



# Air Quality Monitoring Network for December 2005



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Environmental Service Response Centre  
Alberta Environment  
#111 Twin Atria Building  
4999-98<sup>th</sup> Avenue  
Edmonton, Alberta T6B 2X3

**Re: Peace Airshed Zone Association (PASZA) – December Ambient Air Report**

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Enclosed is the PASZA Ambient Monitoring Network Report for the month of **December 2005**.

**Continuous Monitoring: Four (4) Stations including Henry Pirker (Grande Prairie), Evergreen Park, Smoky Heights and Beaverlodge**

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 guidelines with the exception of one H<sub>2</sub>S exceedence by the TRS analyzer noted at the Smoky Heights station on December 6<sup>th</sup>, 2005 (Exceedence Report Ref # 166163).

Of noted occurrence was excessive calm periods of the wind speed sensors throughout the network during the later periods of December (Downtime Report Ref # 167112). This was caused by frost as a result of meteorological conditions throughout the area. All other analyzers / sensors were above 94% uptime.

**Passive Monitoring: 43 Stations throughout the PASZA zone:**

No problems were observed with any of the sampling sites for the month of December 2005.

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

- Monthly average concentrations for SO<sub>2</sub> passives ranged from 0.1 ppb to 0.6 ppb.
- Monthly average concentrations for NO<sub>2</sub> passives ranged from 0.9 ppb to 11.9 ppb.
- Monthly average concentrations for O<sub>3</sub> passives ranged from 14.1 ppb to 33.3 ppb.

If you have any questions, please contact the Focus office at 1-888-869-2252 (Gary Cross) or 1-888-466-6555 (Kevin McCullum).

On Behalf of the,  
Peace Airshed Zone Association

A handwritten signature in black ink, appearing to read "Kevin Warren".

Kevin Warren  
PASZA Technical Program Manager

A handwritten signature in black ink, appearing to read "Kevin McCullum".

Kevin McCullum, Ph.D., P.Eng.  
AQM Environmental Engineer

December 13, 2005

Alberta Environment  
Environmental Service Response Centre  
111, Twin Atria Building  
4999 - 98 Avenue  
Edmonton, Alberta, T6B 2X3

**RE: Elevated Levels of Ambient TRS – Reference Number 166163**

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The Peace Airshed Zone Association (PASZA) ambient air-monitoring network recorded one hour of TRS concentration above 10 ppb, not a provincial objective but an airshed zone target objective on December 6, 2005. The Smokey Heights station (located North East of Grande Prairie at 13-8-074-02 W6M) recorded an hourly average of 12 ppb of TRS during the period between 12:00 to 13:00 MST (Dec 6, 2005). An Alberta Environment officer was informed of this situation in the afternoon shortly after the incident was recorded. A Reference Number of 166163 was issued for this incident. The data for one hour incident is as follows:

Date	Hour MST	Average	30-sec Maximum	Wind Direction	Wind Speed
12/06/2005	12:00 to 13:00	12.0 ppb	71.4 ppb	235 degrees South West	5.2 km/hr

Members of the PASZA group were notified and a request was put out for members to identify any potential fugitive emissions or incidents from their operations during this period. From the member's response, there were no identified plant operational problems that would have resulted in this elevated level of TRS. Corresponding concentrations recorded at the same time period of SO<sub>2</sub> remained low and near background levels (graphed data included). It was also noted by members that potential agricultural activities may have taken place at the time of the incident; however this was not confirmed by investigators.

A follow-up of the instrumentation automatic instrument checks (AIC) indicates that the equipment was functioning well within operational parameters prior to and after the event.

If you have any questions, please contact the Focus office at 1-800-466-6555 (Kevin) or 1-888-869-2252 (Gary). Attached is the relevant data during the incident and Memo sent to the program manager.

Yours truly,  
Peace Airshed Zone Association



Kevin McCullum, Ph.D., P.Eng.  
AQM Environmental Engineering Specialist

January 6, 2006

Alberta Environment  
Environmental Service Response Centre  
111, Twin Atria Building  
4999 - 98 Avenue  
Edmonton, Alberta, T6B 2X3

**RE: PASZA Air Monitoring Directive Non-compliance Report Ref # 167112**

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A non-compliance of the Alberta Air Monitoring Directive was recently reported by Focus to Alberta Environment (AENV) on behalf of the Peace Airshed Zone Association (PASZA). The non-compliance was less than ninety (90%) percent uptime for the months of December 2005 and January 2006 for all four continuous sites for the wind speed parameter. This situation occurred at the Henry Pirker (located in Grande Prairie), Smoky Heights (located NE of Teepee Creek), Evergreen Park (located SE of Grande Prairie) and Beaverlodge (located on the East edge of Beaverlodge) stations. The wind speed sensors at all these locations were frozen due to freezing rain that began approximately December 24, 2005 and kept the sensors frozen until January 4, 2006. Attempts were made during this time period to free the anemometers by physically moving the cups, sharp vibrations to "break the ice", and the use of a heat gun to melt the ice. Some success was achieved, but the wind speed parameter will be less than 90% for both months for all stations. The stations are owned by PASZA and operated on their behalf by Focus. The non-compliance has been assigned AENV reference number 167112.

Long term solutions to this problem will be discussed with the PASZA technical committee, and solutions implemented will be communicated to AENV as they are proposed.

If there are any questions or concerns please call me at your convenience.

Sincerely,

THE FOCUS CORPORATION



Gary Cross  
AQM Technical Manager

## PASZA Monthly Continuous Data Summary

Pollutant (units)		Objectives		Station		Monthly Average		Exceedence		Maximum Recorded Values						
										1-hr			24-hr / 8-hr			Operational Time (%)
										Conc	Day	WSPD (km/hr)	WDIR (Sector)	Conc	Day	
SO <sub>2</sub> (ppb)	172	57	Henry Pirker	0.7	0	0	5.7	Dec-17 14:00	2.9	SSW	1.6	Dec-17	100.0%			
NO (ppb)			Henry Pirker	34.4	-	-	352.0	Dec-19 07:00	2.3	NNE	133.9	Dec-19	100.0%			
NO <sub>2</sub> (ppb)	212	106	Henry Pirker	15.7	0	0	52.9	Dec-19 13:00	3.3	W	27.7	Dec-28	100.0%			
NO <sub>x</sub> (ppb)			Henry Pirker	50.4	-	-	395.8	Dec-19 07:00	2.3	NNE	161.0	Dec-19	100.0%			
O <sub>3</sub> (ppb)	82		Henry Pirker	9.3	0	-	41.7	Dec-10 14:00	39.9	W	34.3	Dec-10	100.0%			
O <sub>3</sub> (ppb) - 8-hr		65	Henry Pirker			0					39.6	Dec-10				
CO (ppm)	13		Henry Pirker	0.40	0	-	2.3	Dec-21 19:00	4.7	SE	0.9	Dec-19	100.0%			
CO (ppm) - 8-hr		5	Henry Pirker			0					1.8	Dec-22				
THC (ppm)			Henry Pirker	2.43	-	-	4.4	Dec-19 07:00	2.3	NNE	3.4	Dec-19	100.0%			
TRS (ppb)			Henry Pirker	0.3	-	-	1.8	Dec-03 18:00	2.8	NNW	0.7	Dec-19	100.0%			
PM <sub>2.5</sub> (µg/m <sup>3</sup> )		30 <sup>a</sup>	Henry Pirker	5.9		0	37.5	Dec-19 13:00	3.3	W	14.8	Dec-19	99.3%			
RH (%)			Henry Pirker	78.4	-	-	-	-	-	-	-	-	100.0%			
SR (W/m <sup>2</sup> )			Henry Pirker	22.0	-	-	-	-	-	-	-	-	100.0%			
Temp (°C)			Henry Pirker	-6.8	-	-	-	-	-	-	-	-	100.0%			
WSPD v (km/hr)			Henry Pirker	8.4	-	-	-	Dec-10 13:00	40.2	WSW	25.2	9-Dec	76.9%			
WSPD s (km/hr)			Henry Pirker	8.6	-	-	-	Dec-10 13:00	40.4	WSW	25.3	9-Dec	76.9%			
WDIR (Deg)			Henry Pirker	N	-	-	-	-	-	-	-	-	76.9%			
SO <sub>2</sub> (ppb)	172	57	Evergreen Park	0.6	0	0	4.2	Dec-07 10:00	4.6	SW	1.2	Dec-07	100.0%			
TRS (ppb)			Evergreen Park	0.8	-	-	2.8	Dec-19 16:00	2.3	NNE	1.3	Dec-19	100.0%			
PM <sub>2.5</sub> (µg/m <sup>3</sup> )		30 <sup>a</sup>	Evergreen Park	5.4		0	24.9	Dec-03 20:00	1.3	SSW	12.8	Dec-03	99.6%			
Temp (°C)			Evergreen Park	-7.5	-	-	-	-	-	-	-	-	100.0%			
WSPD v (km/hr)			Evergreen Park	7.2	-	-	-	Dec-09 05:00	38.5	W	24.5	9-Dec	76.6%			
WSPD s (km/hr)			Evergreen Park	7.3	-	-	-	Dec-09 05:00	38.6	W	24.6	9-Dec	76.6%			
WDIR (Deg)			Evergreen Park	N	-	-	-	-	-	-	-	-	76.6%			
SO <sub>2</sub> (ppb)	172	57	Smoky Heights	0.5	0	0	5.3	Dec-08 06:00	17.2	W	1.9	Dec-07	100.0%			
TRS (ppb)			Smoky Heights	0.7	1	-	11.6	Dec-06 12:00	5.3	SW	1.6	Dec-06	100.0%			
PM <sub>2.5</sub> (µg/m <sup>3</sup> )		30 <sup>a</sup>	Smoky Heights	4.1		0	40.7	Dec-15 08:00	12.2	NNE	9.8	Dec-31	99.7%			
Temp (°C)			Smoky Heights	-6.9	-	-	-	-	-	-	-	-	100.0%			
WSPD v (km/hr)			Smoky Heights	11.6	-	-	-	Dec-09 03:00	48.4	WSW	31.9	9-Dec	89.1%			
WSPD s (km/hr)			Smoky Heights	11.9	-	-	-	Dec-09 03:00	48.4	WSW	32.2	9-Dec	89.1%			
WDIR (Deg)			Smoky Heights	N	-	-	-	-	-	-	-	-	89.1%			
SO <sub>2</sub> (ppb)	172	57	Beaverlodge	0.2	0	0	2.2	Dec-06 14:00	3.0	W	1.4	Dec-02	94.5%			
NO (ppb)			Beaverlodge	3.6	-	-	61.0	Dec-20 10:00	3.4	SW	13.8	Dec-20	100.0%			
NO <sub>2</sub> (ppb)	212	106	Beaverlodge	8.5	0	0	23.0	Dec-02 22:00	6.4	NNW	17.0	Dec-06	100.0%			
NO <sub>x</sub> (ppb)			Beaverlodge	12.0	-	-	70.5	Dec-20 10:00	3.4	SW	28.8	Dec-20	100.0%			
O <sub>3</sub> (ppb)	82		Beaverlodge	17.2	0	-	44.5	Dec-10 15:00	33.8	W	42.0	Dec-10	100.0%			
PM <sub>2.5</sub> (µg/m <sup>3</sup> )		30 <sup>a</sup>	Beaverlodge	3.7		0	50.2	Dec-07 03:00	3.3	E	9.8	Dec-04	100.0%			
RH (%)			Beaverlodge	79.0	-	-	-	-	-	-	-	-	100.0%			
Temp (°C)			Beaverlodge	-5.2	-	-	-	-	-	-	-	-	100.0%			
WSPD v (km/hr)			Beaverlodge	7.4	-	-	-	Dec-10 12:00	40.2	W	27.3	9-Dec	99.7%			
WSPD s (km/hr)			Beaverlodge	7.4	-	-	-	Dec-10 12:00	40.2	W	27.7	9-Dec	99.7%			
WDIR (Deg)			Beaverlodge	N	-	-	-	-	-	-	-	-	99.7%			

Note: <sup>a</sup> the draft 1-hr Alberta Ambient Air Quality Objectives  
 \* Wind Direction is the predominate direction for the Month

# Continuous Network Equipment Summary

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## PASZA – Henry Pirker Station

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### General Station Issues

were no general station issues noted during the month of December.

Parameter	Make	Model	Notes
SO <sub>2</sub>	TECO	43	No operational problems observed.
NO <sub>x</sub> /NO/NO <sub>2</sub>	TECO	42C	No operational problems observed.
O <sub>3</sub>	API	400	No operational problems observed.
CO	TECO	48C	No operational problems observed. Internal daily spans were low between Dec 15 – 20 <sup>th</sup> due to low span cylinder pressure.
THC	TEI	51-CLT	No operational problems observed. Internal daily spans were low between Dec 18 – 20 <sup>th</sup> due to low span cylinder pressure.
TRS	TEI	42C	No operational problems observed.
PM <sub>2.5</sub>	R&P	1400AB	Five (5) hours were removed due to excessive baseline drift.
RH	Met One	083D	No operational problems observed.
AT	Met One	083D	No operational problems observed.
SR	Met One	096-1	No operational problems observed.
WS	Met One	010C	The sensor was not operational from Dec 24 <sup>th</sup> at 20:00 MST to end of month due to frost.
WD	Met One	020C	The sensor was not operational from Dec 24 <sup>th</sup> at 20:00 MST to end of month due to frost.

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## PASZA – Evergreen Park Station

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### General Station Issues

No general station issues noted during the month of December.

Parameter	Make	Model	Notes
SO <sub>2</sub>	API	100	A secondary calibration was performed to improve linearity results. No operational problems observed.
TRS	TEI	42C	No operational problems observed.
PM <sub>2.5</sub>	R&P	1400AB	Three (3) hours were removed due to excessive baseline drift.
AT	Met One	083D	No operational problems observed.
WS	Met One	010C	The sensor was not operational from Dec 24 <sup>th</sup> at 18:00 MST to end of month due to frost.
WD	Met One	020C	The sensor was not operational from Dec 24 <sup>th</sup> at 18:00 MST to end of month due to frost.

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**PASZA – Smoky Heights School Station**


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**General Station Issues**

No general station issues noted during the month of December.

Parameter	Make	Model	Notes
SO <sub>2</sub>	API	100A	No operational problems observed.
TRS	TEI	42C	No operational problems observed.
PM <sub>2.5</sub>	R&P	1400AB	One (1) hour was removed due to excessive baseline drift.
AT	Met One	083D	No operational problems observed.
WS	Met One	010C	The sensor was not operational from Dec 26 <sup>th</sup> at 12:00 MST to Dec 29 <sup>th</sup> at 21:00 MST due to frost.
WD	Met One	020C	The sensor was not operational from Dec 26 <sup>th</sup> at 12:00 MST to Dec 29 <sup>th</sup> at 21:00 MST due to frost.

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**PASZA – Beaverlodge Station**


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**General Station Issues**

No general station issues noted during the month of December.

Parameter	Make	Model	Notes
SO <sub>2</sub>	TECO	43CTL	Data was lost due to an analyzer malfunction caused by close proximity to a station vent (cold temperatures caused analyzer drift). No other operational problems observed.
NO <sub>x</sub> /NO/NO <sub>2</sub>	TECO	42C	No operational problems observed.
O <sub>3</sub>	API	400	No operational problems observed.
PM <sub>2.5</sub>	R&P	1400AB	No operational problems observed.
AT	n/a	n/a	No operational problems observed.
RH	n/a	n/a	No operational problems observed.
WS	Blue Sky	857	Two (2) hours of data were removed due to calm wind conditions. Two (2) additional hours were flagged due to DACS maintenance.
WD	Blue Sky	857	Two (2) hours were flagged due to DACS maintenance.

# 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: December 1, 2005 to January 1, 2006

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:	697
Number of 1-hr Fair Readings:	6
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	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-Dec-05	11	13	13	13	10	N	7	6	7	9	9	11	11	11	12	10	10	10	10	9	9	9	8	8
2-Dec-05	8	8	7	7	N	8	8	8	7	8	9	9	10	10	10	9	8	6	6	6	6	6	7	7
3-Dec-05	6	6	4	4	4	N	5	5	9	7	11	6	6	8	11	22	29	27	24	14	11	11	5	5
4-Dec-05	6	6	8	11	18	N	6	5	4	5	7	7	9	5	5	5	5	4	5	4	4	4	5	8
5-Dec-05	7	8	9	9	N	9	9	10	10	10	11	11	11	11	N	3	5	6	7	9	10	18	14	5
6-Dec-05	4	4	4	4	4	N	5	8	7	8	16	10	9	7	10	10	15	19	19	16	14	18	20	10
7-Dec-05	10	9	9	9	N	9	11	15	15	21	17	10	11	12	13	16	17	N	14	N	14	13	14	15
8-Dec-05	12	14	13	N	11	6	8	9	8	8	6	11	14	14	13	12	10	11	14	7	12	16	17	18
9-Dec-05	19	N	N	20	20	19	18	16	15	15	16	16	16	16	15	15	14	13	14	15	16	17	18	19
10-Dec-05	19	N	18	19	19	20	18	16	14	9	9	9	17	20	21	21	20	19	19	19	19	18	19	19
11-Dec-05	N	19	19	18	16	16	13	10	7	8	8	7	8	7	8	6	6	8	6	5	4	4	7	N
12-Dec-05	6	10	11	13	18	16	12	8	10	13	12	13	12	12	11	12	9	7	7	10	10	11	N	15
13-Dec-05	12	11	12	12	12	15	7	6	5	5	11	11	11	13	12	7	6	6	6	7	6	N	5	5
14-Dec-05	7	9	7	5	5	6	5	5	5	5	8	13	12	9	5	8	9	11	15	N	6	5	8	8
15-Dec-05	10	11	11	11	9	4	6	7	7	11	9	5	8	7	6	7	8	4	4	N	7	8	8	6
16-Dec-05	6	6	6	6	6	6	4	5	5	4	4	6	6	6	5	5	6	6	N	6	6	6	7	7
17-Dec-05	6	6	6	6	5	5	6	5	6	8	11	5	9	10	14	6	4	N	9	7	7	8	7	7
18-Dec-05	7	6	5	6	5	4	5	4	6	9	16	14	7	6	7	10	N	13	16	11	13	12	6	6
19-Dec-05	7	5	6	7	5	5	12	22	18	11	26	28	26	29	15	6	8	9	9	5	10	5	11	9
20-Dec-05	6	5	7	6	5	N	6	8	7	5	5	6	11	4	4	5	5	6	5	6	7	4	6	5
21-Dec-05	6	7	4	4	N	3	5	4	5	8	13	7	5	4	5	7	7	8	9	13	9	14	19	15
22-Dec-05	11	5	4	N	4	4	4	4	7	7	4	4	7	5	3	10	12	16	16	17	10	6	6	5
23-Dec-05	7	4	N	4	6	4	6	5	6	7	9	9	11	11	13	13	15	13	9	6	7	7	10	
24-Dec-05	7	N	5	6	9	6	5	6	5	5	5	4	4	4	5	5	4	4	5	4	N	N	3	3
25-Dec-05	N	2	2	2	3	3	3	3	3	3	5	8	3	3	2	2	2	4	4	3	5	8	6	N
26-Dec-05	3	2	3	2	4	N	3	4	4	4	4	4	3	7	5	3	4	6	4	4	4	4	N	4
27-Dec-05	5	6	7	7	6	6	3	7	7	3	3	3	3	4	3	4	3	5	4	6	4	N	5	5
28-Dec-05	7	5	5	6	5	6	7	8	8	9	7	7	6	N	7	7	11	12	11	8	N	6	6	5
29-Dec-05	6	6	6	5	5	5	5	5	6	10	9	6	11	7	7	8	5	5	8	N	13	14	N	4
30-Dec-05	3	3	3	3	3	N	5	5	5	9	7	6	6	6	10	5	5	5	7	5	5	8	8	6
31-Dec-05	7	8	11	9	N	5	9	8	12	10	12	8	9	12	11	9	9	14	15	11	12	10	16	11

### PASZA - Henry Pirker Sulphur Dioxide Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

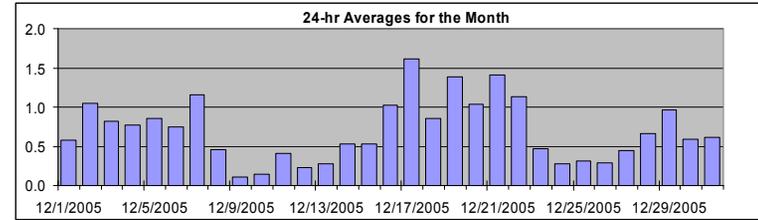
#### HOURLY AVERAGE TABLE

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

Monitoring Dates: December 1, 2005 to January 1, 2006

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

<b>Summary</b>	
Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	5.7 ppb 17-Dec 14:00 15:00
Maximum 24-hr Average:	1.6 ppb 17-Dec



AIC Time:	33 hrs	Operational Time:	709 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	2.8	1.8	0.9	0.6	0.3	0.1	0.1	0.7 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																								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-Dec-05	0	0	0	0	0	A	0	0	0	0	0	0	1	1	0	1	1	1	1	1	1	1	1	2	2	0.6	2.1
2-Dec-05	2	1	2	2	A	2	1	1	1	1	1	C	C	A	1	1	1	1	1	1	1	0	0	0	1.0	1.9	
3-Dec-05	0	0	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	0	0.8	1.6	
4-Dec-05	0	0	0	0	1	A	0	1	0	0	0	1	1	1	1	2	2	1	1	1	1	1	1	1	0.8	2.1	
5-Dec-05	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3	
6-Dec-05	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	0.7	1.5	
7-Dec-05	1	1	1	1	A	1	1	2	2	2	2	2	1	2	2	1	1	1	1	1	0	0	0	1	1.2	2.0	
8-Dec-05	0	0	0	A	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.0	
9-Dec-05	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
10-Dec-05	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5	
11-Dec-05	A	0	0	0	0	0	0	0	0	1	1	0	1	1	1	0	0	1	0	1	0	0	0	A	0.4	1.1	
12-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.3	
13-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.5	
14-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2	2	A	1	0	0.5	2.3	
15-Dec-05	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	A	1	0	1	1	0.5	1.2	
16-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	2	2	2	1	1.0	2.5	
17-Dec-05	2	2	2	1	1	1	1	1	1	1	1	1	3	4	6	2	1	A	1	1	1	1	1	1	1.6	5.7	
18-Dec-05	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	A	1	2	1	1	1	1	0	0.9	1.5	
19-Dec-05	0	0	0	0	1	1	2	3	2	1	3	3	3	3	2	1	1	1	1	1	1	1	1	1	1.4	3.1	
20-Dec-05	1	1	1	1	1	A	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1.0	1.6	
21-Dec-05	1	1	1	1	A	0	1	1	1	1	2	2	2	2	2	2	1	2	2	2	1	2	2	2	1.4	2.2	
22-Dec-05	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1	1	1	1.1	2.4	
23-Dec-05	1	1	A	0	0	0	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	1	1	0.5	1.1	
24-Dec-05	1	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	0.7	
25-Dec-05	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	0.3	0.6	
26-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	A	0	0.3	0.6	
27-Dec-05	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	A	1	1	0.4	0.6	
28-Dec-05	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.3	
29-Dec-05	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	3	1	1	2	A	1	2	1	1	1.0	2.8	
30-Dec-05	1	1	1	0	1	A	0	0	0	0	0	1	1	1	1	1	1	1	1	0	1	1	1	1	0.6	1.1	
31-Dec-05	0	1	0	1	A	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8	
Hourly Avg	0.6	0.5	0.5	0.5	0.4	0.4	0.5	0.7	0.7	0.7	0.8	0.8	0.8	0.9	1.0	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7			
Hourly Max	1.9	1.9	1.8	1.9	1.1	1.6	1.6	3.1	2.3	2.0	2.7	2.9	2.8	4.2	5.7	2.8	2.0	2.2	2.4	2.3	2.2	2.5	2.2	2.1			

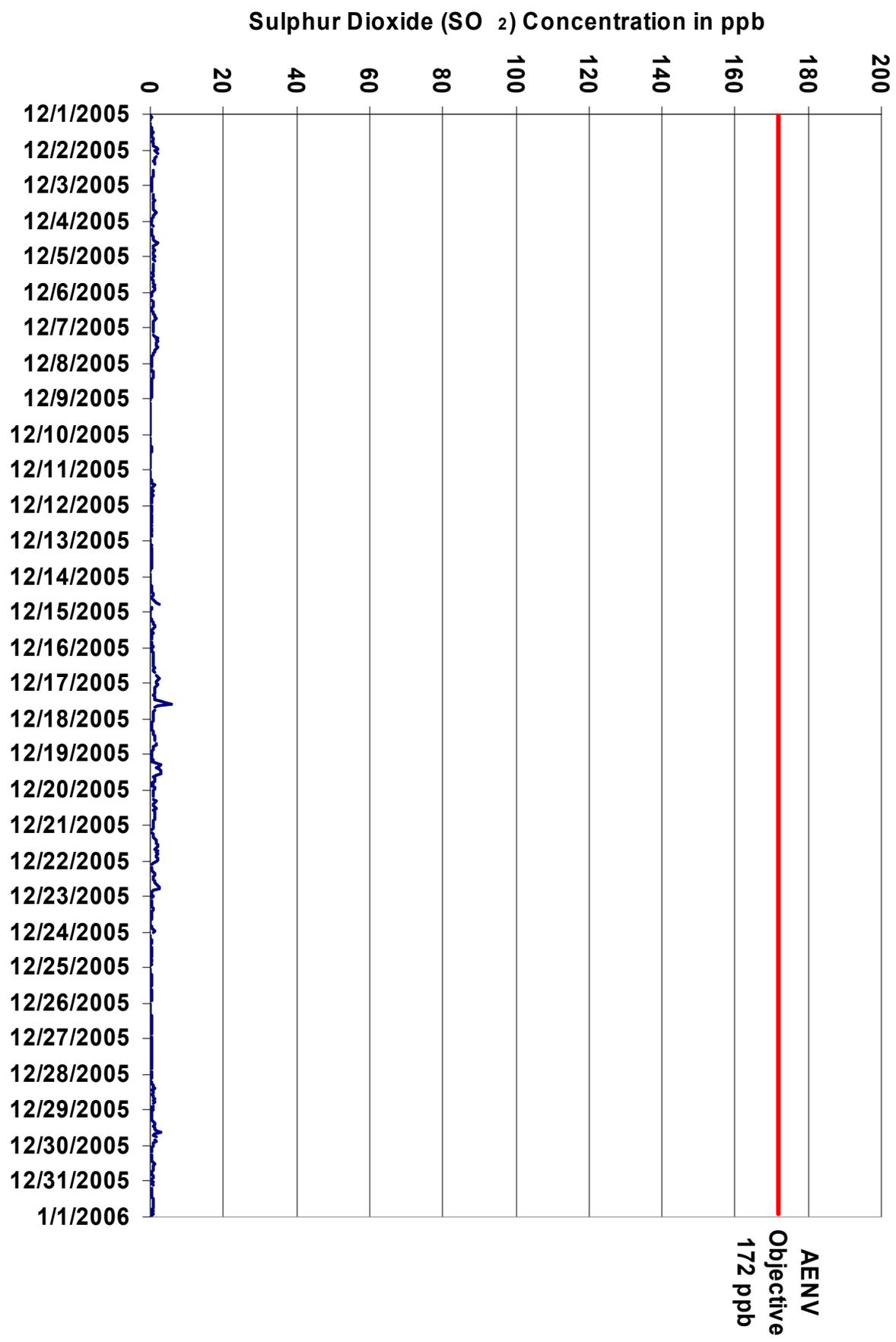


Figure 1. PASZA - Henry Pitker Sulphur Dioxide 1-hr Average Monthly Trend

Station: Henry Pirker  
 Station Owner: PASZA

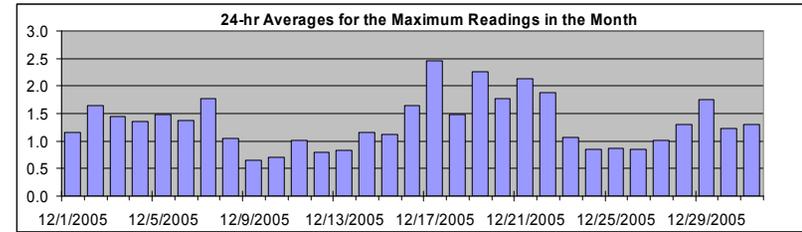
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Value:	7.2	ppb	17-Dec	13:00 14:00
Maximum 24-hr Value:	2.5	ppb	17-Dec	



AIC Time:	33 hrs	Operational Time:	709 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	4.0	2.6	1.6	1.2	0.9	0.6	0.5	1.3 ppb	1.2 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	23:00 0:00			
1-Dec-05	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	2	2	3	1.2	2.8	
2-Dec-05	2	2	3	3	A	2	2	2	2	2	2	C	C	A	2	1	1	1	1	1	1	1	1	1	1.6	2.5	
3-Dec-05	1	1	1	1	1	A	1	1	2	1	2	1	1	2	2	2	2	2	3	2	2	1	1	1	1.4	2.7	
4-Dec-05	1	1	1	1	1	A	1	1	1	1	1	1	1	2	2	3	3	2	1	1	2	1	1	1	1.4	2.8	
5-Dec-05	2	2	2	2	A	2	1	1	1	1	1	1	1	2	1	1	1	1	2	2	1	2	2	1	1.5	2.3	
6-Dec-05	1	1	1	1	1	A	1	2	1	1	1	1	1	1	1	2	2	2	2	2	2	2	1	1	1.4	2.3	
7-Dec-05	1	1	1	1	A	1	2	3	3	3	2	2	2	3	2	2	2	1	2	1	1	1	1	1	1.8	2.9	
8-Dec-05	1	1	1	A	1	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.8	
9-Dec-05	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.7	0.8	
10-Dec-05	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.3	
11-Dec-05	A	1	1	1	1	1	1	1	1	1	2	2	1	1	2	1	1	1	1	1	1	1	1	A	1.0	1.9	
12-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.0	
13-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1	
14-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	3	A	1	1	1	1.2	3.1	
15-Dec-05	1	1	1	1	1	1	1	2	1	2	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1.1	2.1	
16-Dec-05	1	1	1	1	1	1	1	1	1	2	2	1	1	1	2	1	2	2	A	2	3	3	3	2	1.6	3.1	
17-Dec-05	2	3	2	2	2	2	2	2	2	2	2	2	4	7	7	5	2	A	2	1	1	1	1	1	2.5	7.2	
18-Dec-05	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	A	2	2	2	2	2	1	1	1.5	2.3	
19-Dec-05	1	1	1	1	1	1	3	4	5	3	4	4	4	4	3	2	2	2	3	1	1	1	2	2	2.3	4.5	
20-Dec-05	1	2	2	2	1	A	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2	1.8	2.3	
21-Dec-05	1	1	1	1	A	1	2	1	2	2	3	2	2	3	3	3	2	3	2	3	2	3	3	3	2.1	3.1	
22-Dec-05	2	2	1	A	1	1	1	2	2	2	1	1	1	2	1	3	3	4	4	4	4	2	1	1	1.9	3.6	
23-Dec-05	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1.1	2.0	
24-Dec-05	2	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	1.8	
25-Dec-05	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.2	
26-Dec-05	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	0.9	1.1
27-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.0	1.3
28-Dec-05	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	2	2	2	2	2	A	1	1	1	1.3	2.3
29-Dec-05	1	1	1	1	1	1	1	1	2	2	2	1	2	2	3	5	2	2	2	A	2	3	1	2	1.7	5.0	
30-Dec-05	1	1	1	1	1	A	1	1	1	1	1	1	2	1	1	1	1	1	1	1	2	1	1	1	1.2	1.7	
31-Dec-05	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1.3	3.9	
Hourly Avg	1.2	1.1	1.1	1.1	0.9	1.0	1.1	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.6	1.6	1.6	1.4	1.4	1.5	1.4	1.3	1.3	1.4	1.3		
Hourly Max	2.5	2.5	2.5	2.5	1.7	2.3	3.1	4.5	4.5	2.6	3.7	4.1	4.0	7.2	6.8	5.0	2.8	3.6	3.6	3.6	2.9	3.1	3.9	2.8			

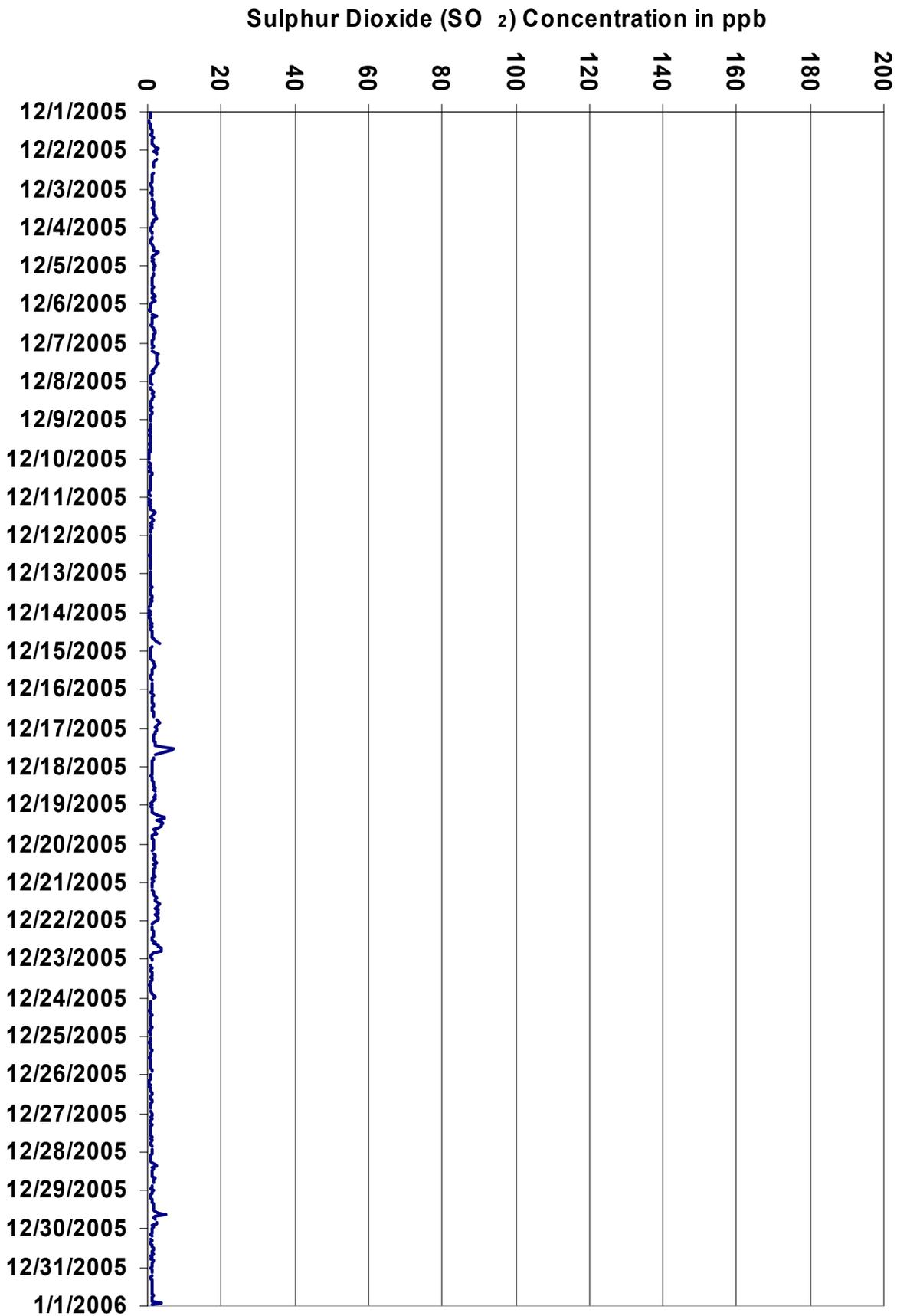
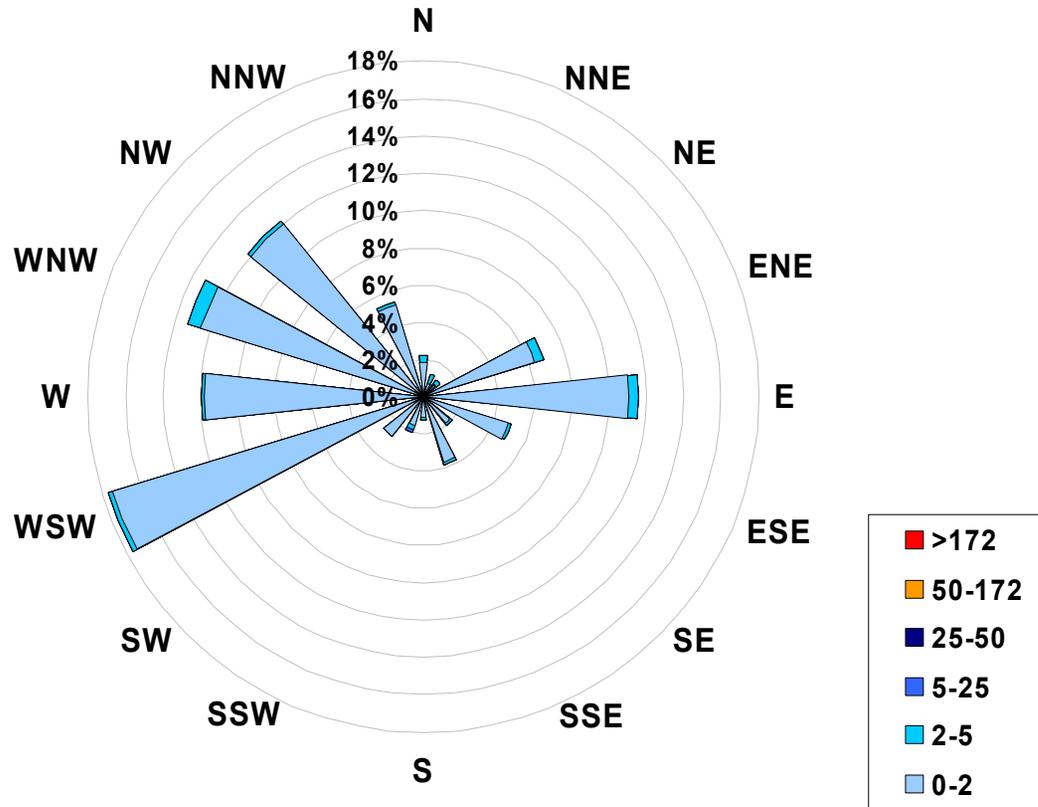


Figure 2. PASZA - Henry Pirker Sulphur Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Sulphur Dioxide (in ppb) Located at the Henry Pirker Site for December 2005**



**Calms: 0%**

Frequency Distribution of SO <sub>2</sub> in ppb			Frequency (hrs)
Range			
0.0	< 2		682
2	to 5		26
5	to 25		1
25	to 50		0
50	to 172		0
	> 172		0
Total Non-Zero Values			709

### PASZA - Henry Pirker Nitrogen Dioxide Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

#### HOURLY AVERAGE TABLE

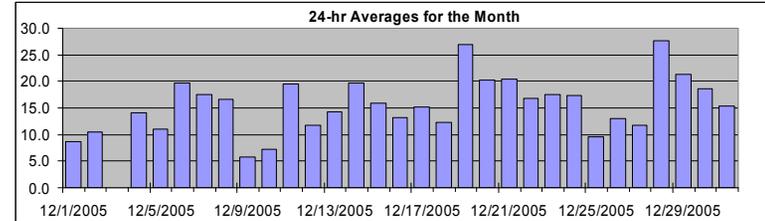
#### Nitrogen Dioxide (NO<sub>2</sub>)

Monitoring Dates: December 1, 2005 to January 1, 2006

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:	52.9	ppb	19-Dec	13:00 14:00
Maximum 24-hr Average:	27.7	ppb	28-Dec	



AIC Time:	33 hrs		Operational Time:	706 hrs	
Calibration Time:	5 hrs		AMD Operational Uptime:	100.0%	
Percentile	99	95	75	50	25
	35.9	30.0	20.7	14.8	10.1
			3.9	2.2	
	Average		Median		
	15.7 ppb		14.8 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	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-Dec-05	7	5	5	5	7	A	13	14	13	10	10	7	7	7	8	10	10	10	9	9	9	8	9	9	8.7	14.0
2-Dec-05	9	9	10	9	A	8	10	10	12	10	9	9	7	7	9	10	12	14	14	14	14	13	12	10	10.4	14.4
3-Dec-05	10	11	17	17	17	A	21	22	23	21	23	C	C	C	C	A	23	21	16	14	14	11	12	N	23.4	
4-Dec-05	13	12	12	15	21	A	16	16	14	14	14	15	18	12	10	10	14	15	14	17	16	16	13	6	14.0	21.3
5-Dec-05	4	3	2	2	A	3	3	3	3	3	3	3	3	3	4	7	19	26	28	29	27	29	28	21	11.1	29.4
6-Dec-05	18	17	17	16	16	A	20	21	20	18	18	16	15	16	19	24	26	26	25	22	21	23	21	19	19.7	26.3
7-Dec-05	18	18	22	23	A	23	24	31	25	32	25	17	18	22	14	10	9	11	14	10	11	12	8	5	17.5	32.0
8-Dec-05	11	7	8	A	11	21	34	38	36	33	27	13	8	8	9	12	17	15	12	28	14	8	7	4	16.6	38.4
9-Dec-05	4	3	A	3	2	2	4	6	7	8	5	5	6	7	8	8	9	12	10	9	7	5	3	2	5.8	11.9
10-Dec-05	2	A	4	3	2	2	5	9	12	36	21	21	9	4	3	4	5	5	4	4	4	4	3	2	7.2	35.9
11-Dec-05	A	3	2	2	4	6	10	13	22	34	35	28	23	30	35	24	24	32	27	23	17	18	19	A	19.6	35.2
12-Dec-05	18	10	8	7	2	5	12	19	18	13	12	11	13	13	13	11	16	17	18	11	10	8	A	5	11.8	19.5
13-Dec-05	7	7	6	5	5	4	30	25	21	22	9	10	8	4	6	15	20	26	22	16	16	A	23	19	14.3	30.2
14-Dec-05	13	13	15	19	21	23	22	22	21	22	16	12	5	7	13	23	32	31	33	33	A	26	19	11	19.7	33.5
15-Dec-05	8	7	6	7	9	17	23	24	22	27	28	18	10	10	13	16	18	18	18	A	21	17	14	13	15.8	28.2
16-Dec-05	11	10	9	9	8	8	12	13	13	12	10	8	9	10	12	15	20	19	A	20	21	21	18	17	13.2	21.4
17-Dec-05	15	15	14	14	15	16	17	17	18	15	15	13	16	15	16	13	17	A	18	16	13	14	13	12	15.1	18.4
18-Dec-05	12	12	9	10	10	8	7	8	10	11	11	13	13	14	13	18	A	19	19	13	12	12	13	13	12.2	19.0
19-Dec-05	14	15	15	14	16	15	26	46	32	23	36	48	53	53	39	25	28	24	22	17	18	21	26	22	27.0	52.9
20-Dec-05	22	21	23	21	20	A	21	26	20	17	16	20	24	14	15	22	21	22	23	23	22	17	17	18	20.3	26.3
21-Dec-05	17	17	14	12	A	12	13	12	12	15	21	20	19	18	19	28	29	32	29	27	25	24	25	27	20.5	32.2
22-Dec-05	26	20	18	A	16	18	16	17	19	19	14	17	18	18	11	21	21	19	19	16	12	11	10	11	16.9	25.5
23-Dec-05	13	14	A	15	11	13	13	15	23	28	15	15	12	13	9	12	8	10	16	25	30	30	31	30	17.5	30.5
24-Dec-05	28	A	22	17	10	14	16	14	17	21	21	18	17	18	21	21	16	18	21	17	14	11	12	13	17.3	28.3
25-Dec-05	A	8	8	8	12	13	12	13	12	10	12	13	7	5	6	9	9	8	8	8	9	10	10	A	9.6	13.4
26-Dec-05	8	10	11	10	8	10	13	15	15	16	15	16	13	15	10	12	13	18	17	14	14	15	A	15	13.1	17.6
27-Dec-05	14	14	12	12	12	12	11	11	13	12	10	9	10	11	10	11	10	10	9	9	10	A	18	20	11.8	20.1
28-Dec-05	21	23	22	24	20	24	30	34	35	38	31	31	27	24	29	31	32	32	29	26	A	27	26	22	27.7	38.2
29-Dec-05	25	20	26	23	22	21	21	22	24	23	22	23	26	22	21	19	20	20	18	A	21	22	18	15	21.4	26.2
30-Dec-05	15	14	13	13	A	18	21	21	16	15	16	25	24	25	21	20	20	19	17	19	20	20	21	18.6	24.9	
31-Dec-05	18	19	18	19	A	17	17	16	19	17	14	12	11	9	10	13	18	18	15	14	15	15	14	13	15.3	18.9
Hourly Avg	13.8	12.2	12.6	12.2	11.9	12.6	16.4	18.5	18.5	19.2	17.3	16.0	15.0	14.5	14.4	15.8	17.7	19.0	18.4	17.4	15.9	16.4	15.9	14.0		
Hourly Max	28.3	22.7	26.0	24.1	21.9	24.3	33.6	46.4	35.6	38.2	35.7	48.2	52.7	52.9	39.1	31.4	32.3	32.2	33.1	33.5	30.4	30.1	30.5	29.8		

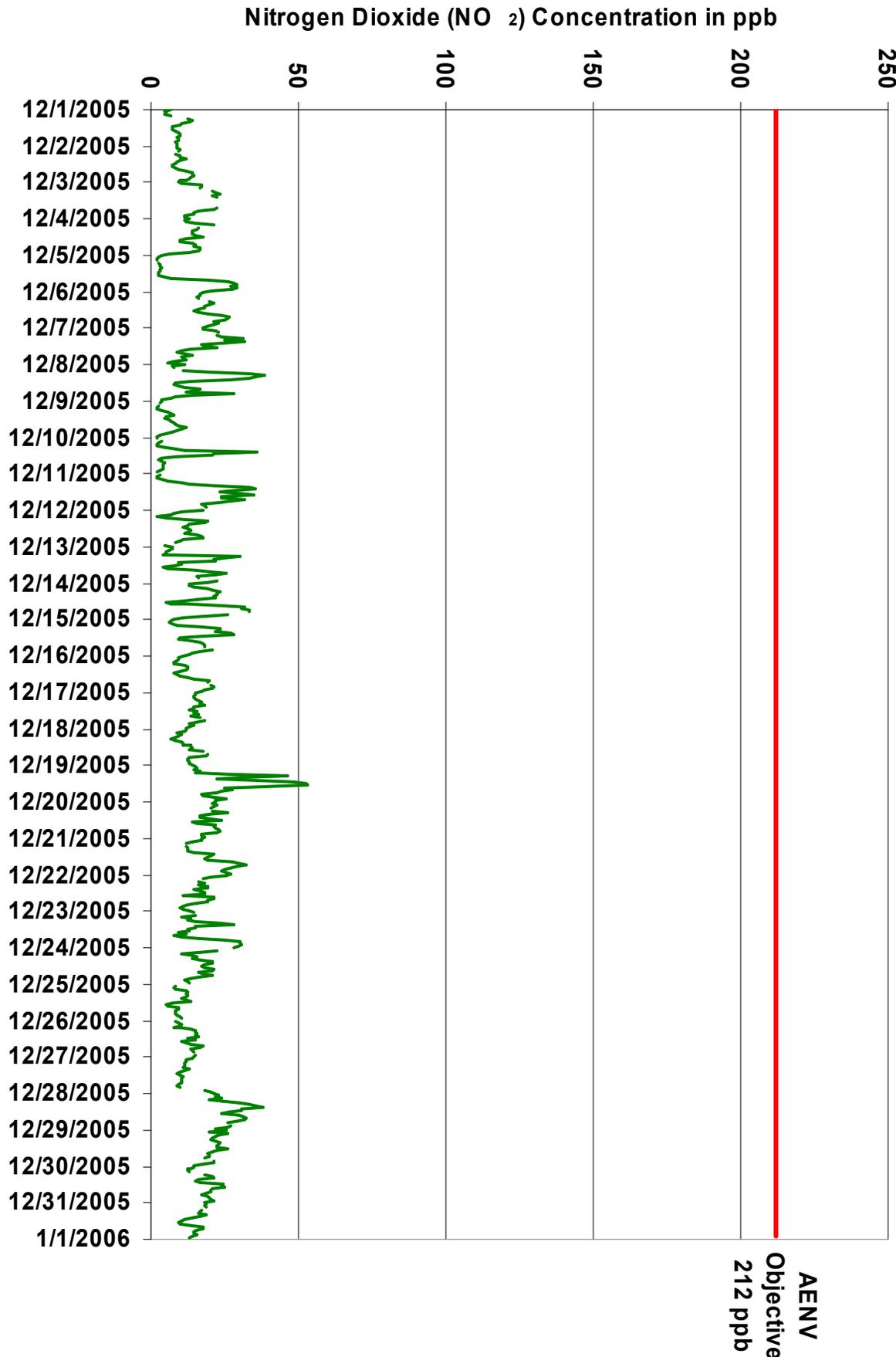


Figure 3. PASZA - Henry Pirkler Nitrogen Dioxide 1-hr Average Monthly Trend

Station: Henry Pirker  
 Station Owner: PASZA

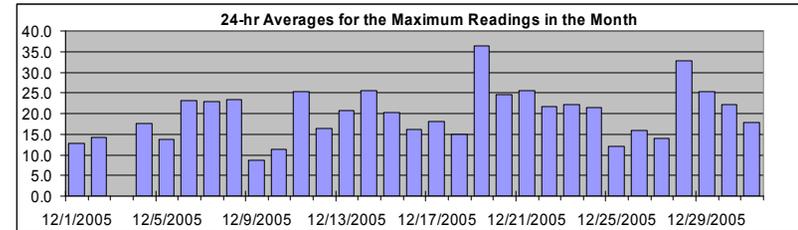
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Value:	65.2	ppb	19-Dec	12:00 13:00
Maximum 24-hr Value:	36.3	ppb	19-Dec	



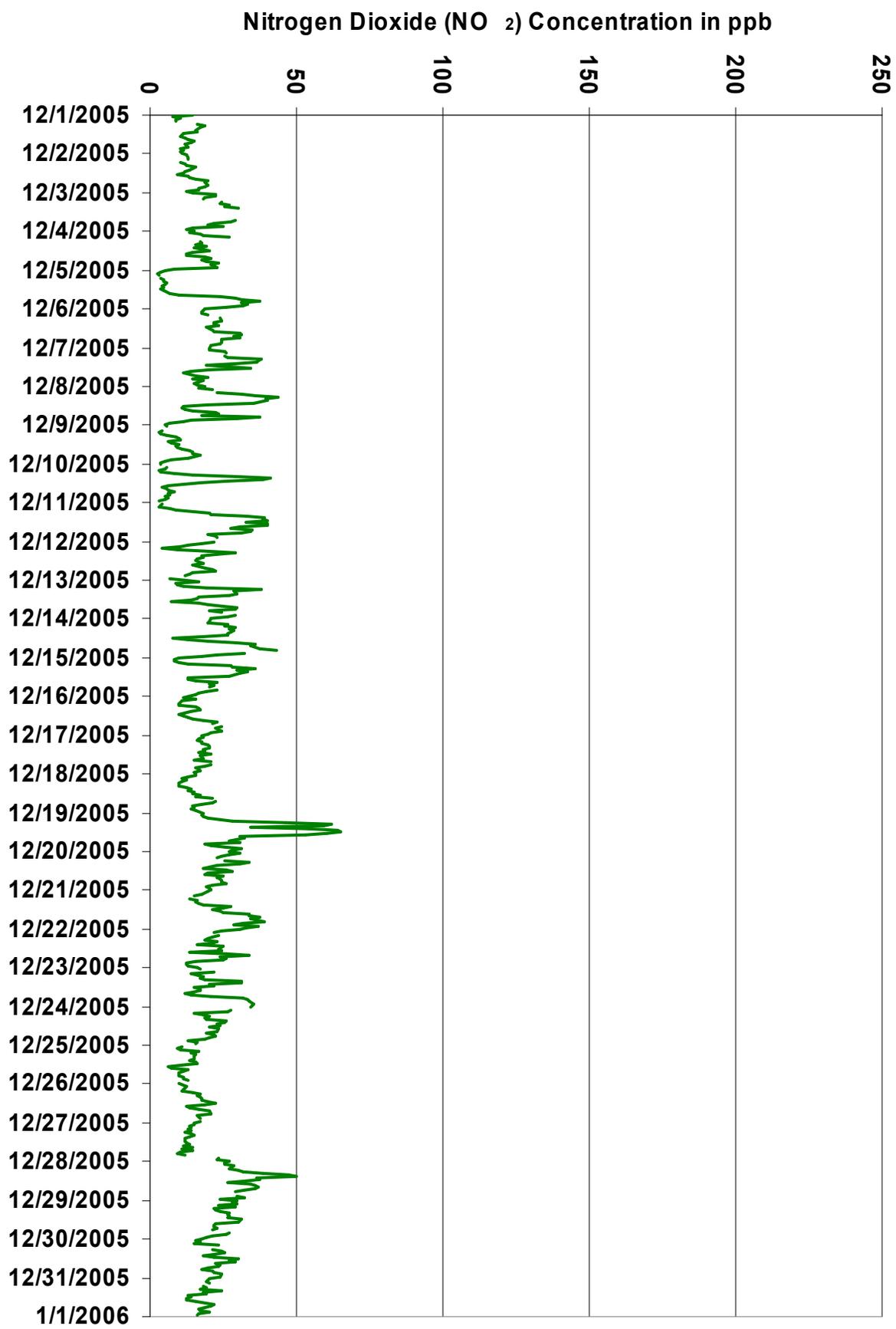
AIC Time:	33 hrs	Operational Time:	706 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	49.9	36.1	24.8	18.7	13.6	6.0	3.4	20.0 ppb	18.7 ppb

**Status Flag Characters**

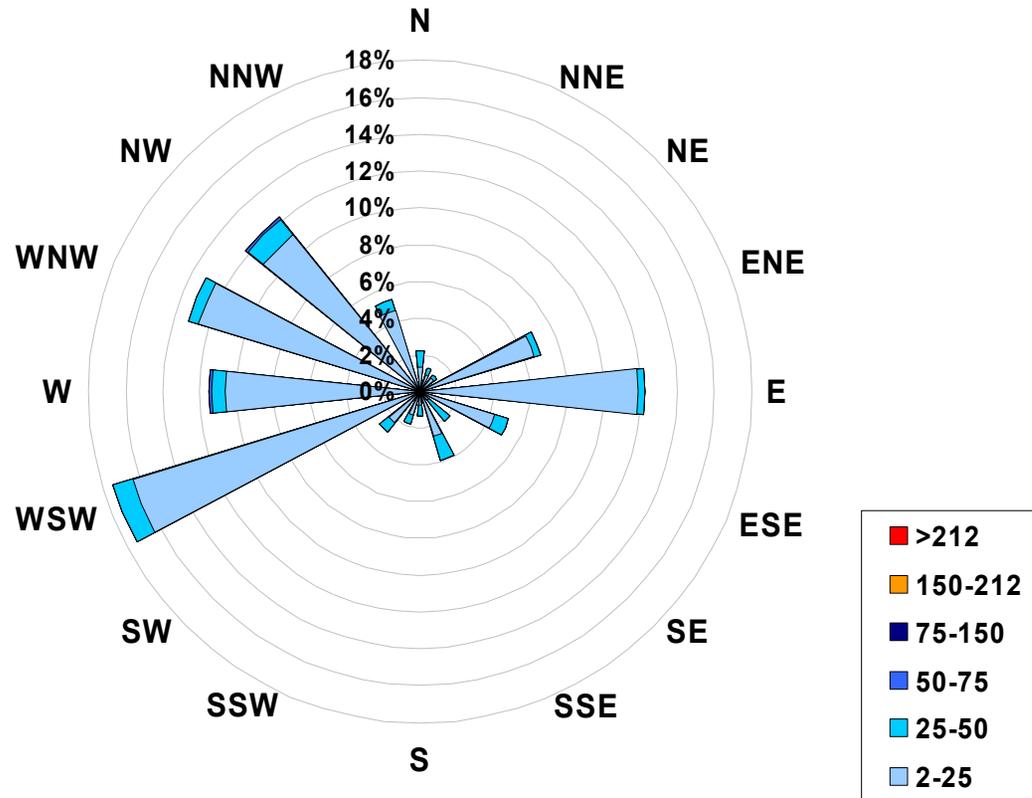
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

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-Dec-05	15	8	11	9	9	A	16	19	17	16	16	12	11	10	12	13	15	14	12	13	13	11	11	10	12.7	19.0
2-Dec-05	11	13	13	13	A	10	12	12	16	15	14	12	12	9	13	13	16	20	19	20	19	17	16	12	14.2	20.0
3-Dec-05	14	22	22	19	18	A	24	24	27	26	30	C	C	C	C	A	29	28	22	20	25	14	13	N	30.1	
4-Dec-05	15	14	17	18	27	A	17	18	16	19	15	18	20	15	12	13	19	21	18	19	23	21	23	8	17.6	27.0
5-Dec-05	5	3	2	3	A	4	4	4	6	5	4	4	4	4	7	10	24	29	31	37	31	33	32	26	13.7	37.5
6-Dec-05	19	18	18	18	20	A	24	25	22	22	23	19	20	22	22	31	31	29	31	24	25	24	24	21	23.0	31.1
7-Dec-05	20	20	26	26	A	25	26	38	37	37	29	19	27	35	20	14	12	16	20	14	18	17	15	16	22.9	37.9
8-Dec-05	19	17	22	A	23	31	36	44	39	40	36	20	12	11	12	14	23	23	18	38	30	14	11	7	23.4	43.5
9-Dec-05	5	6	A	4	3	3	6	9	10	10	6	7	10	9	9	11	13	14	15	17	13	7	5	4	8.6	16.9
10-Dec-05	3	A	6	5	3	3	9	15	29	41	38	27	17	6	4	6	6	8	6	7	5	6	5	3	11.3	41.2
11-Dec-05	A	4	4	3	7	9	20	21	33	39	39	40	33	40	40	31	28	35	34	31	20	22	23	A	25.2	40.2
12-Dec-05	22	17	13	10	4	9	20	29	23	18	18	16	15	17	18	14	19	21	22	14	13	12	A	7	16.3	29.4
13-Dec-05	12	16	9	9	11	19	38	29	30	27	17	16	14	7	16	20	25	30	29	20	25	A	29	27	20.7	38.1
14-Dec-05	21	20	20	27	26	29	27	29	27	26	27	18	8	13	20	29	36	34	37	43	A	32	23	18	25.6	43.3
15-Dec-05	10	8	8	10	13	28	28	36	30	33	31	27	13	13	16	23	20	22	20	A	23	20	17	16	20.2	36.1
16-Dec-05	13	11	15	11	10	10	15	17	17	14	12	10	12	13	15	18	23	21	A	25	23	25	21	20	16.1	24.6
17-Dec-05	18	18	17	16	18	18	20	20	20	18	19	16	21	17	18	15	21	A	21	19	16	17	17	15	18.0	20.7
18-Dec-05	15	16	13	11	12	11	10	10	12	14	13	15	15	17	16	21	A	23	22	18	15	15	14	16	14.9	22.6
19-Dec-05	18	18	18	20	24	28	47	62	59	35	54	64	65	60	53	31	32	27	31	19	21	26	31	28	36.3	65.2
20-Dec-05	27	31	27	24	23	A	26	34	31	23	18	26	28	20	19	25	23	24	24	24	26	21	19	20	24.5	33.8
21-Dec-05	21	20	18	15	A	13	16	15	17	18	27	25	21	24	25	34	34	37	35	39	32	29	37	33	25.4	39.0
22-Dec-05	31	25	22	A	23	21	20	19	23	22	16	25	23	24	14	26	34	24	26	25	16	13	12	13	21.6	34.1
23-Dec-05	16	17	A	22	14	18	17	19	31	31	20	22	15	17	17	15	12	14	21	32	33	34	35	35	22.1	35.2
24-Dec-05	35	A	27	26	15	18	20	19	19	26	26	23	24	20	24	23	19	22	22	20	19	13	16	16	21.4	34.5
25-Dec-05	A	11	9	10	16	14	16	15	15	13	16	16	11	6	7	13	11	10	10	10	11	11	13	A	12.1	16.4
26-Dec-05	10	12	12	11	11	15	17	16	17	18	18	20	22	19	12	14	16	20	21	16	17	17	A	17	16.0	22.4
27-Dec-05	15	15	13	14	13	14	12	14	15	14	12	12	13	14	12	15	11	14	11	9	12	A	24	23	13.9	23.7
28-Dec-05	27	25	25	28	27	30	32	38	47	50	36	38	33	26	34	36	37	36	32	29	A	30	32	24	32.9	50.0
29-Dec-05	30	28	30	23	29	22	23	24	27	27	27	27	31	30	23	22	22	23	21	A	27	26	21	19	25.3	31.0
30-Dec-05	18	16	17	15	23	A	21	25	25	22	18	22	30	27	29	22	24	23	20	18	21	22	24	24	22.1	30.1
31-Dec-05	20	20	19	20	A	18	19	17	24	18	19	13	14	12	13	16	22	21	19	17	17	20	17	16	17.9	24.3
Hourly Avg	17.4	16.2	16.3	15.3	16.3	16.9	20.6	23.0	24.6	23.7	22.4	21.0	19.8	18.6	18.4	19.6	21.6	22.8	22.5	22.1	20.1	20.0	20.1	17.5		
Hourly Max	34.5	30.6	29.8	28.4	29.2	31.5	46.5	61.9	59.4	50.0	54.3	64.2	65.2	60.2	52.9	35.8	37.1	37.3	37.5	43.3	33.3	33.8	36.8	35.1		

Figure 4. PASZA - Henry Pirker 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 December 2005**



**Calms: 0%**

Frequency Distribution of NO <sub>2</sub> in ppb			
Range		Frequency (hrs)	
2.0	< 25	411	
25	to 50	134	
50	to 75	67	
75	to 150	70	
150	to 212	13	
	> 212	11	
Total Non-Zero Values			706

### PASZA - Henry Pirker Nitric Oxide Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

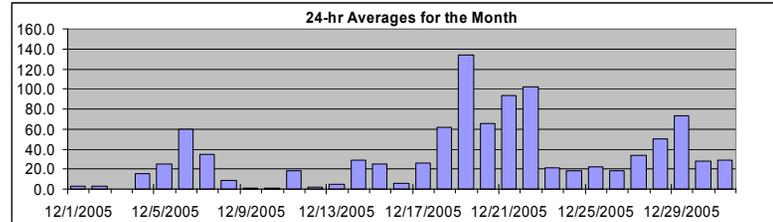
#### HOURLY AVERAGE TABLE

#### Nitric Oxide (NO)

Monitoring Dates: December 1, 2005 to January 1, 2006

Guideline Limit: 1-hr na ppb 24-hr na ppb  
 Summary

Maximum 1-hr Average:	352.0	ppb	19-Dec	7:00 8:00
Maximum 24-hr Average:	133.9	ppb	19-Dec	



AIC Time:	33 hrs	Operational Time:	706 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	249.9	126.3	46.3	15.6	2.7	0.1	0.0	34.4 ppb	15.6 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	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-Dec-05	1	1	1	1	1	A	3	4	3	3	7	3	3	3	3	3	3	3	3	3	3	2	3	1	2.6	6.9
2-Dec-05	2	2	3	3	A	2	3	4	4	4	5	5	4	4	5	4	3	4	3	4	3	3	2	1	3.2	5.3
3-Dec-05	1	2	7	8	9	A	25	34	51	48	72	C	C	C	C	C	A	114	178	111	92	71	43	38	N	177.7
4-Dec-05	30	24	22	53	69	A	7	9	6	10	21	29	36	13	7	5	7	6	3	4	4	1	2	0	15.9	68.8
5-Dec-05	0	0	0	0	A	0	1	1	1	1	2	2	2	2	3	3	7	28	52	93	74	105	127	63	24.7	126.7
6-Dec-05	30	20	15	10	6	A	34	72	57	56	73	41	35	32	39	54	88	131	156	118	101	96	67	52	60.1	156.1
7-Dec-05	28	17	31	50	A	61	85	120	92	131	85	30	30	30	4	2	1	1	1	0	1	1	0	0	34.9	131.4
8-Dec-05	0	0	0	A	0	4	27	39	38	40	20	4	2	2	2	2	3	2	1	4	1	0	0	0	8.5	40.4
9-Dec-05	0	0	A	0	0	0	0	1	1	1	1	2	2	1	1	1	1	1	1	1	0	1	0	0	0.7	2.0
10-Dec-05	0	A	0	0	0	0	0	0	0	14	4	2	1	1	1	1	1	0	0	0	0	0	0	0	1.1	13.6
11-Dec-05	A	0	0	0	0	0	0	0	2	30	94	43	7	21	53	6	3	28	14	39	12	17	27	A	18.0	94.3
12-Dec-05	1	0	0	0	0	0	1	3	3	1	1	2	3	3	3	2	3	4	4	2	1	1	A	0	1.6	3.8
13-Dec-05	0	0	1	0	0	0	13	14	7	7	3	4	3	1	2	7	9	16	9	3	3	A	7	2	5.0	15.6
14-Dec-05	1	0	0	2	2	13	15	11	9	14	7	5	1	2	4	12	39	107	144	250	A	13	2	0	28.4	250.0
15-Dec-05	0	0	0	0	1	4	52	98	87	122	79	41	6	6	7	9	8	13	14	A	10	6	3	3	24.7	121.7
16-Dec-05	2	1	2	1	1	1	4	6	6	5	6	5	6	6	7	8	12	9	A	7	9	9	6	5	5.3	11.9
17-Dec-05	4	3	3	2	4	4	7	5	14	82	96	13	23	21	25	8	13	A	50	49	37	40	50	43	25.9	96.3
18-Dec-05	57	49	30	31	31	29	45	44	52	79	71	66	50	45	36	71	A	133	143	93	87	95	35	42	61.5	143.3
19-Dec-05	47	33	51	51	52	49	168	352	270	157	296	312	264	238	125	33	89	117	137	42	62	63	100	106	133.9	352.0
20-Dec-05	85	82	89	72	63	A	96	148	115	63	52	72	113	23	11	31	37	41	59	66	72	36	51	39	65.9	148.1
21-Dec-05	59	46	63	38	A	19	41	55	61	74	124	64	27	20	21	58	88	172	147	206	137	191	234	198	93.1	233.8
22-Dec-05	165	60	24	A	23	28	39	77	109	93	58	69	73	77	43	138	207	247	276	266	107	69	63	44	102.4	276.0
23-Dec-05	79	49	A	9	1	1	1	2	13	22	4	6	5	5	3	2	1	1	1	10	19	50	84	115	21.0	115.0
24-Dec-05	84	A	3	2	0	0	1	1	1	14	23	42	33	27	29	20	4	6	14	24	31	15	19	15	17.8	83.9
25-Dec-05	A	1	0	0	5	15	13	25	37	26	41	45	17	8	5	11	19	17	18	29	48	53	61	A	22.4	61.0
26-Dec-05	23	21	15	2	1	2	3	5	16	16	27	29	21	30	15	21	39	34	28	13	21	24	A	24	18.7	38.9
27-Dec-05	29	34	32	41	37	40	34	46	64	37	26	23	32	23	17	20	17	34	30	28	38	A	49	54	34.2	63.9
28-Dec-05	47	46	16	5	1	5	15	59	81	104	33	55	37	20	46	59	133	96	117	72	A	35	47	24	50.1	133.3
29-Dec-05	66	32	24	11	17	12	26	45	92	123	105	66	93	64	53	43	41	89	165	A	173	168	78	89	72.8	172.6
30-Dec-05	70	33	43	24	40	A	2	15	7	4	4	12	68	32	38	27	25	36	21	14	33	36	36	26	28.1	70.2
31-Dec-05	22	40	32	39	A	7	20	15	37	32	19	18	19	12	9	14	29	58	71	46	49	18	21	36	28.8	70.6
Hourly Avg	32.1	20.6	17.5	15.7	14.0	12.0	25.2	42.3	43.1	45.6	47.1	37.0	33.8	25.7	20.5	22.5	32.0	51.5	62.0	55.1	42.4	42.0	42.0	35.3		
Hourly Max	164.8	82.2	89.1	72.2	68.8	61.3	168.5	352.0	269.6	157.0	296.0	311.9	263.6	237.9	124.9	138.2	207.2	247.3	276.0	265.9	172.6	191.4	233.8	197.7		

Station: Henry Pirker  
 Station Owner: PASZA

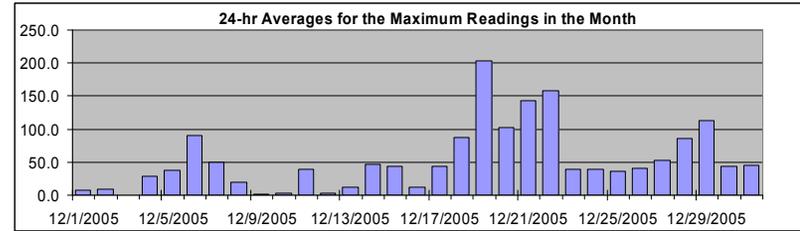
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

**Nitric Oxide (NO)**

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Value:	496.2	ppb	19-Dec	7:00 8:00
Maximum 24-hr Value:	202.9	ppb	19-Dec	



AIC Time:	33 hrs	Operational Time:	706 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	346.4	190.5	74.4	31.8	6.9	0.9	0.5	55.4 ppb	31.8 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-Dec-05	4	7	8	3	3	A	7	7	6	5	22	8	5	5	8	6	8	7	7	7	6	5	9	3	6.8	22.0
2-Dec-05	6	6	12	12	A	6	5	8	7	9	13	11	9	6	16	10	7	16	8	14	5	10	10	3	9.2	16.0
3-Dec-05	2	14	15	11	14	A	48	50	76	85	104	C	C	C	C	A	178	254	149	140	114	54	59	N	253.5	
4-Dec-05	52	33	57	75	113	A	12	19	14	19	29	43	51	22	14	8	30	16	9	7	15	4	15	1	28.5	113.4
5-Dec-05	0	0	1	0	A	1	2	2	10	3	3	4	3	3	6	8	15	59	78	134	92	175	179	93	38.0	178.9
6-Dec-05	61	32	31	20	12	A	78	185	85	101	102	63	65	51	52	90	110	158	192	147	136	129	96	74	90.0	192.1
7-Dec-05	38	23	47	55	A	71	120	144	144	162	130	41	60	82	8	3	2	2	3	1	4	3	2	1	49.8	161.6
8-Dec-05	1	1	2	A	6	31	49	73	63	110	46	8	4	3	3	4	7	5	3	13	2	1	1	1	19.0	110.4
9-Dec-05	1	1	A	1	1	1	1	1	1	2	2	3	3	3	2	2	2	2	2	3	1	1	1	0	1.5	3.0
10-Dec-05	1	A	1	1	1	1	1	1	2	31	22	5	2	1	1	1	1	1	1	1	1	1	1	0	3.3	31.4
11-Dec-05	A	0	0	0	0	1	2	10	65	135	128	20	80	89	16	7	54	42	72	31	40	66	A	39.0	135.1	
12-Dec-05	3	0	0	1	1	1	3	9	5	3	5	4	4	5	3	5	6	6	3	3	2	A	A	1	3.3	9.0
13-Dec-05	1	2	1	1	1	1	35	33	24	14	6	9	7	3	8	12	18	34	21	5	9	A	18	7	11.8	35.0
14-Dec-05	3	2	2	10	14	37	40	41	23	39	26	11	2	5	7	23	56	155	198	347	A	32	10	5	47.2	347.2
15-Dec-05	3	0	4	5	9	30	96	166	148	164	103	96	10	10	13	21	22	23	24	A	26	9	12	23	44.3	166.4
16-Dec-05	3	2	15	10	3	3	17	17	16	9	10	10	11	9	10	12	19	19	A	25	16	16	14	11	12.1	25.3
17-Dec-05	27	15	5	7	13	10	14	8	55	108	157	26	36	29	33	17	64	A	65	66	50	55	68	66	43.2	156.5
18-Dec-05	78	66	38	42	44	55	57	80	95	96	82	82	60	75	52	92	A	174	178	139	143	169	60	62	87.7	178.1
19-Dec-05	95	64	87	71	83	80	295	496	496	290	394	439	332	276	195	63	174	162	205	103	95	91	120	163	202.9	496.2
20-Dec-05	119	148	118	106	72	A	130	234	201	144	69	133	146	63	23	67	49	61	78	79	121	59	85	55	102.6	233.7
21-Dec-05	70	92	74	60	A	39	73	70	118	106	165	104	41	43	45	158	201	245	225	295	251	272	293	245	142.8	295.3
22-Dec-05	200	145	47	A	68	58	97	117	140	117	78	109	97	118	76	273	285	406	413	386	153	90	84	72	157.8	412.7
23-Dec-05	106	84	A	25	2	5	7	5	31	36	6	12	7	8	9	4	2	1	3	28	43	88	162	210	38.5	209.6
24-Dec-05	212	A	8	13	1	5	4	10	2	37	34	63	57	46	55	38	8	20	41	54	72	53	28	22	38.4	212.0
25-Dec-05	A	4	2	1	15	22	26	39	55	49	74	58	28	12	7	25	27	29	30	47	59	81	94	A	35.6	94.3
26-Dec-05	29	35	24	14	9	33	29	13	29	24	47	73	77	52	28	37	124	65	42	26	39	49	A	42	40.8	124.0
27-Dec-05	41	41	52	59	45	50	60	73	79	62	39	39	57	47	27	51	37	68	34	33	67	A	94	73	53.4	94.4
28-Dec-05	70	65	61	15	6	39	59	77	162	175	64	90	64	28	97	97	209	122	150	118	A	81	88	46	86.2	208.8
29-Dec-05	108	86	49	13	70	23	42	94	132	165	150	103	121	121	63	65	56	160	212	A	239	271	116	131	112.6	270.9
30-Dec-05	96	58	67	34	56	A	5	29	25	12	9	39	96	67	55	35	49	47	29	19	51	46	54	36	44.1	96.5
31-Dec-05	46	49	37	46	A	15	37	27	52	53	27	28	38	22	15	23	71	97	88	81	68	42	40	47	45.6	97.4
Hourly Avg	50.9	37.1	29.9	24.6	25.4	24.6	46.7	68.8	74.5	74.0	69.3	61.5	50.5	43.2	34.0	42.2	57.4	79.7	88.1	82.8	66.8	68.6	64.6	53.5		
Hourly Max	212.0	148.5	117.7	106.3	113.4	79.9	294.7	496.2	496.1	290.5	393.8	439.2	332.3	275.6	194.9	273.1	284.6	405.7	412.7	386.2	250.8	272.1	292.9	245.3		

### PASZA - Henry Pirker Oxides of Nitrogen Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

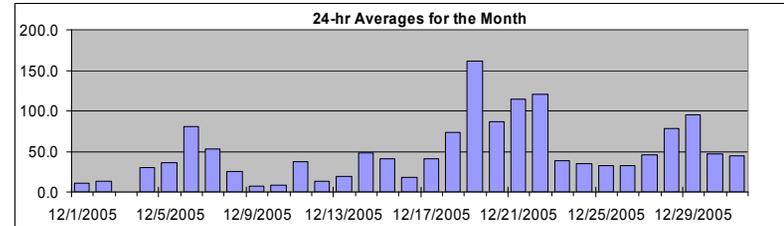
#### HOURLY AVERAGE TABLE

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

Monitoring Dates: December 1, 2005 to January 1, 2006

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

Maximum 1-hr Average:	395.8	ppb	19-Dec	7:00 8:00
Maximum 24-hr Average:	161.0	ppb	19-Dec	



AIC Time:	33 hrs	Operational Time:	706 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	285.1	154.6	63.8	33.5	14.1	4.6	2.3	50.4 ppb	33.5 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	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-Dec-05	8	6	6	5	8	A	16	17	17	13	17	10	10	10	11	13	13	13	11	13	12	11	12	11	11	11.3	17.4
2-Dec-05	10	11	13	12	A	10	13	13	16	13	14	14	12	11	13	13	15	18	17	18	16	16	14	11	13.7	18.5	
3-Dec-05	11	12	24	26	26	A	46	56	75	69	96	C	C	C	C	C	A	137	200	128	107	86	55	50	N	200.2	
4-Dec-05	43	36	34	69	91	A	24	25	20	24	35	44	54	25	16	15	21	21	18	21	21	18	15	6	30.2	90.7	
5-Dec-05	4	3	2	2	A	3	4	4	5	4	5	5	5	5	7	10	27	54	81	123	102	135	155	85	36.0	155.4	
6-Dec-05	48	37	32	26	22	A	54	93	77	75	92	58	50	49	58	79	115	157	182	140	123	119	89	72	80.3	182.1	
7-Dec-05	46	35	53	74	A	85	109	152	118	164	110	48	48	53	18	12	10	12	16	11	12	13	8	6	52.7	164.5	
8-Dec-05	12	8	9	A	12	25	61	78	74	74	48	18	11	10	12	14	19	18	13	33	15	9	7	4	25.3	78.4	
9-Dec-05	4	3	A	3	2	3	4	6	8	9	6	7	8	8	9	10	10	13	12	10	8	6	4	2	6.6	13.0	
10-Dec-05	2	A	4	3	2	2	5	9	12	50	26	23	10	5	3	4	5	6	5	5	4	5	3	2	8.5	49.9	
11-Dec-05	A	3	2	2	4	6	11	14	24	64	130	72	30	51	88	30	27	60	42	62	30	36	46	A	37.9	130.3	
12-Dec-05	19	10	8	7	2	6	13	22	21	15	14	13	16	17	16	13	19	21	22	13	11	10	A	5	13.5	22.4	
13-Dec-05	8	8	7	6	6	4	43	40	28	29	12	15	12	6	8	22	29	42	31	19	20	A	30	21	19.4	43.3	
14-Dec-05	14	13	15	21	23	36	37	34	30	37	24	16	6	9	17	36	71	139	179	285	A	40	21	11	48.5	285.2	
15-Dec-05	7	6	6	7	10	22	76	122	109	150	108	60	15	15	21	25	26	32	32	A	31	22	18	16	40.7	149.7	
16-Dec-05	12	10	11	10	9	9	15	18	19	16	15	13	14	15	19	22	32	28	A	27	30	30	24	23	18.4	31.5	
17-Dec-05	19	18	18	17	19	21	24	22	32	98	112	26	39	36	41	22	30	A	69	66	51	55	63	55	41.4	111.6	
18-Dec-05	70	61	40	41	41	38	52	52	62	91	82	80	63	59	49	89	A	152	163	107	99	107	48	55	73.9	162.6	
19-Dec-05	62	48	67	65	68	64	196	396	296	180	333	362	318	292	165	58	117	142	160	59	80	84	126	128	161.0	395.8	
20-Dec-05	107	104	112	94	84	A	117	175	135	80	69	92	137	37	27	53	59	63	82	90	95	53	68	57	86.5	175.2	
21-Dec-05	77	64	78	50	A	31	54	68	74	89	146	85	46	38	41	86	118	205	177	235	163	217	261	226	114.4	260.7	
22-Dec-05	191	81	42	A	39	47	55	95	129	113	73	86	92	96	54	160	230	268	297	283	120	80	74	56	120.1	296.7	
23-Dec-05	93	64	A	24	12	15	14	17	37	50	19	21	18	18	12	14	9	11	17	35	50	80	115	146	38.8	145.7	
24-Dec-05	113	A	25	18	11	14	16	16	18	35	44	61	51	46	51	41	20	24	35	42	45	27	31	28	35.3	112.8	
25-Dec-05	A	10	8	9	17	28	25	38	49	37	53	59	24	13	12	20	29	25	26	37	57	63	72	A	32.3	72.0	
26-Dec-05	31	30	26	12	8	11	17	21	31	32	43	45	34	45	26	34	53	52	45	27	36	39	A	39	32.0	52.7	
27-Dec-05	44	48	45	54	49	53	45	57	78	49	37	32	42	34	27	30	28	45	39	37	48	A	68	75	46.2	77.6	
28-Dec-05	68	69	38	29	21	30	44	93	117	143	64	86	64	45	76	91	167	129	148	99	A	62	74	47	78.4	166.7	
29-Dec-05	92	53	50	34	40	33	47	67	116	147	128	90	120	87	75	63	61	109	184	A	195	190	97	105	94.9	195.2	
30-Dec-05	85	47	56	37	54	A	20	37	29	20	28	94	57	64	48	46	57	40	31	53	56	56	48	47.0	93.6		
31-Dec-05	41	59	50	58	A	24	38	32	56	49	34	29	30	21	19	27	47	76	86	61	64	34	35	49	44.4	86.5	
Hourly Avg	46.2	33.0	30.3	28.1	26.1	24.8	41.8	60.9	61.7	65.1	64.8	53.2	49.1	40.4	35.2	38.5	50.0	71.0	80.9	72.9	58.6	58.7	58.2	49.6			
Hourly Max	191.4	103.6	112.1	93.5	90.7	84.6	195.6	395.8	296.0	180.3	333.3	361.8	317.8	292.2	164.7	160.5	230.0	268.0	296.7	285.2	195.2	216.7	260.7	226.1			

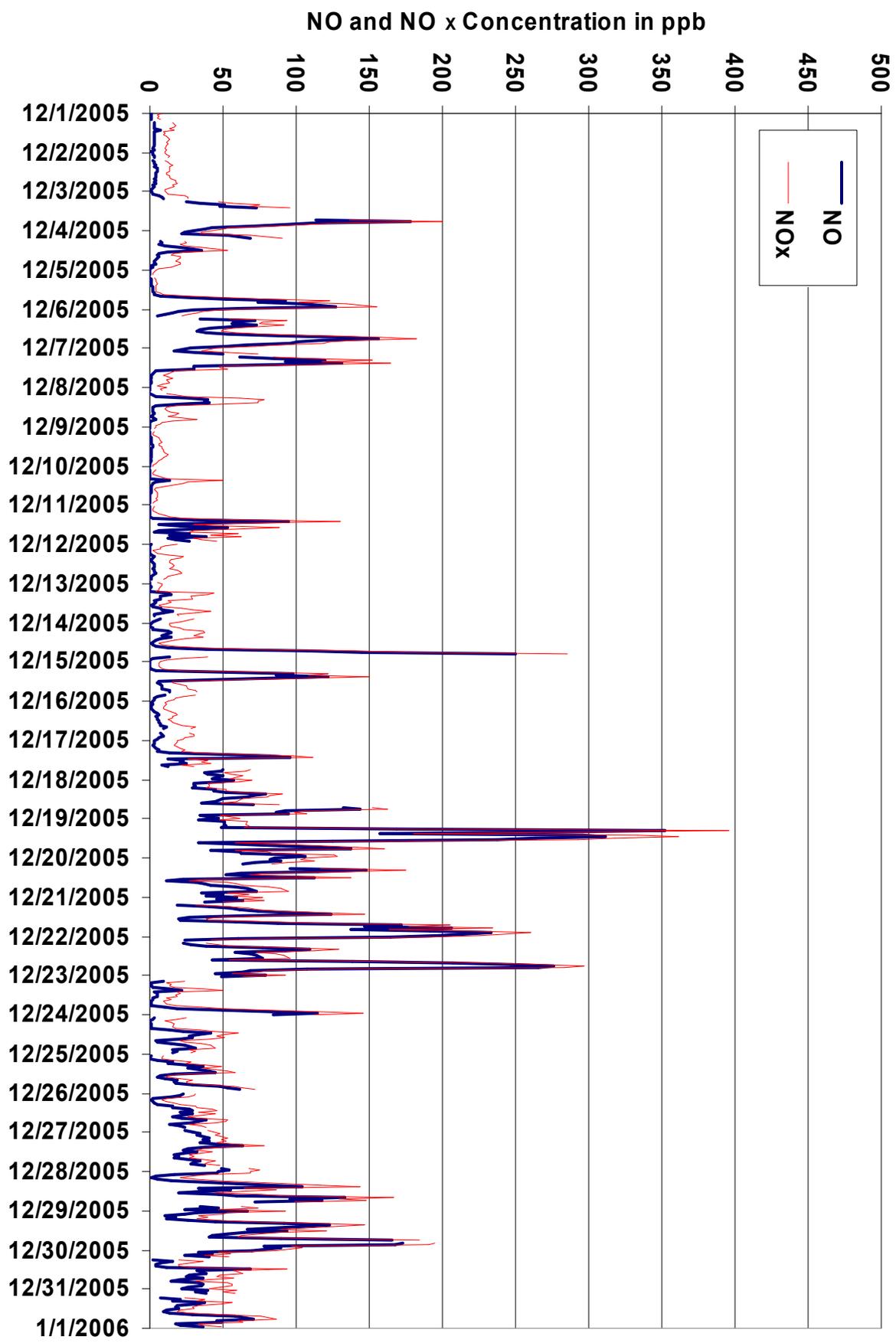


Figure 5. PASZA - Henry Pitker Oxides of Nitrogen 1-hr Average Monthly Trend

Station: Henry Pirker  
 Station Owner: PASZA

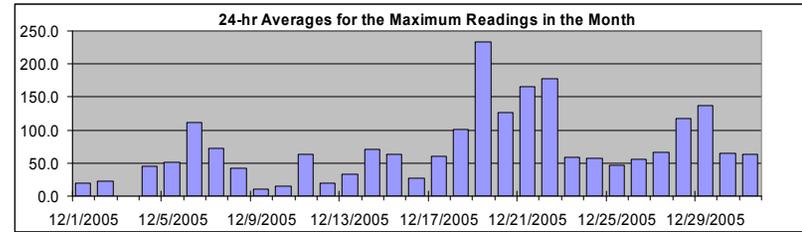
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Value:	498.4	ppb	19-Dec	8:00 9:00
Maximum 24-hr Value:	233.0	ppb	19-Dec	



AIC Time:	33 hrs	Operational Time:	706 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	392.3	224.1	94.7	51.8	22.6	7.6	3.7	74.2 ppb	51.8 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-Dec-05	19	13	18	12	12	A	21	26	23	21	37	19	16	15	19	19	23	20	19	20	19	15	20	13	19.1	37.2
2-Dec-05	17	18	25	23	A	16	17	21	23	24	27	21	21	15	27	24	22	29	23	34	24	26	25	15	22.5	34.0
3-Dec-05	16	36	37	30	31	A	72	74	103	110	135	C	C	C	C	A	199	279	168	159	135	68	71	N	278.6	
4-Dec-05	64	47	75	94	142	A	29	35	29	38	44	61	71	37	26	20	47	36	23	35	23	38	9	45.6	141.5	
5-Dec-05	5	4	3	3	A	4	6	7	16	7	6	8	7	8	13	18	37	83	106	165	119	207	209	118	50.5	209.1
6-Dec-05	79	48	49	36	29	A	101	210	104	122	121	81	86	71	74	118	140	183	223	170	159	154	119	94	111.9	223.3
7-Dec-05	58	43	73	79	A	97	144	182	182	199	160	60	87	115	29	17	13	18	23	16	22	20	17	17	72.7	198.7
8-Dec-05	19	18	24	A	30	61	82	116	102	151	82	28	15	14	15	17	30	28	21	51	31	15	12	7	42.2	150.9
9-Dec-05	6	6	A	5	4	4	7	11	11	12	8	10	13	12	11	13	15	16	16	20	14	8	6	4	10.1	20.0
10-Dec-05	4	A	6	6	4	4	10	15	31	72	61	32	20	8	5	8	8	9	7	8	6	7	5	3	14.6	72.3
11-Dec-05	A	4	4	3	7	9	21	22	43	102	171	168	54	121	130	47	34	87	74	102	49	60	85	A	63.5	171.5
12-Dec-05	24	18	13	11	4	10	22	39	28	20	22	22	20	22	24	17	24	28	29	17	17	14	A	8	19.6	38.8
13-Dec-05	13	19	10	11	13	21	74	62	54	41	22	26	22	11	25	32	43	63	50	26	34	A	47	33	32.6	73.7
14-Dec-05	23	22	22	33	38	65	65	69	50	60	52	29	10	19	27	53	91	185	230	382	A	64	32	20	71.3	382.3
15-Dec-05	12	9	10	13	21	58	122	203	176	195	132	121	22	21	26	44	36	44	43	A	47	29	27	38	63.1	202.7
16-Dec-05	16	13	30	17	13	12	31	34	33	23	22	20	21	22	23	31	40	38	A	50	38	41	35	30	27.4	49.7
17-Dec-05	45	32	22	22	30	27	31	27	73	124	174	43	57	47	52	33	82	A	84	83	64	70	81	78	60.0	174.1
18-Dec-05	90	82	48	53	55	66	64	89	107	109	95	95	75	91	67	112	A	191	197	154	156	180	70	73	100.7	197.5
19-Dec-05	113	79	102	88	107	108	339	498	498	327	450	496	393	336	249	94	203	188	234	122	114	117	146	189	233.0	498.4
20-Dec-05	146	179	145	131	95	A	153	268	230	166	87	160	174	82	38	91	71	86	103	103	147	81	103	76	126.8	267.7
21-Dec-05	86	109	90	72	A	52	88	81	133	124	193	124	62	68	70	191	234	280	254	325	276	300	323	272	165.6	324.9
22-Dec-05	227	168	69	A	92	80	114	136	162	138	93	135	120	142	89	300	315	428	438	405	165	101	96	84	178.1	437.9
23-Dec-05	122	98	A	43	17	22	25	24	61	67	27	33	23	25	26	20	13	16	24	60	74	119	192	237	59.5	236.7
24-Dec-05	237	A	34	35	17	21	23	27	21	59	59	86	77	65	75	60	25	41	63	69	91	62	42	35	57.6	236.6
25-Dec-05	A	15	11	11	32	36	41	52	70	62	89	74	39	19	14	38	37	36	39	56	70	91	105	A	47.1	105.1
26-Dec-05	38	42	32	24	20	48	44	27	45	40	64	94	98	71	40	51	136	81	58	39	54	67	A	56	55.2	136.4
27-Dec-05	55	56	65	72	59	64	72	84	93	75	50	51	67	60	39	65	46	82	44	42	78	A	116	94	66.5	116.0
28-Dec-05	87	89	84	44	33	66	92	111	203	224	95	129	97	54	131	132	240	154	182	146	A	106	121	69	117.0	240.1
29-Dec-05	137	114	79	37	98	45	65	116	156	190	177	129	152	151	85	87	78	180	231	A	265	296	136	148	137.1	296.4
30-Dec-05	115	73	80	45	80	A	26	52	48	32	27	60	126	94	85	56	74	69	49	37	72	66	74	59	65.2	126.5
31-Dec-05	65	69	55	66	A	34	55	45	74	71	45	42	52	33	28	37	92	115	106	97	84	62	56	61	62.8	115.0
Hourly Avg	66.8	52.6	45.3	38.7	41.5	41.2	66.4	89.1	96.3	96.9	91.1	81.9	69.9	61.6	52.0	61.4	77.6	100.4	109.1	103.1	85.7	87.5	83.0	69.4		
Hourly Max	236.6	179.5	144.7	131.1	141.5	108.5	338.8	498.3	498.4	326.7	450.4	495.5	392.8	335.9	249.0	299.8	314.9	428.2	437.9	404.7	276.1	300.3	322.9	272.0		

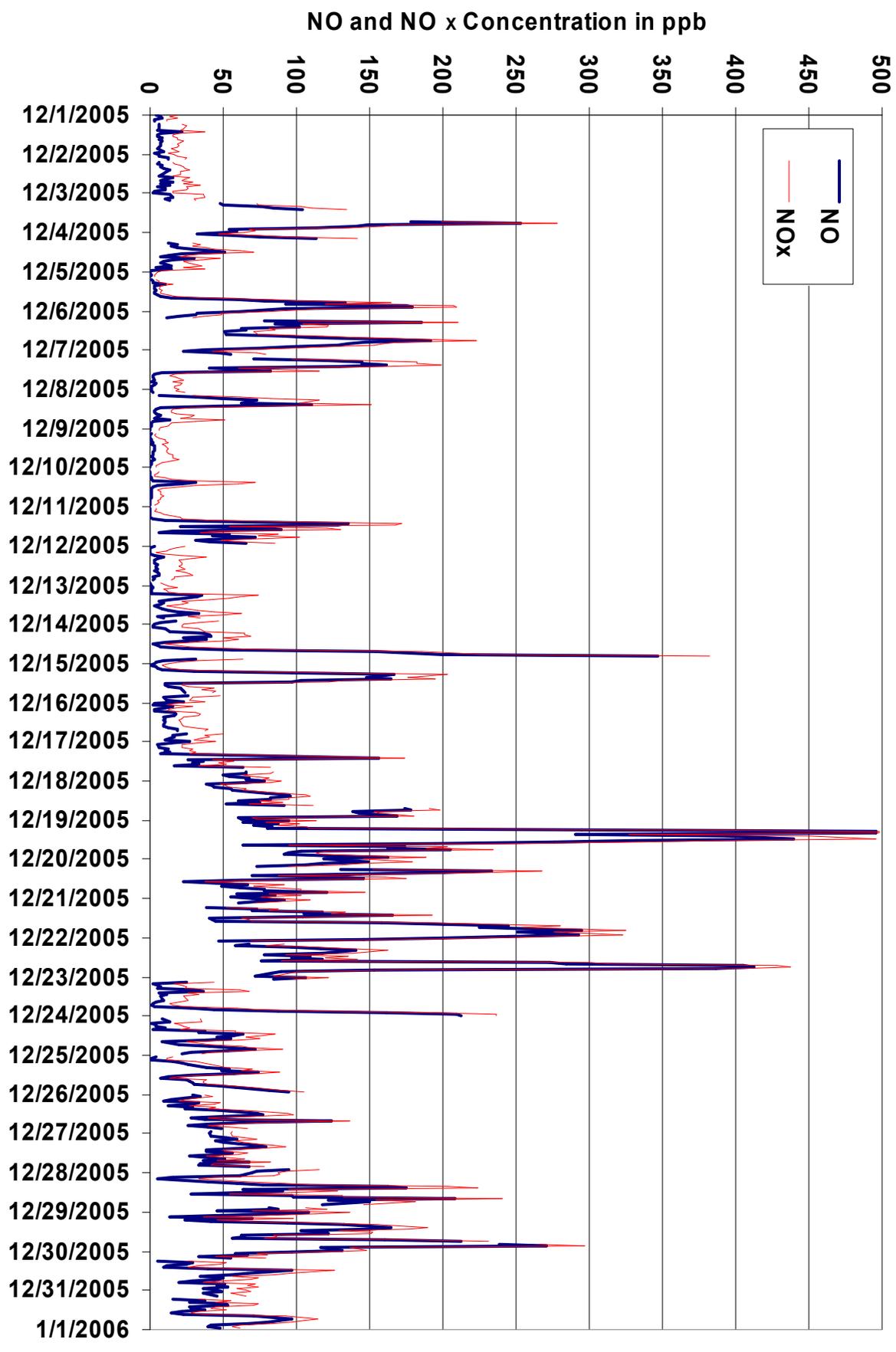


Figure 6. PASZA - Henry Pirker Oxides of Nitrogen Instantaneous (30 Second) Maximum Value Monthly Trend

### PASZA - Henry Pirker Ozone Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

#### HOURLY AVERAGE TABLE

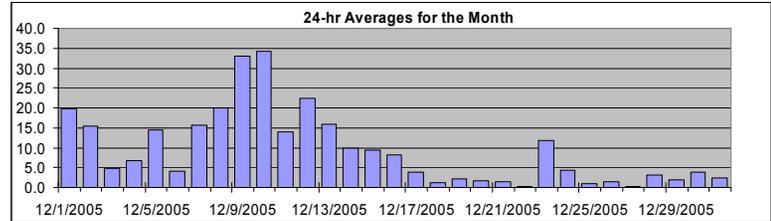
Ozone (O<sub>3</sub>)

