



# Air Quality Monitoring Network for July 2005

Prepared by  
**FOCUS**  
AIRPORT AIR MONITORING

## TABLE OF CONTENTS

<b>Airshed Zone Association – July PASZA Ambient Air Report .....</b>	<b>2</b>
<b>PASZA Monthly Continuous Data Summary.....</b>	<b>4</b>
PASZA - Henry Pirker Sulphur Dioxide Monthly Summary .....	8
PASZA - Henry Pirker Nitrogen Dioxide Monthly Summary .....	14
PASZA - Henry Pirker Nitric Oxide Monthly Summary.....	19
PASZA - Henry Pirker Oxides of Nitrogen Monthly Summary.....	21
PASZA - Henry Pirker Ozone Monthly Summary.....	25
PASZA - Henry Pirker Ozone Monthly Summary.....	30
PASZA - Henry Pirker Carbon Monoxide Monthly Summary.....	31
PASZA - Henry Pirker Carbon Monoxide Monthly Summary.....	36
PASZA - Henry Pirker Total Hydrocarbons Monthly Summary.....	37
PASZA - Henry Pirker Total Reduced Sulphur Monthly Summary.....	42
PASZA - Henry Pirker Particulate Matter (less than 2.5 microns) Monthly Summary .....	47
PASZA - Henry Pirker Relative Humidity Monthly Summary.....	52
PASZA - Henry Pirker Temperature Monthly Summary .....	54
PASZA - Henry Pirker Solar Radiation Monthly Summary .....	56
PASZA - Henry Pirker Scalar Wind Speed Monthly Summary.....	58
PASZA - Henry Pirker Vector Wind Speed Monthly Summary .....	59
PASZA - Henry Pirker Wind Direction Monthly Summary .....	60
PASZA - Henry Pirker Standard Deviation of Wind Direction Monthly Summary.....	61
PASZA - Evergreen Park Sulphur Dioxide Monthly Summary .....	64
PASZA - Evergreen Park Total Reduced Sulphur Monthly Summary .....	69
PASZA - Evergreen Park Particulate Matter (less than 2.5 microns) Monthly Summary .....	74
PASZA - Evergreen Park Temperature Monthly Summary .....	79
PASZA - Evergreen Park Scalar Wind Speed Monthly Summary .....	81
PASZA - Evergreen Park Vector Wind Speed Monthly Summary .....	82
PASZA - Evergreen Park Wind Direction Monthly Summary .....	83
PASZA - Evergreen Park Standard Deviation of Wind Direction Monthly Summary.....	84
PASZA - Smoky Heights Sulphur Dioxide Monthly Summary .....	87
PASZA - Smoky Heights Total Reduced Sulphur Monthly Summary .....	92
PASZA - Smoky Heights Particulate Matter (less than 2.5 microns) Monthly Summary .....	97
PASZA - Smoky Heights Temperature Monthly Summary.....	102
PASZA - Smoky Heights Scalar Wind Speed Monthly Summary .....	104
PASZA - Smoky Heights Vector Wind Speed Monthly Summary .....	105
PASZA - Smoky Heights Wind Direction Monthly Summary .....	106
PASZA - Smoky Heights Standard Deviation of Wind Direction Monthly Summary .....	107
PASZA - Beaverlodge AQI Monthly Summary.....	110
PASZA - Beaverlodge Sulphur Dioxide Monthly Summary .....	111
PASZA - Beaverlodge Nitrogen Dioxide Monthly Summary.....	116
PASZA - Beaverlodge Nitric Oxide Monthly Summary .....	121
PASZA - Beaverlodge Oxides of Nitrogen Monthly Summary.....	123
PASZA - Beaverlodge Ozone Monthly Summary .....	127
PASZA - Beaverlodge Ozone Monthly Summary .....	132
PASZA - Beaverlodge Particulate Matter (less than 2.5 microns) Monthly Summary .....	133
PASZA - Beaverlodge Relative Humidity Monthly Summary .....	138
PASZA - Beaverlodge Temperature Monthly Summary .....	140
PASZA - Beaverlodge Scalar Wind Speed Monthly Summary .....	142
PASZA - Beaverlodge Vector Wind Speed Monthly Summary .....	143
PASZA - Beaverlodge Wind Direction Monthly Summary .....	144
PASZA - Beaverlodge Standard Deviation of Wind Direction Monthly Summary .....	145
<b>PASZA Monthly Passive Data Summary.....</b>	<b>147</b>
<b>July 2005 Calibration Reports.....</b>	<b>158</b>



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

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

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

**Continuous Monitoring:** **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 no exceedences recorded.

Alberta Environment conducted an audit of all the continuous stations from July 11 to 14. All parameters passed AENV criteria for annual audits.

Three of the four continuous monitoring stations operated without any problems. The TEOM PM<sub>2.5</sub> monitor at the Smoky Heights station was down until July 5 when the main filter was changed. This is an extension of the same issue from July and was reported under reference number 163217. The letter sent to AENV describing the reported incident is attached.

At the Evergreen Park site, 30 hours of SO<sub>2</sub> data were invalidated from July 17 at 9:00 to July 18 at 15:00 due to excessive baseline drift. This was likely caused by a problem with the PMT cooler assembly. Investigation indicates the cooler is functioning normally now.

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

There were two missing duplicate SO<sub>2</sub> passives from sites 44 and 45, in addition there was an entire site (#38) not collected this month due to a private road closure from an accident. 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 1.0 ppb.
- Monthly average concentrations for NO<sub>2</sub> passives ranged from 0.1 ppb to 4.5 ppb.
- Monthly average concentrations for O<sub>3</sub> passives ranged from 15.0 ppb to 28.5 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

Kevin Warren  
PASZA Technical Program Manager

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

September 8, 2005

Standards & Approvals Division  
Alberta Environment  
4<sup>th</sup> Floor, Oxbridge Place  
9820 – 106 Street  
Edmonton, Alberta T5K 2J6

**ATTENTION: Director**

**RE: PASZA Air Monitoring Directive Non-compliance Report Ref # 163217**

---

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 month of July for the PM<sub>2.5</sub> parameter at the Smoky Heights School Air Monitoring Station located NE of Grande Prairie, Alberta. The station is owned by PASZA and operated on their behalf by Focus. The non-compliance has been assigned AENV reference number 163217.

The cause of the non-compliance was due to a main filter that was not properly seated. This caused the monitor to read incorrectly until the problem was corrected. As a result of this issue the following actions have and will be taken:

1. A new filter was installed during the routine visit to the site on July 12.
2. Weekly site visits will be made until remote communications are established.
3. Remote access to data through a cell modem system will be installed, which will allow for alarms to identify potential problems or issues.

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

Jul-2005 Peace Airshed Zone Association							Maximum Recorded Values							
							1-hr	24-hr	Exceedence	Conc	Day	WSPD (km/hr)	WDIR (Sector)	
Pollutant (units)	Objectives	Station	Monthly Average	1-hr	24-hr									Operational Time (%)
SO <sub>2</sub> (ppb)	172	57	Henry Pirker	0.3	0	0	12.5	Jul-29 07:00	8.7	SSW	2.1	Jul-29	100.0%	
SO <sub>2</sub> (ppb)	172	57	Evergreen Park	1.0	0	0	11.5	Jul-13 19:00	25.1	W	3.2	Jul-13	96.0%	
SO <sub>2</sub> (ppb)	172	57	Smoky Heights	0.3	0	0	4.2	Jul-14 03:00	21.9	W	1.0	Jul-01	100.0%	
SO <sub>2</sub> (ppb)	172	57	Beaverlodge	0.1	0	0	3.2	Jul-08 19:00	8.1	S	0.6	Jul-22	100.0%	
NO (ppb)			Henry Pirker	2.1	-	-	40.1	Jul-28 06:00	3.7	SSE	6.8	Jul-12	100.0%	
NO <sub>2</sub> (ppb)	212	106	Henry Pirker	5.6	0	0	21.7	Jul-11 22:00	5.9	SSE	9.6	Jul-05	100.0%	
NO <sub>x</sub> (ppb)			Henry Pirker	7.7	-	-	51.7	Jul-28 06:00	3.7	SSE	15.7	Jul-12	100.0%	
NO (ppb)			Beaverlodge	0.6	-	-	9.2	Jul-22 06:00	2.5	ENE	1.9	Jul-21	100.0%	
NO <sub>2</sub> (ppb)	212	106	Beaverlodge	2.3	0	0	9.5	Jul-13 05:00	1.9	SSE	3.7	Jul-21	100.0%	
NO <sub>x</sub> (ppb)			Beaverlodge	3.1	-	-	18.2	Jul-22 06:00	2.5	ENE	6.2	Jul-21	100.0%	
O <sub>3</sub> (ppb)	82		Henry Pirker	18.7	0	-	42.8	Jul-28 14:00	11.7	SSW	26.2	Jul-18	100.0%	
O <sub>3</sub> (ppb) - 8-hr	65		Henry Pirker		0						38.8	Jul-21		
O <sub>3</sub> (ppb)	82		Beaverlodge	24.4	0	-	50.8	Jul-22 12:00	12.8	ENE	33.8	Jul-22	100.0%	
O <sub>3</sub> (ppb) - 8-hr	65		Beaverlodge		0						45.5	Jul-21		
CO (ppm)	13		Henry Pirker	0.17	0	-	0.6	Jul-01 00:00	6.8	SSW	0.3	Jul-01	99.9%	
CO (ppm) - 8-hr	5		Henry Pirker		0						0.5	Jul-01		
THC (ppm)			Henry Pirker	1.98	-	-	2.9	Jul-29 00:00	4.6	W	2.2	Jul-12	100.0%	
TRS (ppb)			Henry Pirker	0.2	-	-	3.0	Jul-29 01:00	5.1	SSW	0.7	Jul-29	100.0%	
TRS (ppb)			Evergreen Park	0.5	-	-	1.8	Jul-27 08:00	5.5	SE	0.6	Jul-27	100.0%	
TRS (ppb)			Smoky Heights	0.5	-	-	1.4	Jul-11 00:00	4.6	WSW	0.7	Jul-29	100.0%	
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	30 <sup>a</sup>	Henry Pirker	2.6	0	0	13.8	Jul-08 09:00	4.8	NW	6.0	Jul-12	99.2%		
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	30 <sup>a</sup>	Evergreen Park	3.8	0	0	46.6	Jul-17 15:00	17.9	WSW	13.0	Jul-17	98.5%		
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	30 <sup>a</sup>	Smoky Heights	5.6	0	0	50.4	Jul-27 19:00	2.0	S	13.7	Jul-22	84.7%		
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	30 <sup>a</sup>	Beaverlodge	2.2	0	0	18.9	Jul-22 21:00	10.0	NNW	6.9	Jul-22	97.2%		
RH (%)			Henry Pirker	66.9	-	-	-	-	-	-	-	-	100.0%	
RH (%)			Beaverlodge	66.2	-	-	-	-	-	-	-	-	100.0%	
SR (W/m <sup>2</sup> )			Henry Pirker	241.3	-	-	-	-	-	-	-	-	99.9%	
Temp (°C)			Henry Pirker	15.6	-	-	-	-	-	-	-	-	100.0%	
Temp (°C)			Evergreen Park	14.9	-	-	-	-	-	-	-	-	100.0%	
Temp (°C)			Smoky Heights	13.4	-	-	-	-	-	-	-	-	100.0%	
Temp (°C)			Beaverlodge	14.8	-	-	-	-	-	-	-	-	100.0%	
WSPD v (km/hr)			Henry Pirker	11.4	-	-	-	Jul-07 11:00	37.8	WSW	23.0	7-Jul	100.0%	
WSPD v (km/hr)			Evergreen Park	8.6	-	-	-	Jul-07 12:00	30.7	W	18.9	7-Jul	100.0%	
WSPD v (km/hr)			Smoky Heights	12.3	-	-	-	Jul-07 11:00	44.1	WSW	28.4	7-Jul	100.0%	
WSPD v (km/hr)			Beaverlodge	9.8	-	-	-	38542.6	32.0	W	19.6	38540.0	100.0%	
WSPD s (km/hr)			Henry Pirker	12.1	-	-	-	Jul-07 11:00	38.1	WSW	23.4	7-Jul	100.0%	
WSPD s (km/hr)			Evergreen Park	9.1	-	-	-	Jul-07 12:00	31.3	W	19.4	7-Jul	100.0%	
WSPD s (km/hr)			Smoky Heights	12.7	-	-	-	Jul-07 11:00	44.4	WSW	28.5	7-Jul	100.0%	
WSPD s (km/hr)			Beaverlodge	10.0	-	-	-	Jul-09 14:00	32.0	W	19.9	7-Jul	100.0%	
WDIR (Deg)			Henry Pirker	N	-	-	-	-	-	-	-	-	99.9%	
WDIR (Deg)			Evergreen Park	N	-	-	-	-	-	-	-	-	100.0%	
WDIR (Deg)			Smoky Heights	N	-	-	-	-	-	-	-	-	100.0%	
WDIR (Deg)			Beaverlodge	N	-	-	-	-	-	-	-	-	100.0%	

Note: <sup>a</sup> the draft 1-hr Alberta Ambient Air Quality Objective

\* Wind Direction is the predominate direction for the Month

# Continuous Network Equipment Summary

## PASZA – Henry Pirker Station

### General Station Issues

There were no general operational issues noted during the month.

Parameter	Make	Model	Notes
SO <sub>2</sub>	TECO	43	Calibrations were attempted on July 4 & 5 but were aborted both times. This was caused by an incorrect perm rate for SO2 only. The rate was corrected and the calibration successfully completed on July 14.
NOx/NO/NO <sub>2</sub>	TECO	42	No operational problems observed
O <sub>3</sub>	API	400	No operational problems observed
CO	TECO	48	No operational problems observed
THC	TEI	51-CLT	No operational problems observed
TRS	TEI	42C	No operational problems observed
PM <sub>2.5</sub>	R&P	1400AB	5 hours were removed due to excessive 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	No operational problems observed
WD	Met One	020C	No operational problems observed

## PASZA – Evergreen Park Station

### General Station Issues

No general station issues were identified. A problem with the SO2 analyzer is outlined below.

Parameter	Make	Model	Notes
SO <sub>2</sub>	API	100	30 hours of data were invalidated from July 17 at 9:00 to July 18 at 15:00 due to excessive baseline drift. This was likely caused by a problem with the PMT cooler assembly. Investigation indicates the cooler is functioning normally now.
TRS	TEI	42C	No operational problems observed
PM <sub>2.5</sub>	R&P	1400AB	11 hours were removed due to excessive drift
AT	Met One	083D	No operational problems observed
WS	Met One	010C	No operational problems observed
WD	Met One	020C	No operational problems observed

---

## PASZA – Smoky Heights School Station

---

**General Station Issues**

Problems with the station air conditioner resulted in baseline adjustment for the SO<sub>2</sub>, TRS and PM<sub>2.5</sub> parameters.

<b>Parameter</b>	<b>Make</b>	<b>Model</b>	<b>Notes</b>
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	Data was removed from July 1 to 5 due to a main filter that did not stabilize. This issue was carried over from the end of June. The filter was replaced on July 5 at 14:00.
AT	Met One	083D	No operational problems observed
WS	Met One	010C	No operational problems observed
WD	Met One	020C	No operational problems observed

---

## PASZA – Beaverlodge Station

---

**General Station Issues**

There were no general operational issues noted during the month.

<b>Parameter</b>	<b>Make</b>	<b>Model</b>	<b>Notes</b>
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	21 hours were removed due to excessive drift
AT	Met One	083D	No operational problems observed
WS	Met One	010C	No operational problems observed
WD	Met One	020C	No operational problems observed

---

# 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: July 1, 2005 to August 1, 2005

#### Alberta's Air Quality Index

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

#### Summary

Number of 1-hr Good Readings:	703
Number of 1-hr Fair Readings:	0
Number of 1-hr Poor Readings:	0
Number of 1-hr Very Poor Readings:	0

#### Status Flag Characters

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

#### Day Mountain Standard Time

	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 Start	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00
1-Jul-05	9	7	6	7	5	4	6	8	9	11	14	16	16	15	16	16	17	18	17	A	14	15	15	
2-Jul-05	16	15	14	12	11	11	12	12	12	12	12	13	12	12	11	10	9	10	A	9	8	8	8	
3-Jul-05	8	8	9	10	10	10	10	10	11	12	13	13	14	15	16	16	18	19	A	19	17	13	12	12
4-Jul-05	11	11	10	9	6	6	6	7	10	13	17	20	12	11	11	11	11	11	10	8	5	6	5	
5-Jul-05	9	5	4	4	4	A	9	8	8	8	10	14	15	15	13	11	11	10	11	11	7	7	5	
6-Jul-05	4	4	5	4	4	A	2	3	4	6	10	11	11	14	15	14	14	14	13	11	12	12	11	11
7-Jul-05	11	11	10	6	A	7	7	9	11	12	13	13	14	15	15	14	14	15	15	15	12	10	11	9
8-Jul-05	9	5	7	A	6	4	5	7	10	11	10	12	16	18	19	18	18	17	16	17	16	19	16	14
9-Jul-05	6	10	A	9	8	6	9	10	11	11	14	14	13	14	14	14	14	14	14	13	12	11	8	11
10-Jul-05	10	A	9	8	7	7	8	10	11	12	12	12	13	13	13	13	13	13	12	10	7	5	6	7
11-Jul-05	A	8	7	7	5	4	4	5	9	11	12	12	12	13	13	13	13	12	12	8	10	9	9	A
12-Jul-05	4	8	3	3	5	8	7	10	11	10	8	15	19	16	16	16	16	10	17	16	12	8	A	10
13-Jul-05	8	8	8	8	5	4	5	5	7	A	A	A	A	A	12	13	12	12	12	12	12	12	13	12
14-Jul-05	12	11	11	11	10	A	9	10	A	A	A	A	A	2	1	2	17	16	14	13	12	10	7	8
15-Jul-05	7	7	7	8	6	A	4	5	7	7	9	11	13	16	18	19	17	17	16	15	10	6	4	8
16-Jul-05	12	11	11	11	9	A	7	7	6	5	7	9	10	11	11	12	12	12	13	12	8	6	7	5
17-Jul-05	6	5	5	5	A	4	4	6	7	8	10	11	12	13	13	12	13	12	11	11	10	8	8	20
18-Jul-05	19	13	10	A	6	5	5	9	12	13	14	15	17	17	16	16	17	20	16	16	14	11	10	10
19-Jul-05	10	10	A	9	9	11	10	10	10	8	8	8	8	8	10	11	11	12	14	13	9	8	6	5
20-Jul-05	4	A	4	2	2	3	4	7	9	8	10	14	15	16	14	12	14	13	14	12	11	8	7	6
21-Jul-05	A	6	3	2	3	3	4	3	6	7	12	16	18	20	21	21	21	19	19	17	14	12	12	A
22-Jul-05	8	7	7	4	5	3	7	7	9	12	17	19	21	18	16	15	13	13	12	8	8	7	A	6
23-Jul-05	6	6	5	6	5	4	4	4	4	4	4	4	5	7	7	6	8	9	9	8	8	A	7	7
24-Jul-05	5	4	4	3	2	2	2	4	5	6	8	9	10	11	11	11	11	12	12	10	A	7	7	5
25-Jul-05	4	3	4	3	2	2	3	3	4	9	11	12	13	13	14	14	14	11	8	9	A	7	7	6
26-Jul-05	5	5	4	3	4	3	3	3	5	4	5	6	7	9	10	12	12	12	A	9	9	6	5	4
27-Jul-05	3	2	2	2	2	3	3	5	7	7	7	11	12	12	12	10	6	6	5	3	2	2	2	2
28-Jul-05	2	2	1	2	2	3	4	6	4	6	9	11	10	18	21	19	A	15	15	15	12	8	9	8
29-Jul-05	7	3	7	6	4	3	6	8	5	7	11	14	13	10	14	A	14	14	14	11	8	8	6	6
30-Jul-05	8	6	7	7	6	7	8	7	8	11	12	14	14	14	A	14	11	11	10	9	9	7	5	5
31-Jul-05	6	5	6	6	4	2	4	5	6	7	11	13	13	A	13	13	13	13	12	9	8	7	7	3

## PASZA - Henry Pirker Sulphur Dioxide Monthly Summary

Station: Henry Pirker  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

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

**Summary**

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	12.5 ppb 29-Jul 7:00 8:00
Maximum 24-hr Average:	2.1 ppb 29-Jul

AIC Time:	40 hrs	Operational Time:	692 hrs
Calibration Time:	12 hrs	AMD Operational Uptime:	100.0%
Percentile	99 4.4	95 1.1	75 0.3

Percentile 50 0.1 25 0.0 5 0.0 1 0.0 Average 0.3 ppb

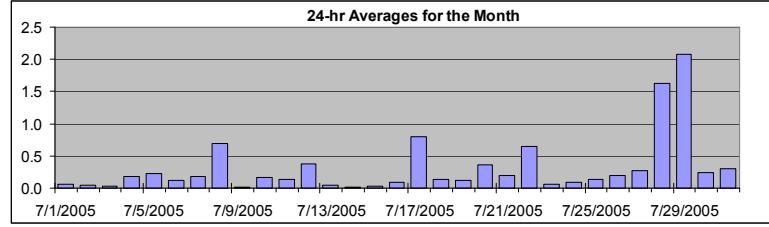
**Day Mountain Standard Time**

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum		
	Hour Start 1:00	Hour End 2:00																										
1-Jul-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	0.1	0.2	
2-Jul-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	0.0	0.2	
3-Jul-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	0.0	0.2	
4-Jul-05	0	0	0	0	0	0	1	1	1	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9	
5-Jul-05	0	0	0	0	0	A	0	0	C	C	C	C	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.0
6-Jul-05	0	0	0	A	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
7-Jul-05	0	A	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
8-Jul-05	A	0	0	A	0	0	1	1	1	1	0	1	0	0	0	0	0	0	0	2	2	2	1	0	A	0	0.7	2.3
9-Jul-05	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.0	0.1	
10-Jul-05	0	A	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	1.9	
11-Jul-05	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.4	
12-Jul-05	0	0	0	0	0	0	1	1	1	1	1	1	0	1	0	A	0	0	0	0	0	0	0	A	0	0.4	1.1	
13-Jul-05	0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0.0	0.3	
14-Jul-05	0	0	0	0	0	A	0	0	C	C	C	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
15-Jul-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	
16-Jul-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	0.1	0.4	
17-Jul-05	1	3	3	1	A	3	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.8	2.9	
18-Jul-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	0.1	0.3	
19-Jul-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	0.1	0.3	
20-Jul-05	0	A	0	0	0	0	0	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0.4	1.2	
21-Jul-05	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.6	
22-Jul-05	0	0	0	0	0	0	0	1	1	1	2	2	2	2	1	1	1	1	0	0	0	0	0	A	0	0.7	2.5	
23-Jul-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	0.1	0.2	
24-Jul-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	0.1	0.3	
25-Jul-05	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.7	
26-Jul-05	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	A	0	0	0	0	0.2	0.6	
27-Jul-05	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.9	
28-Jul-05	0	0	0	1	1	1	1	6	7	3	1	0	0	0	0	0	0	A	0	0	0	1	5	5	3	1.6	7.2	
29-Jul-05	1	1	1	6	4	1	9	12	2	1	1	1	4	1	0	A	0	0	0	0	0	0	0	0	1	2.1	12.5	
30-Jul-05	0	0	0	0	0	0	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.6	
31-Jul-05	0	0	0	0	0	0	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2	

