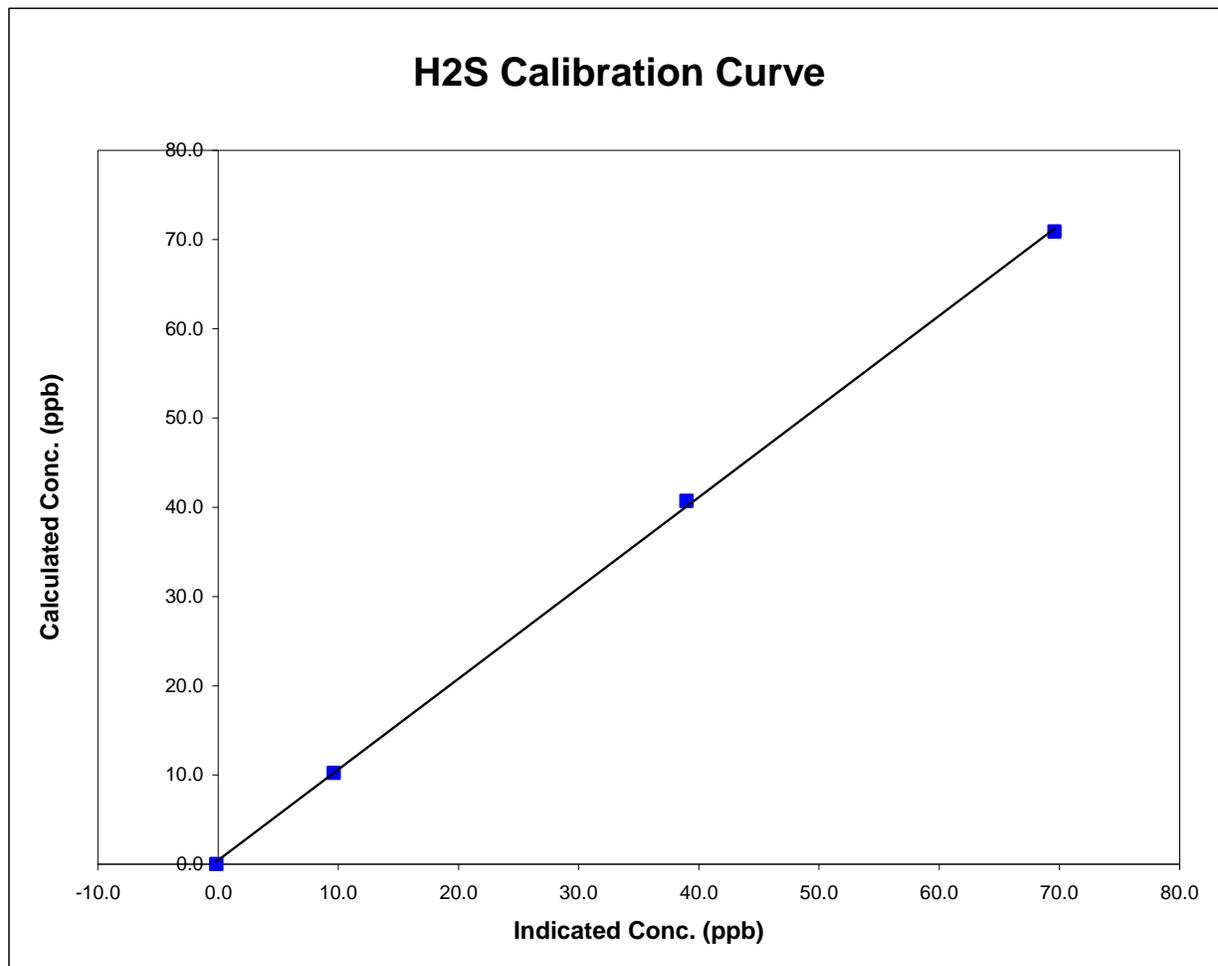
Parameter **H2S**Air Monitoring Network **PASZA**