Monitoring Dates: December 1, 2005 to January 1, 2006

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

Summary

Number of 1-hr Exceedances:	0			
Maximum 1-hr Average:	41.7 ppb	10-Dec	14:00	15:00
Maximum 24-hr Average:	34.3 ppb	10-Dec		



AIC Time:	33 hrs	Operational Time:	707 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	38.8	32.4	15.0	3.9	1.1	0.0	0.0	9.3 ppb	3.9 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	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-Dec-05	23	26	26	26	21	A	15	13	14	18	19	22	21	22	21	21	20	20	20	18	19	19	17	15	19.7	26.4	
2-Dec-05	16	16	14	15	A	17	15	15	14	16	17	19	20	21	20	18	15	12	12	12	12	13	13	15	15.5	20.8	
3-Dec-05	12	11	4	3	2	A	1	1	2	3	4	7	9	8	9	7	4	4	4	4	3	4	3	3	4.8	11.7	
4-Dec-05	3	3	3	4	5	A	4	4	5	6	7	7	6	10	11	10	7	8	9	8	8	8	8	13	6.9	13.4	
5-Dec-05	15	16	17	17	A	18	18	19	20	21	21	21	22	23	C	C	C	C	A	2	1	3	3	1	14.4	22.7	
6-Dec-05	1	1	1	2	3	A	3	3	2	4	5	8	10	10	9	5	3	3	3	3	3	3	4	3	4.0	10.1	
7-Dec-05	3	3	3	3	A	3	3	3	3	4	4	7	8	14	27	32	35	32	28	30	28	27	29	30	15.5	34.8	
8-Dec-05	24	27	26	A	22	11	0	1	1	2	8	22	28	28	26	24	20	23	27	11	25	32	34	37	20.0	37.0	
9-Dec-05	37	37	A	39	40	38	35	32	30	30	32	33	32	31	31	30	28	26	27	30	32	34	36	37	33.0	40.0	
10-Dec-05	37	A	36	37	39	39	37	32	27	5	18	19	33	41	42	41	40	39	39	38	38	37	37	38	34.3	41.7	
11-Dec-05	A	38	38	37	32	32	26	20	13	1	2	11	15	9	3	10	9	2	5	0	1	0	2	A	13.9	38.4	
12-Dec-05	12	21	23	26	36	32	25	17	19	25	23	25	24	23	24	18	14	13	19	21	22	A	30	22.5	36.1		
13-Dec-05	24	23	24	25	25	29	3	4	8	8	21	21	23	27	25	14	12	4	7	13	13	A	6	10	16.0	29.0	
14-Dec-05	15	17	15	10	6	4	3	6	6	4	11	16	25	25	18	7	1	2	2	3	A	4	10	17	9.8	25.4	
15-Dec-05	20	22	22	21	19	9	1	1	1	2	2	9	15	15	12	8	7	3	2	A	3	6	8	9	9.4	22.3	
16-Dec-05	11	12	11	11	12	11	8	7	6	7	9	11	12	11	11	9	5	4	A	4	2	3	5	5	8.1	11.8	
17-Dec-05	6	6	6	5	5	4	3	4	2	1	2	9	8	8	6	7	4	A	1	0	1	1	1	1	3.8	9.3	
18-Dec-05	1	0	0	0	0	0	0	0	0	1	1	3	4	4	3	2	A	2	2	1	1	1	0	1	1.1	3.9	
19-Dec-05	1	1	1	1	1	1	2	4	2	2	3	3	3	4	3	4	2	2	2	1	2	1	3	2	2.1	3.9	
20-Dec-05	2	1	2	2	1	A	2	2	1	1	2	2	2	5	6	2	1	1	0	1	0	0	1	0	1.6	6.1	
21-Dec-05	0	1	0	0	A	0	0	0	0	0	1	3	7	9	7	2	0	1	1	1	0	1	1	0	1.5	8.6	
22-Dec-05	0	0	0	A	0	0	0	0	0	0	0	0	1	2	2	1	0	1	1	1	0	0	0	0	0.3	1.7	
23-Dec-05	0	0	A	5	12	8	12	11	6	3	19	19	22	22	26	25	31	26	18	7	1	0	1	1	11.9	30.6	
24-Dec-05	2	A	6	12	18	13	9	12	11	4	2	2	1	1	1	2	4	3	0	0	0	0	0	0	4.4	17.7	
25-Dec-05	A	3	2	3	0	0	0	0	0	0	1	2	2	3	3	1	0	0	0	0	0	0	0	A	1.0	3.3	
26-Dec-05	0	0	0	3	7	7	3	0	0	0	1	2	5	3	3	1	0	0	0	0	0	0	A	0	1.6	7.1	
27-Dec-05	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	A	1	1	0.2	1.2
28-Dec-05	1	1	3	5	9	7	1	0	1	2	5	5	7	8	5	2	2	1	1	1	A	2	1	1	3.1	9.5	
29-Dec-05	1	8	1	1	1	1	1	1	2	1	2	2	3	3	4	2	1	1	2	A	2	2	2	1	1.9	7.9	
30-Dec-05	1	2	1	1	1	A	9	4	8	14	14	12	3	5	4	2	2	1	1	1	1	1	1	1	3.9	14.3	
31-Dec-05	1	1	1	1	A	1	1	1	1	1	4	5	6	8	8	5	2	2	1	1	1	1	1	1	2.3	8.1	
Hourly Avg	9.3	10.2	9.9	10.8	12.1	11.3	7.7	7.0	6.7	5.9	8.4	10.6	12.3	13.0	12.2	10.6	9.3	8.1	7.9	7.2	7.5	7.8	7.9	9.4			
Hourly Max	37.4	37.6	38.4	39.2	40.0	39.5	36.6	32.1	30.1	29.5	32.0	32.8	33.2	40.6	41.7	41.0	39.6	38.5	38.8	38.2	38.2	36.7	37.5	38.4			

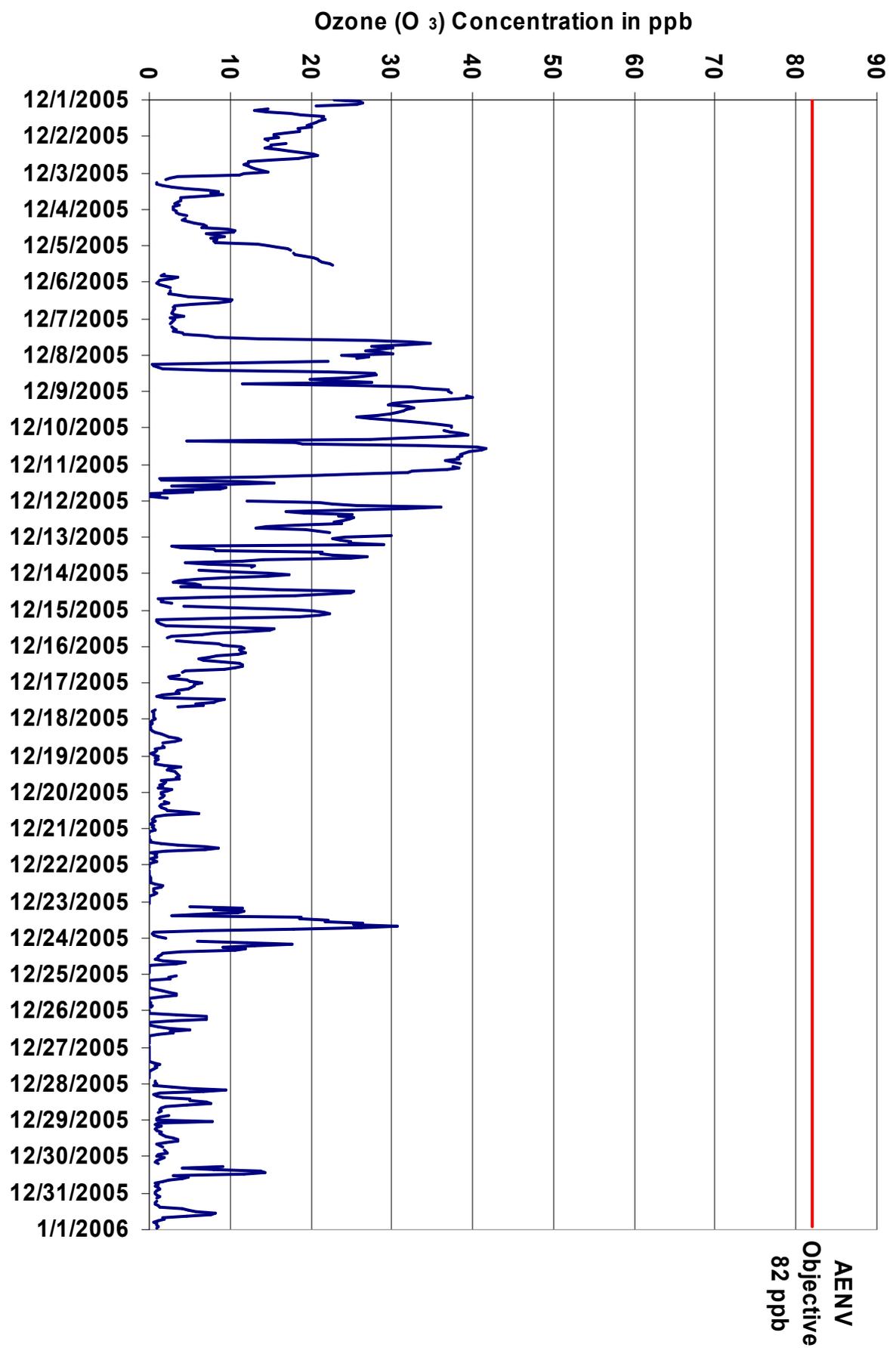


Figure 7. PASZA - Henry Pirkker Ozone 1-hr Average Monthly Trend

Station: Henry Pirker  
 Station Owner: PASZA

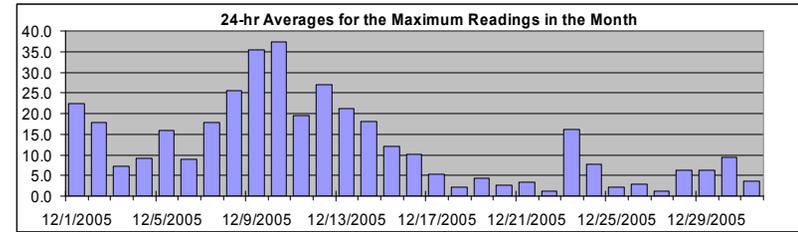
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Value:	86.2	ppb	30-Dec	1:00 2:00
Maximum 24-hr Value:	37.3	ppb	10-Dec	



AIC Time:	33 hrs	Operational Time:	707 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	41.2	37.0	19.7	7.0	2.4	0.7	0.1	12.2 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																								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-Dec-05	25	28	28	28	25	A	17	16	19	20	22	24	25	25	24	23	24	22	22	21	22	20	19	16	22.4	28.3
2-Dec-05	17	17	16	16	A	18	17	17	16	18	20	21	22	23	22	21	18	16	16	17	15	15	16	17	17.9	22.5
3-Dec-05	15	14	6	4	3	A	2	2	3	6	6	10	11	10	11	10	6	7	6	9	6	8	5	4	7.1	15.4
4-Dec-05	4	6	5	4	6	A	5	6	6	7	8	8	8	14	13	13	12	13	11	10	12	11	12	15	9.1	14.7
5-Dec-05	16	17	18	18	A	19	19	20	22	22	22	23	23	24	C	C	C	C	A	3	2	7	5	2	15.8	23.7
6-Dec-05	2	2	2	4	5	A	5	4	3	86	7	11	11	13	10	9	4	4	4	3	3	4	6	4	8.9	85.7
7-Dec-05	4	4	3	3	A	3	3	5	5	5	6	9	9	24	31	35	37	35	31	32	31	31	33	33	17.9	36.5
8-Dec-05	32	32	32	A	28	20	6	2	6	4	19	28	30	30	29	27	24	32	33	28	33	36	37	39	25.6	38.5
9-Dec-05	39	39	A	41	41	39	37	35	33	32	34	35	35	33	33	32	31	30	32	34	37	37	38	38	35.4	41.1
10-Dec-05	39	A	38	39	40	41	39	35	33	14	31	23	41	42	43	42	41	40	40	40	39	38	39	39	37.3	42.9
11-Dec-05	A	39	39	38	36	34	34	27	26	3	3	30	26	16	8	14	13	7	21	2	3	1	9	A	19.4	39.4
12-Dec-05	20	27	28	37	37	35	32	22	24	30	29	29	28	27	29	26	23	18	16	23	23	25	A	33	27.0	37.5
13-Dec-05	29	27	26	30	31	34	14	11	12	13	24	27	27	29	28	18	19	10	15	17	17	A	14	17	21.2	33.8
14-Dec-05	25	24	22	21	11	14	10	12	79	8	18	25	29	27	26	13	2	4	2	4	A	9	12	20	18.1	78.9
15-Dec-05	22	23	24	22	21	17	2	2	3	2	3	18	18	17	14	12	11	5	4	A	6	10	10	11	12.1	24.1
16-Dec-05	13	14	13	14	13	13	11	9	9	10	11	13	14	13	12	12	8	6	A	5	4	5	6	8	10.2	13.8
17-Dec-05	8	7	7	6	6	5	4	5	4	2	6	10	10	10	7	8	7	A	2	1	1	2	1	2	5.3	10.4
18-Dec-05	2	1	1	1	1	1	1	1	2	2	2	3	4	5	4	2	A	3	4	2	3	2	1	2	2.2	5.2
19-Dec-05	3	4	3	2	2	2	4	5	5	4	6	5	4	5	4	8	4	6	3	6	8	2	6	5	4.3	8.2
20-Dec-05	2	2	2	2	2	A	2	4	3	2	2	3	3	7	8	5	1	3	1	1	1	1	1	1	2.7	8.0
21-Dec-05	1	2	0	0	A	0	1	1	1	1	3	9	9	11	15	10	2	2	1	2	1	2	2	2	3.4	14.8
22-Dec-05	1	0	0	A	0	0	0	1	1	1	1	1	2	3	3	1	3	2	2	2	1	1	0	0	1.2	3.5
23-Dec-05	1	0	A	14	17	12	16	14	15	11	22	24	24	24	31	29	33	30	24	16	4	2	3	3	16.1	33.4
24-Dec-05	9	A	14	22	21	17	13	16	16	11	3	4	2	2	2	6	7	5	2	2	2	0	0	1	7.7	22.0
25-Dec-05	A	5	3	4	1	0	0	1	1	1	3	3	3	5	5	3	2	1	3	2	1	2	1	A	2.2	4.8
26-Dec-05	1	1	1	7	8	9	8	1	1	1	2	4	8	4	4	3	1	1	0	1	0	0	A	1	2.9	8.9
27-Dec-05	3	1	1	1	0	1	0	1	1	1	1	2	3	2	1	1	1	1	1	1	1	A	3	2	1.2	2.9
28-Dec-05	4	1	9	10	19	19	6	3	2	3	10	8	9	9	8	3	3	2	2	2	A	5	6	3	6.3	19.4
29-Dec-05	2	20	10	2	3	2	1	2	3	2	3	3	4	5	5	3	2	3	2	A	3	4	57	2	6.2	56.7
30-Dec-05	2	86	2	1	4	A	15	10	11	18	16	16	5	7	5	3	5	1	2	2	2	2	2	2	9.4	86.2
31-Dec-05	2	2	2	2	A	2	1	2	2	3	6	6	9	9	9	8	3	4	4	2	2	2	3	2	3.7	9.4
Hourly Avg	11.7	15.3	12.2	13.6	14.7	14.3	10.6	9.4	11.8	11.1	11.3	14.0	14.7	15.3	14.8	13.3	11.9	10.8	10.6	10.0	9.8	9.9	12.0	11.1		
Hourly Max	39.1	86.2	39.4	40.8	41.1	40.6	39.2	34.9	78.9	85.7	34.0	34.7	41.1	42.2	42.9	42.3	41.2	39.7	40.3	39.9	39.5	38.2	56.7	39.4		

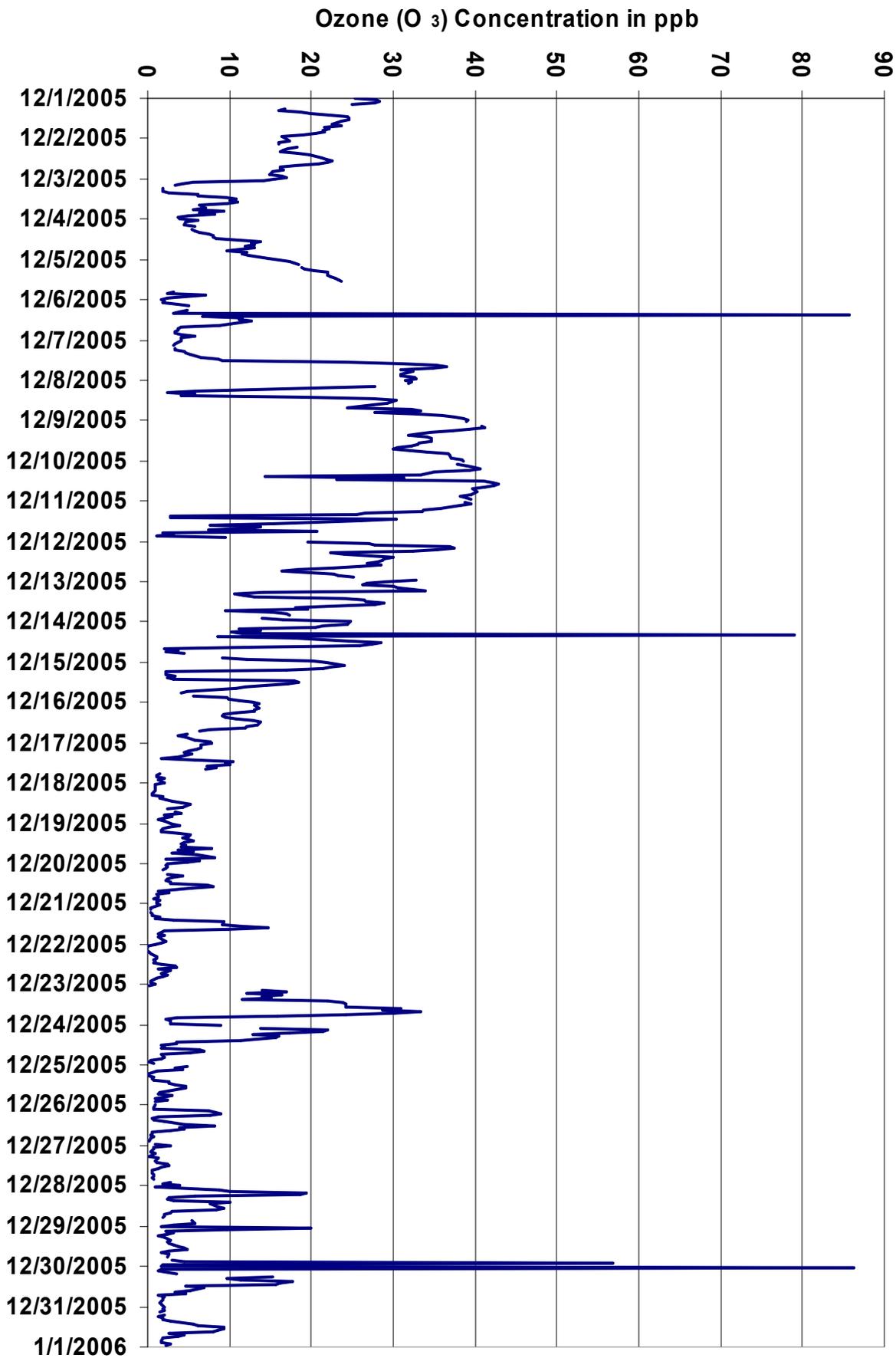
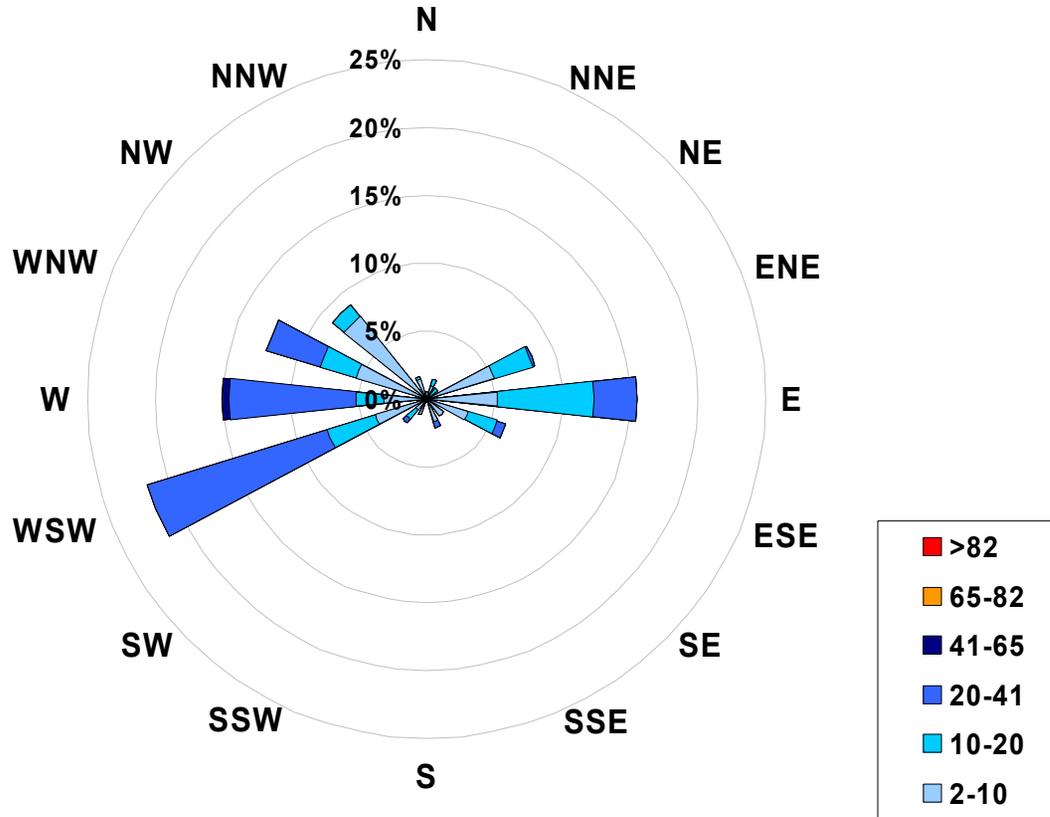


Figure 8. PASZA - Henry Pirkler Ozone Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Ozone (in ppb) Located at the Henry Pirker Site for December 2005**



**Calms: 0%**

Frequency Distribution of O <sub>3</sub> in ppb			Frequency (hrs)
Range			
2.0	< 10		471
10	to 20		103
20	to 41		131
41	to 65		2
65	to 82		0
	> 82		0
Total Non-Zero Values			707

### PASZA - Henry Pirker Ozone Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

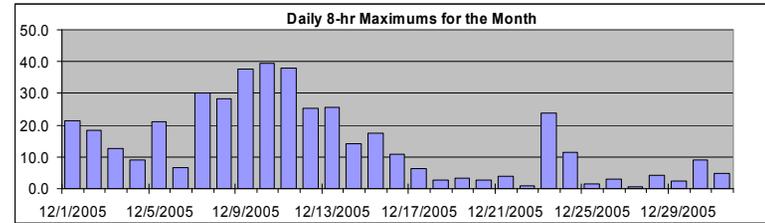
#### EIGHT HOUR RUNNING AVERAGE TABLE

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

Monitoring Dates: December 1, 2005 to January 1, 2006

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

Number of 8-hr Exceedances:	0						
Maximum 8-hr Average:	39.6	ppb	10-Dec	20:00	21:00		



Percentile	99	95	75	50	25	5	1
	37.8	31.3	15.3	4.8	1.8	0.2	0.0

#### 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																							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-Dec-05	12	14	15	17	18	20	21	21	20	19	18	17	17	18	19	20	20	21	21	20	20	20	19	18	21.3
2-Dec-05	18	17	17	16	16	16	15	15	15	15	16	16	17	17	18	18	18	18	17	16	15	14	14	13	18.3
3-Dec-05	13	12	11	10	9	8	7	5	3	2	2	3	4	4	5	6	6	6	6	5	5	4	4	12.6	
4-Dec-05	3	3	3	3	3	3	4	4	4	4	5	5	6	6	7	8	8	8	9	9	9	9	8	9	8.9
5-Dec-05	10	11	12	13	14	15	16	17	18	19	19	20	20	21	21	N	N	N	N	N	N	N	N	N	21.1
6-Dec-05	N	2	2	2	2	2	2	2	2	2	3	4	5	6	6	7	7	7	6	6	5	4	3	3	6.8
7-Dec-05	3	3	3	3	3	3	3	3	3	3	4	4	6	9	12	16	20	23	26	28	30	30	30	30	30.0
8-Dec-05	28	28	28	27	26	24	20	16	13	9	6	8	9	11	14	17	20	22	25	24	23	24	25	26	28.4
9-Dec-05	28	30	31	35	37	38	38	37	36	35	35	34	33	32	31	31	31	30	30	29	29	30	30	31	37.7
10-Dec-05	32	33	35	36	37	37	38	37	35	31	29	27	26	26	27	28	30	34	37	39	40	39	39	38	39.6
11-Dec-05	38	38	38	38	37	36	34	32	30	25	20	17	15	12	9	8	7	7	8	7	5	4	4	3	38.0
12-Dec-05	3	6	8	12	17	22	25	24	25	25	25	24	23	23	24	23	22	21	20	20	19	19	20	25.3	
13-Dec-05	21	22	23	24	25	26	23	19	17	16	15	15	15	14	17	18	19	18	17	16	14	13	10	9	25.6
14-Dec-05	10	12	13	12	11	10	10	9	8	7	6	7	9	12	14	14	13	13	12	10	8	5	4	5	14.1
15-Dec-05	8	11	14	17	17	17	16	14	12	9	7	5	5	6	7	8	9	9	9	9	7	6	5	5	17.4
16-Dec-05	6	7	9	9	10	11	11	10	10	9	9	9	9	9	9	9	9	9	9	8	7	5	4	4	10.7
17-Dec-05	4	4	5	5	5	5	5	4	4	3	4	4	4	5	5	5	6	6	6	5	4	3	2	1	6.3
18-Dec-05	1	1	1	0	0	0	0	0	0	0	0	0	1	1	2	2	2	2	3	3	2	2	1	1	2.6
19-Dec-05	1	1	1	1	1	1	1	1	2	2	2	2	3	3	3	3	3	3	3	3	2	2	2	2	3.2
20-Dec-05	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	2	2	2	1	1	0	2.7
21-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	4	4	4	4	3	3	2	1	1	3.8
22-Dec-05	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0.9
23-Dec-05	0	0	0	1	2	4	5	7	8	8	9	11	12	14	16	18	21	24	24	22	19	17	14	10	23.7
24-Dec-05	7	4	2	3	6	8	9	10	11	11	10	9	7	5	4	3	2	2	2	2	1	1	1	1	11.5
25-Dec-05	0	0	1	1	1	1	1	1	1	1	0	0	1	1	1	2	2	2	2	1	1	1	0	0	1.6
26-Dec-05	0	0	0	1	2	3	3	3	3	3	3	3	2	2	2	2	2	2	2	1	1	1	0	0	2.9
27-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0.5
28-Dec-05	0	0	1	2	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	3	3	2	2	1	4.3
29-Dec-05	1	2	2	2	2	2	2	2	2	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2.3
30-Dec-05	2	2	2	1	1	1	2	3	4	5	7	9	9	9	8	8	7	5	4	2	2	2	1	1	9.1
31-Dec-05	1	1	1	1	1	1	1	1	1	1	1	2	2	3	4	5	5	5	4	4	3	2	2	1	4.8

Hourly Max	38.0	37.9	37.9	37.7	36.8	37.5	37.7	37.0	36.0	34.9	34.5	33.7	32.7	31.9	31.3	31.0	30.8	34.0	36.6	39.0	39.6	39.1	38.6	38.2
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### PASZA - Henry Pirker Carbon Monoxide Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

#### HOURLY AVERAGE TABLE

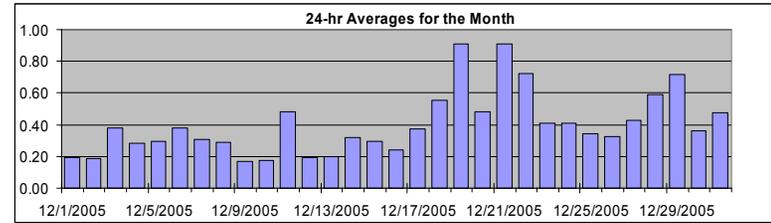
#### Carbon Monoxide (CO)

Monitoring Dates: December 1, 2005 to January 1, 2006

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

**Summary**

Number of 1-hr Exceedances:	0		
Maximum 1-hr Average:	2.3 ppm	21-Dec	19:00 20:00
Maximum 24-hr Value:	0.9 ppm	19-Dec	



AIC Time:	33 hrs	Operational Time:	708 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	1.9	1.1	0.5	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																								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-Dec-05	0.2	0.1	0.1	0.1	0.1	A	0.2	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.19	0.36
2-Dec-05	0.1	0.1	0.1	0.1	A	0.1	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.28
3-Dec-05	0.2	0.2	0.2	0.2	0.2	A	0.2	0.3	0.5	0.4	0.5	0.3	0.2	0.3	0.3	0.3	0.6	0.9	1.1	0.6	0.5	0.5	0.3	0.3	0.3	0.38	1.06	
4-Dec-05	0.3	0.3	0.3	0.4	0.5	A	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.5	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.28	0.51	
5-Dec-05	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	C	C	C	A	0.2	0.2	0.4	0.4	0.7	0.5	0.8	0.8	0.4	0.29	0.84	
6-Dec-05	0.2	0.2	0.2	0.1	0.1	A	0.3	0.5	0.4	0.3	0.5	0.3	0.3	0.2	0.3	0.5	0.6	0.7	0.7	0.5	0.5	0.5	0.5	0.4	0.4	0.38	0.68	
7-Dec-05	0.3	0.2	0.3	0.3	A	0.3	0.4	0.6	0.6	0.7	0.5	0.3	0.4	0.3	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.31	0.68	
8-Dec-05	0.2	0.2	0.2	A	0.2	0.4	0.7	0.5	0.8	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.29	0.78	
9-Dec-05	0.2	0.2	A	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.19	
10-Dec-05	0.2	A	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.32	
11-Dec-05	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.7	1.5	0.7	0.4	0.7	1.3	0.5	0.4	0.7	0.6	0.5	0.3	0.4	0.4	A	0.1	0.48	1.52	
12-Dec-05	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	A	0.1	0.20	0.27		
13-Dec-05	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.4	0.3	0.2	0.2	0.2	A	0.3	0.2	0.20	0.37	
14-Dec-05	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.4	1.2	1.2	2.1	A	0.2	0.1	0.1	0.32	2.09		
15-Dec-05	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.6	0.6	0.7	0.4	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.4	A	0.4	0.3	0.3	0.2	0.30	0.67		
16-Dec-05	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	A	0.3	0.3	0.3	0.3	0.3	0.24	0.46		
17-Dec-05	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.6	0.5	0.5	0.3	0.4	0.4	0.4	0.3	0.4	A	0.5	0.4	0.3	0.5	0.5	0.5	0.37	0.64		
18-Dec-05	0.7	0.5	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.6	A	1.4	1.3	0.7	0.8	1.0	0.3	0.4	0.55	1.40		
19-Dec-05	0.4	0.4	0.5	0.5	0.5	0.4	0.8	1.9	1.5	1.2	1.9	1.9	1.6	1.4	0.9	0.4	0.7	0.9	0.8	0.3	0.5	0.5	1.0	0.8	0.91	1.90		
20-Dec-05	0.5	0.5	0.6	0.4	0.4	A	0.5	0.8	0.6	0.4	0.4	0.5	0.8	0.2	0.2	0.3	0.5	0.5	0.5	0.6	0.6	0.4	0.5	0.4	0.48	0.83		
21-Dec-05	0.6	0.5	0.4	0.3	A	0.2	0.3	0.3	0.5	0.6	0.9	0.5	0.4	0.3	0.3	0.7	1.1	2.1	1.8	2.3	1.5	1.7	2.0	1.5	0.91	2.26		
22-Dec-05	1.3	0.6	0.4	A	0.3	0.3	0.4	0.6	0.9	0.7	0.5	0.5	0.6	0.7	0.3	0.8	1.3	1.5	1.7	1.5	0.6	0.4	0.4	0.3	0.72	1.73		
23-Dec-05	0.6	0.4	A	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.9	0.9	1.3	1.7	0.41	1.70		
24-Dec-05	1.3	A	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.4	0.4	0.5	0.4	0.4	0.5	0.6	0.3	0.4	0.6	0.5	0.5	0.3	0.3	0.3	0.41	1.28		
25-Dec-05	A	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.4	0.5	0.2	0.2	0.2	0.3	0.3	0.3	0.5	0.5	0.5	0.6	0.6	A	0.35	0.64		
26-Dec-05	0.3	0.2	0.3	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.3	0.4	0.5	0.5	0.4	0.3	0.4	0.3	A	0.4	0.32	0.53		
27-Dec-05	0.4	0.5	0.5	0.5	0.4	0.5	0.4	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	A	0.6	0.7	0.43	0.71		
28-Dec-05	0.7	0.6	0.3	0.2	0.2	0.3	0.4	0.8	0.7	0.8	0.4	0.5	0.4	0.3	0.6	0.7	1.5	1.0	1.2	0.9	A	0.4	0.5	0.3	0.59	1.54		
29-Dec-05	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.5	1.4	0.8	0.6	0.5	0.7	0.6	0.5	0.5	0.5	1.0	1.8	A	1.2	2.1	1.1	0.8	0.72	2.08		
30-Dec-05	0.5	0.3	0.3	0.3	0.3	A	0.3	0.4	0.4	0.3	0.3	0.3	0.6	0.4	0.5	0.3	0.3	0.3	0.2	0.2	0.4	0.4	0.5	0.5	0.36	0.60		
31-Dec-05	0.4	0.5	0.5	0.5	A	0.3	0.4	0.4	0.5	0.6	0.5	0.4	0.3	0.3	0.3	0.5	0.5	0.7	0.6	0.5	0.6	0.4	0.4	0.5	0.47	0.69		
Hourly Avg	0.38	0.28	0.26	0.23	0.22	0.22	0.31	0.42	0.47	0.43	0.45	0.39	0.37	0.34	0.33	0.35	0.45	0.60	0.63	0.56	0.47	0.49	0.49	0.43				
Hourly Max	1.33	0.58	0.58	0.54	0.52	0.48	0.77	1.90	1.49	1.20	1.86	1.88	1.62	1.44	1.33	0.82	1.54	2.08	1.80	2.26	1.47	2.08	2.02	1.70				

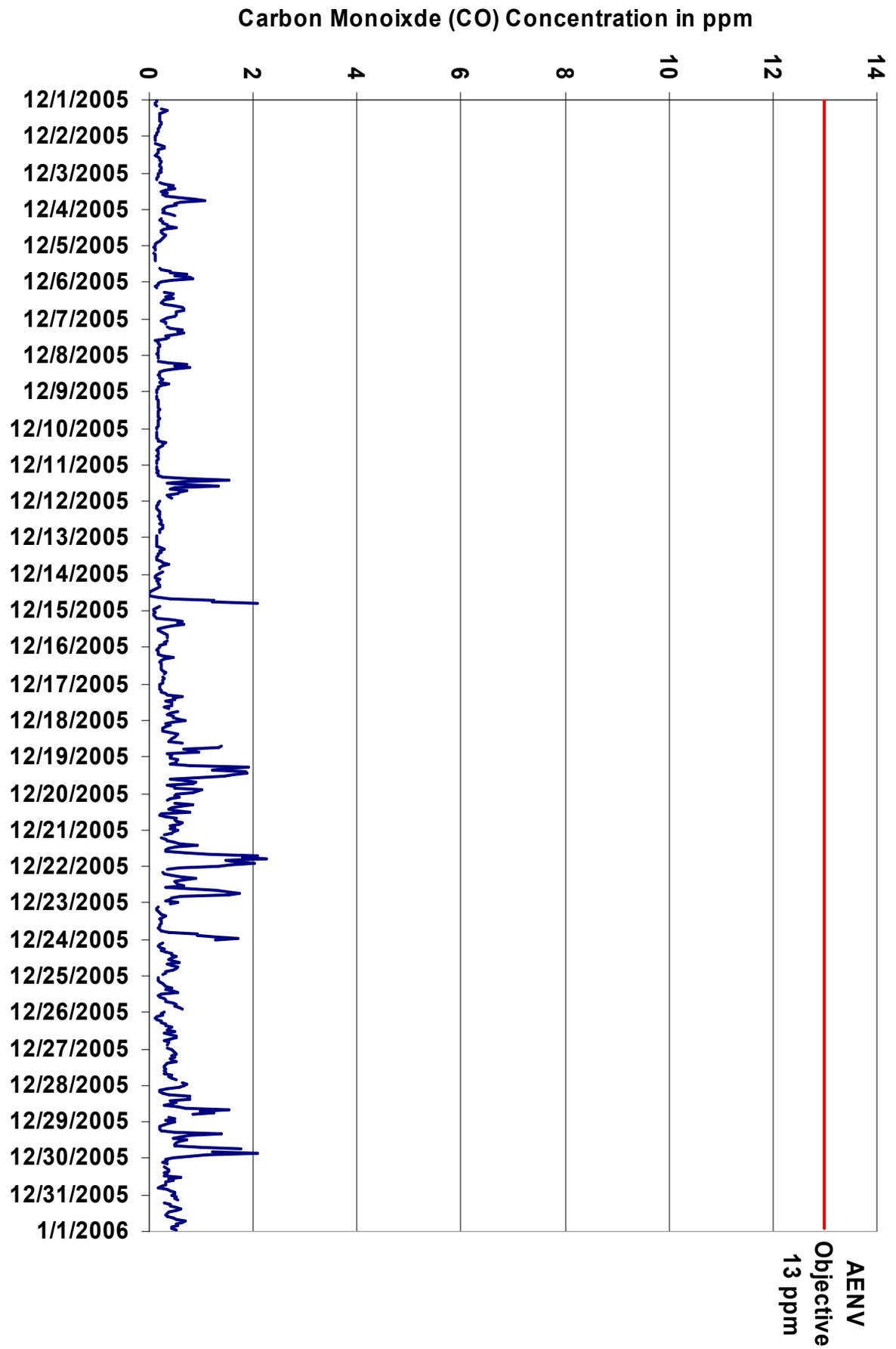


Figure 9. PASZA - Henry Pirkker Carbon Monoxide 1-hr Average Monthly Trend

Station: Henry Pirker  
 Station Owner: PASZA

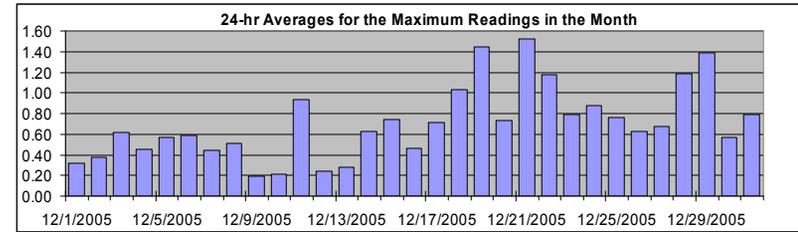
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

**Carbon Monoxide (CO)**

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Value:	6.1	ppm	28-Dec	7:00 8:00
Maximum 24-hr Value:	1.5	ppm	21-Dec	



AIC Time:	33 hrs	Operational Time:	708 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	3.2	2.1	0.8	0.5	0.3	0.2	0.1	0.7 ppm	0.5 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	0:00			
1-Dec-05	0.2	0.2	0.2	0.2	0.2	A	0.7	0.6	0.4	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.5	0.5	0.3	0.4	0.3	0.2	0.3	0.2	0.3	0.2	0.32	0.66
2-Dec-05	0.2	0.2	0.2	0.2	A	0.4	0.6	0.6	0.6	0.4	0.2	0.3	0.2	0.2	0.2	0.5	0.3	0.5	0.4	0.3	0.6	0.5	0.6	0.4	0.4	0.3	0.38	0.65
3-Dec-05	0.3	0.3	0.3	0.2	0.2	A	0.2	0.5	0.9	0.6	0.7	0.5	0.3	0.4	0.3	0.4	1.0	1.2	1.7	1.2	0.9	0.9	0.6	0.4	0.4	0.61	1.68	
4-Dec-05	0.4	0.4	0.5	0.5	0.6	A	0.9	0.3	0.4	0.4	0.4	0.4	0.7	0.7	0.4	0.4	0.4	0.5	0.5	0.4	0.3	0.3	0.2	0.1	0.4	0.45	0.93	
5-Dec-05	0.1	0.2	0.2	0.2	A	0.1	0.1	0.2	0.2	0.1	0.2	C	C	C	A	0.5	0.4	1.6	0.6	1.5	1.0	1.3	1.5	0.9	0.5	0.57	1.63	
6-Dec-05	0.4	0.3	0.3	0.2	0.2	A	0.7	1.2	0.7	0.5	0.7	0.4	0.4	0.4	0.4	1.0	0.8	0.8	1.0	0.7	0.6	0.7	0.7	0.5	0.5	0.58	1.21	
7-Dec-05	0.4	0.3	0.4	0.4	A	0.8	0.6	0.8	0.9	1.0	0.7	0.4	0.7	0.7	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.44	1.04	
8-Dec-05	0.2	0.3	0.3	A	0.4	1.3	2.1	0.7	1.6	0.7	0.4	0.3	0.3	0.2	0.3	0.3	0.4	0.3	0.3	0.5	0.4	0.3	0.3	0.2	0.2	0.51	2.11	
9-Dec-05	0.2	0.2	A	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.23	
10-Dec-05	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.46	
11-Dec-05	A	0.2	0.2	0.2	0.2	0.2	0.4	0.3	1.1	2.5	2.9	1.8	0.5	1.9	2.1	0.8	0.7	1.0	1.0	0.9	0.6	0.5	0.7	A	0.9	0.94	2.88	
12-Dec-05	0.3	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	A	0.2	0.24	0.35		
13-Dec-05	0.2	0.1	0.1	0.1	0.2	0.2	0.4	0.4	0.4	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.4	0.5	0.3	0.3	0.3	A	0.5	0.3	0.28	0.52		
14-Dec-05	0.3	0.3	0.2	0.8	0.3	0.9	0.6	0.8	0.5	0.4	0.4	0.1	0.1	0.0	0.1	0.3	0.6	2.0	2.1	3.0	A	0.4	0.2	0.2	0.63	3.03		
15-Dec-05	0.2	1.2	0.1	0.2	1.0	0.3	2.2	1.9	1.1	1.1	0.5	0.5	0.4	0.3	0.3	0.5	0.5	0.4	1.7	A	0.8	0.4	1.3	0.3	0.74	2.21		
16-Dec-05	0.3	0.3	0.2	0.3	0.3	0.3	0.6	1.5	0.4	0.5	0.3	0.5	0.4	0.3	0.6	0.8	0.4	0.4	A	0.5	0.5	0.3	0.5	0.6	0.46	1.51		
17-Dec-05	0.4	0.2	0.3	0.3	0.3	0.3	0.8	0.7	3.5	0.8	0.8	0.4	0.6	0.9	0.5	0.4	0.8	A	1.0	0.5	0.5	0.7	0.8	0.9	0.71	3.49		
18-Dec-05	1.8	0.8	0.5	0.5	0.4	0.4	0.3	0.4	0.7	0.8	0.7	0.6	0.6	0.6	0.6	1.1	A	3.2	2.8	1.2	1.8	3.1	0.5	0.6	1.03	3.18		
19-Dec-05	0.5	0.6	0.7	0.8	0.9	0.7	1.3	3.0	3.0	2.2	2.7	2.4	1.9	1.8	1.3	1.0	1.2	1.8	1.8	0.7	0.9	0.7	1.5	1.3	1.45	2.99		
20-Dec-05	0.7	0.7	0.8	0.5	0.4	A	1.0	1.4	1.0	0.9	0.5	0.9	1.2	0.3	0.5	0.6	0.6	0.6	0.7	0.9	0.8	0.6	0.7	0.5	0.73	1.40		
21-Dec-05	0.7	0.7	0.6	0.4	A	0.3	0.6	0.8	1.3	0.9	1.2	0.9	0.5	2.0	0.5	2.0	2.1	3.1	3.3	3.5	2.3	2.4	3.1	1.9	1.52	3.48		
22-Dec-05	2.0	1.2	0.6	A	0.4	0.5	0.9	1.1	1.4	1.0	0.6	0.8	0.8	1.3	0.4	1.4	2.4	2.2	2.7	2.3	1.1	0.5	0.9	0.5	1.18	2.73		
23-Dec-05	1.0	0.6	A	0.3	0.2	0.2	0.3	0.2	0.3	0.4	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.8	4.7	1.6	2.3	3.1	0.79	4.68		
24-Dec-05	2.5	A	0.4	0.3	0.2	0.3	0.5	0.4	0.5	1.0	1.7	1.6	1.2	0.4	1.2	1.4	0.5	0.6	0.9	1.4	1.5	1.0	0.6	0.3	0.88	2.49		
25-Dec-05	A	0.2	0.2	0.2	0.2	0.3	0.4	0.4	1.5	0.7	1.1	0.9	0.3	0.2	0.3	0.4	0.5	0.7	2.4	3.4	0.7	0.7	1.0	A	0.76	3.40		
26-Dec-05	0.4	0.4	0.5	0.3	0.2	0.8	0.8	0.4	0.6	0.6	0.6	0.8	0.8	0.9	0.4	1.9	1.4	0.7	0.6	0.4	0.5	0.5	A	0.4	0.63	1.89		
27-Dec-05	0.6	0.5	0.6	0.8	0.5	0.6	0.7	0.6	0.8	0.5	0.7	0.4	0.5	0.5	0.4	0.7	0.6	0.8	0.5	0.6	1.2	A	1.3	1.1	0.67	1.33		
28-Dec-05	0.8	0.8	0.6	0.3	0.3	0.6	1.1	6.1	1.2	1.5	0.7	0.7	0.6	0.3	1.1	1.3	2.8	1.3	1.6	1.3	A	0.8	0.8	0.7	1.19	6.08		
29-Dec-05	0.7	0.7	0.4	0.2	0.3	0.3	0.3	2.0	4.8	1.1	1.3	1.1	0.9	0.9	0.7	0.8	0.7	1.9	2.7	A	2.3	4.1	1.8	1.8	1.38	4.82		
30-Dec-05	0.7	0.5	0.7	0.4	0.5	A	0.5	1.0	0.7	0.4	0.7	0.7	0.7	0.6	0.6	0.4	0.6	0.5	0.3	0.3	0.6	0.5	0.6	0.7	0.56	1.00		
31-Dec-05	0.6	0.6	0.6	0.6	A	0.4	0.7	1.4	0.7	1.1	1.0	0.6	0.6	0.5	0.7	1.4	1.5	1.1	0.8	0.7	0.7	0.6	0.6	0.9	0.79	1.51		
Hourly Avg	0.59	0.45	0.37	0.34	0.33	0.42	0.68	0.97	1.03	0.77	0.74	0.66	0.55	0.58	0.52	0.71	0.77	0.99	1.11	0.98	0.92	0.84	0.84	0.67				
Hourly Max	2.49	1.22	0.76	0.84	1.03	1.33	2.21	6.08	4.82	2.54	2.88	2.39	1.93	2.00	2.09	2.01	2.76	3.18	3.25	3.48	4.68	4.10	3.09	3.06				

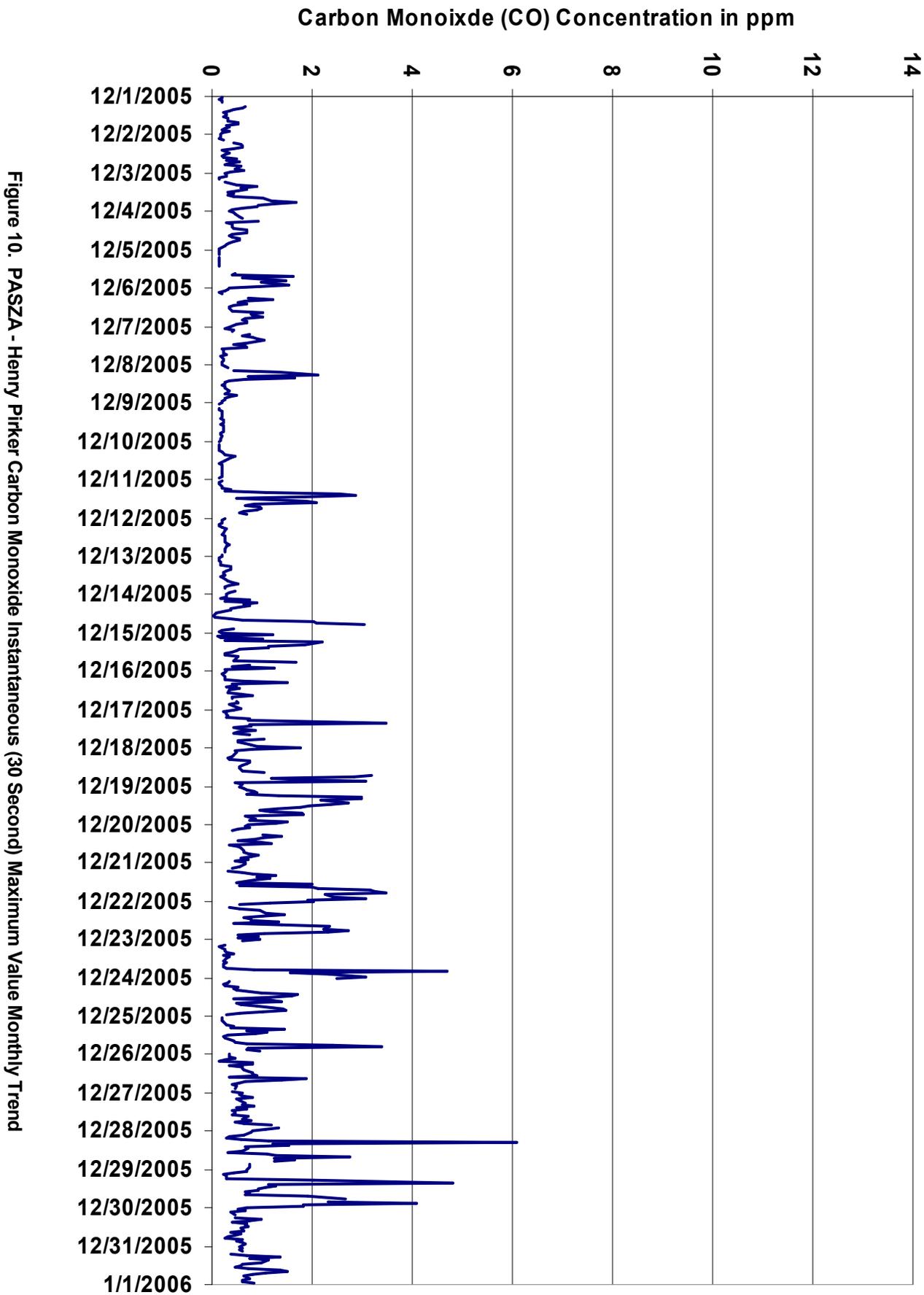
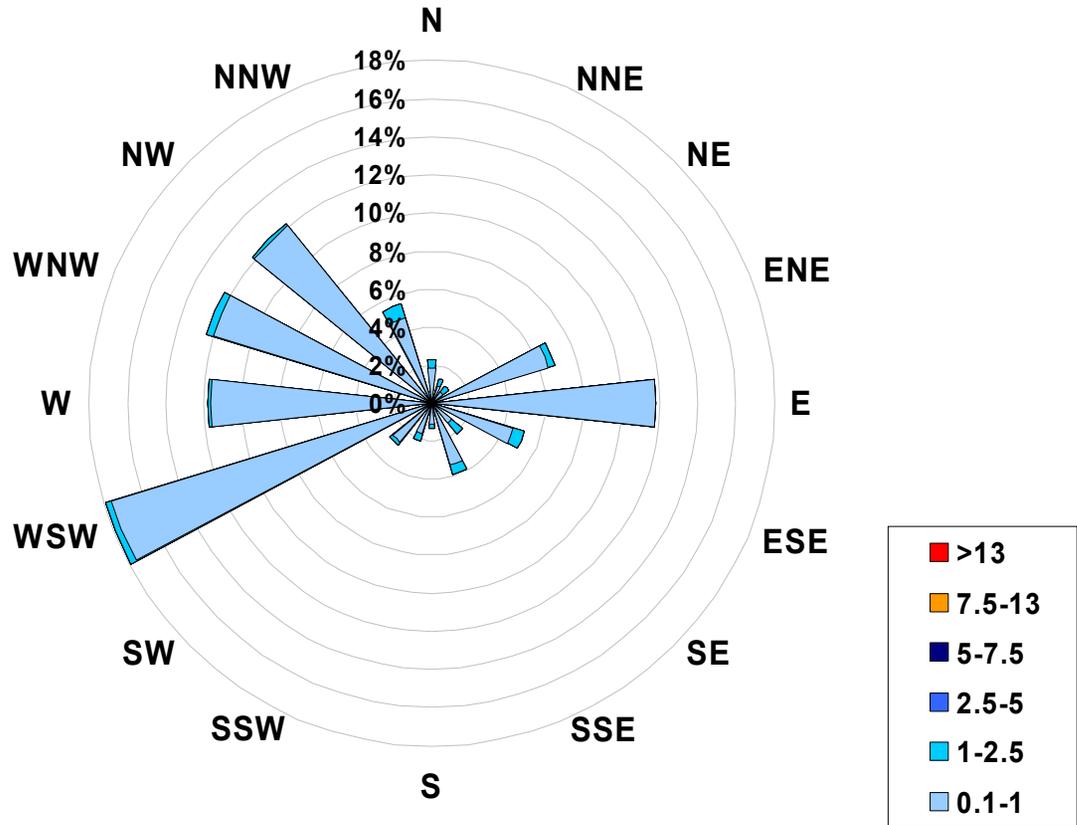


Figure 10. PASZA - Henry Pitker Carbon Monoxide Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Carbon Monoxide (in ppm) Located at the Henry Pirker Site for December 2005**



**Calms: 0%**

Frequency Distribution of CO in ppm			Frequency (hrs)
Range			
0.1	< 1		669
1	to 2.5		39
2.5	to 5		0
5	to 7.5		0
7.5	to 13		0
	> 13		0
Total Non-Zero Values			708

### PASZA - Henry Pirker Carbon Monoxide Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

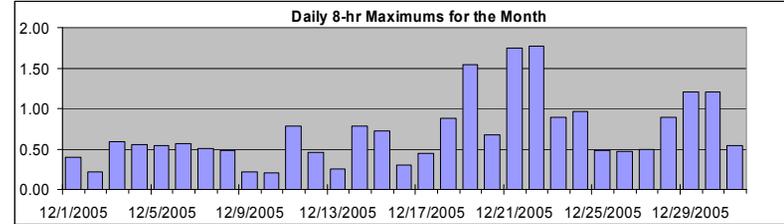
#### EIGHT HOUR RUNNING AVERAGE TABLE

#### Carbon Monoxide (CO)

Monitoring Dates: December 1, 2005 to January 1, 2006

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

Number of 8-hr Exceedances:	0						
Maximum 8-hr Average:	1.8	ppm	22-Dec	0:00	1:00		



Percentile	99	95	75	50	25	5	1
	1.4	0.9	0.5	0.4	0.2	0.2	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	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-Dec-05	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	0.2	0.2	0.40
2-Dec-05	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
3-Dec-05	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	0.5	0.6	0.6	0.6	0.6	0.6	0.60
4-Dec-05	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.55
5-Dec-05	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	N	N	N	N	N	N	N	N	N	N	0.5	0.5	0.5	0.5	0.54
6-Dec-05	0.5	0.5	0.5	0.4	0.4	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.5	0.56
7-Dec-05	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.51
8-Dec-05	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.48
9-Dec-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
10-Dec-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
11-Dec-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.5	0.5	0.6	0.7	0.8	0.8	0.8	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.78
12-Dec-05	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.46
13-Dec-05	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	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.25
14-Dec-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.6	0.7	0.8	0.8	0.8	0.79
15-Dec-05	0.7	0.6	0.4	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.73
16-Dec-05	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.30
17-Dec-05	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.45
18-Dec-05	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.9	0.9	0.8	0.8	0.88
19-Dec-05	0.8	0.7	0.6	0.5	0.5	0.4	0.5	0.7	0.8	0.9	1.1	1.3	1.4	1.5	1.5	1.4	1.3	1.2	1.1	0.9	0.8	0.6	0.6	0.7	0.7	1.54
20-Dec-05	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.68
21-Dec-05	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.8	0.9	1.1	1.3	1.4	1.6	1.7	1.7	1.75
22-Dec-05	1.8	1.6	1.4	1.3	1.1	0.9	0.7	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.8	0.9	1.1	1.1	1.0	1.0	1.0	1.0	1.77
23-Dec-05	0.9	0.8	0.6	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	0.3	0.4	0.5	0.7	0.7	0.89
24-Dec-05	0.9	1.0	1.0	0.9	0.8	0.7	0.6	0.4	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.96
25-Dec-05	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.48
26-Dec-05	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.47
27-Dec-05	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.49
28-Dec-05	0.5	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.8	0.8	0.89
29-Dec-05	0.7	0.6	0.5	0.4	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.6	0.7	0.7	0.7	0.6	0.6	0.8	0.8	0.9	1.1	1.2	1.2	1.2	1.21
30-Dec-05	1.2	1.1	0.9	0.8	0.7	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	1.20
31-Dec-05	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.54
Hourly Max	1.77	1.58	1.40	1.28	1.11	0.91	0.69	0.68	0.82	0.92	1.08	1.25	1.39	1.52	1.54	1.36	1.26	1.22	1.09	1.13	1.27	1.43	1.64	1.75		



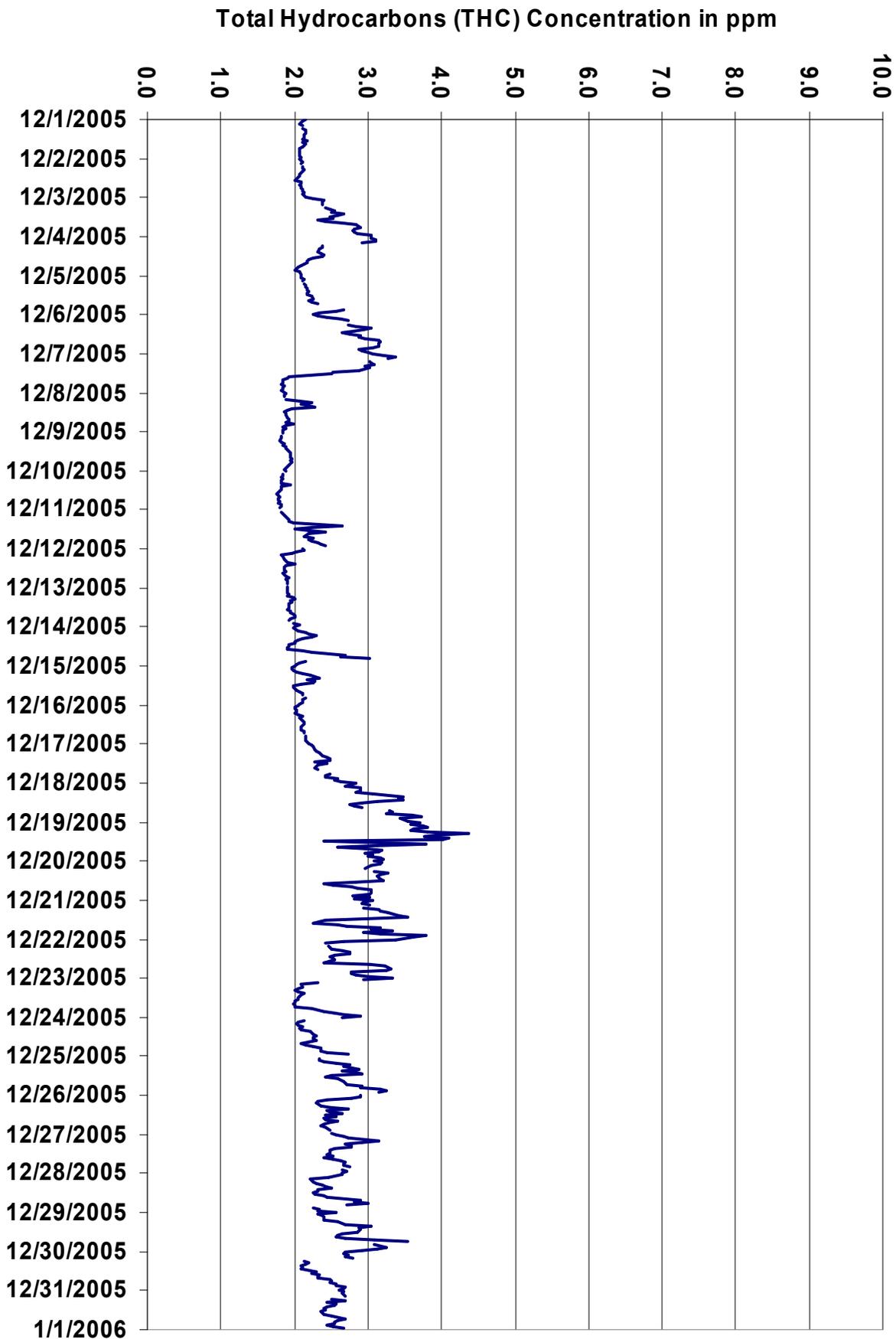


Figure 11. PASZA - Henry Pitker Total Hydrocarbons 1-hr Average Monthly Trend

Station: Henry Pirker  
 Station Owner: PASZA

**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

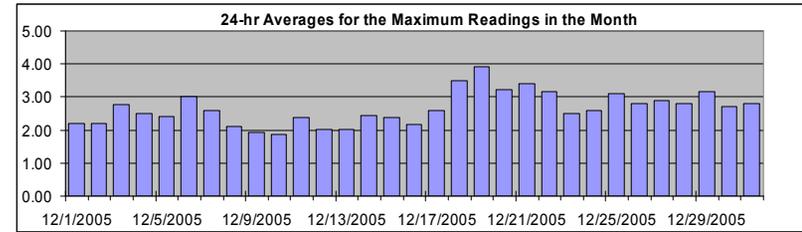
**Total Hydrocarbons (THC)**

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Value:	5.2	ppm	19-Dec	7:00 8:00
Maximum 24-hr Value:	3.9	ppm	19-Dec	

AIC Time:	33 hrs	Operational Time:	709 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	4.4	3.8	3.1	2.5	2.2	1.9	1.8	2.7 ppm	2.5 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-Dec-05	2.2	2.2	2.1	2.1	2.1	A	2.2	2.3	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.4	2.2	2.1	2.1	2.2	2.2	2.4	2.1	2.19	2.42
2-Dec-05	2.1	2.1	2.2	2.2	A	2.2	2.2	2.3	2.2	2.2	2.1	2.3	2.3	2.0	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.19	2.30
3-Dec-05	2.2	2.4	2.5	2.4	2.4	A	2.5	2.6	2.7	2.6	2.9	2.8	2.5	2.6	2.4	2.5	3.0	3.2	3.5	3.3	3.2	3.3	3.0	3.2	2.78	3.52
4-Dec-05	3.3	3.1	3.4	3.2	3.1	A	2.5	2.4	2.4	2.4	2.4	2.4	2.5	2.9	2.3	2.2	2.3	2.4	2.1	2.1	2.1	2.0	2.2	2.1	2.51	3.39
5-Dec-05	2.1	2.1	2.2	2.2	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	3.2	2.3	2.4	2.5	C	C	A	3.4	3.3	2.8	2.42	3.43
6-Dec-05	2.4	2.4	2.6	2.7	2.8	A	2.9	3.9	3.3	3.1	3.0	2.8	2.8	3.0	3.0	3.2	3.4	3.4	3.3	3.2	3.1	3.0	3.0	3.2	3.02	3.87
7-Dec-05	3.2	3.3	3.7	3.4	A	3.2	3.1	3.2	3.2	3.1	3.1	2.6	2.7	2.7	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.59	3.71
8-Dec-05	1.9	1.9	1.9	A	2.0	2.5	2.7	2.2	2.4	3.2	2.1	2.0	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.1	2.0	1.9	2.0	1.9	2.10	3.20
9-Dec-05	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.94	2.04
10-Dec-05	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.87	2.07
11-Dec-05	A	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.4	2.9	3.1	2.7	2.2	2.5	2.7	2.3	2.2	2.4	2.7	2.7	2.4	2.5	2.9	A	2.38	3.05
12-Dec-05	2.3	2.4	2.2	2.1	1.9	1.9	2.0	1.9	2.0	2.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	1.9	A	1.9	2.02	2.69
13-Dec-05	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	A	2.1	2.2	2.02	2.21
14-Dec-05	2.2	2.2	2.1	2.5	2.9	2.9	3.6	2.6	2.4	2.2	2.3	2.0	2.0	1.9	2.0	2.2	2.4	3.4	2.8	3.3	A	2.3	2.1	2.1	2.44	3.64
15-Dec-05	2.1	2.3	2.0	2.0	3.1	2.4	2.7	3.8	2.8	2.4	2.5	2.3	2.1	2.0	2.0	2.1	2.2	2.2	2.4	A	2.3	2.2	2.3	2.2	2.37	3.77
16-Dec-05	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.6	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.2	2.2	2.2	A	2.2	2.2	2.2	2.2	2.2	2.17	2.56
17-Dec-05	2.3	2.3	2.3	2.3	2.3	2.4	2.6	2.9	2.8	2.8	2.6	2.3	3.5	2.6	2.3	2.3	2.4	A	2.7	2.6	2.5	2.8	2.7	3.0	2.58	3.46
18-Dec-05	3.1	3.1	3.0	3.3	3.4	3.6	3.1	3.2	3.9	3.5	3.6	3.5	3.0	2.9	3.0	3.2	A	3.6	4.3	3.6	4.3	4.9	3.6	3.8	3.50	4.90
19-Dec-05	4.1	3.8	4.1	4.2	4.2	4.2	4.0	5.2	4.8	4.1	4.6	4.6	4.1	4.0	3.5	3.0	3.3	3.4	3.8	3.2	3.4	3.1	3.4	3.9	3.92	5.24
20-Dec-05	3.2	3.3	3.3	3.3	3.5	A	3.4	3.5	3.5	3.3	3.2	3.2	3.4	3.0	2.6	2.7	2.9	3.0	3.4	3.1	3.6	3.2	3.2	3.1	3.22	3.56
21-Dec-05	3.3	3.3	3.1	3.1	A	3.2	3.3	3.4	3.7	3.7	3.6	3.6	2.5	2.6	2.4	3.7	3.2	3.5	3.5	3.9	3.4	3.6	4.8	3.9	3.41	4.81
22-Dec-05	3.7	3.3	2.6	A	2.7	2.9	2.8	3.2	3.0	2.9	2.7	2.6	2.6	3.0	2.6	3.4	3.8	3.7	4.0	4.1	3.2	3.0	3.7	3.2	3.16	4.13
23-Dec-05	3.7	3.4	A	2.6	2.2	2.2	2.2	2.0	2.2	2.2	2.6	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.6	3.0	3.4	3.1	3.4	2.51	3.70
24-Dec-05	3.2	A	2.3	2.2	2.1	2.1	2.2	2.1	2.3	2.4	2.5	2.9	2.9	2.4	2.5	2.3	2.2	2.2	2.9	3.6	3.1	3.3	2.7	3.0	2.58	3.56
25-Dec-05	A	2.5	2.6	2.5	2.8	2.9	2.9	3.0	4.3	3.1	3.1	3.2	2.7	2.5	2.6	3.0	2.9	3.0	4.5	3.4	3.5	3.8	3.8	A	3.11	4.46
26-Dec-05	3.6	3.5	3.1	2.8	2.5	2.5	2.5	2.8	3.0	2.5	2.7	3.5	2.8	2.9	2.5	2.7	2.8	2.6	2.5	2.5	2.7	2.7	A	2.6	2.79	3.60
27-Dec-05	2.9	2.8	3.0	3.1	3.3	3.1	2.8	2.9	3.0	2.7	2.7	2.6	2.6	3.8	2.5	2.7	2.9	3.0	2.8	2.8	3.0	A	3.0	2.8	2.90	3.84
28-Dec-05	2.8	2.9	2.8	2.4	2.4	2.7	2.7	3.7	2.7	2.8	2.8	2.5	2.4	2.6	2.6	2.7	3.2	3.0	3.3	3.0	A	2.7	3.5	2.8	2.82	3.66
29-Dec-05	2.9	2.9	2.6	2.5	2.6	2.7	2.7	3.2	3.5	3.2	3.2	3.0	2.9	2.9	2.7	2.7	2.8	4.0	4.4	A	3.5	3.8	3.8	4.1	3.15	4.45
30-Dec-05	2.9	3.3	3.2	3.8	3.4	A	2.2	2.3	2.3	2.2	2.6	2.2	2.5	2.4	2.5	2.4	2.4	2.7	2.7	2.6	2.6	2.6	3.3	3.3	2.71	3.80
31-Dec-05	2.8	2.8	2.7	2.8	A	3.6	3.1	2.7	2.7	2.8	2.6	2.5	2.7	2.4	2.5	2.6	2.9	3.5	3.0	2.9	2.7	2.5	3.1	2.9	2.81	3.62
Hourly Avg	2.71	2.67	2.60	2.61	2.60	2.61	2.62	2.77	2.77	2.69	2.67	2.61	2.52	2.52	2.41	2.46	2.53	2.69	2.85	2.74	2.71	2.77	2.86	2.75		
Hourly Max	4.11	3.82	4.14	4.15	4.19	4.24	4.05	5.24	4.80	4.14	4.65	4.56	4.05	3.99	3.53	3.67	3.82	4.01	4.46	4.13	4.33	4.90	4.81	4.13		

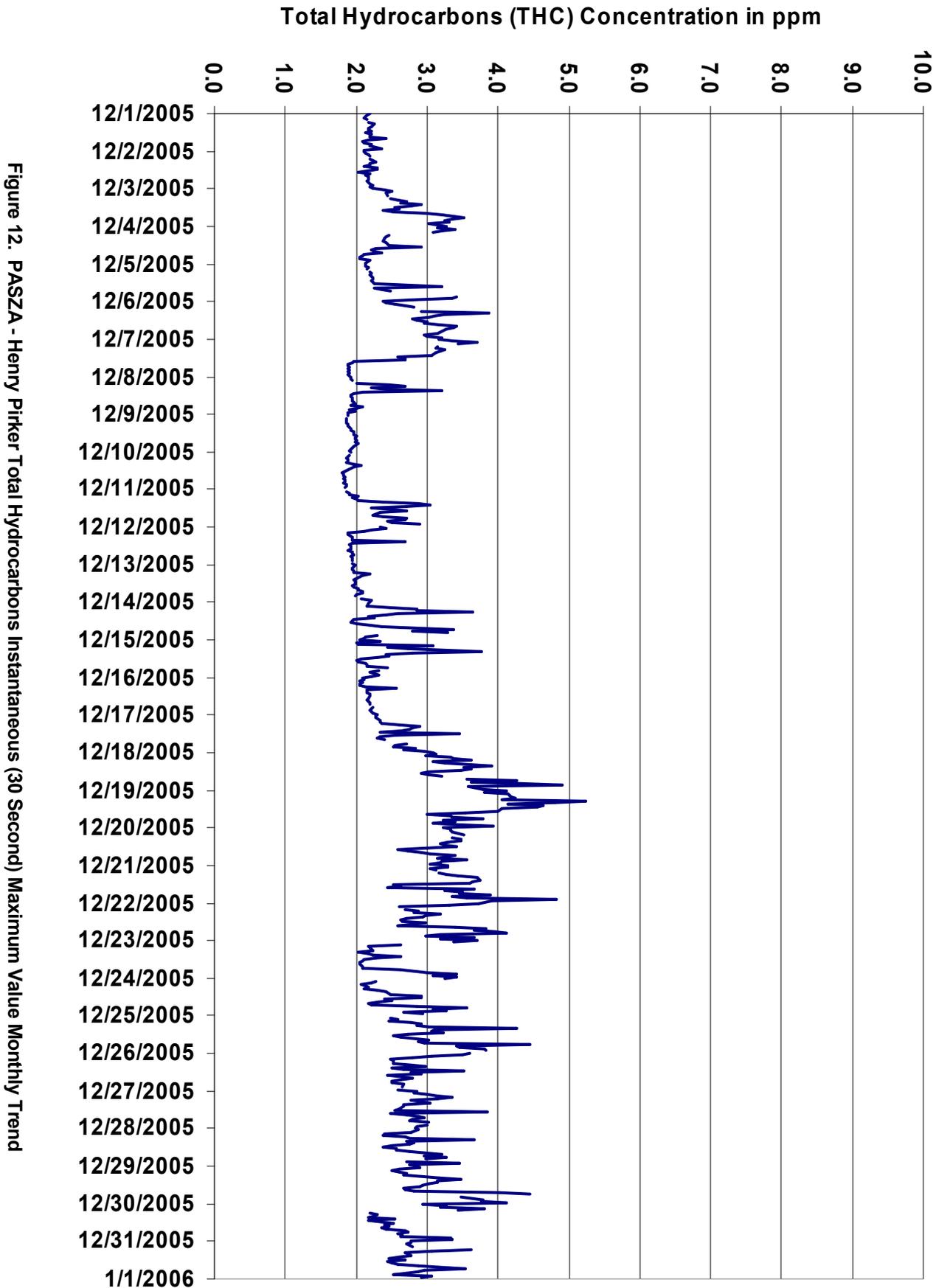
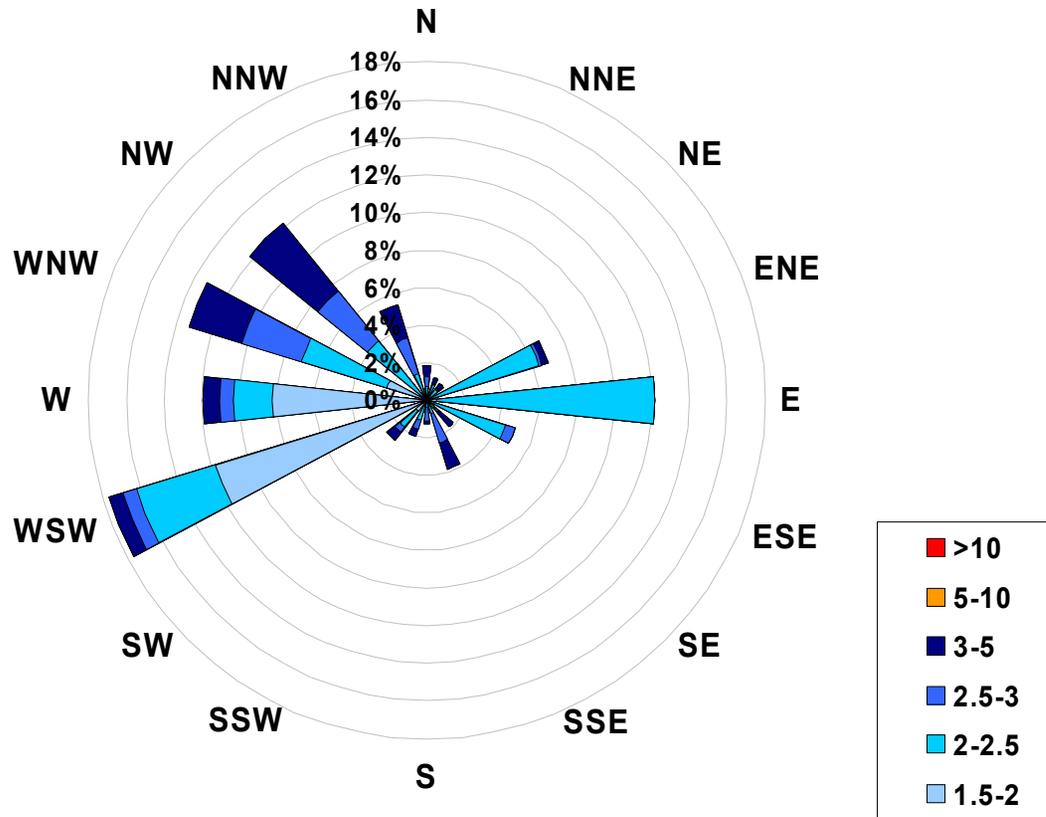


Figure 12. PASZA - Henry Pirker Total Hydrocarbons Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Total Hydrocarbons (in ppm)  
Located at the Henry Pirker Site for December 2005**



**Calms: 0%**

Frequency Distribution of THC in ppm			Frequency (hrs)
Range			
1.5	<	2	132
2	to	2.5	311
2.5	to	3	169
3	to	5	97
5	to	10	0
	>	10	0
Total Non-Zero Values			709

### PASZA - Henry Pirker Total Reduced Sulphur Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

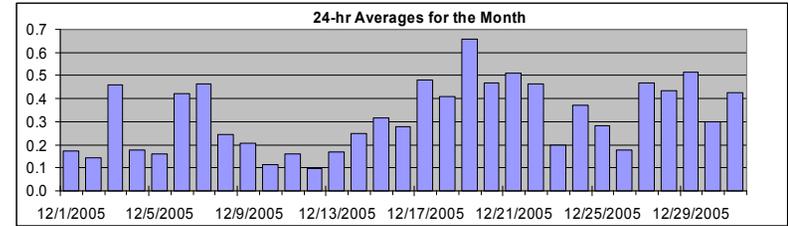
#### HOURLY AVERAGE TABLE

#### Total Reduced Sulphur (TRS)

Monitoring Dates: December 1, 2005 to January 1, 2006

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

Maximum 1-hr Average:	1.8	ppb	3-Dec	18:00 19:00
Maximum 24-hr Value:	0.7	ppb	19-Dec	



AIC Time:	33 hrs	Operational Time:	709 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	1.2	0.7	0.4	0.3	0.2	0.1	0.0	0.3 ppb	0.3 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	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-Dec-05	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
2-Dec-05	0	0	0	0	A	0	0	0	0	0	0	0	C	C	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
3-Dec-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	1	0	0	0	0.5	1.8	
4-Dec-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
5-Dec-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	0.5	
6-Dec-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0.4	0.8	
7-Dec-05	0	0	0	1	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.8	
8-Dec-05	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	0.4	
9-Dec-05	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
10-Dec-05	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
11-Dec-05	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	A	0.2	0.4		
12-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.2		
13-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.3		
14-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	0	0	0	0.2	1.1		
15-Dec-05	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.6	
16-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.4	
17-Dec-05	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	1	1	0	A	1	1	0	0	0	0	0	0.5	0.6	
18-Dec-05	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0.4	0.7	
19-Dec-05	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	0	1	1	1	1	0.7	1.2	
20-Dec-05	0	1	0	1	0	A	1	1	1	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0.5	0.6	
21-Dec-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0.5	1.3		
22-Dec-05	1	1	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0.5	0.9		
23-Dec-05	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	0.6		
24-Dec-05	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0.4	0.7		
25-Dec-05	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	A	0.3	0.4		
26-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.3		
27-Dec-05	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	A	0	0	0.5	0.8		
28-Dec-05	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	1	1	A	0	0	0	0.4	0.8		
29-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	A	1	1	1	1	0.5	1.2		
30-Dec-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5	
31-Dec-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.4	1.1		
Hourly Avg	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
Hourly Max	0.8	0.6	0.5	0.5	0.4	0.7	0.8	1.2	1.0	0.8	1.1	1.2	1.0	1.0	0.8	1.0	0.7	0.8	1.8	1.4	1.2	1.2	1.3	1.0						

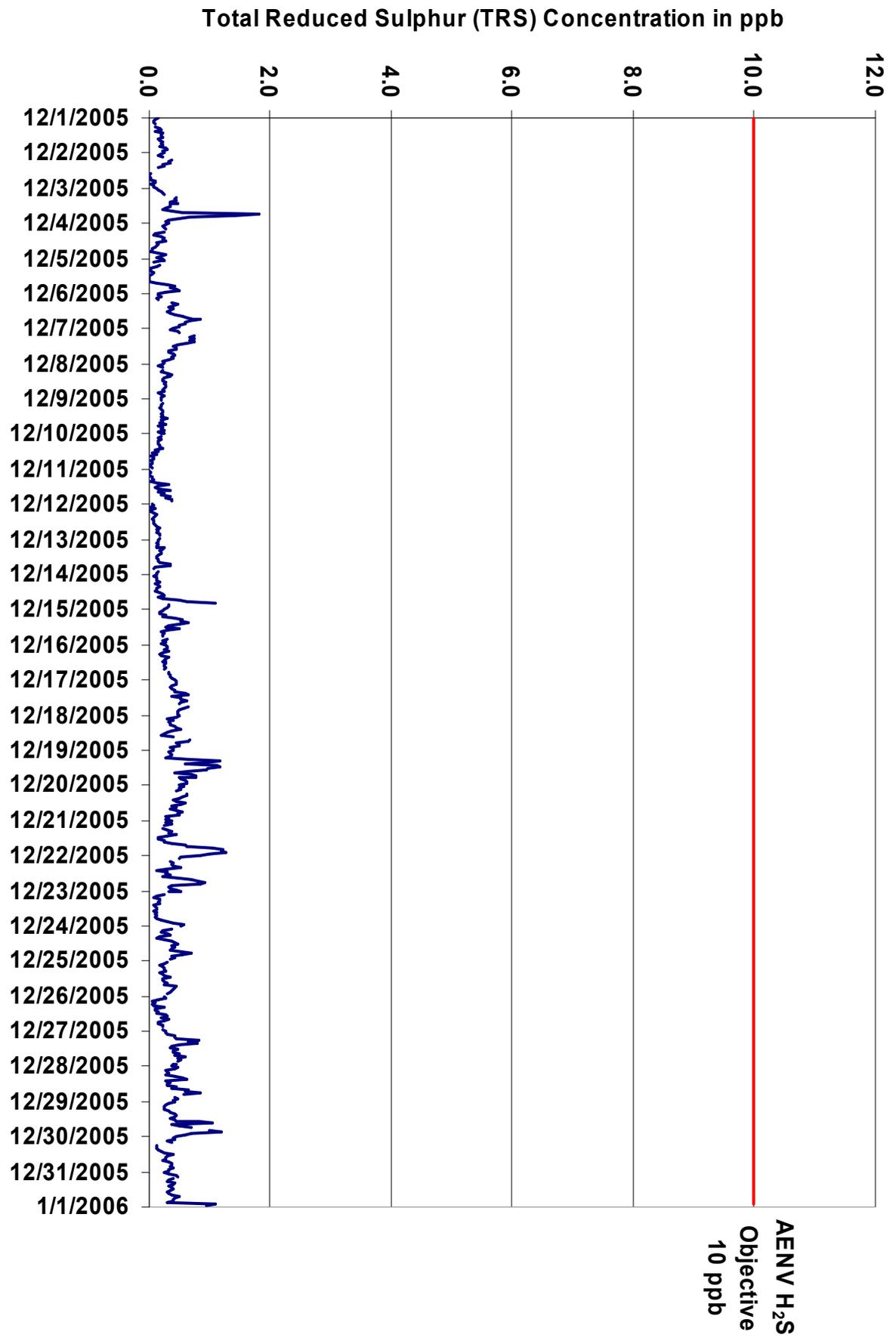


Figure 13. PASZA - Henry Pitker Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Henry Pirker  
 Station Owner: PASZA

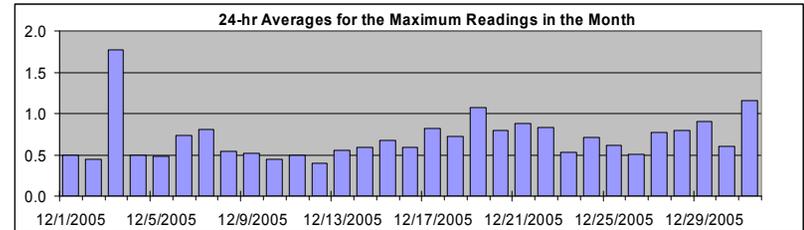
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

**Total Reduced Sulphur (TRS)**

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Value:	15.6	ppb	3-Dec	18:00 19:00
Maximum 24-hr Value:	1.8	ppb	3-Dec	



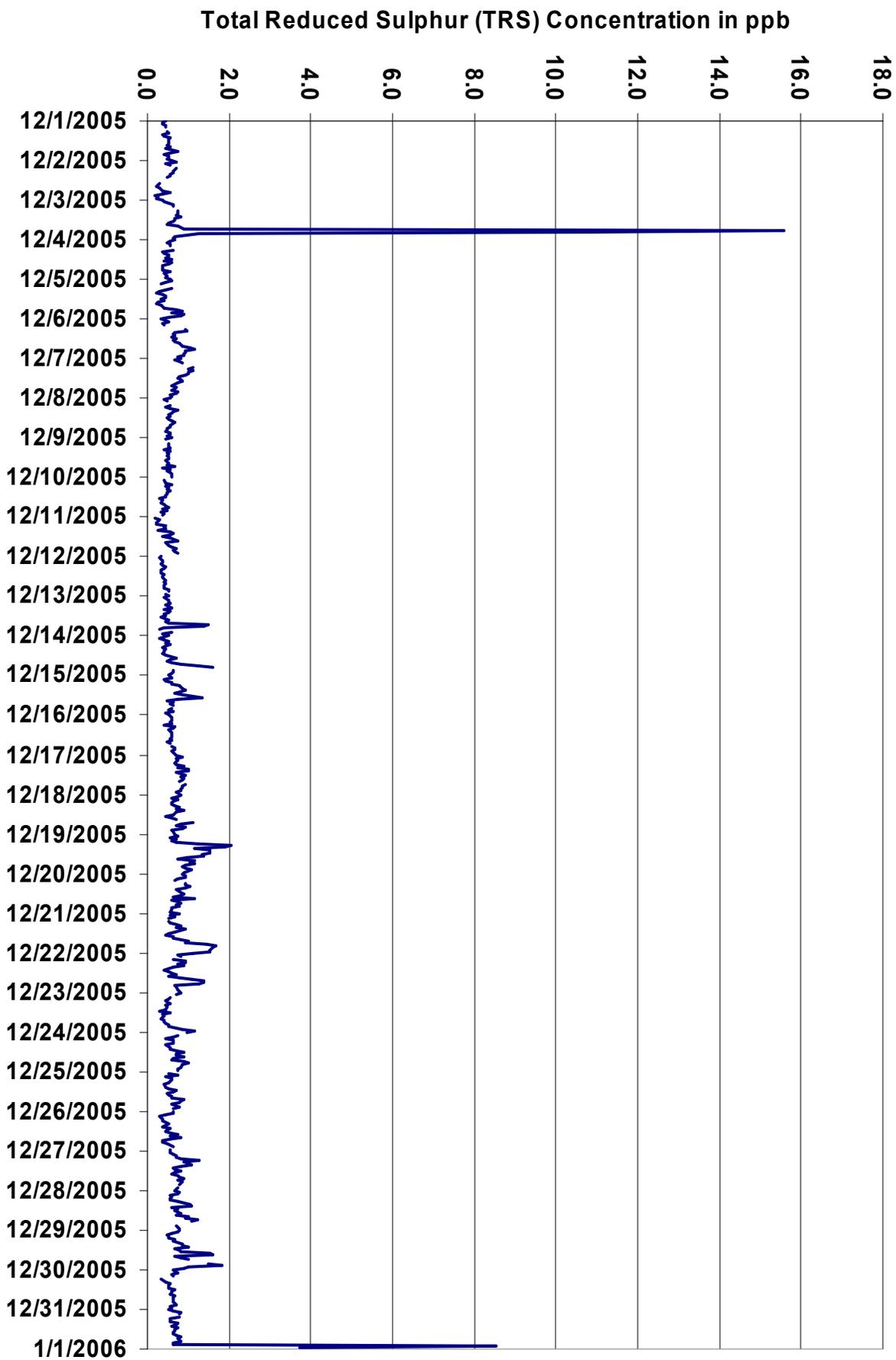
AIC Time:	33 hrs	Operational Time:	709 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	1.7	1.2	0.8	0.6	0.5	0.4	0.2	0.7 ppb	0.6 ppb

**Status Flag Characters**

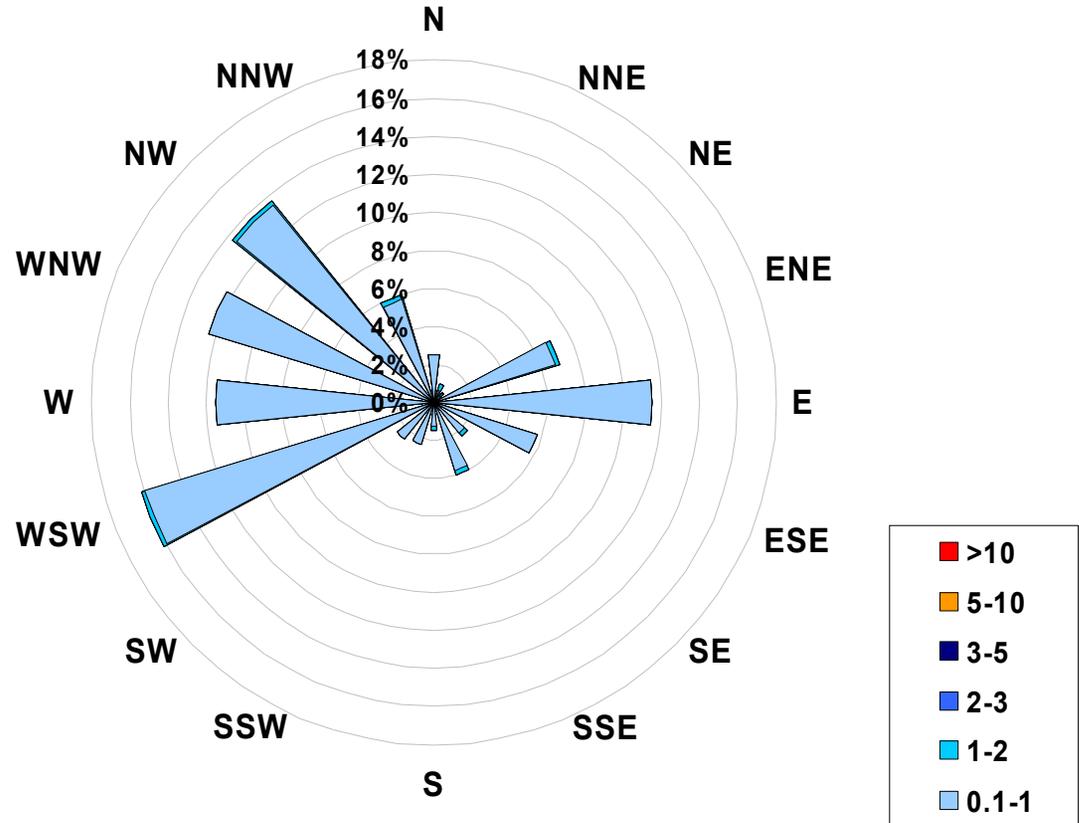
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								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-Dec-05	0	0	0	0	0	A	0	1	0	0	1	1	1	1	1	0	1	0	1	1	0	1	1	0	0.5	0.7
2-Dec-05	1	1	0	1	A	1	1	1	1	1	0	C	C	A	0	0	0	0	0	1	0	0	0	0	0.4	0.7
3-Dec-05	0	0	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	16	11	1	1	1	1	1.8	15.6
4-Dec-05	1	1	0	1	1	A	1	0	0	1	1	0	1	0	1	1	0	0	1	0	0	0	0	0	0.5	0.7
5-Dec-05	1	1	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0.5	0.9
6-Dec-05	0	0	1	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2
7-Dec-05	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
8-Dec-05	1	0	0	A	1	0	1	1	1	1	1	1	0	1	1	1	1	1	0	0	0	1	1	0	0.5	0.7
9-Dec-05	1	0	A	1	1	1	1	0	1	0	1	1	1	1	0	1	0	1	0	1	0	1	1	1	0.5	0.7
10-Dec-05	1	A	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.4	0.6
11-Dec-05	A	0	0	0	0	0	0	0	0	1	1	1	0	1	1	0	0	1	1	1	1	1	1	A	0.5	0.7
12-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	0	0.4	0.5
13-Dec-05	1	0	1	1	1	0	1	1	0	1	1	0	0	0	1	0	1	1	1	0	0	A	1	0	0.6	1.5
14-Dec-05	1	0	0	1	0	1	0	0	0	0	0	0	1	1	1	0	1	1	1	2	A	1	1	1	0.6	1.6
15-Dec-05	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	A	1	1	1	0	0.7	1.3
16-Dec-05	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	0.6	0.7
17-Dec-05	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
18-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	1	1	1	1	0.7	1.1
19-Dec-05	1	1	1	1	1	1	1	2	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.0
20-Dec-05	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	1.2
21-Dec-05	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	2	2	2	2	0.9	1.7
22-Dec-05	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4
23-Dec-05	1	1	A	1	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	1	0.5	1.2
24-Dec-05	1	A	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
25-Dec-05	A	1	1	0	1	1	1	1	0	0	1	1	0	1	1	1	1	1	1	1	1	1	1	A	0.6	0.9
26-Dec-05	1	1	0	0	0	0	0	0	1	0	1	0	0	1	1	1	1	1	0	0	0	1	A	1	0.5	0.8
27-Dec-05	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
28-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.2
29-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	A	1	2	1	1	0.9	1.8
30-Dec-05	1	1	1	1	1	A	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7
31-Dec-05	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9	4	1.2	8.5
Hourly Avg	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.7	0.7	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.7	1.3	1.1	0.7	0.7	1.0	0.8		
Hourly Max	1.1	0.9	0.9	0.9	0.7	1.1	1.3	2.0	1.9	1.2	1.5	1.5	1.3	1.4	1.5	1.6	1.2	1.5	15.6	10.8	1.7	1.8	8.5	3.7		

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



**1-hr Average Concentration Rose for Total Reduced Sulphur (in ppb)  
Located at the Henry Pirker Site for December 2005**



**Calms: 0%**

Frequency Distribution of TRS in ppb			
Range		Frequency (hrs)	
0.1	< 1	696	
1	to 2	13	
2	to 3	0	
3	to 5	0	
5	to 10	0	
	> 10	0	
Total Non-Zero Values		709	

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

Station: Henry Pirker  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

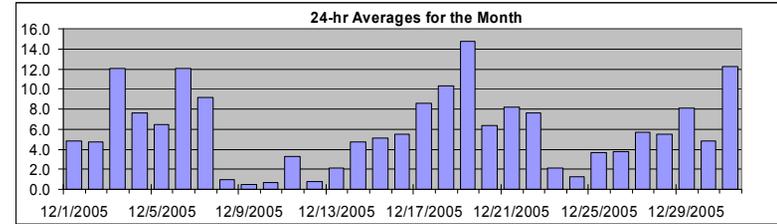
### Particulate Matter (PM<sub>2.5</sub>)

Monitoring Dates: December 1, 2005 to January 1, 2006

Draft Objective Limit: Alberta Environment: 1-hr -  $\mu\text{g}/\text{m}^3$  24-hr 30  $\mu\text{g}/\text{m}^3$   
 Summary

Number of 24-hr Exceedances (draft):	0		
Maximum 1-hr Average:	37.5	$\mu\text{g}/\text{m}^3$	19-Dec 13:00 14:00
Maximum 24-hr Value:	14.8	$\mu\text{g}/\text{m}^3$	19-Dec