Hourly Avg	0.2	0.2	0.3	0.4	0.3	0.3	0.5	0.9	0.7	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2
Hourly Max	0.9	2.5	2.9	5.9	4.4	2.7	9.0	12.5	7.2	3.0	2.0	2.5	3.9	1.1	0.7	0.5	0.6	1.6	2.3	1.7	1.4	4.8	4.6	2.9	

### HOURLY AVERAGE TABLE

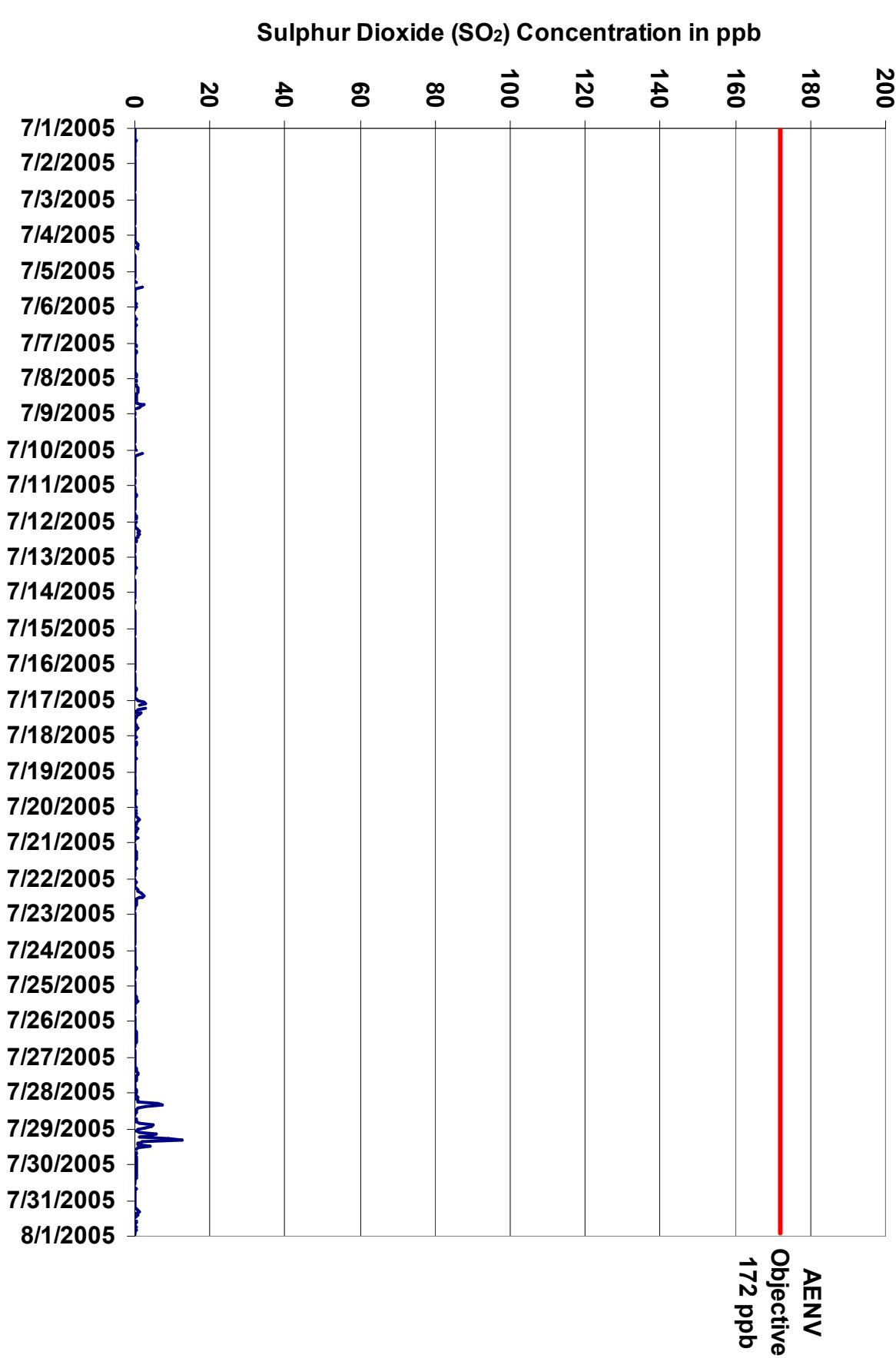
### Sulphur Dioxide (SO<sub>2</sub>)



### 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

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



Station: Henry Pirker  
 Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY MAXIMUM TABLE

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

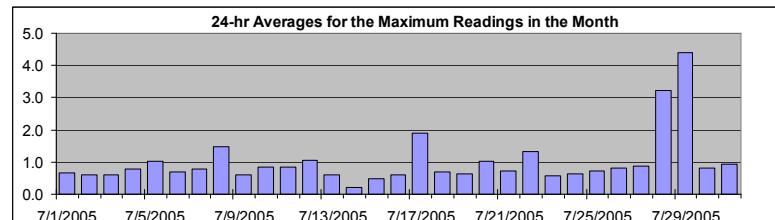
#### Summary

Maximum 1-hr Value:	21.9 ppb	29-Jul	6:00 7:00
Maximum 24-hr Value:	4.4 ppb	29-Jul	

AIC Time:	40 hrs	Operational Time:	692 hrs	
Calibration Time:	12 hrs	AMD Operational Uptime:	100.0%	
Percentile	99 95 75 50 25 5 1	Average		
	7.9 2.3 0.9 0.7 0.6 0.4 0.0	1.0 ppb		

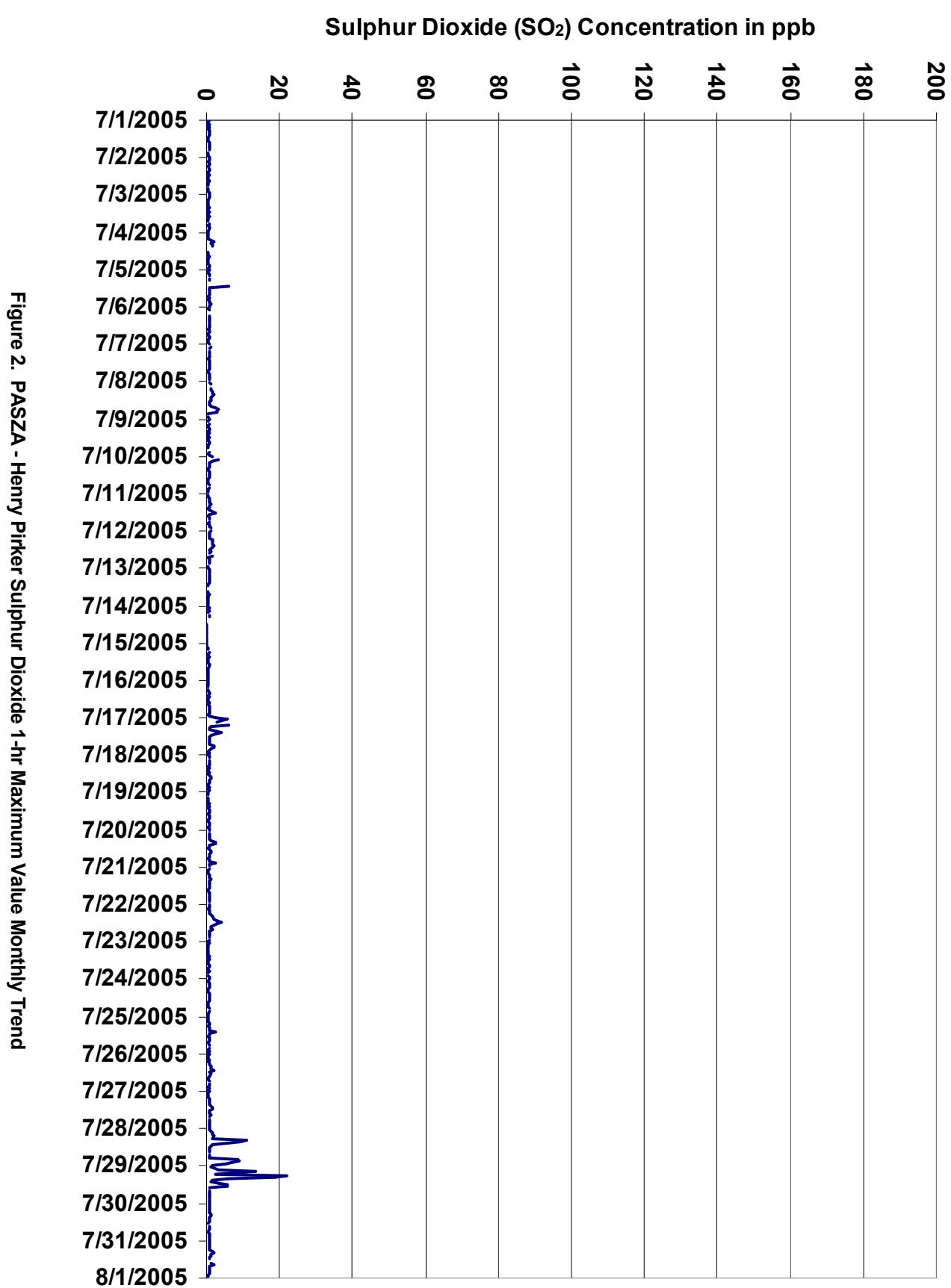
#### Day Mountain Standard Time

	Hour Start 1:00	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	Daily Average	Daily Maximum
1-Jul-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	0.7	0.9	
2-Jul-05	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	A	1	0	0	1	0.6	0.9	
3-Jul-05	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0	1	1	0	1	1	A	1	1	1	1	0.6	0.9	
4-Jul-05	1	1	1	1	1	1	1	2	1	2	1	C	C	C	0	1	1	1	1	1	0	1	1	1	1	0.8	1.8	
5-Jul-05	1	1	0	1	1	A	1	1	C	C	C	6	1	1	1	1	1	1	1	1	1	A	1	1	1	1.0	6.0	
6-Jul-05	1	1	1	A	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.0	
7-Jul-05	1	A	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.3	
8-Jul-05	A	1	1	A	1	1	2	2	2	1	1	1	1	1	1	1	1	1	3	3	3	3	3	1	A	1	1.5	3.1
9-Jul-05	1	0	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	0.6	0.8	
10-Jul-05	2	A	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1	0	0	0.9	3.3	
11-Jul-05	A	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	A	1	0	1	1	0.9	2.6	
12-Jul-05	1	1	1	1	1	1	1	2	2	1	2	1	1	1	1	1	1	2	1	1	1	A	1	1	1	1.0	1.8	
13-Jul-05	0	1	1	1	1	1	1	1	1	1	1	1	1	C	C	C	0	0	1	0	1	0	0	0	0	0.6	0.9	
14-Jul-05	1	1	0	1	0	A	1	1	C	C	C	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7	
15-Jul-05	0	0	0	0	0	A	1	0	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.5	0.8	
16-Jul-05	0	0	0	0	0	A	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0	
17-Jul-05	3	6	4	3	A	6	1	1	1	4	2	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1.9	6.2	
18-Jul-05	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.7	1.1	
19-Jul-05	1	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9	
20-Jul-05	1	A	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1.0	2.4	
21-Jul-05	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1	
22-Jul-05	1	1	1	1	1	1	1	1	2	2	3	4	3	2	1	1	1	1	1	1	1	1	1	1	A	1.3	3.9	
23-Jul-05	1	1	1	0	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	A	0	1	0.6	0.8	
24-Jul-05	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1	0	0.6	1.0	
25-Jul-05	1	0	0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	2.3	
26-Jul-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	1.9	
27-Jul-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	0.9	1.6		
28-Jul-05	1	1	1	2	1	2	2	11	9	6	2	1	1	1	1	1	1	1	1	1	A	1	1	1	9	3.2	11.1	
29-Jul-05	1	1	3	13	8	3	22	19	6	2	1	3	6	6	1	A	1	1	1	1	1	1	1	1	4.4	21.9		
30-Jul-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	0.8	1.2		
31-Jul-05	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	A	1	2	1	1	1	1	1	1	0.9	2.0		
Hourly Avg	0.8	0.8	1.0	1.3	0.9	1.1	1.6	1.8	1.4	1.3	1.0	1.2	1.0	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.7	1.0	1.0	0.9	0.8			
Hourly Max	2.5	5.7	3.9	13.5	7.9	6.2	21.9	18.9	9.3	5.7	2.8	6.0	5.7	5.5	1.4	1.8	1.5	2.6	3.1	2.7	8.7	9.1	6.9	5.2				

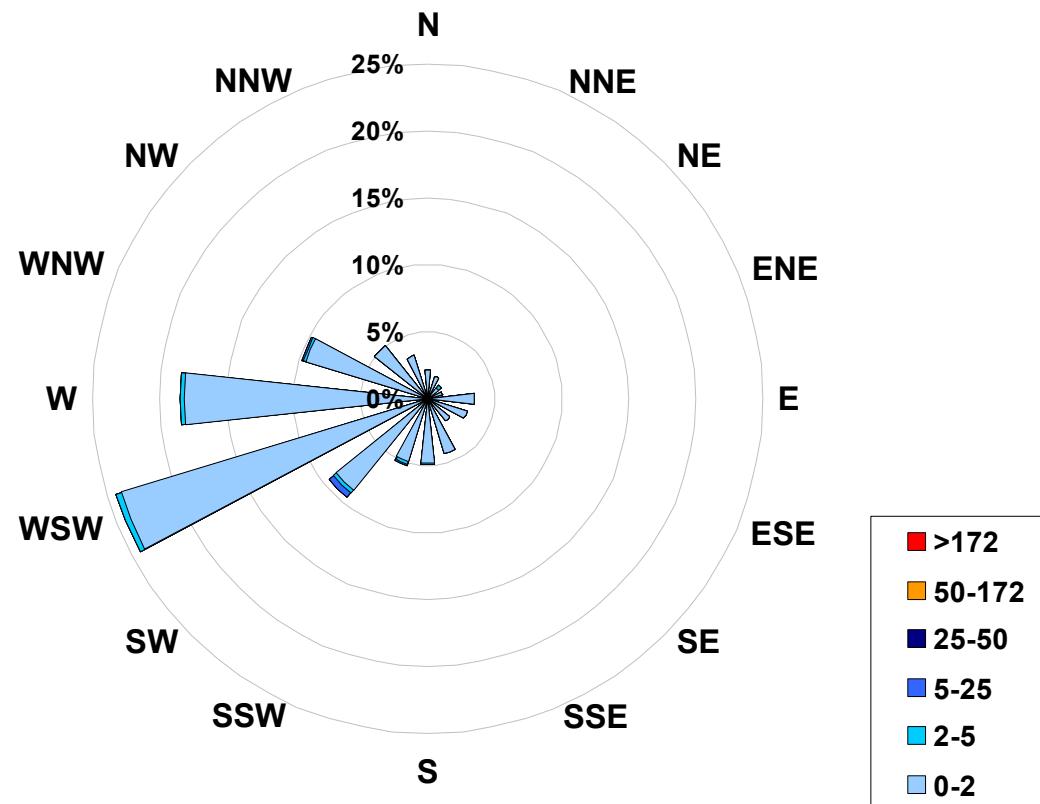


#### Status Flag Characters

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



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



Calms:	0%
--------	----

Frequency Distribution of SO <sub>2</sub> in ppb		Frequency (hrs)
Range	Range	
0.0	< 2	675
2	to 5	12
5	to 25	5
25	to 50	0
50	to 172	0
	> 172	0
Total Non-Zero Values		692

## PASZA - Henry Pirker Nitrogen Dioxide Monthly Summary

Station: Henry Pirker  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

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:	21.7 ppb 11-Jul 22:00 23:00
Maximum 24-hr Average:	9.6 ppb 5-Jul

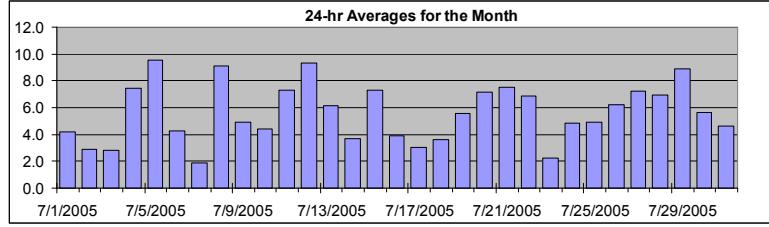
AIC Time:	33 hrs	Operational Time:	704 hrs					
Calibration Time:	7 hrs	AMD Operational Uptime:	100.0%					
Percentile	99 19.3	95 14.3	75 7.9	50 4.7	25 2.4	5 1.2	1 0.0	Average 5.6 ppb

**Day Mountain Standard Time**

	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Jul-05	8	7	10	7	8	8	6	4	3	3	2	2	1	2	2	2	2	2	1	2	A	6	4	3	4.2	10.0
2-Jul-05	3	3	3	4	5	6	3	2	2	2	2	1	2	2	1	2	2	2	2	A	4	5	5	5	2.9	5.9
3-Jul-05	5	3	2	2	2	2	2	1	1	1	1	1	1	2	2	2	2	2	A	5	3	9	8	5	2.8	8.8
4-Jul-05	6	5	6	7	9	14	13	16	10	4	9	16	3	2	2	2	2	3	3	5	7	14	10	11	7.4	16.3
5-Jul-05	15	12	9	8	11	A	16	16	12	8	8	6	4	4	5	7	6	5	6	5	6	14	20	19	9.6	19.8
6-Jul-05	17	9	4	4	5	A	9	9	13	6	5	5	3	3	1	1	1	0	0	1	0	0	0	0	4.2	17.4
7-Jul-05	0	0	0	0	A	7	6	2	0	0	0	0	0	0	0	0	2	1	1	2	5	6	5	7	1.9	6.9
8-Jul-05	7	9	9	A	10	18	21	17	15	19	10	6	6	8	6	6	4	5	7	5	6	4	6	9.1	20.6	
9-Jul-05	7	7	A	7	9	13	11	8	6	5	3	3	2	2	2	2	3	3	2	3	3	5	4	4	4.9	13.1
10-Jul-05	5	A	8	7	7	9	6	2	2	2	1	1	1	1	1	2	2	2	2	5	9	11	9	7	4.4	11.2
11-Jul-05	A	6	6	6	11	15	16	15	6	4	3	5	6	2	2	2	2	2	2	3	6	19	22	A	7.3	21.7
12-Jul-05	16	12	13	10	12	10	12	16	18	19	12	6	2	3	6	3	3	4	5	6	8	11	A	7	9.3	19.2
13-Jul-05	7	5	5	6	11	14	20	19	C	C	C	C	2	3	3	3	4	3	2	3	4	4	2	3	6.1	20.1
14-Jul-05	2	2	2	4	5	A	10	10	C	C	C	A	A	1	1	1	1	1	1	1	2	4	10	7	3.7	10.4
15-Jul-05	7	7	6	4	8	A	17	12	8	6	4	4	4	7	3	3	4	3	3	5	14	17	15	6	7.3	17.2
16-Jul-05	3	3	3	2	4	A	7	6	5	6	3	3	2	2	3	2	3	2	2	2	5	9	6	7	3.9	8.8
17-Jul-05	5	5	4	3	A	7	4	3	2	2	2	2	2	2	2	2	2	2	2	2	4	7	5	1	3.0	7.2
18-Jul-05	1	2	3	A	6	9	12	4	2	2	3	3	2	2	2	2	2	2	3	3	2	6	5	4	3.6	11.8
19-Jul-05	3	2	A	5	4	4	7	6	3	2	2	2	3	6	3	5	6	5	5	7	11	10	14	14	5.6	14.2
20-Jul-05	14	A	10	9	10	10	11	15	15	6	3	2	2	2	3	5	5	4	3	4	4	9	9	8	7.1	15.1
21-Jul-05	A	7	9	10	11	13	15	8	14	11	7	6	4	4	4	3	2	3	3	4	7	11	9	A	7.5	14.5
22-Jul-05	8	9	9	6	7	13	13	8	6	5	5	6	5	5	5	5	8	5	5	8	6	4	A	5	6.8	12.8
23-Jul-05	3	3	2	2	3	2	2	1	1	1	1	1	1	1	1	1	2	3	2	3	3	A	6	4	2.3	6.2
24-Jul-05	5	8	7	7	9	10	8	6	9	8	4	1	1	1	1	2	1	1	2	2	A	8	5	6	4.9	9.7
25-Jul-05	7	6	4	4	5	8	8	7	5	2	1	2	2	1	1	1	4	9	6	A	8	9	10	4.9	9.7	
26-Jul-05	4	4	5	6	5	8	8	6	9	13	6	6	4	3	4	4	3	3	3	A	9	5	10	6.2	14.7	
27-Jul-05	12	10	6	8	9	8	9	8	4	4	5	4	4	3	2	5	12	A	9	8	10	10	9	7.3	11.8	
28-Jul-05	9	7	5	7	9	11	12	11	8	5	4	3	6	5	3	3	A	5	4	7	10	12	8	6.9	12.3	
29-Jul-05	7	10	5	6	6	7	4	5	4	2	3	2	2	1	A	3	3	4	4	5	8	9	10	8.9	20.3	
30-Jul-05	19	11	5	6	6	7	4	5	4	2	3	2	2	1	A	3	3	4	4	5	8	9	10	5.6	19.4	
31-Jul-05	4	4	5	4	4	6	9	5	5	5	3	2	2	A	3	2	3	2	3	5	7	9	5	11	4.7	11.3
Hourly Avg	7.2	6.1	5.7	5.5	7.4	9.4	9.9	8.4	6.9	5.4	4.0	3.5	2.7	3.2	2.6	2.8	3.3	3.0	3.2	4.4	6.2	8.8	8.5	7.2		
Hourly Max	19.4	11.8	12.9	10.4	11.6	17.8	20.6	18.9	17.5	19.3	12.4	16.3	6.4	12.2	5.8	6.6	11.8	9.0	9.2	8.7	14.3	19.3	21.7	20.3		