### Station Information

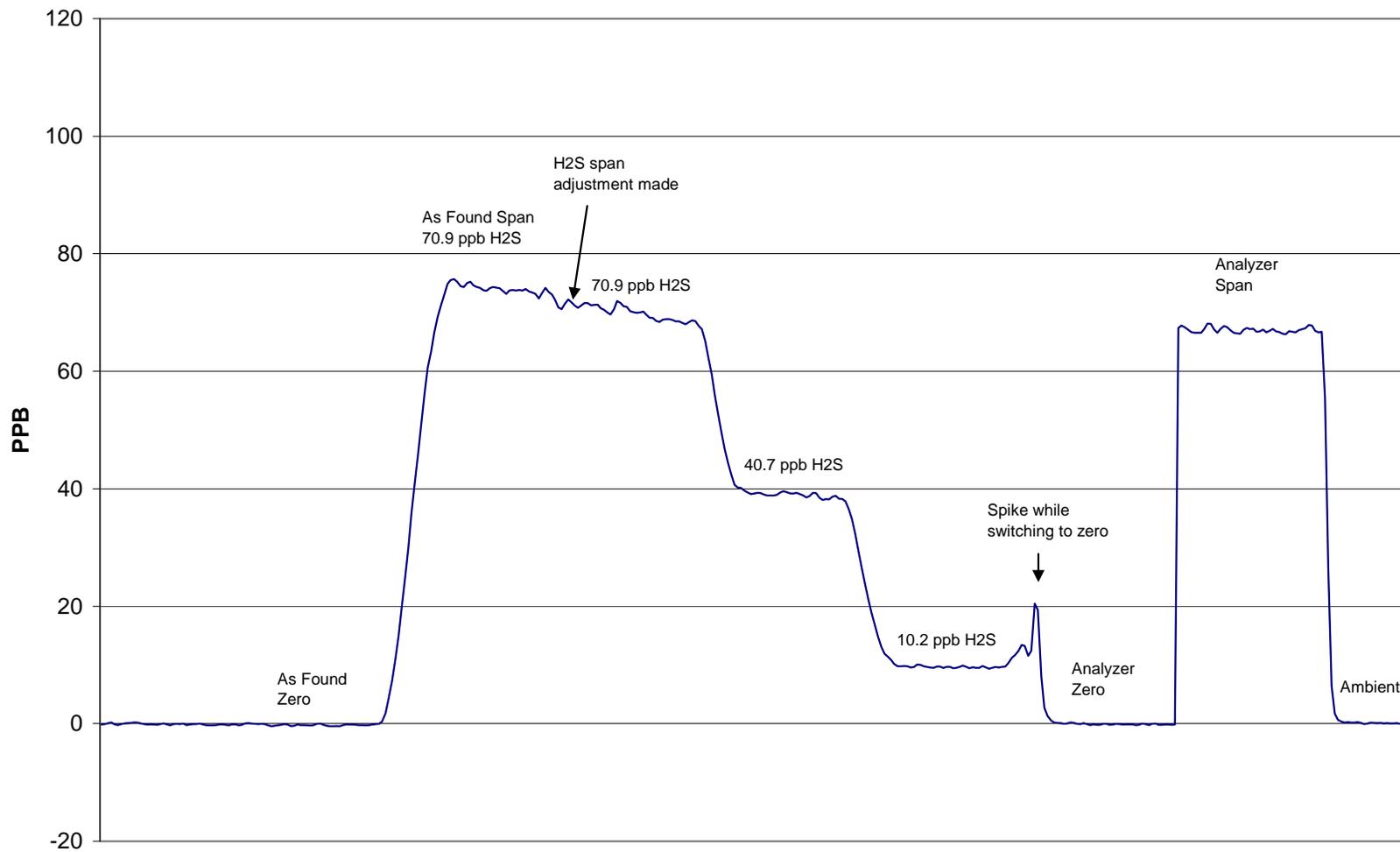
Calibration Date	November 16, 2007	Previous Calibration	October 17, 2007
Station Number	5	Station Location	Valleyview
Start Time (MST)	10:20	End Time (MST)	13:36
Analyzer make/model	TEI Model 43A	Analyzer serial #	43A-25575-221

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
70.9	69.6	1.0185	Correlation Coefficient	0.999810
40.7	39.0	1.0440		
10.2	9.6	1.0643	Slope	1.017433
			Intercept	0.422495



### Valleyview H2S Calibration



November 16, 2007