AIC Time:	0 hrs	Operational Time:	738 hrs
Calibration Time:	1 hrs	AMD Operational Uptime:	99.3%
Percentile	99	95	75
	26.4	17.0	8.1
	8.1	4.7	1.5
	25	5	1
	0.0	0.0	5.9
	6	6	4.4
	Average / Median		Geomean
	$\mu\text{g}/\text{m}^3$		$\mu\text{g}/\text{m}^3$



#### 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																								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		
1-Dec-05	1	1	0	1	1	2	3	5	6	7	6	6	8	10	14	10	5	4	3	4	5	4	4	6	4.9	14.4
2-Dec-05	5	4	4	4	6	6	6	5	5	4	4	4	6	4	6	5	4	3	4	4	4	5	5	5	4.7	6.4
3-Dec-05	5	4	5	4	4	5	5	6	11	9	14	7	7	9	13	26	37	33	29	17	14	13	5	6	12.1	37.3
4-Dec-05	7	7	10	13	21	13	7	6	5	6	9	9	10	6	6	6	6	5	4	4	4	4	6	10	7.6	21.3
5-Dec-05	8	6	7	5	5	5	6	5	4	4	3	2	2	2	2	4	4	5	8	11	11	21	17	6	6.4	21.3
6-Dec-05	4	3	3	4	4	6	6	10	8	10	19	13	10	9	12	12	18	23	23	19	17	21	24	12	12.1	23.8
7-Dec-05	13	11	10	11	11	11	14	18	17	25	20	13	13	14	1	0	0	D	0	D	0	0	1	0	9.2	25.3
8-Dec-05	0	1	0	0	0	1	1	2	2	4	2	0	0	0	0	0	0	0	0	5	2	0	0	0	0.9	5.5
9-Dec-05	0	D	0	0	0	1	1	1	1	2	1	1	2	1	0	1	1	0	0	0	0	0	0	0	0.5	1.7
10-Dec-05	0	1	0	0	0	0	0	0	0	4	1	0	0	0	0	2	2	1	0	2	2	1	0	1	0.7	4.3
11-Dec-05	1	2	2	1	2	1	1	1	1	5	7	5	1	2	8	3	3	6	2	4	4	4	8	4	3.2	8.3
12-Dec-05	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1	1	1	1	5	1	0.7	4.5
13-Dec-05	0	1	1	1	4	2	1	1	1	2	1	1	1	1	1	2	1	4	7	3	2	4	3	5	2.1	6.8
14-Dec-05	1	1	2	3	3	4	4	4	3	4	3	2	1	1	3	6	8	10	13	18	13	2	2	1	4.7	18.4
15-Dec-05	0	0	0	0	0	0	3	8	8	13	11	7	1	2	7	8	9	2	2	5	9	9	9	7	5.1	12.7
16-Dec-05	5	5	3	4	3	3	5	6	6	5	5	6	3	3	5	5	7	7	8	7	7	8	8	8	5.5	8.4
17-Dec-05	7	7	7	7	6	6	7	6	7	10	14	5	10	12	17	8	5	10	10	8	9	10	8	8	8.6	17.1
18-Dec-05	8	7	6	7	6	4	6	5	7	11	19	17	8	7	8	12	16	16	19	14	15	14	7	7	10.3	19.1
19-Dec-05	9	6	7	8	6	6	15	26	21	13	32	35	32	37	18	4	9	11	11	6	12	6	13	11	14.8	37.5
20-Dec-05	8	6	8	7	4	4	7	10	9	6	6	7	13	4	1	5	6	7	5	6	9	3	7	6	6.4	12.9
21-Dec-05	7	8	5	4	5	3	5	4	6	9	16	8	0	0	0	3	5	10	11	16	10	17	23	18	8.2	23.2
22-Dec-05	13	3	1	0	1	1	1	4	8	8	5	5	8	6	1	12	14	20	19	21	12	7	8	6	7.6	20.9
23-Dec-05	8	5	2	3	1	0	0	0	2	2	2	0	0	0	0	0	1	0	0	0	2	4	7	12	2.1	11.7
24-Dec-05	8	1	1	0	0	0	0	0	0	0	1	2	2	2	1	2	1	0	1	1	0	0	2	3	1.2	8.3
25-Dec-05	1	1	2	2	1	2	1	4	2	4	6	10	4	3	3	3	3	4	5	4	6	9	8	2	3.7	10.0
26-Dec-05	4	2	4	2	0	0	0	2	3	3	4	5	3	9	6	2	5	8	4	5	5	3	6	4	3.7	8.8
27-Dec-05	6	7	8	8	7	8	4	8	8	3	4	4	3	5	4	4	4	6	5	7	5	5	6	6	5.7	8.5
28-Dec-05	8	5	5	0	0	0	2	2	9	5	5	7	D	3	6	14	15	13	10	6	4	2	5	5	5.5	14.6
29-Dec-05	7	8	6	3	5	4	4	4	8	12	10	7	13	9	9	10	4	6	10	14	16	17	C	1	8.1	16.8
30-Dec-05	3	4	3	1	2	D	0	1	1	10	2	3	0	7	13	4	5	4	8	6	6	10	10	8	4.9	12.6
31-Dec-05	8	10	13	11	9	6	10	9	15	12	14	10	11	14	13	11	11	17	18	13	15	11	19	13	12.3	19.1
Hourly Avg	5.0	4.3	4.1	3.7	3.9	3.5	4.1	5.3	5.8	7.1	8.0	6.4	5.8	6.0	5.7	5.7	6.7	8.0	7.9	7.8	7.2	7.0	7.4	5.9		
Hourly Max	13.2	10.8	12.8	13.4	21.3	13.2	14.8	26.5	21.2	25.3	31.8	35.3	32.1	37.5	17.6	26.3	37.3	33.3	28.8	20.9	17.0	21.3	23.8	18.4		

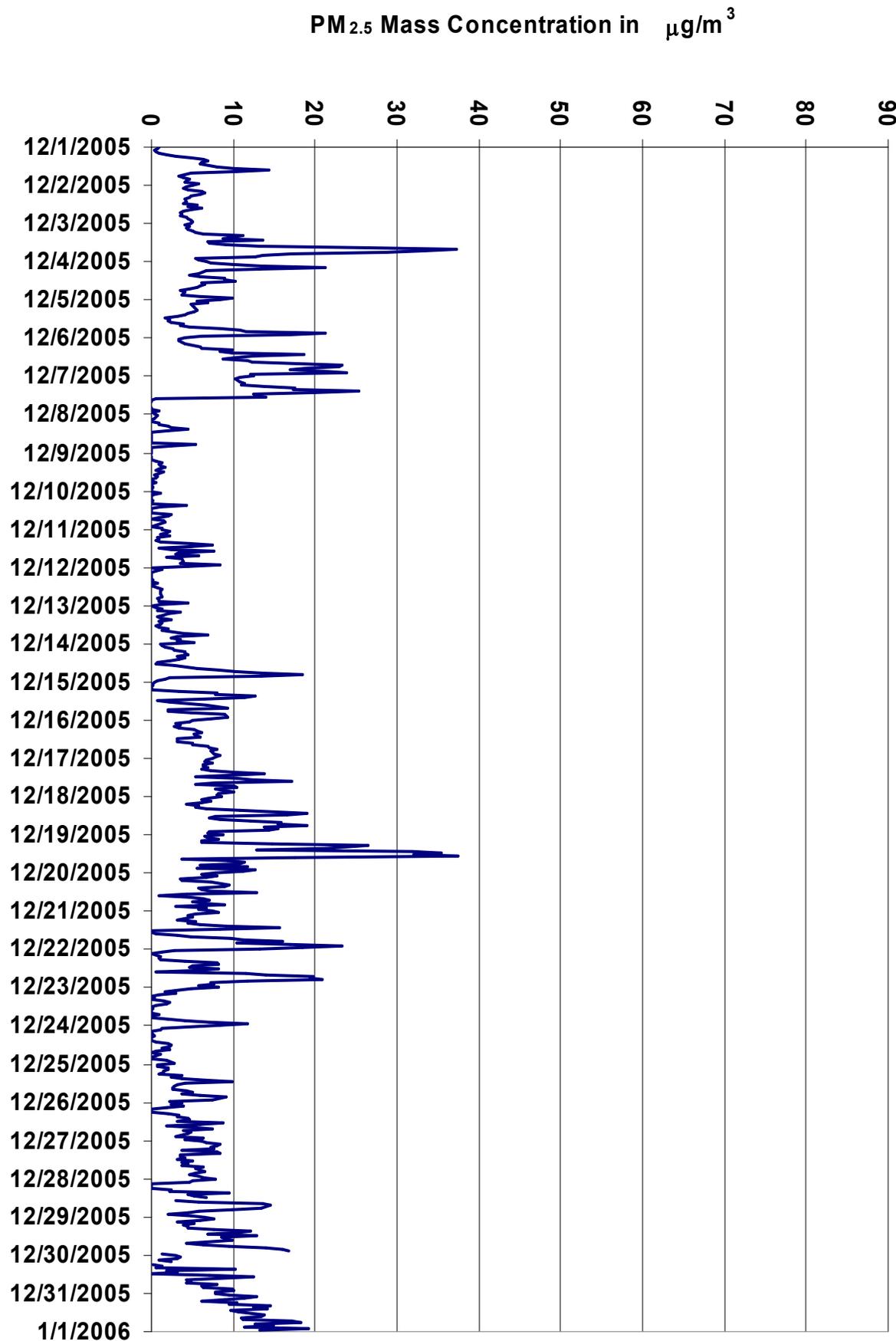


Figure 15. PASZA - Henry Pirkker Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Henry Pirker  
 Station Owner: PASZA

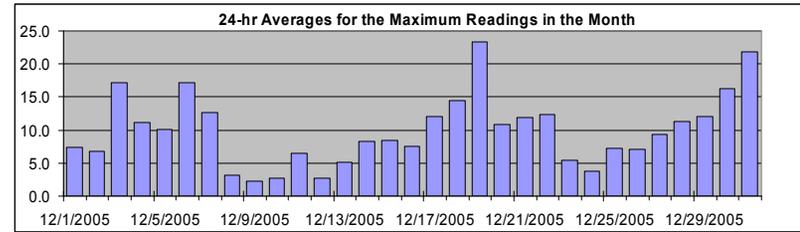
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Average:	52.3	µg/m <sup>3</sup>	19-Dec	11:00 12:00
Maximum 24-hr Value:	23.3	µg/m <sup>3</sup>	19-Dec	



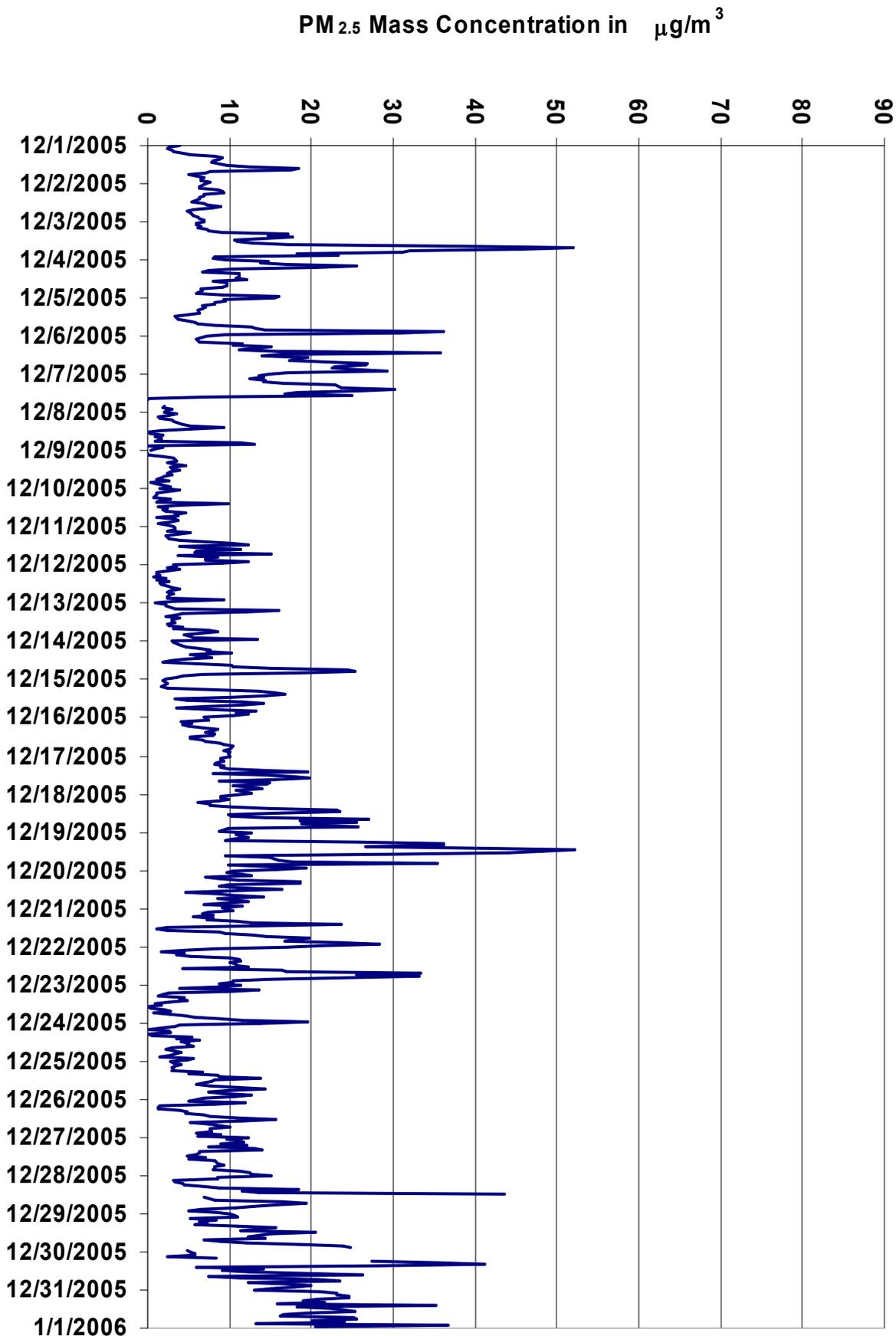
AIC Time:	0 hrs	Operational Time:	738 hrs							
Calibration Time:	1 hrs	AMD Operational Uptime:	99.3%							
Percentile	99	95	75	50	25	5	1	Average / Median	Geomean	
	39.1	25.6	12.7	8.1	4.1	1.4	0.0	9.9	10 µg/m <sup>3</sup>	8.5 µg/m <sup>3</sup>

**Status Flag Characters**

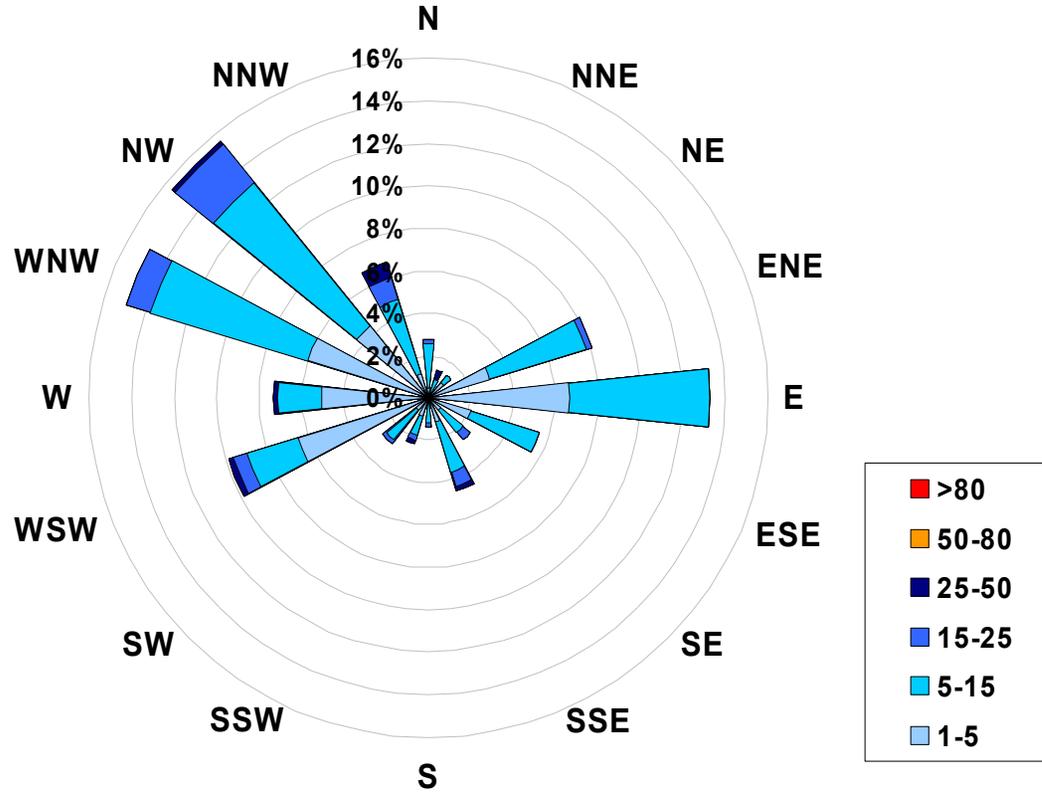
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								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-Dec-05	4	3	2	3	3	4	5	8	9	9	8	8	10	13	18	18	8	7	5	6	7	6	7	8	7.4	18.5
2-Dec-05	7	7	6	6	9	9	9	7	7	6	6	5	7	7	9	8	6	5	5	5	6	6	6	7	6.8	9.4
3-Dec-05	7	6	6	6	6	7	7	9	17	15	18	11	11	13	17	37	52	46	32	31	18	23	8	8	17.2	51.9
4-Dec-05	10	15	14	17	26	20	10	7	7	11	11	11	12	8	10	10	10	9	7	7	6	6	9	16	11.2	25.6
5-Dec-05	15	9	9	8	8	7	7	7	6	6	5	3	3	4	5	6	6	8	13	13	14	36	31	10	10.0	36.2
6-Dec-05	7	6	6	6	6	11	10	15	11	16	36	16	14	20	18	17	22	27	27	23	23	26	29	17	17.1	35.7
7-Dec-05	15	14	14	13	14	14	17	23	24	30	26	18	17	25	7	0	0	D	0	D	2	2	3	2	12.7	30.1
8-Dec-05	2	4	3	1	2	3	3	4	5	9	5	2	0	0	2	1	2	2	1	11	13	0	2	1	3.2	13.0
9-Dec-05	0	D	0	0	2	3	4	3	3	5	3	3	4	3	2	3	2	2	1	3	0	1	2	3	2.2	4.6
10-Dec-05	2	4	2	1	1	1	3	2	1	10	4	1	2	2	2	5	3	4	1	3	4	3	1	2	2.7	9.9
11-Dec-05	3	3	3	2	5	2	2	3	4	7	10	12	4	7	11	6	6	15	4	9	7	7	12	9	6.5	15.1
12-Dec-05	3	4	2	4	1	1	1	1	2	1	3	1	2	2	3	4	3	2	3	3	2	2	9	3	2.7	9.3
13-Dec-05	1	2	2	3	16	12	4	4	2	4	3	3	3	2	3	4	3	7	9	7	4	5	6	13	5.2	16.0
14-Dec-05	3	3	4	5	6	8	7	10	5	6	8	4	3	2	6	10	10	15	24	25	19	7	4	3	8.3	25.4
15-Dec-05	2	2	2	2	2	2	8	14	15	17	14	10	3	5	12	14	12	7	4	8	13	11	12	10	8.4	16.8
16-Dec-05	7	8	4	5	4	5	7	9	8	7	8	8	5	5	7	7	9	9	10	10	10	9	10	10	7.6	10.5
17-Dec-05	10	9	9	9	8	8	9	9	10	14	20	8	14	18	20	15	9	15	14	10	13	14	11	13	12.1	19.8
18-Dec-05	11	9	9	10	9	6	8	8	11	15	23	24	16	10	10	14	27	19	25	19	21	26	10	9	14.5	27.1
19-Dec-05	13	11	11	12	11	10	26	36	36	27	40	52	48	44	29	10	15	15	16	18	35	10	19	16	23.3	52.3
20-Dec-05	10	10	11	13	7	9	11	19	19	10	9	11	16	10	5	9	11	14	8	10	12	7	12	9	10.9	18.7
21-Dec-05	10	10	7	7	8	6	8	7	11	13	24	13	2	1	2	9	9	13	14	20	17	24	28	21	11.9	28.2
22-Dec-05	17	8	4	2	4	3	5	10	11	11	10	11	11	12	4	16	17	33	26	33	15	10	10	9	12.3	33.3
23-Dec-05	11	9	4	14	10	3	2	1	4	4	5	3	1	2	0	0	2	3	1	5	6	9	12	20	5.4	19.6
24-Dec-05	14	4	3	2	0	3	3	0	1	5	4	6	4	5	5	6	3	2	4	3	3	1	6	5	3.8	13.5
25-Dec-05	3	3	4	3	3	3	3	7	5	9	9	14	8	8	7	6	8	14	10	7	9	13	11	7	7.2	14.4
26-Dec-05	6	5	12	8	2	1	1	4	5	5	7	8	11	16	12	5	7	10	8	8	8	6	9	6	7.0	15.6
27-Dec-05	12	10	11	12	9	12	7	13	14	6	6	6	5	7	5	8	9	9	8	8	8	11	12	13	9.3	13.9
28-Dec-05	15	9	9	3	3	4	4	7	9	18	11	14	44	D	7	8	16	19	16	13	11	7	5	8	11.3	43.6
29-Dec-05	10	11	11	5	8	6	7	6	11	16	13	11	21	15	12	14	7	9	12	19	24	25	C	5	12.1	24.8
30-Dec-05	5	6	6	2	8	D	27	36	41	28	6	14	9	12	26	8	11	21	24	12	17	20	18	15	16.2	41.2
31-Dec-05	13	21	23	23	25	25	21	19	22	16	35	18	23	25	20	17	16	25	25	20	24	13	37	20	21.9	36.7
Hourly Avg	8.0	7.4	7.0	6.7	7.3	7.0	8.0	9.8	10.9	11.5	12.6	10.7	10.7	10.1	9.6	9.5	10.3	12.9	11.5	12.3	12.0	11.2	11.7	9.7		
Hourly Max	16.9	21.1	23.2	23.0	25.6	24.6	27.4	36.1	41.2	30.1	40.1	52.3	48.2	44.1	29.3	37.5	51.9	45.6	32.1	33.2	35.5	36.2	36.7	21.2		

Figure 16. PASZA - Henry Pirker 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 December 2005**



**Calms: 0%**

Frequency Distribution of PM <sub>2.5</sub> in µg/m <sup>3</sup>			
Range			Frequency (hrs)
1.0	<	5	388
5	to	15	302
15	to	25	38
25	to	50	10
50	to	80	0
	>	80	0
Total Non-Zero Values			738

### PASZA - Henry Pirker Relative Humidity Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

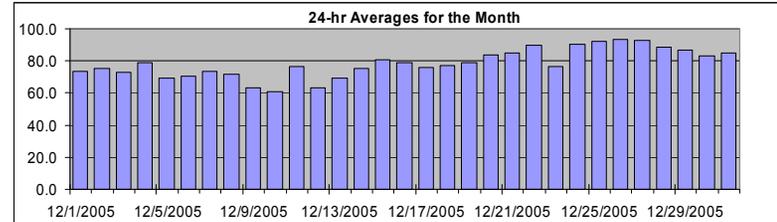
#### HOURLY AVERAGE TABLE

#### Relative Humidity (RH)

Monitoring Dates: December 1, 2005 to January 1, 2006

#### Summary

Maximum 1-hr Average:	95.0	%	26-Dec	18:00 19:00
Maximum 24-hr Value:	93.7	%	26-Dec	



AIC Time:	0 hrs	Operational Time:	744 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	94.7	93.2	86.5	79.2	71.8	60.1	56.5	78.4 %	79.2 %

#### 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																								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-Dec-05	74	74	74	75	78	79	78	76	75	73	74	72	69	69	71	72	72	72	72	72	72	73	73	72	73.3	79.0
2-Dec-05	72	72	72	72	72	71	72	72	75	76	77	76	75	74	74	73	75	78	78	79	79	79	79	80	75.1	79.5
3-Dec-05	80	80	78	77	77	76	76	76	77	76	71	65	60	58	57	63	72	78	78	76	74	74	73	72	72.7	80.4
4-Dec-05	73	72	72	73	75	77	77	77	77	77	76	75	75	77	79	81	82	85	85	86	87	87	86	81	78.8	87.3
5-Dec-05	77	73	70	69	67	67	68	69	69	67	65	62	61	60	60	62	67	72	77	77	76	77	75	72	69.1	77.2
6-Dec-05	69	69	68	68	69	70	70	70	69	69	69	69	70	70	69	72	74	74	72	71	71	71	71	72	70.2	73.7
7-Dec-05	72	73	74	75	75	75	76	77	77	78	78	76	75	73	68	68	67	69	73	72	72	73	73	73	73.5	78.2
8-Dec-05	75	72	74	75	76	81	82	77	76	77	72	67	64	64	66	67	68	67	67	69	68	68	70	70	71.4	82.5
9-Dec-05	69	66	63	61	59	62	66	66	68	68	64	60	59	63	63	63	64	65	63	61	60	61	61	61	63.1	68.7
10-Dec-05	62	64	64	64	63	59	59	62	63	65	63	60	57	55	54	56	58	59	59	60	63	63	63	63	60.7	65.2
11-Dec-05	65	66	66	67	71	70	72	77	78	82	80	68	69	72	74	75	77	81	81	88	92	92	93	87	76.7	93.0
12-Dec-05	75	69	69	67	55	58	61	62	59	55	58	57	56	55	57	59	61	65	66	65	65	64	74	83	63.2	83.3
13-Dec-05	72	67	68	65	68	93	93	79	72	69	65	62	61	58	57	61	60	64	64	67	69	73	74	74	69.0	93.3
14-Dec-05	75	72	75	79	81	82	81	78	80	79	77	74	64	59	60	65	71	78	79	84	83	77	79	81	75.5	84.3
15-Dec-05	82	82	83	84	84	85	84	85	84	83	77	77	75	72	75	77	80	82	81	81	80	79	80	80	80.6	84.9
16-Dec-05	80	80	81	83	85	85	85	84	84	83	82	80	77	77	76	75	75	75	74	72	74	75	76	78	78.9	85.0
17-Dec-05	78	78	77	78	79	79	78	78	80	79	73	67	62	63	64	69	72	79	82	81	82	83	82	82	75.9	82.9
18-Dec-05	82	81	81	82	81	81	80	80	81	80	74	63	60	62	65	66	75	81	83	83	84	84	85	84	77.3	84.7
19-Dec-05	84	84	83	83	82	82	82	83	81	82	80	77	67	64	64	71	76	81	83	83	82	83	83	80	79.2	84.2
20-Dec-05	81	81	82	82	82	82	82	83	83	83	83	81	79	80	79	81	85	86	87	87	89	88	89	89	83.6	89.5
21-Dec-05	88	88	87	86	87	86	86	86	86	86	81	78	76	73	73	76	82	85	90	90	92	92	92	91	85.0	92.3
22-Dec-05	90	91	91	92	92	92	92	92	92	93	92	92	92	91	84	77	82	88	91	92	90	90	89	89	89.7	92.5
23-Dec-05	90	92	92	91	82	84	83	80	78	79	74	73	66	64	59	59	56	63	69	75	79	82	83	84	76.6	92.3
24-Dec-05	84	82	84	81	81	86	90	90	92	92	92	91	91	92	92	93	93	93	94	94	94	94	93	93	90.1	94.1
25-Dec-05	92	92	91	91	92	91	91	91	91	90	91	92	92	93	93	94	94	94	94	94	94	94	94	93	92.5	94.4
26-Dec-05	92	92	92	93	93	93	92	92	92	93	93	94	94	94	94	94	94	95	95	95	95	95	95	95	93.7	95.0
27-Dec-05	95	95	94	94	93	92	92	91	91	90	90	91	92	93	93	94	94	94	93	93	93	93	93	92	92.7	94.8
28-Dec-05	92	91	92	92	91	91	90	91	90	90	87	83	77	83	85	88	90	91	92	91	89	89	86	87	88.7	92.0
29-Dec-05	88	88	86	87	88	87	87	87	87	87	86	84	79	80	77	83	86	90	91	90	89	90	89	87	86.5	91.0
30-Dec-05	86	85	84	83	83	87	86	86	84	81	79	78	81	80	80	83	84	84	84	83	84	84	85	83	83.2	87.0
31-Dec-05	85	86	86	86	86	86	88	88	88	88	85	79	77	75	78	80	84	86	87	87	87	87	86	86	84.8	88.1
Hourly Avg	79.9	79.3	79.1	79.3	79.0	80.3	80.7	80.2	80.0	79.7	77.6	75.0	72.7	72.2	72.1	74.1	76.7	79.2	80.1	80.5	80.8	81.2	81.4	81.1		
Hourly Max	94.8	94.7	94.4	93.8	93.4	93.3	92.7	92.4	92.5	92.5	93.1	94.3	94.2	94.2	94.0	94.5	94.2	94.9	95.0	94.8	94.9	94.8	94.9	94.7		

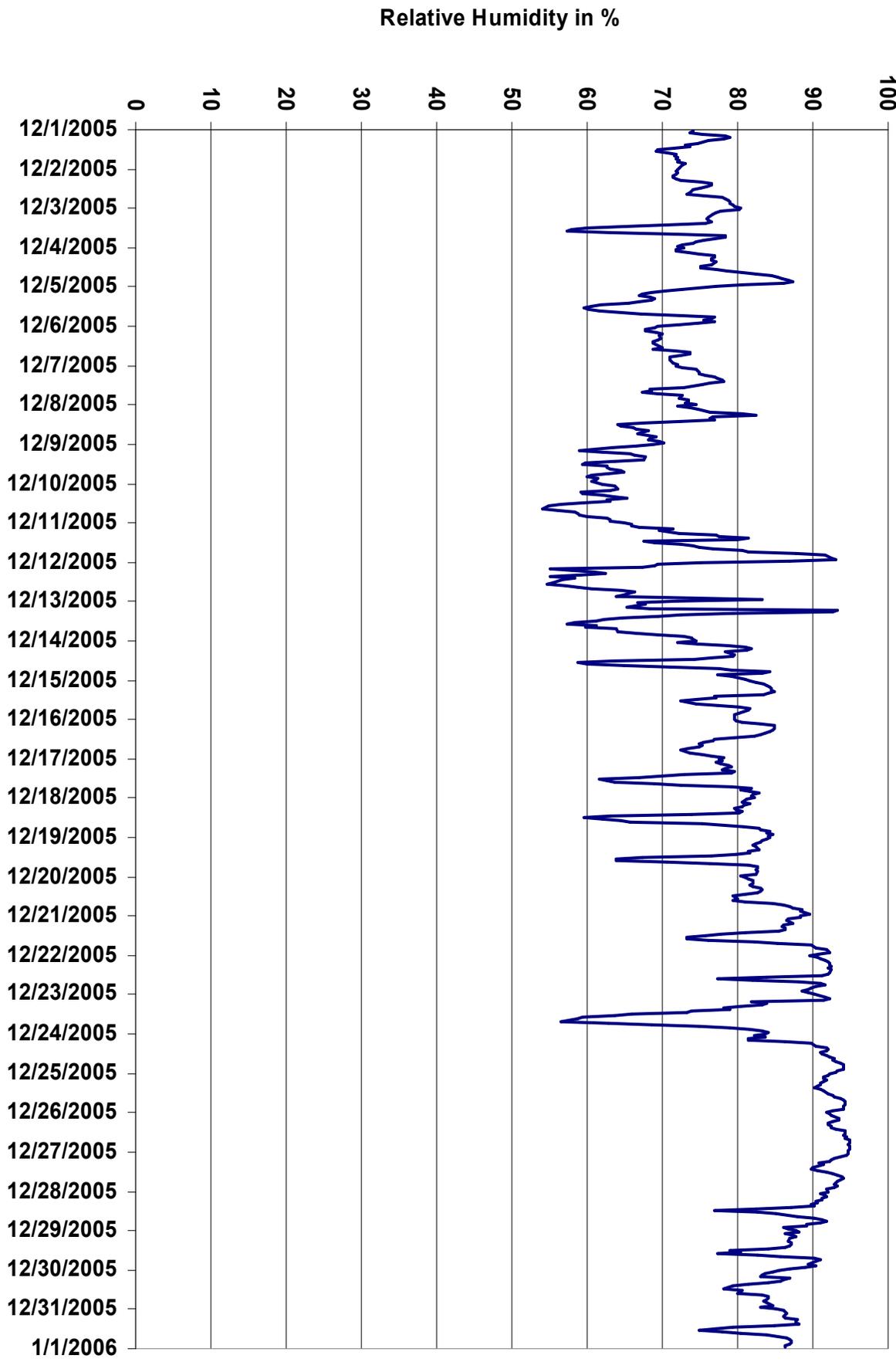


Figure 17. PASZA - Henry Pirkler Relative Humidity 1-hr Average Monthly Trend

### PASZA - Henry Pirker Temperature Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

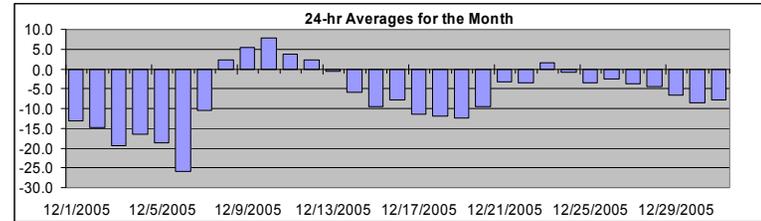
#### HOURLY AVERAGE TABLE

#### Ambient Temperature (T)

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Average:	10.9 °C	10-Dec	14:00 15:00
Maximum 24-hr Value:	7.8 °C	10-Dec	



AIC Time:	0 hrs	Operational Time:	744 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	9.0	5.8	-0.7	-6.4	-12.8	-21.9	-28.2	-6.8 °C	-6.4 °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-Dec-05	-14	-14	-14	-14	-13	-14	-13	-13	-13	-13	-13	-13	-12	-12	-12	-13	-13	-13	-13	-13	-13	-13	-14	-15	-13.2	-12.2	
2-Dec-05	-16	-16	-17	-17	-16	-16	-16	-16	-16	-15	-15	-15	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14.9	-13.5	
3-Dec-05	-14	-15	-17	-18	-19	-20	-20	-21	-21	-21	-19	-17	-15	-14	-15	-16	-18	-20	-21	-24	-25	-25	-26	-26	-19.5	-14.1	
4-Dec-05	-26	-27	-27	-25	-23	-21	-20	-19	-19	-19	-17	-16	-15	-15	-15	-14	-13	-11	-10	-9	-8	-8	-9	-12	-16.5	-7.7	
5-Dec-05	-14	-17	-18	-19	-19	-18	-18	-17	-17	-17	-18	-17	-17	-16	-16	-16	-18	-19	-21	-21	-22	-22	-24	-26	-18.6	-13.7	
6-Dec-05	-28	-29	-30	-30	-29	-28	-29	-29	-29	-28	-25	-23	-20	-22	-21	-21	-23	-24	-25	-26	-26	-26	-26	-25	-25.9	-19.9	
7-Dec-05	-25	-24	-23	-22	-22	-21	-20	-19	-18	-16	-14	-13	-10	-5	0	1	2	1	0	0	0	-1	0	0	-10.4	1.8	
8-Dec-05	0	1	1	0	0	-1	-2	0	0	0	2	4	5	5	4	4	4	4	4	4	4	4	4	5	2.4	4.9	
9-Dec-05	5	5	5	6	6	6	5	5	4	4	5	6	7	6	5	5	5	4	4	5	5	5	6	6	5.3	6.7	
10-Dec-05	5	5	6	6	6	7	7	7	6	6	7	7	9	10	11	11	10	9	9	9	9	8	8	7	7.8	10.9	
11-Dec-05	7	7	7	7	5	6	5	4	4	3	3	7	7	6	5	5	4	3	2	0	-2	-2	0	0	3.7	7.0	
12-Dec-05	1	1	1	1	5	4	3	2	3	4	3	4	4	4	4	4	3	2	1	1	0	0	0	0	2.3	4.8	
13-Dec-05	1	1	0	1	1	-1	-1	0	0	0	0	1	1	2	2	1	0	-1	-1	-2	-3	-4	-4	-5	-0.5	2.0	
14-Dec-05	-5	-5	-6	-7	-8	-8	-9	-8	-8	-8	-6	-5	-2	-1	-1	-2	-4	-5	-6	-7	-7	-7	-7	-8	-5.9	-1.0	
15-Dec-05	-8	-8	-9	-9	-10	-11	-12	-13	-14	-13	-10	-9	-8	-7	-8	-9	-10	-10	-10	-9	-9	-9	-9	-8	-9.6	-7.5	
16-Dec-05	-8	-8	-8	-8	-8	-9	-8	-9	-8	-8	-8	-7	-6	-6	-7	-7	-8	-8	-7	-7	-8	-8	-8	-9	-7.7	-6.3	
17-Dec-05	-9	-10	-10	-11	-11	-12	-12	-12	-13	-15	-13	-9	-7	-6	-6	-8	-9	-12	-13	-14	-15	-15	-15	-15	-11.3	-5.9	
18-Dec-05	-15	-15	-16	-16	-16	-16	-17	-17	-16	-15	-12	-7	-5	-4	-4	-5	-8	-9	-10	-13	-13	-13	-13	-13	-12.0	-3.6	
19-Dec-05	-13	-13	-14	-14	-14	-15	-15	-14	-15	-15	-12	-9	-6	-5	-4	-6	-9	-11	-13	-15	-15	-15	-15	-16	-12.3	-4.5	
20-Dec-05	-16	-15	-14	-14	-14	-14	-13	-12	-12	-12	-11	-9	-8	-7	-6	-5	-5	-5	-5	-5	-5	-6	-7	-8	-9.6	-4.6	
21-Dec-05	-8	-8	-10	-10	-10	-9	-9	-8	-8	-7	-4	1	4	5	4	2	1	-1	-1	-2	-3	-3	-1	-3.3	5.1		
22-Dec-05	-1	-1	-2	-3	-3	-3	-4	-5	-5	-5	-4	-3	-2	0	2	0	-2	-4	-5	-6	-8	-8	-7	-3.6	1.7		
23-Dec-05	-6	-5	-3	-2	1	0	1	2	2	2	4	4	6	7	7	6	6	4	3	1	0	-1	-1	-1	1.5	7.2	
24-Dec-05	-1	0	-1	0	0	0	0	0	-1	-2	-3	-2	-1	0	0	1	1	1	0	-1	-2	-3	-4	-0.9	1.1		
25-Dec-05	-4	-5	-5	-5	-5	-5	-5	-5	-6	-6	-5	-4	-3	-2	-1	-1	-1	-1	-1	-2	-2	-2	-3	-4	-3.5	-0.6	
26-Dec-05	-5	-5	-4	-3	-3	-4	-4	-4	-4	-4	-4	-3	-1	0	0	-1	-2	-1	-1	-1	-1	-1	-1	-1	-2.5	-0.3	
27-Dec-05	-1	-1	-2	-3	-4	-4	-4	-6	-5	-6	-7	-6	-4	-3	-3	-2	-2	-3	-3	-4	-4	-3	-3	-4	-3.7	-1.2	
28-Dec-05	-5	-5	-5	-4	-5	-5	-6	-6	-7	-6	-2	0	2	-1	-2	-3	-4	-5	-5	-6	-7	-7	-7	-9	-4.5	1.8	
29-Dec-05	-8	-6	-7	-9	-9	-9	-9	-9	-9	-9	-7	-6	-3	-3	-1	-1	-2	-4	-5	-7	-8	-7	-8	-10	-6.6	-0.8	
30-Dec-05	-11	-12	-13	-14	-14	-10	-9	-10	-9	-8	-7	-7	-7	-6	-6	-7	-7	-7	-8	-7	-7	-7	-7	-6	-8.6	-6.1	
31-Dec-05	-6	-6	-6	-6	-6	-7	-8	-9	-10	-10	-9	-7	-7	-6	-6	-7	-8	-9	-9	-9	-9	-9	-9	-10	-7.8	-5.5	
Hourly Avg	-8.1	-8.2	-8.4	-8.5	-8.3	-8.3	-8.5	-8.4	-8.5	-8.4	-7.0	-5.5	-4.2	-3.6	-3.2	-3.7	-4.6	-5.4	-5.9	-6.6	-7.1	-7.2	-7.3	-7.7			
Hourly Max	7.0	6.9	7.0	6.7	6.5	7.0	7.1	6.7	6.2	5.6	6.7	7.3	9.0	10.5	10.9	10.8	10.2	9.4	9.2	9.1	9.0	8.1	7.6	7.5			

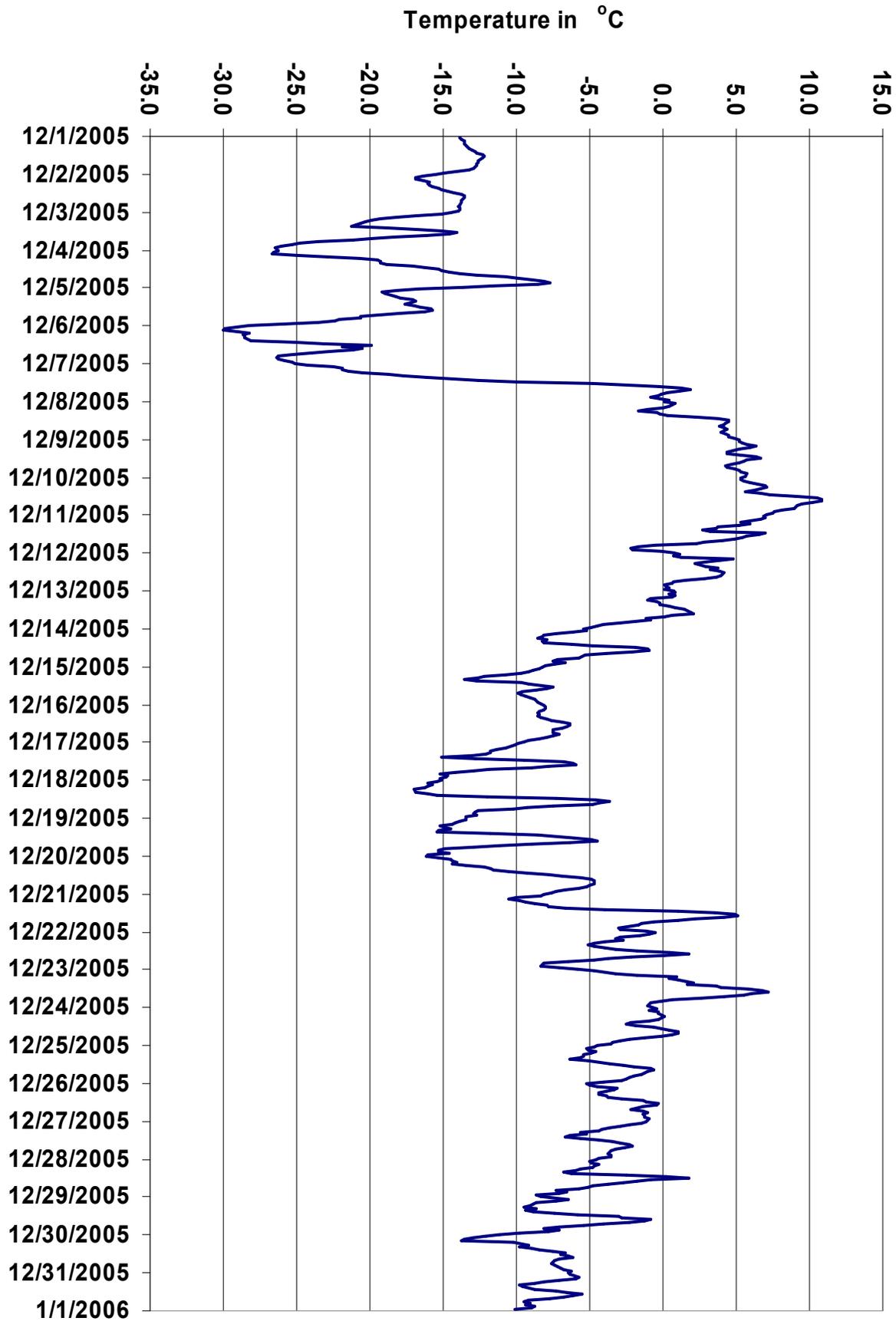


Figure 18. PASZA - Henry Pirker Temperature 1-hr Average Monthly Trend



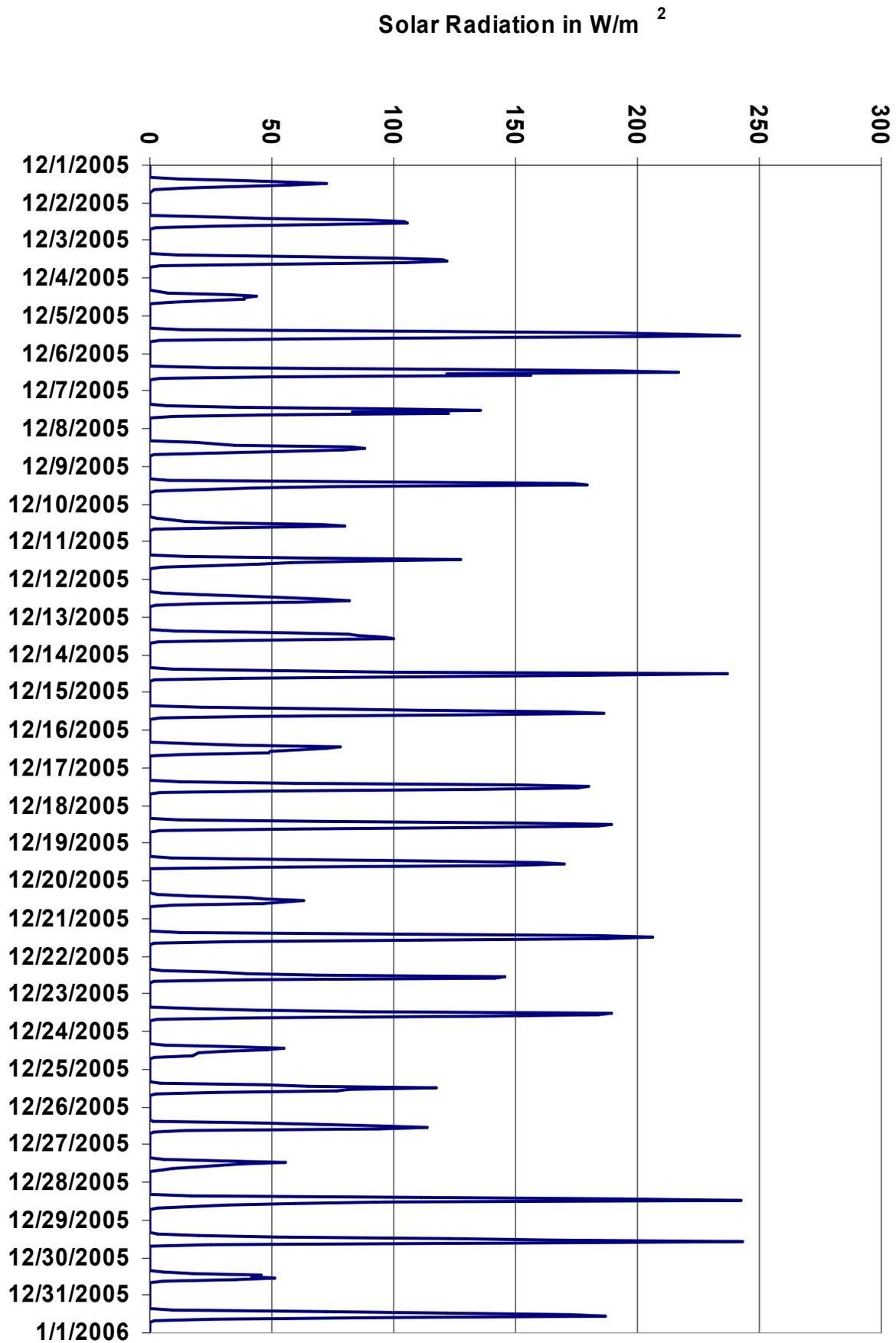


Figure 19. PASZA - Henry Pirkler Solar Radiation 1-hr Average Monthly Trend

### PASZA - Henry Pirker Scalar Wind Speed Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

#### HOURLY AVERAGE TABLE

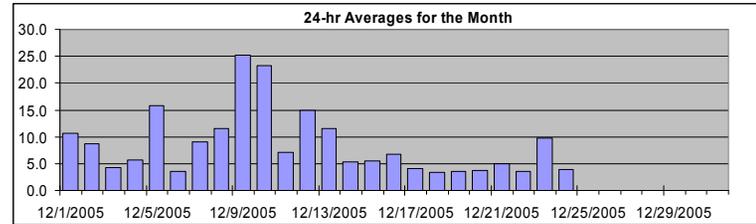
#### Wind Speed (WSs)

Monitoring Dates: December 1, 2005 to January 1, 2006

#### Summary

Maximum 1-hr Average:	40.4	km/hr	10-Dec	13:00 14:00
Maximum 24-hr Value:	25.3	km/hr	9-Dec	

Calm Time:	0 hrs	0% calms	Operational Time:	572 hrs					
Calibration Time:	0 hrs		AMD Operational Uptime:	76.9%					
Percentile	99	95	75	50	25	5	1	Average	S
	32.0	24.7	11.5	5.3	3.6	2.5	2.1	8.6	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			
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-Dec-05	8	8	7	8	9	9	9	8	9	10	10	11	10	11	13	13	12	12	13	12	12	13	15	16	10.7	15.8	
2-Dec-05	14	12	10	11	11	12	12	12	11	10	10	11	12	11	9	9	6	4	4	4	4	4	4	3	8.7	14.2	
3-Dec-05	5	7	7	5	5	6	4	4	4	4	3	4	4	3	4	4	3	3	3	4	4	4	3	3	4.2	6.9	
4-Dec-05	4	3	4	3	2	3	4	4	3	2	2	3	4	7	8	9	8	4	4	4	4	4	15	23	5.7	23.4	
5-Dec-05	27	27	30	21	21	23	22	23	23	22	20	19	20	19	14	12	5	5	5	5	4	4	3	4	15.8	29.6	
6-Dec-05	4	4	4	3	2	3	2	4	4	3	5	4	3	4	4	3	4	3	4	4	3	3	3	4	3.6	4.5	
7-Dec-05	4	3	2	2	1	2	2	2	4	2	4	5	6	11	15	21	28	19	14	16	17	15	11	10	9.0	27.8	
8-Dec-05	6	11	10	7	4	3	4	5	6	6	10	16	19	22	18	17	15	17	13	6	10	14	17	20	11.6	22.3	
9-Dec-05	23	24	26	25	37	34	31	27	24	21	25	31	29	26	25	22	20	16	17	16	19	26	32	30	25.3	37.2	
10-Dec-05	25	22	15	20	23	24	22	13	10	6	11	11	25	40	40	38	32	27	29	31	26	23	25	21	23.2	40.4	
11-Dec-05	14	14	17	13	8	10	9	7	4	3	4	5	3	3	4	6	5	5	4	5	5	4	7	11	7.1	16.9	
12-Dec-05	6	5	6	14	25	16	15	12	14	18	10	15	18	16	15	18	19	17	14	18	16	17	18	16	14.9	24.8	
13-Dec-05	11	12	14	14	15	8	5	8	11	11	14	17	16	14	14	13	9	13	13	13	11	9	7	5	11.5	16.8	
14-Dec-05	7	6	5	3	4	5	7	7	6	5	6	7	9	8	6	4	3	3	2	4	4	7	4	7	5.3	9.3	
15-Dec-05	9	9	9	7	5	4	3	4	3	4	3	5	7	5	5	5	5	7	6	5	6	7	6	5	5.5	9.4	
16-Dec-05	6	5	5	7	7	7	6	6	7	7	9	8	6	8	9	9	6	7	6	6	6	7	6	5	6.7	9.2	
17-Dec-05	6	6	8	5	5	4	5	4	3	3	3	5	3	3	3	5	3	5	4	4	4	3	2	3	4.2	8.2	
18-Dec-05	3	3	3	2	3	3	3	3	2	3	3	3	3	4	4	2	3	4	4	4	3	4	5	3	3.3	4.8	
19-Dec-05	4	3	3	2	3	2	4	2	3	2	2	3	4	3	4	4	4	5	5	6	4	4	3	3	3.5	5.9	
20-Dec-05	4	3	3	3	3	3	3	3	3	4	3	2	5	7	6	4	4	4	3	2	5	5	4	3	3.7	7.5	
21-Dec-05	3	5	4	3	4	4	4	4	4	3	5	7	11	11	8	5	5	4	4	5	4	2	4	5	4.9	11.2	
22-Dec-05	4	4	5	5	4	4	3	4	4	3	4	3	3	3	3	3	3	4	4	4	4	4	3	3	3.6	4.8	
23-Dec-05	3	5	4	6	12	7	8	10	11	7	15	13	13	13	15	18	27	16	12	6	4	2	3	3	9.7	27.5	
24-Dec-05	5	5	4	5	5	4	3	5	4	4	4	3	3	3	4	4	4	4	2	2	N	N	N	N	3.8	5.3	
25-Dec-05	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
26-Dec-05	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
27-Dec-05	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
28-Dec-05	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
29-Dec-05	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
30-Dec-05	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
31-Dec-05	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
1-hr Average	8.6	8.5	8.4	8.0	9.1	8.4	7.9	7.7	7.4	6.9	7.7	8.9	9.8	10.8	10.4	10.3	9.9	8.7	7.9	7.7	N	N	N	N	N		
Hourly Max	27.0	27.5	29.6	24.8	37.2	34.3	30.6	27.3	23.9	22.4	24.7	30.9	29.4	40.4	39.9	38.3	31.8	26.9	28.7	30.6	26.4	26.2	32.4	30.2			

### PASZA - Henry Pirker Vector Wind Speed Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

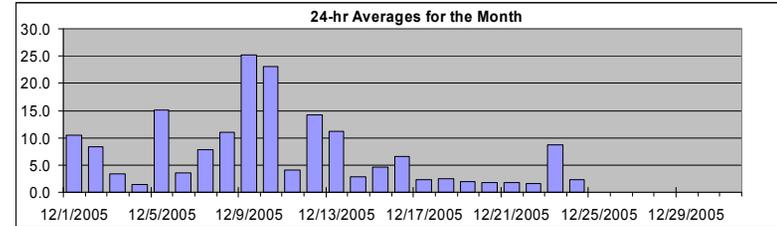
#### HOURLY AVERAGE TABLE

#### Wind Speed (WSv)

Monitoring Dates: December 1, 2005 to January 1, 2006

#### Summary

Maximum 1-hr Average:	40.2	km/hr	10-Dec	13:00 14:00
Maximum 24-hr Value:	25.2	km/hr	9-Dec	



Calm Time:	20 hrs	3% calms	Operational Time:	552 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	76.9%				
Percentile	99	95	75	50	25	5	1	AverageV
	32.0	24.6	11.7	5.2	3.2	1.6	1.0	16.8 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	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-Dec-05	8	8	6	7	9	9	8	8	9	10	10	11	10	11	13	12	12	12	13	12	12	13	15	16	10.5	15.8	
2-Dec-05	14	12	10	11	11	12	12	12	11	10	9	11	12	11	9	8	6	3	4	4	4	3	4	3	8.4	14.1	
3-Dec-05	5	7	7	5	5	5	4	4	4	4	3	4	3	3	4	3	3	3	3	4	4	4	3	3	3.3	6.8	
4-Dec-05	3	2	3	1	calm	2	3	4	3	calm	calm	3	4	7	8	9	4	6	3	3	4	3	14	23	1.4	23.3	
5-Dec-05	27	27	30	21	21	23	22	23	23	22	20	19	20	19	14	11	5	5	5	5	2	1	2	3	15.2	29.5	
6-Dec-05	4	4	4	3	1	3	2	4	4	3	4	4	3	4	4	3	4	3	4	3	3	3	3	3	3.5	4.4	
7-Dec-05	3	2	2	1	calm	calm	1	2	3	1	3	5	5	9	15	20	28	19	14	16	17	15	10	10	7.9	27.7	
8-Dec-05	5	11	10	7	4	calm	3	5	4	5	10	16	19	22	18	17	15	17	13	5	10	14	17	19	11.1	22.2	
9-Dec-05	23	23	26	25	37	34	31	27	24	21	25	31	29	26	25	22	20	16	17	16	19	26	32	30	25.2	37.1	
10-Dec-05	25	22	15	19	23	24	22	13	9	6	11	11	25	40	40	38	32	27	29	31	26	23	25	21	23.0	40.2	
11-Dec-05	14	14	17	13	8	10	9	7	3	2	3	5	2	1	4	6	5	5	2	4	5	3	6	10	4.0	16.8	
12-Dec-05	5	4	5	12	25	15	14	12	14	17	10	15	18	16	15	18	19	17	14	18	16	17	18	16	14.3	24.7	
13-Dec-05	11	11	14	13	14	8	5	8	11	11	14	17	16	14	14	13	13	9	13	13	10	9	7	5	11.2	16.7	
14-Dec-05	7	6	4	3	4	4	7	6	6	5	6	7	9	8	6	4	3	2	2	3	3	7	4	7	2.9	9.1	
15-Dec-05	9	9	9	7	5	3	2	3	2	4	2	4	6	5	4	5	5	7	6	5	5	7	6	4	4.5	9.4	
16-Dec-05	6	5	4	7	7	7	5	6	7	7	9	8	6	8	9	8	6	7	6	6	6	6	6	5	6.6	9.1	
17-Dec-05	5	6	8	4	5	4	5	4	3	2	calm	4	calm	2	1	5	3	5	4	4	4	3	2	3	2.3	8.1	
18-Dec-05	2	3	3	calm	3	3	3	3	2	3	3	2	3	4	4	2	3	4	3	4	3	4	4	2	2.4	4.5	
19-Dec-05	4	3	1	calm	2	1	1	2	1	1	calm	1	2	2	2	4	2	5	5	5	3	3	calm	2	1.9	5.2	
20-Dec-05	1	1	2	2	1	2	2	3	3	3	3	calm	4	7	4	4	3	4	2	1	3	4	2	2	1.7	7.3	
21-Dec-05	1	1	3	3	3	3	3	3	3	3	calm	5	7	11	10	6	3	4	3	3	4	3	1	3	5	1.9	10.6
22-Dec-05	calm	3	4	4	2	4	calm	3	3	3	4	2	1	2	3	3	calm	2	calm	3	4	4	3	2	1.5	4.1	
23-Dec-05	calm	5	2	4	12	7	7	10	11	7	15	13	13	13	14	17	27	16	11	3	3	1	3	3	8.7	27.3	
24-Dec-05	5	5	3	4	4	4	2	4	4	calm	2	1	3	3	3	4	3	1	1	N	N	N	N	2.2	5.2		
25-Dec-05	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
26-Dec-05	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
27-Dec-05	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
28-Dec-05	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
29-Dec-05	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
30-Dec-05	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
31-Dec-05	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
1-hr Vector	N	3.8	3.9	N	N	N	N	3.9	3.2	N	N	N	N	6.3	5.5	4.4	N	3.6	N	3.8	N	N	N	N	N	N	N
Hourly Max	26.8	27.2	29.5	24.7	37.1	34.1	30.6	27.2	23.8	22.4	24.6	30.8	29.3	40.2	39.7	38.2	31.7	26.7	28.5	30.6	26.4	26.1	32.3	30.2			

### PASZA - Henry Pirker Wind Direction Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

#### HOURLY AVERAGE TABLE

**Wind Direction (WD)**

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**


Calm Time: 0 hrs		0% calms		Operational Time: 572 hrs				
Calibration Time: 0 hrs		AMD Operational Uptime: 76.9%						
Percentile	99	95	75	50	25	5	1	Average
	350.8	329.4	294.8	253.4	108.7	66.3	16.8	268 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
1-Dec-05	89	80	73	84	89	96	86	89	98	98	110	98	101	103	102	91	84	81	83	79	83	79	76	84	89	E	
2-Dec-05	84	79	66	68	78	82	81	82	83	82	77	80	86	96	81	85	86	61	38	40	40	48	30	16	76	ENE	
3-Dec-05	300	283	239	246	242	245	238	233	229	289	284	299	281	265	237	198	329	348	336	316	315	314	317	323	275	W	
4-Dec-05	321	305	326	136	256	84	81	120	83	100	257	287	112	103	106	97	111	100	76	65	80	144	302	311	61	ENE	
5-Dec-05	306	296	295	291	294	296	292	290	290	291	294	291	289	289	299	300	310	320	353	352	127	293	323	319	296	WNW	
6-Dec-05	318	331	313	318	300	307	311	299	317	326	320	301	269	302	296	320	327	322	325	316	306	302	325	306	312	NW	
7-Dec-05	306	308	303	270	250	266	260	285	304	246	166	155	152	231	257	257	253	259	265	258	274	273	290	285	261	W	
8-Dec-05	269	280	294	295	299	254	245	248	194	210	252	252	255	253	262	256	266	267	265	230	267	264	265	251	260	W	
9-Dec-05	244	251	253	256	251	253	256	254	252	259	258	253	252	252	251	255	256	256	261	269	259	249	249	251	254	WSW	
10-Dec-05	251	267	263	265	271	266	264	264	260	231	257	254	247	254	262	266	264	263	254	250	251	251	252	260	259	WSW	
11-Dec-05	266	259	253	258	293	260	276	288	328	144	195	250	188	151	105	102	106	80	107	310	330	259	227	221	255	WSW	
12-Dec-05	232	169	166	223	252	248	253	248	234	245	275	257	240	251	252	253	249	251	247	251	252	251	278	256	249	WSW	
13-Dec-05	269	258	260	270	279	296	274	268	256	257	278	278	281	295	293	278	273	277	254	250	258	279	270	285	272	W	
14-Dec-05	290	276	322	311	292	317	283	312	303	308	319	292	295	279	267	238	182	219	10	65	92	88	69	79	302	WNW	
15-Dec-05	84	82	79	79	65	20	336	320	329	3	334	82	105	116	118	85	73	83	80	75	77	80	84	65	74	ENE	
16-Dec-05	103	86	62	85	108	107	86	73	78	77	99	94	74	83	83	82	66	73	74	73	80	79	75	76	83	E	
17-Dec-05	62	66	83	66	67	65	74	92	79	341	17	126	33	2	206	109	101	309	350	326	309	335	328	327	49	NE	
18-Dec-05	350	334	328	336	318	314	330	298	304	166	155	221	242	273	286	268	324	338	337	315	330	325	310	319	308	NW	
19-Dec-05	312	330	326	335	300	291	322	22	302	209	151	11	321	277	145	127	309	353	331	307	336	257	134	310	317	NW	
20-Dec-05	303	214	154	281	352	290	303	328	301	303	292	287	313	299	319	152	102	179	286	308	216	300	147	169	280	W	
21-Dec-05	164	254	295	299	302	314	313	305	302	243	158	212	219	209	294	156	119	139	152	129	45	236	174	9	226	SW	
22-Dec-05	57	317	310	329	217	297	62	294	166	190	163	198	182	297	267	207	50	304	246	332	282	334	325	301	284	WNW	
23-Dec-05	358	206	309	272	238	258	279	261	240	249	244	251	256	259	266	246	247	239	251	273	159	179	150	137	250	WSW	
24-Dec-05	115	107	123	82	107	95	111	71	71	84	313	346	299	321	357	79	105	100	69	254	N	N	N	N	80	E	
25-Dec-05	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	-
26-Dec-05	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	-
27-Dec-05	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	-
28-Dec-05	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	-
29-Dec-05	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	-
30-Dec-05	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	-
31-Dec-05	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	-
Hourly Avg	283	277	282	277	269	274	278	278	266	259	262	258	255	258	264	247	257	266	271	275	N	N	N	N	N		

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

Station: Henry Pirker  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

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Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	572 hrs			
Calibration Time:	0 hrs		AMD Operational Uptime:	76.9%			
Percentile	99	95	75	50	25	5	1
	63.7	50.2	23.9	12.1	6.9	3.8	3.3

**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

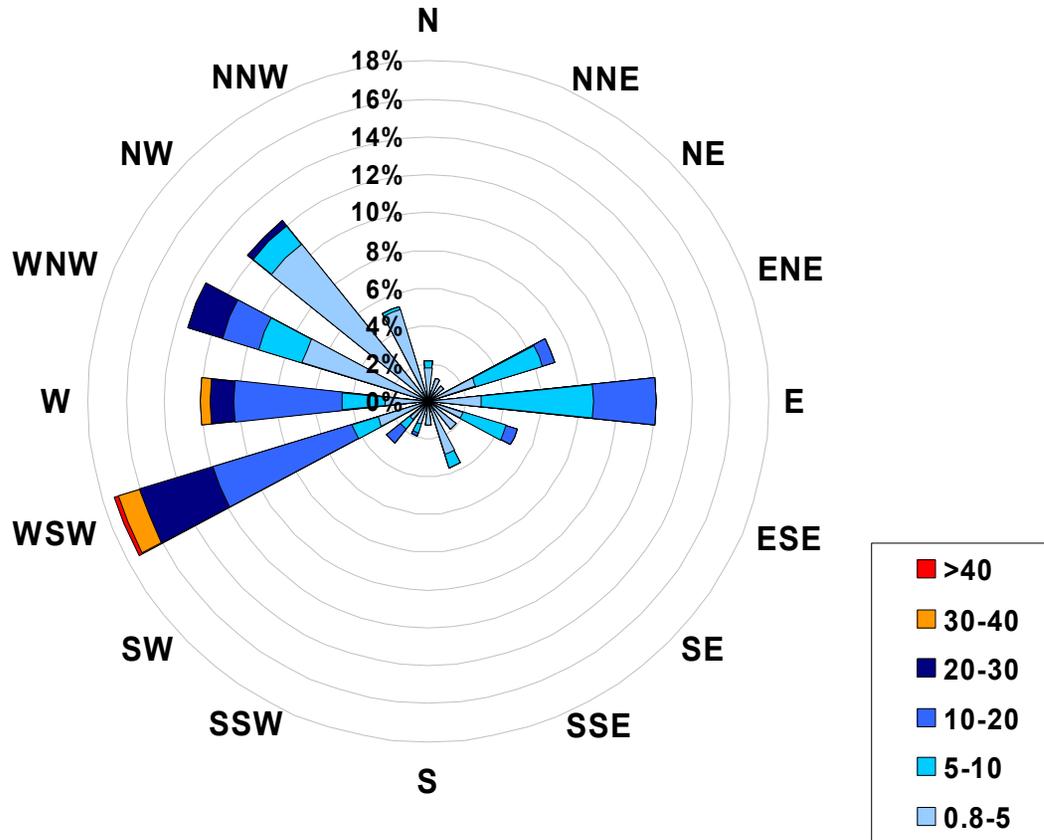
**Day Mountain Standard Time**

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-Dec-05	9	9	12	9	7	10	7	9	10	9	8	11	13	11	9	7	8	7	7	8	7	6	9	6
2-Dec-05	6	7	9	8	6	8	6	7	8	9	10	9	7	9	11	10	14	27	21	25	27	23	15	13
3-Dec-05	13	11	9	14	10	9	12	13	16	16	28	16	10	16	15	24	20	14	13	15	8	13	17	19
4-Dec-05	20	22	23	19	26	42	42	15	29	68	68	45	24	10	12	11	75	42	40	44	32	26	17	5
5-Dec-05	5	6	3	4	4	4	3	3	3	4	3	4	3	3	4	5	8	7	10	5	17	26	18	8
6-Dec-05	13	10	8	12	48	21	24	10	18	16	10	15	10	18	9	25	16	22	7	10	13	15	9	9
7-Dec-05	13	22	25	24	44	50	30	39	14	49	41	11	12	16	9	6	4	7	9	5	4	5	8	4
8-Dec-05	10	5	5	4	17	41	32	14	26	13	6	4	5	4	5	10	6	4	14	17	11	6	6	5
9-Dec-05	7	5	5	10	4	5	4	4	5	5	4	5	4	4	4	4	13	5	4	6	5	4	3	4
10-Dec-05	4	6	6	6	11	5	5	6	11	10	7	7	7	5	5	4	4	5	4	3	3	3	3	4
11-Dec-05	7	6	4	5	9	5	6	12	19	25	18	15	32	39	10	4	9	8	32	23	24	42	16	5
12-Dec-05	29	31	18	15	5	6	8	7	6	5	10	8	5	5	5	4	3	3	4	4	4	3	8	5
13-Dec-05	8	5	6	7	9	15	9	5	5	5	5	4	4	4	4	4	3	6	4	4	6	4	7	7
14-Dec-05	7	8	13	18	15	11	7	10	7	17	12	11	10	7	11	8	17	23	12	10	18	7	21	8
15-Dec-05	6	6	7	8	12	34	33	22	41	19	29	35	14	18	21	15	10	6	7	11	14	11	13	14
16-Dec-05	9	14	19	10	8	9	12	11	10	12	10	11	18	9	9	8	21	11	12	17	11	18	9	10
17-Dec-05	13	13	8	24	14	15	12	47	29	37	38	19	46	54	34	10	28	8	4	8	10	12	17	12
18-Dec-05	13	8	16	36	10	14	13	22	16	24	12	20	16	13	11	17	9	10	12	9	15	13	11	28
19-Dec-05	8	15	25	42	34	16	42	29	43	58	55	64	31	47	46	23	41	17	13	23	20	39	35	39
20-Dec-05	53	54	44	36	42	52	32	58	18	23	16	60	20	10	48	34	34	41	23	41	20	29	48	28
21-Dec-05	57	39	52	42	57	23	32	16	41	43	8	17	8	37	23	24	20	30	13	28	35	57	39	12
22-Dec-05	50	43	35	16	38	20	58	42	52	27	24	34	48	36	36	31	64	40	62	20	21	15	24	38
23-Dec-05	86	12	50	41	5	11	13	7	4	21	6	7	7	7	7	7	5	6	8	37	41	59	27	12
24-Dec-05	11	8	37	23	14	24	42	29	28	79	62	52	12	47	38	42	24	53	59	54	N	N	N	N
25-Dec-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26-Dec-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
27-Dec-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
28-Dec-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
29-Dec-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
30-Dec-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
31-Dec-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Daily Maximum
12.9
27.4
28.1
74.9
26.1
48.3
49.8
40.5
12.7
11.5
41.6
30.8
15.4
22.5
41.3
21.4
54.3
35.9
64.0
60.1
57.5
63.5
85.7
78.7
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0

Hourly Max	86	54	52	42	57	52	58	58	52	79	68	64	48	54	48	42	75	53	62	54	41	59	48	39
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**1-hr Average Wind Rose (in km/hr) Located at the Henry Pirker Site for December 2005**



**Calms: 0%**

Frequency Distribution of Wind in km/hr Range			Frequency (hrs)
0.8	<	5	273
5	to	10	125
10	to	20	120
20	to	30	43
30	to	40	10
	>	40	1
Total Non-Zero Values			572

# PASZA - Evergreen Park

## Monthly Summary Tables, Graphs, and Roses

### PASZA - Evergreen Park Sulphur Dioxide Monthly Summary

Station: Evergreen Park  
 Station Owner: PASZA

#### HOURLY AVERAGE TABLE

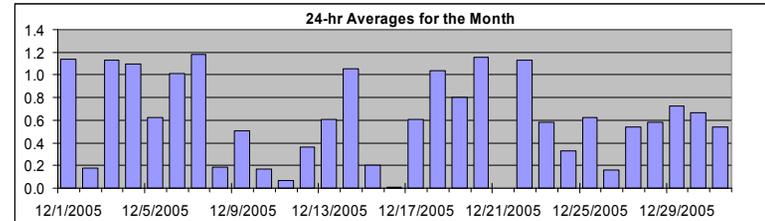
#### Sulphur Dioxide (SO<sub>2</sub>)

Monitoring Dates: December 1, 2005 to January 1, 2006

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:	4.2 ppb	7-Dec	10:00	11:00
Maximum 24-hr Average:	1.2 ppb	7-Dec		



AIC Time:	34 hrs	Operational Time:	701 hrs						
Calibration Time:	9 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	2.7	2.0	1.0	0.5	0.0	0.0	0.0	0.6 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	0:00			
1-Dec-05	1	1	2	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	1	1	1	1	1	1	1	1.1	2.1
2-Dec-05	0	0	0	0	0	0	1	1	1	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.8
3-Dec-05	0	0	0	0	0	0	0	0	0	0	A	1	4	3	2	2	2	2	1	2	2	2	2	2	1	1.1	3.6	
4-Dec-05	2	2	2	1	1	0	0	0	0	A	0	0	0	1	1	1	1	1	2	2	3	2	2	2	1	1.1	2.7	
5-Dec-05	3	2	2	2	1	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.5	
6-Dec-05	1	1	1	2	2	1	1	A	1	1	1	2	1	1	0	1	0	0	0	1	1	1	1	1	1	1.0	1.7	
7-Dec-05	1	1	1	1	1	1	A	2	2	3	4	2	1	3	2	0	0	0	0	1	0	0	0	1	1.2	4.2		
8-Dec-05	0	0	0	0	0	A	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8	
9-Dec-05	0	0	0	0	A	1	1	0	0	1	2	1	1	1	0	0	1	0	0	0	0	1	1	0	0.5	1.6		
10-Dec-05	0	0	0	A	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.7	
11-Dec-05	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.1	0.7		
12-Dec-05	0	A	0	0	0	0	0	0	0	0	0	0	C	C	C	A	1	1	1	1	0	1	1	0	0.4	1.5		
13-Dec-05	0	0	0	0	0	A	0	0	1	0	0	1	1	1	1	1	1	2	2	1	1	0	0	0	0	0.6	1.8	
14-Dec-05	0	0	1	1	A	0	0	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	0	1.1	2.3	
15-Dec-05	0	0	0	A	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1	
16-Dec-05	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2	
17-Dec-05	0	A	0	0	0	0	0	0	0	0	0	0	0	1	3	2	0	1	0	1	1	2	1	1	1	0.6	2.8	
18-Dec-05	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	A	1.0	2.1	
19-Dec-05	2	2	2	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	2	2	A	2	0.8	2.2	
20-Dec-05	1	1	1	1	1	0	0	1	0	0	0	2	3	2	2	1	1	1	1	2	1	2	A	2	1	1.2	2.6	
21-Dec-05	0	1	0	1	1	1	1	1	2	1	1	0	C	C	C	C	C	A	0	1	1	1	1	1	N	1.8		
22-Dec-05	1	0	0	1	1	A	1	1	1	1	0	0	1	0	0	0	0	1	2	2	3	3	4	3	1.1	3.6		
23-Dec-05	3	2	1	0	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.8	
24-Dec-05	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	2	0.3	2.0		
25-Dec-05	1	0	A	0	1	1	0	0	1	0	0	1	1	1	0	0	0	1	1	1	1	1	1	1	1	0.6	1.4	
26-Dec-05	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.2	0.8	
27-Dec-05	A	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	A	0.5	1.3	
28-Dec-05	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	A	1	0.6	1.4	
29-Dec-05	1	1	0	1	1	0	0	1	1	1	1	1	2	1	1	0	0	1	1	1	1	1	A	0	0	0.7	2.0	
30-Dec-05	0	0	0	0	0	0	0	0	0	1	2	2	2	2	1	1	1	1	1	1	A	1	0	0	0	0.7	2.1	
31-Dec-05	0	1	0	0	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	A	0	0	0	0	0.5	1.2	
Hourly Avg	0.7	0.6	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.8	0.8	0.6	0.5	0.6	0.6	0.7	0.8	0.8	0.8	0.8	0.7			
Hourly Max	2.8	2.0	2.1	2.0	1.6	1.4	1.5	1.5	1.8	2.9	4.2	2.2	3.6	3.1	2.8	2.1	2.3	1.8	2.4	2.0	2.7	2.5	3.6	2.6				

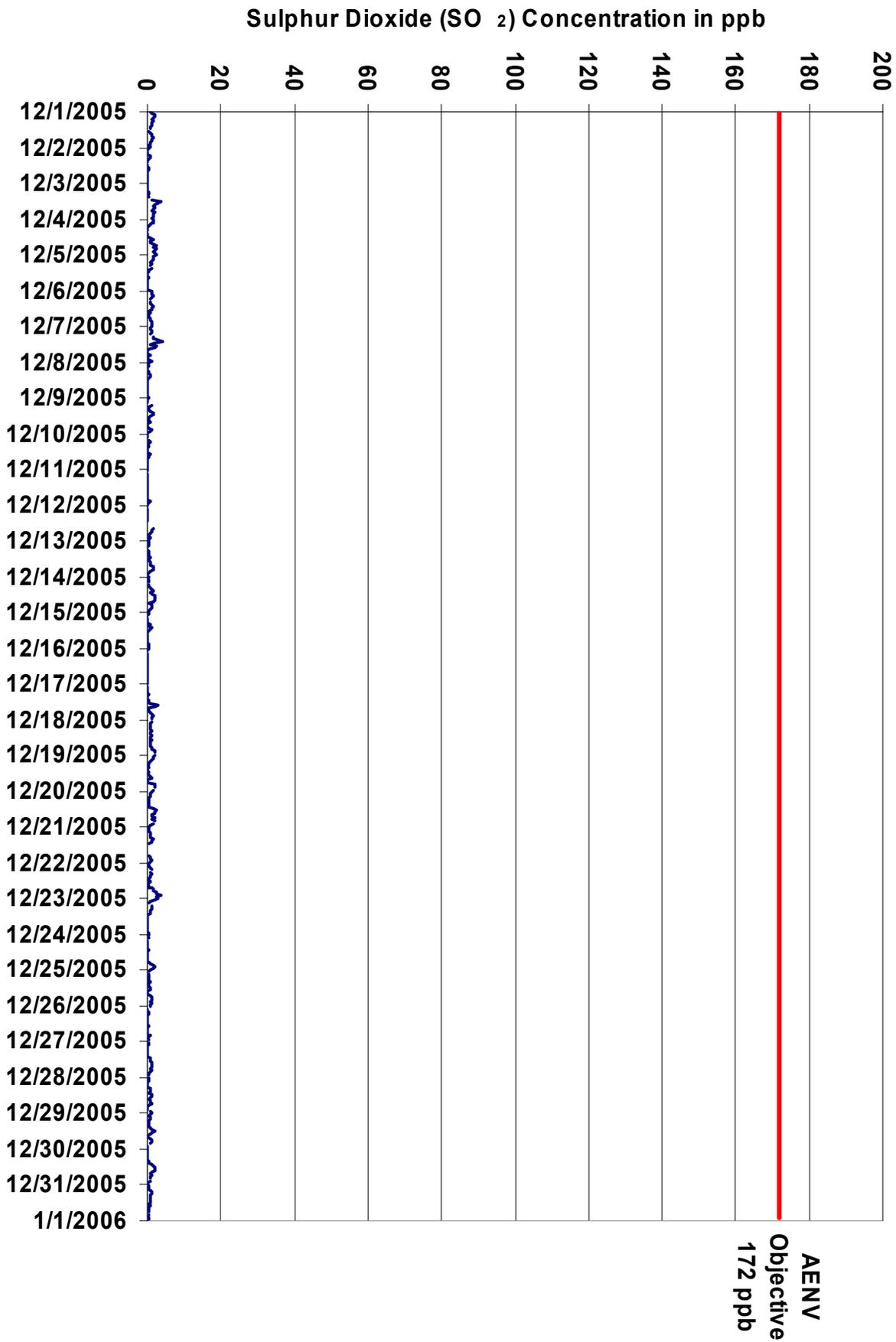


Figure 20. PASZA - Evergreen Park Sulphur Dioxide 1-hr Average Monthly Trend

Station: Evergreen Park  
 Station Owner: PASZA

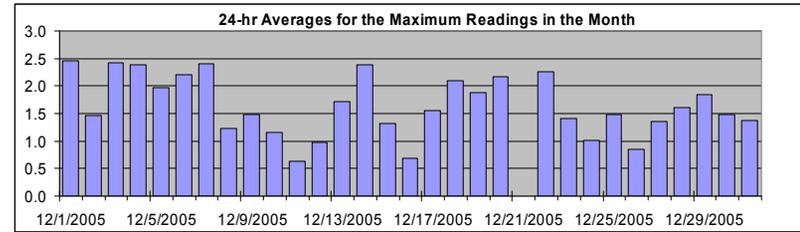
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Value:	6.5	ppb	7-Dec	10:00 11:00
Maximum 24-hr Value:	2.5	ppb	1-Dec	



AIC Time:	34 hrs	Operational Time:	701 hrs						
Calibration Time:	9 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	4.1	3.3	2.2	1.5	1.0	0.4	0.0	1.7 ppb	1.5 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	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-Dec-05	2	2	3	4	3	3	3	3	2	3	2	3	A	2	2	3	2	3	3	2	3	2	2	2	2.5	3.8	
2-Dec-05	2	2	1	1	1	1	2	2	2	2	1	A	2	2	2	2	1	1	1	1	1	2	1	1	1.5	2.2	
3-Dec-05	1	1	1	1	1	1	2	1	2	1	A	5	5	4	3	3	3	3	3	3	3	3	3	3	2.4	5.5	
4-Dec-05	3	3	3	2	2	2	1	1	1	A	1	1	1	2	3	3	2	2	4	4	4	4	3	3	2.4	4.0	
5-Dec-05	4	3	3	3	2	2	3	2	A	3	2	2	2	2	0	2	1	3	1	2	1	1	0	2	2.0	4.1	
6-Dec-05	2	2	2	3	3	2	2	A	2	2	3	3	3	2	1	3	2	1	2	2	3	2	2	3	2.2	2.9	
7-Dec-05	3	2	3	2	2	2	A	3	3	4	6	3	3	4	4	1	1	0	1	2	1	0	2	2	2.4	6.5	
8-Dec-05	2	1	1	1	1	A	1	2	1	2	2	1	1	1	1	0	1	1	0	2	1	1	1	1	1.2	2.1	
9-Dec-05	1	1	1	1	A	2	2	1	1	1	3	2	3	2	2	1	2	1	0	1	1	2	2	1	1.5	2.8	
10-Dec-05	1	1	1	A	1	2	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1.2	2.2	
11-Dec-05	1	1	A	1	1	1	1	0	0	2	1	0	1	0	0	0	0	0	1	0	1	1	1	1	0.6	1.8	
12-Dec-05	1	A	0	0	0	0	0	0	0	0	1	0	C	C	C	A	5	2	2	2	1	1	2	1	1.0	5.3	
13-Dec-05	2	1	1	1	1	A	1	1	1	1	2	2	2	2	2	6	2	3	2	2	2	1	1	2	1.7	5.9	
14-Dec-05	2	2	2	2	A	1	1	3	2	3	2	2	3	4	3	4	3	2	2	3	2	2	1	1	2.4	4.0	
15-Dec-05	2	1	1	A	2	1	0	2	2	1	3	3	1	0	1	2	1	1	0	1	1	1	1	1	1.3	3.1	
16-Dec-05	1	1	A	1	0	1	1	1	0	1	0	0	0	0	0	1	0	1	1	1	1	1	1	1	0.7	1.5	
17-Dec-05	1	A	1	1	1	1	1	1	1	1	1	1	1	2	4	4	1	1	2	2	3	2	2	2	1.6	3.8	
18-Dec-05	A	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	3	2	3	3	3	A	2.1	3.4	
19-Dec-05	3	2	2	2	2	1	1	1	1	1	1	1	1	1	3	2	1	2	3	3	3	A	3	1.9	3.5		
20-Dec-05	2	2	2	2	2	1	1	1	1	1	1	3	4	3	4	2	2	3	3	2	3	A	3	2	2.2	3.6	
21-Dec-05	1	2	1	2	2	2	2	2	3	3	3	1	C	C	C	C	C	C	A	2	2	2	2	2	N	3.0	
22-Dec-05	1	1	1	2	2	A	2	2	2	2	1	1	2	2	1	2	2	3	3	3	4	4	4	4	2.3	4.5	
23-Dec-05	4	3	2	1	A	2	2	2	2	2	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1.4	4.1	
24-Dec-05	1	1	1	A	1	1	1	1	0	1	1	1	1	0	1	0	0	0	1	1	2	3	3	3	1.0	2.9	
25-Dec-05	1	1	A	1	1	1	1	1	2	2	1	2	1	1	1	1	1	2	2	2	2	1	2	2	1.5	2.4	
26-Dec-05	2	A	1	1	1	1	1	0	1	0	0	1	1	2	0	0	0	0	1	1	2	1	1	1	0.8	2.3	
27-Dec-05	A	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	1	1	A	1.4	2.4
28-Dec-05	2	2	2	1	1	1	1	2	2	2	1	3	2	2	2	1	3	3	1	1	1	1	A	2	1.6	3.3	
29-Dec-05	2	2	1	1	2	2	1	2	2	2	2	2	3	2	2	1	1	2	3	3	2	A	1	0	1.8	3.2	
30-Dec-05	1	0	0	0	1	0	1	1	1	1	2	2	3	3	4	2	2	2	2	2	A	2	0	1	1.5	3.9	
31-Dec-05	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	A	2	1	2	1	1.4	2.1	
Hourly Avg	1.7	1.6	1.6	1.5	1.4	1.4	1.3	1.5	1.5	1.6	1.8	1.8	1.8	1.7	1.8	1.6	1.8	1.7	1.7	1.8	2.0	1.7	1.7	1.8			
Hourly Max	4.1	3.3	3.3	3.8	2.9	2.9	2.6	3.1	3.0	4.0	6.5	4.8	5.5	4.2	3.9	3.8	5.9	3.4	3.8	3.9	4.0	3.8	4.5	4.1			

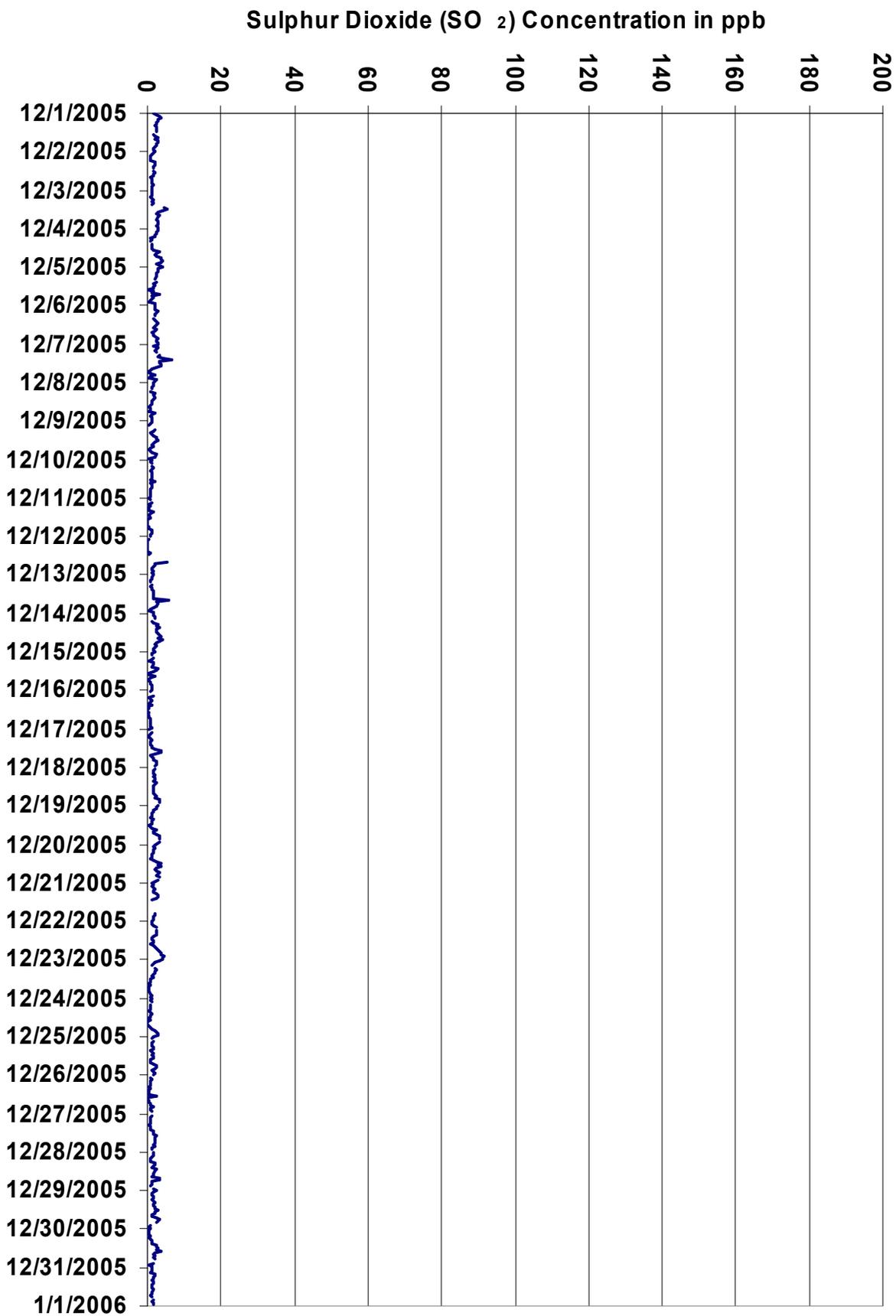
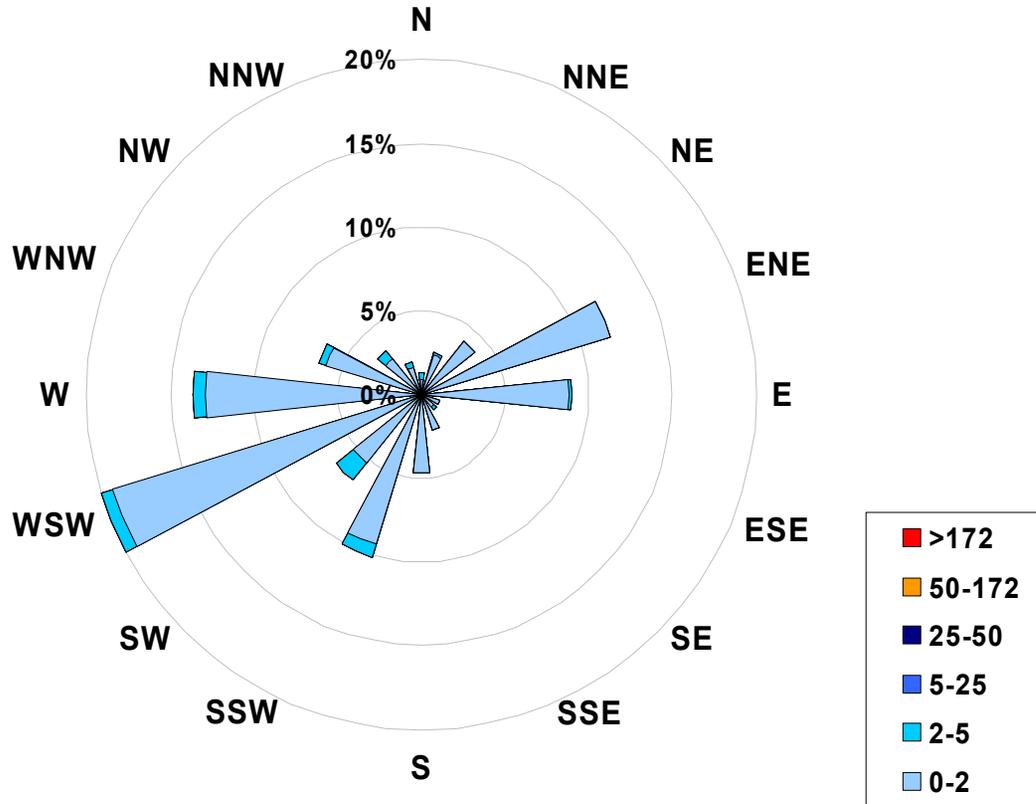


Figure 21. PASZA - Evergreen Park Sulphur Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Sulphur Dioxide (in ppb) Located at the Evergreen Park Site for December 2005**



**Calms: 0%**

Frequency Distribution of SO <sub>2</sub> in ppb			Frequency (hrs)
Range			
0.0	<	2	668
2	to	5	33
5	to	25	0
25	to	50	0
50	to	172	0
	>	172	0
Total Non-Zero Values			701

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

Station: Evergreen Park  
 Station Owner: PASZA

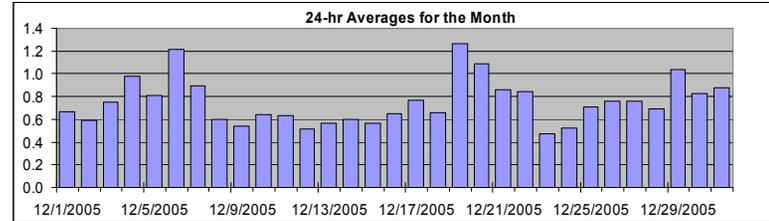
#### HOURLY AVERAGE TABLE

#### Total Reduced Sulphur (TRS)

Monitoring Dates: December 1, 2005 to January 1, 2006

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

Maximum 1-hr Average:	2.8	ppb	19-Dec	16:00 17:00
Maximum 24-hr Value:	1.3	ppb	19-Dec	



AIC Time:	33 hrs	Operational Time:	708 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	1.8	1.4	0.8	0.7	0.6	0.5	0.4	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																							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-Dec-05	0	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	0.8
2-Dec-05	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	0.6	0.7
3-Dec-05	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	1.2
4-Dec-05	1	1	2	2	2	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.8
5-Dec-05	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	0.8	1.0
6-Dec-05	1	1	1	1	1	1	1	1	A	1	1	1	2	2	1	1	1	1	1	1	2	2	2	2	2	1.2	1.8
7-Dec-05	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.5
8-Dec-05	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
9-Dec-05	1	0	1	1	A	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.6
10-Dec-05	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	0.6	0.7
11-Dec-05	1	1	A	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	1	1	1	1	0.6	0.9
12-Dec-05	1	A	0	0	0	0	0	1	1	0	1	1	C	C	C	A	1	0	0	1	1	1	1	1	1	0.5	0.6
13-Dec-05	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7
14-Dec-05	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	0.6	0.8
15-Dec-05	1	0	0	A	0	0	0	1	1	1	1	1	0	0	1	1	1	1	0	1	1	1	1	1	1	0.6	0.9
16-Dec-05	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	0.6	0.8
17-Dec-05	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
18-Dec-05	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	A	0.7	1.1
19-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	2	2	2	2	2	A	1	1	1.3	2.8
20-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	A	1	1	1	1.1	1.8
21-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3
22-Dec-05	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4
23-Dec-05	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	0	0	0	0.5	0.7
24-Dec-05	0	0	0	A	1	1	1	0	0	0	0	0	0	1	1	1	0	1	1	1	1	1	1	1	1	0.5	0.8
25-Dec-05	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	0.7	1.0
26-Dec-05	1	A	0	1	0	1	0	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	0.8	1.8
27-Dec-05	A	1	1	0	0	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	A	0.8	1.6
28-Dec-05	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	A	1	1	0.7	1.2
29-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	A	1	1	1	1.0	2.0
30-Dec-05	1	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	1.5
31-Dec-05	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.5
Hourly Avg	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.7	0.8
Hourly Max	1.5	1.5	1.5	1.6	1.8	1.2	1.2	1.6	1.4	1.3	1.5	1.8	1.6	1.8	1.3	2.8	2.8	2.3	2.3	2.2	2.1	1.8	1.6	1.6			