### HOURLY AVERAGE TABLE

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



### 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

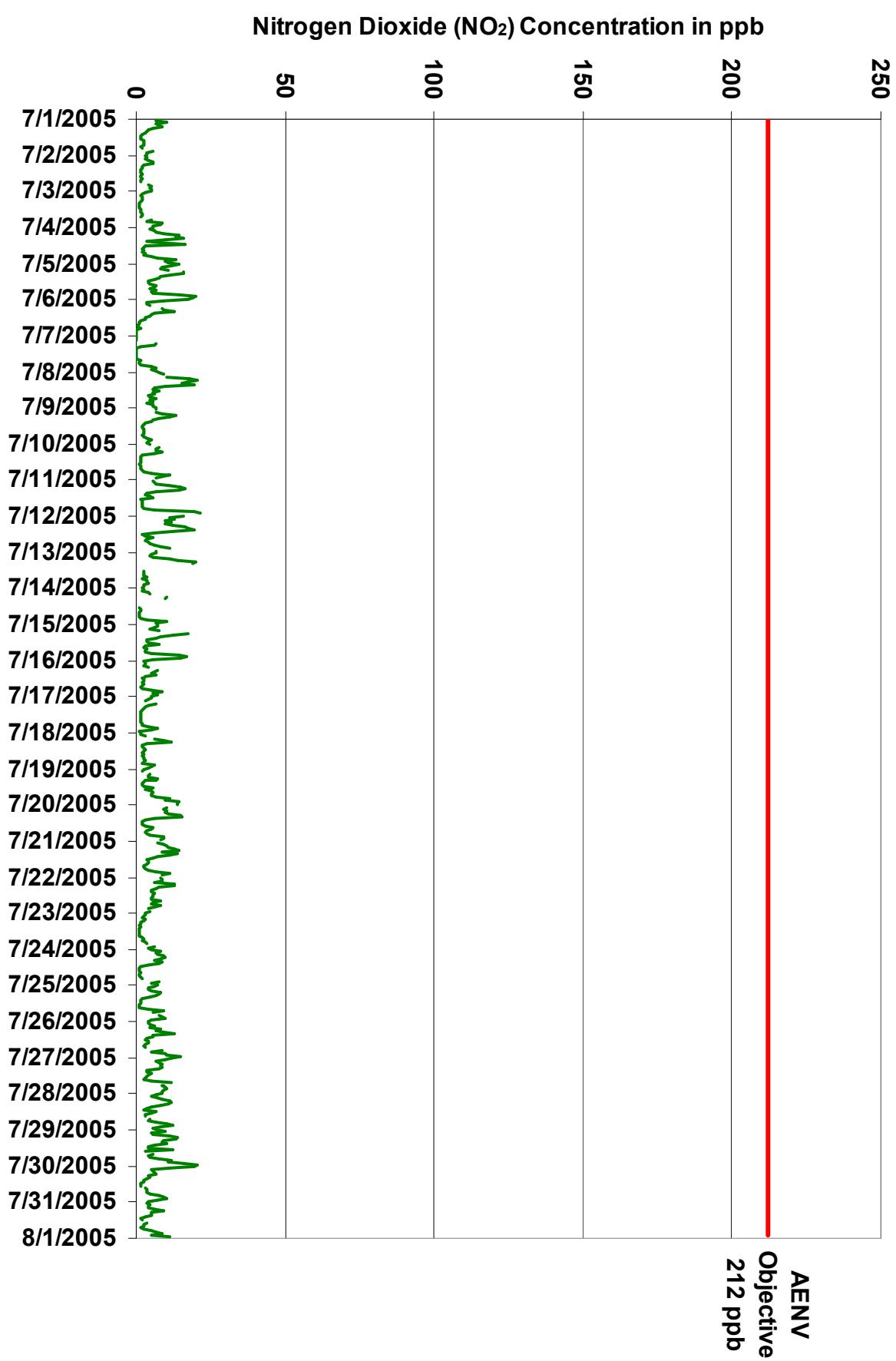


Figure 3. PASZA - Henry Pirker Nitrogen Dioxide 1-hr Average Monthly Trend

Station: Henry Pirker  
 Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY MAXIMUM TABLE

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

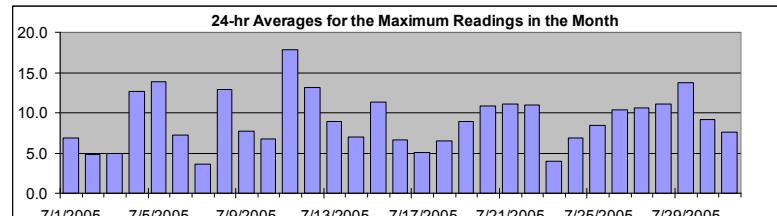
#### Summary

Maximum 1-hr Value:	85.7 ppb	11-Jul 12:00 13:00
Maximum 24-hr Value:	17.9 ppb	11-Jul

AIC Time:	33 hrs	Operational Time:	704 hrs	
Calibration Time:	7 hrs	AMD Operational Uptime:	100.0%	
Percentile	99 95 75 50 25 5 1	Average		
	25.3 20.8 11.8 7.9 4.5 2.5 1.0	9.1 ppb		

#### Day Mountain Standard Time

	Hour Start 1:00	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	Daily Average	Daily Maximum
1-Jul-05	18	13	13	11	10	13	9	6	5	5	4	4	3	4	4	4	4	5	2	4	A	12	5	4	6.9	17.8		
2-Jul-05	5	6	5	6	7	13	4	3	3	4	3	3	3	3	3	3	3	4	3	3	A	6	7	7	4.9	13.0		
3-Jul-05	6	5	2	2	3	4	3	2	2	2	2	2	2	3	4	4	6	3	A	8	5	16	14	5.0	15.6			
4-Jul-05	11	7	11	10	11	19	19	21	17	9	31	31	10	4	5	5	5	7	5	7	14	18	14	15	12.7	31.2		
5-Jul-05	23	22	11	12	15	A	19	18	14	11	10	10	6	9	8	11	13	8	10	7	9	24	25	24	13.8	24.5		
6-Jul-05	21	15	4	5	7	A	13	12	21	8	8	8	7	6	4	4	3	3	5	2	3	1	1	7.2	20.9			
7-Jul-05	0	0	1	0	A	11	9	5	1	0	0	0	0	2	1	1	3	4	3	3	4	8	9	7	3.6	10.9		
8-Jul-05	10	13	12	A	14	22	28	25	20	23	16	9	10	11	8	9	6	8	10	8	9	6	11	12.9	27.9			
9-Jul-05	9	9	A	9	15	19	16	10	8	8	7	4	3	4	5	4	4	5	4	5	7	8	7	7.8	19.4			
10-Jul-05	7	A	11	9	9	11	11	3	3	2	3	3	2	3	3	3	3	4	4	8	12	15	15	6.7	15.4			
11-Jul-05	A	8	24	9	22	18	18	19	12	5	6	71	86	4	5	6	4	5	3	6	10	25	24	A	17.9	85.7		
12-Jul-05	25	14	15	13	13	11	16	22	20	23	18	10	4	6	9	6	5	8	9	8	14	20	A	13.1	25.0			
13-Jul-05	8	8	6	8	15	21	23	23	C	C	C	C	5	4	5	5	6	6	5	5	6	7	5	4	8.9	23.5		
14-Jul-05	4	4	4	8	8	A	14	14	C	C	C	A	A	4	4	3	5	3	3	4	3	9	18	15	7.0	17.5		
15-Jul-05	11	9	9	7	11	A	21	15	12	10	6	5	7	16	5	6	6	5	7	10	22	26	24	10	11.3	25.5		
16-Jul-05	4	4	4	4	8	A	10	10	7	11	7	5	3	4	6	7	6	3	3	6	9	13	9	11	6.6	13.3		
17-Jul-05	8	7	7	4	A	13	7	4	3	3	3	3	3	3	3	3	4	3	3	3	7	12	12	2	5.1	12.8		
18-Jul-05	3	3	4	A	11	16	17	7	4	4	5	8	5	4	4	4	5	6	6	6	4	10	7	6	6.4	17.2		
19-Jul-05	4	4	A	6	6	10	10	12	8	5	4	3	8	13	5	9	11	8	7	11	14	15	18	16	8.9	18.2		
20-Jul-05	17	A	13	11	13	15	13	18	19	13	6	3	3	4	10	11	7	7	5	8	7	16	17	15	10.8	18.9		
21-Jul-05	A	10	11	12	14	19	19	14	17	13	11	12	7	6	8	5	5	4	5	9	12	15	14	A	11.1	19.4		
22-Jul-05	11	11	13	10	10	15	17	12	10	8	11	13	10	10	10	10	13	9	10	13	9	8	A	10	10.9	17.4		
23-Jul-05	6	4	4	4	6	5	3	3	2	3	2	3	2	2	2	2	2	4	7	4	5	5	A	10	6	3.9	9.7	
24-Jul-05	9	11	10	9	11	11	10	9	10	9	6	3	2	2	3	3	2	2	3	4	A	11	7	10	6.8	11.3		
25-Jul-05	10	8	7	5	7	12	14	9	9	11	2	3	4	3	2	4	8	16	9	A	16	11	13	9	8.4	16.4		
26-Jul-05	6	7	7	7	8	12	12	14	14	13	8	20	5	6	7	7	5	5	A	15	11	16	16	10.4	20.0			
27-Jul-05	13	13	8	9	10	9	12	13	6	6	10	5	15	5	4	15	20	A	12	10	12	13	12	10.6	19.8			
28-Jul-05	11	8	7	9	11	14	22	15	12	12	6	5	18	15	6	5	A	10	8	9	14	16	13	9	11.1	21.7		
29-Jul-05	13	13	10	8	18	17	21	14	11	15	10	7	6	28	9	A	9	7	7	10	17	20	21	13.7	28.3			
30-Jul-05	23	19	9	8	10	9	8	6	5	4	4	4	5	8	A	6	5	6	6	12	13	15	14	9.1	23.0			
31-Jul-05	6	5	7	6	6	11	13	8	8	8	5	3	3	A	5	5	4	3	6	9	10	23	8	14	7.6	22.9		
Hourly Avg	10.4	9.1	8.5	7.6	10.6	13.5	14.0	11.8	9.8	8.5	7.4	9.0	8.3	6.5	5.2	5.7	6.2	5.8	5.6	7.5	10.0	13.9	12.8	10.5				
Hourly Max	25.0	21.9	24.5	12.9	22.3	21.8	27.9	25.3	20.9	23.5	31.2	71.4	85.7	28.3	10.1	14.8	19.8	16.0	11.6	14.7	22.0	25.5	24.5	23.5				



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

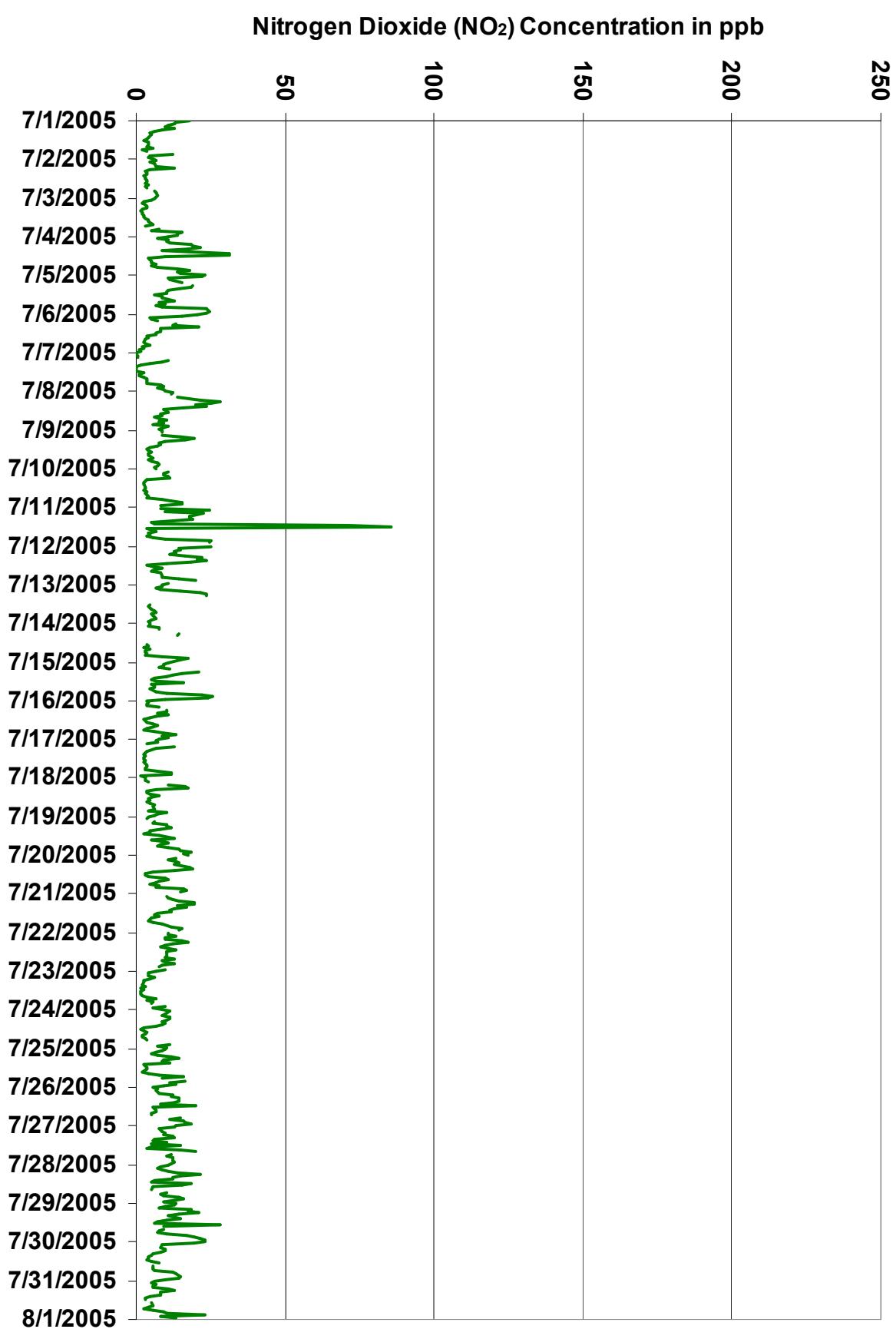
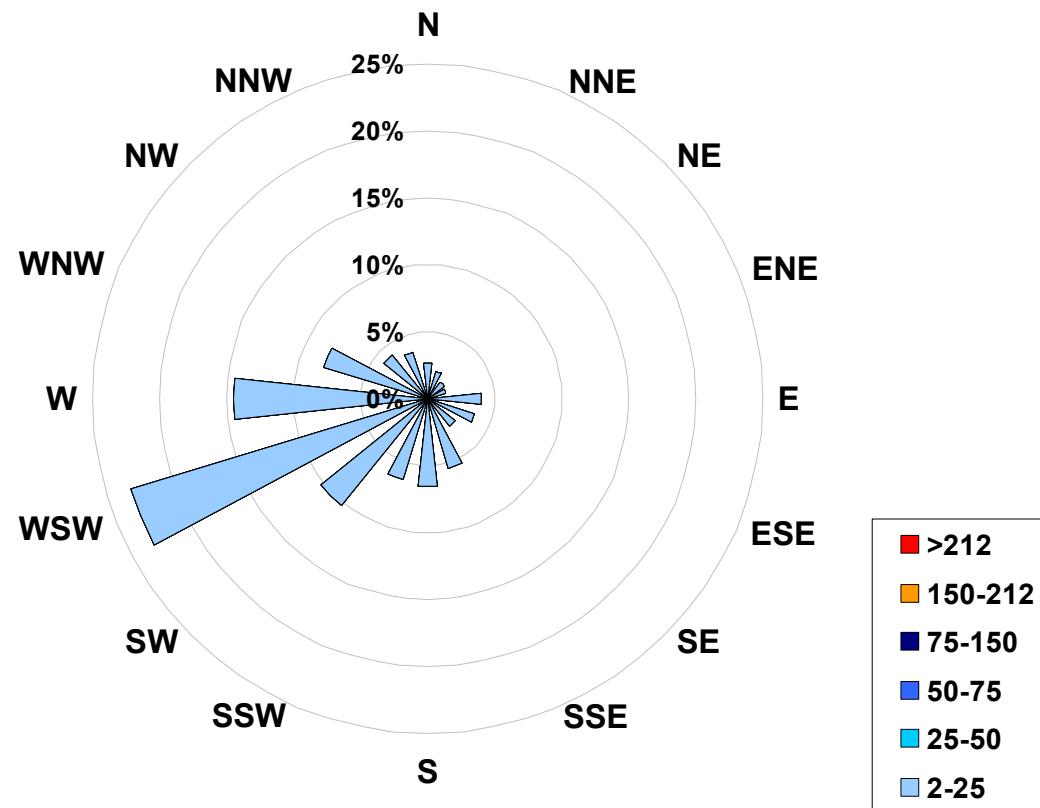


Figure 4. PASZA - Henry Pirker Nitrogen Dioxide 1-hr Maximum Value Monthly Trend

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



Calms:	0%	Frequency Distribution of NO <sub>2</sub> in ppb		
		Range	Frequency	(hrs)
		2.0 < 25	699	
		25 to 50	5	
		50 to 75	0	
		75 to 150	0	
		150 to 212	0	
		> 212	0	
Total Non-Zero Values			704	

## PASZA - Henry Pirker Nitric Oxide Monthly Summary

Station: Henry Pirker  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

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

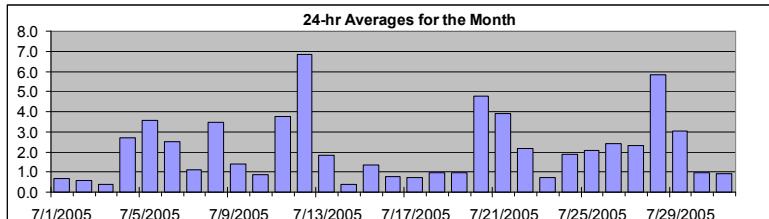
### Summary

Maximum 1-hr Average:	40.1	ppb	28-Jul	6:00 7:00
Maximum 24-hr Average:	6.8	ppb	12-Jul	

AIC Time:	33 hrs	Operational Time:	704 hrs						
Calibration Time:	7 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	2.1 ppb
	22.3	9.8	1.6	0.8	0.3	0.0	0.0		

### HOURLY AVERAGE TABLE

### Nitric Oxide (NO)



### 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

	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	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	24:00			
1-Jul-05	0	0	0	0	0	2	2	2	2	1	1	0	0	0	1	1	1	1	0	0	A	0	0	0	0	0.7	2.4
2-Jul-05	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	0	0	0.6	1.2
3-Jul-05	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0	0	0	0	0	0.4	0.8
4-Jul-05	0	0	0	0	0	3	7	12	6	2	7	15	2	2	1	1	1	1	1	1	1	1	1	1	0	2.7	15.1
5-Jul-05	4	1	0	0	2	A	14	19	11	4	3	2	1	1	1	2	2	1	1	1	1	1	1	1	0	3.6	19.2
6-Jul-05	15	2	0	0	1	A	5	4	10	4	2	2	2	2	1	1	1	1	1	1	1	1	1	1	0	2.5	15.4
7-Jul-05	0	0	0	0	A	3	5	3	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	0	1.1	5.3
8-Jul-05	0	0	0	A	0	6	13	13	13	17	5	3	2	2	1	1	1	1	1	1	0	0	0	0	0	3.5	17.3
9-Jul-05	0	0	A	0	0	3	5	4	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1.4	5.0
10-Jul-05	0	A	0	0	0	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	0	0.9	2.5
11-Jul-05	A	0	2	0	1	6	16	20	5	2	2	5	12	1	1	1	1	1	1	1	1	1	1	1	2	3	A
12-Jul-05	4	1	1	0	9	19	22	31	24	23	9	3	1	1	1	1	1	1	1	1	1	1	1	1	A	6.8	30.6
13-Jul-05	0	0	0	0	1	3	8	11	C	C	C	C	2	2	2	2	2	2	1	1	1	1	0	0	0	1.9	11.0
14-Jul-05	0	0	0	0	0	A	3	3	C	C	C	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.5
15-Jul-05	0	0	0	0	1	A	7	3	3	4	2	2	1	2	1	1	1	0	0	0	0	1	1	0	1.3	7.5	
16-Jul-05	0	0	0	0	0	A	1	2	2	2	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0.8	2.2	
17-Jul-05	0	0	0	0	A	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0.7	1.9	
18-Jul-05	0	0	0	A	0	2	8	2	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.9	8.3	
19-Jul-05	0	0	A	0	0	1	2	2	1	1	1	1	1	3	2	2	1	1	1	1	1	0	0	0	1.0	3.3	
20-Jul-05	0	A	0	1	4	10	21	33	30	4	1	1	1	1	0	1	1	0	0	0	0	0	0	0	4.8	32.9	
21-Jul-05	A	0	0	0	2	18	19	10	18	9	4	2	1	1	1	0	0	0	0	0	0	0	0	0	3.9	19.1	
22-Jul-05	0	0	1	0	0	9	16	5	3	2	2	2	1	1	1	1	2	1	1	1	1	A	0	0	2.2	16.0	
23-Jul-05	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	0	0	0.7	1.5	
24-Jul-05	0	1	0	0	2	6	5	4	10	8	3	1	0	0	0	1	0	0	0	0	A	0	0	0	1.9	9.9	
25-Jul-05	0	0	0	0	1	6	10	12	6	2	0	1	0	0	0	0	1	4	2	A	0	0	0	0	2.1	11.8	
26-Jul-05	0	0	0	1	1	2	4	7	12	5	4	8	3	2	1	1	1	1	1	A	1	0	1	1	2.4	12.3	
27-Jul-05	2	2	1	1	2	3	5	7	3	3	2	1	1	0	1	5	A	1	1	2	2	3	3	3	2.3	6.6	
28-Jul-05	4	1	1	3	9	31	40	20	9	5	2	1	3	2	1	1	1	A	1	0	1	0	0	0	0	5.8	40.1
29-Jul-05	0	0	0	0	1	5	14	9	6	9	4	1	1	8	1	A	2	1	1	1	1	0	1	3	3.0	13.5	
30-Jul-05	4	5	0	0	0	1	1	1	2	1	1	1	1	0	A	0	1	0	0	1	1	0	0	1.0	5.1		
31-Jul-05	0	0	0	0	0	2	4	2	3	3	1	1	1	1	A	1	0	0	0	0	0	1	0	0.9	4.4		