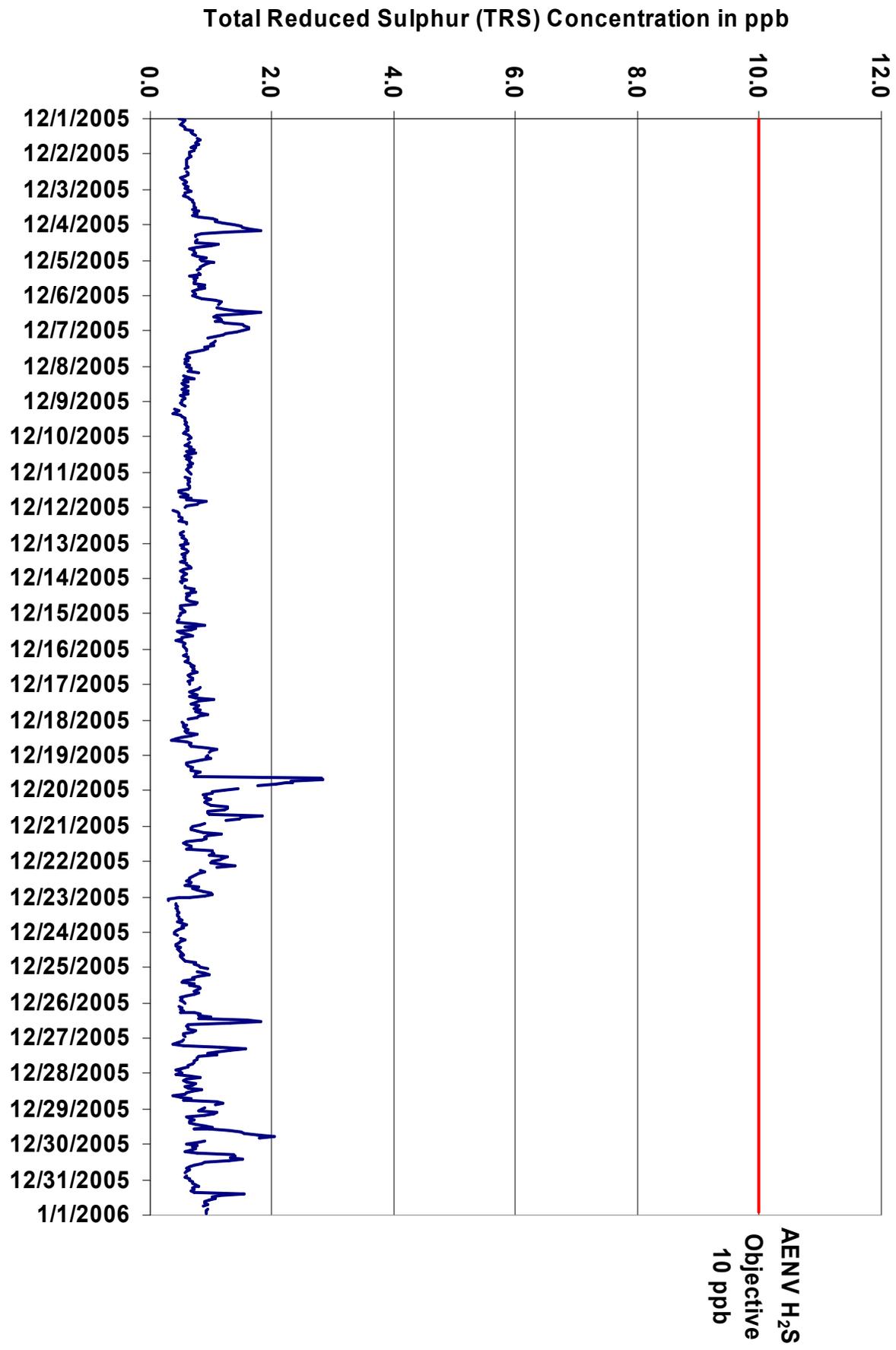


Figure 22. PASZA - Evergreen Park Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Evergreen Park  
 Station Owner: PASZA

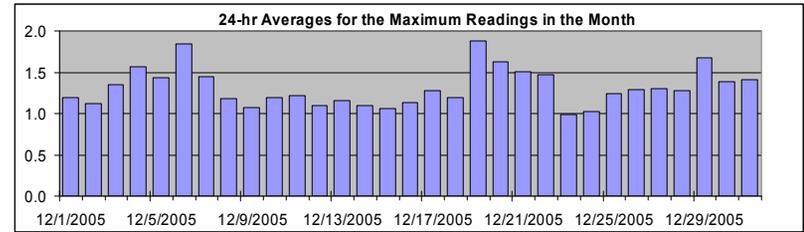
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

**Total Reduced Sulphur (TRS)**

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Value:	4.3	ppb	19-Dec	15:00 16:00
Maximum 24-hr Value:	1.9	ppb	19-Dec	



AIC Time:	33 hrs	Operational Time:	708 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	2.7	2.1	1.4	1.2	1.1	0.9	0.8	1.3 ppb	1.2 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	23:00 0:00			
1-Dec-05	1	1	1	1	1	1	1	1	1	1	1	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.5
2-Dec-05	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	1.1	1.3
3-Dec-05	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	2	2	2	1.3	1.7	
4-Dec-05	2	2	2	2	2	2	1	1	1	A	1	1	1	2	2	1	1	1	1	1	1	2	1	1	1	1.6	2.5
5-Dec-05	2	1	2	2	1	1	1	1	A	1	1	1	1	1	1	2	1	3	1	2	2	1	1	1	1	1.4	2.5
6-Dec-05	1	1	1	2	2	2	2	A	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	1.8	2.8
7-Dec-05	2	2	2	2	2	1	A	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1.5	2.2
8-Dec-05	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.4
9-Dec-05	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	1.5
10-Dec-05	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	1.2	1.3
11-Dec-05	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1.2	1.8
12-Dec-05	1	A	1	1	1	1	1	1	1	1	1	1	C	C	C	A	2	1	1	1	1	1	1	1	1	1.1	1.8
13-Dec-05	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1.2	3.1
14-Dec-05	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	1.4
15-Dec-05	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	1.5
16-Dec-05	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	1.3
17-Dec-05	1	A	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	1.6
18-Dec-05	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	A	2	1.2	1.6
19-Dec-05	1	2	1	1	1	1	1	1	1	1	1	1	1	1	4	4	3	3	3	3	3	2	A	2	1.9	4.3	
20-Dec-05	2	2	2	1	1	1	2	1	1	1	2	2	2	2	1	1	2	3	2	2	2	A	2	1	1.6	2.5	
21-Dec-05	1	1	1	1	1	2	2	1	2	1	1	1	1	1	2	1	1	2	2	2	2	2	2	2	1.5	2.2	
22-Dec-05	2	2	2	2	2	A	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	2	2	1.5	2.2	
23-Dec-05	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	1.0	1.3
24-Dec-05	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	1.4
25-Dec-05	2	2	A	1	2	2	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1.2	1.6
26-Dec-05	1	A	1	1	1	1	1	1	1	1	2	1	2	3	2	1	1	1	1	1	1	1	1	1	1	1.3	2.5
27-Dec-05	A	1	1	1	1	1	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1.3	2.1
28-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	A	1	1.3	2.0	
29-Dec-05	2	1	2	2	1	1	1	1	1	1	1	2	2	1	2	2	2	3	3	2	A	1	1	1	1.7	2.8	
30-Dec-05	1	1	1	1	1	1	2	2	2	2	2	2	2	1	1	1	1	1	1	1	A	1	1	1	1.4	2.2	
31-Dec-05	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	2	1	A	1	2	1	2	1.4	2.1	
Hourly Avg	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.3	1.3	1.3	1.3	1.4	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3			
Hourly Max	2.2	2.0	2.1	2.2	2.5	2.0	1.8	2.2	1.9	1.9	2.1	2.8	2.4	2.5	1.9	4.3	3.8	2.9	3.3	2.8	2.6	2.4	2.1	2.2			

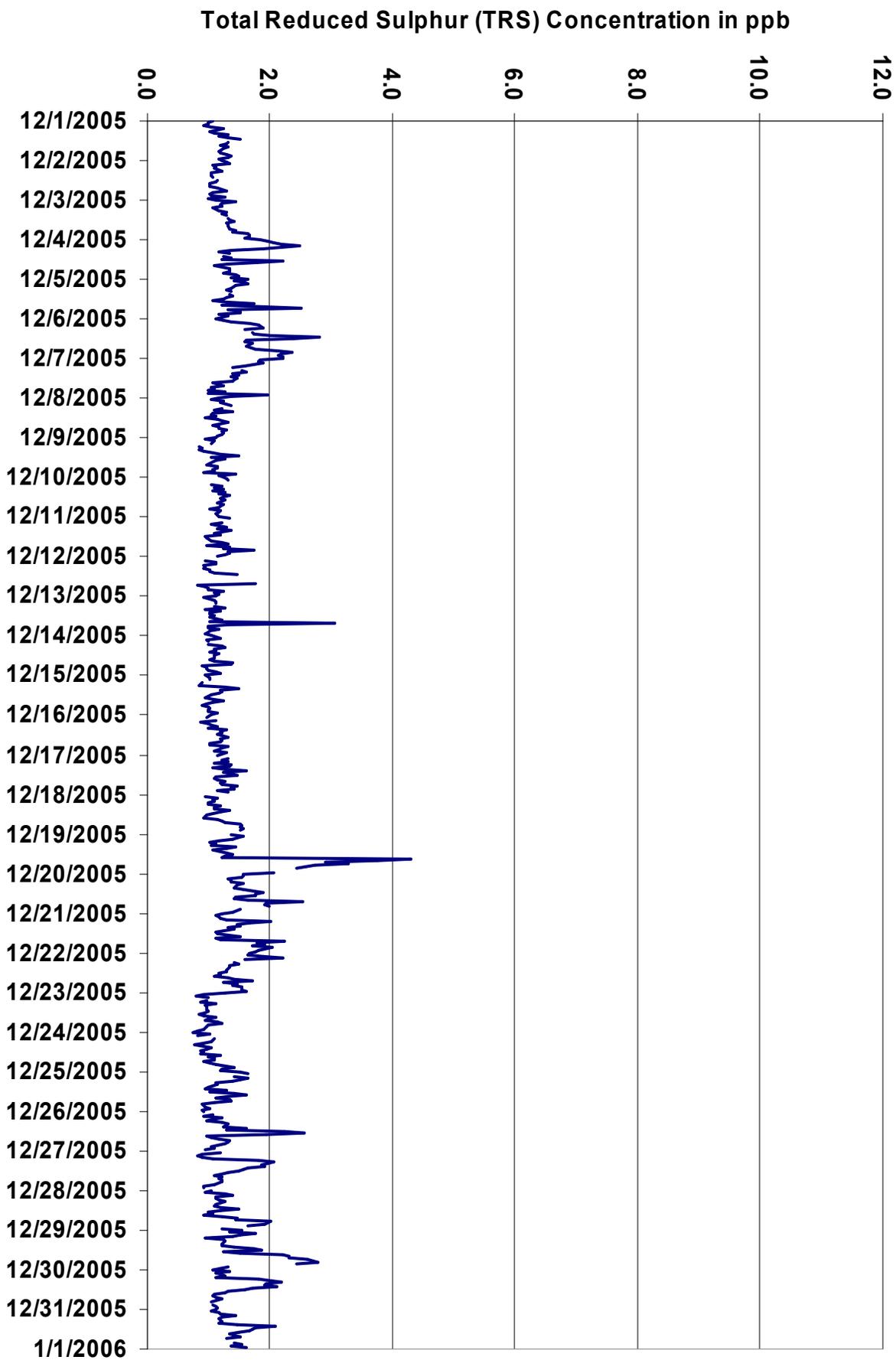
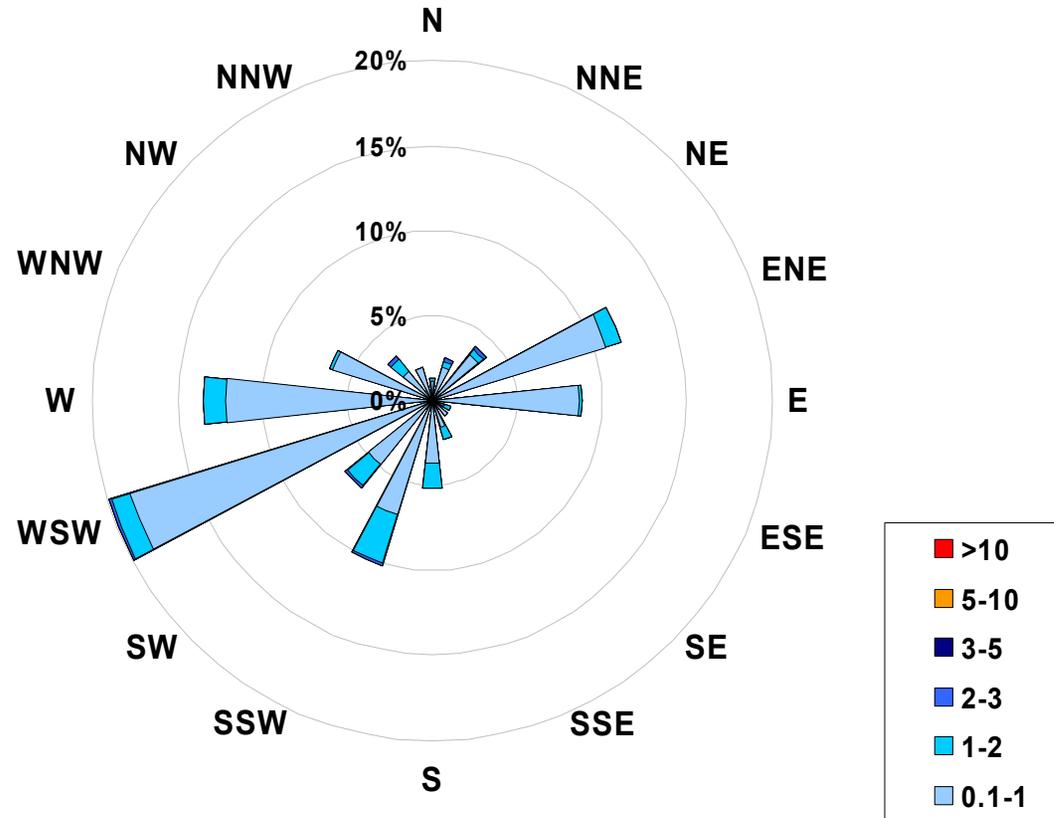


Figure 23. PASZA - Evergreen Park Total Reduced Sulphur Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Total Reduced Sulphur (in ppb)  
Located at the Evergreen Park Site for December 2005**



**Calms: 0%**

Frequency Distribution of TRS in ppb			Frequency (hrs)
Range			
0.1	<	1	604
1	to	2	97
2	to	3	7
3	to	5	0
5	to	10	0
	>	10	0
Total Non-Zero Values			708

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

Station: Evergreen Park  
 Station Owner: PASZA

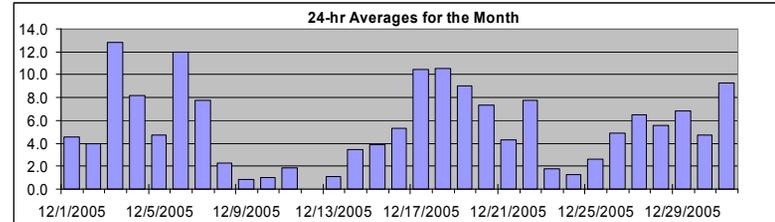
### HOURLY AVERAGE TABLE

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

Monitoring Dates: December 1, 2005 to January 1, 2006

Draft Objective Limit: Alberta Environment: 1-hr -  $\mu\text{g}/\text{m}^3$  24-hr 30  $\mu\text{g}/\text{m}^3$   
 Summary

Number of 24-hr Exceedances (draft):	0		
Maximum 1-hr Average:	24.9 $\mu\text{g}/\text{m}^3$	3-Dec	20:00 21:00
Maximum 24-hr Value:	12.8 $\mu\text{g}/\text{m}^3$	3-Dec	



AIC Time:	0 hrs		Operational Time:	735 hrs							
Calibration Time:	6 hrs		AMD Operational Uptime:	99.6%							
Percentile	99	95	75	50	25	5	1	Average / Median			Geomean
	20.2	14.4	7.6	4.6	1.6	0.0	0.0	5.4	5 $\mu\text{g}/\text{m}^3$	4.4 $\mu\text{g}/\text{m}^3$	

#### 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																							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-Dec-05	1	1	1	1	1	1	2	3	5	5	5	6	7	9	13	17	5	3	3	4	5	4	4	5	4.6	17.3
2-Dec-05	6	5	4	4	5	5	5	4	5	4	4	2	3	2	3	3	3	3	4	3	3	4	5	5	3.9	5.5
3-Dec-05	5	6	5	5	7	9	9	10	9	10	10	6	9	11	13	14	18	23	20	21	25	23	20	19	12.8	24.9
4-Dec-05	17	14	14	13	15	15	10	7	6	6	8	7	5	5	8	4	4	4	4	6	4	5	8	8	8.2	16.9
5-Dec-05	10	6	7	7	5	6	6	6	5	4	4	2	3	3	3	3	6	7	4	5	4	4	3	4	4.8	9.8
6-Dec-05	3	3	3	7	7	6	6	5	5	8	17	20	20	11	14	22	19	17	16	18	17	15	14	13	12.0	22.3
7-Dec-05	14	14	9	7	7	8	9	16	18	18	20	13	12	6	5	0	0	0	D	0	0	0	2	0	7.7	20.3
8-Dec-05	0	0	1	0	0	0	0	0	1	2	1	0	0	0	4	10	8	3	1	8	8	4	1	2	2.3	10.1
9-Dec-05	0	0	D	0	0	2	1	1	1	2	1	1	1	1	2	2	2	0	0	0	1	0	1	0	0.9	2.4
10-Dec-05	0	1	0	0	0	0	0	0	1	0	1	0	3	1	1	4	4	1	0	1	2	1	0	2	1.0	4.0
11-Dec-05	1	2	2	1	1	1	1	0	0	0	1	2	1	0	0	0	2	0	0	1	7	7	11	4	1.9	10.9
12-Dec-05	1	2	1	4	D	0	0	0	0	0	0	1	0	2	C	C	C	C	C	C	0	0	1	0	N	3.8
13-Dec-05	0	0	0	0	0	0	0	0	0	2	1	2	2	1	0	0	4	5	5	2	0	2	1	1	1.1	5.4
14-Dec-05	0	1	1	2	2	2	2	5	7	8	7	5	3	2	3	4	9	7	0	1	2	2	3	2	3.5	9.1
15-Dec-05	2	1	1	0	0	0	0	2	6	6	11	10	1	0	1	3	3	4	5	6	6	8	7	9	3.9	10.6
16-Dec-05	6	7	5	4	3	4	5	5	6	7	5	3	2	3	5	4	6	7	7	6	7	6	7	6	5.3	6.9
17-Dec-05	7	8	7	8	9	7	8	7	7	10	9	6	15	13	13	10	15	14	15	17	15	13	11	10.5	16.9	
18-Dec-05	10	10	9	10	11	10	12	12	12	19	14	5	4	3	6	8	10	9	12	16	12	13	14	10.5	18.6	
19-Dec-05	12	11	12	11	8	7	5	5	5	4	7	9	4	5	4	13	10	9	13	16	13	12	10	9	9.0	16.0
20-Dec-05	7	5	4	5	4	3	5	4	4	6	7	15	13	11	5	6	7	14	10	10	11	8	7	4	7.3	15.0
21-Dec-05	5	5	6	6	6	6	6	5	7	7	6	4	2	0	3	1	0	1	0	2	2	7	9	8	4.3	8.6
22-Dec-05	8	7	10	11	11	5	7	8	5	5	6	6	6	7	6	1	2	6	5	11	12	13	16	13	7.8	16.1
23-Dec-05	9	5	3	4	4	3	3	2	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	5	1.8	8.8
24-Dec-05	3	0	1	0	0	1	0	0	0	2	4	1	1	1	2	1	0	0	0	0	2	4	3	3	1.2	3.8
25-Dec-05	1	1	2	3	1	1	1	1	1	3	2	3	4	4	4	3	3	5	4	3	3	2	4	4	2.6	4.9
26-Dec-05	3	2	2	3	1	2	1	2	2	4	7	7	8	9	9	1	3	7	8	9	8	5	7	7	4.9	9.3
27-Dec-05	6	5	4	5	5	7	9	12	7	6	7	10	5	7	9	10	7	5	5	6	5	4	4	5	6.5	11.7
28-Dec-05	5	4	7	4	4	2	2	3	3	3	6	10	7	1	2	0	2	3	6	14	9	14	11	10	5.5	14.2
29-Dec-05	8	8	9	12	8	4	3	3	3	5	7	8	11	7	1	3	6	7	12	13	10	6	5	5	6.8	13.1
30-Dec-05	2	4	3	3	2	2	4	3	3	6	10	11	9	9	5	4	5	4	3	5	3	5	3	4	4.7	11.4
31-Dec-05	5	4	6	6	5	5	4	5	6	6	12	13	14	12	13	11	10	11	11	12	13	12	13	13	9.3	14.4
Hourly Avg	5.1	4.5	4.7	4.7	4.4	4.1	4.1	4.4	4.6	5.2	6.5	6.4	5.4	4.8	5.1	5.5	5.6	6.0	5.8	7.0	6.9	6.6	6.7	6.3		
Hourly Max	16.9	14.2	14.3	12.9	14.9	15.2	11.6	15.7	17.8	18.3	20.3	20.4	19.9	14.9	14.4	22.3	19.5	22.5	19.9	20.6	24.9	22.6	20.4	18.9		

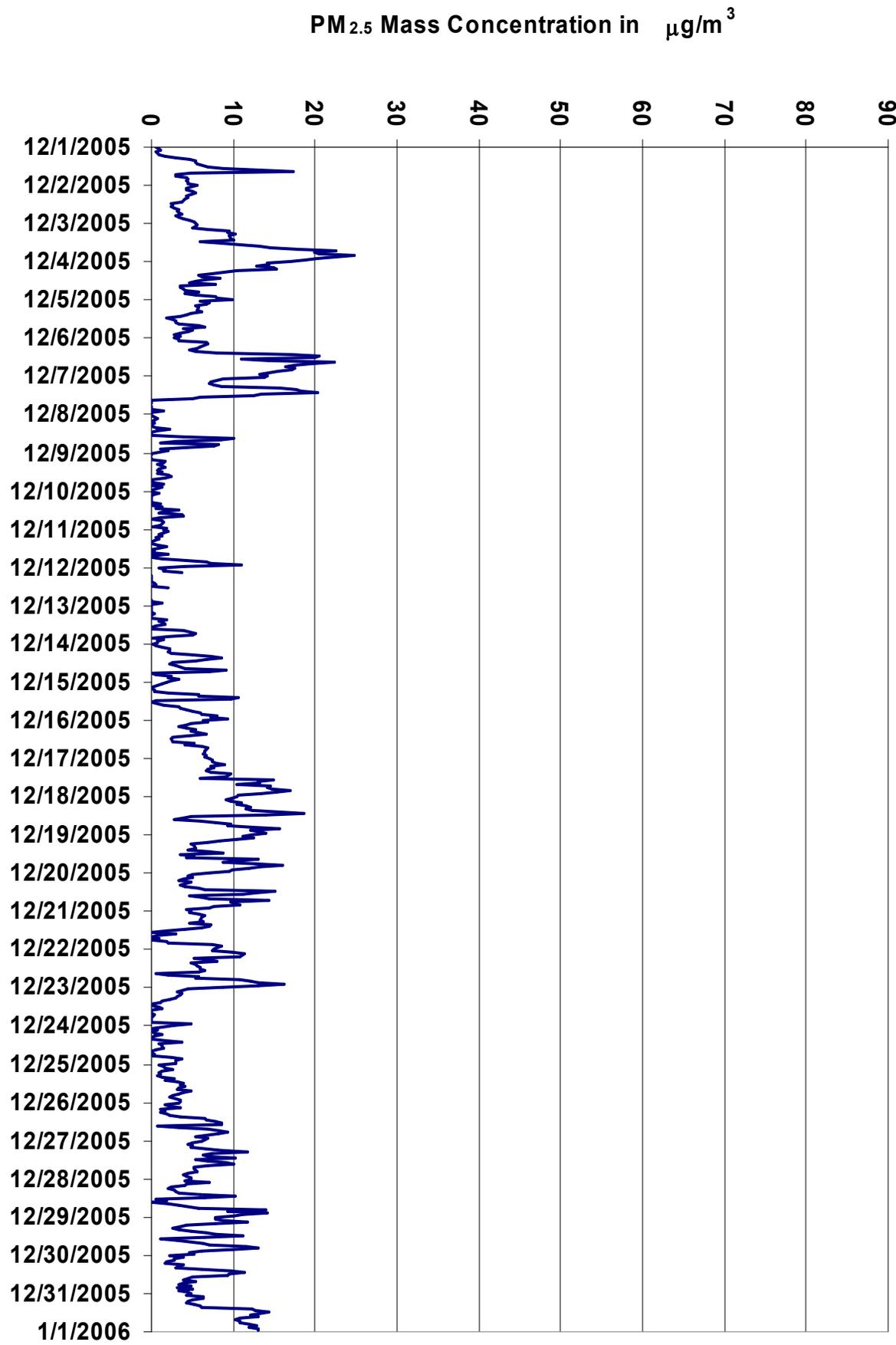


Figure 24. PASZA - Evergreen Park Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Evergreen Park  
 Station Owner: PASZA

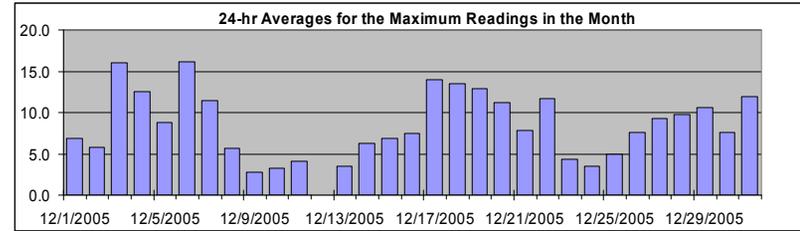
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Average:	31.8	µg/m <sup>3</sup>	3-Dec	20:00 21:00
Maximum 24-hr Value:	16.1	µg/m <sup>3</sup>	6-Dec	



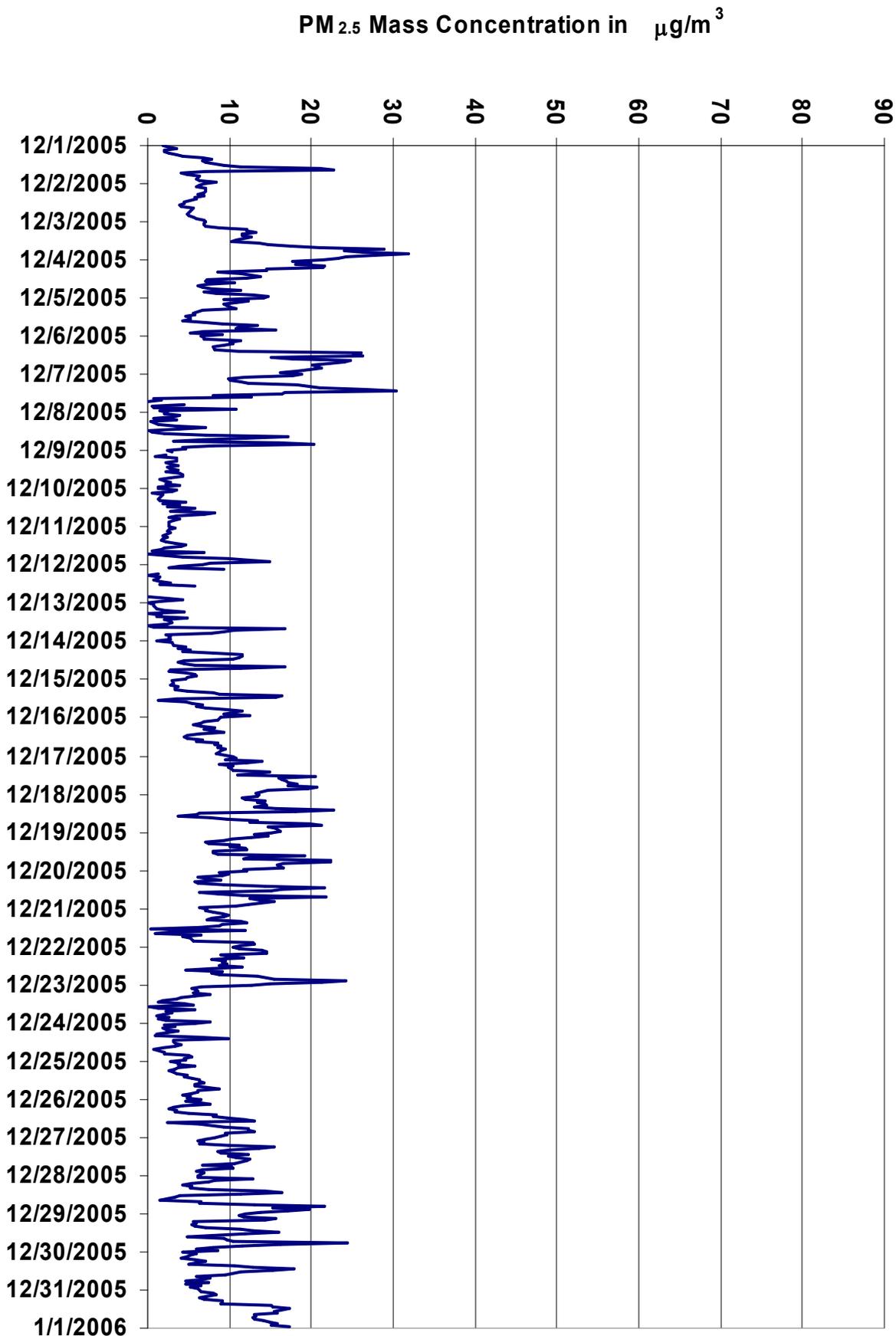
AIC Time:	0 hrs	Operational Time:	735 hrs						
Calibration Time:	6 hrs	AMD Operational Uptime:	99.6%						
Percentile	99	95	75	50	25	5	1	Average / Median	Geomean
	25.8	20.2	11.7	7.0	4.2	1.3	0.2	8.5	8 µg/m <sup>3</sup> , 7.7 µg/m <sup>3</sup>

**Status Flag Characters**

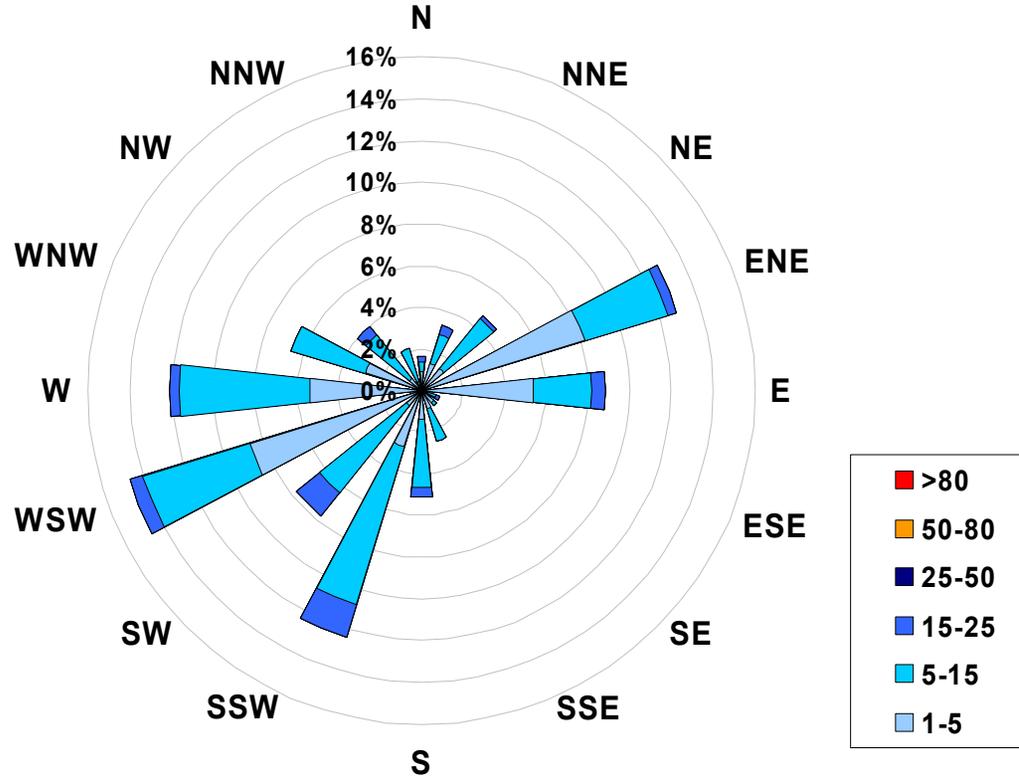
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

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-Dec-05	2	3	4	2	2	3	4	4	7	8	7	7	9	11	21	23	7	4	5	6	6	6	6	8	6.9	22.8
2-Dec-05	7	6	6	7	7	7	7	6	7	6	6	5	4	4	4	6	5	5	5	5	5	6	6	7	5.8	7.1
3-Dec-05	7	7	7	7	9	12	12	13	12	12	13	11	10	14	15	17	21	29	24	26	32	28	24	23	16.0	31.8
4-Dec-05	21	18	20	18	22	21	15	15	9	11	14	12	7	7	11	7	6	7	8	26	7	8	13	15	12.6	21.7
5-Dec-05	14	9	12	11	9	10	10	11	7	5	6	5	5	5	4	7	9	13	11	11	16	7	5	9	8.8	15.7
6-Dec-05	7	7	7	11	10	10	9	8	8	11	26	25	26	15	18	25	24	22	20	21	21	20	18	16	16.1	26.3
7-Dec-05	19	18	12	10	10	11	12	18	21	26	30	17	16	8	13	1	2	0	D	5	1	1	11	2	11.4	30.3
8-Dec-05	2	2	4	3	1	4	0	1	3	7	4	0	1	2	7	17	12	7	3	16	20	8	4	5	5.6	20.4
9-Dec-05	2	3	D	2	1	4	3	2	3	4	2	3	4	2	4	4	4	3	1	2	3	2	4	1	2.8	4.3
10-Dec-05	1	4	3	1	2	1	1	1	5	2	4	2	6	5	3	8	7	4	3	4	3	3	3	3	3.2	8.1
11-Dec-05	3	3	3	2	3	2	2	2	2	2	3	5	4	2	2	1	7	0	2	4	10	12	15	8	4.1	14.9
12-Dec-05	7	4	3	9	D	1	0	2	1	1	1	3	1	6	C	C	C	C	C	C	0	2	4	2	N	9.2
13-Dec-05	0	1	1	1	2	4	0	2	1	5	2	3	3	2	0	1	17	11	9	8	2	3	3	3	3.4	16.8
14-Dec-05	1	3	3	5	4	5	4	8	12	12	11	10	4	4	4	6	17	11	3	3	5	6	6	5	6.3	16.7
15-Dec-05	5	3	3	3	4	3	3	5	8	9	16	16	4	1	5	5	7	6	7	10	12	10	9	12	6.9	16.4
16-Dec-05	9	9	7	6	6	6	8	7	8	9	6	5	5	5	7	6	9	8	9	9	10	9	9	8	7.4	9.6
17-Dec-05	10	11	9	14	12	9	10	10	10	10	15	14	11	21	16	16	17	17	18	17	21	20	15	13	14.0	20.7
18-Dec-05	14	13	11	12	14	13	14	15	13	16	23	18	6	6	4	8	10	13	12	20	21	15	16	16	13.5	22.8
19-Dec-05	15	13	15	13	10	9	7	7	11	10	12	12	8	8	9	19	12	12	22	22	17	16	17	12	12.8	22.4
20-Dec-05	12	9	10	9	6	7	9	6	6	9	14	22	16	15	6	9	11	22	12	14	15	12	11	6	11.3	21.9
21-Dec-05	7	7	8	9	10	9	8	7	11	12	9	9	6	0	12	3	1	7	4	5	6	13	13	11	7.8	13.0
22-Dec-05	10	11	14	14	15	9	10	12	8	9	9	10	9	12	8	5	9	8	9	13	16	24	21	15	11.6	24.2
23-Dec-05	13	7	5	6	6	6	8	6	4	3	2	1	4	6	0	1	6	2	3	1	3	1	2	8	4.3	12.7
24-Dec-05	6	2	3	2	2	4	2	1	1	6	10	3	3	3	4	3	2	1	2	2	5	5	4	5	3.5	9.8
25-Dec-05	3	4	4	6	4	3	3	3	4	5	5	5	6	6	7	6	6	9	6	6	5	4	5	5	5.0	8.8
26-Dec-05	7	5	6	8	4	3	3	3	3	5	8	8	10	12	13	2	6	9	12	12	13	10	10	9	7.6	13.0
27-Dec-05	8	7	6	7	6	10	16	14	10	9	9	12	10	11	13	12	11	7	10	10	7	6	7	7	9.3	15.6
28-Dec-05	6	6	13	8	7	5	4	5	5	7	14	16	11	4	3	2	6	6	13	22	15	20	17	14	9.7	21.6
29-Dec-05	12	11	12	16	14	6	6	5	6	7	11	13	16	12	5	9	10	10	24	16	12	8	6	9	10.7	24.3
30-Dec-05	4	6	5	5	4	6	7	6	5	11	13	18	15	11	9	6	8	7	5	8	5	7	5	6	7.5	17.9
31-Dec-05	6	7	8	8	7	6	7	9	9	9	15	15	17	15	16	13	13	13	13	14	15	16	15	17	11.9	17.4
Hourly Avg	7.8	7.0	7.5	7.6	7.1	6.8	6.6	6.9	7.1	8.4	10.4	9.8	8.4	7.6	8.0	8.3	9.4	9.1	9.6	10.7	10.5	9.9	9.8	9.0		
Hourly Max	21.4	17.7	19.9	18.1	21.7	21.4	15.6	18.2	21.0	26.4	30.3	25.1	26.3	20.5	21.1	24.7	24.0	28.9	24.3	26.3	31.8	27.8	24.3	23.3		

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 December 2005**



**Calms: 0%**

Frequency Distribution of PM <sub>2.5</sub> in µg/m <sup>3</sup>			Frequency (hrs)
Range			
1.0	<	5	405
5	to	15	298
15	to	25	32
25	to	50	0
50	to	80	0
	>	80	0
Total Non-Zero Values			735

## PASZA - Evergreen Park Temperature Monthly Summary

Station: Evergreen Park  
 Station Owner: PASZA

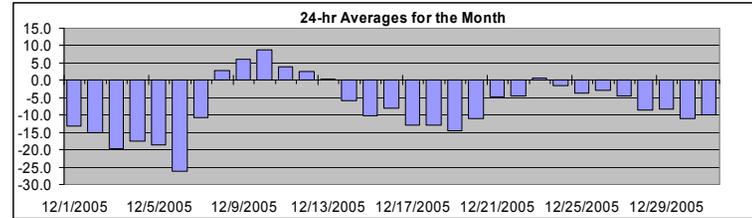
### HOURLY AVERAGE TABLE

### Ambient Temperature (T)

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Average:	11.8	°C	10-Dec	14:00 15:00
Maximum 24-hr Value:	8.8	°C	10-Dec	



AIC Time:	0 hrs	Operational Time:	744 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	9.9	6.5	-1.5	-7.4	-13.8	-23.1	-28.7	-7.5 °C	-7.4 °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 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-Dec-05	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-13	-13	-12	-12	-12	-12	-13	-13	-13	-13	-13	-13	-13	-14	-15	-13.3	-12.1
2-Dec-05	-15	-16	-17	-17	-17	-17	-16	-16	-16	-16	-16	-15	-14	-14	-13	-13	-13	-14	-14	-14	-14	-15	-14	-14	-14	-15.0	-13.2
3-Dec-05	-15	-16	-17	-18	-18	-19	-20	-20	-20	-20	-21	-20	-18	-17	-16	-15	-15	-19	-21	-23	-24	-24	-25	-26	-26	-19.7	-14.8
4-Dec-05	-27	-27	-27	-27	-25	-23	-22	-21	-21	-21	-21	-19	-17	-16	-15	-14	-14	-13	-12	-11	-10	-10	-9	-9	-11	-17.5	-8.6
5-Dec-05	-13	-16	-17	-18	-18	-18	-18	-17	-17	-17	-17	-17	-17	-17	-16	-15	-15	-16	-18	-21	-23	-25	-26	-27	-27	-18.6	-13.0
6-Dec-05	-28	-28	-29	-29	-30	-30	-31	-31	-31	-31	-31	-27	-23	-22	-20	-18	-19	-22	-24	-25	-26	-26	-26	-26	-26	-26.1	-18.1
7-Dec-05	-25	-24	-23	-23	-23	-23	-22	-20	-18	-17	-15	-13	-10	-6	-1	1	2	1	0	0	1	1	1	0	0	-10.7	1.6
8-Dec-05	1	1	2	2	1	-1	-3	-4	-3	0	4	4	5	5	5	5	4	5	5	4	6	6	6	7	2.8	6.7	
9-Dec-05	6	5	6	6	7	7	6	6	5	5	6	7	7	7	6	6	6	6	6	6	6	6	6	6	6.1	7.1	
10-Dec-05	6	6	6	6	8	8	7	7	7	8	9	9	11	12	12	11	10	10	10	10	9	9	9	9	8.8	11.8	
11-Dec-05	9	9	8	8	8	8	7	7	7	4	2	2	5	6	5	5	3	0	-1	-2	-2	-3	-2	-1	3.8	8.6	
12-Dec-05	-3	-4	-4	-1	5	5	5	4	4	4	4	4	4	5	5	5	4	4	3	2	2	1	1	1	0	2.5	5.3
13-Dec-05	1	1	1	1	1	0	-1	-1	1	1	1	1	2	2	3	2	1	0	0	-1	-1	-2	-2	-3	0.4	3.0	
14-Dec-05	-3	-3	-4	-6	-7	-6	-6	-8	-8	-7	-6	-4	-2	-1	-1	-2	-4	-6	-8	-9	-10	-10	-10	-10	-5.8	-1.0	
15-Dec-05	-10	-9	-10	-10	-11	-11	-12	-13	-14	-14	-12	-10	-9	-7	-8	-8	-10	-10	-11	-10	-10	-10	-9	-9	-10.3	-7.4	
16-Dec-05	-9	-8	-8	-8	-8	-8	-8	-8	-8	-8	-7	-7	-6	-6	-6	-6	-8	-8	-9	-8	-9	-9	-10	-11	-8.0	-5.7	
17-Dec-05	-12	-12	-12	-13	-14	-15	-15	-16	-16	-16	-14	-10	-9	-7	-7	-7	-10	-12	-13	-14	-15	-15	-16	-16	-12.9	-7.5	
18-Dec-05	-16	-17	-17	-17	-17	-17	-18	-18	-18	-18	-15	-9	-6	-4	-4	-4	-7	-10	-12	-13	-14	-14	-15	-15	-13.0	-3.6	
19-Dec-05	-15	-16	-17	-17	-17	-18	-18	-18	-18	-18	-16	-11	-8	-6	-5	-7	-10	-13	-14	-15	-16	-17	-18	-18	-14.4	-5.3	
20-Dec-05	-18	-18	-18	-17	-17	-17	-15	-14	-13	-13	-11	-10	-9	-7	-6	-5	-5	-6	-6	-6	-7	-7	-8	-9	-10.9	-5.3	
21-Dec-05	-10	-10	-11	-11	-10	-9	-8	-8	-8	-8	-7	-1	1	5	6	3	-1	-2	-3	-4	-5	-5	-5	-4	-4.7	6.4	
22-Dec-05	-3	-3	-3	-4	-4	-4	-5	-6	-6	-7	-6	-4	-3	-1	1	-1	-3	-4	-6	-7	-8	-8	-7	-7	-4.5	1.2	
23-Dec-05	-6	-5	-5	-5	-4	-4	-1	1	2	3	4	4	6	7	8	7	6	5	4	1	-1	-2	-3	-3	0.7	7.7	
24-Dec-05	-3	-3	-3	-2	-2	-1	-1	-1	-2	-3	-3	-2	-1	0	0	0	0	0	-1	-2	-2	-3	-3	-3	-1.6	0.4	
25-Dec-05	-3	-4	-5	-5	-5	-5	-6	-6	-6	-6	-6	-4	-3	-2	-1	-1	-1	-2	-2	-2	-3	-3	-4	-5	-3.7	-0.8	
26-Dec-05	-5	-5	-5	-3	-4	-4	-5	-5	-4	-4	-3	-2	-2	-1	-1	-1	-2	-2	-2	-2	-2	-2	-1	-1	-3.0	-0.6	
27-Dec-05	-2	-2	-3	-4	-5	-5	-5	-5	-5	-6	-6	-5	-4	-4	-3	-3	-3	-3	-3	-4	-5	-7	-8	-9	-4.6	-1.8	
28-Dec-05	-10	-10	-11	-10	-11	-11	-11	-11	-12	-12	-10	-6	-3	-3	-3	-4	-6	-7	-8	-9	-10	-10	-11	-10	-8.7	-2.5	
29-Dec-05	-10	-10	-10	-10	-10	-9	-9	-9	-10	-11	-10	-9	-7	-6	-3	0	0	-3	-5	-8	-9	-10	-11	-12	-13	-8.2	-0.1
30-Dec-05	-14	-14	-15	-15	-15	-16	-15	-14	-15	-15	-14	-11	-9	-8	-7	-8	-8	-8	-8	-8	-8	-7	-7	-7	-7	-11.1	-7.2
31-Dec-05	-7	-7	-7	-7	-7	-10	-11	-12	-13	-14	-13	-10	-8	-7	-7	-8	-9	-11	-11	-11	-12	-12	-11	-13	-10.0	-6.6	
Hourly Avg	-8.8	-9.0	-9.3	-9.3	-9.2	-9.3	-9.3	-9.4	-9.5	-9.3	-8.2	-6.3	-4.9	-3.8	-3.1	-3.5	-4.8	-5.9	-6.6	-7.2	-7.6	-8.0	-8.2	-8.5			
Hourly Max	8.6	8.5	8.2	8.3	8.4	8.1	7.5	7.4	7.2	7.7	8.6	8.8	9.4	10.9	11.8	11.7	11.1	10.4	10.2	10.4	10.1	9.5	9.0	8.8			

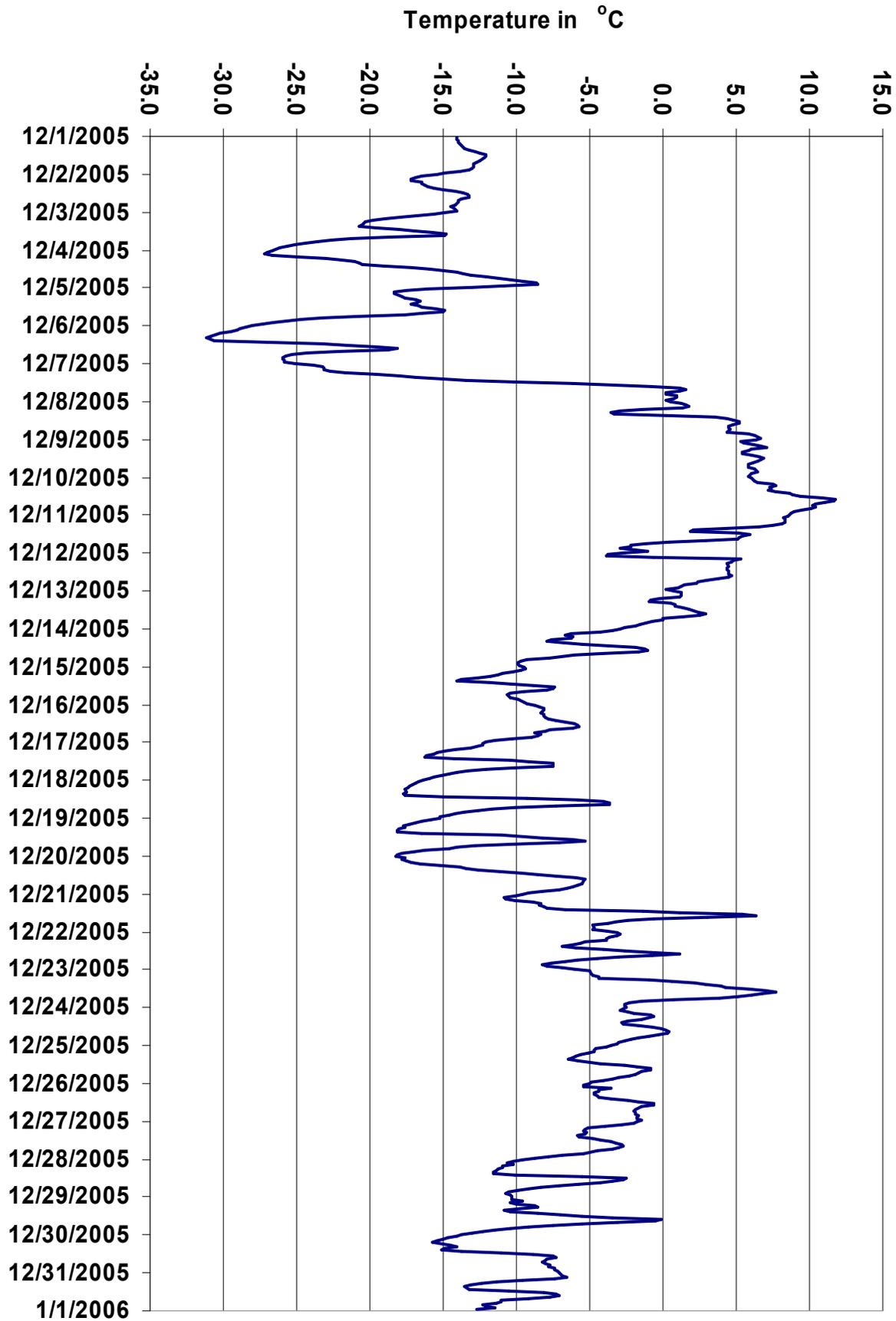


Figure 26. PASZA - Evergreen Park Temperature 1-hr Average Monthly Trend

### PASZA - Evergreen Park Scalar Wind Speed Monthly Summary

Station: Evergreen Park  
 Station Owner: PASZA

#### HOURLY AVERAGE TABLE

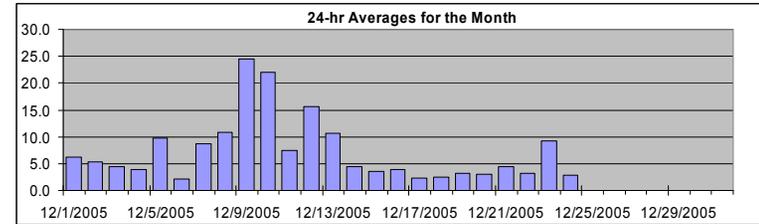
#### Wind Speed (WSs)

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Average:	38.6	km/hr	9-Dec	5:00 6:00
Maximum 24-hr Value:	24.6	km/hr	9-Dec	

Calm Time:	0 hrs	0% calms	Operational Time:	570 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	76.6%				
Percentile	99	95	75	50	25	5	1	AverageS
	30.0	22.8	9.3	4.0	2.7	1.8	1.3	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 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-Dec-05	5	4	4	4	4	4	4	4	4	5	5	7	6	6	7	7	8	7	8	8	8	8	8	8	9	11	6.2	10.5
2-Dec-05	9	8	7	7	4	6	8	8	6	7	6	6	6	7	6	4	2	3	3	3	3	2	2	3	3	5.3	9.3	
3-Dec-05	6	7	8	7	6	5	4	6	6	5	5	8	7	5	4	3	3	1	1	2	1	1	1	2	4.4	7.9		
4-Dec-05	2	2	2	2	3	3	3	2	3	2	3	3	3	4	4	5	5	4	3	3	3	3	8	19	3.9	19.3		
5-Dec-05	17	20	20	13	12	15	13	13	13	14	12	11	12	11	9	7	7	6	2	2	2	2	2	2	2	9.9	20.0	
6-Dec-05	1	1	2	2	2	2	2	2	2	1	2	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2.1	3.4	
7-Dec-05	2	2	4	3	2	2	2	5	4	5	5	4	5	5	16	24	24	19	12	17	19	16	8	6	8.8	24.1		
8-Dec-05	6	8	7	6	5	2	3	4	4	12	15	14	19	17	12	11	13	15	11	9	14	14	17	20	10.8	20.2		
9-Dec-05	20	13	15	13	28	39	34	33	27	24	28	29	29	29	25	25	22	21	22	21	23	28	20	21	24.6	38.6		
10-Dec-05	23	21	16	20	28	23	17	13	8	9	12	14	15	25	34	32	29	27	27	31	28	24	26	22	21.9	34.3		
11-Dec-05	20	19	20	19	18	14	10	6	4	2	3	3	4	3	3	3	2	3	2	3	4	4	6	5	7.5	19.8		
12-Dec-05	4	5	4	10	24	17	19	21	19	17	14	16	17	15	19	19	18	15	16	19	16	16	14	17	15.5	24.1		
13-Dec-05	10	12	14	14	14	8	2	5	12	14	11	13	12	10	11	10	9	7	13	14	14	11	8	8	10.7	14.2		
14-Dec-05	7	6	4	4	4	5	6	3	4	4	4	5	7	7	6	5	2	2	2	2	3	4	5	5	4.5	7.3		
15-Dec-05	6	6	6	5	4	4	3	2	2	1	2	3	2	3	4	3	4	4	3	4	4	4	3	3	3.6	6.1		
16-Dec-05	3	3	4	4	4	4	4	4	4	5	5	5	5	5	5	4	4	4	4	3	4	3	3	2	3.9	5.1		
17-Dec-05	4	4	4	2	2	2	2	3	2	1	1	2	2	3	4	3	2	2	2	2	3	2	1	2	2.3	3.9		
18-Dec-05	1	2	2	2	2	3	2	3	2	2	2	3	3	4	5	4	3	1	2	2	2	2	3	2	2.5	5.1		
19-Dec-05	3	3	3	2	2	2	4	3	4	4	3	2	2	3	3	5	2	3	3	4	3	4	3	3	3.1	5.3		
20-Dec-05	3	3	3	2	2	3	2	3	2	2	2	2	3	5	4	4	3	4	2	3	4	3	5	3	3.1	5.3		
21-Dec-05	3	2	3	3	4	4	4	3	4	2	4	6	7	14	10	3	3	5	4	3	4	3	4	4	4.4	13.8		
22-Dec-05	3	3	3	4	4	4	3	4	5	3	2	2	3	3	3	5	3	3	3	3	4	3	3	3	3.2	5.4		
23-Dec-05	4	4	4	3	3	3	8	9	9	13	18	14	10	15	20	20	22	18	8	4	2	3	2	3	9.2	22.5		
24-Dec-05	3	2	3	3	2	4	3	4	3	3	3	3	3	2	3	4	2	2	N	N	N	N	N	N	2.9	4.5		
25-Dec-05	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	
26-Dec-05	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	
27-Dec-05	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	
28-Dec-05	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	
29-Dec-05	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	
30-Dec-05	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	
31-Dec-05	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	
1-hr Average	6.9	6.6	6.7	6.4	7.7	7.4	6.8	6.8	6.4	6.6	7.0	7.4	7.6	8.6	9.2	9.0	8.1	7.6	N	N	N	N	N	N	N			
Hourly Max	23.0	20.7	20.0	20.4	28.4	38.6	34.4	33.1	27.0	24.4	28.1	29.1	28.7	29.2	34.3	32.0	29.5	27.2	27.2	31.0	28.5	27.8	26.4	21.8				

### PASZA - Evergreen Park Vector Wind Speed Monthly Summary

Station: Evergreen Park  
 Station Owner: PASZA

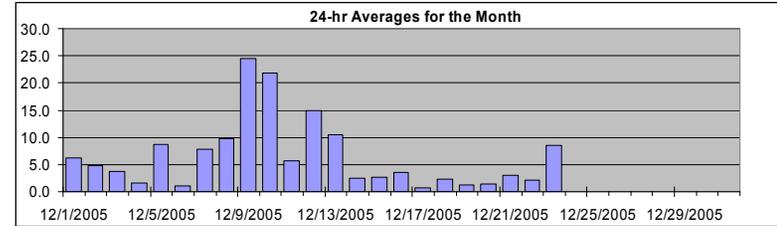
#### HOURLY AVERAGE TABLE

#### Wind Speed (WSv)

Monitoring Dates: December 1, 2005 to January 1, 2006

#### Summary

Maximum 1-hr Average:	38.5	km/hr	9-Dec	5:00 6:00
Maximum 24-hr Value:	24.5	km/hr	9-Dec	



Calm Time:	37 hrs	5% calms	Operational Time:	533 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	76.6%				
Percentile	99	95	75	50	25	5	1	AverageV
	30.4	23.3	10.2	3.8	2.0	1.1	0.9	18.8 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	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-Dec-05	5	3	3	4	4	4	4	4	5	5	6	6	5	7	7	8	7	8	8	8	8	8	9	10		6.1	10.2	
2-Dec-05	9	8	7	6	4	6	8	8	5	7	6	6	6	6	6	3	2	2	3	3	3	2	2	3		4.7	9.2	
3-Dec-05	6	7	8	7	6	4	4	6	6	5	4	8	7	5	3	2	2	calm	1	calm	1	calm	calm	1		3.7	7.8	
4-Dec-05	calm	1	1	calm	1	3	3	2	2	1	2	1	3	4	3	4	2	2	1	1	1	3	7	19		1.6	19.0	
5-Dec-05	16	20	20	12	12	14	12	12	13	13	12	11	11	11	9	7	7	6	1	2	1	2	1	calm		8.8	19.7	
6-Dec-05	calm	1	2	2	2	2	calm	1	calm	calm	1	3	3	3	2	3	3	calm	calm	1	2	2	2	2		1.0	3.0	
7-Dec-05	2	2	4	3	2	2	1	5	3	4	4	4	4	4	16	24	24	19	12	17	19	16	7	5		7.9	24.1	
8-Dec-05	6	7	7	6	4	2	2	3	4	11	15	14	18	17	12	11	13	15	11	9	13	14	17	20		9.7	20.1	
9-Dec-05	20	13	15	13	28	38	34	33	27	24	28	29	29	29	25	25	22	21	22	21	22	28	20	21		24.5	38.5	
10-Dec-05	23	21	16	20	28	23	17	12	8	9	12	14	14	25	34	32	29	27	27	31	28	24	26	22		21.8	34.1	
11-Dec-05	20	19	20	19	18	13	10	5	2	1	calm	3	3	2	3	2	1	3	calm	2	2	2	6	5		5.6	19.7	
12-Dec-05	3	4	3	9	24	17	19	21	18	17	14	16	17	15	19	19	17	15	16	19	16	16	14	16		14.9	23.9	
13-Dec-05	10	12	14	13	14	7	2	4	12	14	11	13	12	10	10	10	9	7	13	14	14	11	8	8		10.4	13.8	
14-Dec-05	7	6	4	3	3	5	6	3	4	4	4	4	6	7	5	4	1	1	2	2	2	4	5	5		2.5	7.3	
15-Dec-05	6	6	6	5	4	4	3	1	1	1	1	3	1	1	4	3	4	4	3	4	3	4	3	3		2.7	6.0	
16-Dec-05	2	2	3	4	3	4	3	4	4	4	5	5	4	4	5	4	3	4	3	2	3	3	2	2		3.5	4.8	
17-Dec-05	4	4	4	2	1	1	calm	1	calm	calm	1	2	1	1	3	3	1	2	calm	2	3	2	1	2		0.7	3.7	
18-Dec-05	1	2	2	calm	1	3	1	3	2	2	2	3	2	4	5	4	2	calm	1	2	2	calm	2	1		2.2	5.0	
19-Dec-05	3	2	1	2	calm	2	3	2	2	3	1	calm	1	calm	3	5	calm	2	1	2	2	3	1	2		1.2	5.0	
20-Dec-05	2	2	1	calm	calm	1	calm	1	1	1	1	calm	2	5	2	3	2	4	calm	2	3	2	4	2		1.4	5.0	
21-Dec-05	2	1	1	2	2	3	3	2	3	1	4	6	3	14	7	2	2	3	2	1	1	3	calm	calm		3.0	13.6	
22-Dec-05	1	1	1	1	4	2	1	3	5	3	2	1	calm	calm	2	5	1	1	calm	1	3	1	3	1		2.1	5.4	
23-Dec-05	3	4	1	1	2	2	8	9	9	13	18	14	10	15	20	20	22	18	7	3	2	1	1	2		8.6	22.3	
24-Dec-05	2	2	calm	2	1	3	3	4	3	1	2	3	2	1	2	4	1	1	N	N	N	N	N	N		N	4.4	
25-Dec-05	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
26-Dec-05	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
27-Dec-05	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
28-Dec-05	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
29-Dec-05	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
30-Dec-05	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
31-Dec-05	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
1-hr Vector	N	3.4	N	N	N	4.5	N	3.9	N	N	N	N	N	N	6.0	5.3	N	N	N	N	N	N	N	N				
Hourly Max	22.9	20.6	19.7	20.3	28.3	38.5	34.2	33.0	26.9	24.3	28.0	29.0	28.6	29.0	34.1	31.7	29.2	27.0	27.1	30.9	28.3	27.7	26.3	21.7				



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

Station: Evergreen Park  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

**Wind Direction (WD)**

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**


Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	570 hrs
Calibration Time:	0 hrs		AMD Operational Uptime:	76.6%
Percentile	99	95	75	50
	69.8	58.1	34.0	18.6
			8.5	4.9
				4.2

**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

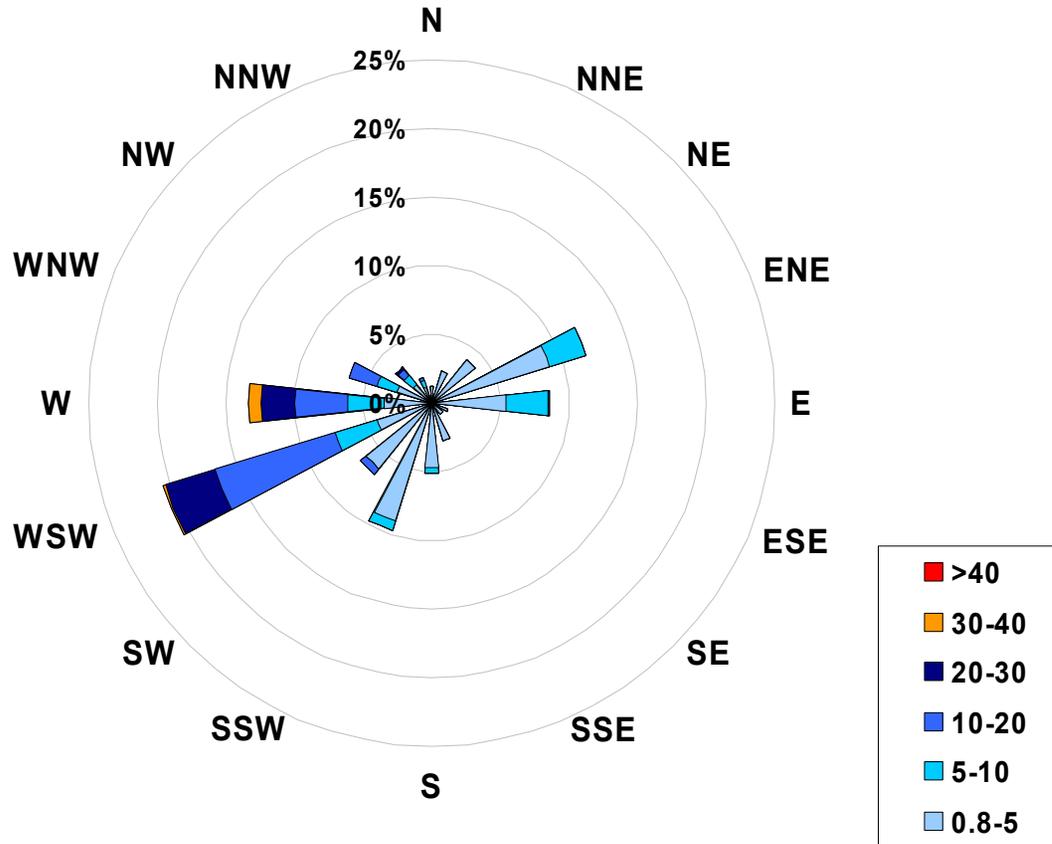
**Day Mountain Standard Time**

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-Dec-05	17	28	31	22	18	23	23	16	16	16	15	17	23	18	19	17	15	13	13	13	13	11	14	
2-Dec-05	12	12	12	12	17	15	10	14	20	15	17	19	20	18	20	20	21	19	10	14	10	23	17	21
3-Dec-05	7	8	7	6	8	12	17	7	7	11	12	10	10	14	19	27	13	27	39	28	9	57	25	25
4-Dec-05	45	37	41	40	48	23	24	41	56	45	61	53	23	24	28	31	68	69	62	54	62	28	22	8
5-Dec-05	14	9	9	15	13	13	12	12	12	12	13	15	16	13	16	14	9	7	32	29	52	45	37	34
6-Dec-05	28	35	6	9	6	25	49	40	44	29	18	29	16	25	40	25	22	24	42	48	24	20	17	20
7-Dec-05	21	19	7	16	15	20	33	15	23	16	15	12	21	33	11	4	5	6	8	4	6	5	18	17
8-Dec-05	11	13	12	12	26	45	44	18	16	7	7	6	7	7	6	8	5	4	5	28	10	6	4	5
9-Dec-05	6	6	6	8	5	5	5	5	5	5	6	5	5	5	6	5	5	5	5	6	7	5	4	4
10-Dec-05	5	6	7	6	6	6	6	5	8	7	7	5	8	7	6	7	7	6	5	5	5	4	4	4
11-Dec-05	5	6	4	5	5	7	7	23	23	25	42	22	22	40	26	21	41	24	65	32	37	45	9	16
12-Dec-05	27	27	55	20	5	6	5	6	6	5	7	6	6	6	5	6	4	4	5	5	5	6	12	7
13-Dec-05	11	7	8	7	9	17	48	8	5	5	10	9	9	12	15	9	8	8	5	5	5	7	8	7
14-Dec-05	4	6	16	26	20	15	13	21	11	11	19	15	15	11	14	10	35	31	16	10	52	11	11	7
15-Dec-05	8	12	11	12	18	15	21	25	36	32	29	30	55	63	22	26	13	11	22	14	18	25	20	24
16-Dec-05	33	45	20	20	21	31	19	20	18	24	19	27	25	18	16	21	28	15	25	32	21	21	29	13
17-Dec-05	9	9	27	44	50	20	70	34	26	36	46	42	58	42	14	19	26	23	41	17	9	7	6	7
18-Dec-05	19	11	13	31	6	7	41	13	8	34	10	9	19	11	9	12	23	16	39	10	6	43	48	34
19-Dec-05	14	43	33	49	62	24	38	74	27	36	37	51	61	32	36	15	34	50	34	41	46	41	45	56
20-Dec-05	42	23	55	57	66	42	71	65	38	52	66	80	62	20	43	23	57	37	59	42	51	24	22	53
21-Dec-05	68	72	46	70	63	25	36	61	28	29	26	13	26	5	36	54	33	46	31	39	52	20	36	60
22-Dec-05	67	50	54	40	20	29	39	26	13	29	22	52	54	54	45	15	34	58	70	58	52	35	17	36
23-Dec-05	47	35	67	25	19	44	5	8	5	5	4	4	8	5	7	6	6	4	19	21	57	58	31	35
24-Dec-05	27	46	52	43	52	43	31	9	32	46	28	43	34	57	52	24	55	54	N	N	N	N	N	N
25-Dec-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
26-Dec-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
27-Dec-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
28-Dec-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
29-Dec-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
30-Dec-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
31-Dec-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Daily Maximum
31.1
22.8
56.6
69.5
52.0
49.1
33.4
44.9
7.7
8.3
65.4
55.4
47.9
51.7
62.8
44.9
70.0
47.6
74.0
79.7
72.3
69.7
66.8
57.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0

Hourly Max	68	72	67	70	66	45	71	74	56	52	66	80	62	63	52	54	68	69	70	58	62	58	48	60
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**1-hr Average Wind Rose (in km/hr) Located at the Evergreen Park Site for December 2005**



**Calms: 0%**

Frequency Distribution of Wind in km/hr			Frequency (hrs)
Range			
0.8	< 5		344
5	to 10		89
10	to 20		94
20	to 30		37
30	to 40		6
	> 40		0
Total Non-Zero Values			570

# PASZA - Smoky Heights

## Monthly Summary Tables, Graphs, and Roses

### PASZA - Smoky Heights Sulphur Dioxide Monthly Summary

Station: Smoky Heights  
 Station Owner: PASZA

#### HOURLY AVERAGE TABLE

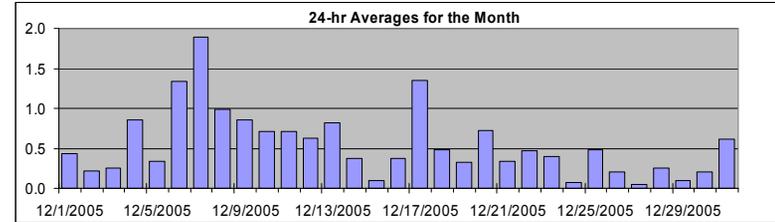
#### Sulphur Dioxide (SO<sub>2</sub>)

Monitoring Dates: December 1, 2005 to January 1, 2006

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:	5.3 ppb 8-Dec 6:00 7:00
Maximum 24-hr Average:	1.9 ppb 7-Dec



AIC Time:	33 hrs	Operational Time:	707 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	3.5	2.0	0.7	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	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-Dec-05	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	A	1	1	2	2	0.4	2.0	
2-Dec-05	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	1.6
3-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	1	1	1	0.3	1.1	
4-Dec-05	0	0	0	0	0	0	0	0	0	1	2	1	2	2	1	1	A	0	0	1	1	1	1	1	1	0.9	2.3
5-Dec-05	1	1	1	1	1	1	0	0	0	0	0	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0.3	0.9
6-Dec-05	0	0	0	0	0	0	0	0	0	0	0	1	1	1	A	2	2	4	5	5	4	3	1	1	1.3	5.2	
7-Dec-05	2	2	2	2	2	2	2	2	2	1	2	2	2	A	2	2	2	3	5	1	2	1	0	1	1.9	5.1	
8-Dec-05	1	1	3	2	1	2	5	1	0	1	1	1	A	0	0	0	3	0	0	0	0	0	0	0	1.0	5.3	
9-Dec-05	0	0	0	0	0	0	1	1	1	0	0	A	1	0	0	0	3	3	2	1	3	0	0	2	0.9	3.5	
10-Dec-05	1	0	0	0	0	0	1	1	1	2	A	0	0	0	0	2	1	1	2	1	0	0	1	2	0.7	2.3	
11-Dec-05	0	0	1	0	2	2	0	2	5	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.7	5.2	
12-Dec-05	0	0	0	0	0	0	3	0	A	0	0	0	1	1	2	0	0	0	1	2	2	1	0	0	0.6	2.5	
13-Dec-05	1	1	0	1	1	0	0	A	0	0	C	C	C	C	A	3	1	1	1	1	1	2	1	1	0.8	2.6	
14-Dec-05	1	1	0	0	0	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	1.5	
15-Dec-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
16-Dec-05	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	2	2	0.4	2.0
17-Dec-05	1	1	A	1	1	1	1	1	2	1	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1.4	2.2	
18-Dec-05	1	A	1	0	0	1	1	0	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0.5	1.2	
19-Dec-05	A	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	A	0.3	0.6	
20-Dec-05	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	1	0	A	0.7	1.3	
21-Dec-05	0	0	0	1	1	1	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	A	0	0.3	0.7	
22-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	A	1	1	1	0.5	1.0	
23-Dec-05	1	1	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0.4	1.1	
24-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.3	
25-Dec-05	0	0	0	0	1	1	1	1	1	0	1	0	1	1	1	1	0	A	0	0	0	0	0	0	0.5	1.0	
26-Dec-05	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.8	
27-Dec-05	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	0.4	
28-Dec-05	0	0	0	0	1	0	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	1.0	
29-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.5	
30-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0	1	0.2	0.9	
31-Dec-05	1	1	1	1	1	1	1	0	0	0	1	A	1	1	1	1	0	0	0	0	0	1	1	1	0.6	1.2	
Hourly Avg	0.5	0.4	0.4	0.4	0.5	0.5	0.7	0.5	0.6	0.4	0.4	0.6	0.7	0.6	0.6	0.6	0.6	0.7	0.6	0.7	0.6	0.6	0.5	0.5	0.6		
Hourly Max	1.7	1.9	2.5	2.1	2.3	2.1	5.3	2.0	5.2	1.8	2.0	2.0	2.3	2.2	2.4	2.6	3.2	3.7	5.1	5.2	3.9	2.5	2.0	2.0			

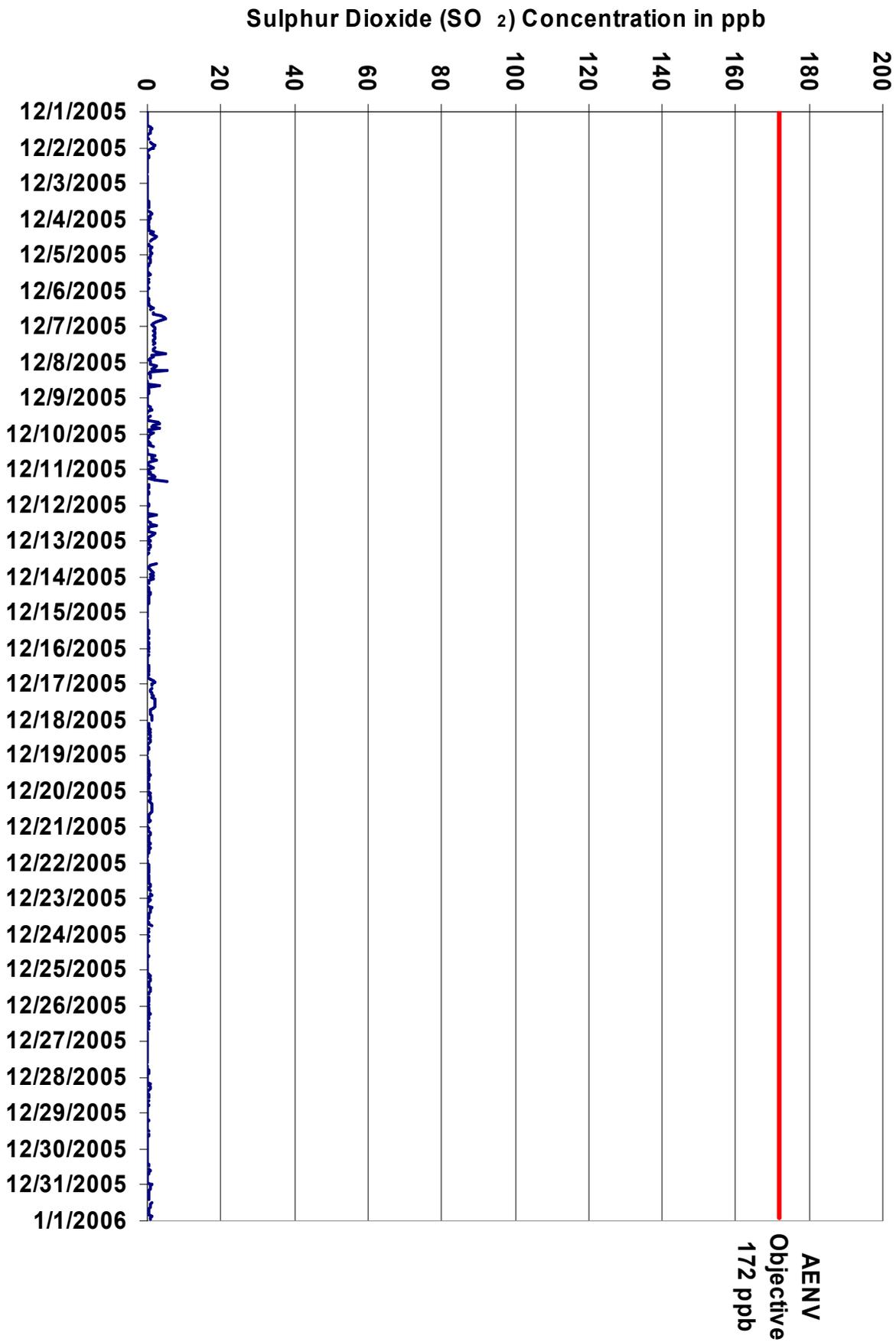


Figure 27. PASZA - Smoky Heights Sulphur Dioxide 1-hr Average Monthly Trend

Station: Smoky Heights  
 Station Owner: PASZA

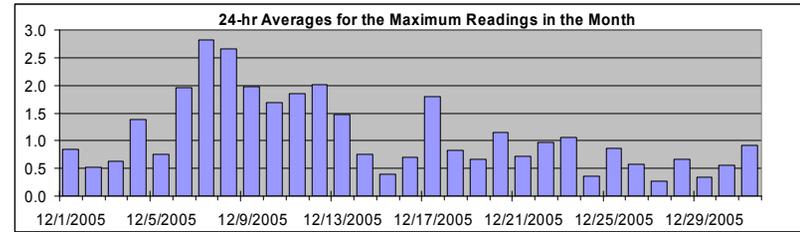
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Value:	16.4	ppb	8-Dec	16:00 17:00
Maximum 24-hr Value:	2.8	ppb	7-Dec	



AIC Time:	33 hrs	Operational Time:	707 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	7.0	3.0	1.2	0.7	0.4	0.2	0.0	1.1 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																								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-Dec-05	0	0	0	0	0	0	0	0	0	0	2	2	1	2	1	0	0	1	1	A	1	2	2	2	0.8	2.4
2-Dec-05	2	2	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.5	2.1
3-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	A	0	2	2	2	1	1	0.6	2.1	
4-Dec-05	1	1	1	0	1	1	1	1	1	3	2	3	3	3	2	1	A	1	1	2	1	1	2	2	1.4	2.8
5-Dec-05	1	1	1	1	1	1	1	1	1	0	0	0	2	1	1	A	1	1	0	0	0	0	0	1	0.7	1.7
6-Dec-05	0	0	0	0	0	0	1	0	0	1	1	2	2	1	A	2	3	5	6	7	5	3	2	2	2.0	7.4
7-Dec-05	2	3	3	3	3	2	2	2	3	2	2	2	2	A	3	2	2	4	12	3	2	3	1	2	2.8	11.9
8-Dec-05	1	1	6	3	2	4	13	1	1	2	1	2	A	1	0	1	16	1	1	1	1	1	0	1	2.7	16.4
9-Dec-05	0	0	0	0	0	0	2	2	2	1	0	A	2	1	0	1	8	5	4	4	7	1	1	3	2.0	7.5
10-Dec-05	3	1	1	0	0	2	3	2	2	5	A	0	0	0	0	3	3	3	3	2	0	0	2	2	1.7	5.2
11-Dec-05	1	0	5	1	4	5	1	6	10	A	1	1	1	0	0	1	1	1	0	0	0	0	1	1	1.8	10.0
12-Dec-05	1	0	0	0	0	1	6	1	A	0	0	3	3	4	10	1	1	1	2	5	3	3	0	1	2.0	10.1
13-Dec-05	2	1	1	1	1	1	1	A	1	1	C	C	C	C	A	3	1	1	1	1	3	3	2	3	1.5	3.2
14-Dec-05	1	2	1	1	1	A	0	1	1	1	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0.7	1.8
15-Dec-05	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	0	1	1	1	0	1	1	0	1	0.4	0.9
16-Dec-05	1	0	1	A	1	1	0	0	0	0	0	0	1	1	1	1	1	0	0	0	1	1	2	2	0.7	2.2
17-Dec-05	2	2	A	2	1	1	1	2	2	2	2	2	2	2	2	3	2	1	1	1	1	1	2	2	1.8	2.5
18-Dec-05	2	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0.8	1.7
19-Dec-05	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	A	0.7	0.9
20-Dec-05	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1	1	1	1	1	1	2	1	A	0	1.1	1.8
21-Dec-05	0	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	0	1	0	0	0	A	0	0	0.7	1.6
22-Dec-05	0	1	1	1	1	0	1	0	1	1	1	1	1	1	2	1	1	1	1	3	A	2	2	1	1.0	3.3
23-Dec-05	1	1	1	1	0	1	4	3	1	2	1	1	1	1	0	1	1	2	2	A	1	0	1	1	1.1	3.6
24-Dec-05	0	1	1	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0	1	0	0.4	0.8
25-Dec-05	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.9	1.4
26-Dec-05	1	1	1	1	1	2	0	0	1	1	0	1	1	1	0	1	A	0	0	0	0	0	0	0	0.6	2.3
27-Dec-05	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0	1	1	1	0	0	0.3	0.7
28-Dec-05	0	0	0	0	3	0	2	1	2	0	0	1	1	0	A	1	0	0	0	1	0	0	0	0	0.7	3.0
29-Dec-05	0	0	0	0	0	0	0	0	0	0	0	1	0	A	1	1	0	0	0	0	0	0	0	0	0.3	0.7
30-Dec-05	0	0	0	0	0	0	0	0	1	0	1	1	A	1	1	1	0	0	0	0	0	0	0	2	0.6	1.6
31-Dec-05	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	1	1	0.9	1.6
Hourly Avg	0.9	0.8	1.0	0.8	0.9	1.1	1.5	1.1	1.2	1.0	0.8	1.1	1.2	1.0	1.2	1.1	1.6	1.1	1.5	1.3	1.2	1.1	0.9	1.1		
Hourly Max	2.6	2.6	6.3	3.0	4.3	5.4	13.4	5.9	10.0	5.2	2.4	2.6	3.5	3.7	10.1	3.2	16.4	5.3	11.9	7.4	7.0	3.3	2.4	3.4		

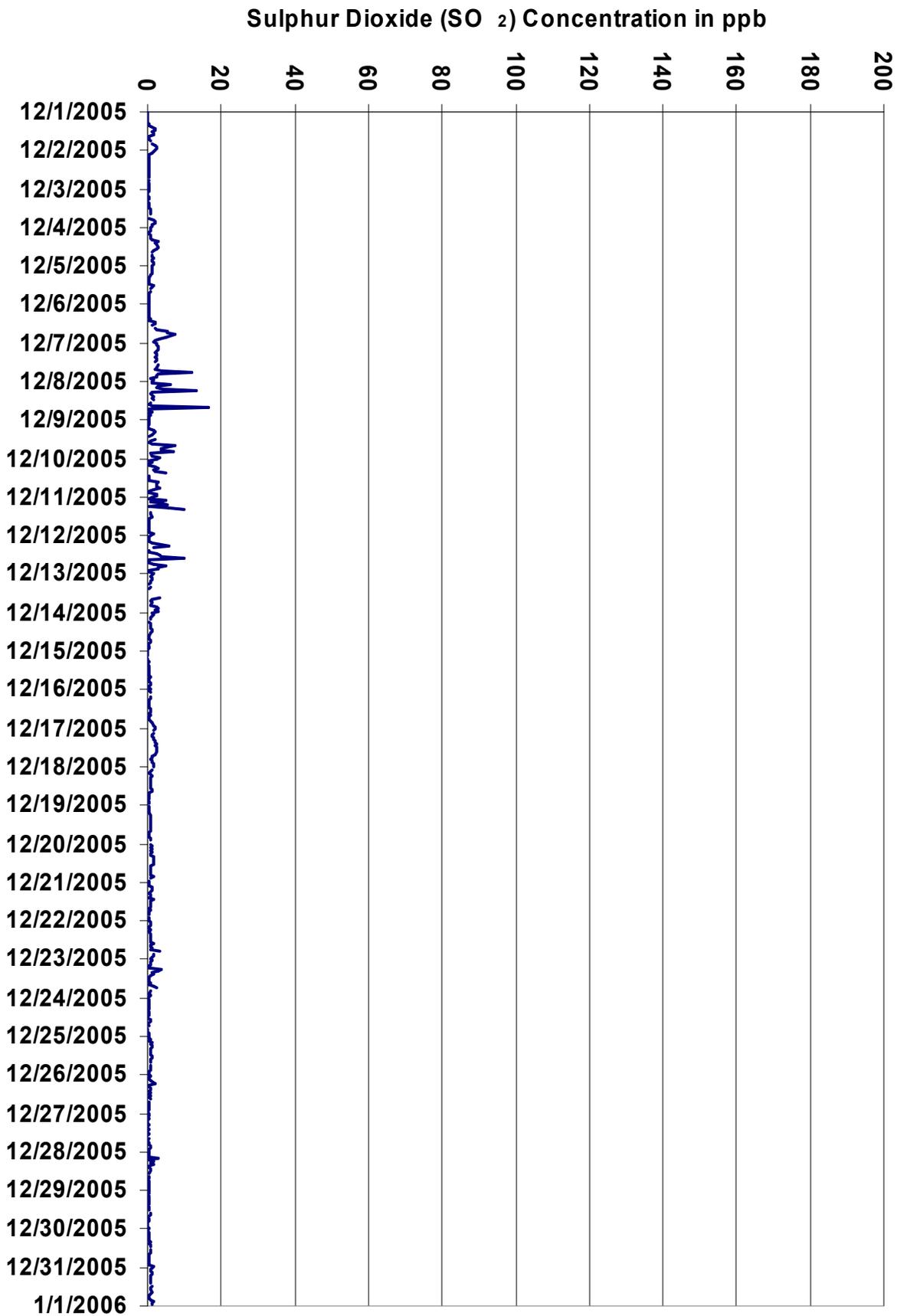
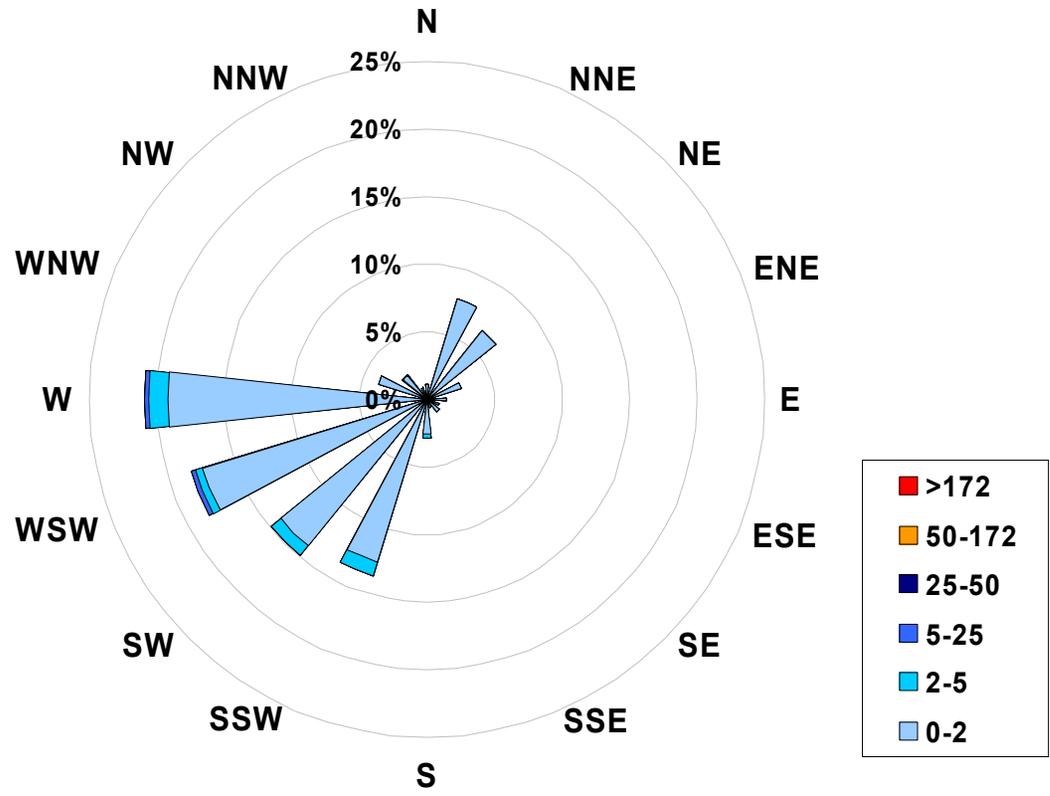


Figure 28. PASZA - Smoky Heights Sulphur Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Sulphur Dioxide (in ppb) Located at the Smoky Heights Site for December 2005**



**Calms: 0%**

Frequency Distribution of SO <sub>2</sub> in ppb			Frequency (hrs)
Range			
0.0	< 2		674
2	to 5		29
5	to 25		4
25	to 50		0
50	to 172		0
	> 172		0
Total Non-Zero Values			707

### PASZA - Smoky Heights Total Reduced Sulphur Monthly Summary

Station: Smoky Heights  
 Station Owner: PASZA

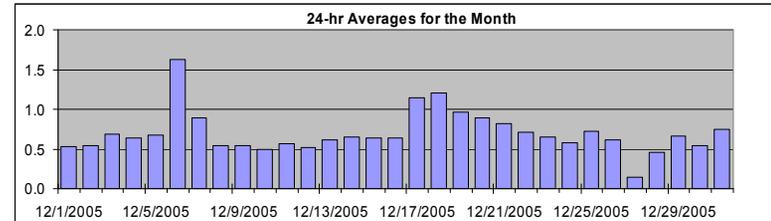
#### HOURLY AVERAGE TABLE

#### Total Reduced Sulphur (TRS)

Monitoring Dates: December 1, 2005 to January 1, 2006

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

Maximum 1-hr Average:	11.6	ppb	6-Dec	12:00 13:00
Maximum 24-hr Value:	1.6	ppb	6-Dec	



AIC Time:	33 hrs	Operational Time:	707 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	1.4	1.2	0.7	0.6	0.5	0.4	0.0	0.7 ppb	0.6 ppb

<b>Status Flag Characters</b>			
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-Dec-05	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	A	0	1	1	1	1	0.5	0.7
2-Dec-05	0	1	1	1	1	1	0	1	0	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.5	0.6
3-Dec-05	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.7	1.4
4-Dec-05	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	0.6	1.0
5-Dec-05	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	0.7	0.8
6-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	12	8	A	2	2	1	1	1	1	1	1	1	1.6	11.6
7-Dec-05	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	1.4
8-Dec-05	1	1	1	1	1	1	1	1	1	1	0	0	A	0	0	0	0	1	0	1	1	0	0	1	0.5	0.7	
9-Dec-05	0	0	0	0	0	0	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.7
10-Dec-05	1	1	1	1	0	1	1	0	1	1	A	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0.5	0.6
11-Dec-05	1	0	1	1	1	1	1	1	1	A	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	0.6	0.7
12-Dec-05	1	1	1	0	0	0	0	0	A	0	0	0	1	0	1	0	1	1	1	1	1	1	1	1	1	0.5	0.6
13-Dec-05	1	1	1	1	1	1	0	A	1	1	C	C	C	C	A	1	1	1	1	1	1	1	1	1	1	0.6	0.9
14-Dec-05	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.7
15-Dec-05	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7
16-Dec-05	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	0.6	0.9
17-Dec-05	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	1.4
18-Dec-05	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	1.2	1.4
19-Dec-05	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.0	1.4
20-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	0.9	2.1
21-Dec-05	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	1.4
22-Dec-05	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.0
23-Dec-05	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	0.6	0.9
24-Dec-05	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	0.6	0.7
25-Dec-05	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	0.7	0.8
26-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0	0	0	0	0.6	0.8
27-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.3
28-Dec-05	0	0	0	0	0	0	0	0	0	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.5	0.7
29-Dec-05	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
30-Dec-05	1	1	0	0	0	0	1	1	1	0	1	1	A	0	1	1	0	0	0	0	0	0	1	1	1	0.5	0.7
31-Dec-05	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	0.8
Hourly Avg	0.6	0.7	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.1	0.9	0.7	0.8	0.7	0.7	0.6	0.6	0.6	0.7	0.6	0.7			
Hourly Max	1.4	1.4	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	11.6	7.9	1.3	2.2	2.0	1.2	1.2	1.1	1.2	1.4	1.4	2.1			

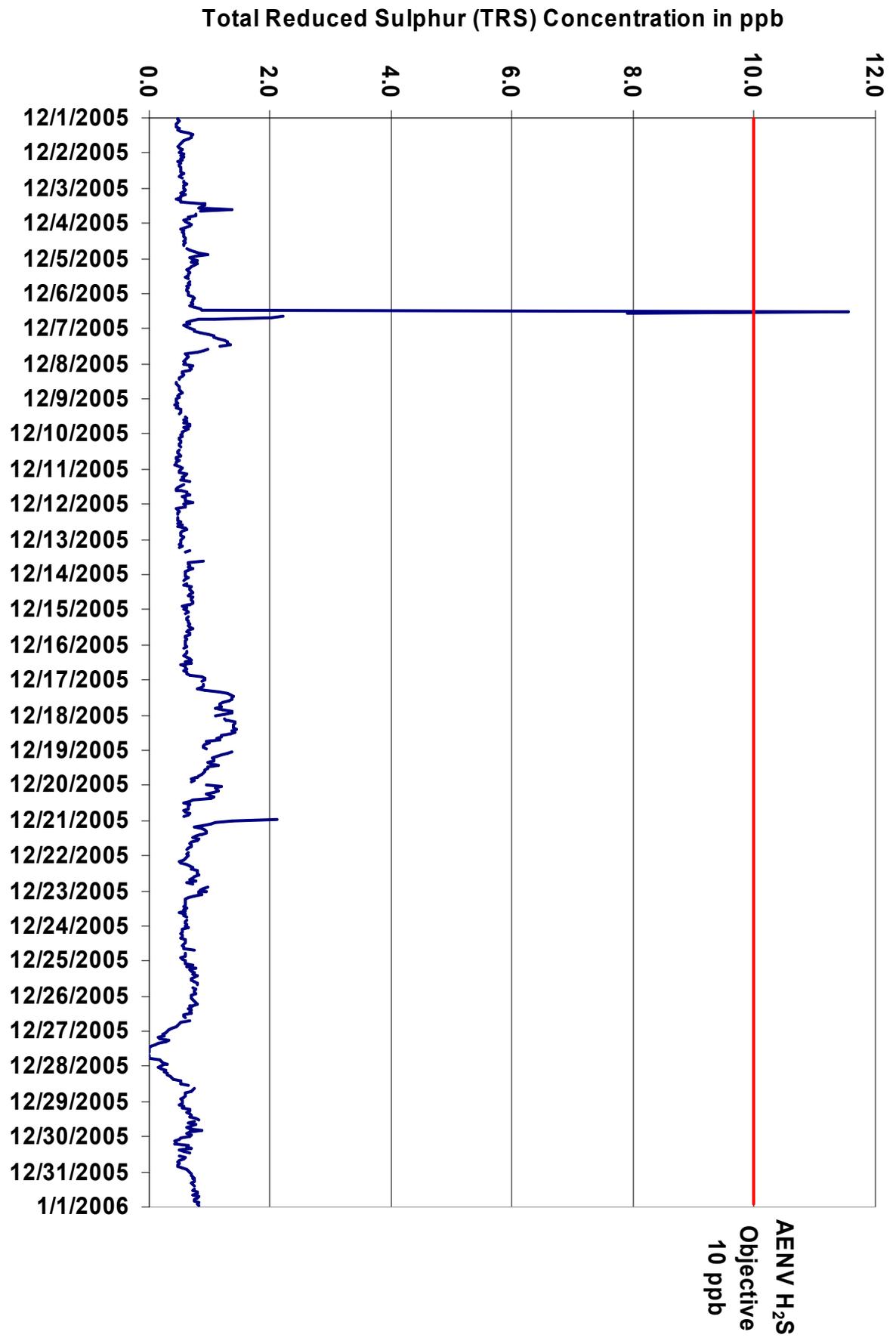


Figure 29. PASZA - Smoky Heights Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Smoky Heights  
 Station Owner: PASZA

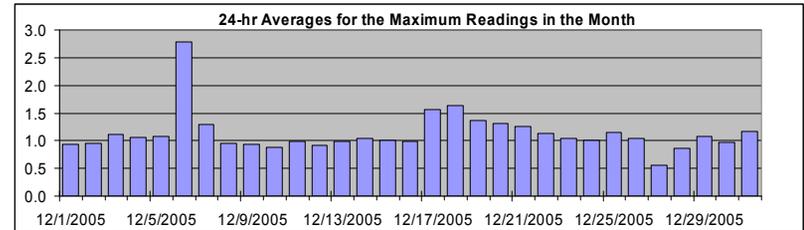
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

**Total Reduced Sulphur (TRS)**

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Value:	21.5	ppb	6-Dec	12:00 13:00
Maximum 24-hr Value:	2.8	ppb	6-Dec	



AIC Time:	33 hrs	Operational Time:	707 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	1.8	1.6	1.2	1.0	0.9	0.8	0.5	1.1 ppb	1.0 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-Dec-05	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	1.2
2-Dec-05	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	1.2
3-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	A	1	1	1	1	1	1	1	1.1	1.8
4-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1.1	1.4
5-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.1	1.2
6-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	22	15	A	3	3	2	1	1	1	1	1	1	2.8	21.5
7-Dec-05	1	1	1	1	1	1	2	2	2	2	2	2	2	A	1	1	1	1	1	1	1	1	1	1	1	1.3	1.7
8-Dec-05	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	0.9	1.2
9-Dec-05	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	0.9	1.1
10-Dec-05	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	1.2
11-Dec-05	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	1.2
12-Dec-05	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	1.1
13-Dec-05	1	1	1	1	1	1	1	A	1	1	C	C	C	C	A	1	1	1	1	1	1	1	1	1	1	1.0	1.4
14-Dec-05	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.2
15-Dec-05	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	1.0	1.2
16-Dec-05	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	1.3
17-Dec-05	1	1	A	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1.6	1.8
18-Dec-05	1	A	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	2	1	1	1	1.6	1.9
19-Dec-05	A	2	2	2	2	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.4	1.8
20-Dec-05	1	2	1	2	2	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	3	1.3	3.0
21-Dec-05	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.3	1.9
22-Dec-05	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	1.5
23-Dec-05	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	1.0	1.4
24-Dec-05	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	1.4
25-Dec-05	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	1.2	1.3
26-Dec-05	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	1.2
27-Dec-05	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	A	0	0	0	1	1	1	1	1	1	0.6	0.8
28-Dec-05	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	0.9	1.2
29-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.1	1.4
30-Dec-05	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	1.2
31-Dec-05	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	1.2	1.4
Hourly Avg	1.1	1.1	1.0	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.8	1.5	1.1	1.2	1.2	1.1	1.0	1.1	1.1	1.0	1.0	1.1		
Hourly Max	1.9	1.8	1.8	1.8	1.7	1.8	1.8	1.8	1.9	1.7	1.8	1.8	21.5	14.6	1.8	3.1	2.8	1.7	1.6	1.5	1.6	1.7	1.8	3.0			

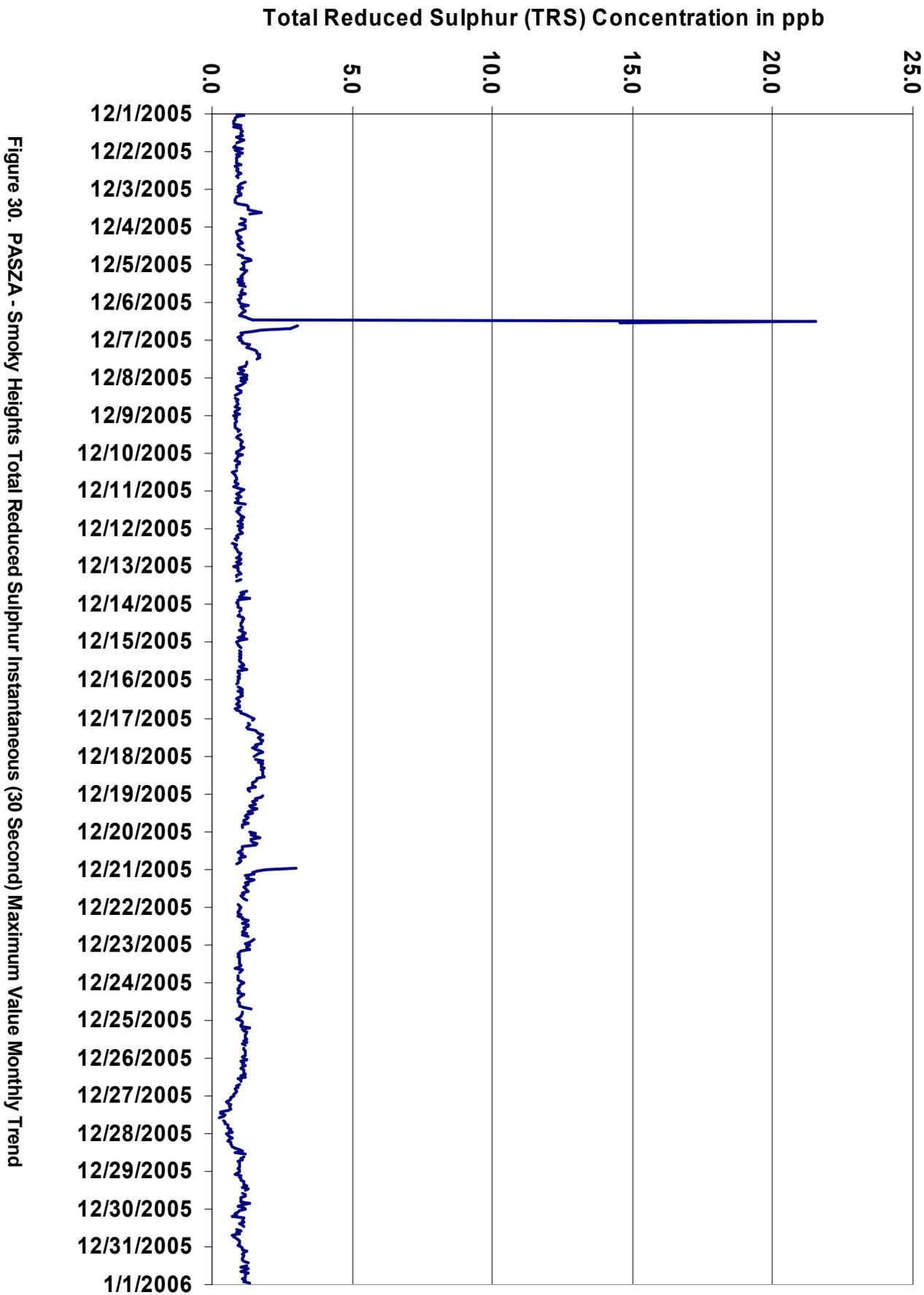
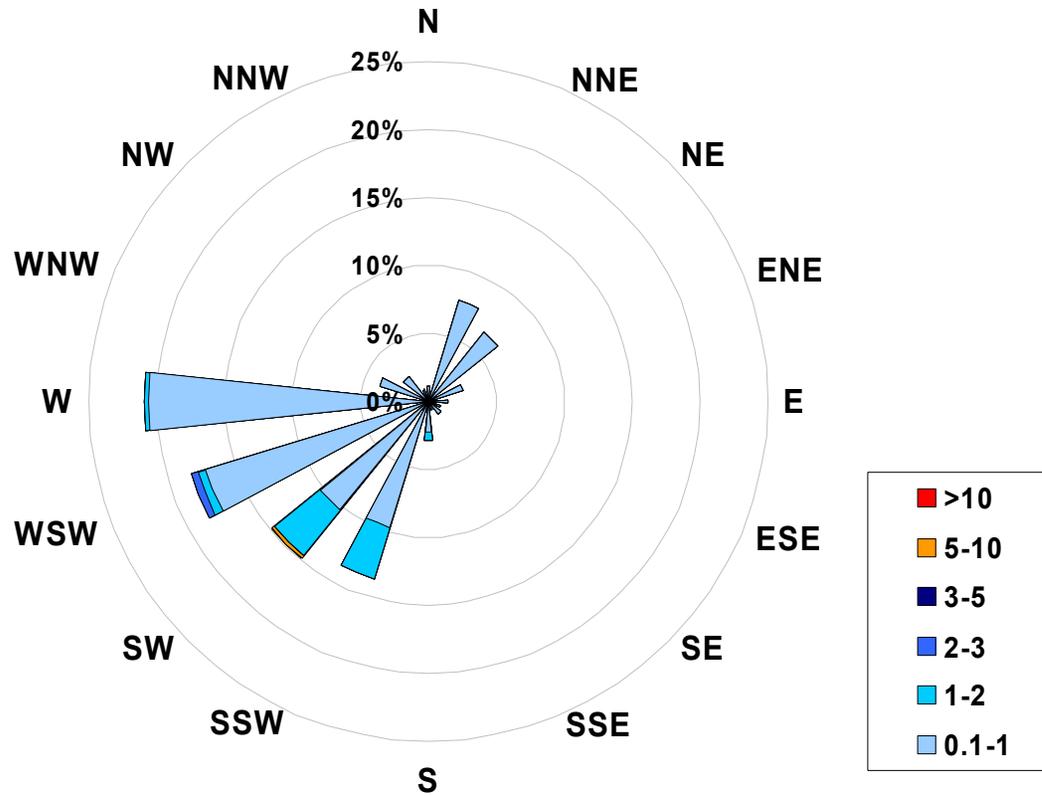


Figure 30. PASZA - Smoky Heights Total Reduced Sulphur Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Total Reduced Sulphur (in ppb)  
Located at the Smoky Heights Site for December 2005**



**Calms: 0%**

Frequency Distribution of TRS in ppb			Frequency (hrs)
Range			
0.1	< 1		640
1	to 2		62
2	to 3		3
3	to 5		0
5	to 10		1
	> 10		1
Total Non-Zero Values			707

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

Station: Smoky Heights  
 Station Owner: PASZA

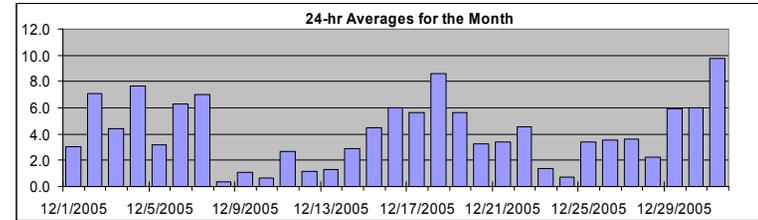
### HOURLY AVERAGE TABLE

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

Monitoring Dates: December 1, 2005 to January 1, 2006

Draft Objective Limit: Alberta Environment: 1-hr -  $\mu\text{g}/\text{m}^3$  24-hr 30  $\mu\text{g}/\text{m}^3$   
 Summary

Number of 24-hr Exceedances (draft):	0
Maximum 1-hr Average:	40.7 $\mu\text{g}/\text{m}^3$ 15-Dec 8:00 9:00
Maximum 24-hr Value:	9.8 $\mu\text{g}/\text{m}^3$ 31-Dec



AIC Time:	0 hrs	Operational Time:	738 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	99.7%
Percentile	99	95	75
	19.5	11.1	6.0
	3.2	1.0	0.0
	0.0	0.0	0.0
Average / Median	4.1		4 $\mu\text{g}/\text{m}$
Geomean	3.2		$\mu\text{g}/\text{m}$

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-Dec-05	0	2	1	0	0	0	2	4	5	5	8	7	5	5	2	1	1	2	2	2	3	5	5	5	3.1	8.4
2-Dec-05	4	7	10	8	6	6	5	3	3	5	4	4	5	4	3	3	3	3	4	5	11	19	7	36	7.1	36.3
3-Dec-05	6	10	2	1	2	3	3	3	3	3	4	4	2	3	3	3	4	5	6	8	9	6	6	6	4.4	9.7
4-Dec-05	8	7	10	7	7	7	7	7	8	8	21	12	6	6	7	5	6	6	7	5	5	9	6	6	7.7	20.5
5-Dec-05	8	6	6	5	4	4	4	5	4	3	3	1	2	2	1	1	2	1	1	2	3	2	2	2	3.2	8.2
6-Dec-05	2	3	3	5	8	5	6	4	4	5	7	9	8	8	9	7	7	14	13	7	5	4	4	2	6.3	14.3
7-Dec-05	4	5	7	7	7	8	11	13	13	12	12	14	12	11	8	10	8	0	0	0	0	2	3	3	7.0	13.8
8-Dec-05	2	1	1	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.0
9-Dec-05	0	0	D	0	0	0	3	1	2	3	2	2	1	1	1	1	1	3	2	0	0	0	0	1	1.1	3.0
10-Dec-05	0	1	1	2	0	0	0	0	0	1	0	0	0	0	0	1	1	0	1	1	1	2	1	2	0.7	2.4
11-Dec-05	2	2	3	1	3	2	2	2	6	3	2	3	1	0	0	1	2	3	15	5	3	0	1	3	2.7	14.6
12-Dec-05	3	6	6	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	3	5	0	1.2	5.8
13-Dec-05	0	1	0	0	2	2	1	0	0	0	0	1	C	C	C	C	0	0	0	4	0	5	7	4	1.3	6.7
14-Dec-05	3	3	2	2	2	2	1	1	1	1	0	0	1	0	0	0	4	24	19	0	0	0	2	1	2.9	23.8
15-Dec-05	0	0	0	0	0	0	0	0	41	19	0	0	1	3	0	0	2	35	1	5	1	0	1	2	4.5	40.7
16-Dec-05	2	13	7	5	5	6	8	7	8	13	3	4	5	4	4	5	7	9	4	4	4	4	5	6	6.0	13.4
17-Dec-05	7	6	6	6	5	5	5	3	5	5	5	5	5	5	6	5	5	5	6	7	6	7	7	8	5.7	8.0
18-Dec-05	8	10	8	9	8	9	10	9	10	11	11	11	9	10	10	9	9	8	9	7	6	5	5	6	8.6	11.3
19-Dec-05	7	9	9	8	7	8	7	8	6	7	8	5	4	4	2	3	4	3	4	13	1	2	4	2	5.6	12.9
20-Dec-05	3	4	5	6	6	6	5	5	5	5	4	2	0	1	3	3	1	5	1	1	2	3	1	3	3.3	6.5
21-Dec-05	1	3	6	5	6	6	6	6	5	6	5	5	4	4	4	3	0	0	0	0	1	0	3	2	3.4	6.4
22-Dec-05	1	2	0	0	0	1	6	4	4	5	7	6	6	5	6	7	7	7	6	6	5	6	5	6	4.5	7.3
23-Dec-05	6	6	4	4	2	2	1	0	1	1	2	0	1	1	0	0	0	0	0	0	0	0	1	0	1.4	6.4
24-Dec-05	0	1	1	0	0	0	1	0	0	7	0	0	0	0	0	0	2	1	0	0	0	2	1	1	0.7	7.0
25-Dec-05	1	1	2	3	4	1	1	1	2	4	3	3	6	2	4	5	5	4	4	5	4	5	6	5	3.4	6.0
26-Dec-05	6	4	3	7	4	2	3	1	2	3	3	3	2	2	3	3	1	6	18	1	1	1	1	3	3.5	17.9
27-Dec-05	3	2	2	1	2	1	0	1	4	2	5	6	7	3	3	4	3	2	4	5	7	7	6	6	3.6	7.4
28-Dec-05	4	2	2	2	1	0	0	0	0	0	1	0	1	2	2	2	3	12	4	7	6	1	4	0	2.3	11.8
29-Dec-05	3	4	3	8	5	2	1	1	6	7	12	9	7	8	6	3	5	5	2	7	23	5	4	6	5.9	23.4
30-Dec-05	12	6	5	0	1	6	2	1	16	9	24	13	3	3	8	4	4	1	5	6	6	2	4	5	6.0	23.6
31-Dec-05	7	8	9	9	8	9	8	8	8	9	10	9	8	8	15	11	14	13	9	15	10	6	8	15	9.8	15.5
Hourly Avg	3.7	4.3	4.1	3.6	3.4	3.3	3.6	3.3	5.6	5.2	5.5	4.4	3.7	3.5	3.6	3.4	3.6	5.7	4.8	4.2	4.1	3.7	3.8	4.8		
Hourly Max	11.7	13.2	10.5	9.4	8.5	9.1	11.3	12.7	40.7	19.4	23.6	13.8	12.1	11.1	15.0	10.8	13.6	34.7	19.3	15.5	23.4	19.5	8.4	36.3		

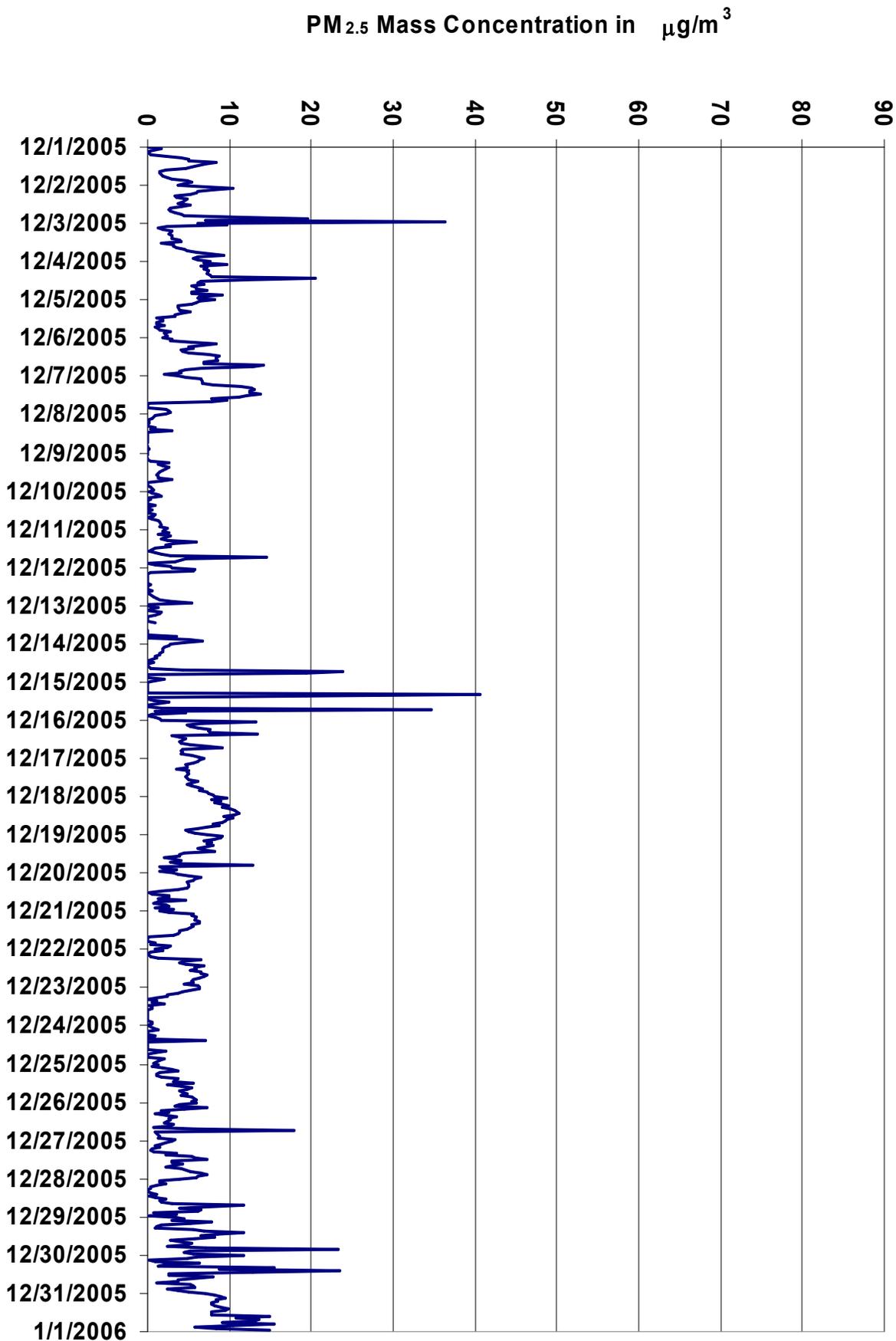


Figure 31. PASZA - Smoky Heights Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Smoky Heights  
 Station Owner: PASZA

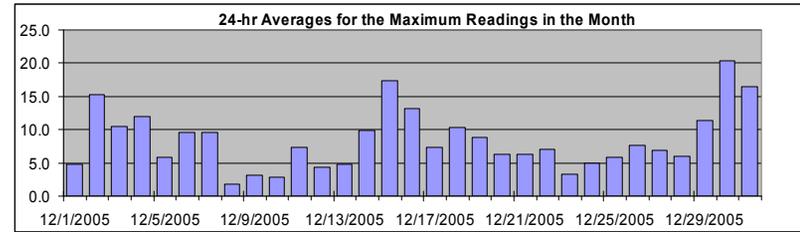
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Average:	204.7	µg/m <sup>3</sup>	15-Dec	17:00 18:00
Maximum 24-hr Value:	20.3	µg/m <sup>3</sup>	30-Dec	



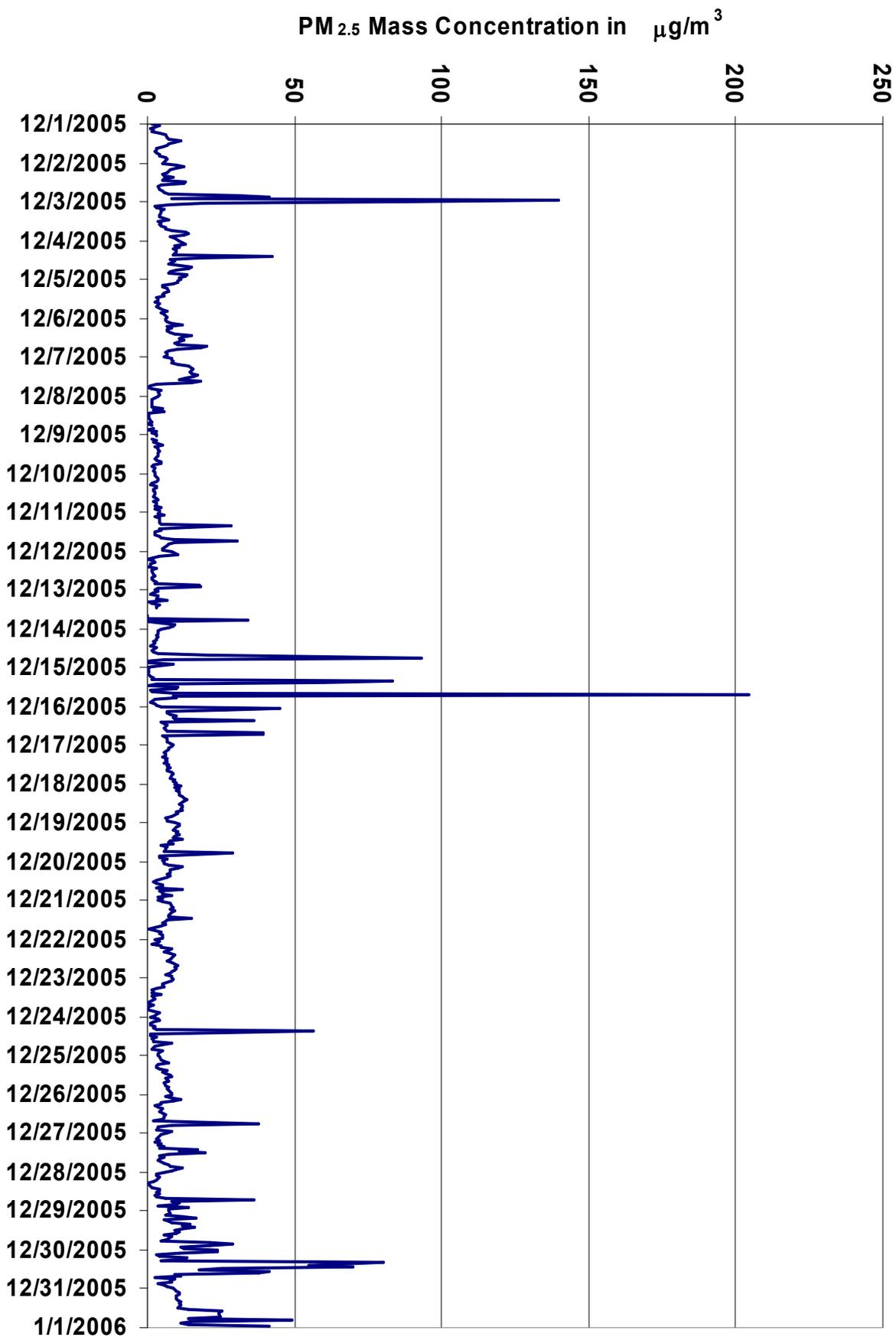
AIC Time:	0 hrs	Operational Time:	738 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	99.7%						
Percentile	99	95	75	50	25	5	1	Average / Median	Geomean
	59.2	21.7	9.2	6.0	3.3	1.0	0.0	8.5	8 µg/m <sup>3</sup>
									7.3 µg/m <sup>3</sup>

**Status Flag Characters**

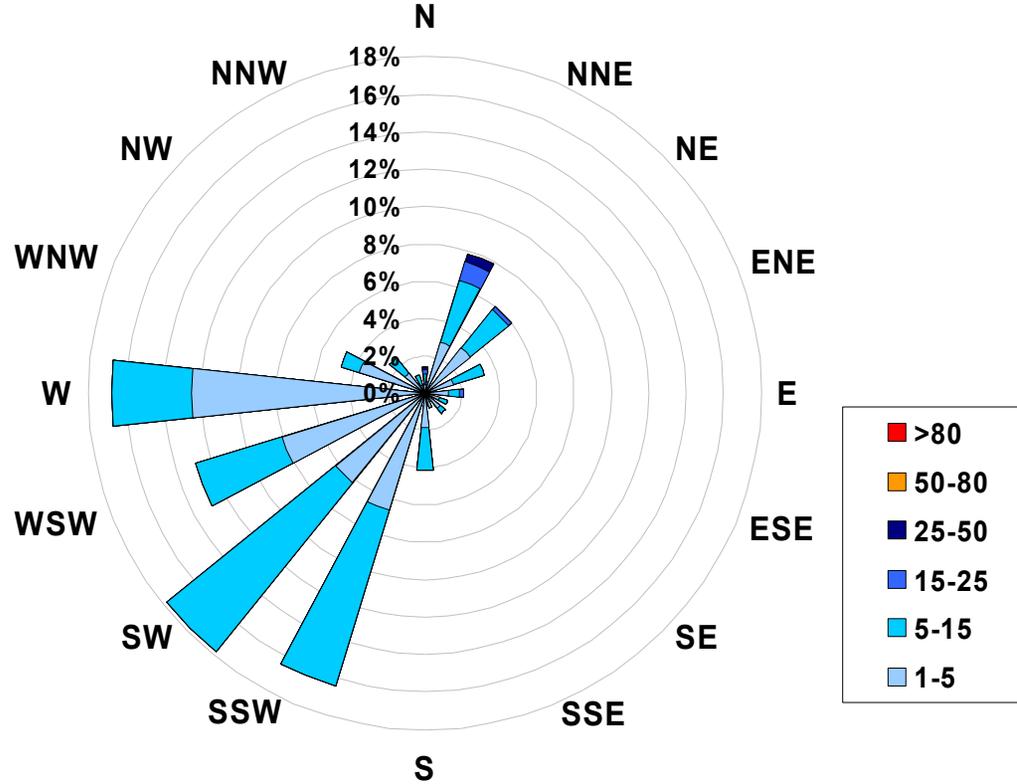
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
Hour Start 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-Dec-05	1	4	2	1	2	2	4	6	7	7	11	10	7	7	5	3	3	3	3	4	4	6	7	6	4.8	11.2
2-Dec-05	5	10	12	10	8	7	7	5	6	9	6	5	13	13	5	4	4	5	6	7	31	41	8	140	15.3	139.7
3-Dec-05	89	20	8	3	3	5	5	4	4	4	5	7	4	5	4	5	6	6	8	13	14	13	8	9	10.5	88.6
4-Dec-05	11	12	13	9	11	9	10	10	9	43	18	8	9	8	7	15	14	10	8	7	13	13	11	12.0	42.6	
5-Dec-05	12	10	10	9	5	5	7	7	6	5	6	3	4	4	3	4	3	3	4	5	7	5	6	6	5.8	11.6
6-Dec-05	6	6	7	8	12	7	8	7	7	8	9	15	12	11	12	9	10	20	18	10	7	6	7	7	9.6	20.2
7-Dec-05	6	8	8	9	8	10	14	15	15	14	15	17	16	13	11	18	15	3	1	0	2	5	4	4	9.7	18.1
8-Dec-05	4	3	2	1	2	2	2	1	5	2	6	1	0	1	1	1	2	0	2	D	2	0	3	1	1.8	5.6
9-Dec-05	3	3	D	2	3	2	5	3	3	4	4	4	4	4	3	3	5	5	2	2	3	2	3	3	3.2	5.4
10-Dec-05	3	3	3	4	4	3	2	1	3	3	2	2	2	2	2	3	3	2	3	3	3	5	3	4	2.8	4.7
11-Dec-05	4	4	6	3	4	4	4	4	29	15	4	5	2	3	3	4	5	9	30	9	7	7	5	5	7.3	30.4
12-Dec-05	8	9	10	4	2	0	2	3	1	1	1	3	2	2	2	3	1	2	2	3	3	17	18	3	4.3	18.3
13-Dec-05	3	3	2	1	4	3	7	1	2	4	3	3	C	C	C	C	0	0	0	34	0	9	9	7	4.8	34.0
14-Dec-05	4	4	4	3	3	4	3	3	2	3	2	1	3	2	2	4	21	58	93	6	0	1	9	4	9.9	93.2
15-Dec-05	0	1	0	1	0	1	2	2	83	60	3	1	10	10	1	1	9	205	9	10	3	1	2	3	17.3	204.7
16-Dec-05	5	45	27	7	7	8	10	9	9	36	5	6	7	6	6	7	39	39	5	6	7	7	7	8	13.2	45.2
17-Dec-05	9	8	7	7	6	6	6	5	7	6	7	6	7	7	8	7	7	8	9	8	8	9	9	10	7.4	9.6
18-Dec-05	9	11	9	11	10	11	11	11	12	12	13	12	11	12	12	11	12	10	10	9	8	6	7	7	10.3	13.3
19-Dec-05	9	11	11	10	9	10	10	11	9	9	12	8	7	9	5	7	6	6	6	29	4	4	7	5	8.8	29.1
20-Dec-05	5	6	7	12	10	8	8	8	7	8	7	3	2	3	5	5	3	12	4	5	5	8	3	5	6.2	12.0
21-Dec-05	3	5	8	8	9	8	9	8	8	7	7	15	7	6	5	6	4	2	0	5	4	5	5	5	6.3	14.8
22-Dec-05	3	4	4	2	5	5	8	7	5	8	9	8	8	7	8	9	10	9	10	9	8	8	6	8	7.0	10.1
23-Dec-05	8	9	8	5	5	6	3	1	2	2	4	2	2	2	2	0	1	2	0	0	2	4	3	3	3.3	8.9
24-Dec-05	1	4	4	2	1	1	2	2	3	57	1	1	3	2	2	2	8	5	2	2	1	5	4	4	5.0	56.5
25-Dec-05	4	4	5	5	7	3	3	3	4	7	5	6	8	8	6	7	7	6	6	7	7	7	8	8	5.9	8.1
26-Dec-05	8	6	8	12	9	5	5	3	4	5	4	5	6	6	6	5	2	19	38	9	4	4	3	8	7.6	37.7
27-Dec-05	7	5	4	3	4	3	5	4	6	4	17	11	20	7	4	6	4	4	6	7	8	12	10	8	6.9	19.8
28-Dec-05	6	3	3	4	3	3	2	0	0	2	4	4	3	4	3	3	6	36	8	11	10	4	14	7	6.0	36.0
29-Dec-05	7	8	6	12	17	6	7	8	14	12	16	12	9	11	10	6	8	7	4	21	29	21	11	12	11.4	29.2
30-Dec-05	24	24	11	3	4	13	12	5	80	55	70	25	18	41	38	9	11	3	9	8	8	4	6	7	20.3	80.3
31-Dec-05	9	10	11	11	10	10	10	11	11	11	12	11	10	14	25	24	25	25	14	49	15	11	14	41	16.4	49.4
Hourly Avg	8.9	8.5	7.4	5.8	6.0	5.5	6.2	5.4	11.8	12.5	10.1	7.4	7.1	7.6	6.8	6.1	8.3	17.1	10.6	10.0	7.1	8.1	7.1	11.7		
Hourly Max	88.6	45.2	26.8	12.0	16.6	13.4	14.2	15.3	83.2	60.0	69.9	25.2	19.8	41.4	37.7	24.1	39.2	204.7	93.2	49.4	30.6	41.3	18.3	139.7		

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 December 2005**



**Calms: 0%**

Frequency Distribution of PM <sub>2.5</sub> in µg/m <sup>3</sup>			Frequency (hrs)
Range			
1.0	<	5	480
5	to	15	245
15	to	25	10
25	to	50	3
50	to	80	0
	>	80	0
Total Non-Zero Values			738

### PASZA - Smoky Heights Temperature Monthly Summary

Station: Smoky Heights  
 Station Owner: PASZA

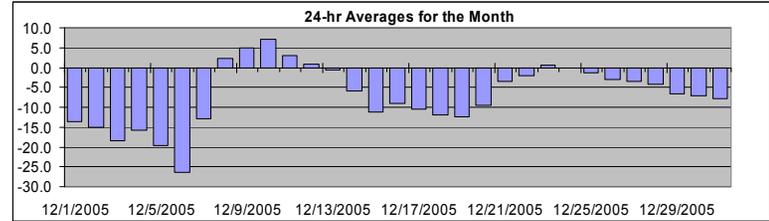
#### HOURLY AVERAGE TABLE

#### Ambient Temperature (T)

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Average:	10.0 °C	10-Dec	15:00 16:00
Maximum 24-hr Value:	7.2 °C	10-Dec	



AIC Time:	0 hrs	Operational Time:	744 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	8.6	5.2	-0.8	-6.2	-12.5	-22.5	-29.2	-6.9 °C	-6.2 °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-Dec-05	-14	-14	-14	-14	-14	-14	-14	-14	-14	-13	-13	-13	-12	-12	-12	-12	-13	-13	-14	-14	-14	-14	-15	-17	-13.6	-12.3	
2-Dec-05	-17	-17	-16	-16	-16	-16	-16	-16	-16	-16	-15	-15	-14	-14	-13	-13	-13	-13	-14	-14	-14	-14	-15	-16	-15.1	-13.2	
3-Dec-05	-16	-15	-15	-16	-17	-18	-18	-17	-18	-19	-18	-18	-16	-15	-15	-16	-19	-20	-21	-21	-24	-24	-24	-23	-18.5	-15.0	
4-Dec-05	-24	-24	-23	-24	-23	-21	-20	-19	-18	-18	-17	-15	-14	-14	-14	-13	-13	-12	-11	-9	-8	-8	-8	-11	-15.8	-7.8	
5-Dec-05	-12	-15	-17	-18	-18	-19	-18	-18	-17	-18	-17	-17	-18	-18	-16	-17	-19	-22	-23	-25	-25	-26	-28	-29	-19.7	-12.2	
6-Dec-05	-28	-30	-30	-28	-29	-30	-30	-29	-30	-32	-30	-26	-23	-22	-22	-22	-24	-26	-25	-23	-22	-23	-21	-24	-26.3	-21.4	
7-Dec-05	-23	-23	-22	-22	-22	-22	-22	-21	-20	-20	-19	-16	-14	-12	-10	-8	-4	-1	0	-2	-2	-1	0	0	-12.8	-0.3	
8-Dec-05	0	-1	-1	-2	-1	0	0	-2	-1	0	2	3	4	5	4	5	5	5	5	5	5	4	5	5	2.2	5.1	
9-Dec-05	6	6	5	6	6	6	6	5	5	5	5	6	6	6	6	5	4	3	3	3	3	3	5	5	4	4.9	6.2
10-Dec-05	3	4	4	5	5	5	6	6	7	7	7	7	9	9	9	10	10	9	9	9	9	8	8	8	6	7.2	10.0
11-Dec-05	6	6	5	4	4	4	4	4	3	3	5	6	6	5	4	4	3	1	0	0	0	-1	-2	0	3.1	6.1	
12-Dec-05	0	-1	-1	1	2	2	1	2	1	2	2	2	3	3	3	2	1	0	0	-1	-1	0	0	0	0.9	2.8	
13-Dec-05	0	0	0	1	1	1	0	-1	-3	-4	0	1	1	2	3	2	2	1	-2	0	-4	-4	-5	-4	-0.6	2.6	
14-Dec-05	-3	-3	-4	-7	-9	-9	-9	-9	-8	-7	-6	-5	-3	-1	1	-1	-5	-6	-7	-8	-8	-9	-9	-9	-6.0	0.6	
15-Dec-05	-10	-10	-11	-11	-11	-12	-13	-13	-13	-13	-12	-12	-11	-8	-9	-10	-11	-12	-11	-11	-11	-11	-10	-10	-11.1	-8.4	
16-Dec-05	-10	-10	-10	-10	-10	-10	-10	-10	-10	-9	-9	-9	-7	-8	-7	-7	-8	-8	-8	-9	-8	-8	-9	-9	-8.9	-7.0	
17-Dec-05	-10	-10	-10	-11	-11	-11	-11	-12	-12	-12	-11	-10	-9	-8	-7	-6	-8	-10	-11	-12	-13	-13	-14	-13	-10.6	-6.3	
18-Dec-05	-13	-13	-14	-14	-14	-14	-15	-15	-15	-15	-14	-12	-10	-8	-7	-8	-10	-10	-11	-10	-11	-10	-10	-12	-12.0	-6.9	
19-Dec-05	-13	-13	-13	-13	-14	-14	-15	-15	-15	-15	-12	-10	-9	-7	-7	-7	-10	-12	-12	-12	-13	-15	-15	-15	-12.4	-6.5	
20-Dec-05	-16	-16	-16	-16	-15	-15	-14	-13	-12	-11	-9	-7	-6	-5	-6	-5	-6	-5	-4	-4	-5	-6	-7	-7	-9.4	-4.0	
21-Dec-05	-7	-8	-8	-8	-7	-7	-7	-7	-7	-7	-5	-1	1	1	3	3	0	-1	-2	-2	-1	-3	-2	-2	-3.5	3.0	
22-Dec-05	-1	-1	0	0	-1	-1	0	-1	-2	-4	-4	-3	-2	-2	0	0	-1	-3	-2	-2	-3	-4	-5	-6	-1.9	0.5	
23-Dec-05	-5	-4	-3	-4	-3	-2	1	1	2	1	3	3	4	5	6	5	3	1	1	0	0	0	-2	-1	0.6	6.1	
24-Dec-05	-2	-2	-3	-1	0	0	0	0	0	-1	-2	0	1	1	2	1	1	1	1	1	0	1	1	-1	-0.1	1.9	
25-Dec-05	-2	-1	-2	-3	-2	-1	-1	-2	-2	-3	-3	-3	0	2	0	-1	-1	-1	-1	-1	-2	-2	-2	-3	-1.4	1.9	
26-Dec-05	-3	-3	-4	-5	-5	-5	-5	-6	-6	-5	-4	-3	-1	-1	-1	0	-2	-2	-1	-1	-2	-2	-2	-2	-2.9	-0.1	
27-Dec-05	-2	-2	-2	-3	-4	-5	-5	-5	-4	-6	-5	-4	-2	-2	-2	-2	-1	-2	-3	-3	-3	-4	-5	-6	-3.4	-1.1	
28-Dec-05	-5	-5	-5	-4	-3	-3	-2	-2	-3	-3	-4	-2	-1	-2	-3	-4	-5	-5	-7	-7	-7	-7	-7	-7	-4.3	-1.5	
29-Dec-05	-6	-6	-7	-5	-7	-8	-10	-9	-11	-10	-8	-7	-6	-5	-3	-3	-4	-6	-6	-5	-7	-7	-8	-7	-6.7	-3.3	
30-Dec-05	-7	-8	-9	-9	-10	-9	-9	-9	-8	-9	-8	-7	-6	-5	-5	-5	-5	-6	-7	-7	-7	-7	-6	-5	-7.2	-4.5	
31-Dec-05	-5	-5	-5	-5	-6	-7	-8	-9	-12	-12	-10	-7	-6	-7	-6	-6	-7	-8	-9	-9	-9	-9	-10	-9	-7.8	-4.9	
Hourly Avg	-7.7	-7.8	-8.1	-8.1	-8.2	-8.2	-8.2	-8.3	-8.4	-8.5	-7.4	-6.2	-5.0	-4.4	-4.1	-4.2	-5.2	-5.9	-6.2	-6.4	-6.7	-7.0	-7.3	-7.5			
Hourly Max	5.8	5.6	5.2	6.1	5.9	5.7	5.6	6.4	7.0	7.1	7.5	7.4	8.8	9.1	9.3	10.0	9.8	9.4	9.0	8.8	8.5	8.2	7.6	6.2			

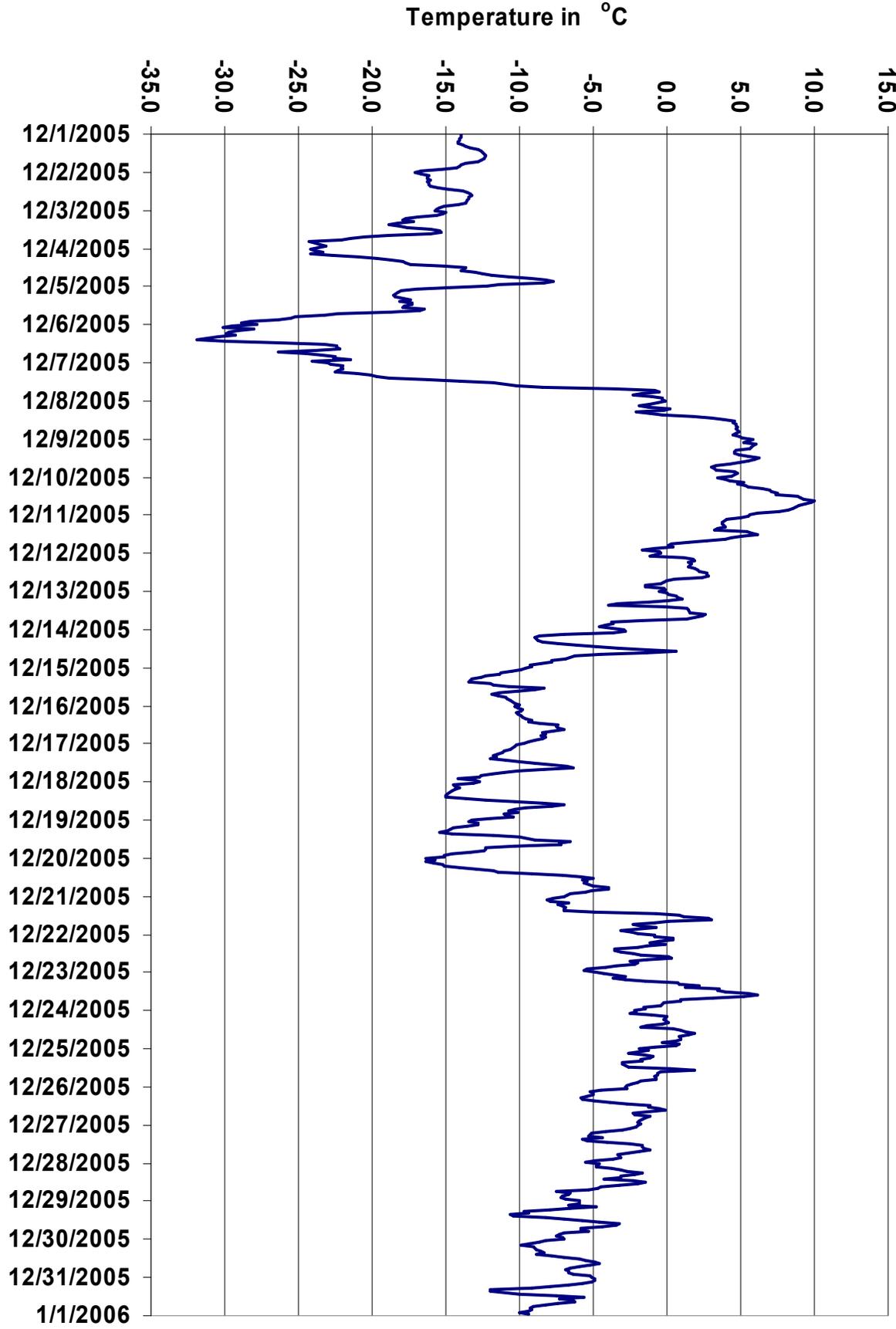


Figure 33. PASZA - Smoky Heights Temperature 1-hr Average Monthly Trend

### PASZA - Smoky Heights Scalar Wind Speed Monthly Summary

Station: Smoky Heights  
 Station Owner: PASZA

#### HOURLY AVERAGE TABLE

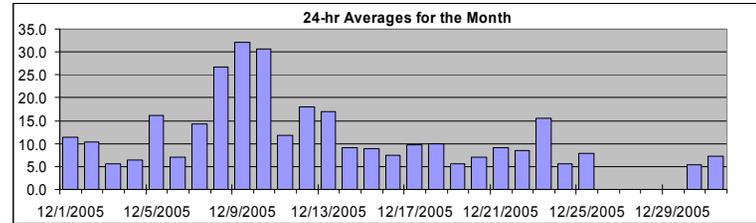
#### Wind Speed (WSs)

Monitoring Dates: December 1, 2005 to January 1, 2006

#### Summary

Maximum 1-hr Average:	48.4	km/hr	9-Dec	3:00 4:00
Maximum 24-hr Value:	32.2	km/hr	9-Dec	

Calm Time:	0 hrs	0% calms	Operational Time:	663 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	89.1%				
Percentile	99	95	75	50	25	5	1	AverageS
	43.1	30.3	14.1	9.1	6.4	3.8	2.6	11.9 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	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-Dec-05	5	6	6	8	7	7	6	6	6	7	9	15	17	19	19	17	16	15	14	12	12	12	12	13	13	11.3	19.3	
2-Dec-05	11	13	14	15	14	13	12	11	13	12	11	10	9	10	11	11	10	10	9	6	7	5	6	6	6	10.5	15.1	
3-Dec-05	6	4	2	3	4	2	3	2	4	4	7	6	6	6	7	7	8	9	9	9	6	7	9	5	5.7	9.2		
4-Dec-05	4	5	6	6	8	7	6	6	6	4	3	4	8	9	5	4	4	3	4	6	8	11	13	13	6.3	13.3		
5-Dec-05	19	19	26	26	26	24	30	26	20	19	22	25	16	11	13	13	3	5	5	8	7	8	12	4	16.2	30.4		
6-Dec-05	6	8	5	6	6	6	11	8	7	8	8	6	5	5	6	7	6	10	10	6	6	8	8	8	7.1	11.1		
7-Dec-05	7	9	11	11	12	10	12	11	10	11	11	11	12	11	11	12	21	25	23	17	18	20	25	22	14.3	24.8		
8-Dec-05	19	13	17	13	14	19	17	12	16	17	22	24	28	40	40	44	40	41	34	32	30	34	34	41	26.7	43.9		
9-Dec-05	46	39	33	48	44	40	46	35	33	33	31	32	30	30	30	29	27	25	24	22	22	26	27	20	32.2	48.4		
10-Dec-05	16	18	17	30	27	26	16	23	29	30	24	24	35	38	37	43	38	44	46	42	39	37	30	24	30.5	46.4		
11-Dec-05	22	24	23	22	19	18	20	20	16	7	4	6	7	8	5	3	3	6	6	6	6	7	11	13	11.8	24.3		
12-Dec-05	16	15	9	19	16	19	21	21	15	22	22	20	21	19	19	17	16	19	20	19	16	14	22	14	18.0	22.0		
13-Dec-05	13	18	17	16	16	15	13	13	10	13	19	20	25	18	19	26	22	16	14	14	14	16	19	20	16.9	26.4		
14-Dec-05	22	18	15	11	8	11	8	10	5	8	7	10	8	6	7	7	4	3	4	6	11	10	11	9	9.1	22.1		
15-Dec-05	10	10	12	10	12	14	11	11	12	11	11	11	8	4	4	5	6	4	5	7	8	10	8	11	8.9	13.8		
16-Dec-05	12	9	11	12	10	7	9	8	8	8	8	5	3	8	6	4	5	6	6	5	4	5	8	10	7.5	12.3		
17-Dec-05	9	7	10	12	12	12	9	11	13	11	14	13	13	11	6	4	8	8	8	10	8	9	7	10	9.8	13.6		
18-Dec-05	10	9	8	9	10	11	11	11	10	9	9	9	10	10	9	9	9	9	9	12	10	10	11	10	9.8	11.8		
19-Dec-05	9	5	5	6	6	6	5	5	3	4	4	5	3	4	5	3	5	7	8	6	6	4	10	9	5.6	9.9		
20-Dec-05	7	8	8	9	8	8	8	8	7	7	8	8	6	4	3	5	4	6	9	5	5	9	9	13	7.1	12.5		
21-Dec-05	12	12	11	8	10	11	9	10	6	7	7	10	8	11	7	9	9	12	8	12	8	4	8	8	9.0	12.4		
22-Dec-05	6	6	9	10	7	7	9	5	10	8	10	9	10	9	10	7	8	8	10	13	11	10	7	8	8.5	12.5		
23-Dec-05	9	10	17	9	13	17	17	19	22	19	20	20	23	20	18	19	14	9	18	15	14	13	11	6	15.5	22.5		
24-Dec-05	6	5	8	6	5	8	7	4	8	7	5	4	6	7	7	4	2	5	6	6	4	6	5	4	5.5	7.9		
25-Dec-05	8	10	10	9	9	10	9	9	9	10	6	7	8	8	8	8	9	7	8	5	4	6	6	4	7.8	10.1		
26-Dec-05	5	4	5	7	8	8	5	6	6	7	6	5	N	N	N	N	N	N	N	N	N	N	N	N	N	7.6	0.0	
27-Dec-05	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	0.0
28-Dec-05	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	0.0
29-Dec-05	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	8.5	8.5
30-Dec-05	8	5	7	5	4	8	9	6	6	8	8	7	6	7	4	3	3	3	4	3	2	4	5	5	5.4	8.7		
31-Dec-05	7	7	7	10	8	7	5	5	4	7	7	5	3	10	10	11	10	9	8	8	5	5	9	7	7.2	10.6		
1-hr Average	11.8	11.3	11.8	12.8	12.3	12.6	12.2	11.7	11.1	11.4	11.7	11.8	12.5	12.8	11.9	12.3	11.4	11.9	12.1	11.5	10.9	11.3	12.5	11.7				
Hourly Max	46.5	39.1	33.3	48.4	43.6	40.4	46.4	34.5	32.9	32.7	31.3	32.2	34.9	39.7	39.6	43.9	40.0	44.3	46.4	41.8	39.2	37.3	34.1	40.7				

### PASZA - Smoky Heights Vector Wind Speed Monthly Summary

Station: Smoky Heights  
 Station Owner: PASZA

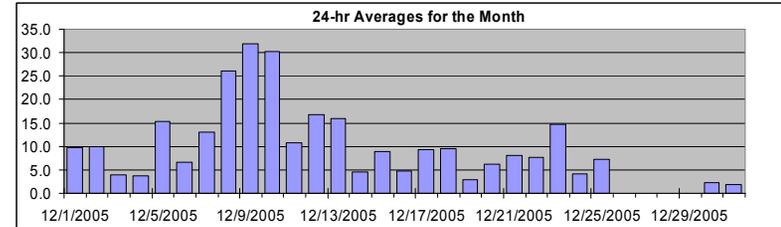
#### HOURLY AVERAGE TABLE

#### Wind Speed (WSv)

Monitoring Dates: December 1, 2005 to January 1, 2006

#### Summary

Maximum 1-hr Average:	48.4	km/hr	9-Dec	3:00 4:00
Maximum 24-hr Value:	31.9	km/hr	9-Dec	



Calm Time:	3 hrs	0% calms	Operational Time:	660 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	89.1%				
Percentile	99	95	75	50	25	5	1	AverageV
	43.1	30.3	14.1	8.9	6.0	2.8	1.5	52.4 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 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-Dec-05	5	6	6	8	7	7	6	6	7	8	15	16	19	19	17	16	15	14	12	11	12	12	12	13	9.7	19.1	
2-Dec-05	11	13	14	15	14	13	12	11	13	12	11	10	9	10	11	11	10	10	9	6	7	5	6	6	10.0	15.1	
3-Dec-05	6	4	2	2	3	2	1	1	3	4	6	5	6	6	7	7	8	9	9	9	6	7	9	5	4.0	9.1	
4-Dec-05	4	4	5	6	8	6	6	6	6	4	1	2	8	9	5	3	3	3	3	4	8	10	9	13	3.7	12.9	
5-Dec-05	18	19	26	26	26	24	30	26	20	19	22	24	16	11	12	13	2	4	5	8	7	8	11	3	15.3	30.3	
6-Dec-05	5	8	4	5	6	6	11	7	7	7	8	6	5	5	6	7	6	10	10	6	6	8	8	8	6.6	11.0	
7-Dec-05	7	9	11	11	12	10	12	11	10	11	11	11	12	11	10	11	21	25	22	17	18	20	25	22	13.0	24.8	
8-Dec-05	19	13	17	13	14	19	17	12	16	17	22	24	28	40	40	44	40	41	34	32	30	34	34	41	26.1	43.9	
9-Dec-05	46	39	33	48	44	40	46	34	33	33	31	32	30	30	30	29	27	25	24	22	22	26	27	20	31.9	48.4	
10-Dec-05	16	17	17	30	27	26	16	23	29	30	24	24	35	38	37	43	38	44	46	42	39	37	30	24	30.3	46.4	
11-Dec-05	22	24	23	22	19	18	20	20	15	6	calm	5	7	8	5	2	2	6	5	5	6	6	11	13	10.7	24.2	
12-Dec-05	16	15	6	18	16	19	21	21	15	21	22	19	21	19	19	16	16	19	20	19	16	13	22	14	16.9	21.7	
13-Dec-05	13	18	17	16	16	14	11	13	10	13	19	20	25	18	19	26	22	15	14	14	14	16	19	20	15.9	26.3	
14-Dec-05	22	18	14	11	8	10	6	10	5	8	7	10	6	3	7	7	1	2	4	6	11	10	11	9	4.5	22.1	
15-Dec-05	10	10	12	10	12	14	11	11	12	11	11	11	8	3	4	5	6	4	5	7	8	10	8	10	8.8	13.8	
16-Dec-05	12	9	11	12	10	7	8	8	8	7	8	5	2	8	6	4	4	6	6	4	3	5	8	10	4.8	12.3	
17-Dec-05	9	7	10	12	12	12	9	11	13	11	14	13	13	11	6	3	8	8	7	10	8	8	7	10	9.3	13.5	
18-Dec-05	10	9	8	9	10	10	11	11	10	9	9	9	10	10	9	9	9	9	9	12	10	10	10	10	9.5	11.7	
19-Dec-05	9	5	5	6	6	6	5	4	3	4	4	4	3	3	4	1	5	7	6	6	6	2	10	9	3.0	9.5	
20-Dec-05	7	8	8	9	8	8	8	8	6	7	8	8	6	3	2	3	3	5	9	4	2	8	8	12	6.2	12.1	
21-Dec-05	12	12	11	8	9	11	9	10	6	6	7	7	7	9	6	9	8	10	8	12	5	2	7	8	8.1	12.3	
22-Dec-05	5	3	9	10	6	5	7	9	5	9	8	9	9	10	7	8	8	7	10	12	11	10	7	8	7.6	12.3	
23-Dec-05	9	9	17	9	13	17	17	19	22	19	20	20	22	20	18	19	14	8	18	15	14	12	10	5	14.8	22.4	
24-Dec-05	6	5	8	6	4	7	7	3	5	6	4	4	6	7	6	2	1	5	5	6	4	6	5	4	4.2	7.7	
25-Dec-05	8	9	9	9	9	10	9	9	8	9	6	6	7	6	8	7	9	6	8	3	4	6	5	2	7.3	9.5	
26-Dec-05	4	4	5	7	7	7	5	6	5	7	6	4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	7.4
27-Dec-05	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
28-Dec-05	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
29-Dec-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	8	8	8	N	8.3	
30-Dec-05	8	5	7	5	2	8	8	5	5	8	8	7	6	7	4	3	calm	2	4	2	1	2	5	4	2.2	8.5	
31-Dec-05	7	7	6	10	7	7	5	3	4	6	7	5	calm	10	10	11	10	9	8	8	4	4	9	7	1.8	10.6	
1-hr Vector	7.4	7.2	7.3	8.3	8.1	7.9	7.8	7.4	6.7	7.0	6.8	7.2	8.2	7.5	6.3	6.4	6.5	7.7	7.9	7.4	6.6	7.5	8.8	7.5			
Hourly Max	46.5	39.0	33.3	48.4	43.5	40.4	46.3	34.4	32.9	32.6	31.2	32.2	34.7	39.6	39.5	43.9	40.0	44.2	46.4	41.8	39.2	37.2	34.0	40.6			

### PASZA - Smoky Heights Wind Direction Monthly Summary

Station: Smoky Heights  
 Station Owner: PASZA

#### HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**


Calm Time:	0 hrs	0% calms	Operational Time:	663 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	89.1%				
Percentile	99	95	75	50	25	5	1	Average
	344.0	294.9	261.6	232.8	191.6	26.5	14.4	256 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	
	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-Dec-05	49	32	43	34	38	47	44	62	77	99	126	123	126	125	124	116	107	100	88	85	80	86	63	55	92	E	
2-Dec-05	52	70	67	68	68	73	60	61	49	40	38	29	18	48	54	58	64	61	60	46	35	23	12	17	53	NE	
3-Dec-05	8	17	17	313	290	248	344	206	191	222	227	242	201	223	197	194	273	262	266	286	275	245	260	261	253	WSW	
4-Dec-05	232	195	236	213	263	259	226	221	237	257	358	246	217	202	195	207	42	359	15	286	196	222	316	347	247	WSW	
5-Dec-05	346	318	312	306	307	308	314	308	290	280	292	293	273	266	288	295	300	251	276	283	282	288	294	244	299	WNW	
6-Dec-05	254	271	204	220	233	231	264	264	202	214	222	217	235	231	252	241	254	271	274	259	235	226	227	231	241	WSW	
7-Dec-05	230	230	236	238	233	225	207	206	201	199	201	198	196	189	188	202	243	250	253	247	240	256	265	257	231	SW	
8-Dec-05	262	266	254	255	266	266	269	257	208	206	237	245	248	260	256	252	255	259	254	247	241	252	253	253	252	WSW	
9-Dec-05	253	254	251	254	253	259	263	267	267	270	268	261	260	263	266	267	272	271	272	266	269	274	269	254	262	W	
10-Dec-05	249	251	257	261	250	250	243	251	255	260	239	236	253	257	254	260	258	260	265	268	267	265	261	251	257	WSW	
11-Dec-05	256	269	274	270	262	265	274	273	280	308	156	203	206	201	193	267	249	262	262	288	250	242	249	250	260	W	
12-Dec-05	228	218	192	221	238	267	263	234	235	242	258	273	265	270	263	265	265	268	267	258	261	271	285	286	256	WSW	
13-Dec-05	270	279	274	270	289	285	270	257	261	266	308	308	309	297	308	324	318	312	280	272	272	275	273	267	288	WNW	
14-Dec-05	266	266	257	258	277	275	246	243	261	264	250	262	256	255	348	37	56	80	24	50	48	47	31	30	287	WNW	
15-Dec-05	31	35	35	29	24	29	25	26	25	27	34	40	34	2	62	59	32	9	20	24	26	31	27	30	30	NNE	
16-Dec-05	38	28	33	42	37	42	37	42	41	36	53	49	250	151	75	98	51	46	50	354	105	143	201	186	54	NE	
17-Dec-05	172	202	188	176	176	176	182	198	190	198	201	203	199	202	192	173	223	237	217	236	220	221	247	214	200	SSW	
18-Dec-05	205	213	226	214	233	234	227	227	222	211	199	204	198	191	189	198	209	208	234	223	227	241	230	203	216	SW	
19-Dec-05	195	193	236	235	255	220	210	225	242	241	261	240	245	175	131	30	268	292	326	23	31	11	284	287	256	WSW	
20-Dec-05	220	217	210	228	223	224	235	229	221	230	259	258	261	203	101	130	157	263	263	260	214	247	236	237	231	SW	
21-Dec-05	230	220	221	235	232	199	191	203	197	212	201	193	184	155	198	269	219	233	236	241	258	146	212	251	217	SW	
22-Dec-05	293	254	269	268	253	221	237	192	211	196	217	197	222	202	214	201	216	243	239	267	245	250	231	204	231	SW	
23-Dec-05	216	206	231	233	217	245	261	266	264	260	253	248	260	251	247	237	237	278	261	265	277	267	211	229	250	WSW	
24-Dec-05	267	272	245	247	229	229	264	270	261	298	280	300	274	276	270	210	341	19	19	22	311	277	284	258	275	W	
25-Dec-05	237	250	212	239	262	266	244	256	224	208	223	221	245	211	214	202	213	225	210	184	186	205	268	236	228	SW	
26-Dec-05	227	208	198	203	258	200	226	222	192	199	218	248	N	N	N	N	N	N	N	N	N	N	N	N	N	N	-
27-Dec-05	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	-
28-Dec-05	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	-
29-Dec-05	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	-
30-Dec-05	265	268	277	280	325	36	27	27	19	18	19	19	29	30	32	261	173	118	64	114	213	198	264	260	355	N	
31-Dec-05	223	219	228	209	202	215	220	13	294	262	248	272	344	46	11	29	26	17	24	35	32	83	37	22	352	N	
Hourly Avg	255	256	253	253	258	256	263	255	249	249	249	250	249	239	248	254	257	266	268	267	259	257	267	259			

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

Station: Smoky Heights  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

**Wind Direction (WD)**

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

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Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	663 hrs			
Calibration Time:	0 hrs		AMD Operational Uptime:	89.1%			
Percentile	99	95	75	50	25	5	1
	46.9	31.5	11.5	6.6	4.0	2.4	1.9

**Status Flag Characters**

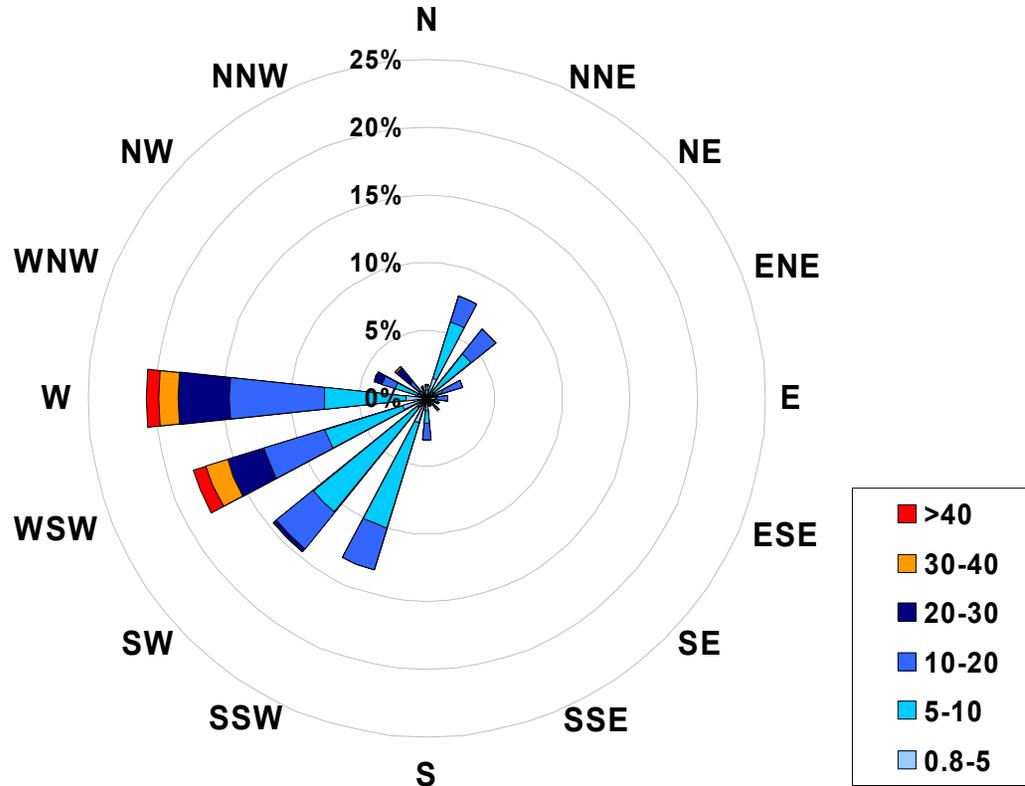
C Calibration	A AIC - Zero / Span Check
S Instrument out of Service	X Filter Exchange
N No Data	M Equipment Maintenance
D Excessive Instrument Drift	P Power Failure

**Day Mountain Standard Time**

Hour Start 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-Dec-05	16	10	7	6	6	5	6	6	8	8	8	8	6	8	9	8	7	7	6	5	6	9	10	15.9		
2-Dec-05	9	6	5	4	5	6	7	7	7	7	7	8	8	7	6	6	5	7	6	4	4	4	5	8.8		
3-Dec-05	6	13	15	11	17	52	20	31	22	28	8	8	11	16	10	4	18	3	3	4	7	5	2	4	52.0	
4-Dec-05	14	10	7	8	6	8	9	10	6	11	38	50	10	8	14	22	43	15	19	35	7	6	16	13	49.7	
5-Dec-05	9	9	5	4	5	4	4	3	3	2	4	5	6	10	12	9	33	13	12	3	8	5	5	30	33.1	
6-Dec-05	9	8	26	6	8	7	4	13	8	7	5	8	4	6	4	3	7	2	3	7	7	4	5	5	26.3	
7-Dec-05	8	5	4	3	2	5	3	4	4	3	3	4	3	9	13	9	6	3	3	3	4	4	3	3	13.4	
8-Dec-05	3	5	2	3	3	3	2	5	7	4	4	3	3	3	2	2	3	3	3	4	3	3	3	2	6.6	
9-Dec-05	2	3	3	3	3	3	3	4	2	3	3	3	3	3	3	2	2	2	2	2	2	2	2	4	3.6	
10-Dec-05	4	6	5	3	3	3	5	5	3	3	4	3	3	3	3	3	3	3	2	2	2	2	3	2	5.7	
11-Dec-05	3	3	2	3	2	3	2	2	17	30	46	21	5	7	12	40	24	8	10	12	15	26	10	9	46.0	
12-Dec-05	4	5	30	12	4	6	4	8	4	3	4	7	4	3	3	5	2	1	2	2	2	6	5	3	29.7	
13-Dec-05	8	3	2	5	4	7	7	5	7	4	9	4	5	5	7	5	5	5	3	4	2	3	3	2	8.5	
14-Dec-05	2	2	4	4	14	44	35	8	15	9	11	5	29	25	16	9	53	32	14	8	4	4	2	4	53.3	
15-Dec-05	2	2	3	5	3	3	4	4	4	3	3	5	7	42	26	6	7	12	6	5	4	4	4	6	42.0	
16-Dec-05	4	6	5	4	6	10	7	7	6	7	6	17	43	16	11	22	21	8	7	20	42	22	8	5	42.9	
17-Dec-05	6	10	6	6	5	4	8	3	4	6	4	5	5	5	13	10	6	6	8	3	6	8	5	4	13.2	
18-Dec-05	3	3	6	3	5	4	5	3	3	4	4	5	4	4	4	4	3	6	4	2	5	3	7	4	6.8	
19-Dec-05	4	6	6	9	12	9	8	11	12	10	22	14	39	18	21	31	16	7	13	12	14	39	7	10	39.0	
20-Dec-05	11	10	7	6	7	7	8	11	8	8	6	6	11	17	26	34	41	47	7	21	22	15	9	7	47.4	
21-Dec-05	6	5	9	14	25	8	5	5	14	13	15	26	16	13	36	14	13	15	14	17	33	43	12	8	42.8	
22-Dec-05	15	64	11	6	13	20	15	13	27	9	12	10	10	8	13	10	6	6	11	6	12	9	15	5	64.4	
23-Dec-05	5	11	6	8	6	4	5	3	2	2	3	3	4	3	3	3	4	12	4	7	5	8	14	17	17.4	
24-Dec-05	13	9	6	6	22	7	10	15	24	24	20	16	8	5	7	29	45	9	7	8	22	9	10	18	44.8	
25-Dec-05	10	11	23	11	7	8	6	13	19	23	14	15	10	14	8	10	6	15	9	29	12	18	19	50	50.2	
26-Dec-05	47	29	36	11	14	8	20	7	26	8	7	22	N	N	N	N	N	N	N	N	N	N	N	N	46.7	
27-Dec-05	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
28-Dec-05	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
29-Dec-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	12.6
30-Dec-05	8	4	6	5	31	6	5	38	27	8	8	7	7	7	24	37	56	43	16	30	18	21	30	22	55.7	
31-Dec-05	10	10	11	8	8	7	11	23	17	7	6	7	34	10	7	4	3	6	6	6	18	14	5	4	34.5	

Hourly Max	47	64	36	14	31	52	35	38	27	30	46	50	43	42	36	40	56	47	19	35	42	43	30	50
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1-hr Average Wind Rose (in km/hr) Located at the Smoky Heights Site for December 2005



**Calms: 0%**

Frequency Distribution of Wind in km/hr			Frequency (hrs)
Range			
0.8	< 5		90
5	to 10		283
10	to 20		198
20	to 30		58
30	to 40		21
	> 40		13
Total Non-Zero Values			663

# PASZA - Beaverlodge

Monthly Summary Tables, Graphs, and Roses

### PASZA - Beaverlodge AQI Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

## Air Quality Index (AQI)

Monitoring Dates: December 1, 2005 to January 1, 2006

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:	661
Number of 1-hr Fair Readings:	2
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
1-Dec-05	11	12	13	14	15	14	12	11	10	10	N	N	14	13	13	13	13	13	13	13	13	12	12	11
2-Dec-05	9	9	10	9	9	10	10	9	10	10	10	11	12	12	11	10	9	5	9	10	9	5	6	N
3-Dec-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4-Dec-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	5	4	5	7	6	8	9	9	7	8
5-Dec-05	8	9	9	10	10	10	10	10	9	8	7	9	10	11	10	8	7	9	7	8	9	5	7	8
6-Dec-05	4	8	6	5	N	5	5	4	4	4	6	N	N	N	N	5	8	6	6	7	6	8	9	
7-Dec-05	11	15	26	35	25	20	14	13	9	9	7	N	N	N	N	N	N	N	N	N	19	18	18	18
8-Dec-05	18	18	17	17	N	16	16	17	17	17	17	18	18	18	19	19	18	19	20	21	20	20	21	
9-Dec-05	20	20	21	21	N	20	19	19	19	19	19	19	19	19	19	18	17	17	18	19	20	20	20	
10-Dec-05	20	20	20	20	N	21	20	20	21	20	21	21	21	22	22	22	22	22	22	21	21	21	21	21
11-Dec-05	21	21	21	19	N	18	17	17	17	17	19	16	17	17	17	17	14	17	19	12	12	8	10	15
12-Dec-05	15	16	19	19	N	20	20	19	19	19	18	18	18	17	16	17	16	12	15	17	17	17	17	
13-Dec-05	15	14	16	15	N	15	15	15	14	14	15	15	15	16	16	12	9	13	12	12	10	11	13	13
14-Dec-05	14	13	16	16	N	16	15	14	14	12	14	14	11	11	12	8	8	8	10	13	13	11	7	7
15-Dec-05	11	12	12	11	N	4	7	4	4	4	4	5	5	6	7	6	5	4	5	4	7	5	6	4
16-Dec-05	6	5	5	5	N	5	4	4	6	N	4	5	5	6	6	5	4	5	5	4	5	5	6	6
17-Dec-05	7	7	6	6	N	7	6	6	6	6	7	7	7	7	7	9	9	7	8	8	9	8	7	7
18-Dec-05	8	8	8	8	N	8	7	3	4	7	8	6	8	9	10	11	9	11	12	9	5	10	12	11
19-Dec-05	11	12	13	13	N	12	12	13	10	12	4	4	10	5	6	4	4	5	9	5	5	5	5	4
20-Dec-05	4	4	4	4	N	3	3	3	4	3	5	3	4	4	5	4	4	4	4	3	3	3	4	3
21-Dec-05	4	4	4	4	N	4	4	4	8	11	12	8	8	9	11	12	14	12	10	10	13	10	5	9
22-Dec-05	10	8	7	3	N	3	4	3	3	3	2	2	5	6	3	3	3	3	3	3	4	4	5	8
23-Dec-05	6	6	8	12	N	13	14	15	15	17	17	16	17	17	18	19	19	18	16	15	16	15	12	12
24-Dec-05	15	15	13	11	N	14	14	14	15	14	12	9	8	6	5	3	3	3	5	5	5	4	4	3
25-Dec-05	3	2	4	6	N	4	4	4	4	4	2	6	7	6	3	5	9	4	3	3	2	2	3	4
26-Dec-05	7	10	9	8	N	11	9	8	7	9	9	7	6	7	6	10	5	3	3	2	3	4	4	5
27-Dec-05	4	3	3	2	N	2	3	2	2	2	4	5	4	4	3	5	4	4	4	3	3	3	7	11
28-Dec-05	14	14	15	16	N	17	13	14	15	14	12	11	10	10	13	16	7	4	4	12	16	17	14	11
29-Dec-05	9	6	6	7	N	6	6	8	8	10	6	7	9	10	9	7	7	9	11	12	11	13	12	12
30-Dec-05	8	5	8	5	N	4	4	4	4	4	5	5	5	4	5	4	5	5	5	4	5	4	4	5
31-Dec-05	5	5	5	4	N	4	4	5	4	4	6	6	7	7	8	8	7	7	7	8	9	8	9	8

### PASZA - Beaverlodge Sulphur Dioxide Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

#### HOURLY AVERAGE TABLE

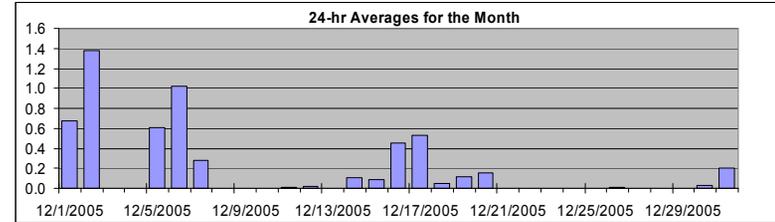
#### Sulphur Dioxide (SO<sub>2</sub>)

Monitoring Dates: December 1, 2005 to January 1, 2006

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:	2.2	ppb	6-Dec	14:00 15:00
Maximum 24-hr Average:	1.4	ppb	2-Dec	



AIC Time:	25 hrs	Operational Time:	673 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	94.5%						
Percentile	99	95	75	50	25	5	1	Average	Median
	1.8	1.4	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	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-Dec-05	0	0	0	0	1	1	1	1	1	1	N	N	1	0	1	1	1	1	1	1	1	1	1	1	0.7	1.4	
2-Dec-05	2	2	1	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	N	1.4	2.0	
3-Dec-05	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
4-Dec-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	2	1	1	2	2	2	2	1	1	1	1	N	1.9
5-Dec-05	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	1.2
6-Dec-05	0	0	0	0	A	0	0	0	0	0	0	1	1	2	1	2	2	2	2	2	2	2	2	1	1	1.0	2.2
7-Dec-05	1	1	1	0	0	0	0	1	0	0	1	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0.3	0.9
8-Dec-05	0	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
9-Dec-05	0	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
10-Dec-05	0	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
11-Dec-05	0	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
12-Dec-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.0	0.5
13-Dec-05	0	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
14-Dec-05	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	0.1	1.1
15-Dec-05	0	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
16-Dec-05	0	0	0	0	A	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	2	1	1	1	0.5	1.6
17-Dec-05	1	1	0	1	A	2	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0.5	1.6
18-Dec-05	0	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
19-Dec-05	0	0	0	0	A	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0
20-Dec-05	0	0	0	0	A	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.2
21-Dec-05	0	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
22-Dec-05	0	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
23-Dec-05	0	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
24-Dec-05	0	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-Dec-05	0	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
26-Dec-05	0	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
27-Dec-05	0	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
28-Dec-05	0	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
29-Dec-05	0	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-Dec-05	0	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
31-Dec-05	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0.2	0.7
Hourly Avg	0.2	0.2	0.2	0.2	N	0.2	0.2	0.2	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	0.2	0.2	0.2	0.2	0.2	
Hourly Max	1.8	1.7	1.4	2.0	1.9	1.6	1.6	1.8	1.6	1.5	1.6	1.5	1.7	1.5	2.2	1.8	2.1	2.2	1.9	1.9	1.6	1.6	1.4	1.4			

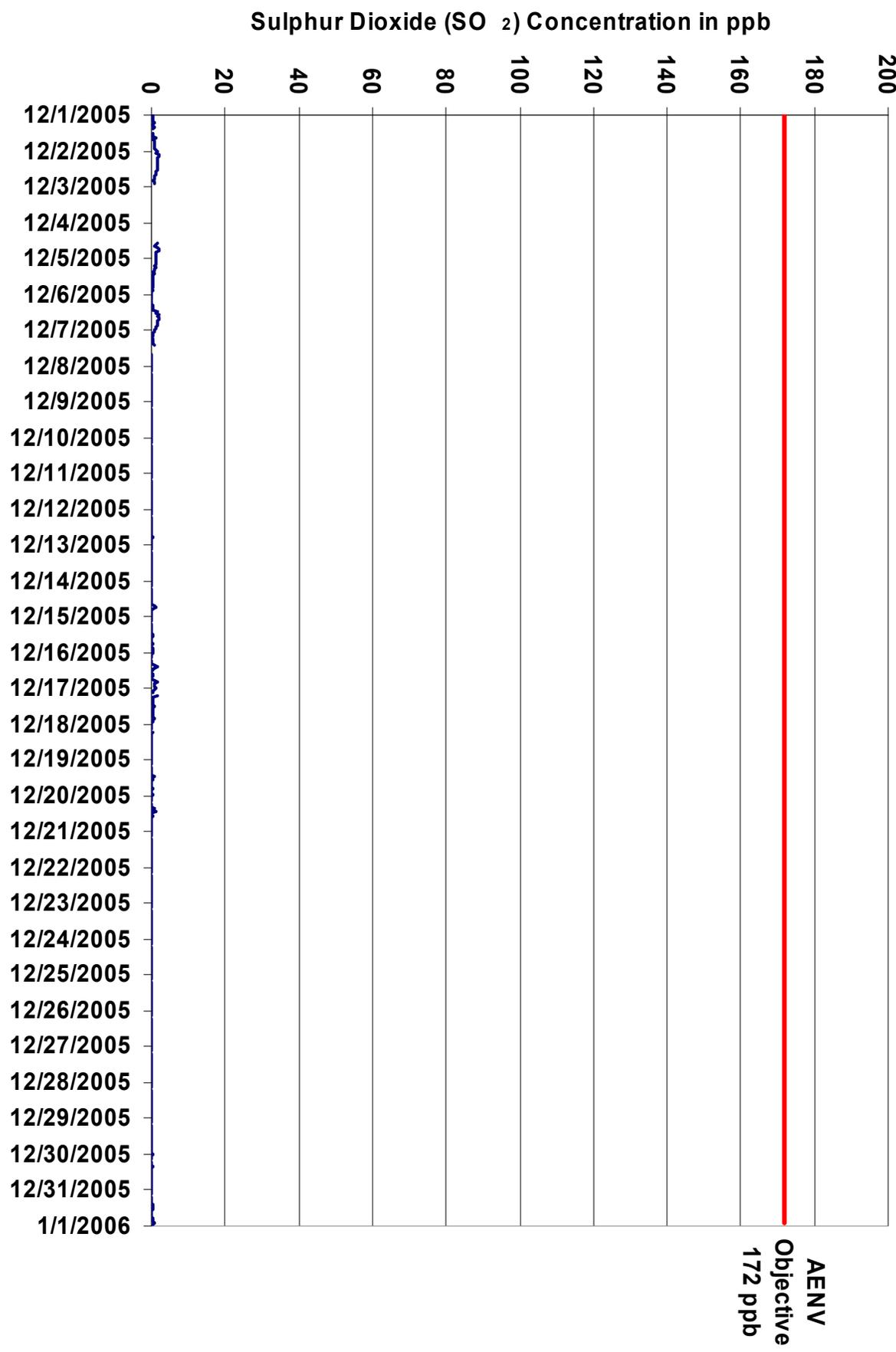


Figure 34. PASZA - Beaverlodge Sulphur Dioxide 1-hr Average Monthly Trend

Station: Beaverlodge  
 Station Owner: PASZA

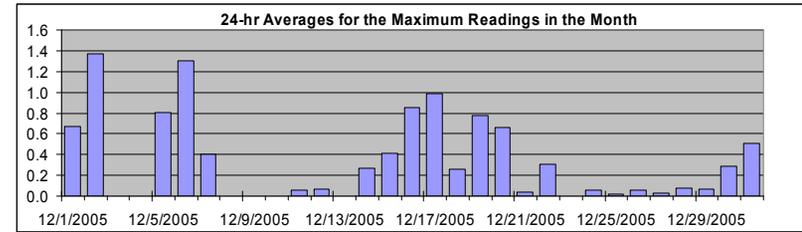
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Value:	3.6	ppb	20-Dec	8:00 9:00
Maximum 24-hr Value:	1.4	ppb	2-Dec	



AIC Time:	25 hrs	Operational Time:	673 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	94.5%						
Percentile	99	95	75	50	25	5	1	Average	Median
	2.5	1.7	0.5	0.0	0.0	0.0	0.0	0.4 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-Dec-05	0	0	0	0	1	1	1	1	1	1	N	N	1	0	1	1	1	1	1	1	1	1	1	1	0.7	1.4	
2-Dec-05	2	2	1	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	N	1.4	2.0	
3-Dec-05	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	0.0
4-Dec-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	2	1	1	2	2	2	1	1	1	1	N	1.9	2.2
5-Dec-05	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	0	0	0	1	0	1	0	0	0.8	2.2	
6-Dec-05	0	0	0	0	A	0	0	0	1	1	1	1	3	2	3	2	2	2	2	2	2	2	1	1	1.3	2.9	
7-Dec-05	1	1	1	0	0	0	0	1	0	0	1	C	C	C	C	C	2	0	0	0	0	0	0	0	0.4	2.3	
8-Dec-05	0	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	
9-Dec-05	0	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	
10-Dec-05	0	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	
11-Dec-05	0	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	
12-Dec-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0.1	1.0	
13-Dec-05	0	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	
14-Dec-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	2	2	1	0	0	0	0	0	0.3	1.8	
15-Dec-05	0	0	0	0	A	0	0	1	0	1	1	0	0	0	0	0	0	0	1	1	0	1	0	1	0.4	1.3	
16-Dec-05	1	0	0	0	A	0	0	0	2	2	2	0	0	0	1	1	0	0	0	2	2	1	1	2	0.9	2.4	
17-Dec-05	2	1	1	1	A	2	1	1	1	0	1	1	1	1	0	1	1	0	1	0	4	1	1	0	1.0	3.5	
18-Dec-05	0	0	0	0	A	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.5	
19-Dec-05	0	0	0	0	A	0	0	0	2	0	1	3	1	1	1	0	0	0	3	2	1	1	1	2	0.8	2.7	
20-Dec-05	1	0	1	0	A	0	0	1	4	1	3	1	0	1	0	0	0	0	1	0	0	0	1	0	0.7	3.6	
21-Dec-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2	
22-Dec-05	0	1	0	0	A	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	1	0	0	0	0.3	1.8	
23-Dec-05	0	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	
24-Dec-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.1	0.6	
25-Dec-05	0	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	
26-Dec-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1	0.7	
27-Dec-05	0	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	0.4	
28-Dec-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.1	1.3	
29-Dec-05	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	0.9	
30-Dec-05	1	0	0	0	A	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9	
31-Dec-05	0	0	0	0	A	0	0	0	0	0	2	2	1	1	0	0	1	0	0	1	1	1	1	1	0.5	2.1	
Hourly Avg	0.4	0.2	0.2	0.2	N	0.2	0.2	0.3	0.6	0.3	0.6	0.4	0.4	0.3	0.4	0.3	0.5	0.4	0.5	0.5	0.5	0.3	0.3	0.4			
Hourly Max	1.8	1.7	1.4	2.0	1.9	2.1	1.6	1.8	3.6	2.0	2.6	2.7	2.7	2.1	2.9	1.8	2.3	2.2	2.6	2.4	3.5	1.6	1.4	2.1			

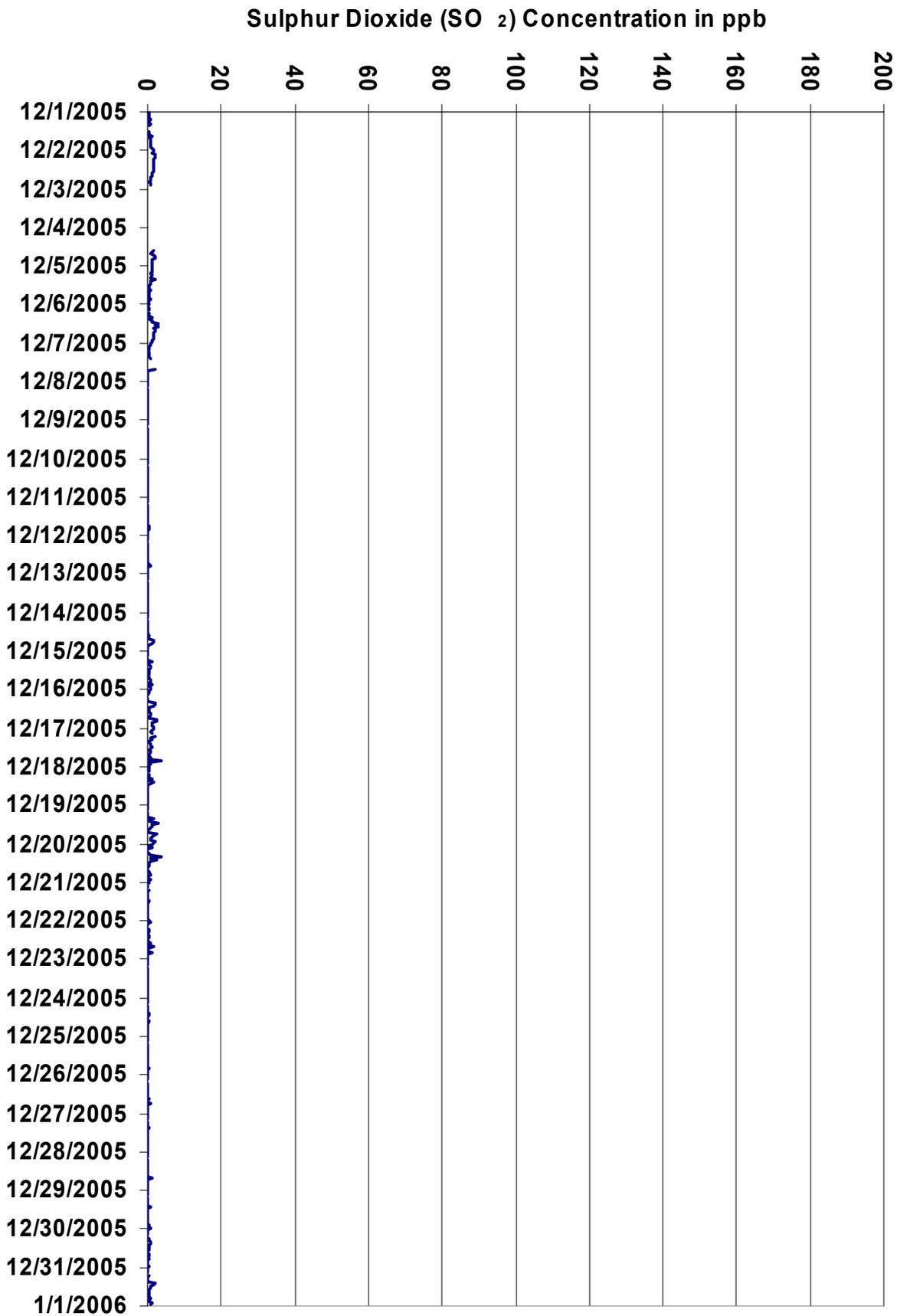
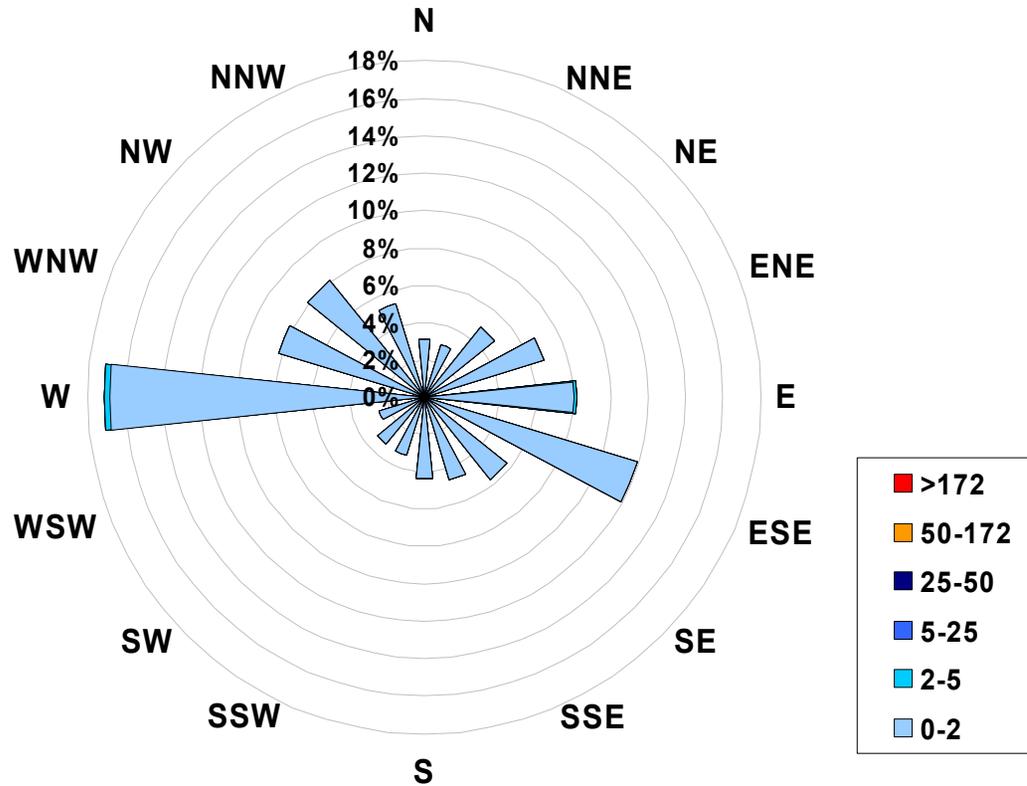


Figure 35. PASZA - Beaverlodge Sulphur Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Sulphur Dioxide (in ppb) Located at the Beaverlodge Site for December 2005**



**Calms: 0%**

Frequency Distribution of SO <sub>2</sub> in ppb			Frequency (hrs)
Range			
0.0	< 2		669
2	to 5		3
5	to 25		0
25	to 50		0
50	to 172		0
	> 172		0
Total Non-Zero Values			673

### PASZA - Beaverlodge Nitrogen Dioxide Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

#### HOURLY AVERAGE TABLE

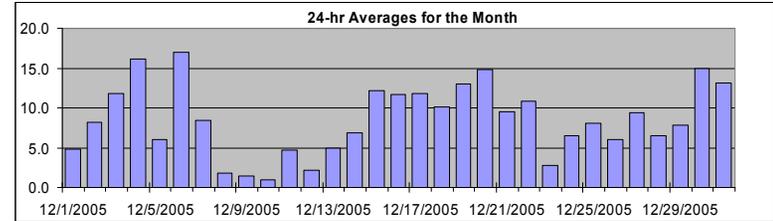
#### Nitrogen Dioxide (NO<sub>2</sub>)

Monitoring Dates: December 1, 2005 to January 1, 2006

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:	23.0 ppb 22:00 - 23:00
Maximum 24-hr Average:	17.0 ppb 6-Dec



AIC Time:	25 hrs	Operational Time:	714 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	21.0	18.0	12.9	7.9	3.6	1.0	0.8	8.5 ppb	7.9 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	23:00 0:00		
1-Dec-05	9	8	6	4	2	3	4	6	7	7	6	3	3	3	4	4	5	4	4	4	4	4	5	6	4.8	9.0
2-Dec-05	7	7	6	7	6	6	6	7	6	6	5	4	3	4	6	7	9	18	8	7	7	19	23	12	8.2	23.0
3-Dec-05	8	9	11	16	17	11	15	15	15	14	12	6	6	4	6	9	9	11	19	16	12	12	13	17	11.8	19.0
4-Dec-05	18	20	19	18	18	18	17	18	18	16	14	12	11	11	15	15	19	18	18	19	20	19	10	6	16.1	20.0
5-Dec-05	4	3	3	3	2	1	3	4	7	6	9	5	4	3	5	10	11	6	9	8	6	14	10	7	6.0	14.2
6-Dec-05	14	7	10	22	A	10	9	15	15	16	13	C	C	C	C	C	21	23	23	23	23	23	21	18	17.0	23.0
7-Dec-05	18	17	17	13	12	12	13	14	13	15	17	6	8	5	5	2	2	2	3	2	2	1	2	8.5	18.0	
8-Dec-05	2	1	1	1	A	2	4	2	3	3	3	2	1	1	1	2	3	3	2	1	2	1	1	1	1.9	3.8
9-Dec-05	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	2	3	4	3	2	1	1	1	1	1.4	3.6
10-Dec-05	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4
11-Dec-05	1	1	1	1	A	3	2	2	2	2	3	4	4	3	4	4	8	6	7	13	11	13	10	4	4.8	13.1
12-Dec-05	3	2	1	1	A	1	1	1	1	2	1	1	1	2	2	2	4	10	4	2	2	2	1	1	2.2	10.5
13-Dec-05	3	3	2	3	A	3	3	3	5	5	4	3	2	2	2	8	14	10	9	8	9	5	4	3	4.9	14.0
14-Dec-05	3	4	2	2	A	2	3	5	4	7	4	3	8	8	7	12	13	13	12	7	4	7	14	12	6.8	13.7
15-Dec-05	4	3	3	5	A	15	7	16	15	11	15	9	12	10	8	10	18	18	19	19	17	14	16	16	12.2	19.4
16-Dec-05	14	14	14	14	A	10	13	14	11	12	9	7	7	6	8	10	12	15	12	11	14	18	15	12	11.7	17.7
17-Dec-05	13	16	13	13	A	12	11	12	14	12	9	7	6	6	7	9	12	13	14	16	15	13	13	15	11.8	16.1
18-Dec-05	16	12	15	16	A	16	15	14	12	9	6	9	8	8	7	7	11	6	3	8	14	9	6	7	10.2	16.4
19-Dec-05	7	7	6	5	A	8	6	7	12	7	12	15	9	18	14	17	17	20	14	21	20	19	20	19	13.0	20.9
20-Dec-05	19	17	16	15	A	12	13	13	17	14	9	12	13	14	14	16	19	17	16	15	14	14	17	14	14.8	18.9
21-Dec-05	18	16	18	16	A	15	16	16	9	4	4	6	7	4	4	5	5	7	9	7	2	8	14	9	9.6	18.2
22-Dec-05	7	9	8	10	A	13	13	15	14	12	10	10	7	6	10	10	13	13	14	13	11	12	11	7	10.9	14.7
23-Dec-05	9	8	7	3	A	2	1	2	3	1	1	1	1	1	1	1	1	1	4	3	3	3	5	5	2.8	9.4
24-Dec-05	3	2	4	4	A	3	3	3	4	4	6	9	10	9	9	11	11	10	7	6	6	6	8	8	6.5	11.5
25-Dec-05	8	10	9	7	A	8	7	7	7	9	8	8	6	6	6	6	6	5	11	12	7	7	12	12	8.0	12.0
26-Dec-05	4	3	3	4	A	2	3	4	4	4	5	4	4	4	7	5	9	12	9	8	8	10	11	11	6.0	12.0
27-Dec-05	11	11	11	10	A	10	9	8	10	10	8	7	8	9	10	11	10	9	10	10	10	12	8	5	9.4	11.7
28-Dec-05	2	3	3	2	A	2	8	6	3	4	5	7	9	8	7	4	16	18	16	7	3	1	5	9	6.5	18.1
29-Dec-05	9	4	10	11	A	13	10	7	6	5	9	8	6	6	7	9	12	9	7	6	6	4	8	8	7.8	12.6
30-Dec-05	15	13	11	14	A	13	17	15	16	15	11	13	14	15	12	16	19	17	16	17	18	14	16	16	14.9	19.0
31-Dec-05	16	15	14	14	A	16	15	15	13	12	12	9	9	8	10	11	12	15	14	14	15	15	16	14	13.2	15.8
Hourly Avg	8.6	8.0	7.9	8.3	N	7.8	8.0	8.7	8.7	7.9	7.5	6.5	6.3	6.2	6.7	7.8	10.4	10.9	10.3	9.8	9.2	9.8	10.2	9.0		
Hourly Max	18.9	20.0	19.0	21.9	18.0	18.0	17.0	18.0	18.0	16.4	17.0	14.9	13.5	18.0	15.0	16.6	21.0	23.0	23.0	23.0	23.0	23.0	23.0	18.6		