Hourly Avg	1.2	0.6	0.3	0.3	1.4	5.5	8.5	7.9	6.5	4.2	2.3	2.1	1.5	1.3	0.9	0.9	1.1	0.9	0.7	0.6	0.6	0.5	0.5	0.7
Hourly Max	15.4	5.1	1.5	2.9	9.4	30.6	40.1	32.9	29.7	23.0	8.8	15.1	12.2	8.0	1.7	1.8	5.2	3.6	1.8	1.3	1.6	2.5	3.2	9.4

Station: Henry Pirker  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY MAXIMUM TABLE

### Nitric Oxide (NO)

#### Summary

Maximum 1-hr Value:	246.0 ppb	11-Jul 12:00 13:00
Maximum 24-hr Value:	23.7 ppb	11-Jul

AIC Time:	33 hrs	Operational Time:	704 hrs
Calibration Time:	7 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	
	45.8 23.3 4.5 2.0 1.0 0.2 0.0	ppb	5.7 ppb

#### Day Mountain Standard Time

	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	Daily Average	Daily Maximum
1-Jul-05	2 1:00	1	3	1	1	5	4	4	3	3	2	2	1	2	2	2	1	2	1	1	A	1	0	0	1.7	5.1		
2-Jul-05	1 2:00	1	0	0	0	0	2	1	1	2	2	2	2	2	2	2	3	2	2	A	1	1	1	1	1.4	3.0		
3-Jul-05	0 3:00	0	0	0	0	1	1	1	1	1	2	2	2	2	2	2	2	1	A	1	1	1	1	1	1.0	2.0		
4-Jul-05	0 4:00	0	0	0	0	1	6	16	20	15	6	29	29	7	3	3	3	4	3	3	2	3	3	3	1	6.7	29.3	
5-Jul-05	23 5:00	15	1	1	7	A	27	25	18	6	4	4	3	2	3	4	4	4	2	2	1	3	5	23	8.1	27.0		
6-Jul-05	25 6:00	11	1	1	5	A	16	11	33	14	4	4	5	3	3	4	3	2	2	2	1	1	0	1	6.5	32.8		
7-Jul-05	0 7:00	0	0	0	0	A	9	9	5	3	2	2	3	2	2	3	3	2	2	2	1	1	0	0	2.4	8.8		
8-Jul-05	0 8:00	0	0	0	0	A	3	11	45	38	21	24	14	7	3	3	2	2	1	1	1	1	1	2	0	7.9	44.7	
9-Jul-05	0 9:00	1	A	0	1	9	8	5	5	5	5	2	3	2	3	2	2	2	3	3	2	1	1	1	1	2.9	9.0	
10-Jul-05	1 10:00	A	1	1	1	5	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2	1	1.9	5.0	
11-Jul-05	A 11:00	1	32	1	25	22	26	41	12	4	4	73	246	4	2	5	2	2	2	2	1	6	9	A	23.7	246.0		
12-Jul-05	15 12:00	6	2	2	22	35	38	50	30	32	17	6	3	3	4	4	4	2	5	3	1	1	3	A	12.4	50.5		
13-Jul-05	1 13:00	1	1	1	1	3	8	16	17	C	C	C	C	4	3	3	3	3	3	2	1	1	1	1	3.7	17.4		
14-Jul-05	1 14:00	1	1	1	1	1	A	6	6	C	C	C	A	A	0	0	0	0	0	0	0	0	0	0	0	1.0	5.9	
15-Jul-05	0 15:00	0	0	1	0	2	A	17	7	4	6	4	3	3	5	1	1	1	2	1	1	4	3	2	1	2.9	16.6	
16-Jul-05	0 16:00	0	0	0	0	1	A	1	3	4	5	5	2	1	2	2	5	4	3	1	2	2	3	1	2.1	5.4		
17-Jul-05	1 17:00	1	1	1	0	A	3	3	2	2	2	2	2	2	2	1	2	2	1	2	1	1	1	0	1.4	3.2		
18-Jul-05	0 18:00	0	0	0	0	A	1	11	20	4	2	1	2	4	2	5	2	2	2	1	1	1	0	1	2.7	19.8		
19-Jul-05	0 19:00	0	0	0	0	A	0	1	3	3	4	3	2	3	2	4	9	4	4	6	3	2	1	2	1	2.5	9.1	
20-Jul-05	2 20:00	A	1	2	19	23	35	51	38	17	3	2	1	2	2	2	1	2	2	1	1	2	2	1	9.2	51.3		
21-Jul-05	A 21:00	1	1	1	1	6	48	30	18	26	14	7	18	4	2	2	1	1	1	1	1	1	3	4	8.7	48.1		
22-Jul-05	1 22:00	2	5	1	2	20	37	15	8	4	6	5	5	5	4	4	4	12	3	4	3	5	3	A	6.8	37.5		
23-Jul-05	5 23:00	1	1	0	1	3	2	2	2	5	2	4	2	2	2	4	6	2	3	3	3	2	3	2	2.6	6.1		
24-Jul-05	2 00:00	4	3	1	7	14	8	9	13	10	5	1	1	2	1	2	1	2	1	1	1	1	1	4.0	13.8			
25-Jul-05	4 01:00	1	1	1	4	21	21	19	15	31	2	2	2	6	1	1	3	8	4	A	2	1	2	4	6.7	31.4		
26-Jul-05	1 02:00	1	6	2	3	6	21	16	18	13	17	113	28	9	3	2	2	2	A	4	2	3	4	5	12.2	113.2		
27-Jul-05	4 03:00	7	3	4	3	6	13	13	5	12	15	3	7	1	1	3	15	A	4	3	2	4	5	8	6.2	15.5		
28-Jul-05	6 04:00	8	1	1	1	4	9	41	20	9	17	8	3	2	27	6	2	2	A	2	2	1	1	1	12.1	81.8		
29-Jul-05	8 05:00	1	14	1	1	1	2	2	3	4	2	2	2	3	A	1	1	1	3	6	2	1	1	1	8.2	40.9		
30-Jul-05	7 06:00	1	1	1	1	2	8	12	4	8	7	3	1	2	A	1	1	1	1	2	1	1	1	2.7	14.0			
31-Jul-05	1 07:00	1	1	1	1	2	8	12	4	8	7	3	1	2	A	1	1	1	1	2	1	1	1	3.3	18.7			
Hourly Avg		3.8	2.6	2.4	1.1	4.9	12.9	18.3	14.9	11.2	9.1	6.1	10.4	12.2	4.0	2.3	2.4	3.0	2.4	1.9	1.6	1.8	2.3	2.0	2.4			
Hourly Max		24.8	15.3	32.1	8.8	25.2	48.1	81.8	51.3	38.5	32.0	29.3	113.2	246.0	27.0	6.0	5.1	15.5	8.0	4.2	4.5	5.9	18.7	9.5	23.2			

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

Station: Henry Pirker  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

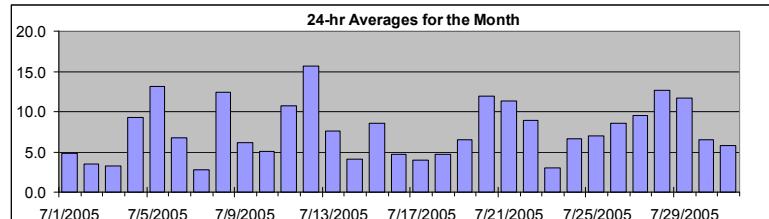
Guideline Limit: Alberta Environment: 1-hr na ppb 24-hr na ppb  
Summary

Maximum 1-hr Average:	51.7	ppb	28-Jul	6:00 7:00
Maximum 24-hr Average:	15.7	ppb	12-Jul	

AIC Time:	33 hrs	Operational Time:	704 hrs						
Calibration Time:	7 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	
	36.4	23.0	9.4	5.5	3.2	1.6	0.0		7.7 ppb

#### HOURLY AVERAGE TABLE

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



#### 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

	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	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	24:00	0:00		
1-Jul-05	9	7	10	7	8	10	8	6	5	4	2	2	2	2	3	3	3	3	1	2	A	6	4	3	4.8	10.2	
2-Jul-05	3	3	3	4	5	6	3	3	3	3	2	2	2	2	3	2	2	3	2	3	5	5	5	5	3.5	6.4	
3-Jul-05	5	3	2	2	2	3	3	2	2	2	2	2	2	2	2	3	3	2	A	6	3	9	8	6	3.2	9.0	
4-Jul-05	6	5	6	7	10	17	20	28	15	6	10	18	5	4	3	4	3	4	4	6	8	15	10	11	9.3	27.8	
5-Jul-05	18	13	9	8	12	A	30	35	23	12	10	8	5	5	6	8	8	6	8	6	6	15	22	28	13.1	34.9	
6-Jul-05	33	12	4	4	5	A	14	14	23	11	7	7	6	5	3	2	2	1	1	2	0	0	0	0	6.7	32.8	
7-Jul-05	0	0	0	0	A	10	11	5	0	0	0	0	0	0	0	1	4	2	2	2	6	7	5	7	2.8	11.4	
8-Jul-05	7	9	9	A	10	24	34	31	28	36	15	9	7	9	7	7	5	5	7	5	6	4	6	12.4	36.5		
9-Jul-05	7	7	A	6	9	16	16	11	8	8	4	4	3	3	4	4	4	4	3	3	4	6	4	6.2	16.1		
10-Jul-05	5	A	8	7	7	11	9	3	2	2	2	2	2	2	2	2	3	3	3	6	10	12	9	7	5.1	11.9	
11-Jul-05	A	6	8	6	12	21	32	34	11	5	4	9	18	2	3	2	2	3	2	3	6	21	25	A	10.7	34.1	
12-Jul-05	20	12	14	10	21	29	34	47	41	42	21	9	2	3	7	4	4	5	5	7	9	12	A	6	15.7	46.7	
13-Jul-05	7	5	5	6	12	16	28	29	C	C	C	C	4	4	4	4	5	5	3	4	4	5	3	3	7.6	29.5	
14-Jul-05	2	2	2	4	5	A	14	13	C	C	A	A	1	2	2	1	1	1	1	2	4	10	6	4.1	13.7		
15-Jul-05	7	7	6	4	8	A	24	15	10	10	6	5	5	9	4	3	4	3	4	3	6	15	17	16	8.5	24.0	
16-Jul-05	3	3	3	3	4	A	8	8	7	9	5	4	3	3	4	3	4	3	2	3	6	10	6	8	4.8	9.7	
17-Jul-05	5	5	5	3	A	8	6	5	4	3	3	3	2	3	2	2	3	3	3	5	8	5	1	3.9	8.2		
18-Jul-05	2	2	3	A	7	11	20	6	3	3	4	5	3	3	4	3	3	3	4	3	6	5	4	4.7	20.2		
19-Jul-05	3	2	A	5	4	5	9	8	4	3	3	3	3	9	5	7	8	7	6	8	12	9	14	6.5	14.0		
20-Jul-05	14	A	10	9	15	20	31	48	45	10	4	3	2	3	4	6	5	4	3	4	5	9	9	8	11.9	47.7	
21-Jul-05	A	7	10	10	12	30	34	18	32	20	11	8	5	5	5	4	3	3	3	5	7	11	9	A	11.4	33.6	
22-Jul-05	8	9	10	6	7	22	28	12	10	7	7	7	7	6	6	9	6	6	8	7	5	A	5	8.9	28.4		
23-Jul-05	3	3	2	2	4	3	2	2	3	2	3	2	2	2	2	3	4	3	4	4	A	6	4	3.0	6.5		
24-Jul-05	5	9	7	7	11	15	13	10	18	15	7	2	1	1	1	2	2	2	3	A	7	5	6	6.7	18.4		
25-Jul-05	7	6	4	4	6	14	18	18	11	4	2	2	2	2	1	1	5	12	7	A	8	9	10	7.0	18.4		
26-Jul-05	4	4	5	7	5	10	10	16	25	11	9	11	5	6	5	4	3	4	A	9	6	10	10	8.5	24.9		
27-Jul-05	13	12	7	9	10	10	14	14	6	7	8	5	5	4	3	6	17	A	10	9	11	13	12	9.5	16.8		
28-Jul-05	12	8	6	10	17	42	52	31	17	10	6	4	9	7	4	4	A	5	5	7	10	12	8	12.6	51.7		
29-Jul-05	7	10	5	6	12	18	26	19	14	19	10	5	5	20	4	A	7	5	5	9	13	11	16	11.7	26.4		
30-Jul-05	23	16	5	6	6	8	5	6	6	3	4	2	2	2	A	3	4	4	4	5	8	9	11	6.5	23.1		
31-Jul-05	4	4	5	4	4	8	13	7	8	8	4	2	3	A	4	3	3	2	3	6	7	10	6	12	5.7	13.4	

Hourly Avg 8.4 6.6 5.9 5.7 8.7 14.8 18.3 16.2 13.3 9.5 6.0 5.0 4.1 4.4 3.5 3.7 4.4 3.9 3.9 4.9 6.7 9.2 8.9 7.9

Hourly Max 32.8 16.2 13.5 10.4 20.6 41.7 51.7 47.7 44.6 41.8 20.8 18.4 17.6 20.0 6.6 8.4 16.8 12.5 10.4 9.5 15.1 20.9 24.5 28.5

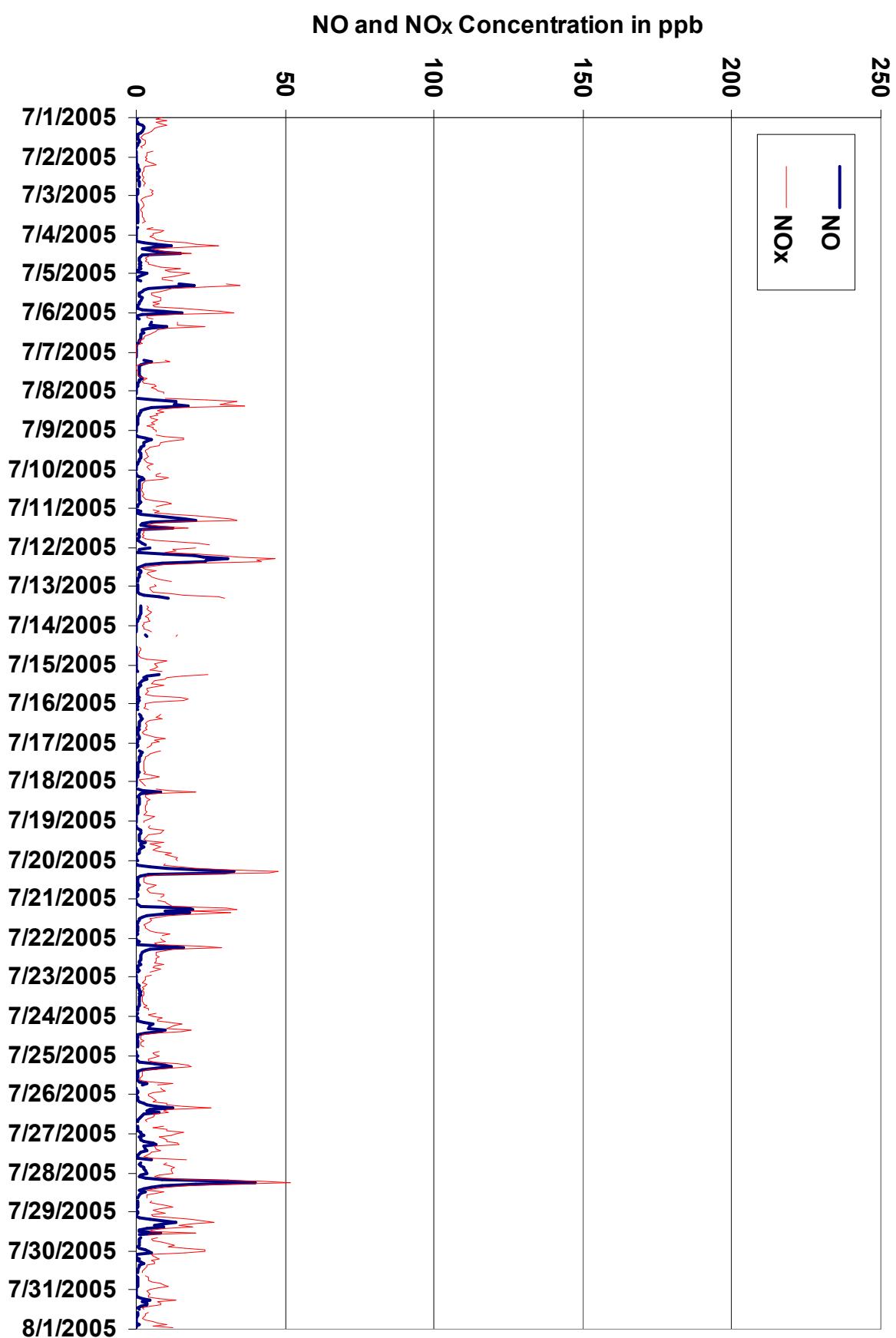


Figure 5. PASZA - Henry Pirker Oxides of Nitrogen 1-hr Average Monthly Trend

Station: Henry Pirker  
 Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY MAXIMUM TABLE

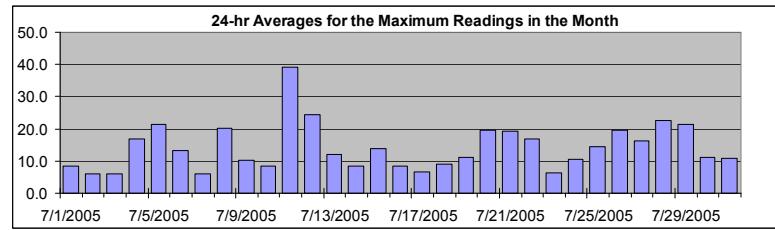
### Oxides of Nitrogen (NO<sub>x</sub>)

#### Summary

Maximum 1-hr Value:	331.9 ppb	11-Jul 12:00 13:00
Maximum 24-hr Value:	39.2 ppb	11-Jul

AIC Time:	33 hrs	Operational Time:	704 hrs	
Calibration Time:	7 hrs	AMD Operational Uptime:	100.0%	
Percentile	99 95 75 50 25 5 1	Average		
	64.1 41.5 16.0 9.7 6.1 3.8 1.5	14.2 ppb		

Day	Mountain	Standard	Time	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	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		
	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-Jul-05	20	14	16	12	11	17	13	10	7	8	6	5	4	5	6	5	4	7	2	4	A	13	5	4	8.4	19.8			
2-Jul-05	6	7	4	6	7	14	5	4	5	5	4	5	4	5	5	5	7	5	5	A	7	7	8	7	6.1	14.5			
3-Jul-05	6	5	2	3	3	4	5	3	3	3	3	4	4	5	6	6	7	4	A	8	5	16	14	5.9	16.0				
4-Jul-05	11	7	11	10	12	25	35	42	33	15	33	33	15	7	7	8	9	10	11	11	8	9	18	21	15	17.0	41.7		
5-Jul-05	45	37	11	12	21	A	46	43	32	16	14	14	9	10	11	14	17	11	11	8	9	27	30	43	21.5	46.2			
6-Jul-05	43	26	5	7	12	A	28	23	50	22	12	11	12	10	7	7	6	4	5	6	2	3	1	1	13.3	50.5			
7-Jul-05	0	0	1	1	A	20	17	10	5	2	2	2	5	3	3	6	7	6	5	5	9	10	8	9	5.9	20.2			
8-Jul-05	10	13	11	A	16	33	71	64	41	48	30	15	13	14	10	10	10	7	9	11	8	10	6	11	20.3	70.6			
9-Jul-05	9	9	A	9	16	28	23	14	12	12	12	7	6	6	9	7	7	8	7	7	8	9	7	7	10.3	28.2			
10-Jul-05	6	A	10	10	9	15	16	5	5	4	4	5	5	4	5	5	5	5	6	5	10	15	17	16	8.3	16.6			
11-Jul-05	A	8	56	9	47	39	42	59	24	8	10	104	332	7	7	11	6	6	5	7	10	30	32	A	39.2	331.9			
12-Jul-05	39	19	16	14	32	45	53	68	50	54	34	16	6	7	12	9	7	11	11	9	15	22	A	11	24.3	67.6			
13-Jul-05	9	8	7	8	17	29	39	40	C	C	C	C	8	7	7	8	9	10	8	7	7	8	5	4	12.2	40.0			
14-Jul-05	4	4	4	9	8	A	19	18	C	C	C	A	A	6	6	4	7	4	4	5	4	10	21	15	8.5	20.6			
15-Jul-05	11	9	10	7	12	A	37	22	16	16	10	8	9	21	6	7	7	5	7	11	23	28	25	10	13.9	36.5			
16-Jul-05	4	4	4	3	9	A	11	12	12	16	11	6	4	5	7	12	8	6	4	7	10	16	9	12	8.5	16.3			
17-Jul-05	8	8	8	4	A	15	10	6	5	4	5	4	4	5	4	5	6	5	5	3	8	13	13	1	6.5	15.2			
18-Jul-05	3	3	5	A	12	27	37	11	5	5	6	12	7	9	6	6	6	7	6	7	4	11	8	7	9.1	36.7			
19-Jul-05	4	4	A	6	6	13	13	16	12	7	8	4	11	21	9	13	16	11	8	12	16	14	19	16	11.2	21.4			
20-Jul-05	19	A	13	12	32	38	48	64	57	29	9	5	4	5	12	12	9	8	6	9	8	18	19	15	19.4	64.2			
21-Jul-05	A	12	12	13	19	67	49	31	43	26	16	30	11	8	10	6	6	5	6	9	13	16	18	A	19.3	66.8			
22-Jul-05	12	12	18	10	11	35	53	27	16	12	16	18	13	15	14	12	21	11	13	14	14	10	A	10	53.4				
23-Jul-05	11	5	4	4	7	7	4	5	4	8	4	7	4	4	3	4	8	13	5	8	8	A	10	9	6.2	12.9			
24-Jul-05	10	15	12	10	18	24	18	17	23	19	12	4	2	5	5	4	3	4	4	4	A	11	7	12	10.6	23.6			
25-Jul-05	12	8	7	6	11	31	35	27	23	43	4	5	5	8	3	5	10	24	13	A	18	12	14	14.6	42.8				
26-Jul-05	6	8	11	9	11	18	32	31	32	26	24	87	23	12	10	9	7	6	A	19	13	17	19	21	19.6	86.5			
27-Jul-05	16	19	10	13	12	14	25	26	11	14	25	7	21	6	5	18	35	A	16	12	14	16	18	20	16.2	35.1			
28-Jul-05	17	10	10	17	23	59	103	54	28	26	11	8	34	21	7	6	A	11	9	10	15	16	13	10	22.5	102.8			
29-Jul-05	21	13	10	8	22	27	61	34	18	32	18	10	8	55	15	A	12	10	8	11	18	22	29	31	21.4	60.6			
30-Jul-05	29	32	10	8	10	11	10	8	9	6	6	5	7	11	A	6	6	7	7	4	8	10	11	42	15	10	11.2	31.6	
31-Jul-05	7	5	7	6	7	17	22	12	17	15	7	4	5	A	6	7	5	4	8	10	11	42	8	16	10.8	42.0			
	Hourly Avg	13.7	11.2	10.5	8.4	15.0	25.9	31.6	26.0	20.6	17.2	12.3	15.3	19.8	10.2	7.4	8.0	9.0	7.9	7.4	8.7	11.4	15.8	14.3	12.3				
	Hourly Max	45.0	37.0	56.2	16.9	47.1	66.8	102.8	67.6	56.9	54.1	33.6	104.2	331.9	54.8	15.4	17.7	35.1	23.9	15.6	19.0	23.5	42.0	32.1	42.5				