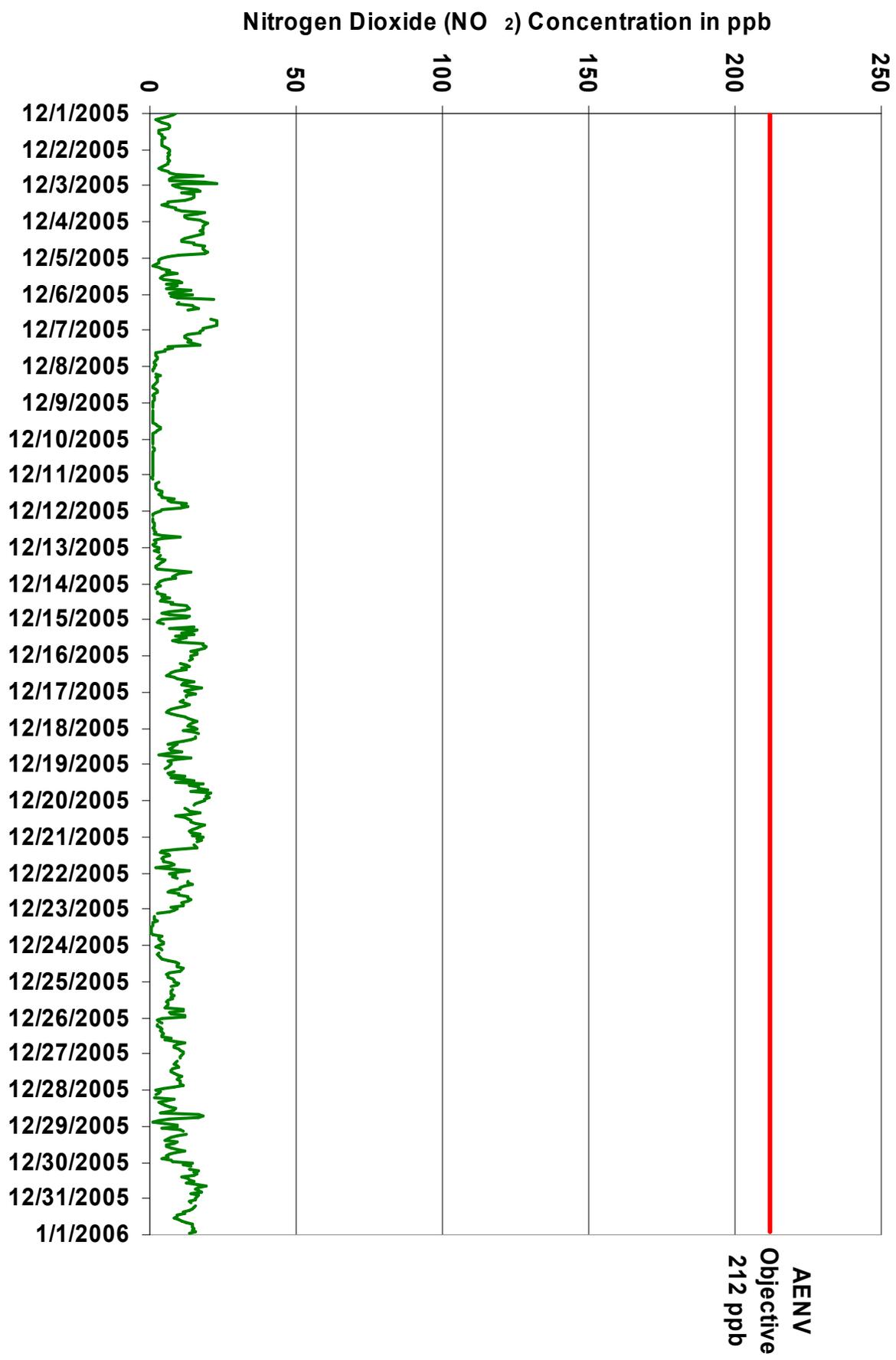


Figure 36. PASZA - Beaverlodge Nitrogen Dioxide 1-hr Average Monthly Trend

Station: Beaverlodge  
 Station Owner: PASZA

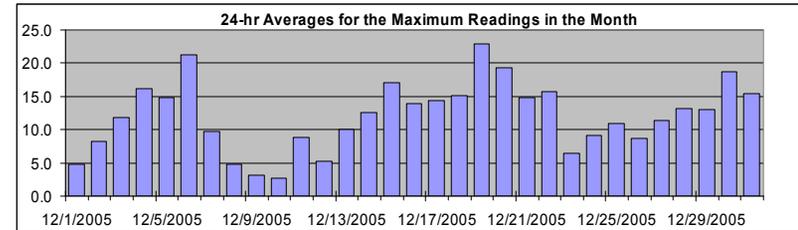
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Value:	140.6	ppb	5-Dec	8:00 9:00
Maximum 24-hr Value:	22.9	ppb	19-Dec	



AIC Time:	25 hrs	Operational Time:	714 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	30.8	23.0	17.0	11.4	6.0	2.2	1.5	12.0 ppb	11.4 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-Dec-05	9	8	6	4	2	3	4	6	7	7	6	3	3	3	4	4	5	4	4	4	4	4	5	6	4.8	9.0
2-Dec-05	7	7	6	7	6	6	6	7	6	6	5	4	3	4	6	7	9	18	8	7	7	19	23	12	8.2	23.0
3-Dec-05	8	9	11	16	17	11	15	15	15	14	12	6	6	4	6	9	9	11	19	16	12	12	13	17	11.8	19.0
4-Dec-05	18	20	19	18	18	18	17	18	18	16	14	12	11	11	15	15	19	18	18	19	20	19	10	6	16.1	20.0
5-Dec-05	4	3	3	3	2	1	3	7	141	8	17	9	7	5	8	20	15	8	18	15	8	26	15	7	14.8	140.6
6-Dec-05	25	9	22	27	A	14	15	21	24	20	29	C	C	C	C	C	21	23	23	23	23	23	21	18	21.3	28.9
7-Dec-05	18	17	17	13	12	12	13	14	13	15	17	6	8	5	5	2	4	7	10	9	6	5	3	4	9.8	18.0
8-Dec-05	3	2	2	3	A	4	12	5	6	6	7	6	4	3	4	5	5	9	5	3	5	4	5	2	4.7	12.0
9-Dec-05	2	2	1	2	A	2	2	2	2	2	2	3	2	3	5	6	7	7	5	7	3	3	2	3	3.1	6.8
10-Dec-05	3	2	3	3	A	2	4	5	2	3	3	2	2	2	3	2	2	3	2	3	2	4	3	2	2.6	5.4
11-Dec-05	3	3	1	2	A	11	4	7	8	4	7	8	9	5	6	6	15	8	12	21	20	23	15	7	8.8	23.4
12-Dec-05	7	5	1	2	A	2	2	4	5	4	3	3	5	4	6	4	9	17	16	6	5	4	3	5	5.2	17.3
13-Dec-05	7	12	6	7	A	10	10	5	11	9	7	6	5	5	5	19	21	20	23	14	15	7	5	5	10.0	23.2
14-Dec-05	3	6	4	4	A	5	4	8	6	13	13	5	15	10	16	22	25	31	19	14	12	23	20	16	12.6	30.8
15-Dec-05	6	4	3	7	A	24	23	30	20	21	22	10	14	12	11	16	22	21	23	21	20	22	20	18	17.0	30.3
16-Dec-05	16	16	16	15	A	14	15	16	13	15	13	9	9	7	10	13	15	18	14	12	19	19	19	13	14.0	19.1
17-Dec-05	15	18	16	14	A	16	13	15	15	15	12	9	7	7	9	11	14	15	17	19	24	16	17	16	14.4	24.5
18-Dec-05	17	18	18	18	A	19	16	15	16	18	20	13	9	10	8	14	19	11	5	23	21	12	9	17	15.1	22.5
19-Dec-05	10	9	12	17	A	20	15	12	30	12	26	36	19	22	19	19	22	24	68	35	25	26	24	25	22.9	68.3
20-Dec-05	23	22	24	20	A	17	16	18	35	27	14	14	15	16	18	17	21	20	19	17	15	15	23	18	19.3	34.7
21-Dec-05	19	19	19	17	A	17	17	18	20	8	7	8	17	7	10	13	11	19	22	11	7	26	18	11	14.9	25.6
22-Dec-05	15	19	18	13	A	15	17	20	21	14	14	12	10	11	13	13	23	17	16	15	18	17	16	16	15.7	23.2
23-Dec-05	20	10	10	8	A	3	4	7	5	3	3	3	2	2	1	1	1	4	13	8	18	8	7	8	6.5	20.0
24-Dec-05	4	3	5	5	A	4	3	4	5	6	7	16	18	13	17	15	17	14	8	7	7	8	10	10	9.1	18.5
25-Dec-05	10	12	17	13	A	11	10	9	8	11	10	10	7	7	10	10	10	9	14	14	14	9	14	14	10.9	16.7
26-Dec-05	8	3	5	6	A	3	4	11	6	6	6	13	6	5	9	9	16	15	14	10	10	12	12	12	8.7	16.0
27-Dec-05	12	11	12	11	A	11	12	11	11	14	11	9	9	11	10	15	13	11	13	11	13	14	9	7	11.4	15.4
28-Dec-05	5	10	5	4	A	10	33	14	9	6	11	14	15	13	21	9	34	24	20	13	5	2	13	16	13.2	33.6
29-Dec-05	23	17	18	14	A	22	13	11	11	13	19	14	8	8	10	14	16	11	10	12	13	6	10	9	13.0	23.4
30-Dec-05	24	19	14	21	A	18	19	20	21	19	14	19	17	17	15	18	22	22	17	19	20	18	18	18	18.7	23.8
31-Dec-05	17	17	16	14	A	20	16	17	15	14	18	15	12	11	11	12	15	17	16	16	17	16	18	15	15.4	19.5
Hourly Avg	11.7	10.7	10.6	10.5	N	11.0	11.5	11.9	16.9	11.2	11.9	9.9	9.0	8.0	9.7	11.4	14.8	14.7	15.8	13.7	13.1	13.6	12.9	11.4		
Hourly Max	25.1	22.4	24.2	27.4	18.0	23.7	33.3	30.3	140.6	26.9	28.9	36.1	18.7	22.2	20.7	21.8	33.6	30.8	68.3	35.0	25.2	26.3	24.0	25.0		

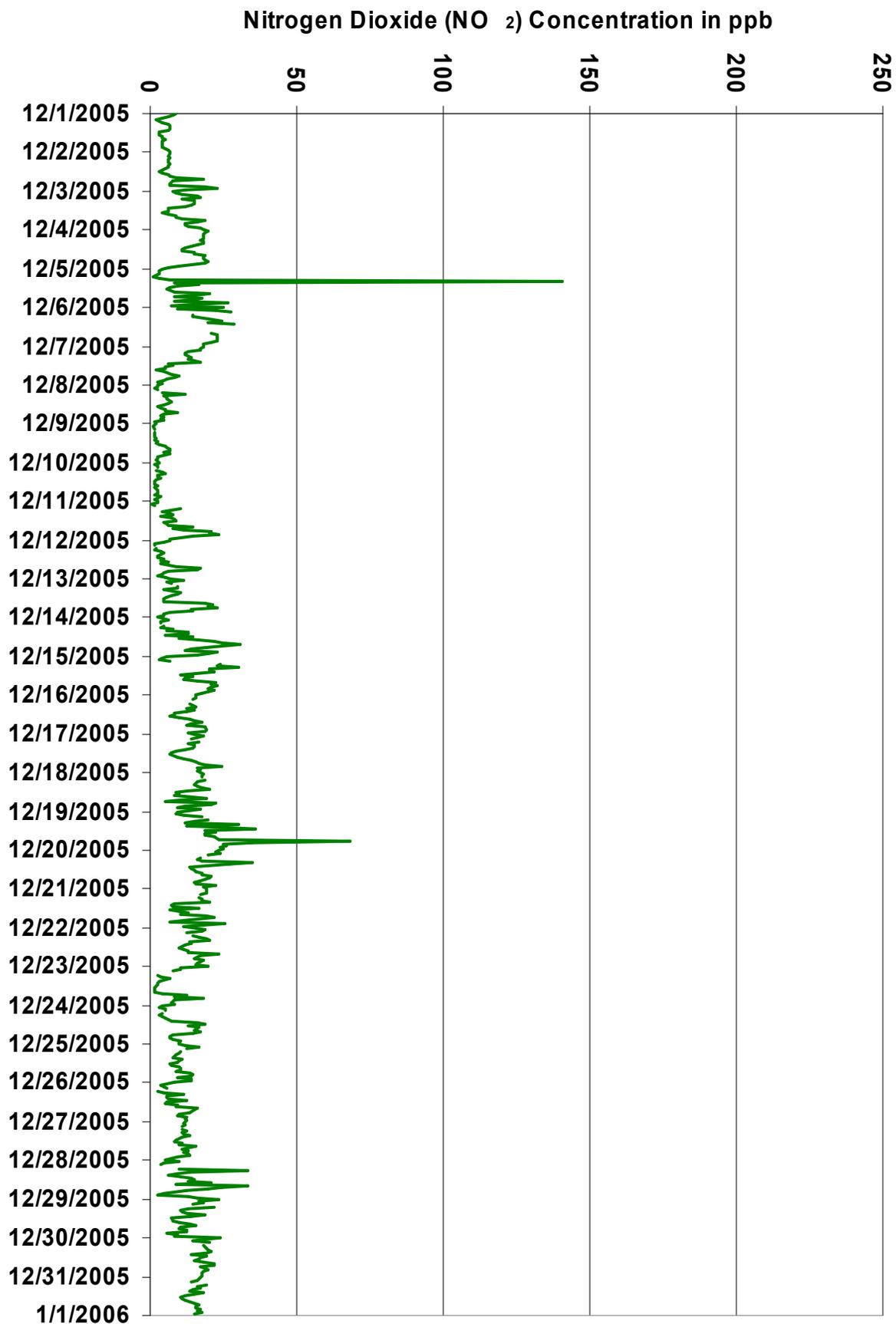
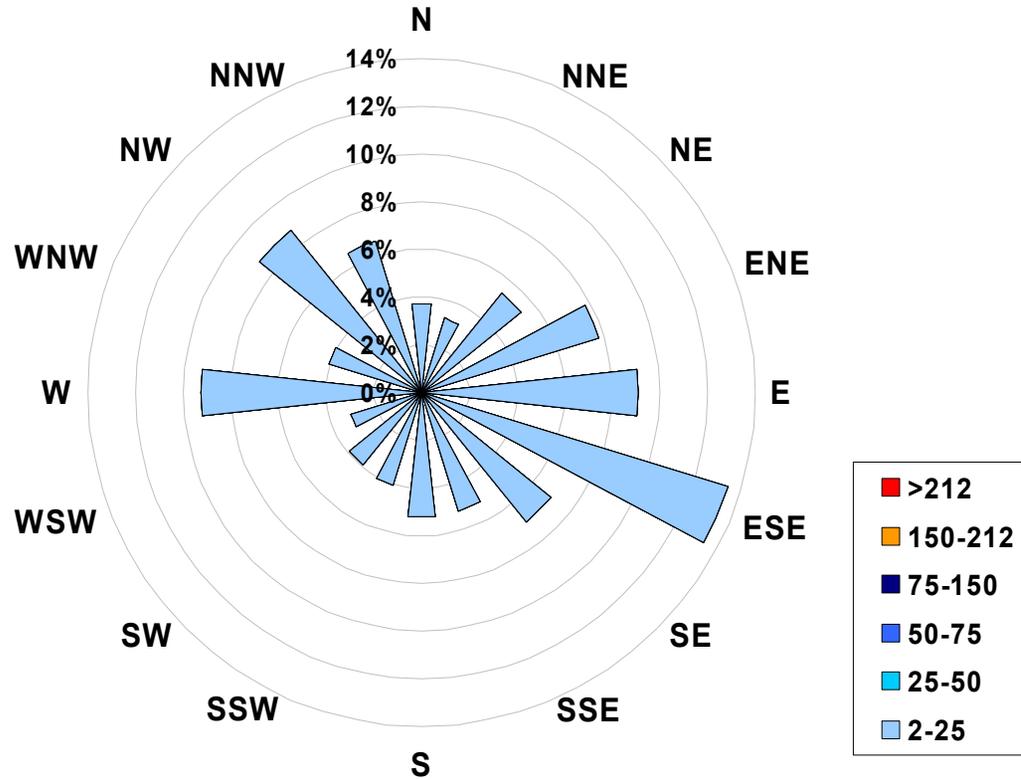


Figure 37. PASZA - Beaverlodge Nitrogen Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Nitrogen Dioxide (in ppb) Located at the Beaverlodge Site for December 2005**



**Calms: 0%**

Frequency Distribution of NO <sub>2</sub> in ppb			Frequency (hrs)
Range			
2.0	< 25		705
25	to 50		6
50	to 75		2
75	to 150		0
150	to 212		0
	> 212		0
Total Non-Zero Values			714

### PASZA - Beaverlodge Nitric Oxide Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

#### HOURLY AVERAGE TABLE

#### Nitric Oxide (NO)

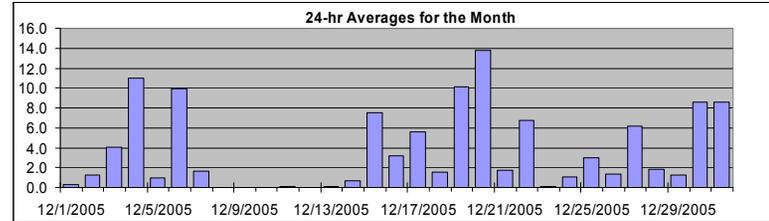
Monitoring Dates: December 1, 2005 to January 1, 2006

Guideline Limit: 

1-hr	na	ppb	24-hr	na	ppb
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 Summary

Maximum 1-hr Average:	61.0	ppb	20-Dec	10:00 11:00
Maximum 24-hr Average:	13.8	ppb	20-Dec	



AIC Time:	25 hrs	Operational Time:	714 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	26.7	16.0	4.5	0.4	0.0	0.0	0.0	3.6 ppb	0.4 ppb

<b>Status Flag Characters</b>			
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-Dec-05	0	0	0	0	0	0	0	0	0	0	1	2	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	2.0
2-Dec-05	0	0	0	0	0	0	0	0	0	0	1	2	2	2	2	2	2	1	1	0	0	0	8	8	0	0	1.3	8.0	
3-Dec-05	0	0	0	1	3	2	3	1	1	12	16	7	8	5	7	7	2	0	14	4	0	0	0	0	5	4.1	16.0		
4-Dec-05	5	11	10	11	17	15	15	19	16	22	20	17	19	16	16	8	5	2	3	5	7	5	0	0	0	11.0	22.0		
5-Dec-05	0	0	0	0	0	1	1	1	0	1	5	3	2	1	2	3	1	0	0	0	0	3	0	0	0	1.0	4.7		
6-Dec-05	1	0	0	3	A	0	0	1	3	7	15	C	C	C	C	C	27	30	25	23	12	16	12	3	9.9	30.0			
7-Dec-05	2	1	3	0	1	0	4	7	0	2	13	1	3	1	1	0	0	0	0	0	0	0	0	0	0	1.6	13.0		
8-Dec-05	0	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		
9-Dec-05	0	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		
10-Dec-05	0	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		
11-Dec-05	0	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	1.2		
12-Dec-05	0	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		
13-Dec-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.1	0.9		
14-Dec-05	0	0	0	0	A	0	0	0	0	0	0	1	3	3	2	3	1	2	0	0	0	1	0	0	0	0.7	3.4		
15-Dec-05	0	0	0	0	A	4	0	15	3	4	16	10	12	9	4	2	10	12	17	17	6	10	13	6	7.5	17.2			
16-Dec-05	13	3	3	3	A	0	1	2	1	4	4	5	5	4	4	3	2	3	0	0	3	8	2	0	3.1	12.8			
17-Dec-05	0	7	1	0	A	2	1	7	1	3	5	6	7	7	8	9	9	7	7	1	23	11	7	1	5.6	22.5			
18-Dec-05	0	0	0	0	A	4	1	0	6	0	6	7	5	4	2	0	0	0	0	0	0	0	0	0	0	1.5	7.3		
19-Dec-05	0	0	0	0	A	0	0	0	9	0	11	55	12	38	16	14	4	1	3	20	17	7	12	15	10.1	54.9			
20-Dec-05	19	0	19	8	A	7	11	12	46	25	61	20	12	12	6	3	3	7	13	13	3	2	8	5	13.8	61.0			
21-Dec-05	6	4	3	1	A	1	2	1	0	0	1	4	7	3	2	1	0	0	1	0	0	2	0	0	1.7	6.5			
22-Dec-05	0	0	1	2	A	1	1	8	12	15	12	11	5	8	22	12	19	8	8	3	6	1	0	0	6.8	22.3			
23-Dec-05	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9			
24-Dec-05	0	0	0	0	A	0	0	0	0	0	0	2	3	1	6	8	2	1	0	0	0	0	0	0	1.0	8.1			
25-Dec-05	0	1	0	0	A	0	0	0	0	0	4	3	3	3	7	5	0	9	4	3	11	7	4	3	3.0	11.1			
26-Dec-05	0	0	0	0	A	0	0	0	0	0	0	2	2	2	4	1	6	3	7	2	1	0	0	0	1.4	7.4			
27-Dec-05	0	0	1	1	A	0	3	4	1	8	11	15	9	9	11	13	8	9	14	9	11	4	0	0	6.2	15.1			
28-Dec-05	0	0	0	0	A	0	2	0	0	0	1	3	4	3	2	0	18	8	1	0	0	0	0	0	1.8	18.3			
29-Dec-05	1	1	0	0	A	1	0	0	0	0	8	4	3	3	4	3	1	0	0	0	0	0	0	0	1.3	8.0			
30-Dec-05	1	0	0	3	A	2	5	3	17	10	9	11	10	19	8	13	17	16	11	11	9	4	4	13	8.6	19.0			
31-Dec-05	11	8	1	0	A	4	1	6	7	4	16	28	29	13	12	11	7	5	3	8	6	2	13	2	8.5	28.9			
Hourly Avg	2.0	1.2	1.4	1.1	N	1.5	1.6	2.8	4.0	3.9	7.6	7.4	5.5	5.6	5.0	4.1	4.6	5.0	4.3	3.8	3.7	3.0	2.7	1.8					
Hourly Max	19.3	11.0	18.8	11.0	17.0	15.0	15.0	19.0	45.8	24.9	61.0	54.9	28.9	37.9	22.3	14.0	27.0	30.0	25.0	23.0	22.5	16.0	13.5	14.6					

Station: Beaverlodge  
 Station Owner: PASZA

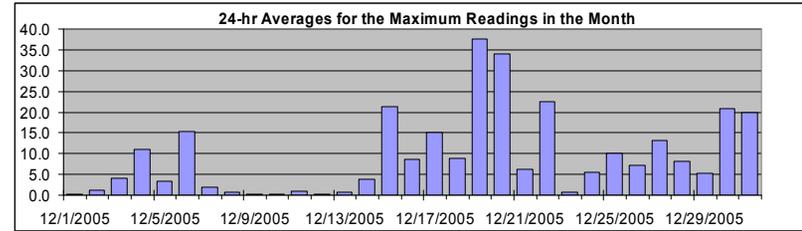
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

**Nitric Oxide (NO)**

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Value:	142.9	ppb	20-Dec	8:00 9:00
Maximum 24-hr Value:	37.7	ppb	19-Dec	



AIC Time:	25 hrs	Operational Time:	714 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	78.7	41.4	11.8	2.0	0.0	0.0	0.0	9.3 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	23:00 0:00		
1-Dec-05	0	0	0	0	0	0	0	0	0	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0.3	2.0
2-Dec-05	0	0	0	0	0	0	0	0	0	1	2	2	2	2	2	1	1	0	0	0	0	8	8	0	1.3	8.0
3-Dec-05	0	0	0	1	3	2	3	1	1	12	16	7	8	5	7	7	2	0	14	4	0	0	0	5	4.1	16.0
4-Dec-05	5	11	10	11	17	15	15	19	16	22	20	17	19	16	16	8	5	2	3	5	7	5	0	0	11.0	22.0
5-Dec-05	0	0	0	0	0	1	1	2	6	2	11	7	5	4	4	9	2	1	4	2	0	22	0	0	3.4	21.8
6-Dec-05	11	0	1	11	A	0	3	9	36	16	41	C	C	C	C	27	30	25	23	12	16	12	3	15.4	41.2	
7-Dec-05	2	1	3	0	1	0	4	7	0	2	13	1	3	1	1	0	1	1	1	1	0	0	0	0	1.8	13.0
8-Dec-05	0	0	0	0	A	0	1	1	0	1	1	2	1	1	1	1	1	0	0	0	0	1	1	0	0.6	1.9
9-Dec-05	1	0	0	0	A	1	0	0	0	0	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0.3	1.0
10-Dec-05	1	0	0	0	A	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.1	0.8
11-Dec-05	0	0	0	0	A	0	0	1	0	0	1	1	1	0	0	0	0	0	1	6	12	1	0	1.0	11.8	
12-Dec-05	0	0	0	0	A	0	0	0	1	0	0	0	1	0	1	0	0	1	1	1	0	0	0	0	0.3	1.0
13-Dec-05	0	0	0	0	A	0	0	0	1	1	1	1	1	1	1	3	2	1	2	0	0	0	0	0	0.7	3.0
14-Dec-05	0	0	0	0	A	0	0	1	0	2	1	1	8	5	6	12	11	20	2	1	0	17	1	0	3.8	19.5
15-Dec-05	0	0	0	0	A	18	18	61	15	42	45	27	16	12	12	7	24	27	41	36	12	47	18	16	21.4	60.8
16-Dec-05	28	11	8	6	A	1	2	5	18	9	7	7	7	6	7	6	5	7	3	1	23	22	8	1	8.5	28.3
17-Dec-05	1	23	6	1	A	11	3	23	5	6	7	7	8	8	10	11	14	13	22	6	105	25	30	3	15.1	105.3
18-Dec-05	1	0	3	0	A	17	10	0	55	12	65	16	7	9	4	1	0	0	0	5	1	0	0	0	9.0	64.5
19-Dec-05	0	0	0	0	A	3	5	3	63	1	64	114	62	66	42	27	11	7	104	75	55	36	43	85	37.7	114.4
20-Dec-05	60	3	54	24	A	24	36	43	143	43	110	41	18	17	12	5	8	11	22	47	11	5	33	12	34.0	142.9
21-Dec-05	18	7	6	2	A	5	3	4	5	2	1	9	32	5	7	4	1	1	12	0	0	19	1	0	6.2	31.7
22-Dec-05	1	3	11	7	A	4	4	27	35	37	30	19	14	37	45	25	86	31	18	9	61	13	1	2	22.5	85.6
23-Dec-05	11	0	0	0	A	0	0	1	0	1	0	1	1	1	1	0	1	0	0	0	1	0	0	0	0.8	11.3
24-Dec-05	0	0	0	0	A	0	0	0	0	0	1	8	14	3	35	43	15	6	0	0	0	0	1	1	5.5	42.6
25-Dec-05	1	4	4	1	A	3	1	0	0	4	7	5	6	9	23	18	7	32	9	15	36	18	20	8	10.0	36.5
26-Dec-05	0	0	0	0	A	0	0	1	0	0	0	27	4	7	9	3	25	16	46	10	10	3	2	2	7.1	46.1
27-Dec-05	1	1	5	2	A	2	17	8	7	40	26	23	14	16	18	24	16	15	24	16	17	14	0	0	13.1	39.9
28-Dec-05	0	0	0	0	A	0	39	2	0	0	4	10	12	6	14	1	62	28	4	0	1	0	1	5	8.2	61.9
29-Dec-05	13	11	1	0	A	8	0	2	1	6	43	11	4	6	6	5	5	0	1	0	0	0	0	0	5.3	42.5
30-Dec-05	5	1	0	14	A	16	13	12	49	50	29	26	24	27	17	18	29	29	16	30	14	18	13	31	20.8	49.8
31-Dec-05	14	13	5	0	A	22	7	15	10	7	79	62	38	23	15	19	16	12	8	30	13	13	33	6	20.0	79.2
Hourly Avg	5.6	2.9	3.8	2.6	N	4.9	6.0	8.0	15.0	10.3	20.2	15.1	11.0	9.7	10.6	8.7	12.2	9.4	12.3	10.2	12.4	10.0	7.3	5.8		
Hourly Max	60.2	23.5	54.4	23.9	17.0	24.1	38.7	60.8	142.9	49.8	110.4	114.4	61.6	65.6	45.4	42.6	85.6	31.9	103.9	75.5	105.3	46.8	43.1	84.9		

### PASZA - Beaverlodge Oxides of Nitrogen Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

#### HOURLY AVERAGE TABLE

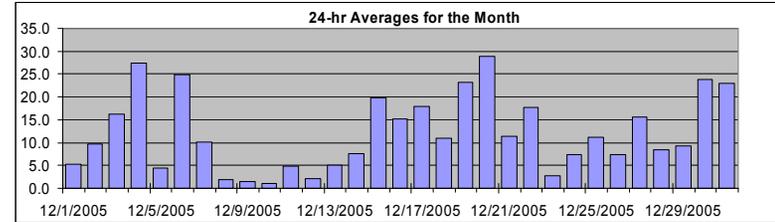
#### Oxides of Nitrogen (NO<sub>x</sub>)

Monitoring Dates: December 1, 2005 to January 1, 2006

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

Maximum 1-hr Average:	70.5	ppb	20-Dec	10:00 11:00
Maximum 24-hr Average:	28.8	ppb	20-Dec	

AIC Time:	25 hrs	Operational Time:	714 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	45.4	32.7	17.6	9.4	3.4	1.0	0.8	12.0 ppb	9.4 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		
1-Dec-05	10	8	6	5	3	3	4	6	7	8	8	5	4	4	5	5	5	5	4	4	4	5	5	6	5.4	10.0
2-Dec-05	7	7	7	7	7	6	6	7	7	7	7	6	5	6	8	9	10	18	9	7	8	27	31	12	9.6	31.0
3-Dec-05	8	9	12	17	20	13	19	17	16	26	28	14	14	10	14	16	11	12	33	21	13	12	13	22	16.3	33.0
4-Dec-05	23	31	28	30	36	33	33	37	34	38	33	30	30	27	31	23	25	21	21	24	28	24	10	6	27.3	38.0
5-Dec-05	5	3	3	3	3	2	4	5	3	3	10	5	3	1	3	9	8	2	6	4	2	13	5	3	4.5	13.3
6-Dec-05	12	3	6	21	A	6	5	12	15	20	24	C	C	C	C	C	48	53	48	46	35	39	33	22	24.8	53.0
7-Dec-05	20	18	20	13	13	13	17	21	13	17	29	7	11	6	6	2	2	2	2	3	2	1	1	2	10.1	29.0
8-Dec-05	1	1	1	1	A	2	4	2	3	3	2	2	1	1	2	3	3	3	2	1	2	1	1	1	1.8	3.9
9-Dec-05	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	2	3	4	3	2	1	1	1	1	1.4	3.6
10-Dec-05	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3
11-Dec-05	1	1	1	1	A	3	2	2	2	2	3	5	5	3	4	4	8	6	7	13	11	14	10	4	4.8	14.4
12-Dec-05	3	2	1	1	A	1	1	1	1	2	1	1	1	2	2	2	4	11	4	2	2	2	1	1	2.1	10.6
13-Dec-05	3	3	1	3	A	3	3	3	5	5	4	4	2	3	3	9	15	10	9	8	9	5	3	3	5.1	14.7
14-Dec-05	2	4	2	2	A	2	3	5	4	7	5	4	12	11	9	15	14	15	12	7	4	8	14	12	7.5	15.1
15-Dec-05	4	3	3	5	A	19	7	31	18	16	31	19	25	20	12	12	29	31	36	36	23	24	30	23	19.8	36.3
16-Dec-05	27	17	17	16	A	10	13	16	12	17	13	13	12	10	13	13	14	19	12	11	18	26	17	12	15.2	27.0
17-Dec-05	13	24	14	13	A	14	12	20	15	16	15	14	14	13	16	19	21	21	22	17	38	24	20	16	17.8	37.8
18-Dec-05	14	9	14	15	A	20	17	12	18	8	12	17	13	12	9	7	9	4	1	8	13	8	5	7	10.9	20.0
19-Dec-05	6	6	6	5	A	8	6	7	21	8	22	70	20	56	30	31	20	21	17	42	37	26	33	33	23.2	70.2
20-Dec-05	38	18	35	24	A	19	24	26	63	39	70	33	25	26	20	19	22	25	30	28	17	17	25	20	28.8	70.5
21-Dec-05	24	20	21	18	A	17	18	18	10	5	4	11	13	8	6	6	5	7	9	7	2	10	14	9	11.4	24.1
22-Dec-05	7	9	9	11	A	14	14	23	27	27	23	22	12	15	32	21	33	21	23	16	18	12	11	7	17.7	32.7
23-Dec-05	10	8	7	3	A	1	1	2	2	1	1	1	1	1	0	0	1	1	4	3	3	3	5	5	2.8	10.3
24-Dec-05	3	2	3	4	A	3	3	3	4	4	7	11	13	11	16	20	13	11	7	6	6	6	8	8	7.5	19.7
25-Dec-05	8	11	10	7	A	8	7	7	7	9	11	11	9	9	14	11	6	14	15	15	18	15	16	15	11.1	17.9
26-Dec-05	4	3	3	4	A	2	2	4	4	3	4	7	6	6	12	6	15	15	17	11	10	10	11	11	7.4	16.8
27-Dec-05	12	11	12	11	A	10	12	12	11	18	19	23	17	18	20	24	18	19	25	20	21	16	8	4	15.7	25.2
28-Dec-05	2	3	3	2	A	1	10	6	3	4	6	10	13	11	9	4	35	27	17	7	3	1	5	10	8.4	35.2
29-Dec-05	11	6	10	12	A	14	10	8	7	5	18	13	9	9	11	13	13	9	7	6	6	4	7	8	9.3	17.6
30-Dec-05	16	13	11	17	A	16	22	19	34	25	20	25	24	34	20	29	36	34	27	28	27	18	21	30	23.9	36.4
31-Dec-05	28	24	15	14	A	21	17	22	21	16	29	39	40	23	23	23	21	22	19	24	23	19	31	17	23.1	39.8
Hourly Avg	10.5	9.0	9.1	9.2	N	9.2	9.6	11.4	12.6	11.7	15.0	14.1	11.9	11.9	11.7	12.0	15.1	14.9	14.5	13.7	13.0	12.7	12.8	10.7		
Hourly Max	38.5	31.0	34.9	30.0	36.0	33.0	33.0	37.0	63.1	39.2	70.5	70.2	39.8	56.3	32.4	30.9	48.0	53.0	48.0	46.0	37.8	39.0	33.0	33.4		

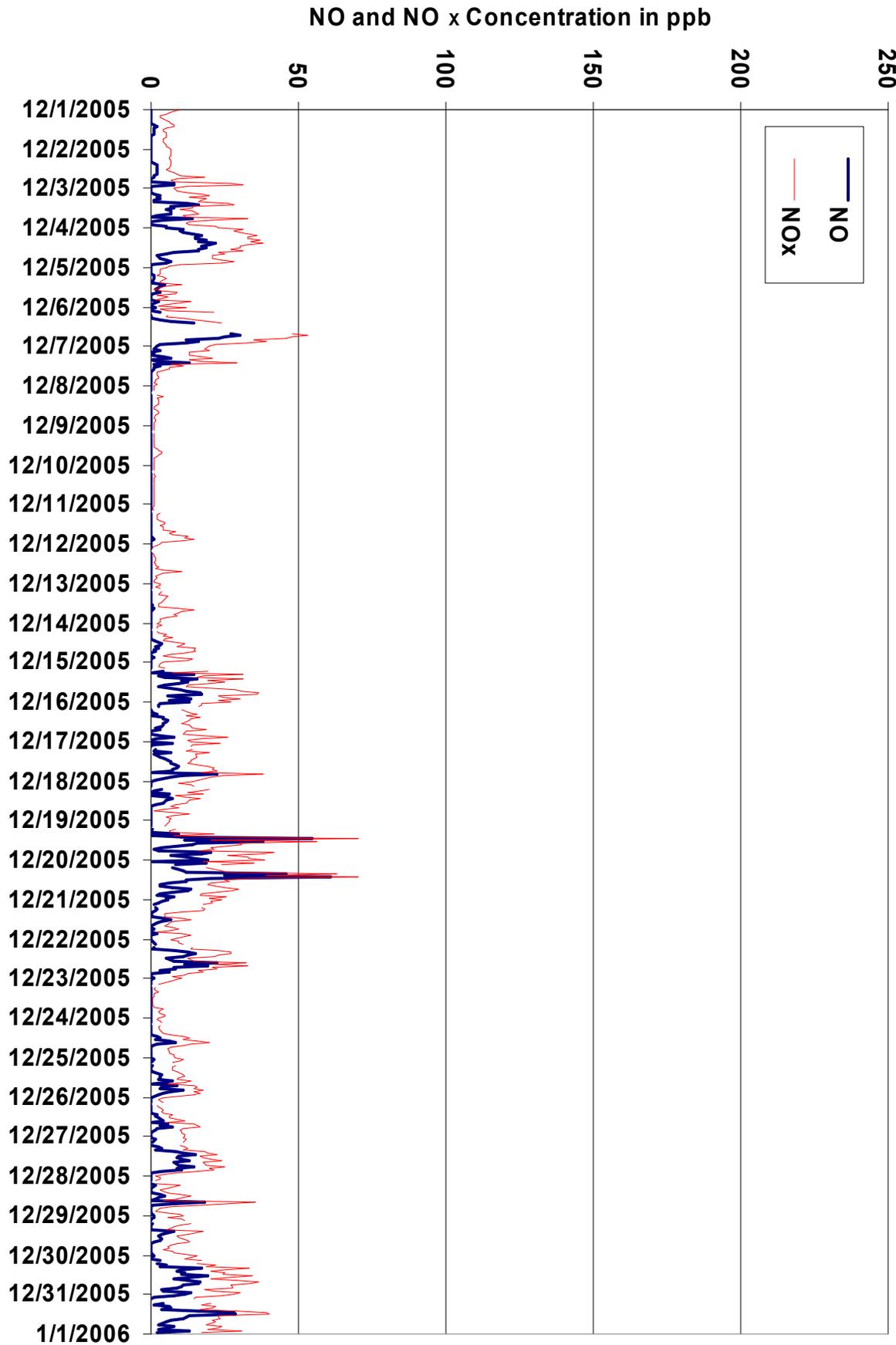


Figure 38. PASZA - Beaverlodge Oxides of Nitrogen 1-hr Average Monthly Trend

Station: Beaverlodge  
 Station Owner: PASZA

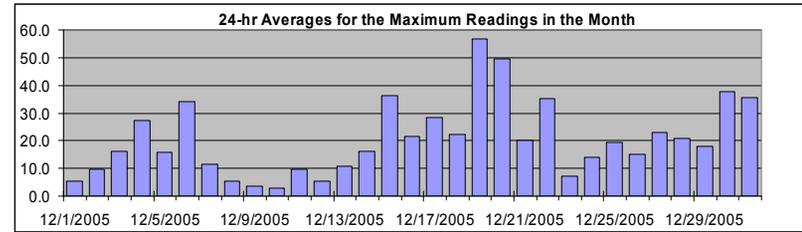
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Value:	172.1	ppb	19-Dec	18:00 19:00
Maximum 24-hr Value:	56.8	ppb	19-Dec	



**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

AIC Time:	25 hrs	Operational Time:	714 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	95.9	58.2	27.3	14.5	6.0	2.6	1.8	20.3 ppb	14.5 ppb

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-Dec-05	10	8	6	5	3	3	4	6	7	8	8	5	4	4	5	5	5	5	4	4	4	5	5	6	5.4	10.0	
2-Dec-05	7	7	7	7	7	6	6	7	7	7	7	6	5	6	8	9	10	18	9	7	8	27	31	12	9.6	31.0	
3-Dec-05	8	9	12	17	20	13	19	17	16	26	28	14	14	10	14	16	11	12	33	21	13	12	13	22	16.3	33.0	
4-Dec-05	23	31	28	30	36	33	33	37	34	38	33	30	30	27	31	23	25	21	21	24	28	24	10	6	27.3	38.0	
5-Dec-05	5	3	3	3	3	2	4	8	143	7	24	13	8	5	8	25	14	5	18	13	4	45	11	3	15.7	143.5	
6-Dec-05	31	5	20	34	A	12	13	26	58	30	60	C	C	C	C	C	48	53	48	46	35	39	33	22	34.0	60.1	
7-Dec-05	20	18	20	13	13	13	17	21	13	17	29	7	11	6	6	2	5	8	11	9	6	5	3	4	11.5	29.0	
8-Dec-05	3	2	2	3	A	4	13	5	6	6	8	8	5	4	4	6	5	11	5	4	5	5	5	2	5.2	12.7	
9-Dec-05	3	2	2	2	A	3	2	2	2	3	3	3	3	4	6	7	7	7	5	7	3	3	2	3	3.5	7.2	
10-Dec-05	4	2	3	3	A	2	4	5	2	3	4	3	2	2	3	2	2	3	3	3	2	4	3	2	2.8	5.4	
11-Dec-05	2	3	1	2	A	11	4	8	8	4	9	9	10	5	6	6	15	7	11	23	26	34	15	6	9.7	33.9	
12-Dec-05	7	5	1	2	A	2	2	4	6	4	3	3	6	5	7	4	9	18	17	7	5	4	3	5	5.5	17.8	
13-Dec-05	7	12	5	7	A	10	10	6	12	11	9	7	5	6	7	21	23	21	26	14	15	6	5	5	10.7	26.1	
14-Dec-05	3	6	3	4	A	5	4	9	5	15	14	6	23	15	22	34	36	49	20	14	11	39	20	17	16.2	48.8	
15-Dec-05	6	4	3	7	A	38	41	89	28	61	62	37	29	23	23	22	46	47	60	53	29	63	34	30	36.3	88.9	
16-Dec-05	41	27	22	20	A	15	17	19	16	23	19	16	16	13	16	20	20	25	18	13	42	40	27	14	21.5	42.2	
17-Dec-05	17	39	22	15	A	26	15	36	21	19	17	16	15	14	20	22	27	27	33	22	131	35	44	17	28.3	131.1	
18-Dec-05	16	16	19	17	A	33	25	15	63	29	75	26	16	19	12	14	19	9	4	27	21	11	9	18	22.2	74.8	
19-Dec-05	9	8	11	18	A	21	18	14	88	14	78	131	80	86	60	43	31	28	172	96	76	59	62	101	56.8	172.1	
20-Dec-05	80	24	70	38	A	40	47	58	162	57	118	52	32	33	29	21	27	28	38	63	25	19	55	30	49.7	161.7	
21-Dec-05	35	23	23	19	A	20	21	21	25	10	9	17	45	12	17	15	11	20	30	12	7	38	19	11	20.0	45.0	
22-Dec-05	16	20	24	18	A	18	20	43	40	47	40	30	24	48	56	34	93	48	32	22	75	30	16	17	35.3	93.1	
23-Dec-05	31	10	10	8	A	3	3	8	5	4	3	3	2	2	2	2	2	5	13	8	19	8	8	8	7.3	31.2	
24-Dec-05	4	3	5	5	A	4	3	4	5	6	8	23	33	15	48	57	29	19	8	6	7	8	11	11	14.1	57.0	
25-Dec-05	10	15	21	13	A	14	11	9	8	14	15	14	12	15	28	26	14	38	18	28	43	28	30	21	19.3	42.9	
26-Dec-05	8	4	5	5	A	3	3	12	6	6	6	40	9	12	18	12	39	27	57	18	18	13	14	13	15.1	56.8	
27-Dec-05	12	12	15	13	A	12	28	17	17	54	33	30	21	26	27	34	29	24	34	25	26	25	9	7	23.1	53.8	
28-Dec-05	5	10	5	4	A	9	68	16	9	5	14	25	27	19	35	10	94	50	22	13	5	3	15	18	20.9	93.7	
29-Dec-05	35	24	19	15	A	30	13	11	12	19	59	24	11	14	17	19	20	11	10	12	13	6	10	9	17.9	58.8	
30-Dec-05	27	20	15	31	A	33	28	27	63	65	41	44	41	43	32	37	50	46	31	46	32	33	28	48	37.6	65.5	
31-Dec-05	30	29	21	15	A	41	23	33	24	22	95	78	49	35	26	28	32	29	24	45	31	30	53	22	35.4	95.1	
Hourly Avg	16.6	12.9	13.5	12.6	N	15.4	16.7	19.1	29.4	20.4	30.1	24.0	19.6	17.6	19.8	19.2	25.8	23.1	26.9	22.7	24.7	22.6	19.4	16.4			
Hourly Max	79.7	39.4	69.5	37.5	36.0	41.0	68.0	88.9	161.7	65.5	118.2	131.3	79.6	86.4	59.8	57.0	93.7	53.0	172.1	96.1	131.1	63.4	62.3	101.0			

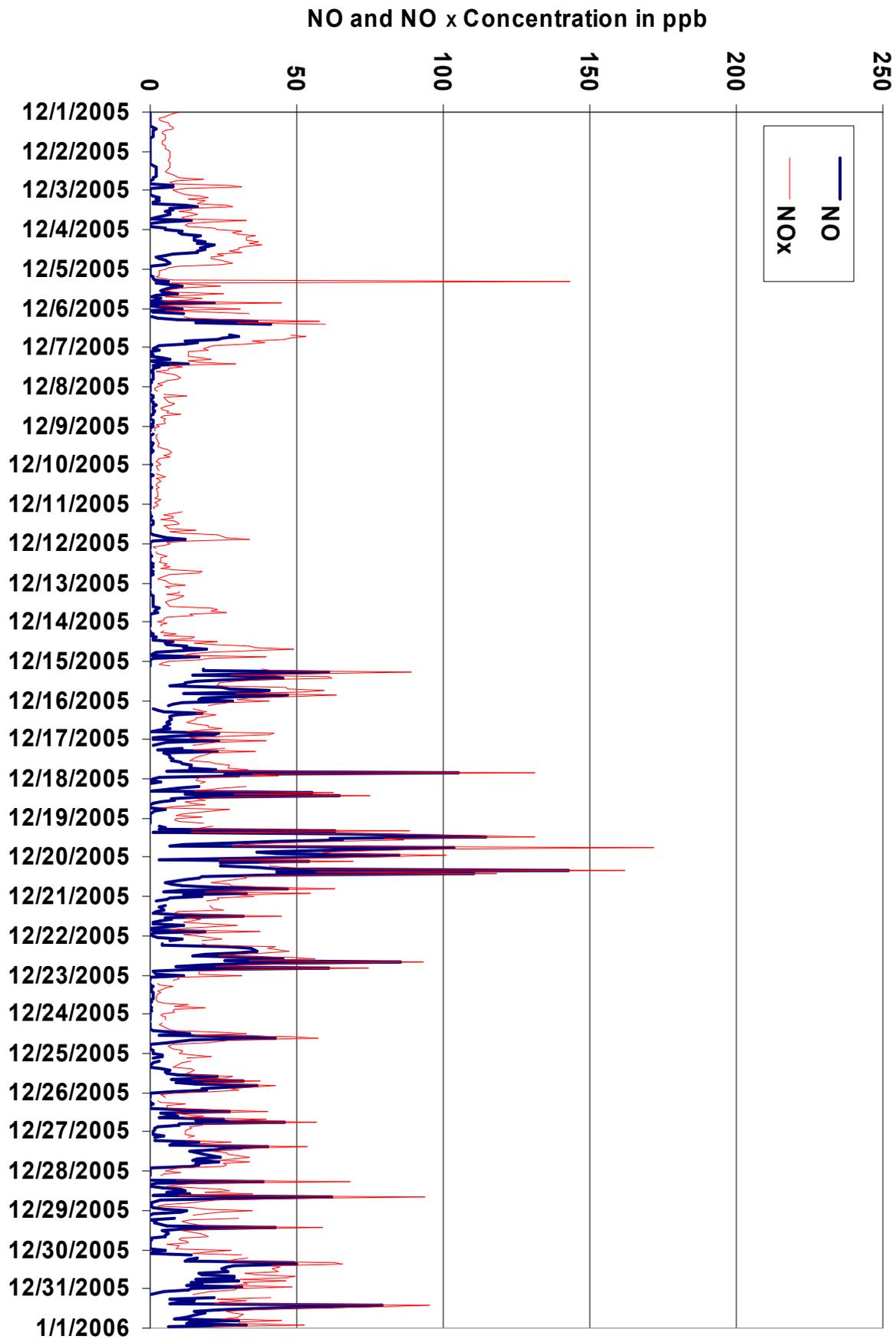


Figure 39. PASZA - Beaverlodge Oxides of Nitrogen Instantaneous (30 Second) Maximum Value Monthly Trend

### PASZA - Beaverlodge Ozone Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

#### HOURLY AVERAGE TABLE

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

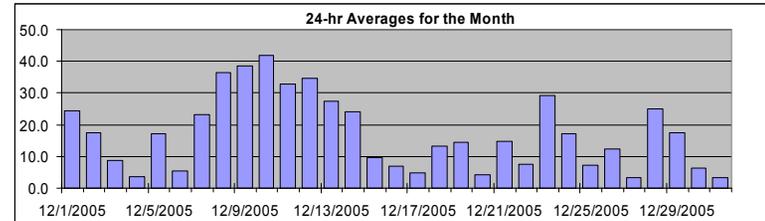
Monitoring Dates: December 1, 2005 to January 1, 2006

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

**Summary**

Number of 1-hr Exceedances:	0		
Maximum 1-hr Average:	44.5 ppb	10-Dec	15:00 16:00
Maximum 24-hr Average:	42.0 ppb	10-Dec	

AIC Time:	26 hrs	Operational Time:	713 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	42.6	40.1	27.0	15.3	5.3	1.6	0.8	17.2 ppb	15.3 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-Dec-05	22	23	25	27	29	27	24	22	20	19	22	25	27	26	25	25	25	26	25	25	25	24	23	21	24.3	29.0
2-Dec-05	18	18	19	18	18	19	19	18	19	19	20	22	23	23	22	20	18	10	17	19	18	8	3	11	17.5	23.0
3-Dec-05	16	13	10	5	5	8	6	5	6	8	10	14	15	16	13	10	10	8	5	6	8	6	1	8.8	16.0	
4-Dec-05	1	1	1	1	1	1	1	1	1	2	5	6	7	7	6	8	4	3	2	2	1	3	11	14	3.8	14.0
5-Dec-05	15	18	18	19	19	19	19	21	17	16	14	17	20	21	20	16	14	18	15	16	19	10	14	17	17.1	21.2
6-Dec-05	8	15	13	1	A	10	10	5	4	3	7	9	5	7	9	8	2	1	0	0	1	0	1	3	5.4	15.5
7-Dec-05	4	4	6	13	15	16	15	15	18	18	14	C	C	C	C	C	41	40	39	37	37	37	37	35	23.2	40.9
8-Dec-05	35	35	35	34	A	33	31	34	33	34	34	35	36	37	37	37	36	38	40	41	41	41	40	41	36.5	41.2
9-Dec-05	41	41	42	41	A	40	39	39	38	38	38	38	38	38	37	36	34	33	35	38	40	39	39	40	38.4	41.7
10-Dec-05	39	40	40	40	A	42	41	41	42	40	41	42	43	43	44	44	44	44	43	43	43	42	41	42	42.0	44.5
11-Dec-05	42	42	41	39	A	35	35	34	34	34	38	33	33	34	34	34	28	34	37	24	24	16	19	30	32.7	42.3
12-Dec-05	31	33	38	38	A	39	40	38	38	37	37	36	36	35	33	35	31	24	30	34	33	34	35	33	34.7	39.6
13-Dec-05	30	29	31	29	A	30	29	30	27	28	29	30	31	31	31	25	18	25	24	25	20	23	26	26	27.3	31.3
14-Dec-05	28	26	32	32	A	32	30	28	28	25	27	28	22	23	25	16	16	15	19	26	27	23	13	15	24.1	32.2
15-Dec-05	23	24	24	22	A	8	14	7	7	8	7	11	11	12	14	13	4	2	2	1	3	4	2	2	9.8	24.1
16-Dec-05	2	3	2	2	A	8	6	5	6	A	9	11	11	12	11	10	8	5	9	9	6	3	6	8	6.8	11.9
17-Dec-05	7	4	4	5	A	5	3	3	4	5	8	11	11	10	8	6	3	2	2	3	3	2	2	2	4.9	10.6
18-Dec-05	2	3	2	2	A	3	2	2	7	14	16	13	17	18	20	23	19	22	24	18	10	20	24	22	13.1	24.3
19-Dec-05	22	24	25	27	A	24	24	26	20	24	8	8	19	9	12	7	8	6	18	6	2	4	3	6	14.5	27.0
20-Dec-05	3	7	4	4	A	7	4	6	4	3	3	6	8	8	9	7	4	2	2	2	2	2	2	2	4.3	9.2
21-Dec-05	2	2	2	2	A	3	2	3	16	23	23	16	16	18	21	24	29	24	20	21	27	20	11	17	14.8	28.5
22-Dec-05	19	17	15	6	A	4	7	5	2	2	4	5	10	13	5	5	3	2	1	3	8	8	9	17	7.5	19.5
23-Dec-05	12	12	15	24	A	26	29	30	30	35	33	33	34	35	36	39	38	36	32	31	33	29	23	23	29.1	38.6
24-Dec-05	29	30	27	22	A	28	27	29	29	28	23	17	15	12	10	5	7	7	9	11	10	9	7	6	17.2	30.0
25-Dec-05	6	4	7	12	A	8	8	8	8	8	5	11	14	12	7	10	18	9	1	5	4	1	1	3	7.3	18.1
26-Dec-05	15	19	18	15	A	21	19	16	13	17	19	14	11	13	13	20	10	6	5	4	4	4	2	2	12.4	21.4
27-Dec-05	2	2	1	1	A	2	5	1	2	1	2	3	3	2	2	3	2	1	1	1	1	5	14	22	3.4	22.2
28-Dec-05	29	28	30	33	A	34	26	28	31	27	25	21	20	20	26	32	14	4	9	25	31	34	27	22	25.1	34.2
29-Dec-05	18	12	13	14	A	11	13	15	17	20	13	13	18	20	18	13	14	18	21	23	21	26	24	23	17.3	26.1
30-Dec-05	15	11	15	9	A	7	4	5	5	6	10	9	10	7	11	5	3	2	2	2	2	3	2	3	6.5	15.3
31-Dec-05	2	2	3	3	A	2	3	2	2	3	6	5	5	9	7	5	4	2	2	2	2	2	2	3	3.4	8.8
Hourly Avg	17.4	17.4	18.0	17.5	N	17.8	17.3	16.8	17.1	18.2	17.8	18.1	19.0	19.0	18.9	18.0	16.4	15.2	15.9	16.2	16.4	15.6	15.2	16.5		
Hourly Max	42.3	41.8	41.7	41.5	29.0	42.1	40.8	41.0	41.5	40.5	41.5	42.0	42.6	43.3	43.6	44.5	44.2	43.6	43.3	42.9	42.6	41.9	41.2	41.9		

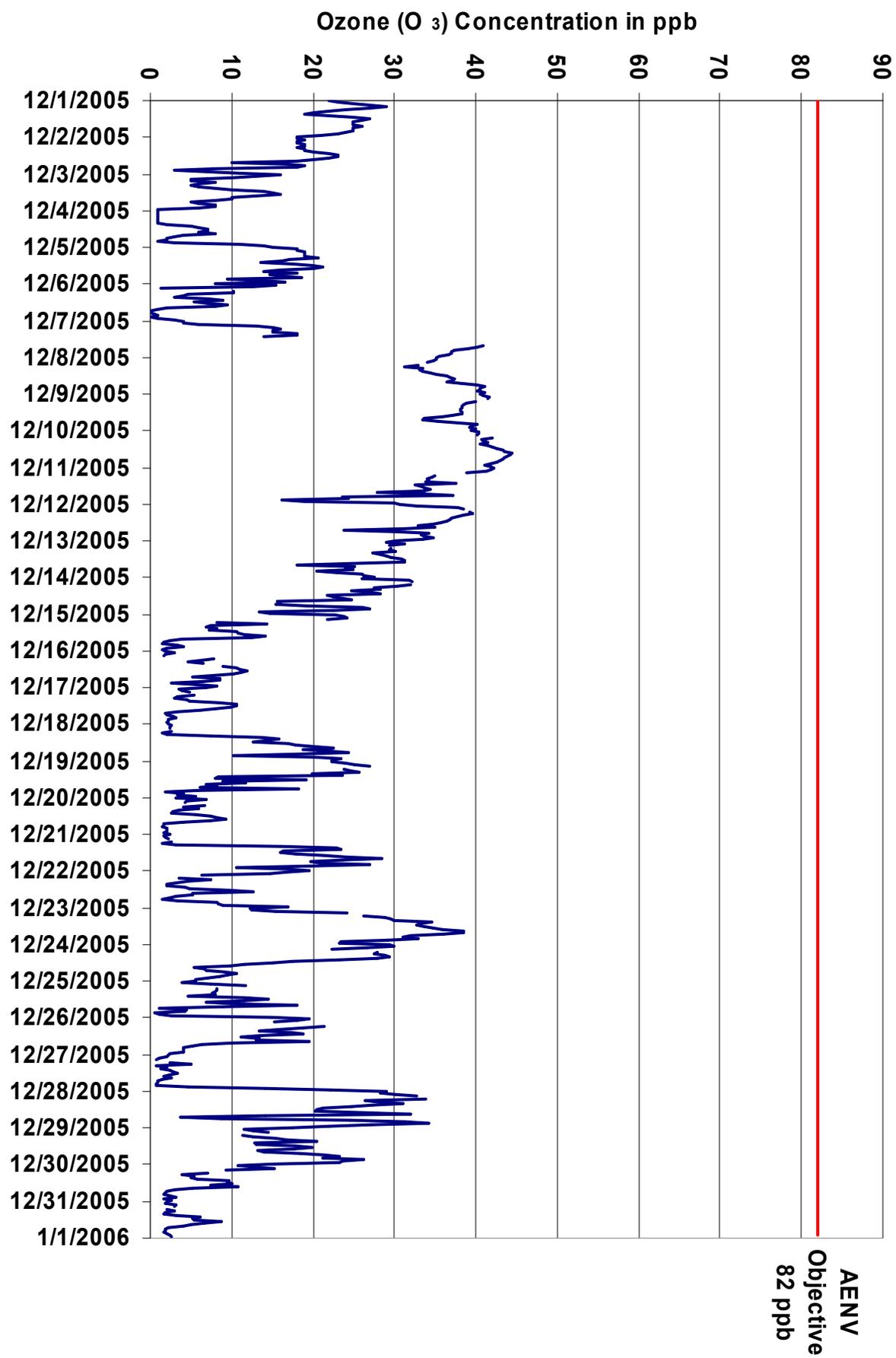


Figure 40. PASZA - Beaverlodge Ozone 1-hr Average Monthly Trend

Station: Beaverlodge  
 Station Owner: PASZA

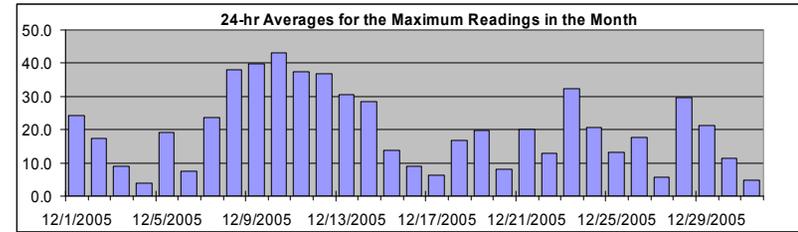
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Value:	45.6	ppb	10-Dec	15:00 16:00
Maximum 24-hr Value:	43.1	ppb	10-Dec	



AIC Time:	26 hrs	Operational Time:	713 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	43.6	41.3	30.9	19.0	8.2	2.1	1.0	20.0 ppb	19.0 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-Dec-05	22	23	25	27	29	27	24	22	20	19	22	25	27	26	25	25	25	26	25	25	25	24	23	21	24.3	29.0
2-Dec-05	18	18	19	18	18	19	19	18	19	19	20	22	23	23	22	20	18	10	17	19	18	8	3	11	17.5	23.0
3-Dec-05	16	13	10	5	5	8	6	5	6	8	10	14	15	16	13	10	10	8	5	6	8	6	1	8.8	16.0	
4-Dec-05	1	1	1	1	1	1	1	1	1	2	5	6	7	7	6	8	4	3	2	2	1	3	11	14	3.8	14.0
5-Dec-05	15	18	18	19	19	19	19	22	19	18	17	19	21	22	22	20	17	19	19	18	21	20	17	17	19.0	22.4
6-Dec-05	15	17	15	6	A	11	12	8	8	8	11	10	11	12	13	8	2	1	0	0	1	0	1	3	7.6	17.0
7-Dec-05	4	4	6	13	15	16	15	15	18	18	14	C	C	C	C	C	42	41	41	40	38	38	37	37	23.8	42.4
8-Dec-05	36	36	35	35	A	34	35	35	35	36	36	37	38	38	39	39	39	41	42	42	42	42	42	42	38.0	42.3
9-Dec-05	42	42	42	42	A	41	40	39	39	39	39	39	39	40	39	39	39	37	38	42	41	41	41	41	40.0	42.3
10-Dec-05	40	41	41	41	A	43	42	43	43	42	43	43	44	44	45	46	46	45	45	44	44	43	43	43	43.1	45.6
11-Dec-05	43	43	42	41	A	39	36	36	37	38	43	39	37	35	37	38	32	40	40	37	33	25	36	32	37.4	43.1
12-Dec-05	34	35	40	40	A	41	41	40	39	39	38	38	37	37	37	36	29	35	36	35	35	37	35	35	36.9	40.8
13-Dec-05	32	32	33	31	A	32	31	32	30	31	32	32	32	33	33	32	23	31	30	31	26	24	28	29	30.5	33.2
14-Dec-05	28	32	33	33	A	34	33	30	29	28	30	30	27	27	31	23	25	23	26	30	30	29	21	20	28.4	33.9
15-Dec-05	24	24	26	25	A	15	18	20	15	19	11	16	14	13	19	18	8	4	4	2	8	8	3	2	13.7	25.6
16-Dec-05	3	4	3	2	A	10	9	9	13	A	11	12	12	13	14	12	10	9	10	11	8	5	8	9	8.9	13.7
17-Dec-05	9	5	5	7	A	7	4	5	6	7	10	11	11	10	9	7	5	3	2	4	7	3	3	2	6.2	11.4
18-Dec-05	3	3	3	3	A	3	2	7	14	24	24	18	19	21	22	26	25	24	26	27	15	27	29	25	16.9	29.1
19-Dec-05	25	25	27	30	A	27	28	29	29	27	25	24	24	12	21	9	12	15	25	16	4	8	7	9	19.9	29.8
20-Dec-05	7	11	10	11	A	17	12	15	12	9	3	10	10	10	14	9	7	3	2	2	3	3	3	2	8.0	16.7
21-Dec-05	3	3	2	4	A	3	2	9	22	28	25	23	22	25	32	34	33	32	32	25	31	30	16	22	20.0	34.4
22-Dec-05	27	28	25	13	A	9	12	13	6	3	7	11	13	20	8	9	6	7	4	12	12	11	17	24	12.9	27.9
23-Dec-05	20	13	23	27	A	30	32	32	34	36	35	34	34	36	37	41	40	38	37	37	38	36	27	28	32.5	41.0
24-Dec-05	32	32	29	24	A	31	29	30	31	31	26	22	23	18	21	11	14	12	10	12	10	10	9	7	20.6	31.8
25-Dec-05	8	8	14	22	A	17	21	10	10	11	7	14	18	16	18	20	23	24	3	11	16	1	3	6	13.1	23.7
26-Dec-05	18	22	23	20	A	23	21	22	16	22	26	27	16	19	17	26	22	14	12	15	8	7	5	3	17.6	26.6
27-Dec-05	3	2	2	1	A	7	10	3	5	2	4	4	4	3	2	7	3	1	1	1	1	14	17	30	5.6	30.3
28-Dec-05	32	32	32	34	A	36	34	32	33	31	27	25	25	24	34	35	30	8	16	29	34	36	36	24	29.5	36.4
29-Dec-05	24	25	18	17	A	19	15	18	20	22	21	16	20	22	22	17	19	20	26	26	24	28	25	24	21.4	28.0
30-Dec-05	24	13	18	21	A	16	8	14	16	11	16	17	19	9	14	12	4	6	2	2	6	5	3	3	11.3	23.9
31-Dec-05	5	2	6	4	A	3	4	3	2	6	8	8	8	11	7	6	6	4	2	3	2	3	3	5	4.8	11.3
Hourly Avg	19.8	19.7	20.2	19.9	N	20.7	19.8	19.9	20.2	21.1	20.8	21.5	21.6	21.4	22.4	21.4	20.2	18.6	18.6	19.6	19.1	18.5	18.0	18.5		
Hourly Max	43.1	43.1	42.3	42.3	29.0	43.1	42.1	42.5	42.6	42.1	42.6	43.0	43.6	44.1	44.6	45.6	45.6	45.1	44.6	43.8	43.6	43.3	42.6	43.1		

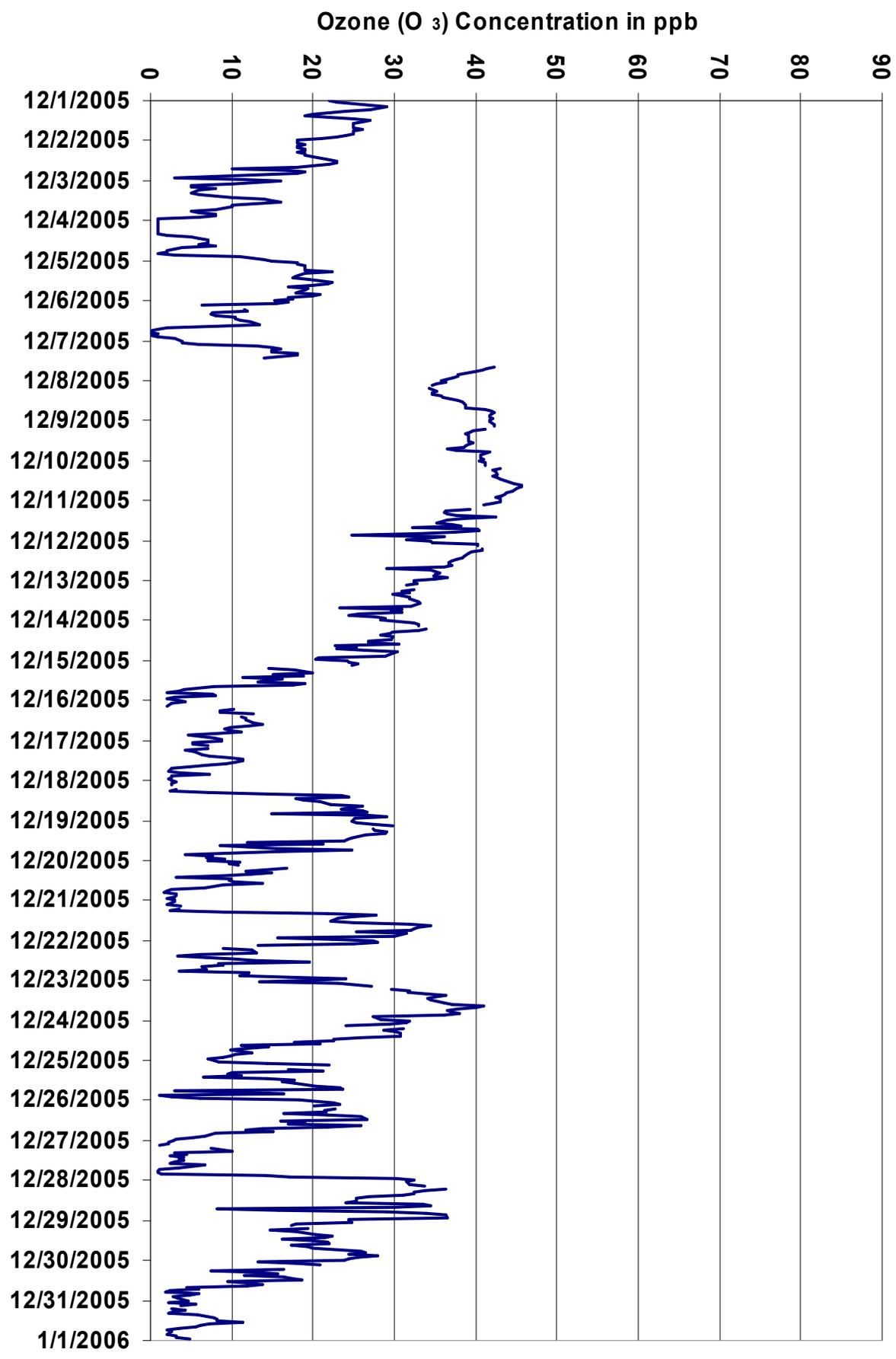
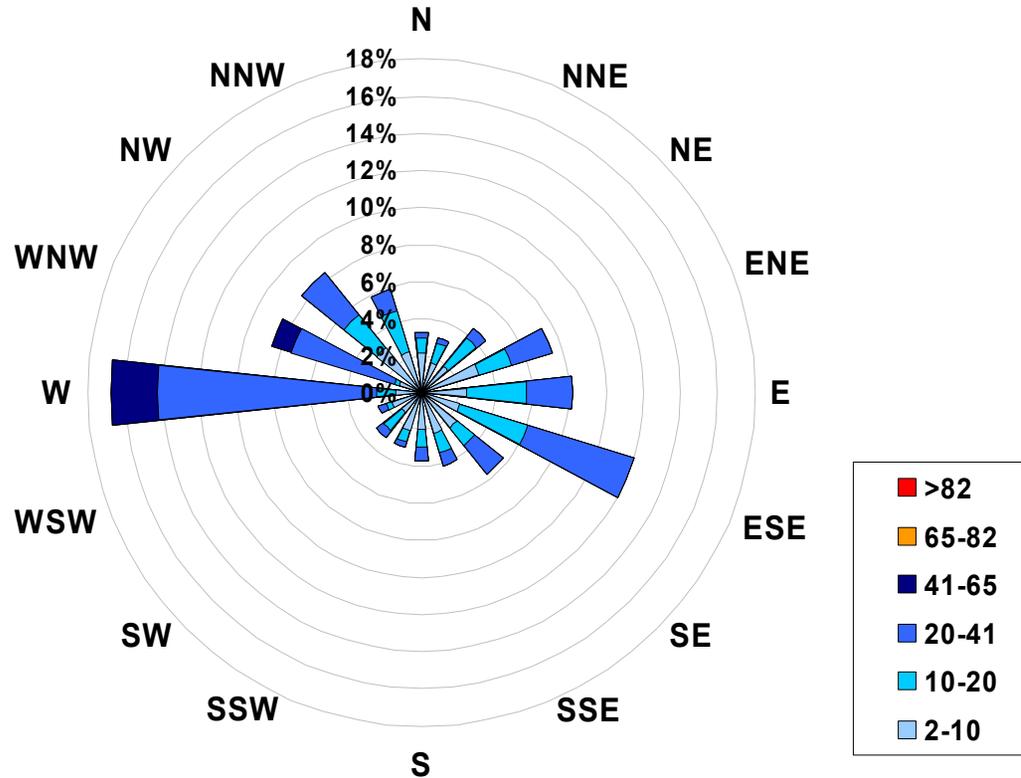


Figure 41. PASZA - Beaverlodge Ozone Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Ozone (in ppb) Located at the Beaverlodge Site for December 2005**



**Calms: 0%**

Frequency Distribution of O <sub>3</sub> in ppb			Frequency (hrs)
Range			
2.0	< 10		277
10	to 20		157
20	to 41		251
41	to 65		23
65	to 82		0
	> 82		0
Total Non-Zero Values			713

### PASZA - Beaverlodge Ozone Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

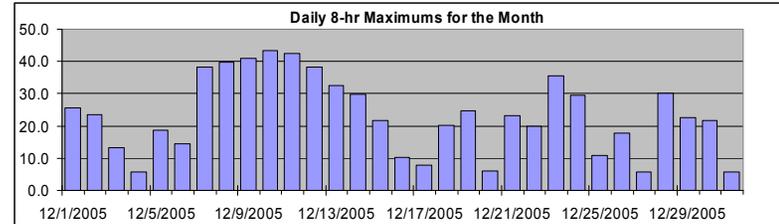
#### EIGHT HOUR RUNNING AVERAGE TABLE

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

Monitoring Dates: December 1, 2005 to January 1, 2006

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

Number of 8-hr Exceedances:	0						
Maximum 8-hr Average:	43.5	ppb	10-Dec	20:00	21:00		



Percentile	99	95	75	50	25	5	1
	42.6	39.7	26.4	15.2	6.3	2.3	1.6

#### 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																								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-Dec-05	12	13	15	16	18	21	23	25	25	24	24	24	23	23	23	24	24	25	26	26	25	25	25	24	24	25.5
2-Dec-05	23	22	22	21	20	19	19	18	19	19	19	19	20	20	21	21	21	20	19	19	18	17	14	13		23.4
3-Dec-05	13	13	12	11	9	9	9	9	7	7	7	8	9	10	11	12	12	12	11	10	10	9	8	7		13.1
4-Dec-05	5	5	4	3	3	2	1	1	1	1	2	2	3	4	4	5	6	6	5	5	4	4	4	5		5.8
5-Dec-05	6	8	10	12	15	17	18	18	19	18	18	18	18	18	18	18	17	17	18	17	17	16	15	15		18.7
6-Dec-05	14	14	14	12	11	11	11	9	8	7	6	7	7	6	6	7	6	6	5	4	4	3	2	1		14.4
7-Dec-05	1	2	2	4	6	8	10	11	13	15	16	16	N	N	N	N	N	N	N	N	N	N	38	38		38.3
8-Dec-05	37	37	36	36	35	35	34	34	34	33	33	33	34	34	35	35	36	37	37	38	38	39	39	40		39.8
9-Dec-05	40	41	41	41	41	41	41	40	40	40	39	39	39	38	38	38	37	37	36	36	37	37	37	37		40.9
10-Dec-05	38	39	40	40	40	40	40	41	41	41	41	41	41	42	42	42	43	43	43	43	43	43	43	43		43.5
11-Dec-05	42	42	42	41	41	40	39	38	37	36	35	35	34	34	34	34	33	33	33	32	31	29	27	26		42.5
12-Dec-05	27	27	27	29	29	33	35	37	38	38	38	38	38	37	36	36	35	33	33	32	32	32	32	32		38.3
13-Dec-05	32	32	32	32	32	31	30	30	29	29	29	29	29	29	30	29	28	27	27	26	25	24	23	23		32.4
14-Dec-05	25	25	26	27	28	29	29	30	30	30	29	28	28	26	26	24	23	21	20	20	21	21	19	19		29.7
15-Dec-05	20	21	22	21	20	18	18	17	15	13	11	9	9	10	10	10	10	9	8	7	6	5	4	3		21.8
16-Dec-05	2	2	2	2	2	3	3	4	5	N	N	N	8	9	9	10	10	10	10	9	9	8	7	7		10.2
17-Dec-05	6	6	6	5	5	5	5	4	4	4	5	6	6	7	7	8	8	7	7	6	5	4	3	2		7.9
18-Dec-05	2	2	2	2	2	2	2	3	5	7	8	9	11	13	16	17	18	19	20	19	20	20	20		20.1	
19-Dec-05	20	21	21	22	23	24	24	25	24	24	22	19	19	17	16	13	12	10	11	11	9	8	7	7		24.6
20-Dec-05	6	6	4	4	5	5	5	5	5	5	4	4	5	5	6	6	6	6	6	5	4	4	3	2		6.1
21-Dec-05	2	2	2	2	2	2	2	2	4	7	10	12	13	15	17	20	21	21	21	22	23	23	22	21		23.1
22-Dec-05	20	19	18	16	15	13	12	10	8	6	4	4	5	6	6	6	6	6	6	5	5	5	5	7		19.7
23-Dec-05	8	9	11	13	14	17	19	21	24	27	30	31	31	32	33	34	35	35	35	35	35	34	33	31		35.4
24-Dec-05	30	29	28	27	26	26	27	27	27	27	27	26	25	23	20	18	15	12	10	9	8	8	8	8		29.7
25-Dec-05	8	7	7	7	7	7	7	8	8	8	8	8	9	9	9	9	11	11	10	9	8	7	6	5		10.8
26-Dec-05	5	6	8	10	10	13	16	18	17	17	17	17	16	15	15	15	15	13	12	10	9	8	7	5		17.7
27-Dec-05	4	4	3	3	2	2	2	2	2	2	2	2	3	3	2	2	2	2	2	2	1	2	3	6		5.7
28-Dec-05	9	13	16	20	23	27	29	30	30	30	29	28	27	25	25	25	23	20	18	19	20	22	22	21		30.0
29-Dec-05	21	22	23	21	20	17	15	14	14	15	15	15	15	16	17	16	16	16	17	18	19	19	20	21		22.6
30-Dec-05	22	21	20	18	18	15	12	10	8	7	7	7	7	7	8	8	8	7	6	5	4	4	3	2		21.6
31-Dec-05	2	2	2	2	2	2	3	2	2	3	3	3	4	4	5	5	6	5	5	4	4	3	3	2		5.6

Hourly Max	42.5	42.2	42.0	41.5	41.3	40.9	40.7	40.6	40.9	40.9	41.1	41.3	41.5	41.6	42.0	42.4	42.8	43.2	43.4	43.5	43.5	43.3	43.0	42.7
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## PASZA - Beaverlodge Particulate Matter (less than 2.5 microns) Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

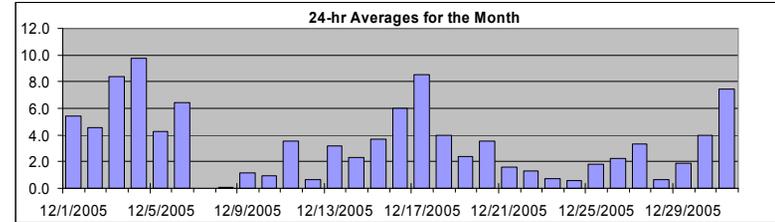
### Particulate Matter (PM<sub>2.5</sub>)

Monitoring Dates: December 1, 2005 to January 1, 2006

Draft Objective Limit: Alberta Environment: 1-hr -  $\mu\text{g}/\text{m}^3$  24-hr 30  $\mu\text{g}/\text{m}^3$   
 Summary

Number of 24-hr Exceedances (draft):	0
Maximum 1-hr Average:	50.2 $\mu\text{g}/\text{m}^3$ 7-Dec 3:00 4:00
Maximum 24-hr Value:	9.8 $\mu\text{g}/\text{m}^3$ 4-Dec

AIC Time:	0 hrs	Operational Time:	735 hrs
Calibration Time:	9 hrs	AMD Operational Uptime:	100.0%
Percentile	99	95	75
	16.3	10.4	5.2
	5.2	2.7	1.0
	25	5	1
	0.0	0.0	0.0
	Average / Median		3.7
	4 $\mu\text{g}/\text{m}^3$		2.4 $\mu\text{g}/\text{m}^3$



#### 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																							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
1-Dec-05	2	2	3	1	3	3	3	3	5	5	5	4	4	6	7	11	15	11	6	6	9	7	6	5	5.4	15.1
2-Dec-05	4	5	4	4	5	6	6	5	5	5	4	3	3	4	4	5	5	5	4	3	4	5	8	4	4.5	7.6
3-Dec-05	3	3	4	5	5	4	5	4	6	7	9	8	8	7	5	7	8	11	22	20	15	13	12	12	8.4	22.4
4-Dec-05	12	16	13	13	13	11	10	10	9	11	12	9	8	7	6	3	6	8	7	10	10	11	9	10	9.8	16.2
5-Dec-05	7	6	7	6	5	6	6	5	5	4	5	3	2	2	1	3	4	3	4	3	5	4	4	4	4.3	7.0
6-Dec-05	4	4	4	6	5	5	6	5	4	5	7	5	9	8	6	7	6	10	7	8	8	8	10	11	6.4	10.8
7-Dec-05	14	18	32	50	30	24	16	15	10	4	4	C	C	C	C	C	C	C	C	C	0	0	1	1	N	50.2
8-Dec-05	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.1	0.9
9-Dec-05	0	0	0	0	0	1	2	2	1	3	3	2	2	1	2	1	2	1	1	0	1	0	1	1	1.1	2.9
10-Dec-05	1	2	1	0	0	1	1	0	0	0	0	0	0	2	1	2	4	1	0	1	1	2	1	2	1.0	3.6
11-Dec-05	2	2	3	2	2	1	2	1	1	1	2	0	1	0	0	0	5	6	15	14	12	8	5	0	3.5	14.7
12-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	2	2	2	1	2	0.7	2.5
13-Dec-05	2	1	2	2	2	2	1	2	2	3	2	2	2	2	2	2	5	9	10	10	5	2	2	2	3.2	10.3
14-Dec-05	1	2	2	3	3	2	2	2	2	2	3	3	2	2	2	3	4	3	3	2	1	2	3	3	2.3	3.5
15-Dec-05	2	2	2	2	2	3	2	3	3	3	4	4	3	4	2	3	6	4	4	5	8	7	7	5	3.7	7.9
16-Dec-05	7	6	6	6	6	6	5	5	8	7	5	6	6	5	7	5	5	6	6	5	6	6	8	7	6.0	7.7
17-Dec-05	8	9	7	7	7	8	8	7	7	8	8	8	8	9	9	11	11	9	10	9	10	10	9	9	8.5	11.0
18-Dec-05	9	10	9	10	11	10	9	4	1	3	2	3	1	0	0	0	1	1	0	1	3	2	2	3	3.9	11.0
19-Dec-05	2	2	3	3	1	1	0	0	1	0	2	5	2	5	2	3	2	2	1	3	4	3	4	5	2.4	5.5
20-Dec-05	5	3	4	4	3	4	3	2	5	3	6	3	3	3	4	3	3	5	3	3	4	3	5	4	3.6	5.9
21-Dec-05	5	4	5	5	4	3	4	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1.6	4.6
22-Dec-05	0	0	0	1	1	1	1	1	2	2	2	1	0	1	2	2	1	1	2	2	2	2	2	1	1.3	2.5
23-Dec-05	1	2	2	2	1	2	1	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.7	2.5
24-Dec-05	0	0	0	0	0	1	0	0	0	0	0	0	2	2	1	2	1	0	0	0	0	0	1	2	0.6	2.2
25-Dec-05	2	3	2	1	2	1	0	1	2	2	1	0	1	0	1	1	1	1	3	3	3	3	4	4	1.8	4.4
26-Dec-05	2	0	1	1	0	1	0	0	1	2	1	2	2	4	3	1	2	3	4	3	4	5	5	6	2.2	5.9
27-Dec-05	5	4	3	2	3	2	0	1	1	3	5	6	4	5	4	6	5	5	5	4	4	2	1	1	3.4	5.7
28-Dec-05	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	2	1	3	2	0	1	2	3	0.6	3.2
29-Dec-05	3	5	4	4	3	3	2	3	3	2	2	2	1	1	2	2	1	0	0	0	0	0	0	0	1.8	4.8
30-Dec-05	0	0	1	0	9	5	5	3	2	5	4	5	3	5	3	4	6	5	5	5	6	5	5	6	4.0	8.7
31-Dec-05	6	5	6	4	5	5	4	5	5	5	7	8	8	9	9	10	9	8	9	10	11	10	10	10	7.4	10.7
Hourly Avg	3.5	3.8	4.2	4.7	4.2	3.9	3.4	3.1	3.0	3.1	3.4	3.1	2.9	3.1	3.0	3.3	3.9	4.0	4.5	4.4	4.4	3.9	4.1	4.0		
Hourly Max	13.7	17.5	31.5	50.2	30.1	23.6	16.4	15.3	9.6	10.5	11.7	8.8	8.6	8.7	9.3	11.0	15.1	10.8	22.4	19.7	14.8	13.0	11.6	12.2		

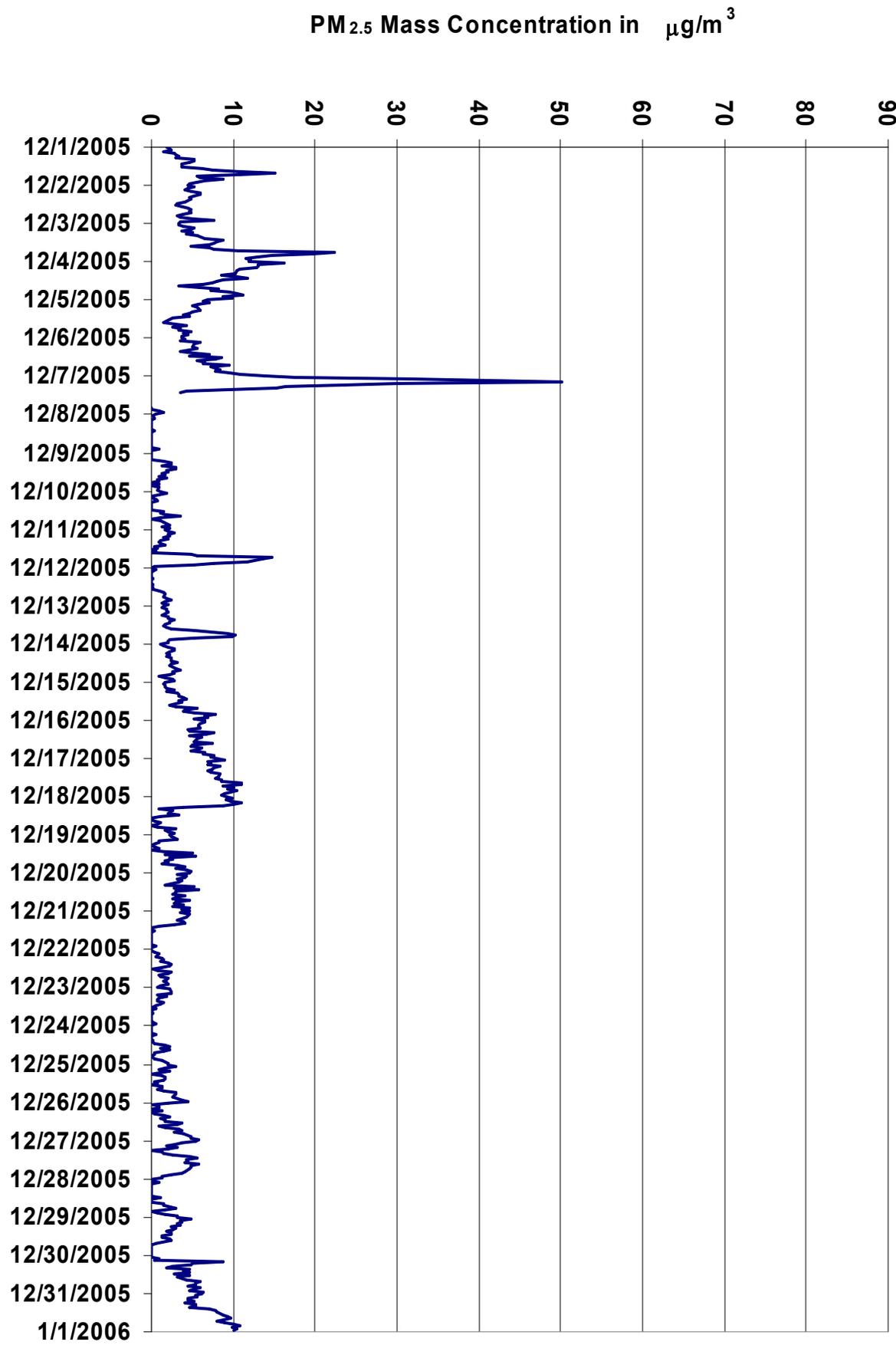


Figure 42. PASZA - Beaverlodge Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Beaverlodge  
 Station Owner: PASZA

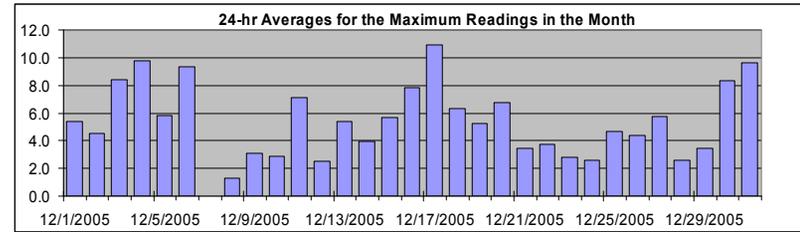
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Average:	50.2	µg/m <sup>3</sup>	7-Dec	3:00 4:00
Maximum 24-hr Value:	10.9	µg/m <sup>3</sup>	17-Dec	



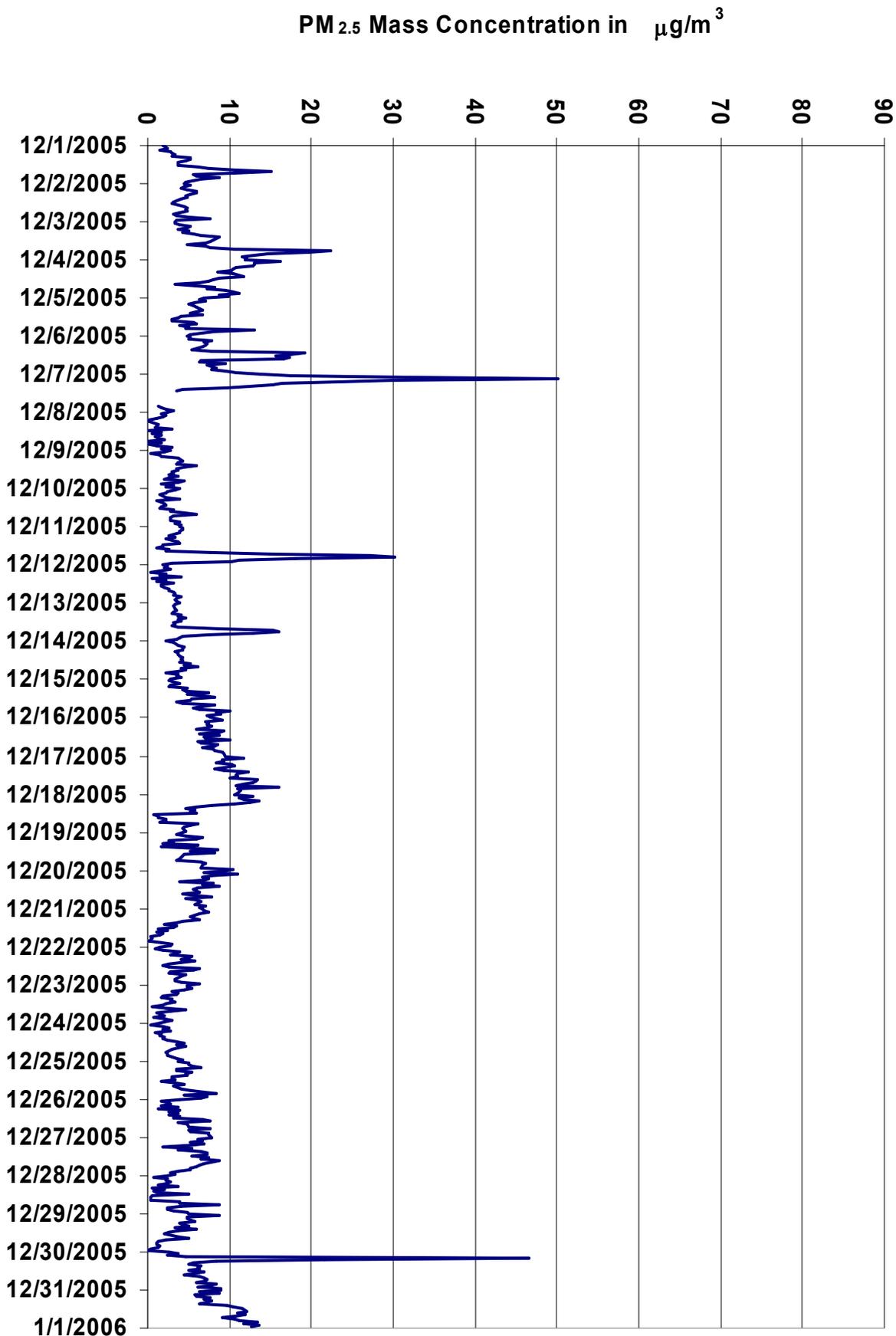
AIC Time:	0 hrs	Operational Time:	735 hrs						
Calibration Time:	9 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average / Median	Geomean
	22.1	12.9	7.1	4.6	2.9	1.2	0.3	5.7	6 µg/m <sup>3</sup>
								6 µg/m <sup>3</sup>	4.9 µg/m <sup>3</sup>

**Status Flag Characters**

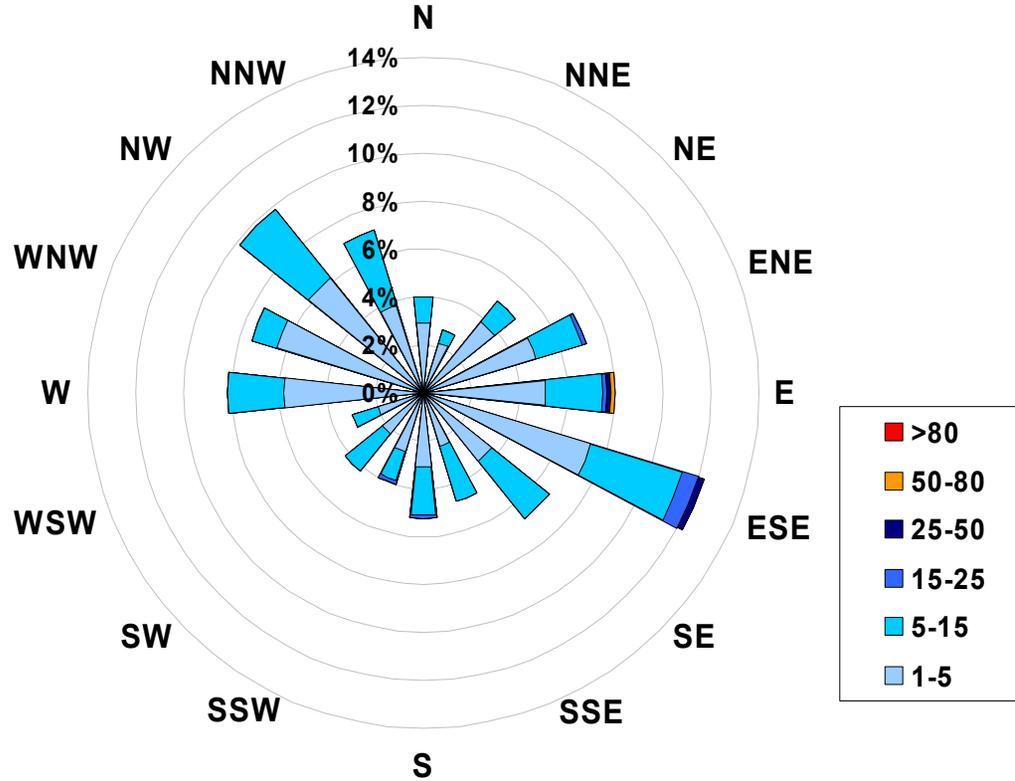
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

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-Dec-05	2	2	3	1	3	3	3	3	5	5	5	4	4	6	7	11	15	11	6	6	9	7	6	5	5.4	15.1	
2-Dec-05	4	5	4	4	5	6	6	5	5	5	4	3	3	4	4	5	5	5	4	3	4	5	8	4	4.5	7.6	
3-Dec-05	3	3	4	5	5	4	5	4	6	7	9	8	8	7	5	7	8	11	22	20	15	13	12	12	8.4	22.4	
4-Dec-05	12	16	13	13	13	11	10	10	9	11	12	9	8	7	6	3	6	8	7	10	10	11	9	10	9.8	16.2	
5-Dec-05	7	6	7	6	5	6	6	6	7	5	7	4	4	3	3	6	6	4	5	5	13	8	7	5	5.8	13.0	
6-Dec-05	5	5	5	8	7	7	7	7	5	8	19	18	16	17	17	7	6	10	7	8	8	8	10	11	9.3	19.2	
7-Dec-05	14	18	32	50	30	24	16	15	10	4	4	C	C	C	C	C	C	C	C	C	1	2	2	3	N	50.2	
8-Dec-05	2	2	2	2	1	0	0	1	1	1	3	0	2	0	2	1	1	2	0	2	0	1	3	2	1.3	3.0	
9-Dec-05	3	2	0	1	2	4	4	4	4	6	5	3	4	3	3	4	4	3	2	4	4	2	3	2	3.1	6.0	
10-Dec-05	4	3	2	2	2	2	4	1	2	2	2	2	1	3	3	4	6	3	3	3	3	4	3	4	2.9	5.9	
11-Dec-05	4	4	4	4	4	3	3	2	3	4	4	2	2	1	3	2	8	15	27	30	18	11	10	3	7.1	30.2	
12-Dec-05	2	2	2	3	0	2	2	4	1	2	1	3	2	2	2	3	3	3	3	3	4	4	3	4	2.5	4.2	
13-Dec-05	4	3	3	3	3	3	3	4	4	5	4	4	3	3	3	4	8	15	16	13	7	4	4	3	5.4	16.1	
14-Dec-05	2	3	4	5	4	4	3	4	4	4	4	4	4	4	5	4	6	4	5	4	2	4	4	4	4.0	6.2	
15-Dec-05	3	3	4	3	3	5	4	5	7	5	7	8	5	5	4	4	8	7	6	6	10	8	9	7	5.7	10.0	
16-Dec-05	8	9	7	7	7	8	7	6	9	9	6	9	7	7	10	6	6	8	8	7	8	8	9	9	7.8	10.0	
17-Dec-05	10	12	9	9	8	10	11	10	8	9	12	11	11	11	10	13	13	13	12	11	16	11	11	11	10.9	16.0	
18-Dec-05	11	13	11	12	14	13	11	8	6	5	6	5	6	1	1	1	2	2	1	6	5	5	4	5	6.4	13.6	
19-Dec-05	4	4	5	7	6	3	3	2	6	2	5	9	5	8	5	4	4	4	4	6	7	7	7	10	5.2	10.4	
20-Dec-05	9	7	11	8	7	7	7	4	8	7	9	6	6	6	6	4	6	8	5	6	6	6	7	6	6.7	11.1	
21-Dec-05	7	7	7	6	6	5	6	6	4	3	2	3	3	1	2	1	2	1	0	1	0	2	3	3	3.5	7.5	
22-Dec-05	2	1	2	4	3	3	5	5	4	6	4	3	2	3	6	6	3	3	5	4	3	3	4	6	3.7	6.4	
23-Dec-05	5	5	5	5	3	4	4	2	2	3	3	3	2	2	1	2	5	3	1	2	1	2	3	2	2.8	5.5	
24-Dec-05	1	0	2	3	2	3	1	2	1	2	2	2	4	4	4	5	4	3	2	2	2	3	3	4	2.6	4.6	
25-Dec-05	4	5	5	5	7	3	4	5	5	5	3	3	3	2	3	5	3	4	5	7	8	5	7	6	4.7	8.5	
26-Dec-05	4	2	3	3	2	4	1	4	3	4	3	4	3	7	8	4	5	5	8	5	5	7	7	8	4.4	7.7	
27-Dec-05	8	6	7	5	7	5	2	5	4	6	7	7	5	7	7	9	7	6	6	5	5	4	3	3	5.7	8.7	
28-Dec-05	2	1	2	2	3	2	1	4	1	2	1	1	5	1	0	0	4	4	9	4	2	2	3	5	2.6	8.7	
29-Dec-05	5	9	5	5	5	6	4	4	5	3	6	4	3	2	4	5	2	1	1	1	1	1	0	0	3.5	8.8	
30-Dec-05	3	4	2	5	47	22	8	6	5	7	6	6	5	7	4	6	7	7	7	6	8	8	6	9	8.3	46.6	
31-Dec-05	9	6	9	6	6	8	7	8	7	6	10	10	12	12	11	12	11	9	11	11	13	12	14	13	9.7	13.5	
Hourly Avg	5.2	5.4	5.9	6.5	7.0	6.1	5.1	5.0	4.8	4.9	5.6	5.3	4.9	4.9	4.9	5.8	6.1	6.6	6.7	6.5	5.7	5.9	5.8				
Hourly Max	13.7	17.5	31.5	50.2	46.6	23.6	16.4	15.3	9.6	10.5	19.2	17.5	15.7	17.2	16.6	13.4	15.1	15.2	27.2	30.2	18.1	13.0	13.5	12.8			

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 December 2005**



**Calms: 0%**

Frequency Distribution of PM <sub>2.5</sub> in µg/m <sup>3</sup>			Frequency (hrs)
Range			
1.0	<	5	540
5	to	15	184
15	to	25	8
25	to	50	2
50	to	80	1
	>	80	0
Total Non-Zero Values			735



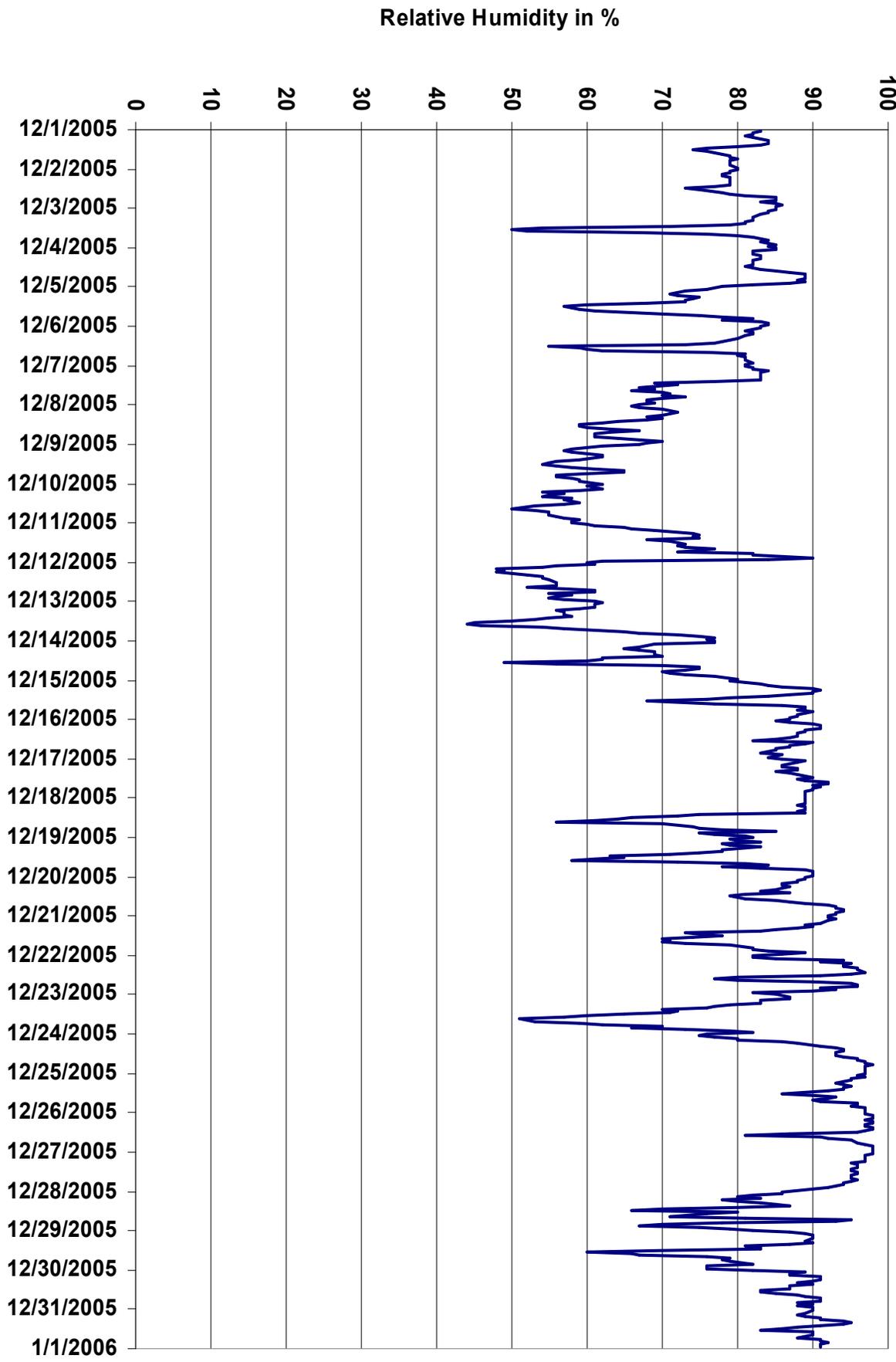


Figure 44. PASZA - Beaverlodge Relative Humidity 1-hr Average Monthly Trend

### PASZA - Beaverlodge Temperature Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

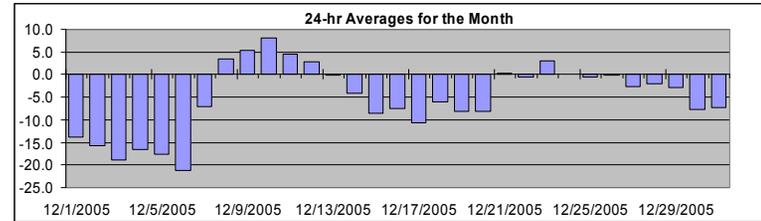
#### HOURLY AVERAGE TABLE

#### Ambient Temperature (T)

Monitoring Dates: December 1, 2005 to January 1, 2006

#### Summary

Maximum 1-hr Average:	10.9 °C	10-Dec	15:00 16:00
Maximum 24-hr Value:	8.1 °C	10-Dec	



AIC Time:	0 hrs	Operational Time:	744 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	9.0	5.9	1.1	-4.3	-10.8	-20.2	-22.5	-5.2 °C	-4.3 °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	0:00		
1-Dec-05	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-13	-13	-13	-13	-13	-13	-14	-14	-13	-14	-14	-14	-14	-14	-13.7	-13.1
2-Dec-05	-15	-16	-16	-16	-17	-16	-16	-16	-16	-16	-16	-15	-15	-15	-15	-15	-15	-16	-16	-16	-16	-16	-17	-17	-17	-15.8	-14.5
3-Dec-05	-17	-18	-20	-20	-20	-21	-21	-21	-21	-21	-20	-18	-12	-12	-13	-17	-19	-19	-20	-20	-21	-20	-21	-22	-22	-18.8	-11.6
4-Dec-05	-22	-22	-23	-22	-21	-21	-20	-20	-19	-19	-18	-17	-16	-16	-14	-13	-13	-12	-12	-12	-12	-11	-12	-14	-14	-16.6	-11.3
5-Dec-05	-16	-18	-19	-19	-19	-18	-18	-17	-18	-18	-18	-16	-15	-15	-14	-14	-16	-17	-18	-18	-17	-20	-20	-20	-20	-17.5	-14.1
6-Dec-05	-23	-21	-22	-24	-22	-23	-23	-24	-24	-24	-20	-15	-16	-17	-16	-17	-21	-22	-22	-22	-22	-22	-22	-22	-22	-21.1	-15.3
7-Dec-05	-22	-21	-19	-17	-17	-15	-14	-13	-12	-10	-9	-3	-3	0	0	2	1	0	1	-1	0	0	1	1	1	-7.0	1.9
8-Dec-05	2	2	2	2	2	1	1	2	2	3	4	4	5	5	5	5	4	5	5	5	5	5	4	5	5	3.4	5.0
9-Dec-05	5	5	6	6	6	6	5	5	5	6	6	7	7	6	5	5	4	3	4	5	6	6	5	5	5	5.4	6.8
10-Dec-05	5	5	6	6	7	7	7	8	8	8	9	9	9	10	10	11	10	9	9	9	9	8	8	8	8	8.1	10.9
11-Dec-05	8	8	7	6	6	5	4	4	4	4	6	5	5	5	5	5	4	4	4	2	2	0	0	2	2	4.5	8.0
12-Dec-05	2	2	4	5	5	5	5	4	4	4	4	4	4	4	4	3	1	0	0	1	1	1	2	1	2.9	5.3	
13-Dec-05	0	0	1	0	1	1	1	1	1	0	1	1	2	3	3	3	1	0	-2	-3	-4	-5	-5	-5	-5	-0.1	3.5
14-Dec-05	-5	-6	-4	-4	-4	-4	-5	-5	-5	-5	-3	-3	-1	2	-1	-3	-5	-5	-5	-5	-6	-6	-6	-6	-6	-4.2	1.7
15-Dec-05	-6	-7	-8	-8	-9	-10	-11	-11	-11	-11	-10	-8	-7	-5	-6	-8	-9	-9	-9	-9	-10	-9	-9	-9	-9	-8.6	-4.7
16-Dec-05	-9	-8	-8	-8	-8	-8	-8	-8	-8	-7	-7	-7	-7	-5	-6	-7	-7	-7	-7	-7	-8	-9	-9	-9	-9	-7.5	-5.4
17-Dec-05	-9	-10	-11	-10	-10	-10	-11	-11	-11	-11	-11	-10	-10	-9	-10	-10	-11	-12	-12	-11	-12	-12	-12	-12	-12	-10.8	-9.1
18-Dec-05	-11	-11	-11	-11	-13	-12	-11	-9	-9	-9	-4	-3	-1	0	1	2	-2	-2	-3	-4	-5	-4	-5	-6	-6	-6.1	1.6
19-Dec-05	-7	-7	-7	-8	-8	-8	-9	-8	-9	-9	-10	-6	-5	-3	-2	-6	-8	-9	-8	-10	-13	-12	-12	-12	-12	-8.1	-1.5
20-Dec-05	-13	-11	-13	-12	-11	-11	-11	-10	-10	-9	-10	-8	-7	-6	-4	-4	-4	-5	-5	-5	-6	-6	-6	-7	-7	-8.1	-4.1
21-Dec-05	-6	-7	-7	-6	-6	-5	-5	-3	1	2	4	4	4	5	6	6	6	4	3	2	2	1	0	2	2	0.3	6.3
22-Dec-05	3	2	1	-1	0	-2	-1	-2	-3	-4	-3	-2	-1	2	3	2	0	-1	-2	-2	-1	-1	-1	1	1	-0.5	3.2
23-Dec-05	-1	-1	0	2	2	2	3	4	3	4	4	5	6	7	7	7	5	4	3	1	2	1	0	0	0	3.0	7.2
24-Dec-05	1	1	1	0	1	2	1	1	1	0	1	1	1	1	1	0	0	0	-1	-1	-2	-2	-2	-3	-3	0.1	1.6
25-Dec-05	-3	-3	-2	-1	-4	-1	-2	-1	-2	-1	-3	1	3	3	2	2	3	1	1	1	-1	-2	-1	0	0	-0.5	3.0
26-Dec-05	0	-1	-1	-2	-2	-1	-2	-2	-3	-1	0	0	0	3	5	2	1	1	0	0	-1	-1	-1	-1	-1	-0.2	4.9
27-Dec-05	-1	-1	-3	-4	-3	-3	-2	-5	-4	-5	-5	-5	-3	-3	-2	-1	-2	-2	-2	-2	-2	-2	-2	-1	-1	-2.7	-1.0
28-Dec-05	-1	-2	-1	-1	-2	-1	-2	-3	-3	-4	-3	0	1	-2	-1	-1	-3	-5	-4	-3	-1	-1	-3	-3	-3	-2.0	1.1
29-Dec-05	-4	-5	-6	-6	-5	-6	-6	-6	-5	-4	-4	-4	-1	3	3	3	0	-1	-1	-2	-3	-2	-3	-3	-3	-2.8	3.1
30-Dec-05	-5	-8	-7	-8	-9	-10	-10	-10	-10	-11	-10	-9	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-6	-6	-6	-7.8	-4.8
31-Dec-05	-6	-6	-6	-6	-6	-6	-8	-8	-9	-9	-7	-8	-7	-5	-7	-7	-7	-8	-8	-8	-8	-8	-8	-8	-8	-7.3	-4.6
Hourly Avg	-6.1	-6.3	-6.4	-6.5	-6.4	-6.3	-6.5	-6.4	-6.3	-6.1	-5.4	-4.2	-3.2	-2.3	-2.3	-2.7	-3.9	-4.6	-4.8	-5.0	-5.3	-5.5	-5.7	-5.7	-5.7		
Hourly Max	8.0	7.6	7.4	6.2	6.5	7.0	6.8	7.6	8.3	8.1	8.8	9.0	9.0	9.6	10.4	10.9	9.9	9.1	9.0	9.1	8.8	8.1	7.5	8.0	8.0		

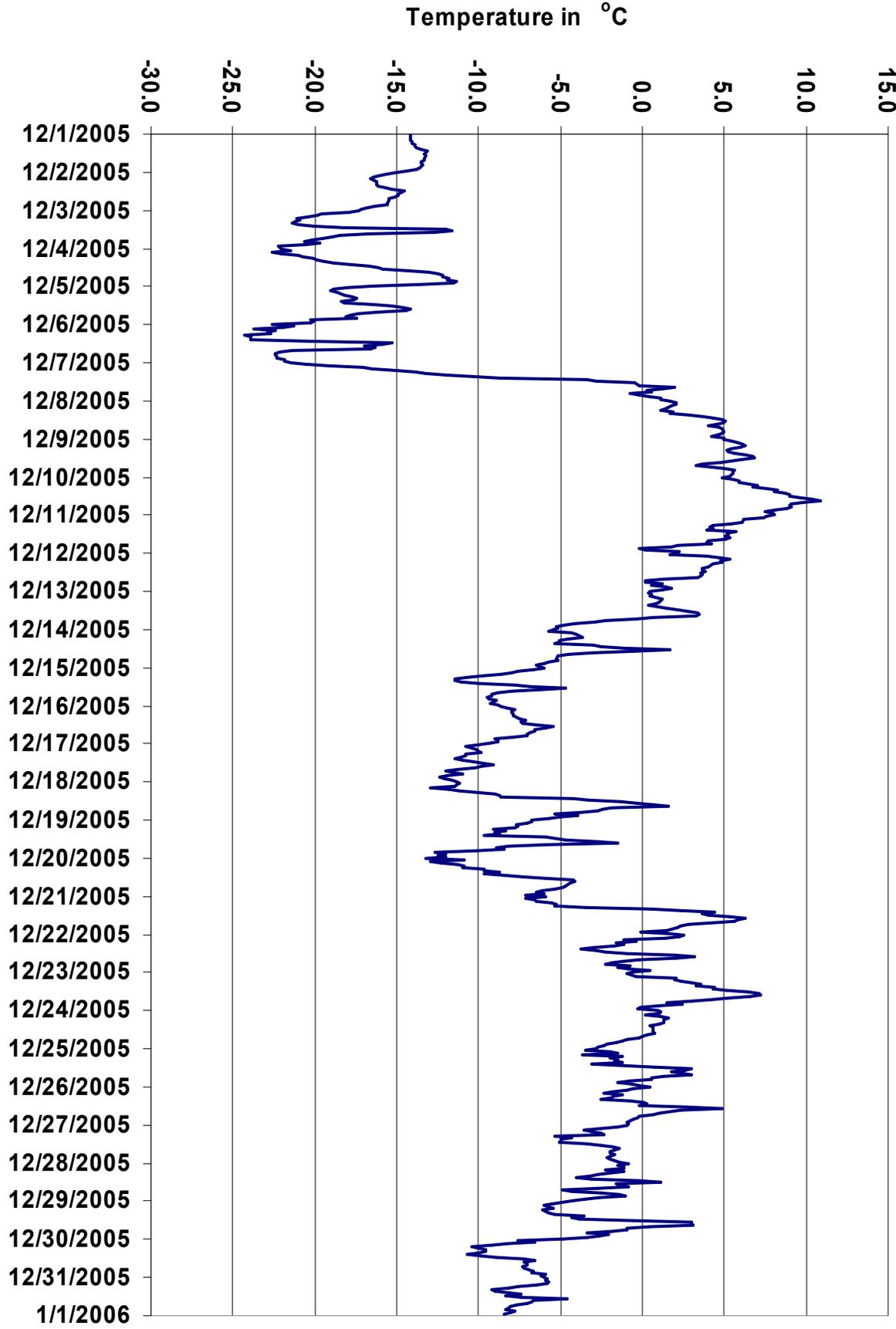


Figure 45. PASZA - Beaverlodge Temperature 1-hr Average Monthly Trend

### PASZA - Beaverlodge Scalar Wind Speed Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

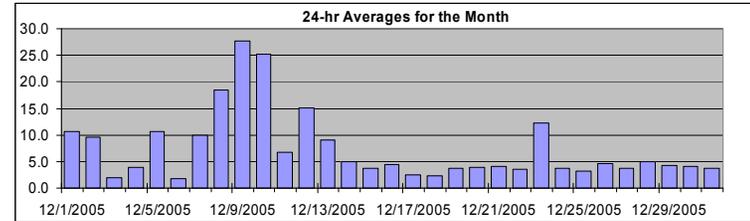
#### HOURLY AVERAGE TABLE

#### Wind Speed (WSs)

Monitoring Dates: December 1, 2005 to January 1, 2006

#### Summary

Maximum 1-hr Average:	40.2	km/hr	10-Dec	12:00 13:00
Maximum 24-hr Value:	27.7	km/hr	9-Dec	



Calm Time:	2 hrs	0% calms	Operational Time:	740 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	99.7%				
Percentile	99	95	75	50	25	5	1	AverageS
	34.7	24.8	8.8	4.2	2.7	1.3	0.3	7.4 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 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		
1-Dec-05	7	8	8	10	9	9	8	8	8	8	9	10	12	9	7	11	13	13	14	14	15	15	15	17	10.7	16.7
2-Dec-05	16	17	17	16	14	14	16	14	13	12	11	10	8	7	6	3	3	5	4	5	5	3	6	7	9.5	16.8
3-Dec-05	8	6	2	1	1	1	1	1	1	3	3	3	1	1	2	4	4	5	2	0	0	0	0	0	2.0	7.7
4-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	1	4	4	6	6	5	5	4	5	10	20	22	4.0	22.2
5-Dec-05	25	21	18	17	15	14	16	16	14	13	8	9	10	14	11	7	5	5	3	3	6	1	2	3	10.7	24.7
6-Dec-05	3	2	1	2	2	2	2	2	2	1	1	calm	calm	2	3	1	2	2	2	3	1	1	2	1	1.8	3.0
7-Dec-05	1	2	3	3	3	2	1	2	4	4	4	12	11	9	M	M	28	20	19	16	20	22	20	13	10.0	28.5
8-Dec-05	16	20	17	13	10	11	13	14	13	15	15	18	25	27	24	20	19	15	21	22	15	25	23	32	18.5	32.2
9-Dec-05	34	30	40	35	36	39	40	33	32	34	31	32	29	22	19	17	14	13	11	18	27	27	27	26	27.7	39.7
10-Dec-05	21	23	26	23	26	29	21	18	23	27	29	35	40	40	32	34	25	22	24	26	21	14	13	14	25.2	40.2
11-Dec-05	16	18	15	5	12	8	4	5	3	5	1	3	3	4	3	5	7	8	4	7	6	4	6	10	6.8	17.7
12-Dec-05	10	6	17	25	30	24	22	19	18	15	17	17	15	13	10	13	10	6	11	15	12	14	13	10	15.0	29.7
13-Dec-05	7	7	8	8	8	10	11	13	12	15	16	15	16	15	13	8	6	5	6	4	3	4	2	2	9.0	16.3
14-Dec-05	2	3	7	8	8	9	8	9	9	5	4	7	4	2	3	1	1	3	3	2	4	3	5	8	4.9	9.1
15-Dec-05	8	10	4	3	2	7	2	3	3	3	2	1	2	2	4	4	3	5	2	3	5	3	4	2	3.7	9.6
16-Dec-05	3	3	2	3	4	6	7	5	4	3	7	6	4	2	5	7	6	5	5	5	4	2	2	4	4.4	6.9
17-Dec-05	2	4	1	3	2	1	2	4	3	3	3	2	2	2	3	2	1	2	1	4	5	2	1	1	2.5	5.0
18-Dec-05	1	2	1	2	2	2	3	4	2	1	2	3	3	4	3	2	2	3	3	2	2	5	2	2	2.3	4.7
19-Dec-05	5	2	3	1	4	3	2	3	4	4	3	2	5	3	3	5	2	3	6	9	7	3	3	4	3.7	8.6
20-Dec-05	4	3	4	6	4	3	3	1	4	2	3	3	5	7	8	4	3	3	2	4	5	4	4	4	3.9	7.6
21-Dec-05	2	2	2	2	2	3	3	7	4	3	2	4	9	6	10	5	6	6	4	3	3	4	3	3	4.0	9.5
22-Dec-05	4	5	4	3	2	4	3	3	4	3	4	4	4	4	4	2	2	2	3	6	4	2	5	6	3.5	6.1
23-Dec-05	3	3	6	9	5	6	10	11	9	23	18	23	24	24	26	26	27	17	7	2	3	4	4	4	12.3	27.3
24-Dec-05	5	5	7	4	6	5	3	5	2	2	3	5	2	2	4	4	4	3	2	2	2	2	4	1	3.6	7.5
25-Dec-05	3	3	3	6	4	3	2	2	2	3	2	4	3	3	3	3	4	3	2	3	3	2	5	7	3.3	7.0
26-Dec-05	13	8	3	2	4	4	2	2	4	2	7	7	3	3	3	4	4	3	5	4	6	8	5	3	4.6	12.6
27-Dec-05	3	2	3	4	4	4	2	4	2	3	4	3	6	8	5	5	4	3	2	3	3	5	3	5	3.8	7.5
28-Dec-05	6	7	8	7	4	6	4	4	3	3	4	2	2	5	5	4	4	4	4	7	8	9	4	3	4.9	9.0
29-Dec-05	4	11	6	9	8	5	3	2	5	4	3	2	2	2	3	3	3	3	5	3	4	4	3	4	4.2	10.6
30-Dec-05	4	7	4	3	6	6	6	4	3	6	7	7	4	3	4	1	2	2	2	3	3	3	3	6	4.1	7.1
31-Dec-05	3	3	4	1	2	4	4	2	2	4	3	4	3	6	7	5	5	3	3	4	3	3	5	5	3.7	6.6
1-hr Average	7.7	7.8	7.9	7.5	7.7	7.9	7.1	7.1	6.9	7.3	7.3	8.4	8.6	8.2	7.9	7.3	7.3	6.3	6.1	6.6	6.8	6.8	6.9	7.5		
Hourly Max	34.5	29.9	39.7	34.8	36.1	38.8	39.7	32.9	31.6	34.3	31.0	34.9	40.2	40.1	32.1	33.8	28.5	22.2	24.1	25.6	27.2	26.7	26.7	32.2		

### PASZA - Beaverlodge Vector Wind Speed Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

#### HOURLY AVERAGE TABLE

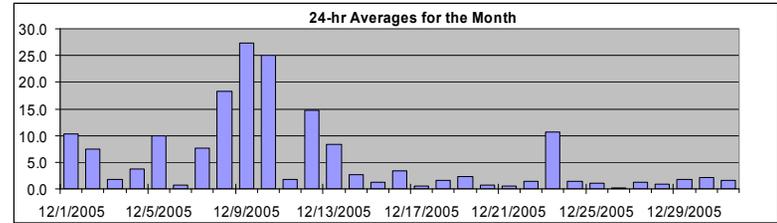
#### Wind Speed (WSv)

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

Maximum 1-hr Average:	40.2	km/hr	10-Dec	12:00 13:00
Maximum 24-hr Value:	27.3	km/hr	9-Dec	

Calm Time:	2 hrs	0% calms	Operational Time:	740 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	99.7%				
Percentile	99	95	75	50	25	5	1	AverageV
	34.7	24.8	8.8	4.2	2.7	1.3	0.3	10.2 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	23:00	0:00		
1-Dec-05	7	8	8	10	9	9	8	8	8	8	9	10	12	9	7	11	13	13	14	14	15	15	15	17	10.3	16.7	
2-Dec-05	16	17	17	16	14	14	16	14	13	12	11	10	8	7	6	3	3	5	4	5	5	3	6	7	7.4	16.8	
3-Dec-05	8	6	2	1	1	1	1	1	1	3	3	3	1	1	2	4	4	5	2	0	0	0	0	0	1.8	7.7	
4-Dec-05	0	0	0	0	0	0	0	0	0	0	0	0	1	4	4	6	6	5	5	4	5	10	20	22	3.7	22.2	
5-Dec-05	25	21	18	17	15	14	16	16	14	13	8	9	10	14	11	7	5	5	3	3	6	1	2	3	10.0	24.7	
6-Dec-05	3	2	1	2	2	2	2	2	2	1	1	calm	calm	2	3	1	2	2	2	3	1	1	2	1	0.7	3.0	
7-Dec-05	1	2	3	3	3	2	1	2	4	4	4	12	11	9	M	M	28	20	19	16	20	22	20	13	7.6	28.5	
8-Dec-05	16	20	17	13	10	11	13	14	13	15	15	18	25	27	24	20	19	15	21	22	15	25	23	32	18.3	32.2	
9-Dec-05	34	30	40	35	36	39	40	33	32	34	31	32	29	22	19	17	14	13	11	18	27	27	27	26	27.3	39.7	
10-Dec-05	21	23	26	23	26	29	21	18	23	27	29	35	40	40	32	34	25	22	24	26	21	14	13	14	25.1	40.2	
11-Dec-05	16	18	15	5	12	8	4	5	3	5	1	3	3	4	3	5	7	8	4	7	6	4	6	10	1.8	17.7	
12-Dec-05	10	6	17	25	30	24	22	19	18	15	17	17	15	13	10	13	10	6	11	15	12	14	13	10	14.8	29.7	
13-Dec-05	7	7	8	8	8	10	11	13	12	15	16	15	16	15	13	8	6	5	6	4	3	4	2	2	8.3	16.3	
14-Dec-05	2	3	7	8	8	9	8	9	9	5	4	7	4	2	3	1	1	3	3	2	4	3	5	8	2.6	9.1	
15-Dec-05	8	10	4	3	2	7	2	3	3	3	2	1	2	2	4	4	3	5	2	3	5	3	4	2	1.3	9.6	
16-Dec-05	3	3	2	3	4	6	7	5	4	3	7	6	4	2	5	7	6	5	5	5	4	2	2	4	3.4	6.9	
17-Dec-05	2	4	1	3	2	1	2	4	3	3	3	2	2	2	3	2	1	2	1	4	5	2	1	1	0.6	5.0	
18-Dec-05	1	2	1	2	2	2	3	4	2	1	2	3	3	4	3	2	2	3	3	2	2	5	2	2	1.6	4.7	
19-Dec-05	5	2	3	1	4	3	2	3	4	4	3	2	5	3	3	5	2	3	6	9	7	3	3	4	2.3	8.6	
20-Dec-05	4	3	4	6	4	3	3	1	4	2	3	3	5	7	8	4	3	3	2	4	5	4	4	4	0.7	7.6	
21-Dec-05	2	2	2	2	2	3	3	7	4	3	2	4	9	6	10	5	6	6	4	3	3	4	3	3	0.6	9.5	
22-Dec-05	4	5	4	3	2	4	3	3	4	3	4	4	4	4	4	2	2	2	3	6	4	2	5	6	1.4	6.1	
23-Dec-05	3	3	6	9	5	6	10	11	9	23	18	23	24	24	26	26	27	17	7	2	3	4	4	4	10.7	27.3	
24-Dec-05	5	5	7	4	6	5	3	5	2	2	3	5	2	2	4	4	4	3	2	2	2	2	4	1	1.4	7.5	
25-Dec-05	3	3	3	6	4	3	2	2	2	3	2	4	3	3	3	3	4	3	2	3	3	2	5	7	1.0	7.0	
26-Dec-05	13	8	3	2	4	4	2	2	4	2	7	7	3	3	3	4	4	3	5	4	6	8	5	3	0.3	12.6	
27-Dec-05	3	2	3	4	4	4	2	4	2	3	4	3	6	8	5	5	4	3	2	3	3	5	3	5	1.3	7.5	
28-Dec-05	6	7	8	7	4	6	4	4	3	3	4	2	2	5	5	4	4	4	4	4	7	8	9	4	0.8	9.0	
29-Dec-05	4	11	6	9	8	5	3	2	5	4	3	2	2	2	3	3	3	3	5	3	4	4	3	4	1.8	10.6	
30-Dec-05	4	7	4	3	6	6	6	4	3	6	7	7	4	3	4	1	2	2	2	3	3	3	3	6	2.1	7.1	
31-Dec-05	3	3	4	1	2	4	4	2	2	4	3	4	3	6	7	5	5	3	3	4	3	3	5	5	1.6	6.6	
1-hr Vector	3.1	3.1	3.7	3.6	3.5	3.6	2.9	2.3	2.8	3.5	3.2	4.4	4.9	4.6	4.0	3.5	3.5	2.0	2.1	2.2	2.8	2.5	3.1	3.2			
Hourly Max	34.5	29.9	39.7	34.8	36.1	38.8	39.7	32.9	31.6	34.3	31.0	34.9	40.2	40.1	32.1	33.8	28.5	22.2	24.1	25.6	27.2	26.7	26.7	32.2			

### PASZA - Beaverlodge Wind Direction Monthly Summary

Station: Beaverlodge  
 Station Owner: PASZA

#### HOURLY AVERAGE TABLE

#### Wind Direction (WD)

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**


Calm Time:	0 hrs	0% calms	Operational Time:	742 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	99.7%				
Percentile	99	95	75	50	25	5	1	Average
	355.6	339.0	280.0	191.5	104.0	39.0	11.4	285 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	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-Dec-05	103	118	117	115	109	115	116	120	123	134	143	134	132	143	131	117	106	103	99	100	104	103	102	99	114	ESE
2-Dec-05	100	103	106	104	101	107	102	110	109	120	117	113	113	110	113	85	325	317	33	39	34	314	331	343	98	E
3-Dec-05	340	339	28	247	235	231	54	336	360	328	350	65	157	175	107	72	76	66	63	105	81	142	120	174	N	-
4-Dec-05	136	209	339	299	81	207	273	284	223	308	302	134	188	197	188	198	193	193	253	325	340	329	339	345	N	-
5-Dec-05	341	336	326	326	322	316	320	317	311	309	309	306	306	305	312	307	333	31	40	342	342	260	349	95	324	NW
6-Dec-05	122	99	104	226	84	104	120	121	125	182	359	152	125	33	275	292	94	265	174	161	256	154	104	332	128	SE
7-Dec-05	265	86	84	93	102	111	170	110	80	81	144	247	258	270	M	M	267	269	275	274	287	289	291	296	275	W
8-Dec-05	298	293	290	286	288	282	262	269	275	268	275	272	280	281	281	275	268	269	275	283	279	270	267	264	277	W
9-Dec-05	268	279	277	278	279	287	291	292	294	296	294	290	286	281	274	272	271	269	263	269	284	281	274	278	282	WNW
10-Dec-05	272	277	273	267	270	276	274	275	280	272	273	266	270	274	274	278	285	285	285	276	273	281	283	281	275	W
11-Dec-05	280	287	284	236	257	246	72	66	72	57	115	99	109	105	98	102	132	94	120	345	316	245	222	274	274	W
12-Dec-05	263	273	278	270	269	272	287	281	269	275	266	272	267	260	272	284	273	259	279	293	298	301	288	295	277	W
13-Dec-05	319	281	303	302	300	312	305	302	306	301	303	307	302	307	311	306	314	314	265	280	188	207	214	172	300	WNW
14-Dec-05	118	41	299	311	321	333	347	329	329	330	343	324	300	278	323	217	79	60	65	57	86	137	139	114	341	NNW
15-Dec-05	111	115	125	181	227	316	88	360	338	48	260	226	194	137	179	177	167	133	207	224	163	213	295	269	163	SSE
16-Dec-05	267	307	259	228	224	160	148	152	141	188	170	137	134	72	159	157	139	144	133	114	132	164	107	88	151	SSE
17-Dec-05	169	272	147	97	143	43	170	160	214	197	243	208	59	70	168	219	304	77	5	50	311	63	108	94	155	SSE
18-Dec-05	291	49	93	118	108	104	72	60	71	49	87	93	78	71	72	106	86	57	63	140	273	280	44	102	75	ENE
19-Dec-05	64	77	79	99	28	318	25	44	344	359	22	348	34	51	287	214	173	87	56	325	20	38	354	326	18	NNE
20-Dec-05	58	70	240	60	75	73	85	191	335	39	216	251	284	16	309	241	201	213	121	126	267	51	352	92	19	NNE
21-Dec-05	240	92	127	192	111	218	149	74	48	336	120	79	225	219	245	325	311	281	228	81	66	114	168	42	206	SSW
22-Dec-05	27	33	39	296	235	85	10	77	359	101	135	93	85	40	191	142	169	124	175	63	123	89	321	293	63	ENE
23-Dec-05	143	189	197	260	203	251	263	262	262	269	267	264	265	266	275	277	272	278	278	235	287	108	101	126	264	W
24-Dec-05	86	123	113	184	115	140	153	112	130	188	152	158	272	6	26	258	264	193	208	2	20	198	359	55	132	SE
25-Dec-05	24	69	31	267	196	106	246	314	314	150	194	57	19	71	68	66	68	165	342	352	233	50	11	353	31	NNE
26-Dec-05	346	333	281	100	134	113	200	112	111	100	62	263	4	82	105	79	160	292	300	78	255	199	160	277	48	NE
27-Dec-05	124	111	171	159	12	136	137	177	177	177	177	177	151	322	54	328	287	153	112	138	210	210	239	269	175	S
28-Dec-05	294	266	285	288	46	290	166	88	121	159	77	102	138	355	32	47	220	164	109	79	78	81	159	203	79	E
29-Dec-05	231	313	13	343	358	330	1	34	57	64	101	105	100	110	171	158	99	105	70	126	113	100	102	108	51	NE
30-Dec-05	259	15	56	109	311	16	305	31	47	262	351	338	37	318	321	246	312	234	145	97	64	137	39	314	350	N
31-Dec-05	84	143	264	191	356	336	36	234	113	68	353	344	304	335	16	3	105	148	261	316	253	344	340	51	360	N
Hourly Avg	305	309	287	277	284	288	292	298	302	284	277	275	274	288	280	273	264	260	274	303	291	277	297	302		

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

Station: Beaverlodge  
 Station Owner: PASZA

### HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: December 1, 2005 to January 1, 2006

**Summary**

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Determined by the Yamartino 15-min interval calculation

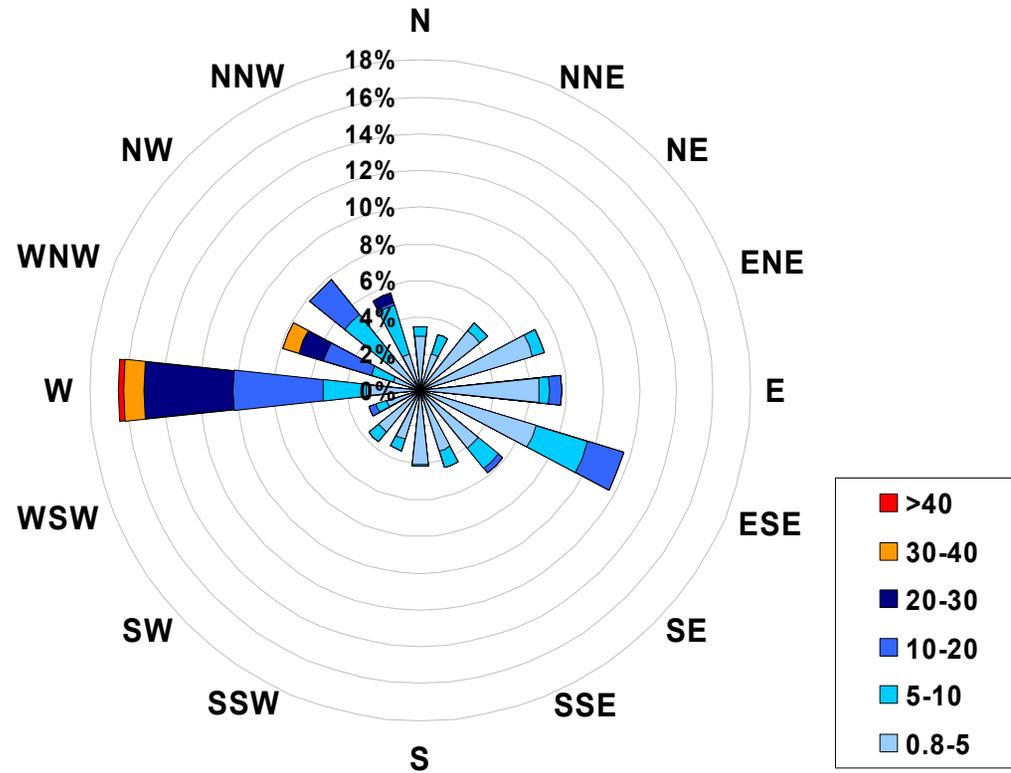
Calm Time:	0 hrs	0% calms	Operational Time:	735 hrs			
Calibration Time:	0 hrs		AMD Operational Uptime:	98.8%			
Percentile	99	95	75	50	25	5	1
	23.7	17.0	10.0	8.0	6.0	3.7	2.0

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																								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-Dec-05	9	11	10	10	10	10	9	9	9	7	7	8	8	9	8	10	10	10	9	10	10	10	10	10	10	11.0
2-Dec-05	10	11	11	11	10	10	10	11	11	10	10	10	10	10	7	7	3	2	5	5	4	11	1	2	11.0	
3-Dec-05	5	5	11	2	2	7	4	8	6	3	7	6	6	3	2	1	4	3	11	8	4	7	9	5	11.0	
4-Dec-05	7	8	12	12	10	13	20	10	9	14	6	12	11	8	9	8	9	8	7	31	9	7	17	24	31.0	
5-Dec-05	20	16	10	10	10	9	9	8	8	7	6	7	7	6	7	6	7	3	7	5	8	13	7	11	20.0	
6-Dec-05	6	5	5	7	5	9	6	9	7	8	10	12	8	8	9	8	2	9	20	8	10	13	10	7	20.0	
7-Dec-05	8	11	5	7	6	10	10	13	7	21	23	14	6	6	M	M	6	6	5	4	6	6	6	7	23.0	
8-Dec-05	7	7	6	6	6	4	5	6	6	6	6	6	7	7	7	7	5	8	8	7	9	7	7	8	9.0	
9-Dec-05	8	8	8	9	9	8	8	8	8	7	8	8	9	9	10	8	5	6	5	10	9	9	8	8	10.0	
10-Dec-05	8	9	8	8	9	9	8	9	9	10	9	10	10	10	10	10	9	9	9	9	9	10	9	7	8	10.0
11-Dec-05	9	8	9	12	5	5	10	8	14	19	6	7	8	5	8	10	8	15	18	10	14	15	5	19.0		
12-Dec-05	7	19	8	7	8	8	8	8	8	7	8	8	8	8	8	9	5	6	8	8	7	8	9	8	19.0	
13-Dec-05	9	6	9	8	9	10	9	8	8	8	8	8	8	9	9	8	7	5	5	14	11	3	6	6	14.0	
14-Dec-05	7	16	6	8	9	12	18	10	9	14	15	9	14	12	10	6	4	3	3	12	6	9	7	11	18.0	
15-Dec-05	10	11	30	16	26	8	12	15	13	6	11	11	14	16	11	5	2	6	8	9	7	14	11	6	30.0	
16-Dec-05	8	9	13	7	7	6	6	8	7	5	6	8	13	8	6	6	6	7	6	6	8	9	10	10	13.0	
17-Dec-05	13	7	24	6	6	12	7	7	12	5	9	15	21	18	10	8	4	11	11	2	8	3	11	8	24.0	
18-Dec-05	13	3	7	5	6	5	5	15	24	21	8	6	6	5	4	5	6	7	12	5	9	4	11	5	24.0	
19-Dec-05	3	4	3	8	3	7	6	5	6	21	16	12	8	8	9	3	4	10	9	7	13	19	8	8	21.0	
20-Dec-05	10	7	9	3	7	11	10	19	8	8	7	11	6	13	9	10	9	7	4	5	3	8	5	6	19.0	
21-Dec-05	10	7	9	11	15	10	14	6	8	12	17	15	8	9	8	9	6	6	10	8	6	8	10	5	17.0	
22-Dec-05	7	14	20	11	13	4	9	7	15	7	10	12	6	7	5	11	7	15	15	3	9	11	6	9	20.0	
23-Dec-05	6	12	11	12	18	17	12	6	6	6	6	7	8	8	7	7	7	6	11	13	7	6	10	8	18.0	
24-Dec-05	7	8	8	12	10	9	11	8	7	10	10	9	12	10	12	8	11	16	22	27	15	19	13	18	27.0	
25-Dec-05	10	14	27	17	14	14	18			8	8	5	7	8	4	17	3	10	18	11	6	10	8	11	27.0	
26-Dec-05	15	15	6	10	7	10	6	8	7	9	6	7	12	8	13	4	9	12	9	8	5	4	3	9	15.0	
27-Dec-05	7	4	3	7	8	10	4						6	7	10	14	13	10	6	7	8	7	1	9	14.0	
28-Dec-05	10	2	1	9	12	10	11	8	9	8	4	10	8	5	4	12	12	4	7	7	7	10	15	16	16.0	
29-Dec-05	20	4	16	9	13	7	18	6	3	5	12	16	17	17	9	8	6	13	6	7	10	7	6	7	20.0	
30-Dec-05	7	8	5	10	7	9	20	8	12	16	10	5	9	9	22	11	11	7	10	7	10	10	12	6	22.0	
31-Dec-05	14	8	5	12	8	9	12	4	4	3	9	12	12	13	7	10	8	9	4	5	3	12	7	3	14.0	

Hourly Max	20	19	30	17	26	17	20	19	24	21	23	16	21	18	22	17	13	16	22	31	15	19	17	24
------------	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

1-hr Average Wind Rose (in km/hr) Located at the Beaverlodge Site for December 2005



Calms: 0%

Frequency Distribution of Wind in km/hr			Frequency (hrs)
Range			
0.8	<	5	426
5	to	10	146
10	to	20	100
20	to	30	49
30	to	40	15
	>	40	2
Total Non-Zero Values			740

**PEACE AIRSHED ZONE ASSOCIATION**  
**PASZA Monthly Passive Data Summary**

Table 1. PASZA Passive Stations for December 2005

PASZA					
Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
<b>Duplicates</b>					
11a	Smoky Heights	0.4	20.6	3.3	
11b	Smoky Heights	0.4	19.2	2.9	
17a	Fitzsimmons	0.3	19.9	3.3	
17b	Fitzsimmons	0.3	20.6	3.2	
18a	Wapiti	0.4	23.9	1.7	
18b	Wapiti	0.4	24.8	1.8	
49a	Grande Prairie HP	0.3	14.7	12.3	
49b	Grande Prairie HP	0.3	13.5	11.6	
1	Silver Valley	0.5	23.2	2.6	08-27-081-11 W6M
2	Bay Tree	0.2	23.3	1.7	13-16-078-13 W6M
3	Forth Creek	0.4	25.2	1.9	04-13-082-07 W6M
4	Gordondale	0.4	29.5	2.2	04-34-078-10 W6M
5	Boone Creek	0.4	19.7	3.3	01-23-076-11 W6M
7	Steepprock Creek	0.2	24.5	2.2	09-35-072-13 W6M
9	Spirit River	0.3	24.1	2.3	08-12-079-07 W6M
10	Woking	0.3	25.2	1.7	01-13-076-07 W6M
11	Webber Creek	0.4	19.9	3.1	09-36-074-09 W6M
12	Hythe	0.4	19.1	3.6	14-36-072-11 W6M
14	Sylvester	0.1	16.5	2.0	08-06-069-12 W6M
16	Beaverlodge	0.3	21.8	5.2	15-36-071-10 W6M
17	Poplar	0.3	20.2	3.2	13-06-073-08 W6M
18	Saddle Hills	0.4	24.4	1.7	04-25-074-07 W6M
19	Wanham	0.5	25.3	2.7	16-22-077-03 W6M

**Table 1. PASZA Passive Stations for December 2005 (Continued)**

PASZA					
Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
20	Shaftesbury	0.4	19.6	1.7	04-03-082-23 W5M
21	Eaglesham	0.2	17.7	1.7	16-21-079-25 W5M
23	Bear Lake	0.3	19.9	3.3	15-31-072-06 W6M
24	Wembley	0.2	18.8	5.0	12-31-070-08 W6M
25	Pinto Creek	0.2	17.5	2.5	04-24-069-11 W6M
26	Flyingshot	0.3	16.3	4.8	15-36-070-07 W6M
27	Grande Prairie I	0.4	16.2	11.2	08-15-071-06 W6M
28	Clairmont Lake	0.5	20.5	3.6	09-06-073-04 W6M
29	Smoky Heights	0.5	20.3	4.1	04-06-075-02 W6M
30	Fitzsimmons	0.3	19.7	3.5	15-36-072-03 W6M
32	Gold Creek	0.2	14.1	2.6	06-33-067-05 W6M
33	Wapiti	0.3	19.0	3.2	02-25-071-03 W6M
34	Puskwaskau	0.2	19.7	1.0	15-35-074-25 W5M
35	Jean Cote	0.3	23.4	1.9	12-35-079-21 W5M
36	Guy	0.3	22.6	1.9	03-04-076-22 W5M
37	Crooked Creek	0.5	23.1	3.5	16-01-071-26 W5M
38	Karr Creek	0.2	17.8	1.3	10-16-065-02 W6M
39	Clouston Creek	0.4	22.1	2.2	12-01-073-22 W5M
40	McLennan	0.2	25.4	1.9	03-29-077-19 W5M
41	Valleyview	0.6	24.7	3.2	09-30-069-22 W5M
42	Sunset House	0.6	33.3	1.6	05-32-070-19 W5M
43	High Prairie	0.2	20.0	2.6	16-13-074-17 W5M
44	Peavine	0.1	23.2	1.1	03-05-079-15 W5M
45	Gift Lake	0.2	18.5	1.7	10-07-079-12 W5M
46	Little Smoky	0.4	16.9	5.3	12-01-065-21 W5M
47	Kinuso	0.2	18.1	1.4	12-10-073-10 W5M
48	Deer Mountain	0.4	27.3	0.9	15-22-068-09 W5M
49	Grande Prairie HP	0.3	14.1	11.9	17-26-071-06 W6M

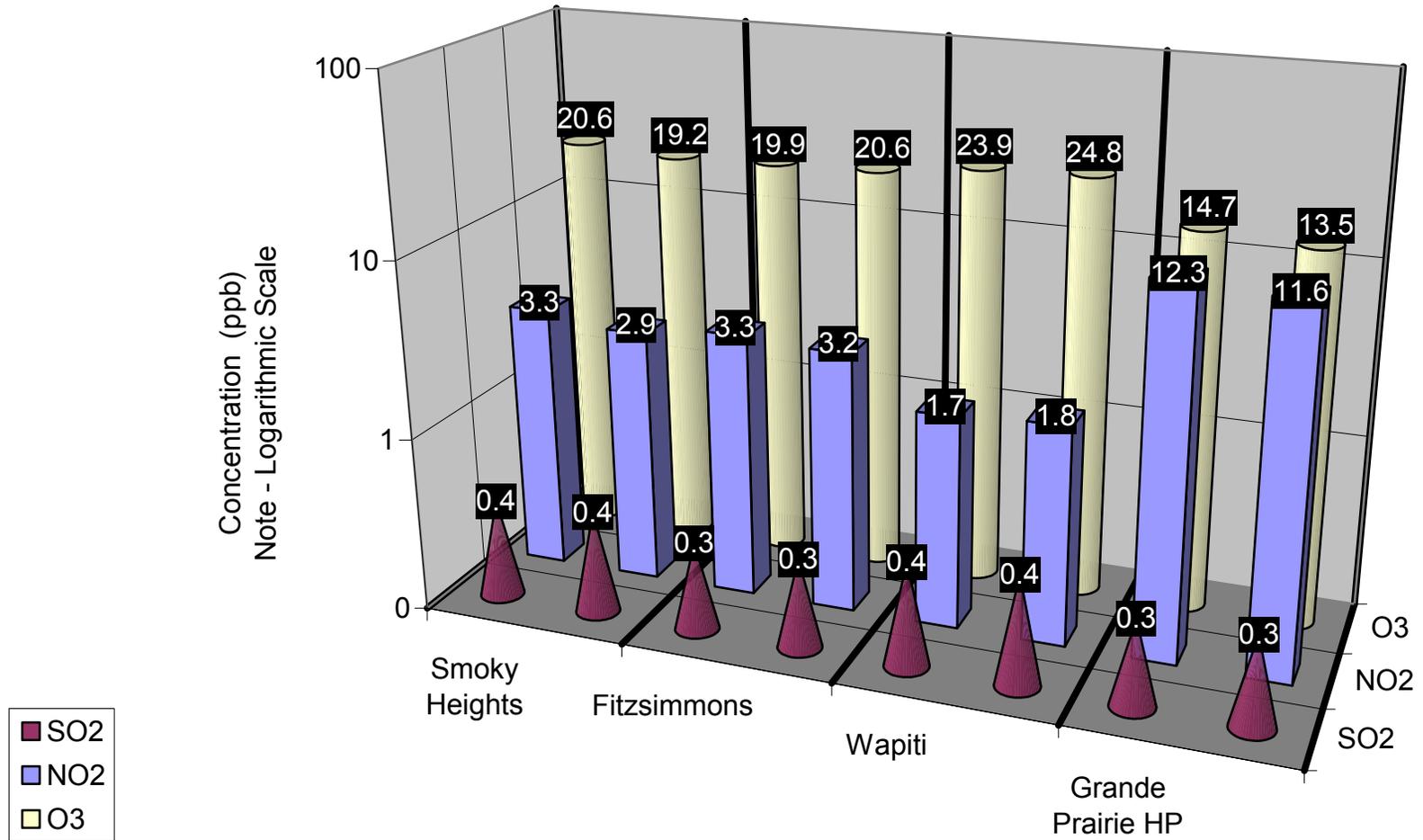
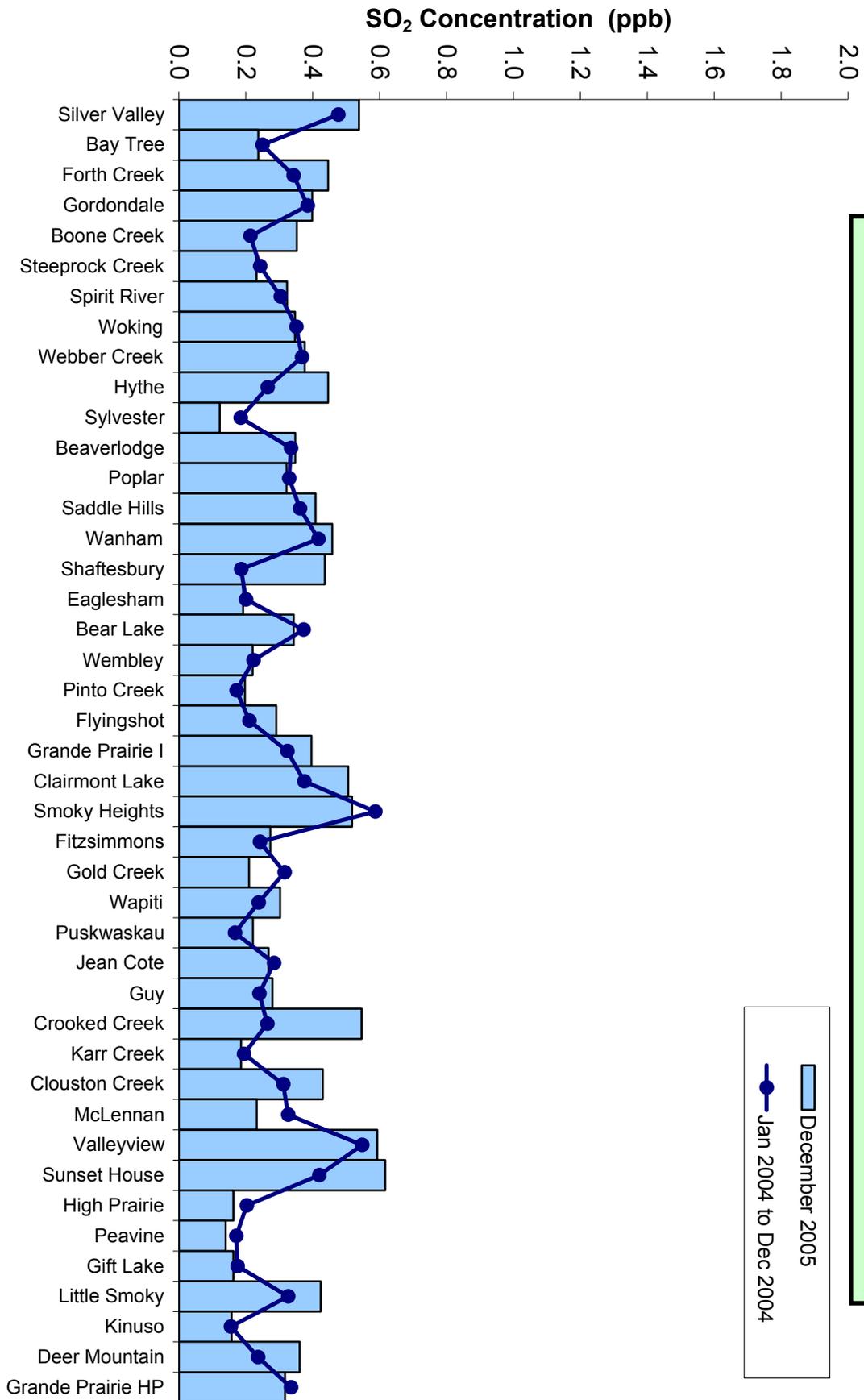


Figure 46. Duplicate Summary Chart

**Table 2. Passive Summary Results for December 2005**

Stats	Sulphur Dioxide	Ozone	Nitrogen Dioxide
	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
	ppb	ppb	ppb
<b>Passive Summary for Dec 2005 (PASZA Zone)</b>			
Mean	0.3	21.2	3.0
Standard Deviation	0.1	4.0	2.2
Minimum	0.1	14.1	0.9
	Sylvester (#14)	Gold Creek (#32)	Deer Mountain (#48)
Maximum	0.6	33.3	11.9
	Sunset House (#42)	Sunset House (#42)	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	0.2	17.2	8.5
PASZA Beaverlodge passive	0.3	21.8	5.2
<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	0.7	9.3	15.7
PASZA Grande Prairie passive	0.3	14.1	11.9





**Figure 48. SO<sub>2</sub> Summary Chart**

PASZA Passive O<sub>3</sub> Stations - December 2005  
Average Concentrations in ppb

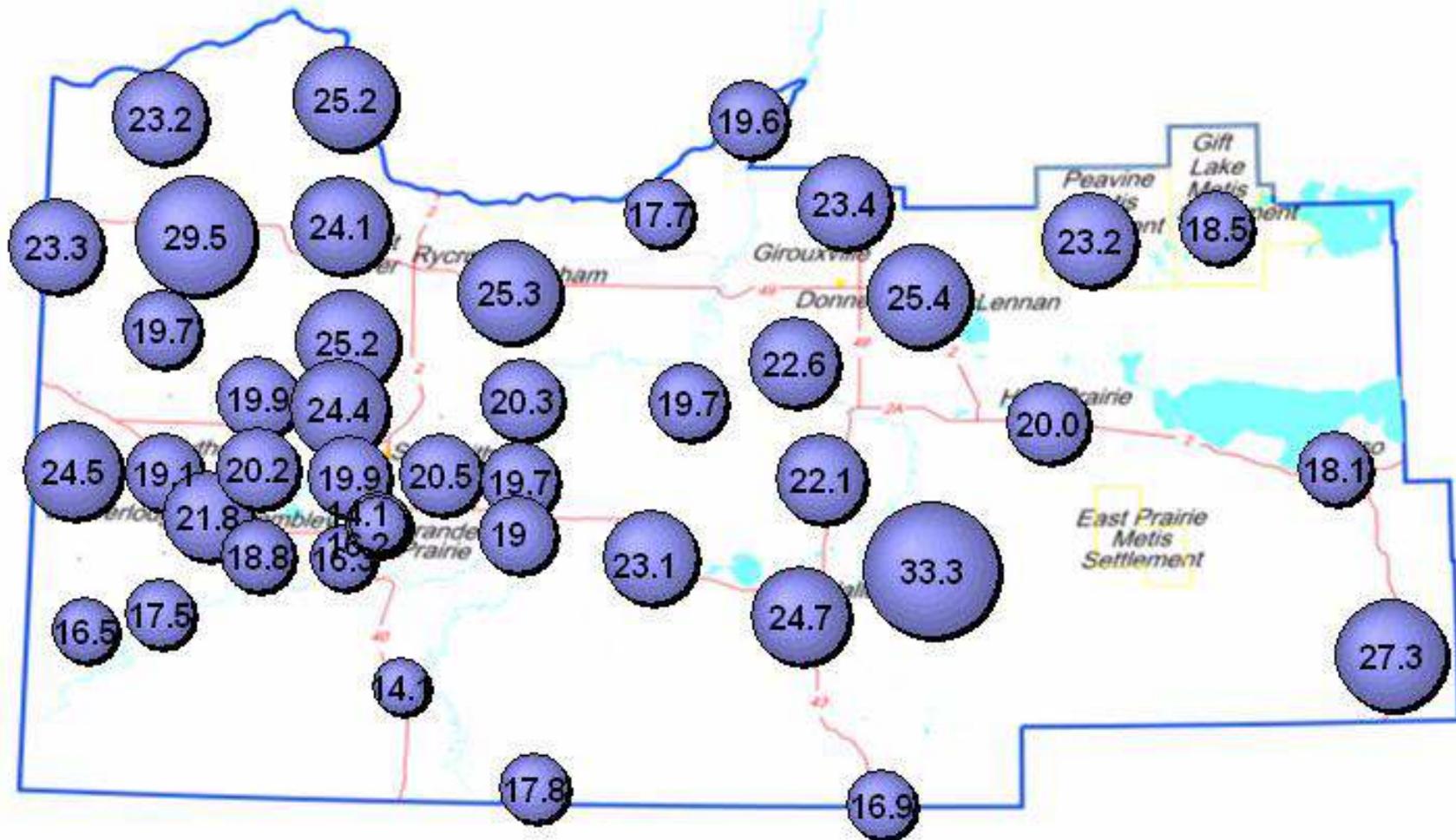
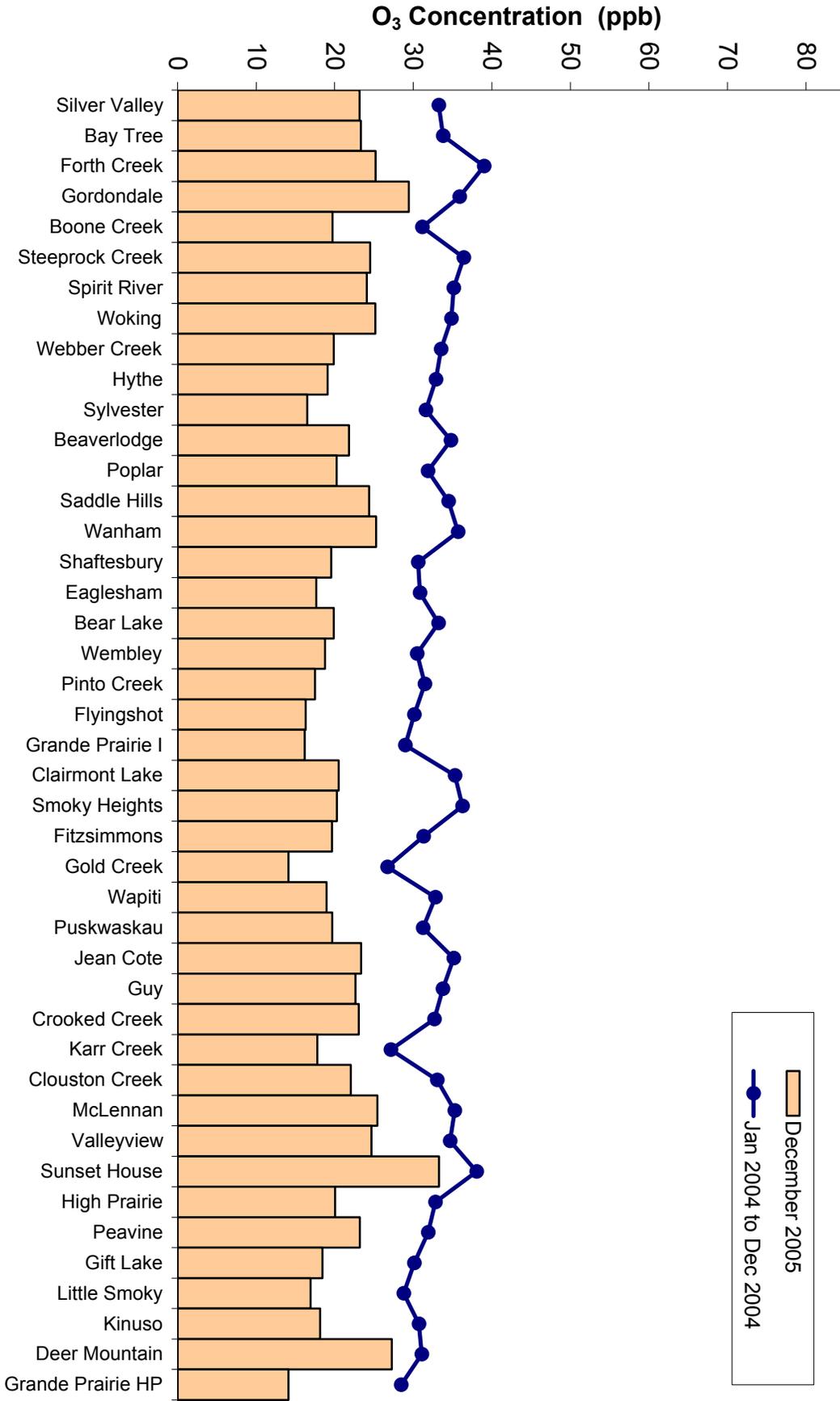


Figure 49. O<sub>3</sub> Bubble Chart



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

**Figure 50. O<sub>3</sub> Summary Chart**

PASZA Passive NO<sub>2</sub> Stations - December 2005  
Average Concentrations in ppb

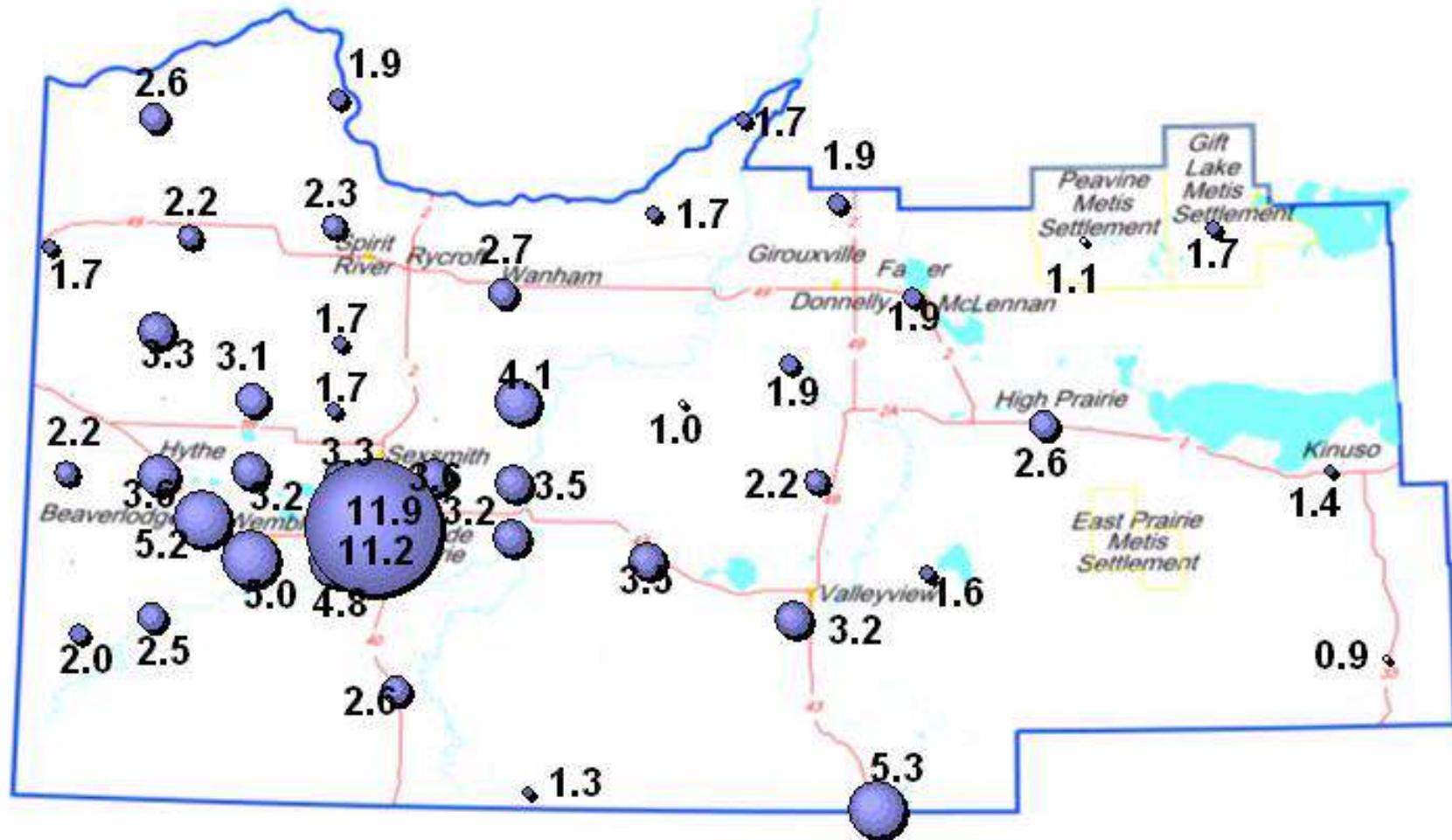
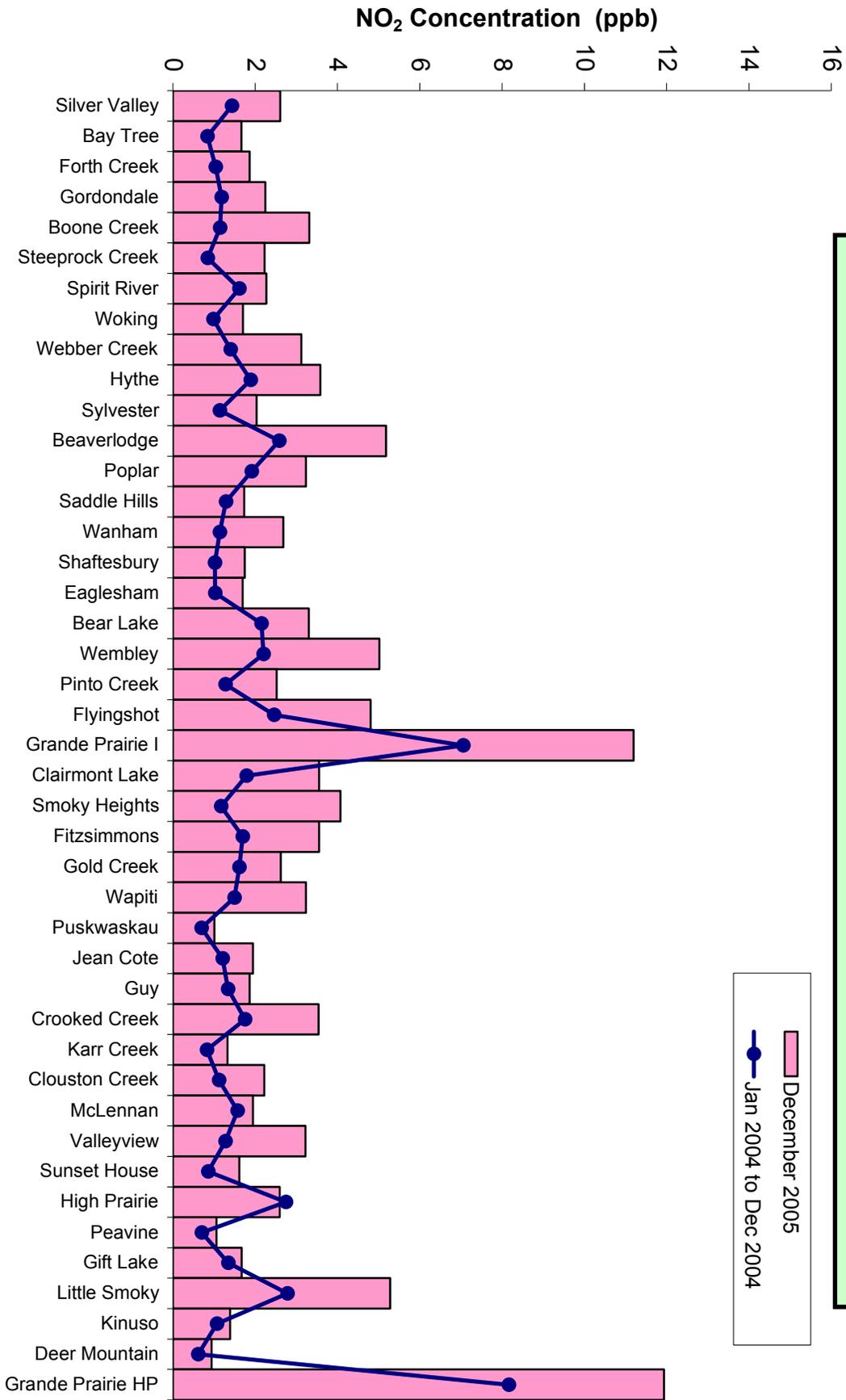


Figure 51. NO<sub>2</sub> Bubble Chart



**Figure 52. NO<sub>2</sub> Summary Chart**

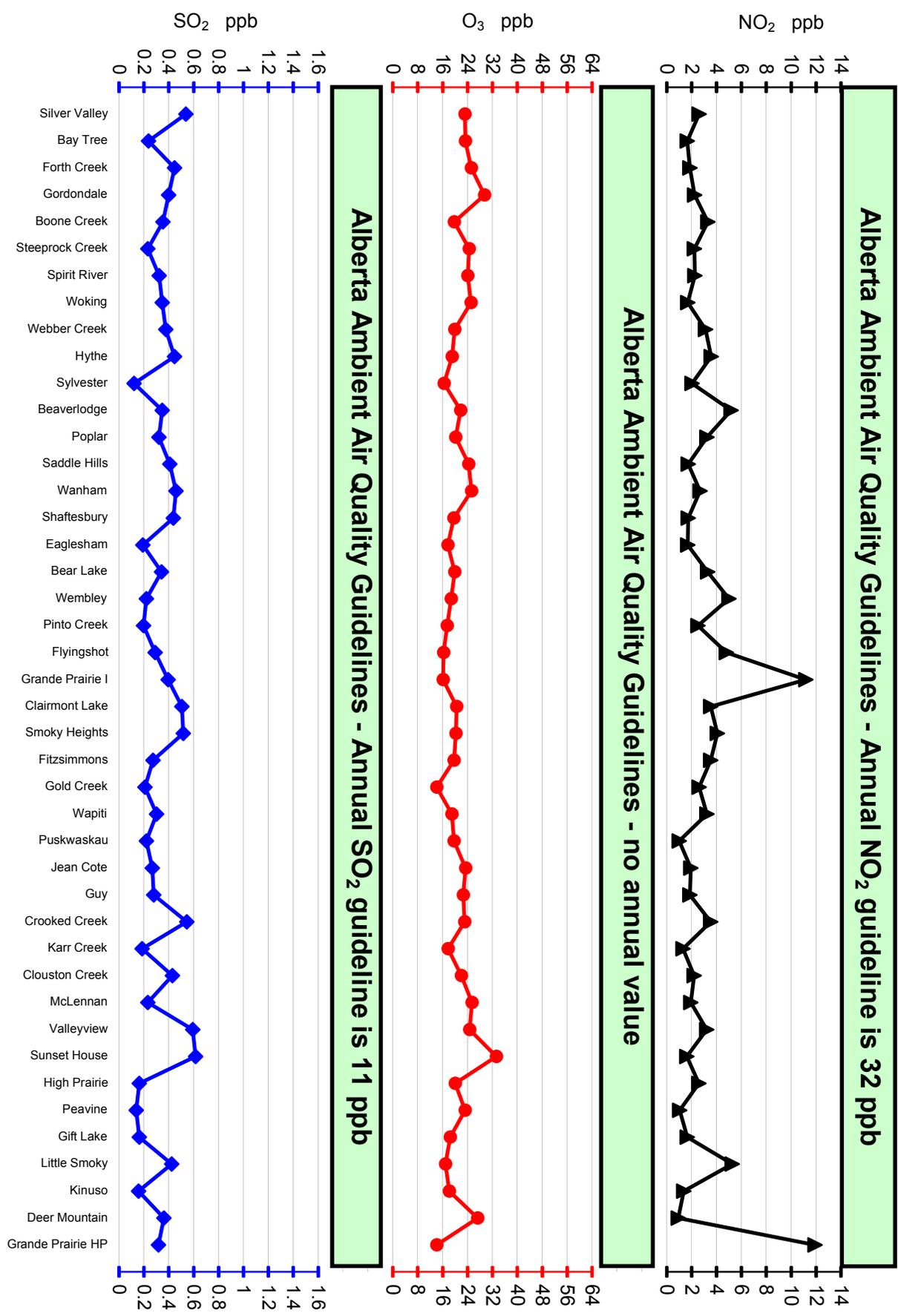


Figure 53. Overview Summary

## **December 2005 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, TRS, PM<sub>2.5</sub>**

**PASZA – Evergreen Park Station with the following calibrations:**

**SO<sub>2</sub>, TRS, PM<sub>2.5</sub>**

**PASZA – Smoky Heights Station with the following calibrations:**

**SO<sub>2</sub>, TRS, PM<sub>2.5</sub>**

**PASZA – Beaverlodge Station with the following calibrations:**

**SO<sub>2</sub>, NO, NO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>, PM<sub>2.5</sub>**

**Calibration Report**
 Parameter SO<sub>2</sub>  
 Air Monitoring Network PASZA
**Station Information**

Calibration Date	December 2, 2005	Previous Calibration	November 7, 2005
Station Number	1	Station Location	Muskoseepi Park
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	11:08	End Time (MST)	14:00
Barometric Pressure	27.4 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	2,097 ng/min	Perm-tube Expiry Date	
Correction factor	0.930383	Perm-tube Cert #	19-9955
DACS make	Focus AP1000	DACS serial No.	45266
DACS voltage range	0 - 10 volt	DACS channel #	4
	<u>Before</u>		<u>After</u>
Calculated slope	0.995694	Calculated slope	0.999180
Calculated intercept	-0.043639	Calculated intercept	-0.885845
Analyzer make	TEI Model 43A	Analyzer serial #	43A-21120-195

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
SO <sub>2</sub> zero pot	170		170	
SO <sub>2</sub> span pot	195		195	
UV Lamp voltage	942	V	948	V
Vacuum	17.8	" Hg	17.7	" Hg
Sample Flow	420	ccm	420	ccm

**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)
zero	2153.8	0.0	-0.3	N/A
2315	2153.8	371.6	372.0	0.9990
5075	4721.7	169.5	172.1	0.9850
9925	9234.1	86.7	88.1	0.9841
zero	2153.8	0.0	-0.3	As Found Zero
2315	2153.8	371.6	370.2	As Found Span
Average Correction Factor				0.9894

Calculated value of As Found Response: 368.844 ppm      Percent Change of As Found: 0.7%

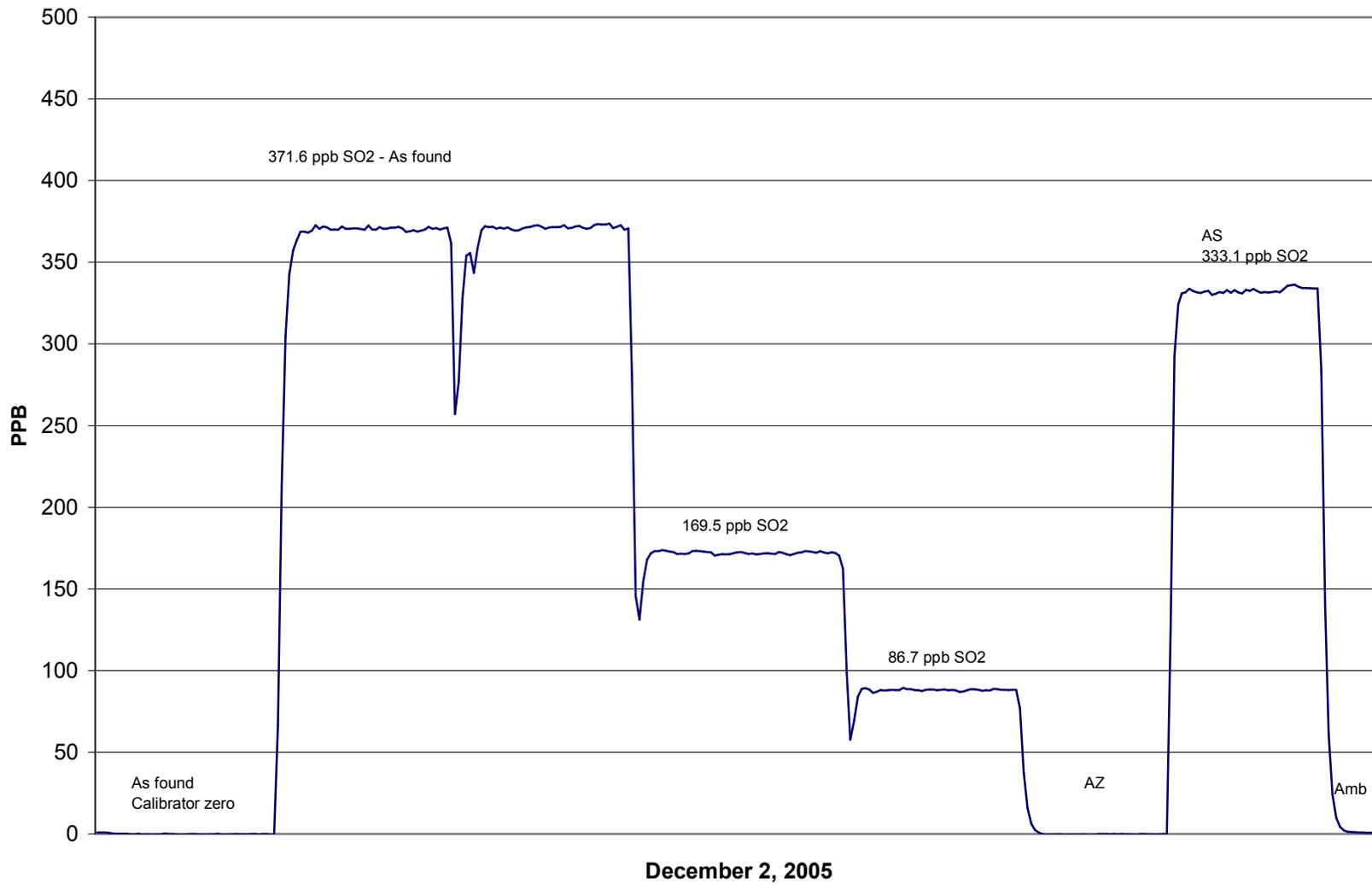
	before calibration		after calibration	
Auto zero	-0.3	ppm	-1.2	ppm
Auto span	332.7	ppm	333.1	ppm

 Notes: No adjustment made.