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

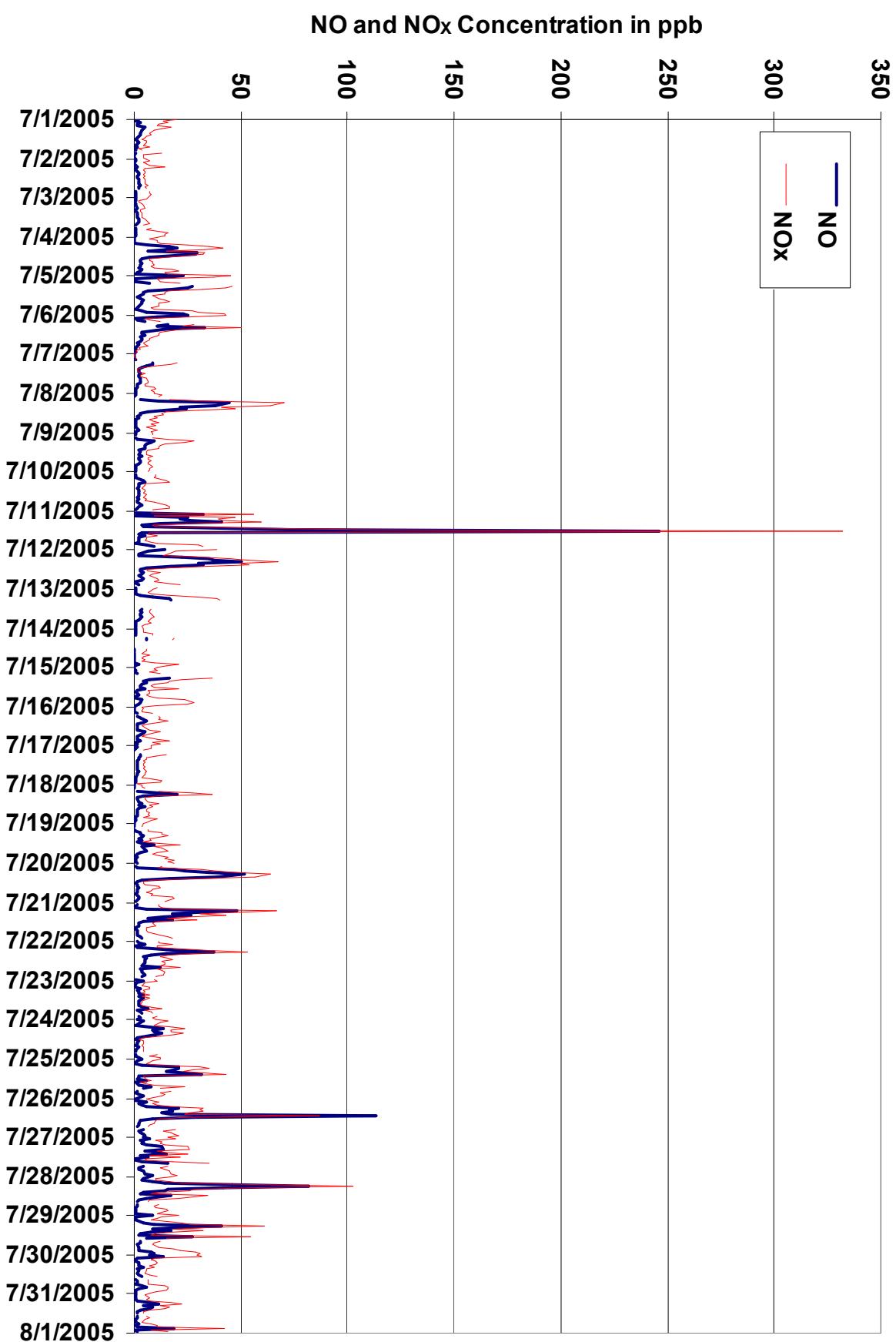


Figure 6. PASZA - Henry Pirker Oxides of Nitrogen 1-hr Maximum Value Monthly Trend

## PASZA - Henry Pirker Ozone Monthly Summary

Station: Henry Pirker  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

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

Number of 1-hr Exceedances: 0  
Maximum 1-hr Average: 42.8 ppb 28-Jul 14:00 15:00  
Maximum 24-hr Average: 26.2 ppb 18-Jul

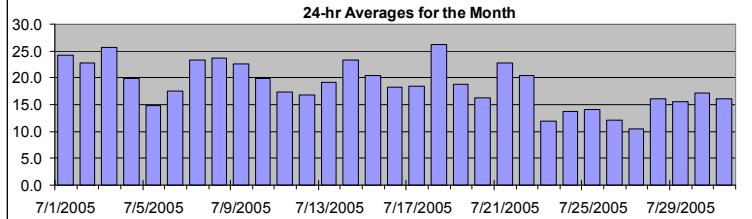
AIC Time: 32 hrs Operational Time: 707 hrs  
Calibration Time: 5 hrs AMD Operational Uptime: 100.0%  
Percentile 99 95 75 50 25 5 1 Average  
39.5 33.9 25.1 19.5 11.6 3.4 1.1 18.7 ppb

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start 0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00		
1-Jul-05	18	15	12	13	10	8	12	15	19	22	28	32	33	32	31	33	33	33	35	35	A	28	30	30	24.2	35.4	
2-Jul-05	33	30	28	25	22	22	23	24	24	24	25	25	25	25	24	22	19	19	20	A	18	16	16	16	22.7	32.6	
3-Jul-05	15	16	19	20	21	20	19	20	22	24	26	27	28	30	32	33	36	38	A	37	34	26	24	24	25.7	37.7	
4-Jul-05	22	22	21	17	13	12	13	13	20	25	34	40	24	23	22	22	21	22	20	17	9	12	10	19.9	39.7		
5-Jul-05	5	6	7	7	4	A	2	4	9	15	21	28	30	29	27	22	21	21	22	22	13	3	2	14.9	30.4		
6-Jul-05	0	7	11	9	7	A	4	4	5	11	19	21	22	28	30	29	28	28	26	22	23	23	22	22	17.6	29.8	
7-Jul-05	22	22	21	13	A	14	14	18	22	24	25	26	27	29	29	28	28	28	29	30	29	24	20	21	23.3	29.7	
8-Jul-05	17	11	13	A	13	4	6	9	10	10	21	23	32	36	37	35	37	34	31	35	33	38	32	28	23.7	37.9	
9-Jul-05	13	20	A	18	16	12	17	20	21	21	28	29	27	28	27	28	28	28	27	25	22	15	22	22.5	28.7		
10-Jul-05	21	A	17	16	14	13	17	20	22	23	24	25	25	26	26	26	26	26	26	24	20	10	10	13	19.8	26.0	
11-Jul-05	A	16	14	14	9	6	4	9	18	22	24	25	24	25	25	25	25	25	25	24	15	21	7	3	A	17.3	25.4
12-Jul-05	5	4	5	6	2	1	3	5	6	7	13	19	30	38	32	31	32	21	34	31	24	17	A	20	16.8	38.3	
13-Jul-05	16	17	17	15	9	9	5	8	14	19	23	C	C	23	23	25	24	25	25	24	24	24	24	25	19.1	25.5	
14-Jul-05	24	23	23	22	21	A	17	19	23	25	26	25	C	C	C	A	33	32	28	27	24	21	14	17	23.4	33.2	
15-Jul-05	15	13	13	16	12	A	4	9	14	14	18	22	27	32	37	38	34	34	33	30	19	12	7	17	20.5	38.0	
16-Jul-05	23	21	21	21	17	A	15	13	11	9	13	19	20	22	23	24	23	24	26	23	17	12	14	10	18.3	25.7	
17-Jul-05	11	10	10	9	A	8	9	11	13	17	20	22	23	26	25	25	26	24	22	22	20	16	16	40	18.4	39.6	
18-Jul-05	38	27	21	A	12	10	9	18	24	27	29	30	33	34	32	31	35	39	33	31	29	21	21	19	26.2	39.1	
19-Jul-05	20	19	A	18	18	21	21	20	19	15	16	16	16	20	21	21	24	27	27	17	15	12	11	18.8	27.2		
20-Jul-05	7	A	8	4	1	0	1	2	5	15	21	27	30	31	29	25	27	26	28	25	21	15	14	13	16.3	31.3	
21-Jul-05	A	11	6	4	3	2	3	7	9	15	25	33	37	39	42	42	41	39	37	34	28	24	24	A	22.8	42.0	
22-Jul-05	17	14	13	7	9	3	6	14	19	24	34	39	41	36	32	30	27	27	25	16	14	13	A	12	20.4	41.2	
23-Jul-05	12	11	9	11	10	8	8	7	9	9	8	9	11	13	14	13	16	17	17	16	16	A	15	14	11.9	17.4	
24-Jul-05	10	7	7	6	2	2	4	8	9	13	16	19	21	21	22	23	24	23	20	A	14	13	10	13.7	23.8		
25-Jul-05	7	6	8	6	5	2	1	5	8	17	22	24	25	26	27	28	22	17	19	A	14	14	10	14.1	27.6		
26-Jul-05	10	9	8	6	7	5	5	4	3	8	10	12	14	17	20	24	25	24	A	18	19	13	11	4	12.0	24.6	
27-Jul-05	2	2	4	3	3	5	7	9	13	13	14	21	23	24	25	21	13	A	12	9	7	3	2	10.4	24.8		
28-Jul-05	1	1	3	1	0	0	1	5	7	12	18	22	21	35	43	38	A	30	31	30	23	17	18	16	16.2	42.8	
29-Jul-05	15	7	13	11	7	4	5	6	7	13	22	28	26	20	27	A	27	28	27	22	15	16	7	3	15.5	27.8	
30-Jul-05	1	6	14	14	14	12	14	14	15	21	24	28	27	28	A	27	23	23	19	18	17	15	10	17.2	27.6		
31-Jul-05	11	11	11	13	8	4	6	11	12	14	21	25	27	A	27	27	25	25	24	18	16	13	13	6	16.0	26.9	

Hourly Avg 14.2 13.3 13.0 11.9 10.0 7.9 8.9 11.3 13.9 17.1 21.5 24.6 25.8 27.4 27.9 27.4 26.7 26.7 25.9 24.3 20.4 17.0 15.1 15.4  
Hourly Max 38.0 30.1 28.3 24.7 22.3 21.8 23.3 24.2 24.4 26.9 34.3 39.7 41.2 39.5 42.8 42.0 41.2 39.1 37.0 37.3 33.8 37.9 32.3 39.6

### HOURLY AVERAGE TABLE

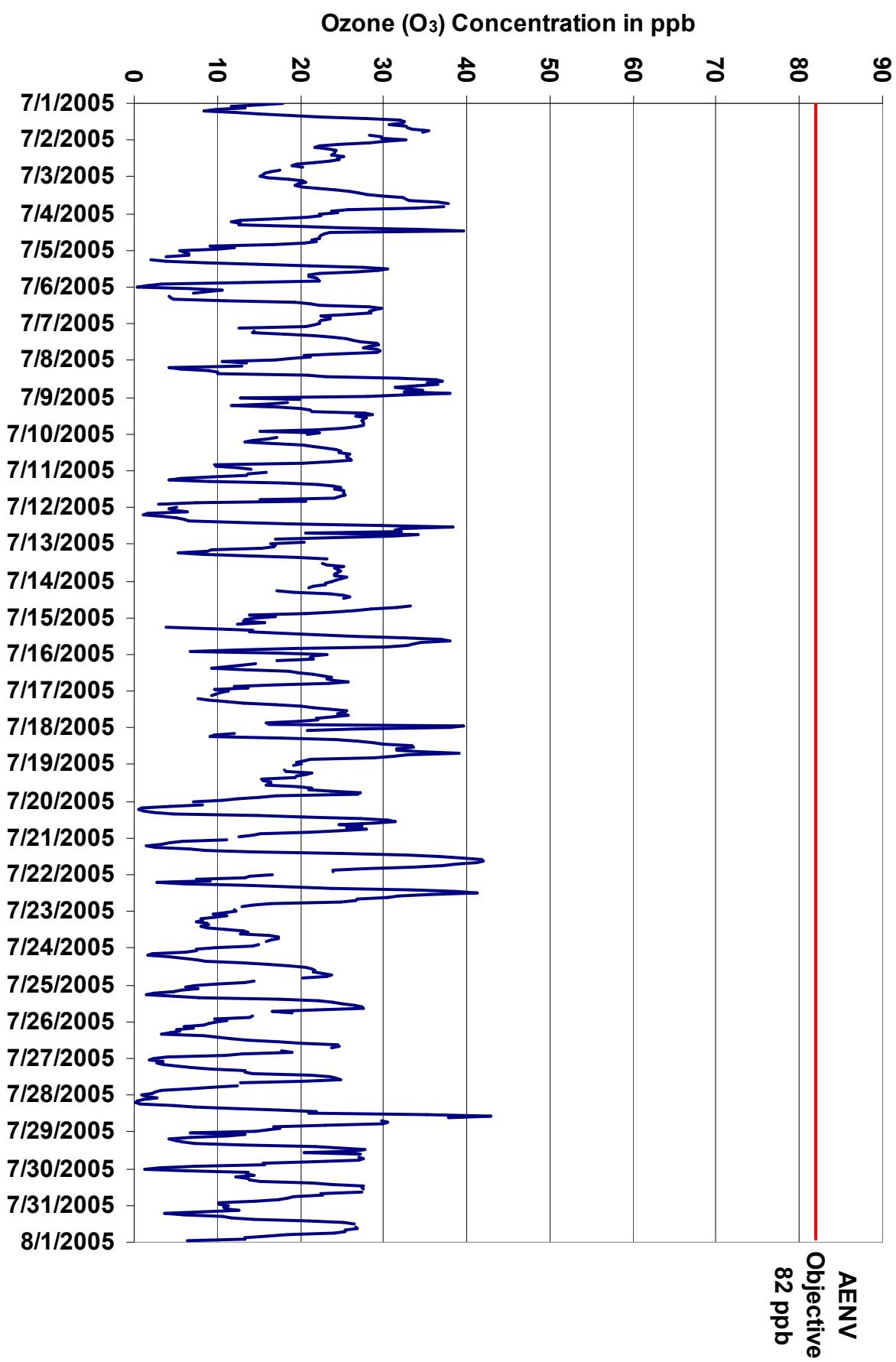
### Ozone (O<sub>3</sub>)



### 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

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

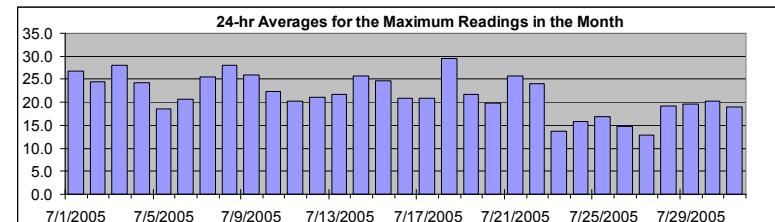


Station: Henry Pirker  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY MAXIMUM TABLE

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



#### Summary

Maximum 1-hr Value:	58.0	ppb	4-Jul	10:00	11:00
Maximum 24-hr Value:	29.6	ppb	18-Jul		

AIC Time:	32 hrs	Operational Time:	707 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	
	43.4 37.8 27.4 22.4 14.7 6.1 3.0		21.7 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

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	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-Jul-05	21 1:00	21	15	16	13	14	14	17	21	27	31	33	34	35	32	35	35	36	37	36	A	32	32	31	26.8	36.5	
2-Jul-05	35 1:00	32	30	27	25	24	24	26	26	26	25	27	26	26	25	24	21	20	22	A	19	18	17	24.5	35.2		
3-Jul-05	16 1:00	18	20	22	22	21	21	21	24	26	27	28	31	33	34	37	39	42	A	41	37	33	28.1	41.5			
4-Jul-05	25 1:00	25	24	24	21	15	15	15	16	25	29	58	57	26	24	24	24	24	24	25	21	13	17	24.4	58.0		
5-Jul-05	10 1:00	11	10	9	6	A	3	7	13	22	24	31	34	31	31	26	25	24	25	26	26	20	8	7	18.6	33.6	
6-Jul-05	4 1:00	13	12	10	8	A	8	7	12	18	22	25	26	32	33	31	31	28	26	25	25	25	24	24	20.7	32.6	
7-Jul-05	24 1:00	23	23	21	A	17	16	20	24	26	28	28	31	31	30	29	32	31	31	28	23	23	22	25.5	31.7		
8-Jul-05	19 1:00	18	19	A	16	10	10	15	16	17	25	28	37	39	40	38	38	37	36	38	40	41	37	33	28.1	41.3	
9-Jul-05	25 1:00	24	A	21	20	15	23	23	25	27	30	30	29	29	29	29	29	30	29	29	28	25	25	25	25.9	29.8	
10-Jul-05	24 1:00	A	19	18	19	19	16	20	22	23	25	25	27	26	28	28	27	28	26	23	23	17	12	17	22.3	28.2	
11-Jul-05	11 1:00	A	18	18	15	14	8	6	13	22	24	26	27	27	27	27	26	25	25	25	24	16	6	A	20.3	27.2	
12-Jul-05	19 1:00	7	7	8	6	3	5	8	9	12	18	27	35	42	36	36	34	35	37	36	29	21	A	21.0	42.2		
13-Jul-05	19 1:00	18	19	18	14	14	9	14	16	24	24	C	24	25	27	26	27	26	26	26	26	26	27	26	21.6	27.4	
14-Jul-05	25 1:00	24	24	24	23	22	A	19	22	26	27	28	27	C	C	C	A	35	33	30	28	26	23	21	25.7	35.2	
15-Jul-05	18 1:00	16	16	18	17	A	8	14	16	16	21	27	30	38	40	41	41	36	37	36	25	20	11	24	24.7	41.5	
16-Jul-05	25 1:00	22	23	24	20	A	17	15	14	12	16	21	22	24	26	27	25	26	27	26	22	18	16	14	20.9	27.0	
17-Jul-05	15 1:00	12	12	11	A	10	11	12	15	19	22	24	26	27	27	26	27	27	23	24	22	19	26	43	20.8	42.7	
18-Jul-05	43 1:00	31	25	A	14	13	15	23	26	29	30	34	35	39	34	34	38	43	38	33	33	26	22	21	29.6	43.4	
19-Jul-05	22 1:00	21	A	19	20	24	23	22	21	18	17	18	20	21	22	26	26	26	31	31	23	18	17	13	21.7	31.3	
20-Jul-05	13 1:00	A	11	8	3	2	3	4	10	18	27	30	34	33	32	28	32	28	30	28	24	20	21	18	19.9	33.8	
21-Jul-05	13 1:00	A	13	8	7	6	3	6	8	12	18	33	35	40	41	44	44	44	40	40	37	32	28	27	25.7	44.1	
22-Jul-05	19 1:00	17	17	13	11	5	12	19	21	29	39	41	45	41	36	33	31	28	29	21	17	15	A	15	44.5		
23-Jul-05	13 1:00	12	12	12	13	12	9	9	9	10	10	10	13	15	15	14	19	19	19	18	18	A	18	16	13.6	19.3	
24-Jul-05	12 1:00	11	10	9	5	4	7	10	11	16	18	20	22	23	23	23	24	25	25	22	A	16	15	12	15.8	25.5	
25-Jul-05	9 1:00	8	10	7	6	4	4	7	11	23	24	27	26	28	29	29	28	21	23	A	19	17	14	16.8	28.7		
26-Jul-05	12 1:00	11	10	8	9	8	8	7	6	12	12	14	17	21	22	27	26	26	26	22	23	16	15	7	14.7	26.8	
27-Jul-05	4 1:00	5	5	6	5	7	9	13	15	14	19	23	25	25	26	26	26	20	A	15	12	8	6	5	4	12.9	26.4
28-Jul-05	2 1:00	3	5	3	2	1	2	8	11	16	19	24	26	43	46	42	A	32	33	33	28	23	21	19.2	45.7		
29-Jul-05	19 1:00	14	16	14	12	6	10	8	11	17	27	31	31	31	30	A	29	30	29	25	19	20	18	6	19.7	30.8	
30-Jul-05	4 1:00	16	15	15	17	16	16	15	21	24	27	29	29	29	A	29	25	27	21	21	23	19	13	20.3	29.4		
31-Jul-05	13 1:00	13	14	15	12	6	11	13	14	18	24	27	28	A	28	28	28	28	28	23	19	18	15	13	18.9	28.5	
Hourly Avg		17.2	16.4	15.5	14.5	12.9	10.7	11.7	14.1	16.9	20.6	25.0	27.6	28.5	30.5	30.2	29.9	29.6	29.5	28.5	27.6	24.2	20.8	19.1	18.6		
Hourly Max		42.8	31.7	29.8	26.7	24.8	24.3	24.3	26.1	26.3	29.5	58.0	57.4	44.5	43.3	45.7	43.9	44.1	43.4	39.5	40.7	39.9	41.3	36.8	42.7		

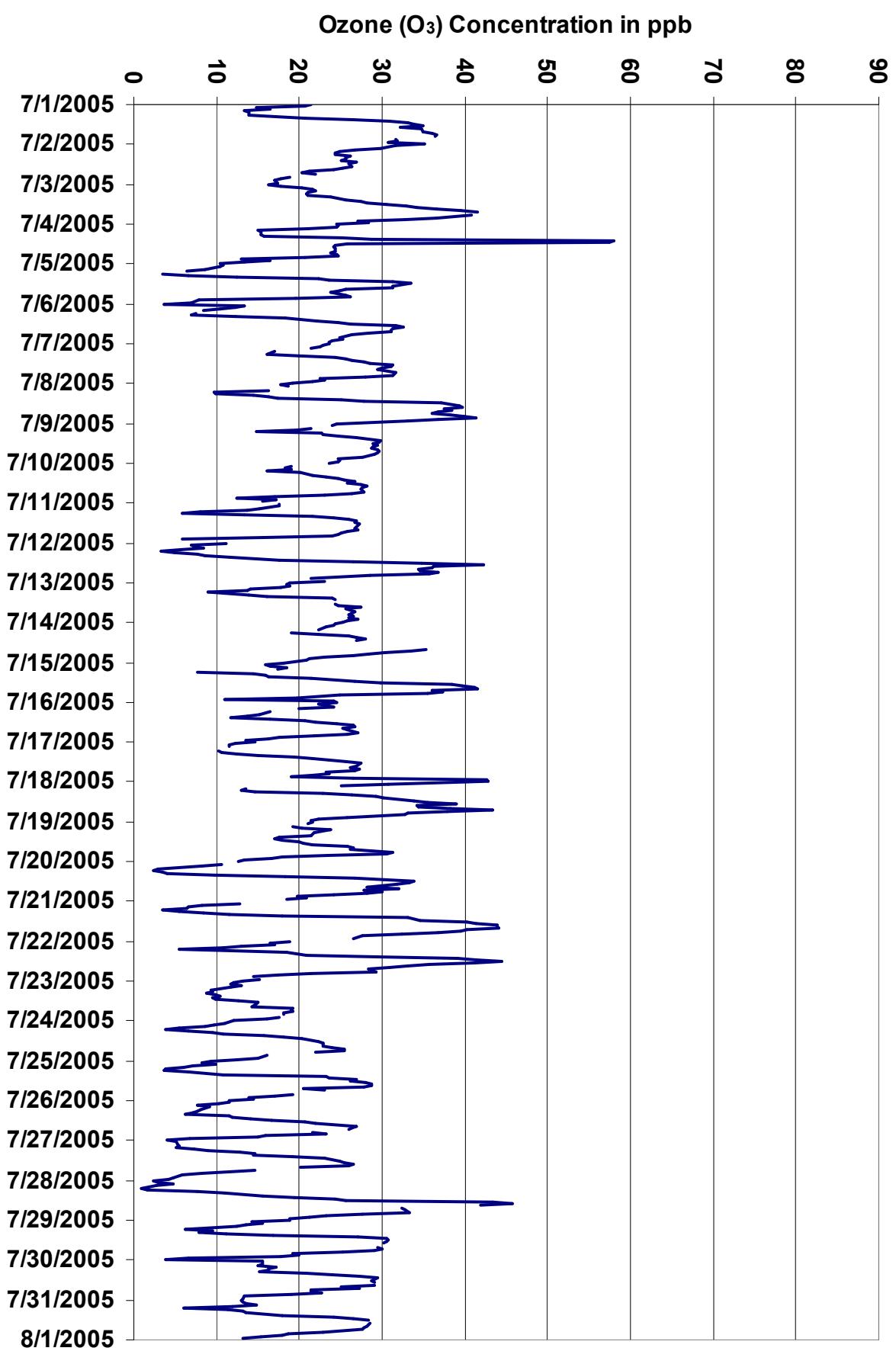
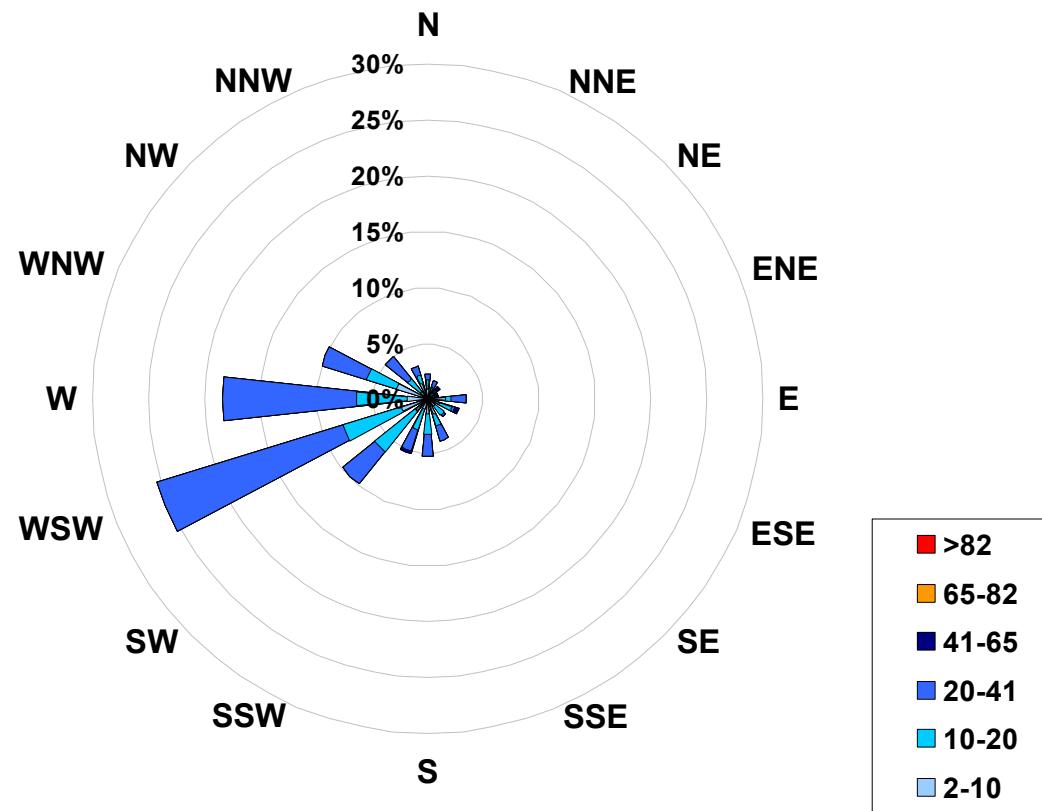


Figure 8. PASZA - Henry Pirker Ozone 1-hr Maximum Value Monthly Trend

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



**Calms:** 0%

Frequency Distribution of O <sub>3</sub> in ppb			
Range		Frequency (hrs)	
2.0	< 10		155
10	to 20		206
20	to 41		341
41	to 65		5
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

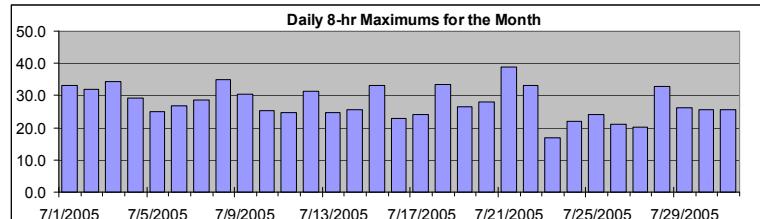
#### Ozone (O<sub>3</sub>)

Monitoring Dates: July 1, 2005 to August 1, 2005

Objective Limit: Alberta Environment: 8-hr 65 ppb

#### Summary

Number of 8-hr Exceedances:	0
Maximum 8-hr Average:	38.8 ppb 21-Jul 19:00 20:00



#### 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

	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 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	24:00	0:00	
1-Jul-05	25	22	19	17	14	14	13	13	13	14	16	18	21	24	26	29	30	32	33	33	33	33	32	32	32	33.2
2-Jul-05	32	32	30	29	28	27	27	26	25	24	24	24	24	24	24	24	23	23	22	22	21	20	19	18	32.0	
3-Jul-05	17	17	16	17	17	18	18	19	20	21	22	22	23	25	26	28	30	31	32	33	34	34	33	31	34.3	
4-Jul-05	29	27	26	24	21	19	18	17	16	17	18	21	22	24	25	26	27	26	25	22	21	20	18	17	29.3	
5-Jul-05	15	13	11	9	7	7	6	5	5	7	9	12	16	17	20	23	24	25	25	24	23	21	18	16	25.1	
6-Jul-05	13	11	10	8	6	5	6	6	7	7	9	10	12	14	18	21	24	26	27	27	27	26	25	25	26.9	
7-Jul-05	24	23	22	21	21	19	18	18	18	19	21	21	23	25	26	27	28	28	29	28	27	26	25	25	28.7	
8-Jul-05	24	21	19	18	16	14	12	10	9	9	10	12	14	18	22	26	29	32	33	35	35	35	34	33	34.9	
9-Jul-05	30	29	28	26	24	20	18	17	18	18	19	21	22	24	25	26	27	28	28	27	27	26	25	24	30.5	
10-Jul-05	23	23	21	20	18	17	17	17	17	18	19	20	21	23	24	25	25	25	25	25	23	21	19	18	25.3	
11-Jul-05	17	15	14	13	13	12	11	10	11	12	13	15	16	19	21	24	24	25	25	24	23	21	18	17	24.8	
12-Jul-05	14	11	9	7	5	4	4	4	4	4	5	7	10	15	19	22	25	27	30	31	30	28	27	26	31.2	
13-Jul-05	23	23	20	18	16	15	14	12	12	12	13	13	N	N	N	N	N	N	N	24	24	24	25	24	24.6	
14-Jul-05	24	24	24	23	23	22	21	21	22	22	N	N	N	N	N	N	N	N	N	N	N	N	25	24	25.5	
15-Jul-05	22	20	18	17	15	14	13	12	12	12	13	15	18	22	25	28	30	32	33	32	30	26	23	23	33.2	
16-Jul-05	22	20	19	18	18	19	19	17	15	14	14	15	16	17	19	21	22	23	23	21	20	19	19	23.0		
17-Jul-05	17	15	13	12	11	10	10	10	10	11	12	14	15	18	20	21	23	24	24	24	22	21	21	23	24.0	
18-Jul-05	25	25	25	24	23	22	19	17	17	18	20	22	25	28	30	31	33	33	33	31	30	28	28	33.4		
19-Jul-05	27	24	23	21	20	20	20	20	19	19	18	18	17	17	18	18	19	19	20	21	21	21	19	26.6		
20-Jul-05	18	17	14	11	8	6	5	4	3	5	6	9	13	17	20	23	26	27	28	28	26	24	23	21	27.9	
21-Jul-05	20	18	15	12	9	8	6	5	5	6	8	12	16	21	26	30	34	37	39	39	38	36	34	32	38.8	
22-Jul-05	29	25	22	18	15	12	10	10	11	12	14	18	22	26	30	32	33	33	32	29	26	23	22	19	33.1	
23-Jul-05	17	15	13	12	11	11	10	10	9	9	9	8	9	9	10	11	12	13	14	15	15	16	16	16	17.0	
24-Jul-05	15	14	12	11	9	8	7	6	6	6	7	9	11	14	16	18	19	21	22	22	22	21	20	18	22.1	
25-Jul-05	16	14	11	9	9	7	6	5	5	6	8	11	13	16	19	22	24	24	24	23	22	20	18	15	24.0	
26-Jul-05	13	12	11	10	9	8	8	7	6	6	6	7	8	9	11	14	16	18	19	20	21	20	19	16	21.0	
27-Jul-05	13	10	9	7	5	4	4	4	6	7	9	11	13	16	18	19	19	20	20	18	16	13	10	7	20.2	
28-Jul-05	5	5	4	3	2	1	1	2	2	4	6	8	11	15	20	24	27	29	31	32	33	30	26	23	32.7	
29-Jul-05	22	19	17	15	13	11	10	8	8	8	9	11	14	16	19	21	23	25	26	25	24	22	20	18	26.2	
30-Jul-05	15	12	11	10	9	9	10	11	13	15	16	18	19	21	22	24	25	26	25	24	22	20	19	17	25.5	
31-Jul-05	16	14	13	12	11	10	9	9	9	10	11	13	15	17	19	22	24	25	26	25	23	22	20	18	25.7	

Hourly Max 32.0 31.5 30.5 29.0 28.2 27.4 26.6 25.9 24.8 24.1 23.5 23.6 23.9 26.4 29.6 31.7 34.2 37.2 38.7 38.8 37.7 35.7 34.3 33.4

## PASZA - Henry Pirker Carbon Monoxide Monthly Summary

Station: Henry Pirker  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

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

**Summary**

Number of 1-hr Exceedances: 0

Maximum 1-hr Average: 0.6 ppm 1-Jul 0:00 1:00

Maximum 24-hr Value: 0.3 ppm 1-Jul

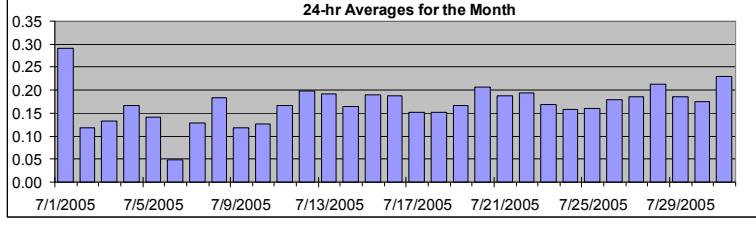
AIC Time:	32 hrs	Operational Time:	706 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	99.9%
Percentile	99 95 75 50 25 5 1	Average	0.2 ppm
	0.4 0.3 0.2 0.2 0.1 0.1 0.0		

**Day Mountain Standard Time**

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum		
	Hour Start	Hour End																										
	Hour Start	Hour End																										
1-Jul-05	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.1	A	0.1	0.1	0.1	0.29	0.58	
2-Jul-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12	0.15	
3-Jul-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.2	0.2	0.13	0.18	
4-Jul-05	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.25	
5-Jul-05	0.3	0.2	0.2	0.2	0.2	A	0.3	0.4	0.2	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.14	0.42	
6-Jul-05	0.3	0.1	0.0	0.0	0.0	A	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05	0.34	
7-Jul-05	0.1	0.1	0.1	0.1	A	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.13	0.17	
8-Jul-05	0.2	0.1	0.2	A	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.18	0.34	
9-Jul-05	0.2	0.1	A	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12	0.16	
10-Jul-05	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.13	0.21	
11-Jul-05	A	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	A	0.17	0.33	
12-Jul-05	0.2	0.2	0.1	0.1	0.2	0.3	0.4	0.3	0.3	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	0.2	A	0.20	0.42	
13-Jul-05	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	C	C	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.26
14-Jul-05	0.2	0.2	0.1	0.1	0.1	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	0.16	0.21	
15-Jul-05	0.2	0.2	0.2	0.2	0.2	A	0.3	0.2	0.2	C	C	C	A	D	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.3	0.3	0.2	0.19	0.27		
16-Jul-05	0.1	0.1	0.1	0.1	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.27	
17-Jul-05	0.2	0.2	0.2	A	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.15	0.21	
18-Jul-05	0.1	0.2	0.2	A	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.15	0.21	
19-Jul-05	0.1	0.1	A	0.1	0.1	0.1	0.2	0.1	0.1	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	0.1	0.17	0.23	
20-Jul-05	0.2	A	0.1	0.1	0.2	0.2	0.4	0.6	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.57	
21-Jul-05	A	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.2	0.2	A	0.19	0.29	
22-Jul-05	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	A	0.19	0.28		
23-Jul-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	A	0.17	0.20		
24-Jul-05	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.22		
25-Jul-05	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2	A	0.2	0.2	0.2	0.2	0.16	0.26		
26-Jul-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.28		
27-Jul-05	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.28		
28-Jul-05	0.3	0.2	0.1	0.2	0.3	0.4	0.5	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	0.21	0.46		
29-Jul-05	0.2	0.2	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.19	0.33		
30-Jul-05	0.3	0.3	0.1	0.2	0.1	0.1	0.2	0.2	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	0.17	0.32		
31-Jul-05	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.23	0.45			

### HOURLY AVERAGE TABLE

### Carbon Monoxide (CO)



### 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

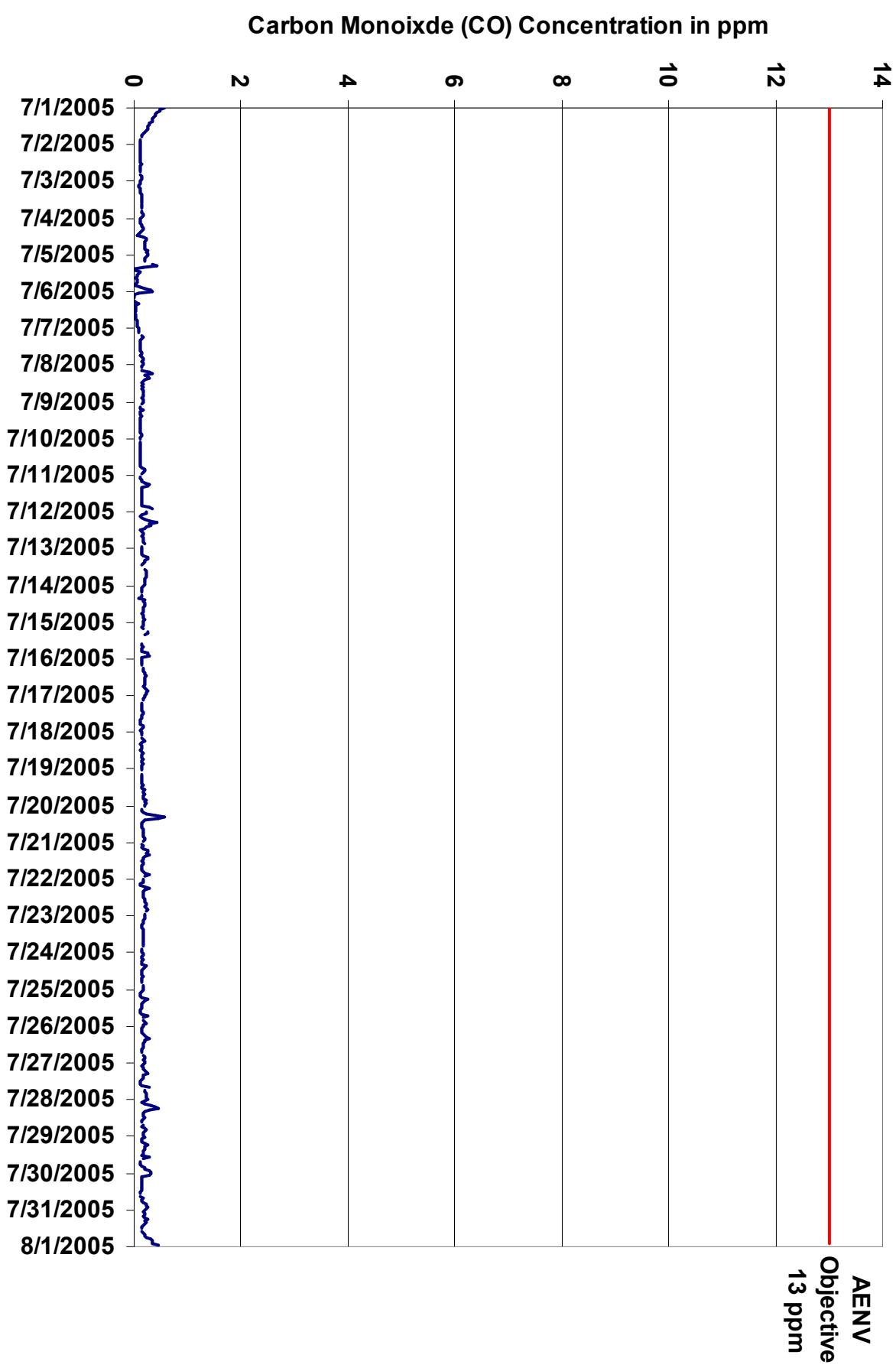


Figure 9. PASZA - Henry Pirker Carbon Monoxide 1-hr Average Monthly Trend

Station: Henry Pirker  
 Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY MAXIMUM TABLE

### Carbon Monoxide (CO)

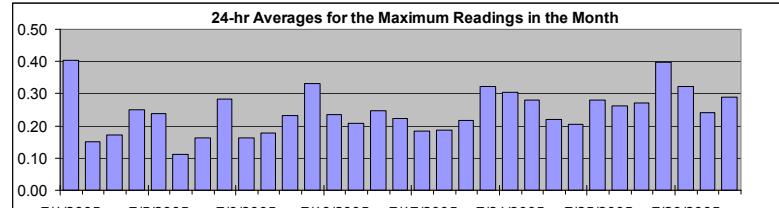
#### Summary

Maximum 1-hr Value:	1.4	ppm	28-Jul	4:00 5:00
Maximum 24-hr Value:	0.4	ppm	1-Jul	

AIC Time:	32 hrs	Operational Time:	706 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	99.9%
Percentile			Average
99	95	75	50
0.9	0.5	0.3	0.2
25	5	1	
0.2	0.1	0.05	0.1