 Calibration Performed By: Dawn Ewan



### SO2 Calibration



**Calibration Report**

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

**Station Information**

Calibration Date	<u>December 3, 2005</u>	Previous Calibration	<u>November 4, 2005</u>
Station Number	<u>1</u>	Station Location	<u>Muskoseepi Park</u>

Reason:  Routine     Installation     Removal    Other: \_\_\_\_\_

Start Time (MST)	<u>11:51</u>	End Time (MST)	<u>15:35</u>
Barometric Pressure	<u>0.936</u> Atm	Station Temperature	<u>20.0</u> Deg C
Calibrator	<u>EnviroNics 6100</u>	Serial Number	<u>3016</u>
NO Cal Gas Conc	<u>50.3</u> ppm	Cal Gas Expiry Date	<u>22-Nov-06</u>
NOx Cal Gas Conc	<u>50.5</u> ppm	Cal Gas Serial #	<u>BAL786</u>

**DACS Information**

DACS make FOCUS AP1000    DACS serial No. 45269

Parameter		NO2	NOx	NO
Before	Data Slope	0.997408	1.000722	0.992884
	Data Offset	1.557614	-0.019864	0.027698
After	Data Slope	0.994541	1.002432	0.996563
	Data Offset	0.972585	-1.327099	-0.370086
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	9.0	ppb	7.4	mV
NOx background	9.2	ppb	7.5	mV
NO coefficient	0.842		0.873	
NOx coefficient	0.974		0.955	
Chamber Temp	49.7	Deg C	49.6	Deg C
Cooler Temp	-2.5	Deg C	-2.4	Deg C
Converter Temp	318.0	Deg C	318.0	Deg C
Vacuum	187.8	mm Hg	194.5	mm Hg

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

# Calibration Report

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



## Station Information

Calibration Date: December 3, 2005 Station Location: Muskoseepi Park

## 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	4993	0.00	0.0	0.0	0.0	0.5	-0.1	0.5	N/A	N/A
1	4993	39.97	401.1	399.5	1.6	400.8	400.8	0.0	1.0006	0.9966
2	4993	19.98	201.3	200.5	0.8	203.0	202.2	0.8	0.9915	0.9914
3	4993	9.99	100.8	100.4	0.4	102.5	101.3	1.2	0.9839	0.9917
AFZ	4993	0.00	0.0	0.0	0.0	-0.7	-1.6	0.9	0.0000	0.0000
AFS	4993	39.97	401.1	399.5	1.6	389.0	381.8	7.3	1.0309	1.0463
Average Correction Factor									0.9920	0.9932

As Found Concentrations: NO<sub>x</sub>= 389.7 NO= 383.4 As Found Percent Change NO<sub>x</sub>= -2.8% NO= -4.0%

## GPT Calibration Data

Dilution Flow 4993 ccm Source Gas Flow 39.97 ccm

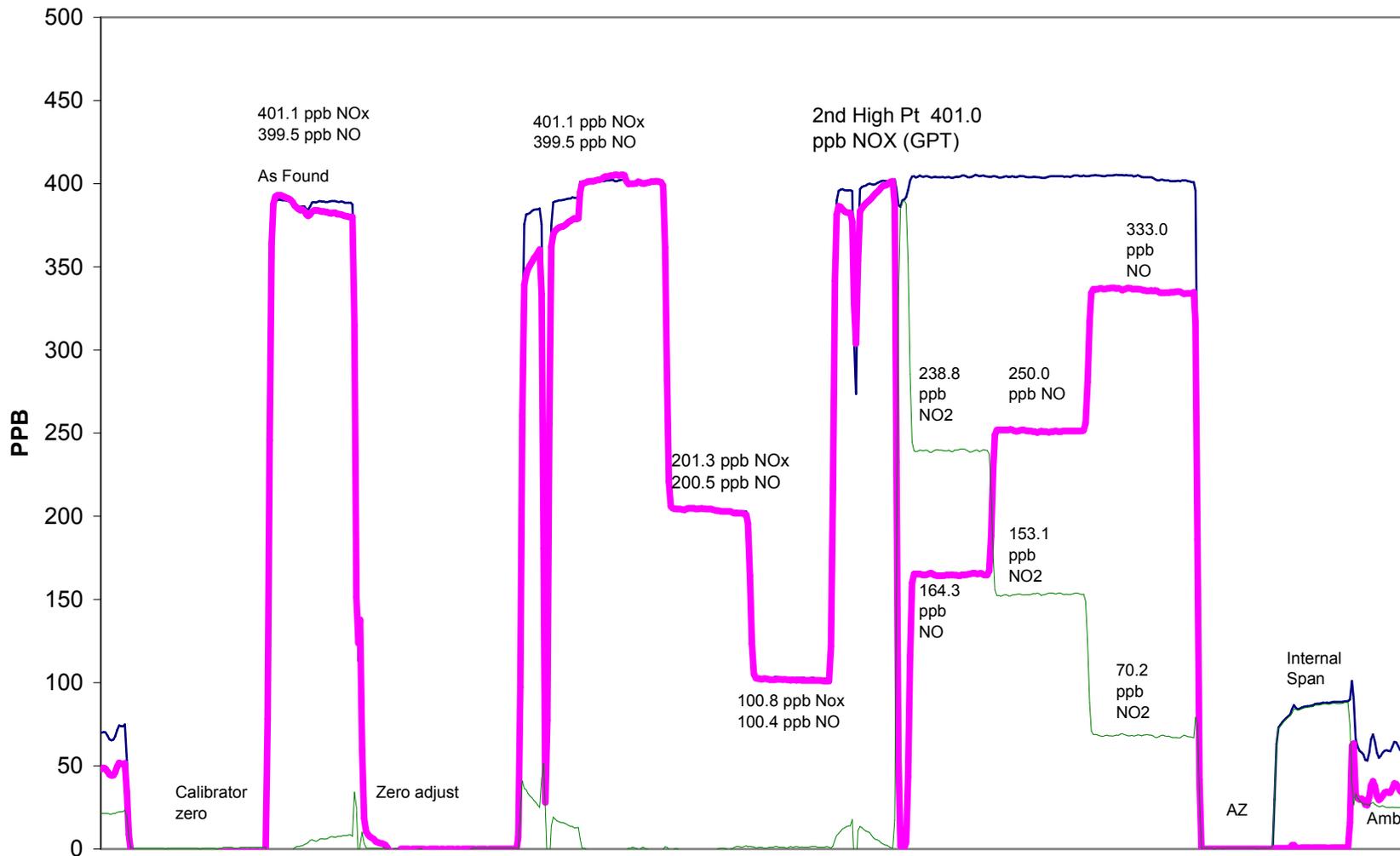
O <sub>3</sub> Setpoint (ppb)	Calculated NO <sub>x</sub> conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NO <sub>x</sub> conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NO <sub>x</sub> Correction factor	NO Correction factor	NO <sub>2</sub> Correction 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	403.2	395.5	7.7	401.0	397.2	3.8	1.0054	0.9956	N/A	N/A
300	403.2	164.3	238.8	404.5	165.3	239.5	0.9966	0.9943	0.9971	100.3%
200	403.2	250.0	153.1	404.5	251.3	153.4	0.9968	0.9951	0.9983	100.2%
100	403.2	333.0	70.2	401.5	334.5	67.4	1.0041	0.9955	1.0421	96.0%
Average Correction Factor							0.9992	0.9950	1.0125	98.8%

## AIC Data

	Previous calibration				Current calibration			
Parameter	NO <sub>x</sub>	NO <sub>2</sub>	NO		NO <sub>x</sub>	NO <sub>2</sub>	NO	
Auto zero	-1.3	1.1	-3.1	ppb	1.0	1.7	1.0	ppb
Auto span	294.6	292.3	3.6	ppb	87.2	88.0	0.5	ppb

Calibration Performed By: Dawn Ewan

### NOx Calibration



December 3, 2005

## Calibration Summary

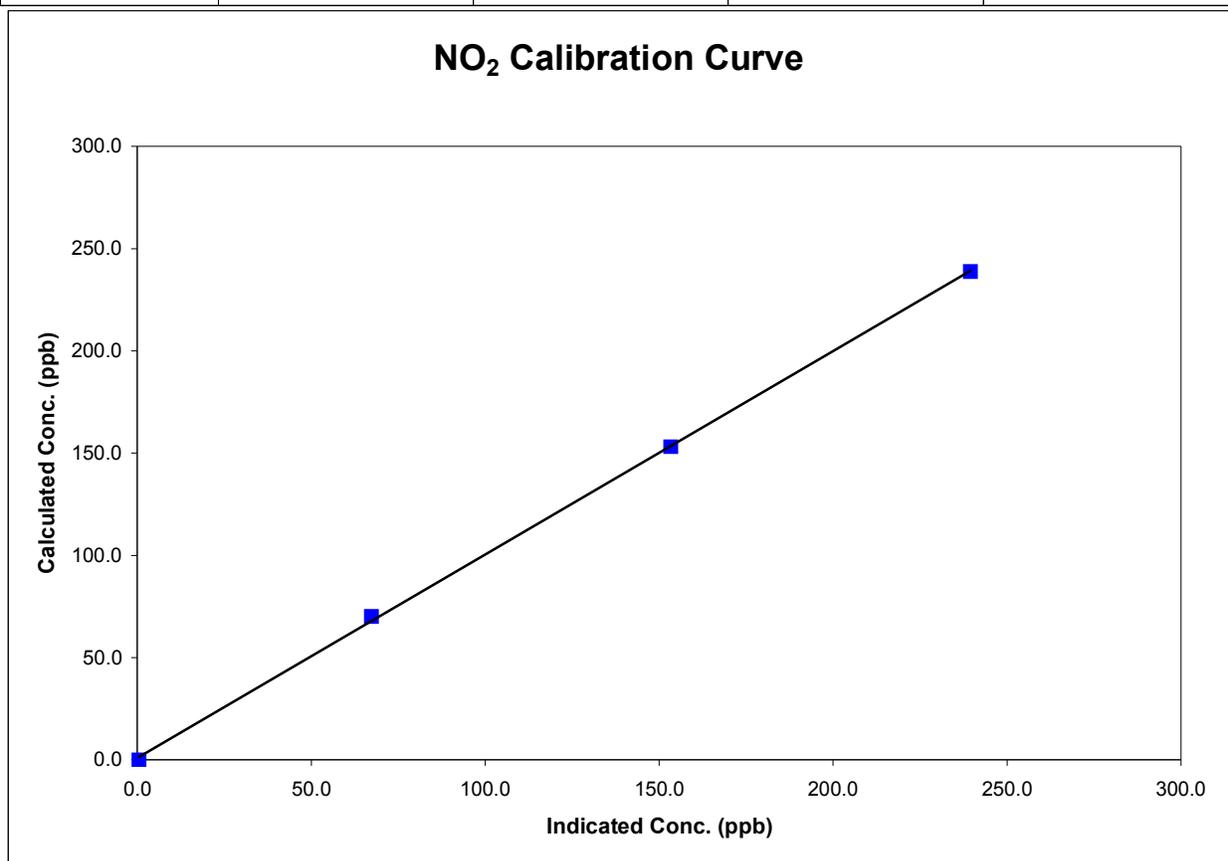
Parameter NO<sub>2</sub>Air Monitoring Network PASZA

### Station Information

Calibration Date	December 3, 2005	Previous Calibration	November 4, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	11:51	End Time (MST)	15:35
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	0.5	0.0000	Correlation Coefficient	0.999769
238.8	239.5	0.9971		
153.1	153.4	0.9983	Slope	0.994541
70.2	67.4	1.0421		
			Intercept	0.972585



## Calibration Summary

Parameter NO<sub>x</sub>

Air Monitoring Network PASZA

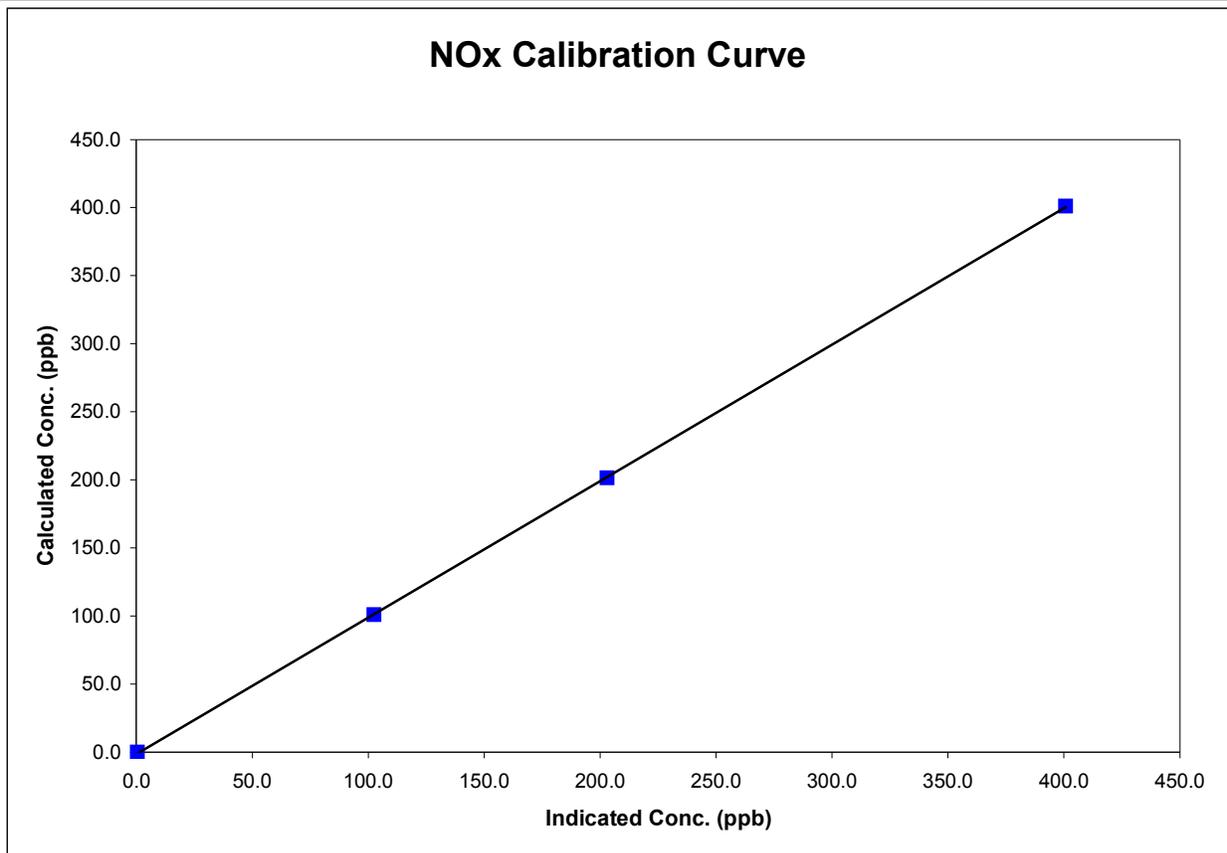


### Station Information

Calibration Date	December 3, 2005	Previous Calibration	November 4, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	11:51	End Time (MST)	15:35
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	0.5	0.0000	Correlation Coefficient	0.999975
401.1	400.8	1.0006		
201.3	203.0	0.9915		
100.8	102.5	0.9839		
			Slope	1.002432
			Intercept	-1.327099



## Calibration Summary

Parameter NO  
 Air Monitoring Network PASZA

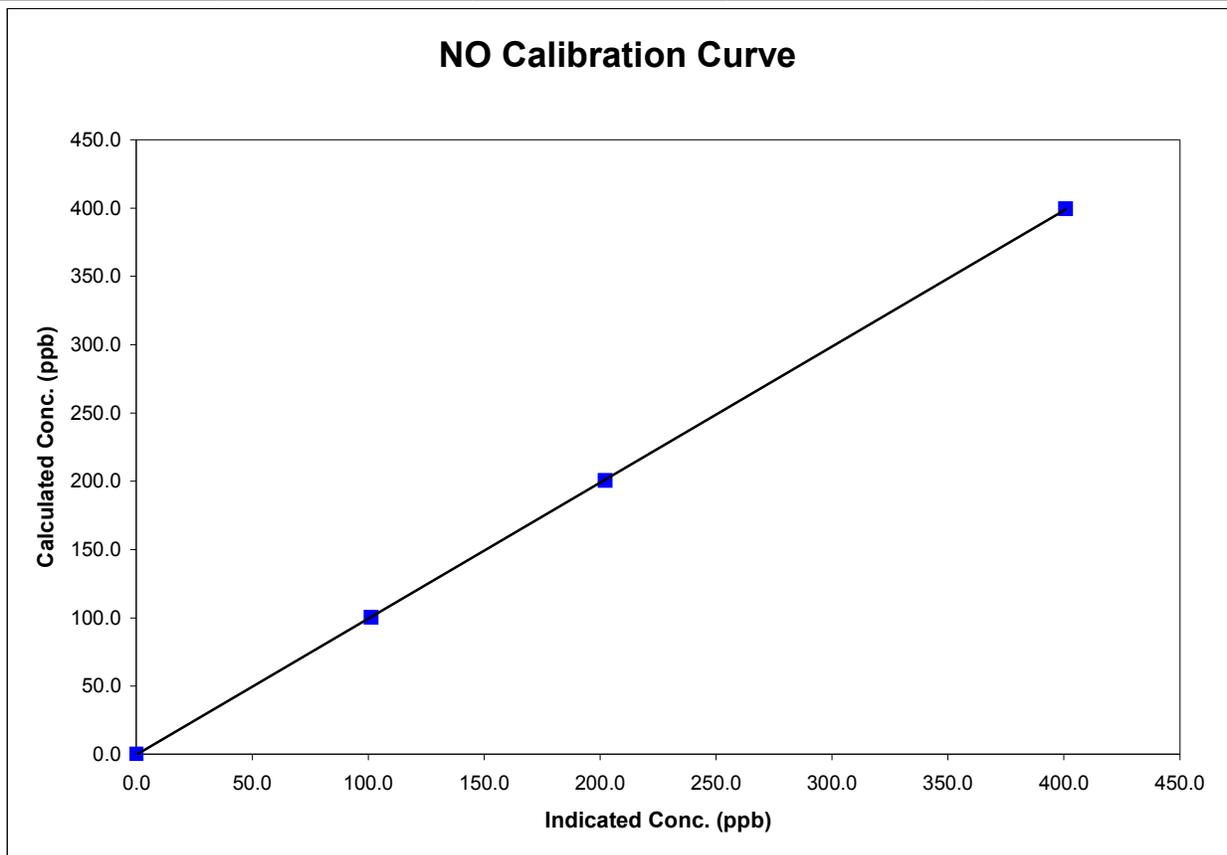


### Station Information

Calibration Date	December 3, 2005	Previous Calibration	November 4, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	11:51	End Time (MST)	15:35
Analyzer make	Teco 42C	Analyzer serial #	508011073

### Calibration Data

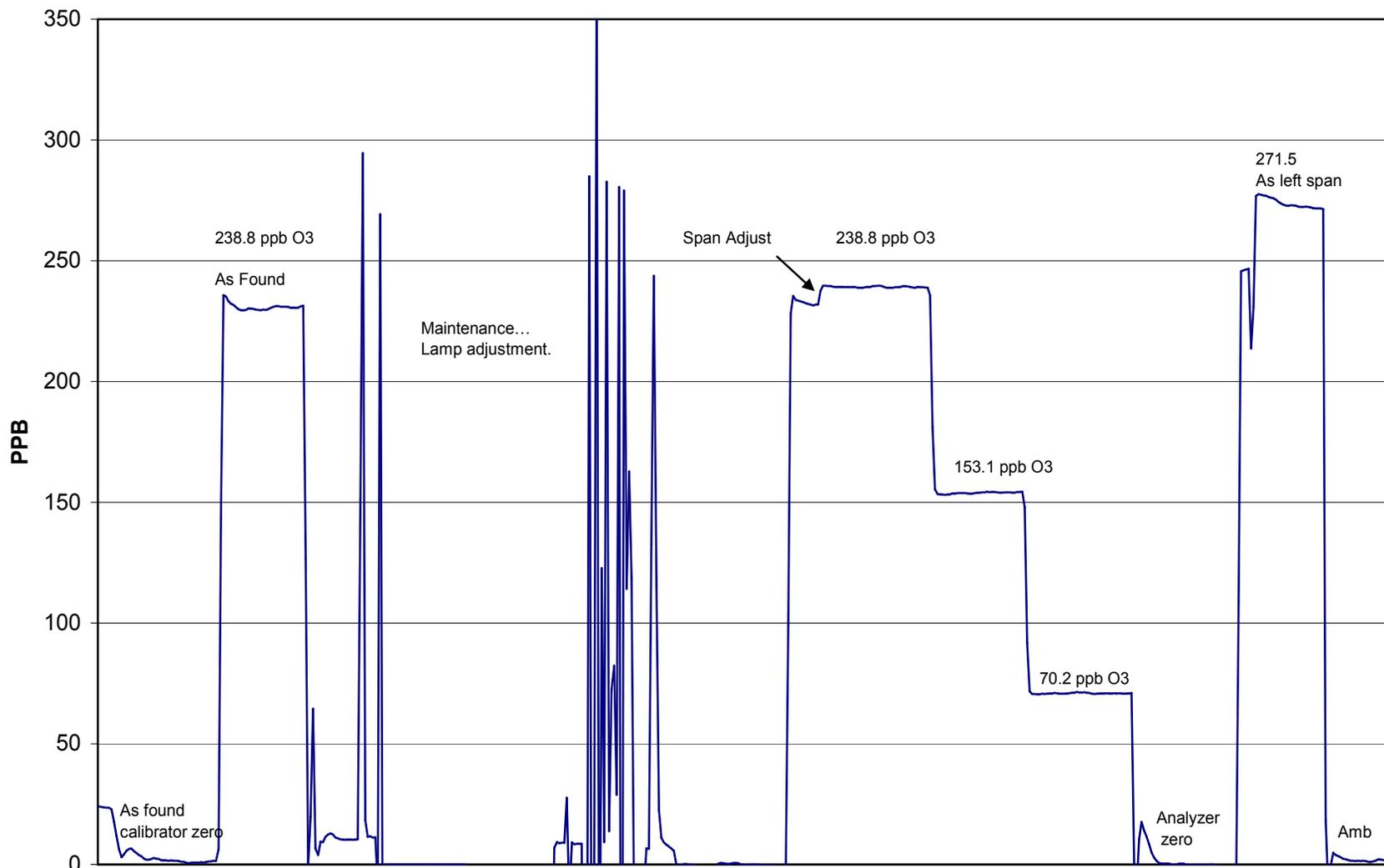
Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
399.5	400.8	0.9966	Correlation Coefficient	0.999991
200.5	202.2	0.9914		
100.4	101.3	0.9917		
			Slope	0.996563
			Intercept	-0.370086







### O3 Calibration



December 5, 2005

# Calibration Report



Parameter CO

Air Monitoring Network PASZA

### Station Information

Calibration Date	December 5, 2005	Previous Calibration	November 7, 2005
Station Number	1	Station Location	Muskoseepi Park
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			Other: <input type="text"/>

Start Time (MST)	11:20	End Time (MST)	14:45
Barometric Pressure	0.946 ATM	Station Temperature	20.0 Deg C
Calibrator	Envionics 6100	Serial Number	3016
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
	<u>Before</u>		<u>After</u>
Calculated slope	0.995875	Calculated slope	1.007900
Calculated intercept	0.018910	Calculated intercept	-0.088090

Analyzer make TEI Model 48C Analyzer serial # 508011062

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
CO span setting	3.405		3.441	
CO zero setting	1.018		1.018	
Sample pressure	701.5	mm Hg	690.9	mm Hg
Sample Flow	1.09	LPM	1.081	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)
4993	0.00	0.00	0.04	N/A
4993	39.97	23.82	23.70	1.0051
4993	19.96	11.95	11.95	0.9993
4993	9.97	5.98	6.08	0.9841
4993	0.00	0.00	0.54	As Found Zero
4993	39.97	23.82	24.71	As Found Span
Average Correction Factor				0.9962

Calculated value of As Found Response: 24.083 ppm Percent Change of As Found: -1.1%

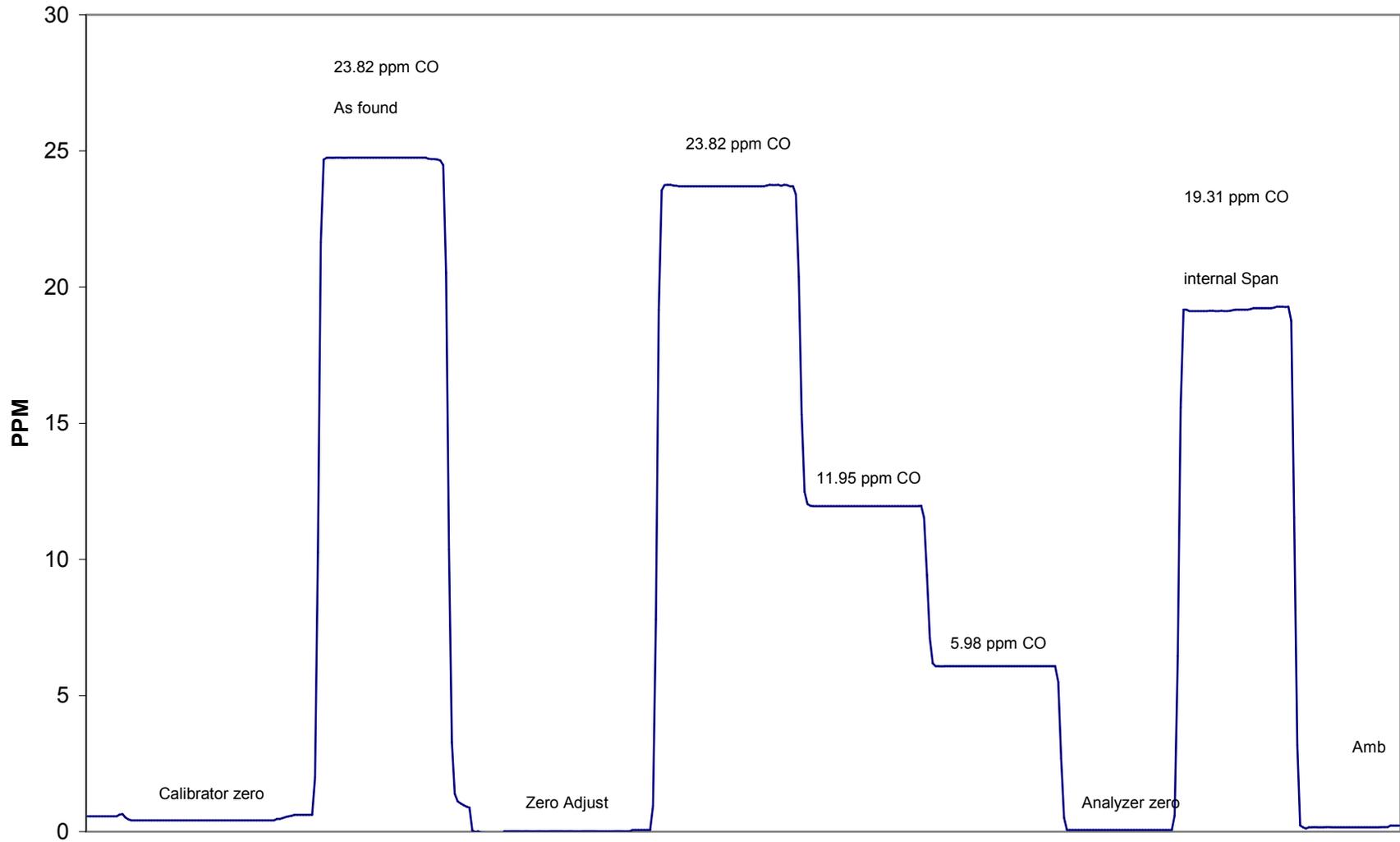
	before calibration		after calibration	
Auto zero	0.11	ppm	0.01	ppm
Auto span	19.01	ppm	19.31	ppm

Notes: Changed CO span bottle.  
Adjusted zero.

Calibration Performed By: Dawn Ewan



### CO Calibration



December 5, 2005

**Calibration Report**Parameter THCAir Monitoring Network PASZA**Station Information**

Calibration Date	December 5, 2005	Previous Calibration	November 7, 2005
Station Number	1	Station Location	Muskoseepi Park
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	17:46	End Time (MST)	20:25
Barometric Pressure	0.946 ATM	Station Temperature	20.0 Deg C
Calibrator	Envionics 6100	Serial Number	3016
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 030358
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
Calculated slope	1.045428	Calculated slope	0.998971
Calculated intercept	-0.281293	Calculated intercept	-0.008860
Analyzer make	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.1	psi	6.1	psi
THC span counts	7022	capture	7133	capture
THC zero counts	1334	capture	1437	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)
4993	0.00	0.00	-0.01	N/A
4993	64.97	19.55	19.58	0.9985
4993	34.96	10.58	10.59	0.9990
4993	9.97	3.03	3.08	0.9855
4993	0.00	0.00	0.31	As Found Zero
4993	64.97	19.55	20.03	As Found Span
Average Correction Factor				0.9944

Calculated value of As Found Response: 20.337 ppm Percent Change of As Found: -4.0%

	before calibration		after calibration	
Auto zero	-0.34	ppm	-0.05	ppm
Auto span	21.91	ppm	22.00	ppm

Notes: Adjusted both span and zero.Calibration Performed By: Dawn Ewan

## Calibration Summary

Parameter THC  
 Air Monitoring Network PASZA

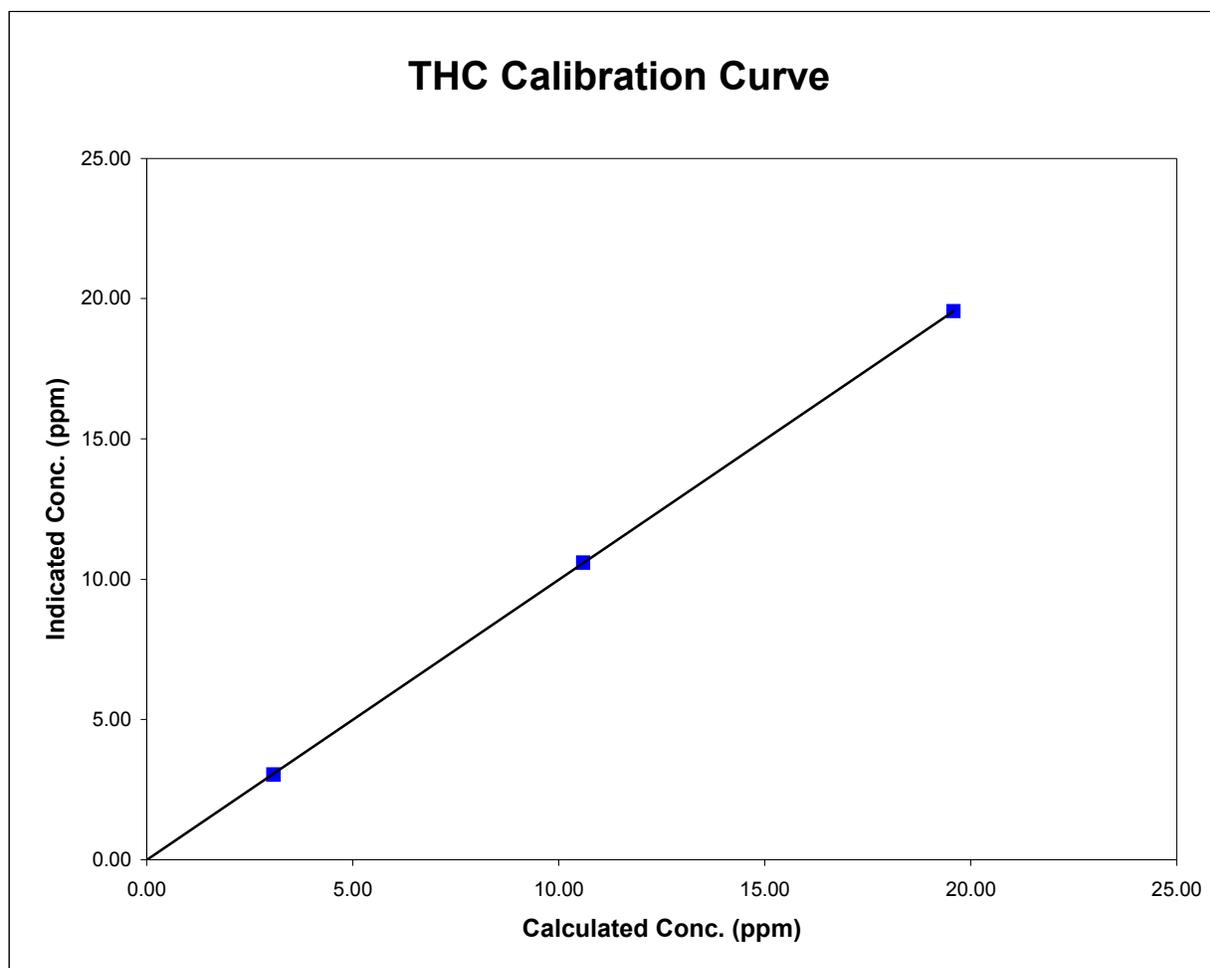


### Station Information

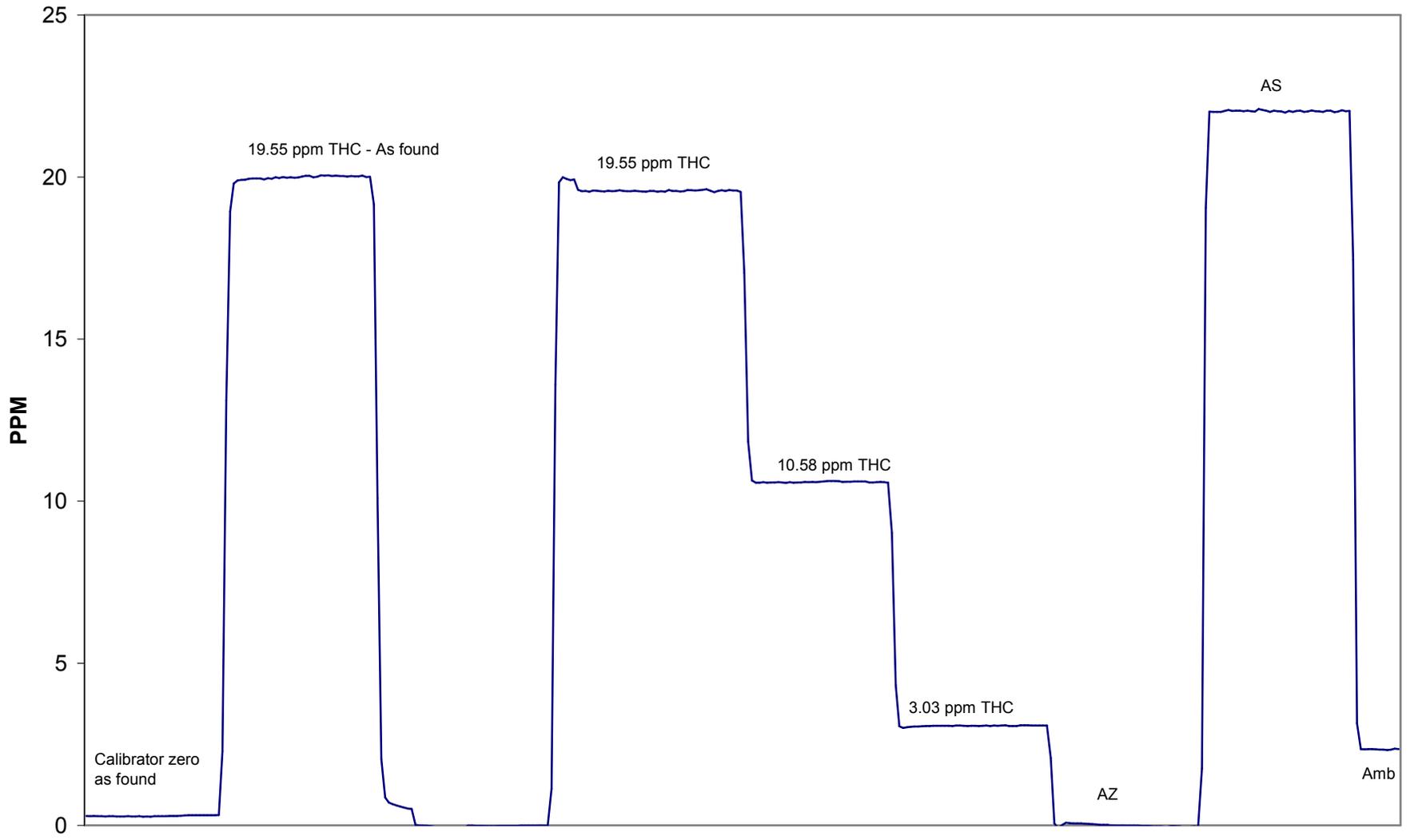
Calibration Date	December 5, 2005	Previous Calibration	November 7, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	17:46	End Time (MST)	20:25
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.014	N/A		
19.553	19.582	0.9985	Correlation Coefficient	0.999993
10.584	10.595	0.9990		
3.034	3.078	0.9855	Slope	0.998971
			Intercept	-0.008860



### THC Calibration

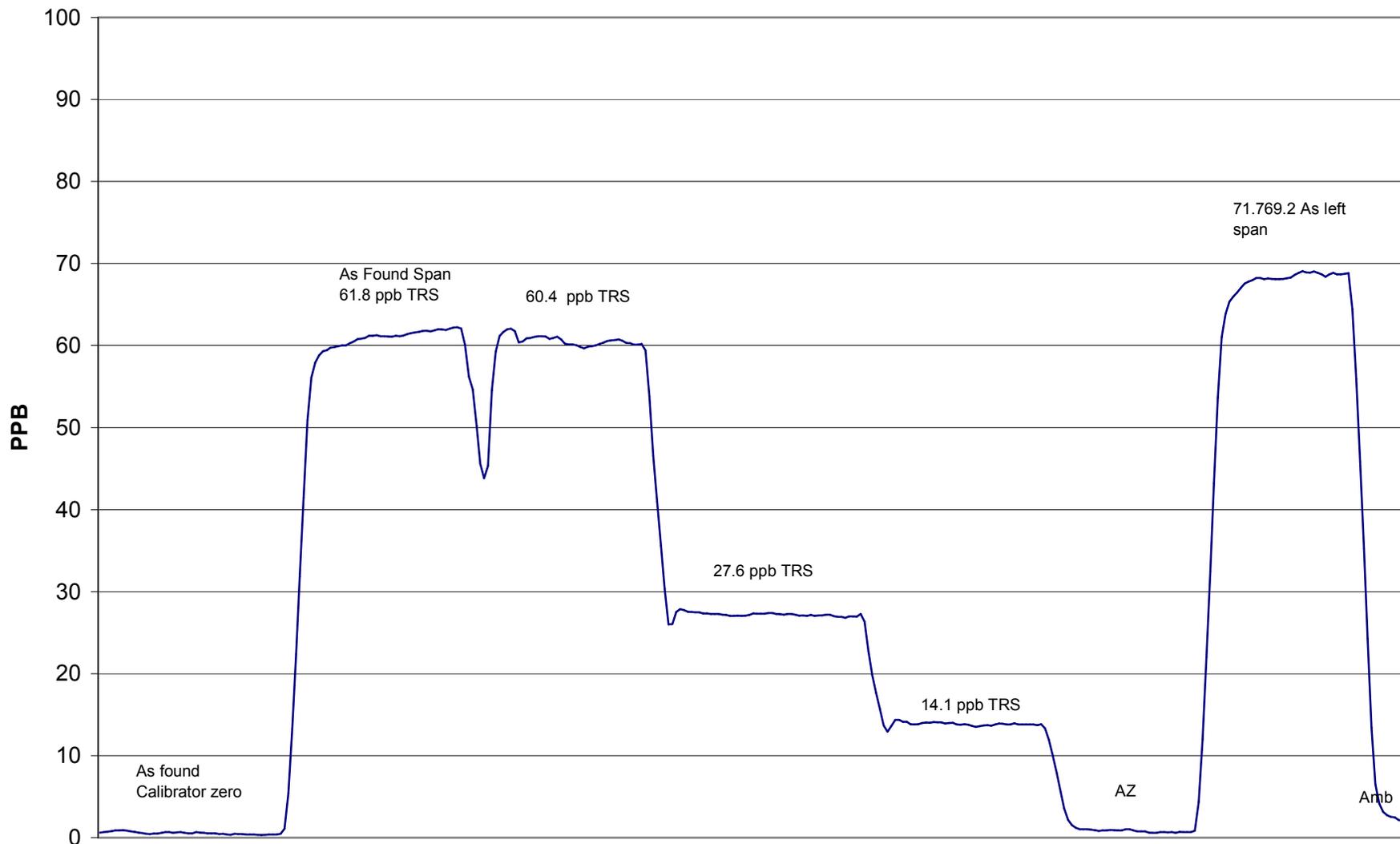


December 5, 2005





### TRS Calibration



December 2, 2005

# Calibration Report

Parameter PM2.5Air Monitoring Network PASZA

## Station Information

Calibration Date	December 29, 2005	Previous Calibration	November 7, 2005
Station Number	1	Station Location	Muskoseepi Park
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	10:15	End Time (MST)	11:00
Barometric Pressure	0.913 ATM	Station Temperature	20.0 Deg C
Flow Calibrator	BIOS Drycal DCL-MH	Serial Number	101780
DACS make	AP 1000	DACS serial No.	45269
DACS voltage range	0 - 1 V	DACS channel #	15

## Analyzer Information

Analyzer make	R&P	Control Unit serial #	140AB246340305
Analyzer model	TEOM 1400AB	Sensor Unit serial #	140AB246340305

	before		after	
Main Flow Set Point	2.820	SLPM	2.990	SLPM
Aux Flow Set Point	13.67	SLPM	13.67	SLPM
Filter Load	72	%	27	%
Ko Factor	12122		12122	
Temperature	-6.9	Deg C	-6.9	Deg C
Pressure	0.918	ATM	0.918	ATM

## Calibration Data

Parameter	Set Point	Indicated Reading (measured externally)	Tolerance	TEOM Reading
zero flow - main	0.0	0.00		-0.01
zero flow - auxillary	0.0	0.00		0.00
flow recovery - main	45 - 60 Seconds	na	45 - 60 Seconds	30
flow recovery - aux	46 - 60 Seconds	na	46 - 60 Seconds	45
Temperature	measured	-7.8	+/- 1.0 Deg C	-7.5
Pressure	measured	0.913	+/- 1.5% ΔATM	0.918
Total Flow	16.67 SLPM	16.50		
Main Flow	13.67 SLPM	13.56	+/- 1.0 SLPM	13.67
Auxillary Flow	3.0 SLPM	3.039	+/- 0.2 SLPM	2.990
Leak Check - main	0.0	0.00	<0.15 SLPM	0.04
Leak Check - aux	0.0	0.00	<0.15 SLPM	0.04
Ko Factor (w/o filter)	measured		filter weight (g)	
Ko Factor (w/ filter)	measured		% Ko difference	N/A

Notes: Replaced filter.Calibration Performed By: Dawn Ewan

# Calibration Report

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

## Station Information

Calibration Date	December 12, 2005	Previous Calibration	November 14, 2005
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)	12:23	End Time (MST)	15:20
Barometric Pressure	28.2 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	2,097 ng/min	Perm-tube Expiry Date	June 30/05
Correction factor	0.958597	Perm-tube Cert #	19-9955
DACS make	Focus AP1000	DACS serial No.	45274
DACS voltage range	0 - 10 volt	DACS channel #	4
	<u>Before</u>		<u>After</u>
Calculated slope	0.989636	Calculated slope	0.997675
Calculated intercept	-5.101314	Calculated intercept	-6.982671
Analyzer make	API 100	Analyzer serial #	32

	before		after	
Concentration range	500	ppb	500	ppb
Sample Flow	364	ccm	490	ccm
UV Lamp Voltage	3340	mv	3280	mv
Lamp Ratio	95	%	93	%
Rx Cell Temp	50	Deg C	50	Deg C
PMT Temp	10	Deg C	10	Deg C
IZS Temp	40	Deg C	40	Deg C
Slope	0.955		0.921	
Intercept	185.3		232.3	

## 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)
zero	1802.2	0.0	0.4	N/A
1880	1802.2	444.1	447.7	0.9920
4060	3891.9	205.7	220.5	0.9326
9350	8962.9	89.3	100.2	0.8912
zero	2061.0		-1.5	As Found Zero
2150	2061.0	388.4	368.6	As Found Span
Average Correction Factor				0.9386

Calculated value of As Found Response: 361.157 ppm Percent Change of As Found: 7.0%

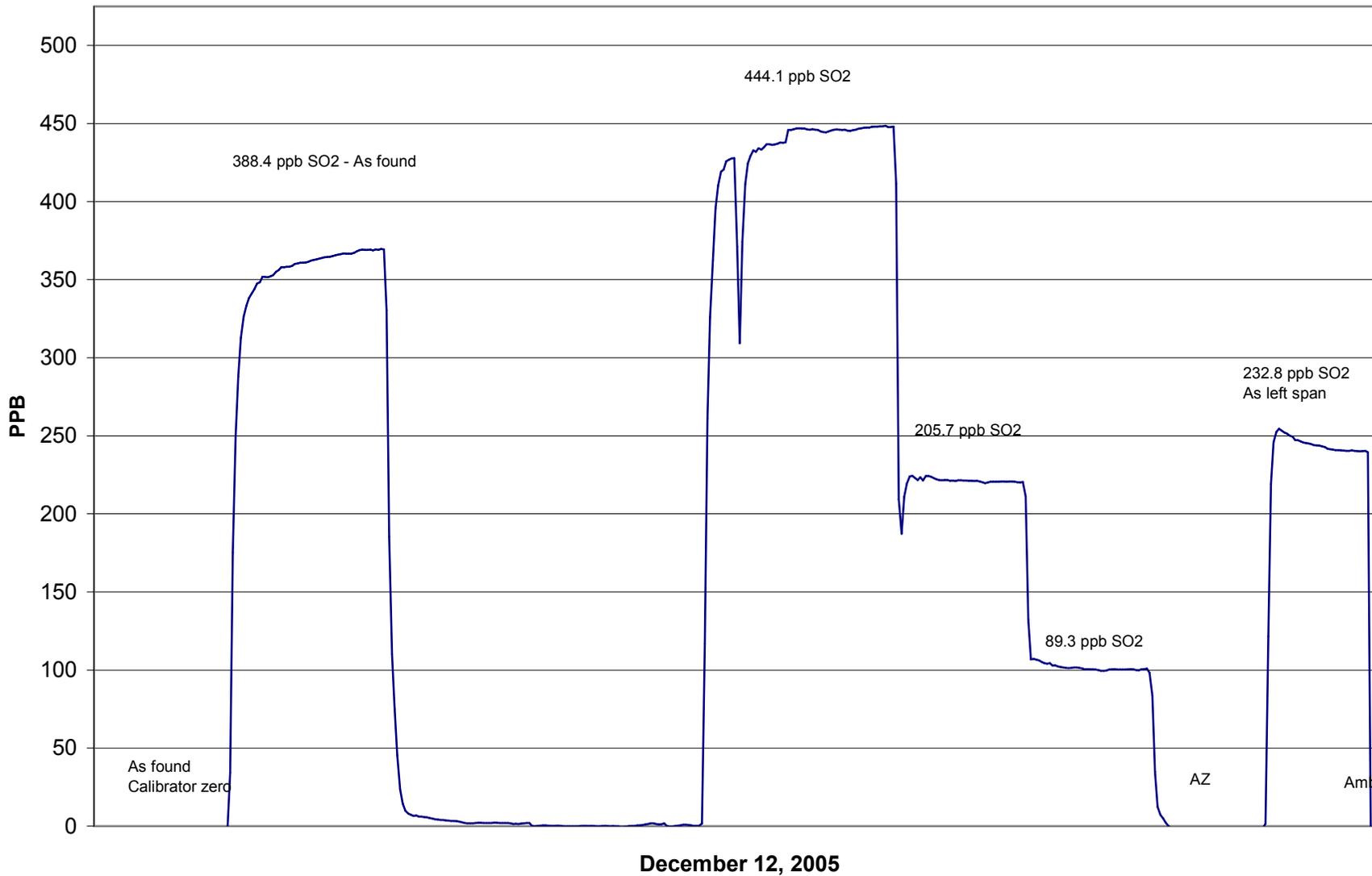
	before calibration		after calibration	
Auto zero	-7.4	ppm	-8.9	ppm
Auto span	339.0	ppm	232.8	ppm

Notes: \_\_\_\_\_

Calibration Performed By: Dawn Ewan



### SO2 Calibration



# Calibration Report



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

## Station Information

Calibration Date	December 21, 2005	Previous Calibration	December 12, 2005
Station Number	2	Station Location	Evergreen Park
Reason:	<input type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input checked="" type="checkbox"/> Other:	Check on Linearity
Start Time (MST)	12:30	End Time (MST)	18:13
Barometric Pressure	27.1 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	2,097 ng/min	Perm-tube Expiry Date	June 30/05
Correction factor	0.921545	Perm-tube Cert #	19-9955
DACS make	Focus AP1000	DACS serial No.	45274
DACS voltage range	0 - 10 volt	DACS channel #	4
	<b>Before</b>		<b>After</b>
Calculated slope	0.997675	Calculated slope	0.986683
Calculated intercept	-6.982671	Calculated intercept	-3.590456
Analyzer make	API 100	Analyzer serial #	32

	before		after	
Concentration range	500	ppb	500	ppb
Sample Flow	490	ccm	490	ccm
UV Lamp Voltage	3280	mv	3290	mv
Lamp Ratio	93	%	94	%
Rx Cell Temp	50	Deg C	50	Deg C
PMT Temp	10	Deg C	10	Deg C
IZS Temp	40	Deg C	40	Deg C
Slope	0.921		0.924	
Intercept	232.3		201	

## 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)
zero	2303.9	0.0	-3.1	N/A
2500	2303.9	347.4	351.2	0.9893
5100	4699.9	170.3	181.3	0.9395
9025	8316.9	96.2	107.4	0.8959
zero	2303.9		-3.1	As Found Zero
2500	2303.9	347.4	311.6	As Found Span
Average Correction Factor				0.9416

Calculated value of As Found Response: 306.999 ppm      Percent Change of As Found: 11.6%

	before calibration		after calibration	
Auto zero	-8.9	ppm	-2.3	ppm
Auto span	232.8	ppm	231.0	ppm

Notes:

Calibration Performed By: Dawn Ewan

## Calibration Summary

Parameter SO2  
 Air Monitoring Network PASZA

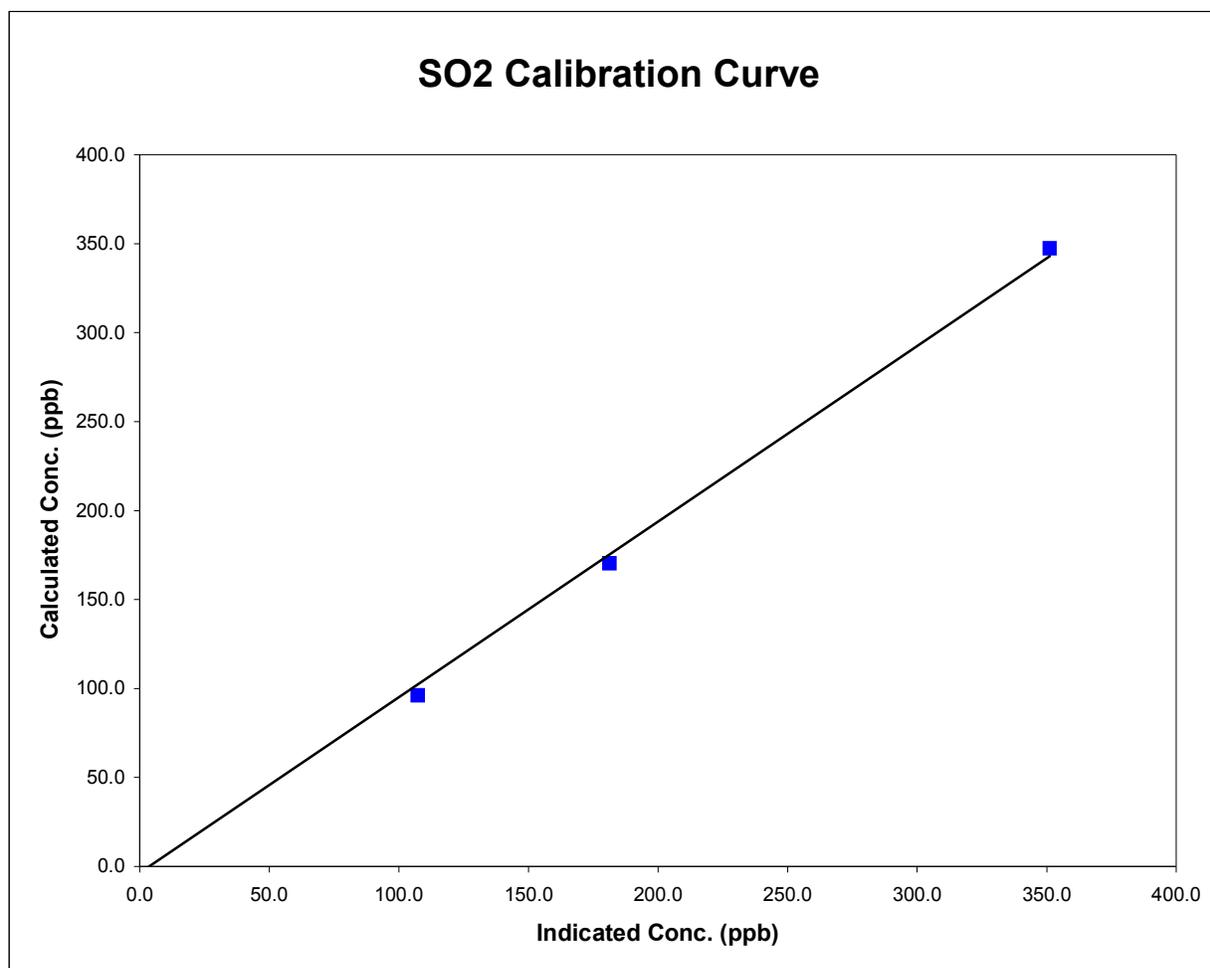


### Station Information

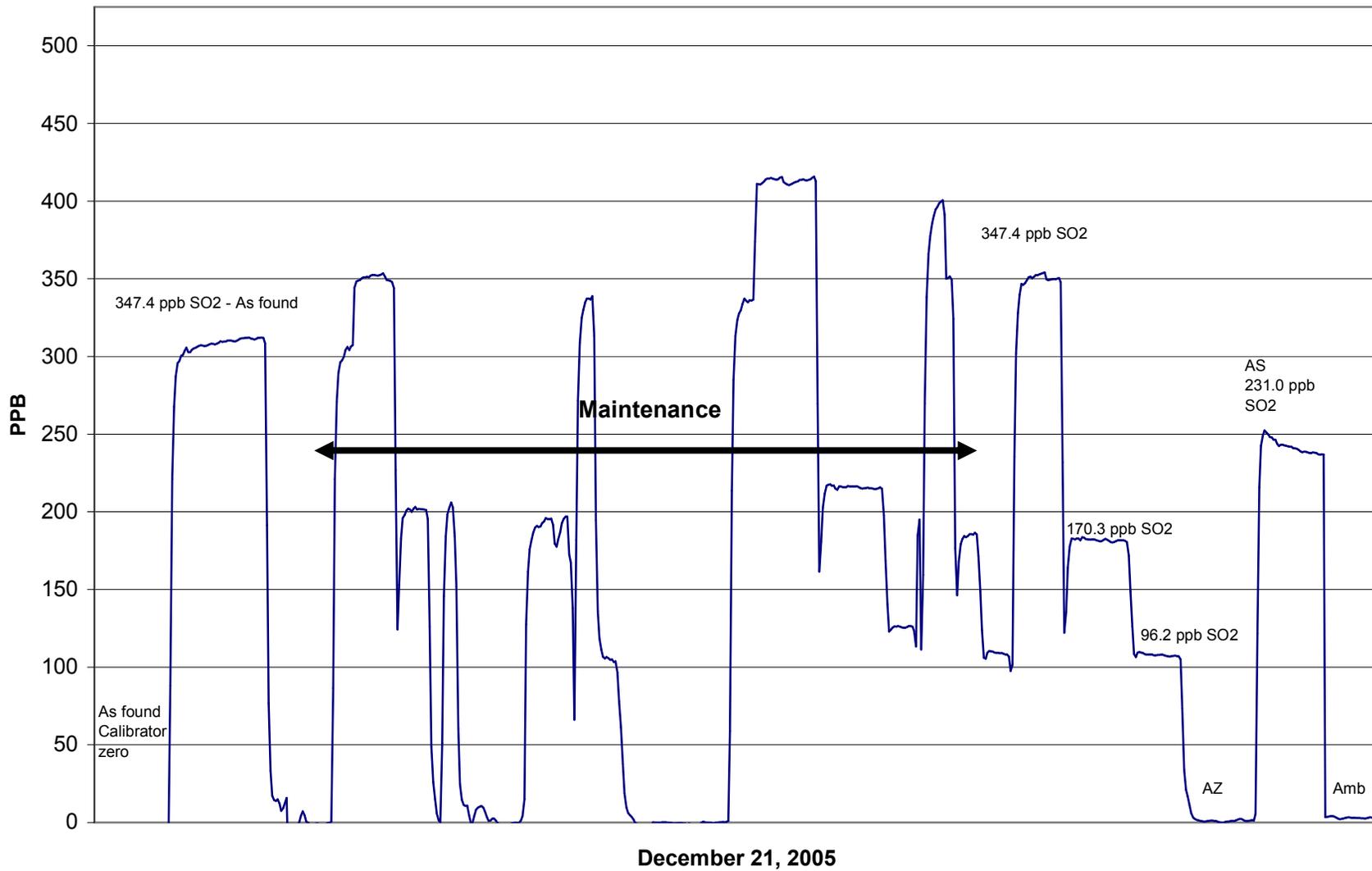
Calibration Date	December 21, 2005	Previous Calibration	December 12, 2005
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	12:30	End Time (MST)	18:13
Analyzer make/model	API 100	Analyzer serial #	32

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-3.1	N/A		
347.4	351.2	0.9893	Correlation Coefficient	0.998043
170.3	181.3	0.9395		
96.2	107.4	0.8959	Slope	0.986683
			Intercept	-3.590456



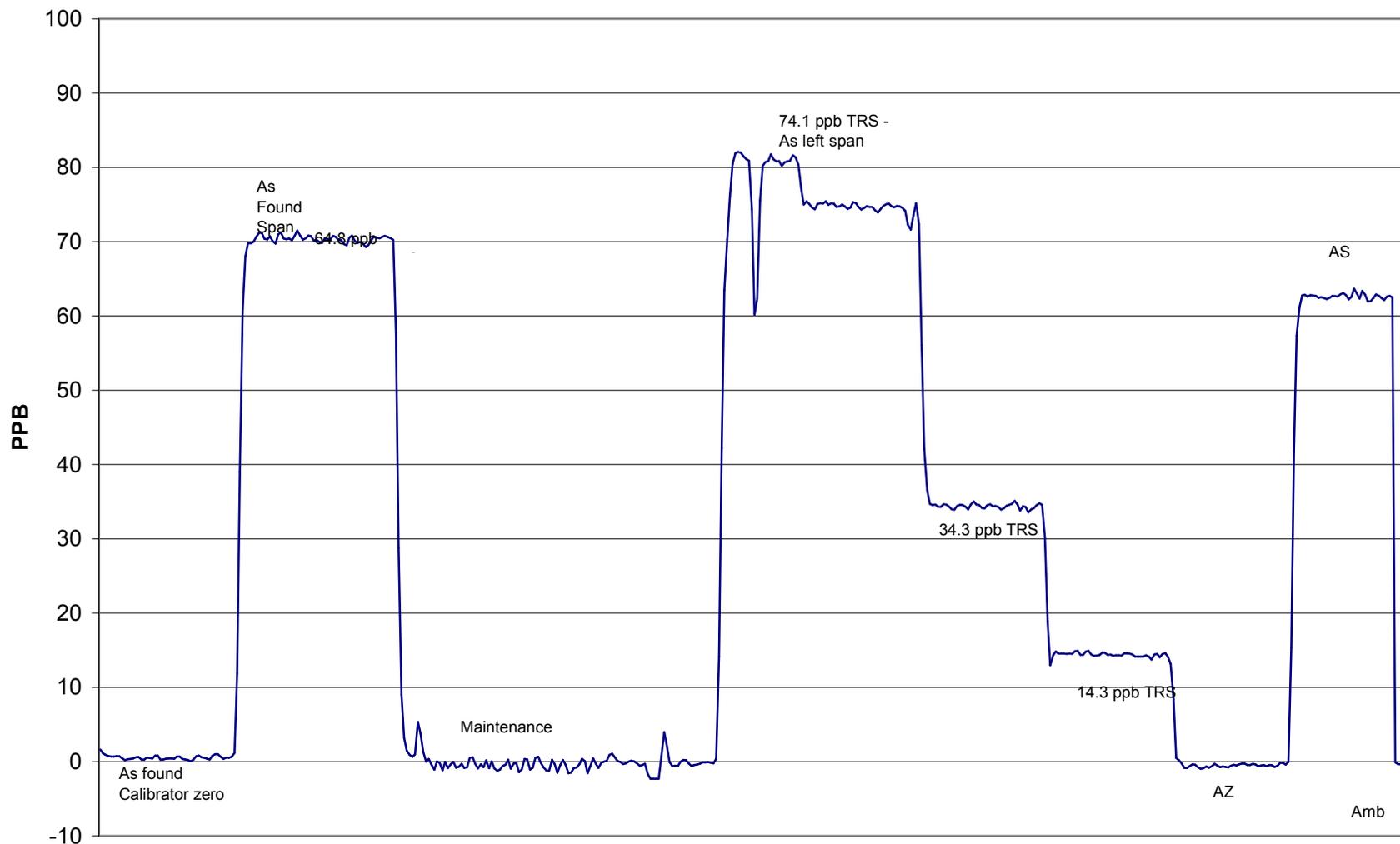
### SO2 Calibration







### TRS Calibration



December 12, 2005

**Calibration Report**Parameter PM2.5Air Monitoring Network PASZA**Station Information**

Calibration Date	December 12, 2005	Previous Calibration	November 14, 2005
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)	13:52	End Time (MST)	15:30
Barometric Pressure	0.919 ATM	Station Temperature	20.0 Deg C
Flow Calibrator	BIOS Drycal DCL-MH	Serial Number	101780
DACS make	AP 1000	DACS serial No.	45269
DACS voltage range	0 - 1 V	DACS channel #	15
	Before		After
DACS slope	0.050000	DACS slope	0.050000
DACS intercept	-50.000000	DACS intercept	-50.000000

**Analyzer Information**

Analyzer make	R&P	Control Unit serial #	140AB246340305
Analyzer model	TEOM 1400AB	Sensor Unit serial #	140AB246340305

	before		after	
Main Flow Set Point	3.000	SLPM	3.000	SLPM
Aux Flow Set Point	13.66	SLPM	13.67	SLPM
Filter Load	56	%	17	%
Ko Factor	12122		12122	
Temperature	4.7	Deg C	-10.1	Deg C
Pressure	0.923	ATM	0.923	ATM

**Calibration Data**

Parameter	Set Point	Indicated Reading (measured externally)	Tolerance	TEOM Reading
zero flow - main	0.0	0.00		0.00
zero flow - auxillary	0.0	0.00		0.00
flow recovery - main	45 - 60 Seconds	28.0	45 - 60 Seconds	55
flow recovery - aux	46 - 60 Seconds	55.0	46 - 60 Seconds	55
Temperature	measured	4.7	+/- 1.0 Deg C	4.7
Pressure	measured	0.919	+/- 1.5% ΔATM	0.923
Total Flow	16.67 SLPM	16.95		
Main Flow	13.67 SLPM	14.35	+/- 1.0 SLPM	13.67
Auxillary Flow	3.0 SLPM	3.115	+/- 0.2 SLPM	2.990
Leak Check - main	0.0	0.00	<0.15 SLPM	0.00
Leak Check - aux	0.0	0.00	<0.15 SLPM	0.04
Ko Factor (w/o filter)	measured		filter weight (g)	
Ko Factor (w/ filter)	measured		% Ko difference	

Notes: Installed new filter.  
All operations ok.

Calibration Performed By: Dawn Ewan

**Calibration Report**Parameter SO<sub>2</sub>Air Monitoring Network PASZA**Station Information**

Calibration Date	December 13, 2005	Previous Calibration	November 21, 2005
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)	9:50	End Time (MST)	13:50
Barometric Pressure	27.76 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	2,097 ng/min	Perm-tube Expiry Date	June 30/05
Correction factor	0.943640	Perm-tube Cert #	19-9955
DACS make	Focus AP1000	DACS serial No.	45274
DACS voltage range	0 - 10 volt	DACS channel #	4
	<u>Before</u>		<u>After</u>
Calculated slope	0.969535	Calculated slope	1.000020
Calculated intercept	4.653696	Calculated intercept	-1.081698
Analyzer make	API 102A	Analyzer serial #	212

	before		after	
Concentration range	500	ppb	500	ppb
Sample Flow	554	ccm	556	ccm
UV Lamp Voltage	2963	mv	2900	mv
Lamp Ratio	81.5	%	79.6	%
Rx Cell Temp	51.3	Deg C	51.3	Deg C
PMT Temp	7	Deg C	7	Deg C
IZS Temp	45	Deg C	45	Deg C
Slope	0.82		0.857	
Intercept	21.6		21.9	

**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)
zero	1896.7	0.0	0.9	N/A
2010	1896.7	422.0	422.7	0.9982
4075	3845.3	208.2	210.0	0.9912
8975	8469.2	94.5	95.4	0.9907
zero	2444.0	0.0	0.0	As Found Zero
2590	2444.0	327.5	294.4	As Found Span
Average Correction Factor				0.9934

Calculated value of As Found Response: 290.037 ppm      Percent Change of As Found: 11.4%

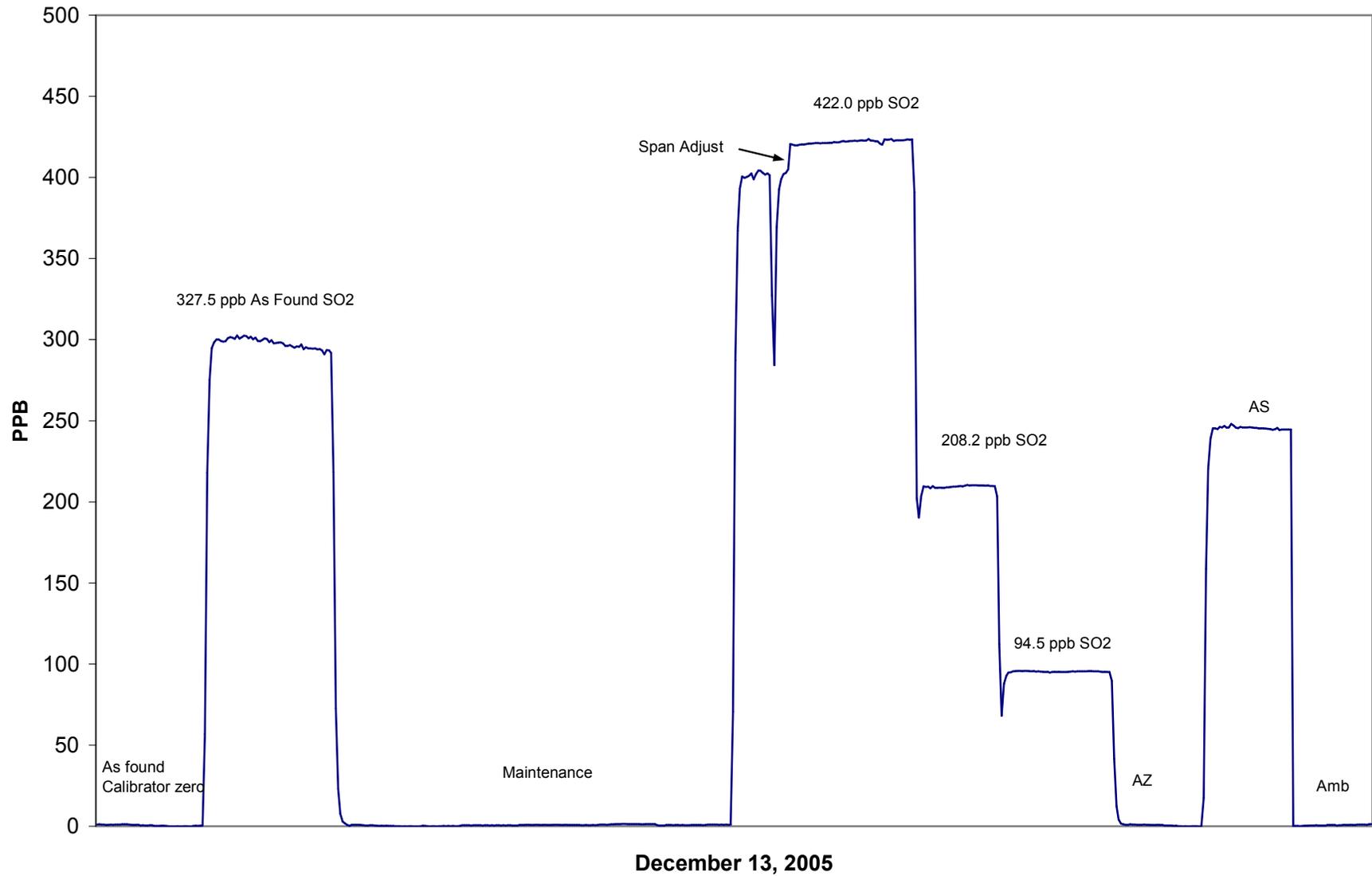
	before calibration		after calibration	
Auto zero	19.2	ppm	-1.0	ppm
Auto span	210.9	ppm	243.7	ppm

Notes: \_\_\_\_\_

Calibration Performed By: Dawn Ewan



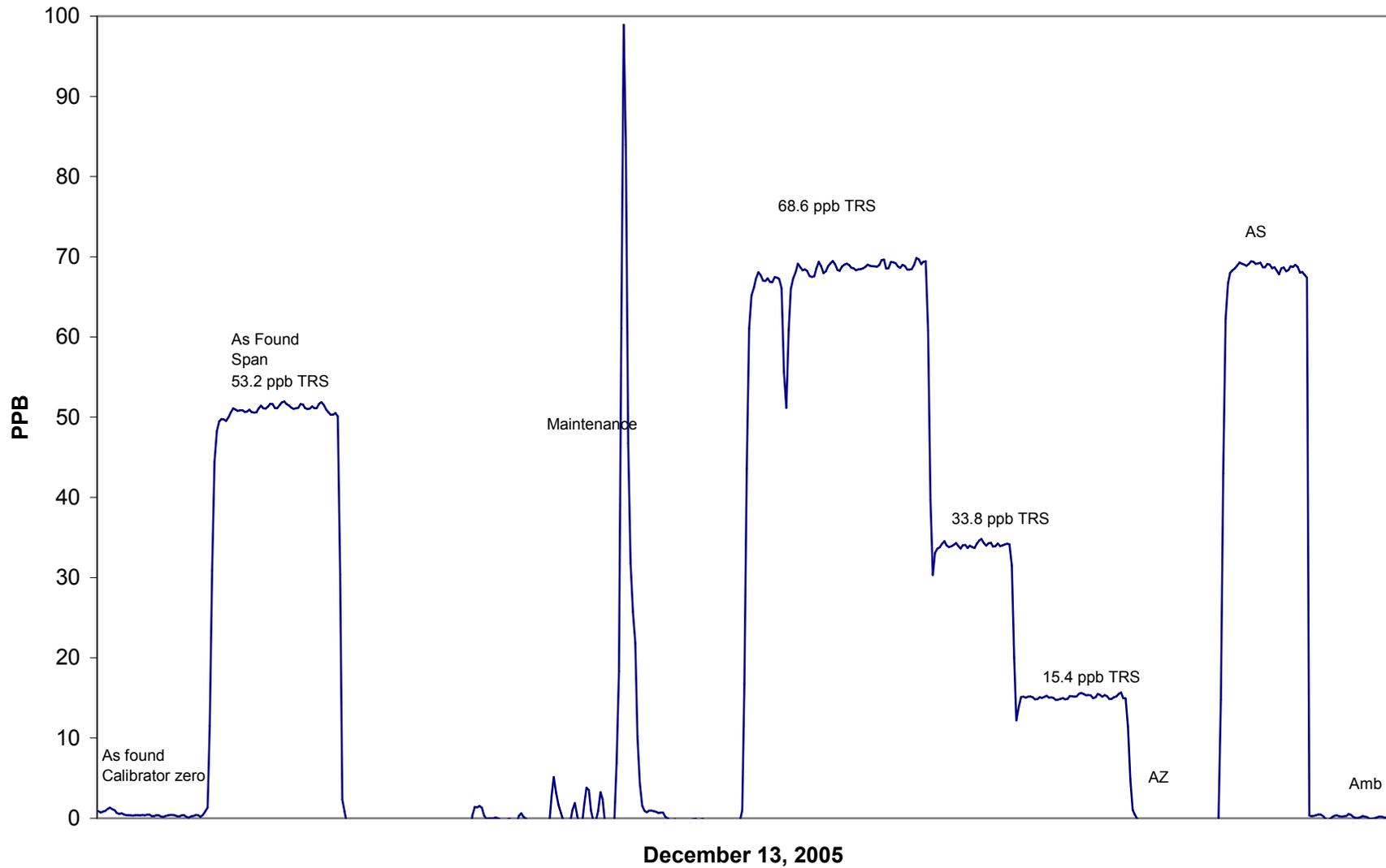
### SO2 Calibration







### TRS Calibration



**Calibration Report**Parameter PM2.5

Air Monitoring Network

PASZA**Station Information**

Calibration Date	December 13, 2005	Previous Calibration	November 21, 2005
Station Number	3	Station Location	Smoky Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			Other: <input type="text"/>
Start Time (MST)	12:32	End Time (MST)	13:50
Barometric Pressure	0.928 inches Hg	Station Temperature	20.0 Deg C
Flow Calibrator	BIOS Drycal DCL-MH	Serial Number	101780
DACS make	AP 1000	DACS serial No.	45269
DACS voltage range	0 - 1 V	DACS channel #	15

**Analyzer Information**

Analyzer make	R&P	Control Unit serial #	140AB246340305
Analyzer model	TEOM 1400AB	Sensor Unit serial #	140AB246340305

	before		after	
Main Flow Set Point	2.990	SLPM	2.990	SLPM
Aux Flow Set Point	13.66	SLPM	13.65	SLPM
Filter Load	62	%	19	%
Ko Factor	10997		10997	
Temperature	1.1	Deg C	1.1	Deg C
Pressure	0.932	ATM	0.932	ATM
Main Fadj				
Aux Fadj				

**Calibration Data**

Parameter	Set Point	Indicated Reading (measured externally)	Tolerance	New Reading
zero flow - main	0.0	0.00		0.01
zero flow - auxillary	0.0	0.00		0.03
flow recovery - main	45 - 60 Seconds		45 - 60 Seconds	25
flow recovery - aux	46 - 60 Seconds		46 - 60 Seconds	45
Temperature	measured	1.1	+/- 1.0 Deg C	1.1
Pressure	measured	0.930	+/- 1.5% ΔATM	0.932
Total Flow	16.67 SLPM	17.15		
Main Flow	13.67 SLPM	14.55	+/- 1.0 SLPM	13.65
Auxillary Flow	3.0 SLPM	3.100	+/- 0.2 SLPM	2.990
Leak Check - main	0.0	0.00	<0.15 SLPM	0.09
Leak Check - aux	0.0	0.00	<0.15 SLPM	0.11
Ko Factor (w/o filter)	measured		filter weight (g)	
Ko Factor (w/ filter)	measured		% Ko difference	

Notes: New filter installedCalibration Performed By: Dawn Ewan

**Calibration Report**

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

**Station Information**

Calibration Date	December 7, 2005	Previous Calibration	November 2, 2005
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)	13:30	End Time (MST)	15:51
Barometric Pressure	0.913 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Make	Scott	Cal Gas Expiry Date	December 12, 2005
Cal Gas Conc.	10.3 ppm	Cal Gas Cylinder #	BLM002816
DACS make	Focus AP1000	DACS serial No.	45271
DACS voltage range	0 - 10 volt	DACS channel #	3
	<u>Before</u>		<u>After</u>
Calculated slope	1.013643	Calculated slope	1.004534
Calculated intercept	-0.198723	Calculated intercept	-0.371514

Analyzer make TEI Model 43CTL Analyzer serial # 43CTL-74200-376

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.14	ppb	2.29	ppb
Coefficient	0.766		0.815	
Lamp Voltage	903.0	Volts	905.0	Volts
Chamber Temp	43.7	Deg C	43.2	Deg C
Sample Flow	618	ccm	613	ccm

**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)
4993	0.00	0.00	0.00	N/A
4993	39.97	81.79	81.48	1.0039
4993	19.96	41.00	41.74	0.9823
4993	9.99	20.57	20.98	0.9802
4993	0.00	0.00	0.10	As Found Zero
4993	39.97	81.79	76.31	As Found Span
Average Correction Factor				0.9888

Calculated value of As Found Response: 77.046 ppm Percent Change of As Found: 5.8%

	before calibration		after calibration	
Auto zero	-0.13	ppm	-0.31	ppm
Auto span	27.80	ppm	27.27	ppm

Notes: Adjusted span and zero.

Calibration Performed By: Dawn Ewan

# Calibration Summary



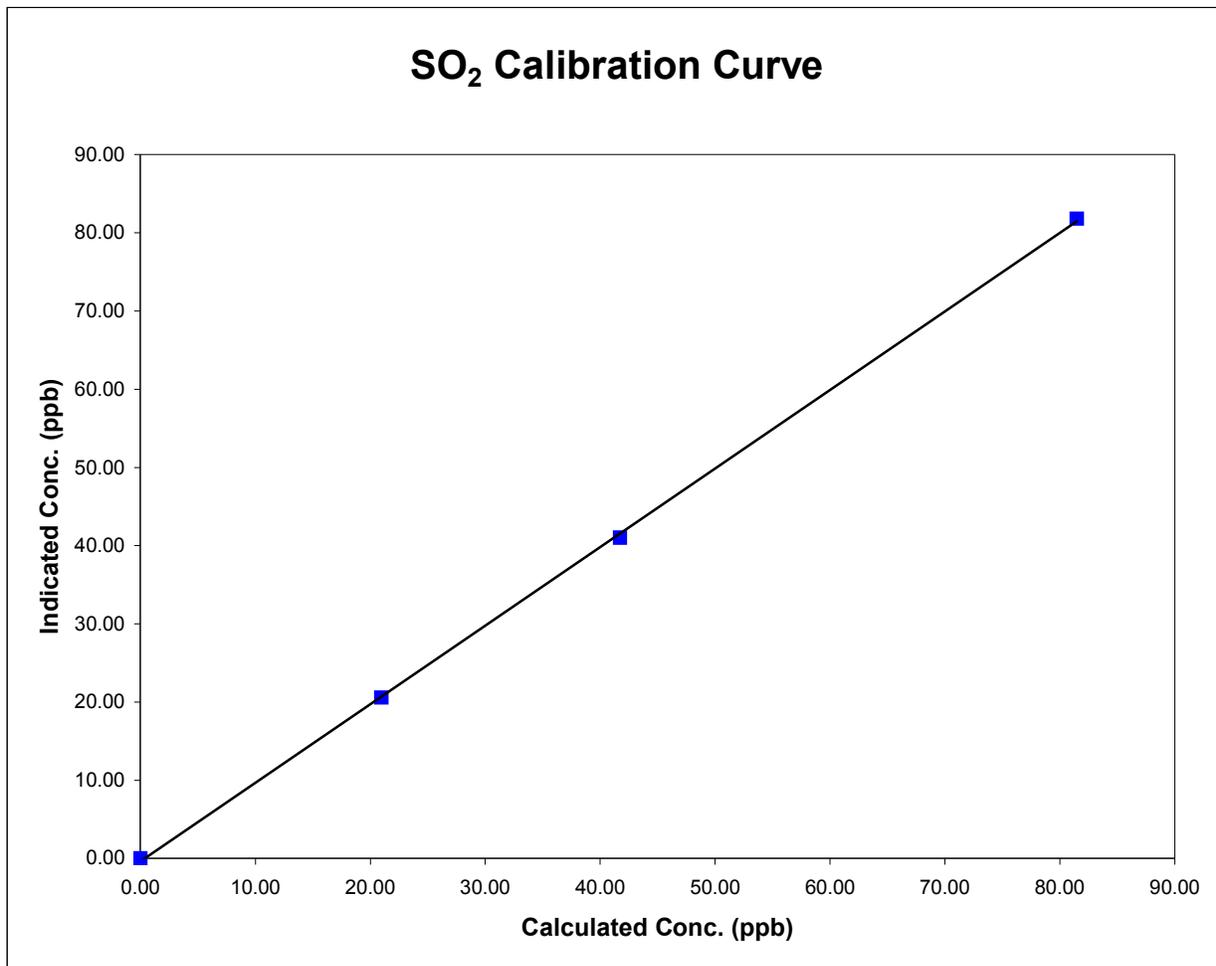
Parameter SO2  
 Air Monitoring Network PASZA

### Station Information

Calibration Date	December 7, 2005	Previous Calibration	November 2, 2005
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	13:30	End Time (MST)	15:51
Analyzer make/model	TEI Model 43CTL	Analyzer serial #	43CTL-74200-376

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.004	N/A		
81.795	81.476	1.0039	Correlation Coefficient	0.999843
41.003	41.742	0.9823		
20.567	20.983	0.9802	Slope	1.004534
			Intercept	-0.371514



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



December 7, 2005

**Calibration Report**

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

**Station Information**

Calibration Date December 6, 2006 Previous Calibration November 1, 2005  
 Station Number 4 Station Location AG Canada Research Station

Reason:  Routine  Installation  Removal  Other: \_\_\_\_\_

Start Time (MST) 10:45 End Time (MST) 15:17  
 Barometric Pressure 0.913 Atm Station Temperature 20.0 Deg C  
 Calibrator EnviroNics 6100 Serial Number 3016  
 NO Cal Gas Conc 50.3 ppm Cal Gas Expiry Date Nov 22/06  
 NOx Cal Gas Conc 50.5 ppm Cal Gas Serial # BAL786

**DACS Information**

DACS make FOCUS AP1000 DACS serial No. 45269

Parameter		NO2	NOx	NO
Before	Data Slope	0.990033	0.996526	0.992235
	Data Offset	0.930588	0.355742	3.636267
After	Data Slope	0.990206	0.996475	0.989514
	Data Offset	0.497002	-0.724276	4.837470
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	4.8	ppb	1.3	mV
NOx background	4.9	ppb	1.3	mV
NO coefficient	0.980		0.983	
NOx coefficient	0.951		0.931	
Chamber Temp	49.2	Deg C	49.2	Deg C
Cooler Temp	-2.0	Deg C	-2.0	Deg C
Converter Temp	323.0	Deg C	323.0	Deg C
Sample Flow	797.0	LPM	808.0	LPM
Pressure	157.3	inches HG	158.3	inches HG
Box Temp	33.7	ccm	30.8	ccm

Notes: Adjusted zero and span.

# Calibration Report

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



## Station Information

Calibration Date: December 6, 2006 Station Location: AG Canada Research Station

## 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	4993	0.00	0.0	0.0	0.0	-0.3	-0.4	-0.4	N/A	N/A
1	4993	79.98	796.2	793.0	3.2	799.1	799.1	-0.9	0.9964	0.9924
2	4993	39.97	401.1	399.5	1.6	404.1	395.4	8.1	0.9924	1.0103
3	4993	19.98	201.3	200.5	0.8	203.5	194.1	8.9	0.9889	1.0331
AFZ	4993	0.00	0.0	0.0	0.0	-4.3	-4.4	-0.4	0.0000	0.0000
AFS	4993	39.97	401.1	399.5	1.6	403.5	382.7	20.2	0.9939	1.0437
Average Correction Factor									0.9926	1.0119

As Found Concentrations: NO<sub>x</sub>= 408.2 NO= 390.7 As Found Percent Change NO<sub>x</sub>= 1.8% NO= -2.2%

## GPT Calibration Data

Dilution Flow 4993 ccm Source Gas Flow 39.97 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	802.4	814.7	-12.3	809.2	818.4	-10.3	0.9916	0.9954	N/A	N/A
350	802.4	525.4	277.0	805.6	526.1	279.0	0.9960	0.9987	0.9928	100.7%
200	802.4	664.8	137.6	806.6	667.0	139.1	0.9948	0.9968	0.9891	101.1%
100	802.4	752.7	49.7	805.7	755.8	49.2	0.9959	0.9959	1.0111	98.9%
Average Correction Factor							0.9956	0.9971	0.9977	100.2%

## 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	-0.1	-1.6	6.2	ppb	NA	NA	NA	ppb
Auto span	811.7	16.6	796.9	ppb	NA	NA	NA	ppb

Calibration Performed By: Dawn Ewan

## Calibration Summary

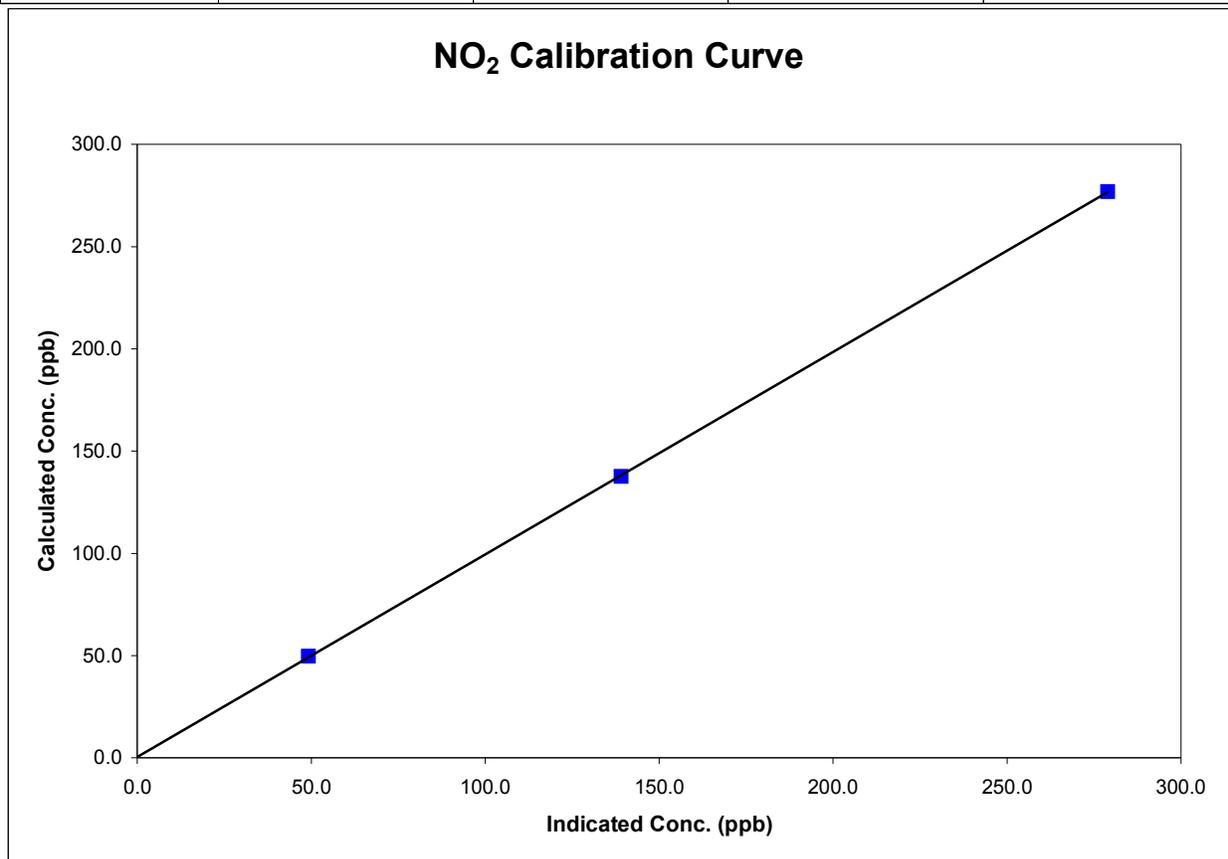
Parameter NO<sub>2</sub>Air Monitoring Network PASZA

### Station Information

Calibration Date	December 6, 2006	Previous Calibration	November 1, 2005
Station Number	4	Station Location	AG Canada Research Station
Start Time (MST)	10:45	End Time (MST)	15:17
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	-0.4	0.0000	Correlation Coefficient	0.999983
277.0	279.0	0.9928		
137.6	139.1	0.9891		
49.7	49.2	1.0111		
			Slope	0.990206
			Intercept	0.497002



## Calibration Summary

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

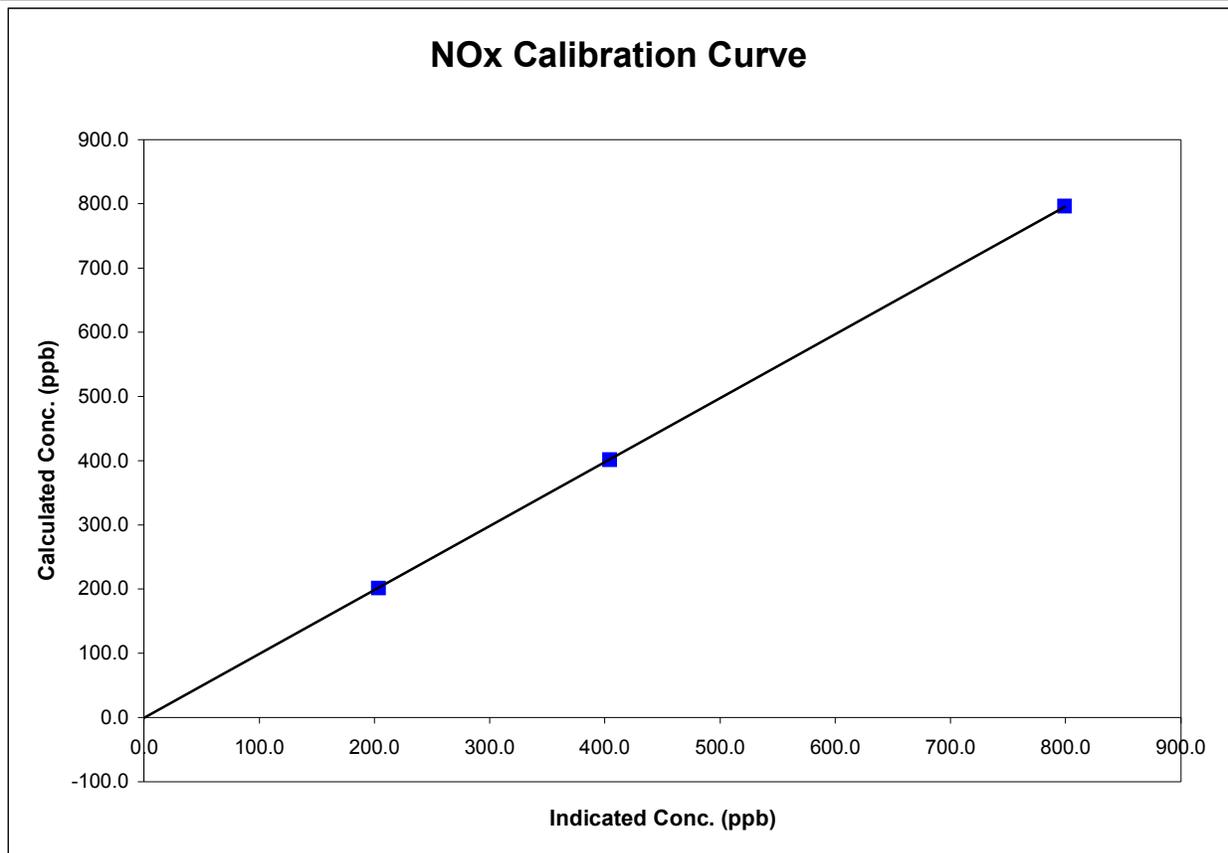


### Station Information

Calibration Date	December 6, 2006	Previous Calibration	November 1, 2005
Station Number	4	Station Location	AG Canada Research Station
Start Time (MST)	10:45	End Time (MST)	15:17
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	0.999991
796.2	799.1	0.9964		
401.1	404.1	0.9924		
201.3	203.5	0.9889		
			Slope	0.996475
			Intercept	-0.724276



## Calibration Summary

Parameter NO  
 Air Monitoring Network PASZA

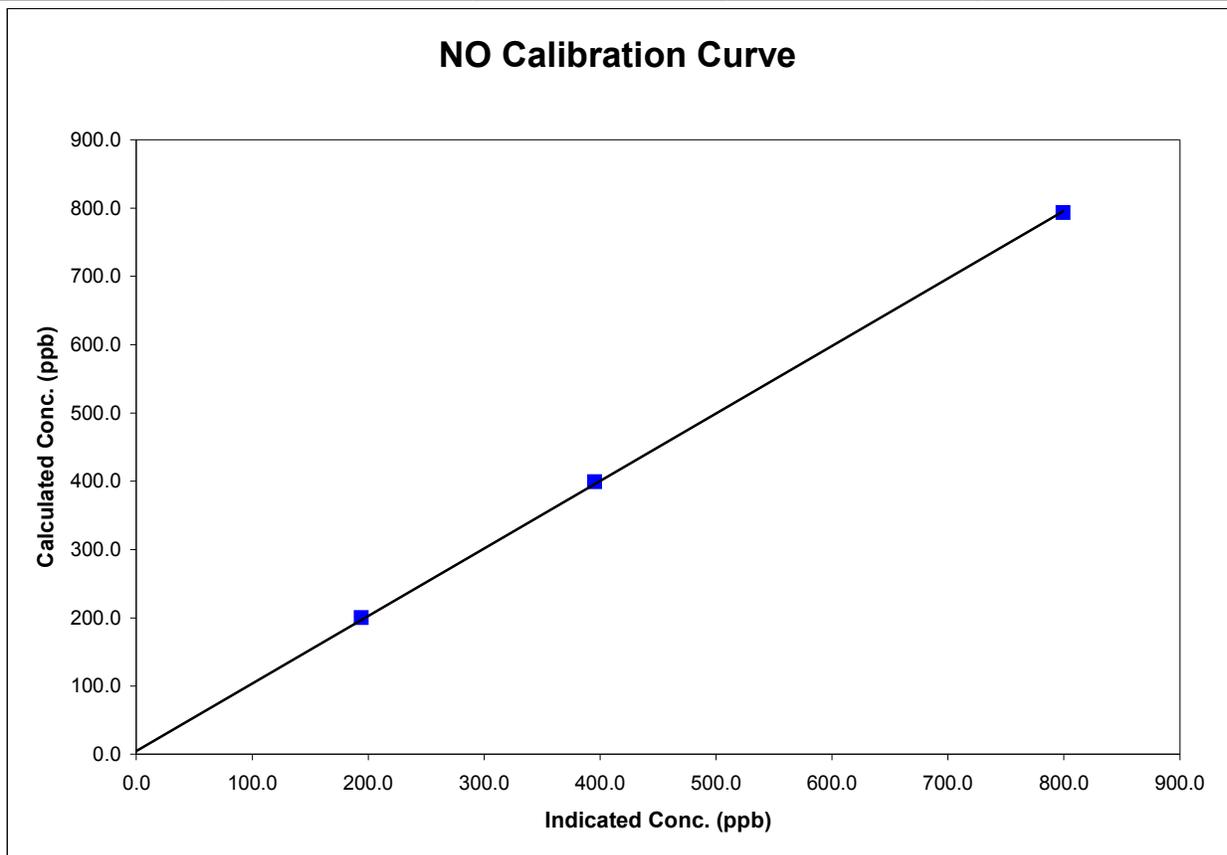


### Station Information

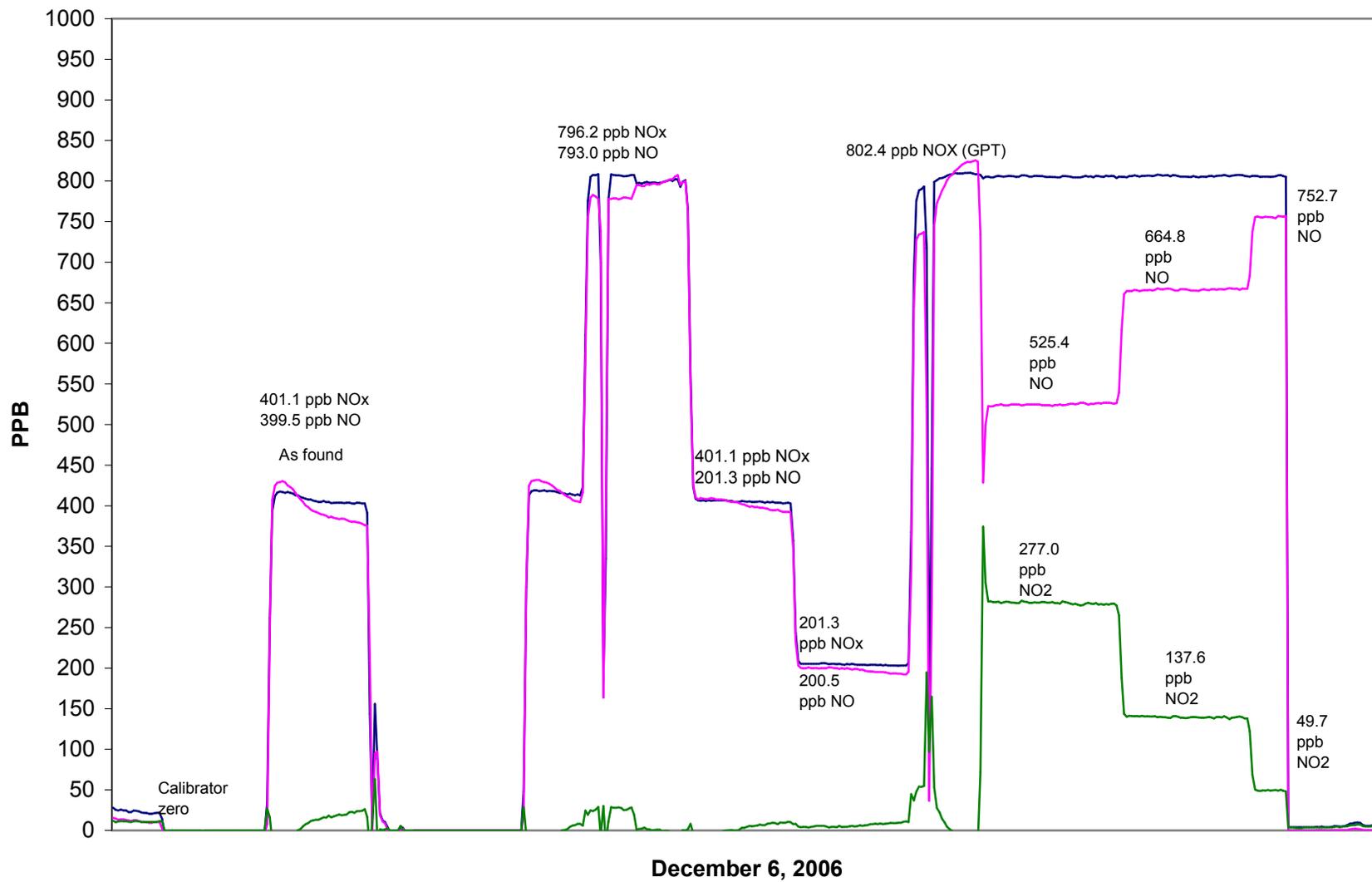
Calibration Date	December 6, 2006	Previous Calibration	November 1, 2005
Station Number	4	Station Location	AG Canada Research Station
Start Time (MST)	10:45	End Time (MST)	15:17
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	N/A	Correlation Coefficient	0.999852
793.0	799.1	0.9924		
399.5	395.4	1.0103		
200.5	194.1	1.0331	Slope	0.989514
			Intercept	4.837470



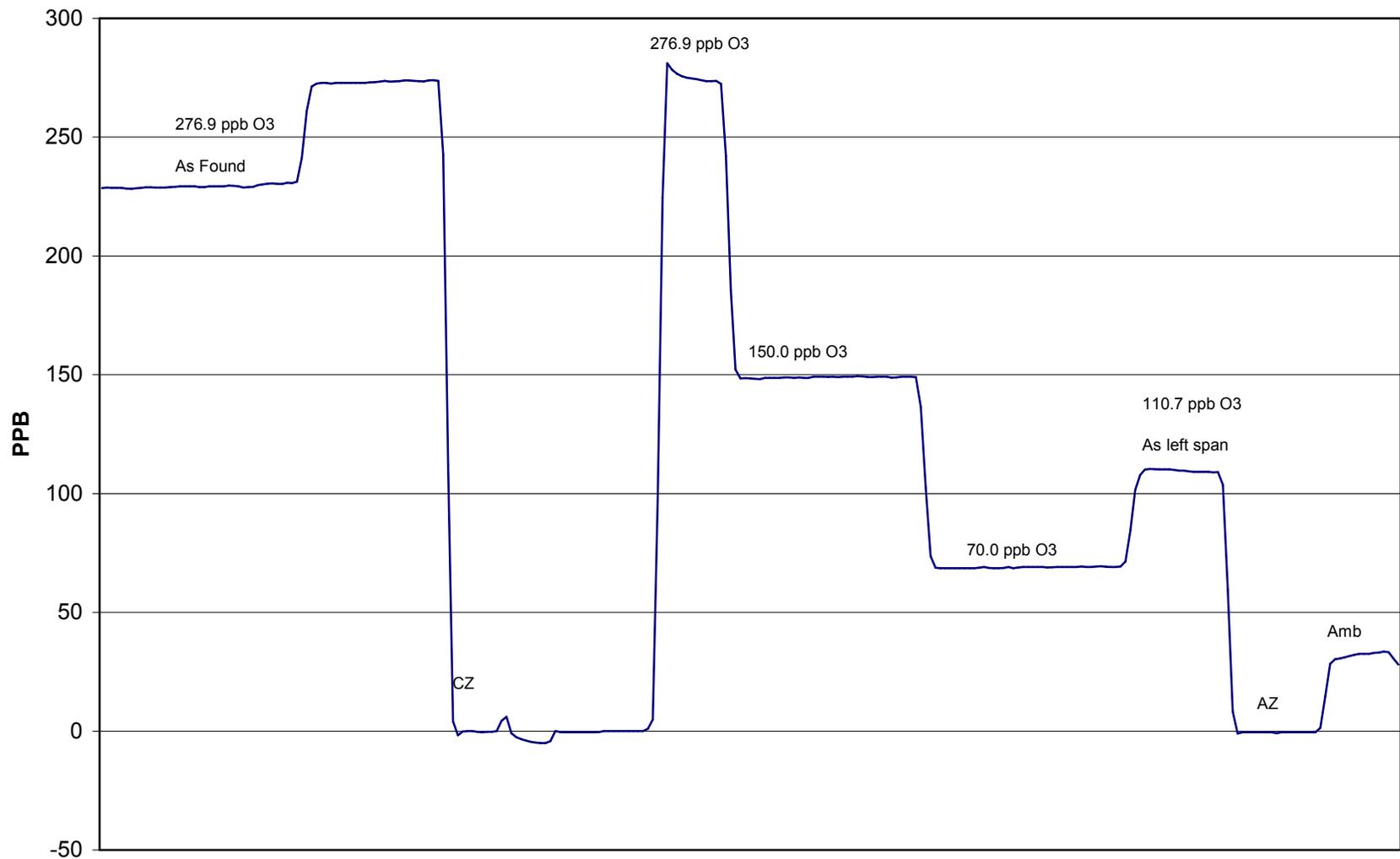
## NOx Calibration







### O3 Calibration



December 7, 2005

**Calibration Report**Parameter PM2.5Air Monitoring Network PASZA**Station Information**

Calibration Date	December 7, 2005	Previous Calibration	November 1, 2005
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)	14:50	End Time (MST)	
Barometric Pressure	0.913 ATM	Station Temperature	20.0 Deg C
Flow Calibrator	BIOS Drycal DCL-MH	Serial Number	101780
DACS make	AP 1000	DACS serial No.	45269
DACS voltage range	0 - 1 V	DACS channel #	10

**Analyzer Information**

Analyzer make	R&P	Control Unit serial #	140AB246340305
Analyzer model	TEOM 1400AB	Sensor Unit serial #	140AB246340305

	before		after	
Main Flow Set Point	3.000	SLPM	3.000	SLPM
Aux Flow Set Point	13.67	SLPM	13.67	SLPM
Filter Load	51	%	17	%
Ko Factor	14287		14287	
Temperature	-0.2	Deg C	0.0	Deg C
Pressure	0.913	ATM	0.913	ATM

**Calibration Data**

Parameter	Set Point	Indicated Reading (measured externally)	Tolerance	TEOM Reading
zero flow - main	0.0	0.00		0.01
zero flow - auxiliary	0.0	0.00		0.04
flow recovery - main	45 - 60 Seconds	na	45 - 60 Seconds	25
flow recovery - aux	46 - 60 Seconds	na	46 - 60 Seconds	43
Temperature	measured	8.6	+/- 1.0 Deg C	8.5
Pressure	measured	0.912	+/- 1.5% ΔATM	0.913
Total Flow	16.67 SLPM	17.75/15.0		
Main Flow	13.67 SLPM	15.08/13.5	+/- 1.0 SLPM	13.68
Auxiliary Flow	3.0 SLPM	3.341/3.059	+/- 0.2 SLPM	3.000
Leak Check - main	0.0	0.00	<0.15 SLPM	-0.04
Leak Check - aux	0.0	0.00	<0.15 SLPM	0.03
Ko Factor (w/o filter)	measured		filter weight (g)	
Ko Factor (w/ filter)	measured		% Ko difference	N/A

Notes: Flows are high.Adjusted flows; did hardware adjustment but ran out of pot on the auxiliary flow.Adjusted auxiliary slope to .945. Main flow hardware adjustment only.New filter.Calibration Performed By: Dawn Ewan