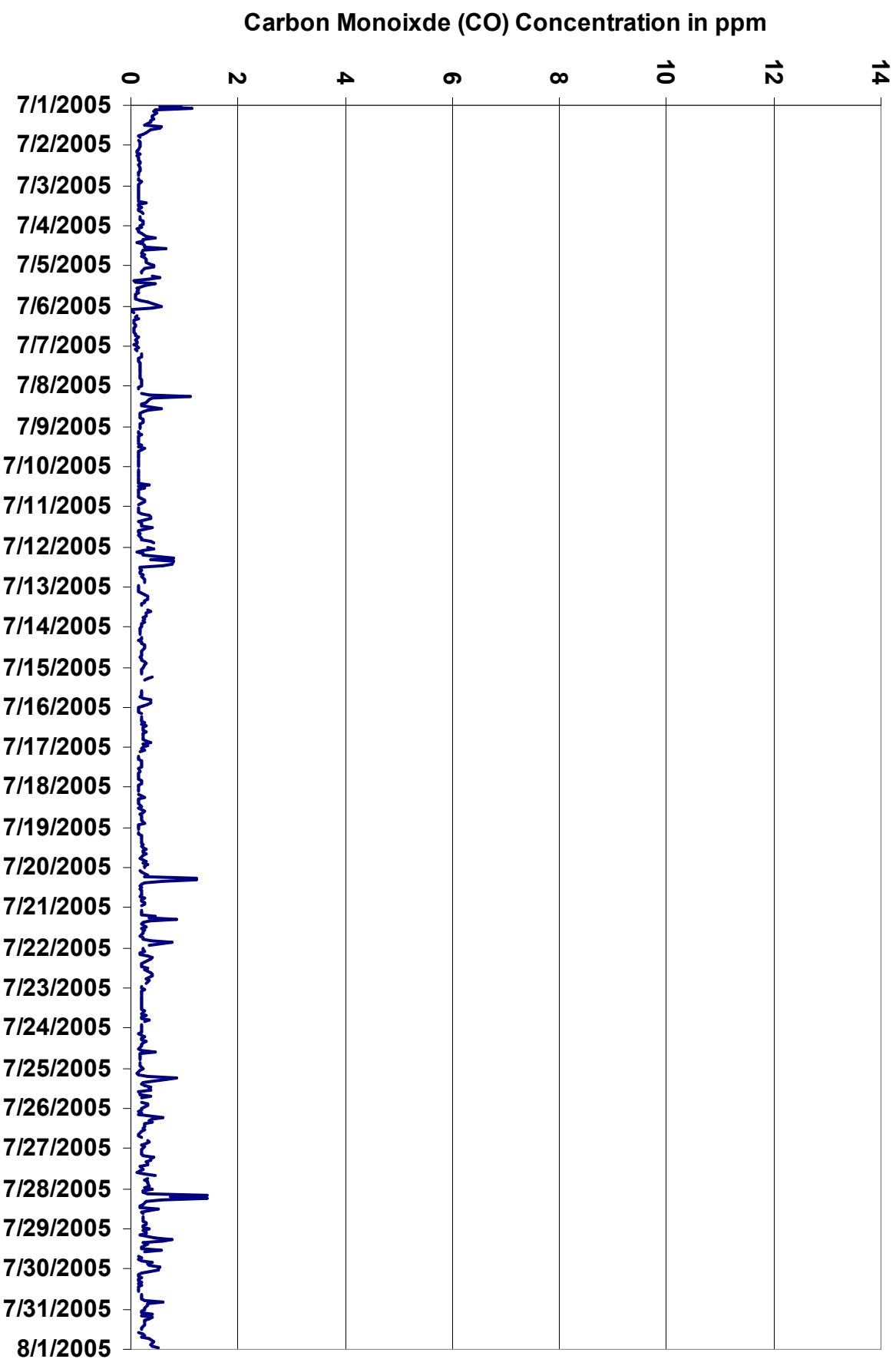
#### Day Mountain Standard Time

	Hour Start 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
1-Jul-05	0.9	0.5	1.1	0.5	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.6	0.6	0.4	0.3	0.2	0.1	0.2	A	0.1	0.2	0.2	0.40	1.13
2-Jul-05	0.2	0.2	0.2	0.1	0.1	0.2	0.1	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	A	0.2	0.2	0.2	0.15	0.20	
3-Jul-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	A	0.2	0.2	0.2	0.17	0.29	
4-Jul-05	0.2	0.2	0.1	0.2	0.1	0.2	0.3	0.5	0.2	0.2	0.1	0.2	0.3	0.3	0.3	0.7	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.25	0.66
5-Jul-05	0.4	0.4	0.3	0.2	0.2	A	0.4	0.5	0.3	0.0	0.1	0.5	0.3	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.3	0.24	0.54
6-Jul-05	0.6	0.4	0.0	0.0	0.1	A	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.11	0.58
7-Jul-05	0.1	0.1	0.1	0.1	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.16	0.21
8-Jul-05	0.2	0.2	0.2	A	0.2	0.3	1.1	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.28	1.10
9-Jul-05	0.2	0.2	A	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	A	0.2	0.2	0.2	0.16	0.24
10-Jul-05	0.2	A	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.18	0.35
11-Jul-05	A	0.2	0.1	0.1	0.2	0.3	0.4	0.4	0.2	0.1	0.2	0.2	0.2	0.4	0.1	0.1	0.2	0.1	0.2	0.2	0.2	A	0.2	0.2	0.4	0.23	0.43
12-Jul-05	0.3	0.4	0.2	0.1	0.2	0.2	0.5	0.8	0.4	0.8	0.8	0.6	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.33	0.80
13-Jul-05	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	C	C	0.3	0.4	0.3	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.24	0.38	
14-Jul-05	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.21	0.28
15-Jul-05	0.2	0.2	0.2	0.2	0.2	A	0.4	0.3	0.3	C	C	C	A	D	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.3	0.2	0.25	0.40
16-Jul-05	0.1	0.1	0.1	0.1	0.2	A	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.22	0.37
17-Jul-05	0.2	0.2	0.3	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.18	0.26
18-Jul-05	0.2	0.2	0.2	A	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.19	0.26
19-Jul-05	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.22	0.32
20-Jul-05	0.3	A	0.2	0.2	0.3	0.3	1.2	1.2	0.6	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.32	1.23
21-Jul-05	A	0.2	0.2	0.2	0.4	0.3	0.9	0.3	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.4	0.30	0.85
22-Jul-05	0.2	0.2	0.3	0.2	0.2	0.3	0.4	0.4	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	A	0.2	0.2	0.3	0.28	0.41
23-Jul-05	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.22	0.35
24-Jul-05	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	0.4	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.20	0.44
25-Jul-05	0.2	0.2	0.1	0.1	0.3	0.9	0.7	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.1	0.2	0.2	0.4	0.3	0.3	A	0.2	0.3	0.3	0.28	0.85
26-Jul-05	0.2	0.2	0.2	0.2	0.2	0.6	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.3	0.2	0.26	0.60
27-Jul-05	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.5	A	0.3	0.3	0.3	0.3	0.27	0.46		
28-Jul-05	0.4	0.2	0.2	0.3	1.4	0.7	1.4	0.6	0.3	0.2	0.2	0.2	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.40	1.43
29-Jul-05	0.3	0.2	0.3	0.3	0.2	0.4	0.8	0.6	0.2	0.3	0.2	0.2	0.6	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.4	0.32	0.78
30-Jul-05	0.5	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.3	0.3	0.24	0.61
31-Jul-05	0.3	0.2	0.2	0.4	0.2	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	A	0.2	0.4	0.4	0.29	0.51
Hourly Avg	0.26	0.23	0.21	0.18	0.23	0.30	0.40	0.36	0.25	0.23	0.22	0.23	0.21	0.26	0.23	0.20	0.21	0.20	0.19	0.22	0.26	0.27	0.25	0.24			
Hourly Max	0.94	0.54	1.13	0.46	1.43	0.74	1.42	1.23	0.61	0.79	0.77	0.61	0.52	0.58	0.66	0.38	0.46	0.40	0.33	0.43	0.61	0.76	0.43	0.54			

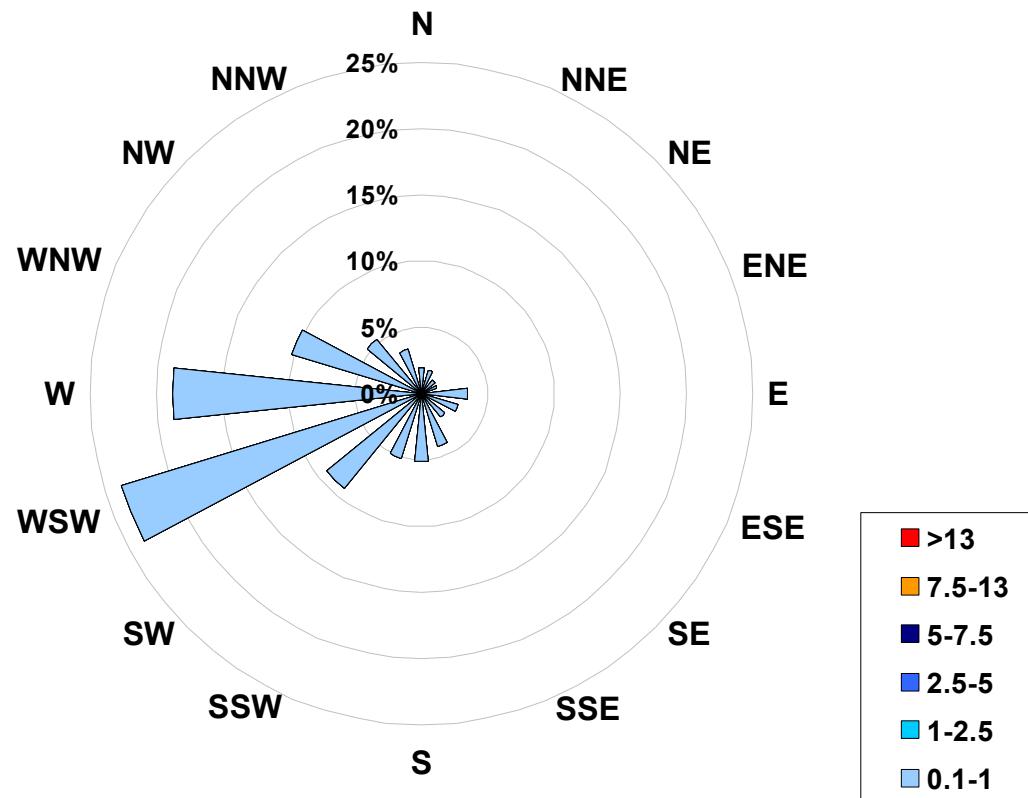


C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Figure 10. PASZA - Henry Pirker Carbon Monoixde 1-hr Maximum Value Monthly Trend



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



Calms:	0%
--------	----

Frequency Distribution of CO in ppm		
Range	Frequency (hrs)	
0.1 < 1	706	
1 to 2.5	0	
2.5 to 5	0	
5 to 7.5	0	
7.5 to 13	0	
> 13	0	
Total Non-Zero Values	706	

## PASZA - Henry Pirker Carbon Monoxide Monthly Summary

Station: Henry Pirker  
Station Owner: PASZA

### EIGHT HOUR RUNNING AVERAGE TABLE

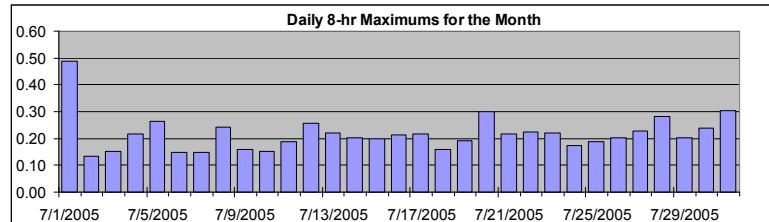
### Carbon Monoxide (CO)

Monitoring Dates: July 1, 2005 to August 1, 2005

Objective Limit: Alberta Environment: 8-hr 5 ppm

#### Summary

Number of 8-hr Exceedances: 0  
Maximum 8-hr Average: 0.5 ppm 1-Jul 3:00 4:00



#### 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

	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	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	
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-Jul-05	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1
2-Jul-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
3-Jul-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
4-Jul-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.22
5-Jul-05	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.27
6-Jul-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.15
7-Jul-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.15
8-Jul-05	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
9-Jul-05	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16
10-Jul-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
11-Jul-05	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	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.19
12-Jul-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	0.26
13-Jul-05	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	0.2	N	N	N	N	N	N	0.2	0.2	0.2	0.22
14-Jul-05	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
15-Jul-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	N	N	N	N	N	N	N	N	N	N	N	N	N	0.2	0.2	0.2	0.20
16-Jul-05	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
17-Jul-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
18-Jul-05	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.16
19-Jul-05	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
20-Jul-05	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.30
21-Jul-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
22-Jul-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
23-Jul-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
24-Jul-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	0.17
25-Jul-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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.19
26-Jul-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	0.20
27-Jul-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	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
28-Jul-05	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.28
29-Jul-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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.20
30-Jul-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	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.24
31-Jul-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	0.30

Hourly Max 0.43 0.46 0.48 0.49 0.48 0.47 0.46 0.43 0.40 0.38 0.36 0.34 0.32 0.30 0.29 0.28 0.26 0.24 0.22 0.21 0.23 0.24 0.27 0.30

## PASZA - Henry Pirker Total Hydrocarbons Monthly Summary

Station: Henry Pirker  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

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

Maximum 1-hr Average:	2.9	ppm	30-Jul	0:00 1:00
Maximum 24-hr Value:	2.2	ppm	12-Jul	

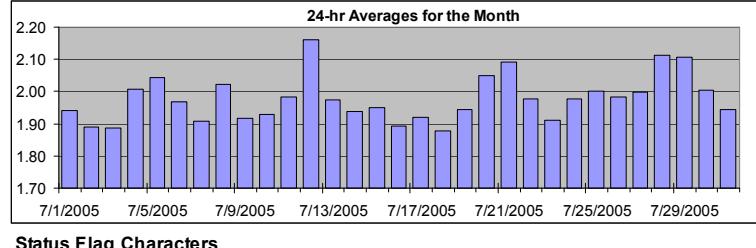
AIC Time:	41 hrs	Operational Time:	700 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	
	2.5	2.3	2.0	1.9	1.9	1.9	1.8		2.0 ppm

### Day Mountain Standard Time

	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	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-hour Average			
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	24:00				
1-Jul-05	2.0	2.1	2.0	2.1	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.13	
2-Jul-05	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.89	1.97	
3-Jul-05	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	2.0	1.89	1.97		
4-Jul-05	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.1	1.9	2.2	2.6	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.01	2.62	
5-Jul-05	2.2	2.2	2.1	2.3	2.3	A	2.3	2.4	2.1	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	2.04	2.36	
6-Jul-05	2.5	2.1	2.0	2.0	2.0	A	2.2	2.1	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.97	2.51	
7-Jul-05	1.9	1.9	1.9	A	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.98	
8-Jul-05	2.1	A	2.0	A	2.5	2.4	2.3	2.1	2.1	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	2.02	2.48	
9-Jul-05	A	2.0	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	2.03	
10-Jul-05	1.9	A	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	2.0	1.93	2.03	
11-Jul-05	A	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.1	2.1	A	1.98	2.18	
12-Jul-05	2.3	2.4	2.3	2.3	2.5	2.5	2.4	2.5	2.4	2.3	2.2	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	1.9	1.9	1.9	2.16	2.53	
13-Jul-05	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	2.0	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.97	2.03	
14-Jul-05	2.0	2.0	2.0	1.9	1.9	A	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.03	
15-Jul-05	2.1	2.2	2.1	2.0	2.0	A	2.1	2.0	1.9	1.9	1.9	1.9	1.9	C	C	A	A	A	1.7	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.95	2.15
16-Jul-05	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.8	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	2.05	
17-Jul-05	2.1	2.1	2.1	2.0	A	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	2.14	
18-Jul-05	1.9	1.9	1.8	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.88	1.94	
19-Jul-05	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.27	
20-Jul-05	2.4	A	2.2	2.2	2.4	2.3	2.3	2.4	2.3	2.0	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.05	2.38	
21-Jul-05	A	2.1	2.3	2.4	2.3	2.5	2.3	2.3	2.3	2.2	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.09	2.48	
22-Jul-05	2.0	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.98	2.18	
23-Jul-05	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.91	1.94	
24-Jul-05	1.9	2.0	2.0	2.1	2.2	2.2	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.98	2.24	
25-Jul-05	2.2	2.4	2.0	2.0	2.0	2.0	2.1	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.00	2.37		
26-Jul-05	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.98	2.38		
27-Jul-05	2.2	2.2	2.1	2.2	2.1	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.00	2.25		
28-Jul-05	2.5	2.4	2.2	2.3	2.7	2.5	2.4	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.8	1.9	2.1	2.4	2.0	2.0	2.11	2.67
29-Jul-05	2.0	2.8	2.1	2.1	2.4	2.1	2.1	2.2	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.11	2.82		
30-Jul-05	2.9	2.4	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.00	2.87		
31-Jul-05	1.9	2.1	1.9	1.9	2.0	2.2	2.1	2.0	2.1	2.1	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.94	2.24		

### HOURLY AVERAGE TABLE

### Total Hydrocarbons (THC)



### 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

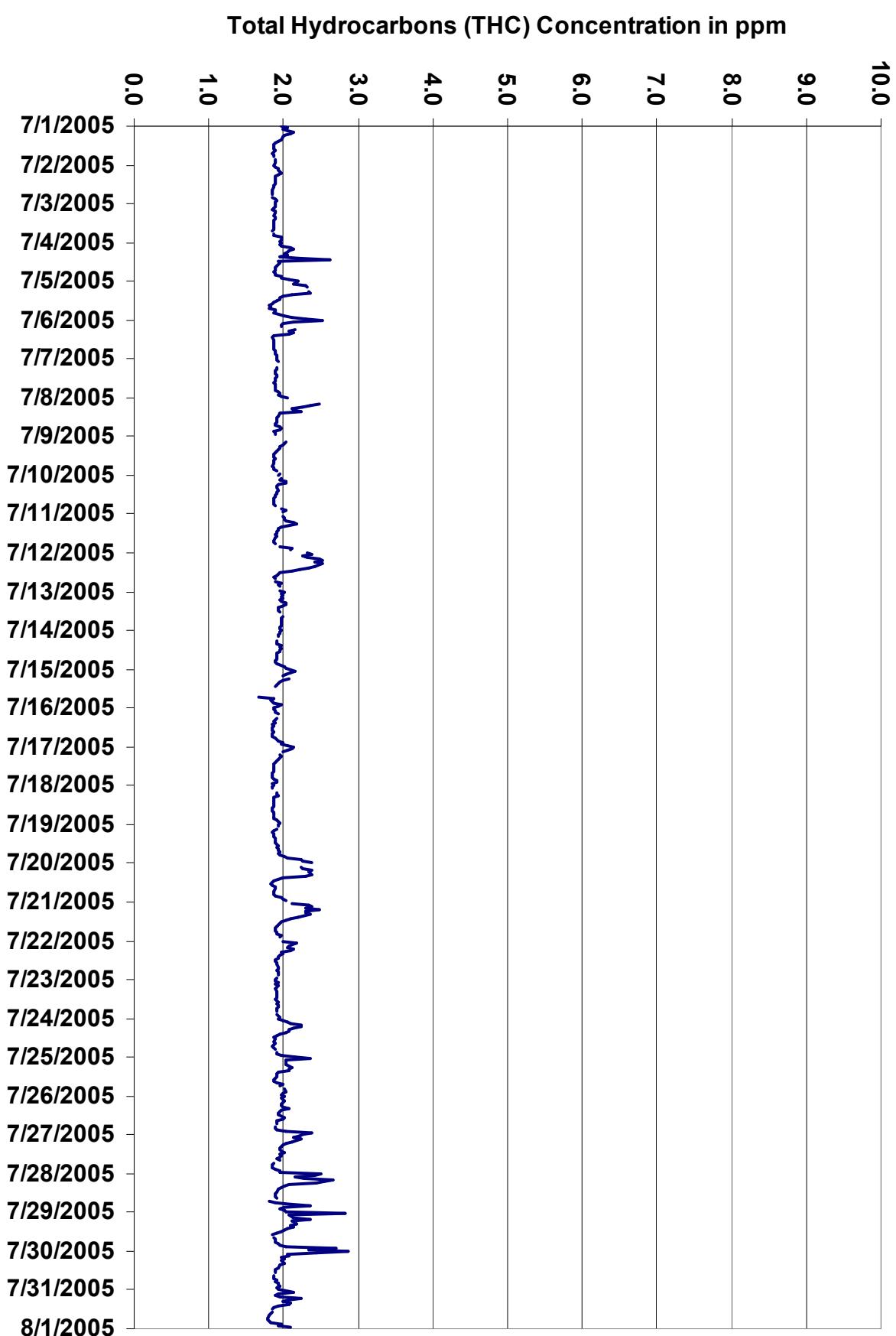


Figure 11. PASZA - Henry Piiker Total Hydrocarbons 1-hr Average Monthly Trend

Station: Henry Pirker  
Station Owner: PASZA

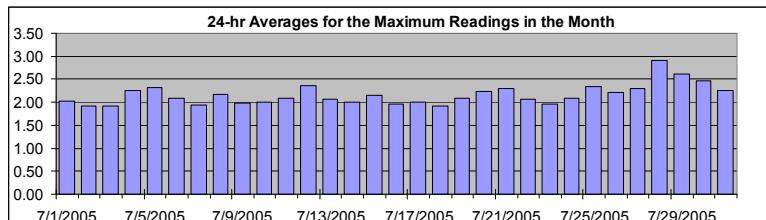
## HOURLY MAXIMUM TABLE

## Total Hydrocarbons (THC)

**Monitoring Dates:** July 1, 2005 to August 1, 2005

## Summary

Maximum 1-hr Value: 6.4 ppm 30-Jul 0:00 1:00  
Maximum 24-hr Value: 2.9 ppm 28-Jul

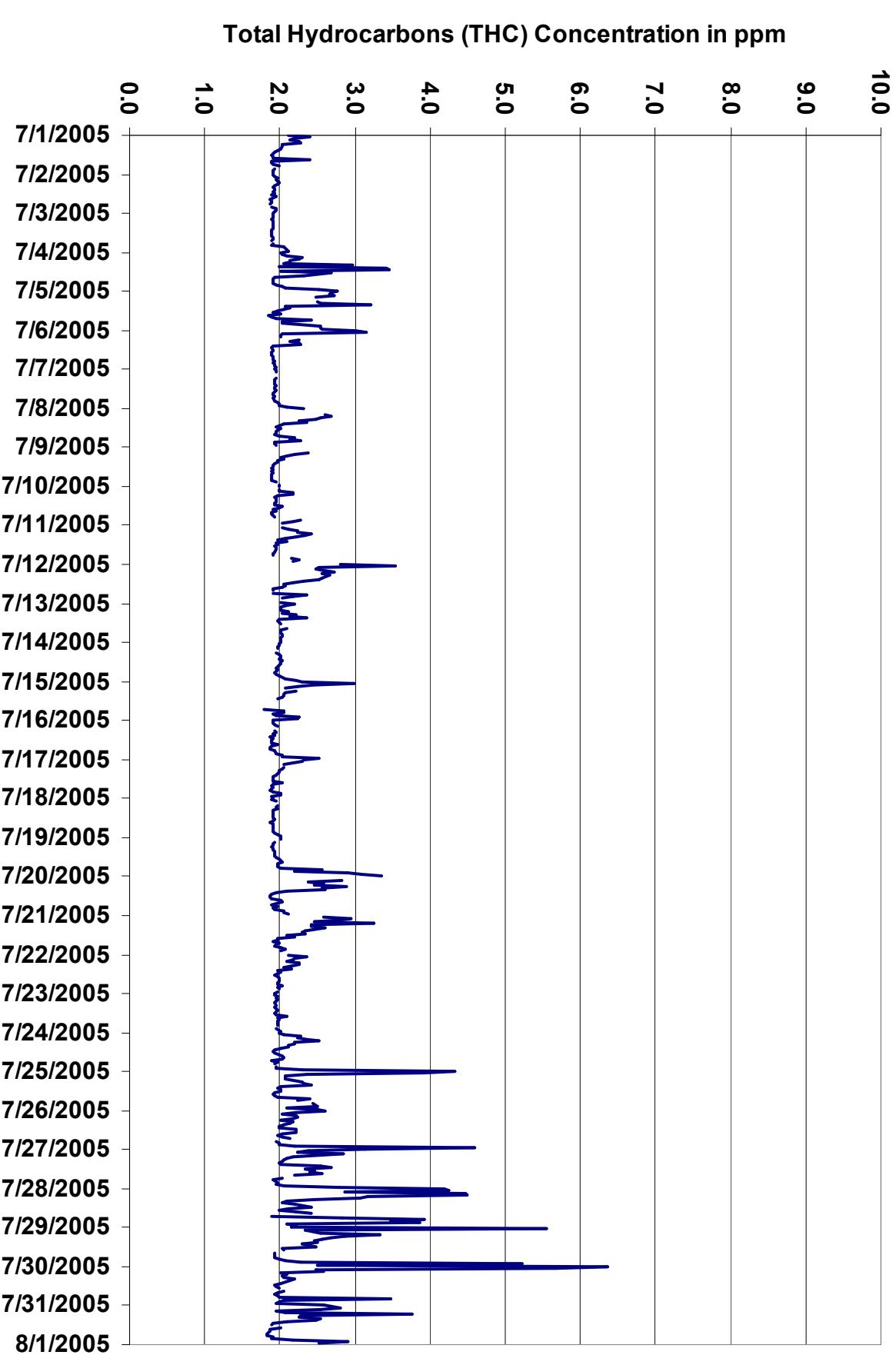


AIC Time:	41 hrs	Operational Time:	700 hrs					
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%					
Percentile	99 4.3	95 2.9	75 2.2	50 2.0	25 1.9	5 1.9	1 1.9	Average 2.2 ppm

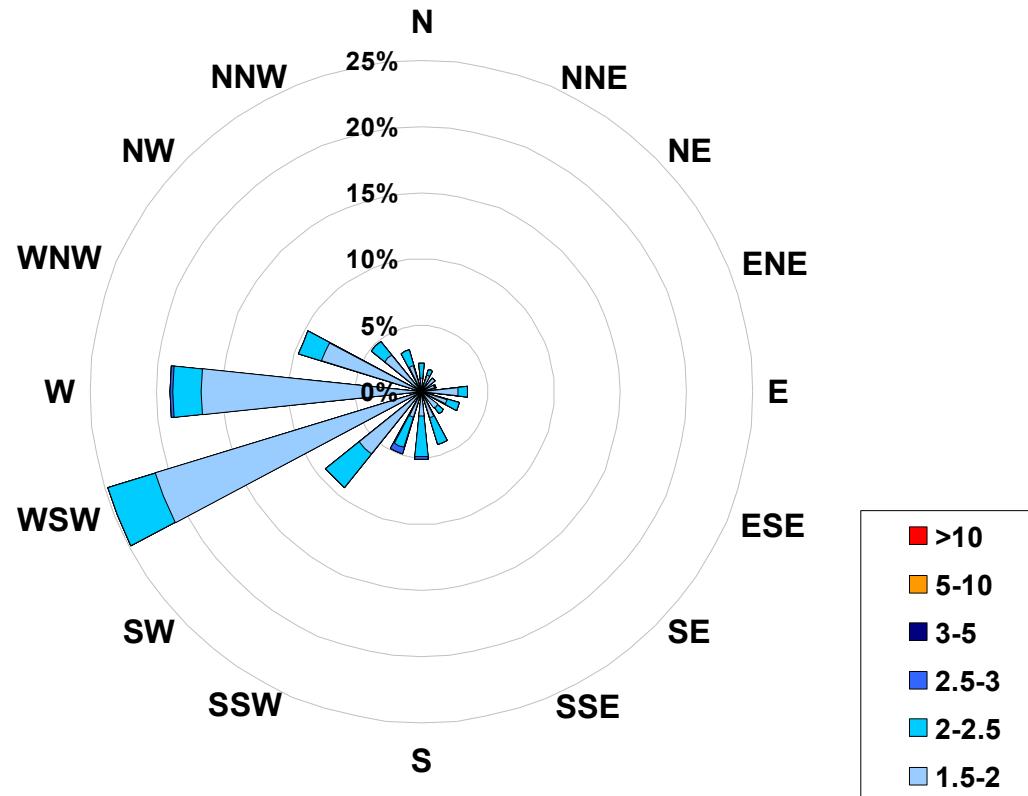
Status Flag Characters	
C	Calibration
S	Instrument out of Service
N	No Data
D	Excessive Instrument Drift
A	AIC - Zero / Span Check
X	Filter Exchange
M	Equipment Maintenance
P	Power Failure

Day	Mountain Standard Time																				Eastern Mountain Time									
	Hour Start 0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum				
	Hour End 1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	1:00					
1-Jul-05	2.1	2.4	2.2	2.1	2.2	2.3	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.4	1.9	1.9	1.9	2.0	A	1.9	1.9	1.9	1.9	2.03	2.41				
2-Jul-05	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	1.9	1.93	2.00					
3-Jul-05	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	2.1	1.93	2.12					
4-Jul-05	2.0	2.0	2.1	2.3	2.3	2.1	2.1	2.1	3.0	2.0	3.4	3.4	2.0	2.7	2.3	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.5	2.25	3.45			
5-Jul-05	2.8	2.7	2.7	2.7	2.5	A	2.5	2.5	3.2	2.1	2.1	2.1	2.0	1.9	2.0	1.8	1.9	1.9	2.4	2.0	2.0	2.5	2.5	2.6	2.33	3.21				
6-Jul-05	3.0	3.2	2.0	2.0	2.0	A	2.3	2.1	2.3	2.3	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.08	3.15			
7-Jul-05	1.9	1.9	1.9	A	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	1.95	2.10				
8-Jul-05	2.3	A	2.3	A	2.6	2.7	2.5	2.5	2.3	2.4	2.1	2.0	2.0	2.0	1.9	2.0	1.9	2.0	2.2	2.1	2.3	1.9	1.9	2.0	2.0	2.17	2.68			
9-Jul-05	A	2.2	A	2.4	2.2	2.1	2.0	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.99	2.37			
10-Jul-05	2.0	A	2.0	2.0	2.2	2.2	2.0	1.9	2.0	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	2.3	2.2	2.0	2.0	2.00	2.28				
11-Jul-05	A	2.0	2.1	2.2	2.2	2.4	2.3	2.2	2.1	2.0	2.1	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	A	2.1	2.3	2.2	A	2.09	2.42				
12-Jul-05	2.8	3.5	2.5	2.5	2.6	2.7	2.6	2.7	2.6	2.5	2.3	2.2	2.1	2.1	2.0	1.9	1.9	A	1.9	2.4	2.2	2.0	A	2.0	2.36	3.55				
13-Jul-05	2.2	2.1	2.0	2.0	2.0	2.1	2.0	2.2	2.1	2.4	2.0	2.0	2.0	2.0	C	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.06	2.36				
14-Jul-05	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.1	2.2	2.00	2.22				
15-Jul-05	2.3	3.0	2.4	2.2	2.1	A	2.2	2.1	2.1	2.1	2.0	2.0	C	C	A	A	A	1.8	2.1	2.1	1.9	1.9	2.3	2.2	2.15	2.99				
16-Jul-05	1.9	1.9	1.9	1.9	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.5	1.95	2.51				
17-Jul-05	2.3	2.3	2.2	2.1	A	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.00	2.33				
18-Jul-05	1.9	1.9	2.0	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.93	2.02				
19-Jul-05	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.6	2.2	2.9	3.1	2.08				
20-Jul-05	3.3	A	2.8	2.4	2.6	2.5	2.9	2.6	2.6	2.1	2.0	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	1.9	1.9	1.9	2.1	2.0	2.1	2.23	3.35			
21-Jul-05	A	2.6	3.0	2.8	2.5	3.3	2.4	2.4	2.6	2.3	2.3	2.3	2.1	2.2	2.0	2.0	1.9	2.0	1.9	1.9	1.9	2.0	2.1	2.0	A	2.30	3.25			
22-Jul-05	2.1	2.4	2.2	2.2	2.1	2.2	2.3	2.1	2.1	2.2	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.07	2.36				
23-Jul-05	1.9	1.9	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	2.0	1.9	1.9	2.0	2.1	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	1.96	2.09					
24-Jul-05	2.0	2.1	2.3	2.2	2.3	2.5	2.2	2.2	2.1	2.1	2.0	1.9	1.9	1.9	2.0	2.1	2.0	2.0	1.9	1.9	A	2.0	2.0	2.3	2.08	2.53				
25-Jul-05	4.3	3.9	2.4	2.1	2.1	2.3	2.3	2.4	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.4	2.2	A	2.4	2.5	2.1	2.5	2.34	4.32					
26-Jul-05	2.6	2.2	2.0	2.2	2.2	2.0	2.2	2.1	2.0	2.0	2.0	2.0	2.2	2.2	2.0	2.0	2.0	2.1	A	1.9	2.0	2.2	2.6	4.59						
27-Jul-05	3.1	2.4	2.2	2.8	2.2	2.1	2.1	2.0	2.0	2.5	2.7	2.3	2.5	2.4	2.6	2.2	A	2.0	1.9	2.0	2.0	2.0	2.0	2.8	2.30	3.12				
28-Jul-05	4.2	4.2	2.9	4.5	4.5	3.2	3.1	2.4	2.1	2.0	2.2	2.4	2.1	2.0	2.2	2.4	A	1.9	2.8	3.9	3.5	3.9	2.1	2.2	2.90	4.50				
29-Jul-05	2.2	5.6	2.3	2.5	3.3	2.9	2.7	2.6	2.5	2.5	2.3	2.4	2.5	2.0	2.1	A	1.9	1.9	1.9	2.0	2.1	2.3	2.5	2.61	5.55					
30-Jul-05	6.4	5.7	2.5	2.6	2.0	2.1	2.0	2.1	2.2	2.1	2.0	1.9	1.9	2.0	A	2.1	2.0	1.9	2.0	2.0	3.5	2.1	2.0	2.47	6.35					
31-Jul-05	2.6	2.8	2.5	1.9	2.1	3.8	2.3	2.2	2.5	2.5	2.1	1.9	1.9	A	2.0	1.9	1.9	1.8	1.8	1.9	1.9	2.2	2.9	2.5	2.26	3.77				

Figure 12. PASZA - Henry Pirker Total Hydrocarbons 1-hr Maximum Value Monthly Trend



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



Calms:	0%
--------	----

Frequency Distribution of THC in ppm			
Range		Frequency (hrs)	
1.5	< 2		516
2	to 2.5		175
2.5	to 3		9
3	to 5		0
5	to 10		0
>	10		0
Total Non-Zero Values			700

## PASZA - Henry Pirker Total Reduced Sulphur Monthly Summary

Station: Henry Pirker  
 Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

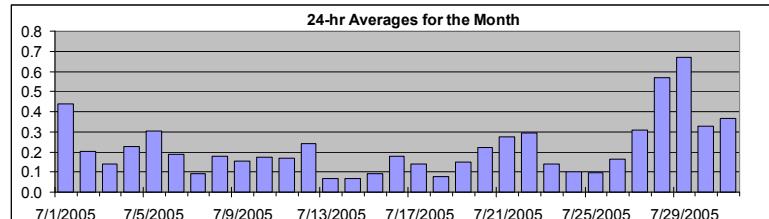
Objective Limit: Alberta Environment: 1-hr na ppb 24-hr na ppb  
**Summary**

Maximum 1-hr Average:	3.0	ppb	29-Jul	1:00 2:00
Maximum 24-hr Value:	0.7	ppb	29-Jul	

AIC Time:	33 hrs	Operational Time:	701 hrs						
Calibration Time:	10 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	0.2 ppb
	1.2	0.6	0.3	0.2	0.1	0.0	0.0		

### HOURLY AVERAGE TABLE

### Total Reduced Sulphur (TRS)



### 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

	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	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	24:00					
1-Jul-05	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.4	0.9		
2-Jul-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	0.2	0.4		
3-Jul-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	0.1	0.2		
4-Jul-05	0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0.2	0.3		
5-Jul-05	0	0	0	0	0	0	A	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5	
6-Jul-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	0.2	0.5	
7-Jul-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	0.1	0.2	
8-Jul-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	0.2	0.5	
9-Jul-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	0.2	0.3	
10-Jul-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	0.2	0.3	
11-Jul-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	0	0.2	0.3	
12-Jul-05	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.5
13-Jul-05	0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
14-Jul-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	0.1	0.2	
15-Jul-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	C	C	A	A	1	0	0	0	0	0	0.1	0.9	
16-Jul-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	0.2	0.3	
17-Jul-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	0.1	0.3	
18-Jul-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	0.1	0.2	
19-Jul-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	0.1	0.6	
20-Jul-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	0	0.2	0.8	
21-Jul-05	A	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8	
22-Jul-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	0	A	0	0.3	0.5
23-Jul-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	0	A	0	0.1	0.3
24-Jul-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	0	A	0	0.1	0.2
25-Jul-05	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9
26-Jul-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	0.2	0.8
27-Jul-05	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.5
28-Jul-05	1	1	1	0	1	1	1	0	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.6	1.3	
29-Jul-05	1	3	2	1	1	0	1	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.7	3.0		
30-Jul-05	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	1.6		
31-Jul-05	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	1	1.1

Hourly Avg 0.3 0.5 0.3 0.3 0.3 0.3 0.3 0.3 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.2 0.2 0.2 0.3

Hourly Max 1.3 3.0 2.1 0.7 1.3 1.1 0.9 0.6 0.9 0.6 0.6 0.5 0.4 0.3 0.3 0.3 0.3 0.5 0.3 0.9 0.4 0.6 0.5 1.3 0.8

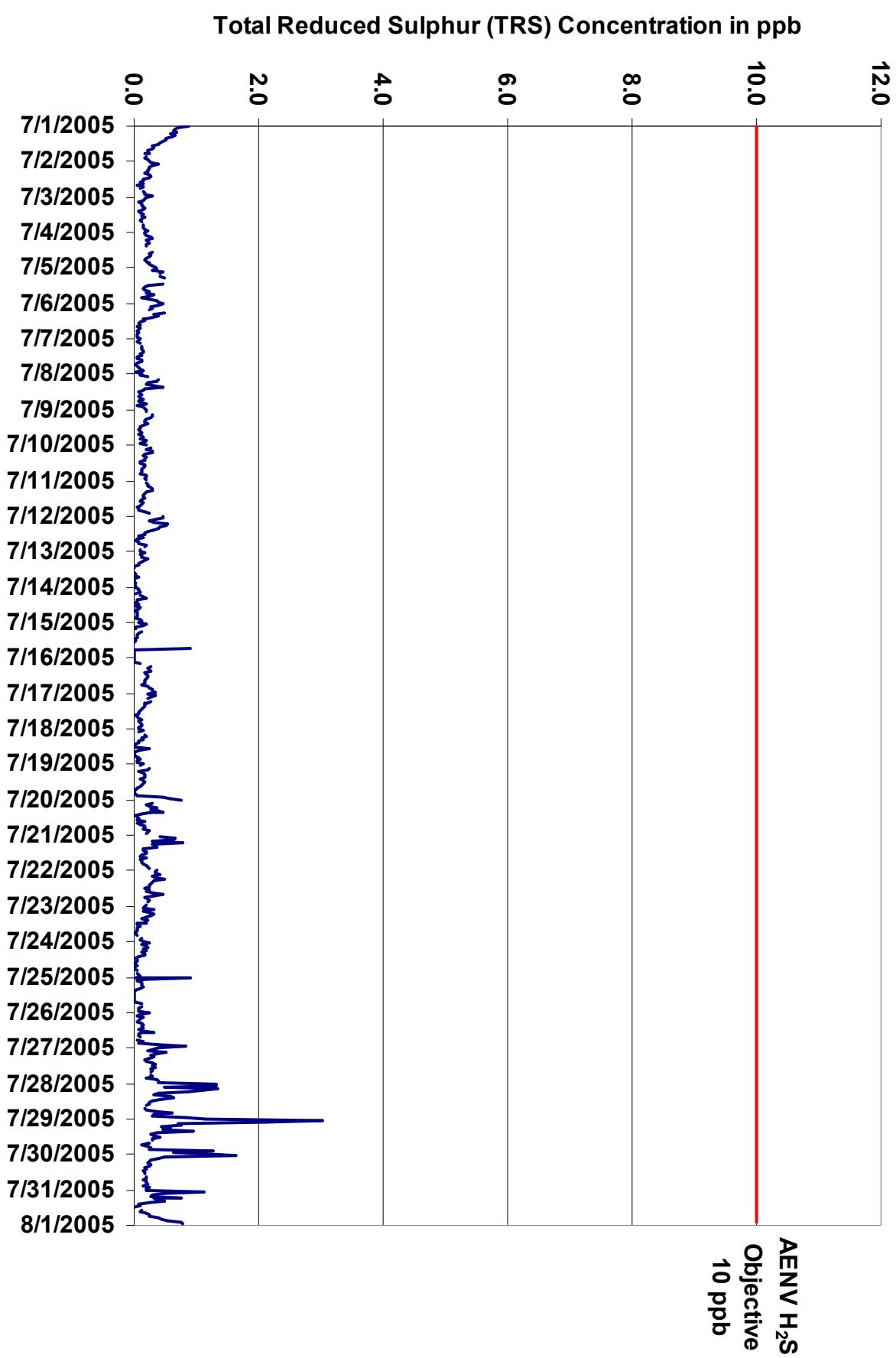


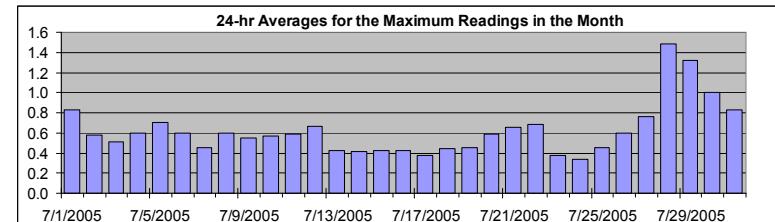
Figure 13. PASZA - Henry Pirkle Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Henry Pirker  
 Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY MAXIMUM TABLE

### Total Reduced Sulphur (TRS)



#### Summary

Maximum 1-hr Value:	6.0	ppb	30-Jul	0:00 1:00
Maximum 24-hr Value:	1.5	ppb	28-Jul	

AIC Time:	33 hrs	Operational Time:	701 hrs
Calibration Time:	10 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1 4.0 1.3 0.6 0.5 0.4 0.2 0.1		
	Average 0.6 ppb		

#### Day Mountain Standard Time

	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	24-hour Average	Daily Maximum
1-Jul-05	2 1:00	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	1	1	0.8	2.0				
2-Jul-05	1 1:00	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	1	1	1	1	1	0.6	0.8				
3-Jul-05	1 0:00	0	0	0	1	0	1	1	0	0	0	0	0	0	1	1	0	1	1	A	1	1	0	1	1	1	1	1	0.5	0.6					
4-Jul-05	1 1:00	1	1	1	1	1	1	1	1	0	C	C	C	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7				
5-Jul-05	1 1:00	1	1	1	1	1	A	1	1	C	C	C	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9				
6-Jul-05	1 1:00	1	1	1	1	1	A	1	1	1	1	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0.6	1.0				
7-Jul-05	1 1:00	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.6				
8-Jul-05	0 0:00	0	1	A	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	0	0	1	0	0	0	0	0	0.6	0.9				
9-Jul-05	1 1:00	A	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0.5	0.7				
10-Jul-05	1 A:00	A	1	1	1	1	1	1	0	1	0	1	0	0	1	1	0	1	0	1	0	1	0	1	0	1	0	0	0	0.6	0.9				
11-Jul-05	A 1:00	1	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1	1	A	1	1	0.6	1.1					
12-Jul-05	1 2:00	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1.5						
13-Jul-05	0 1:00	0	0	1	1	1	1	0	0	0	0	0	0	0	C	C	0	0	0	1	0	0	0	0	0	0	0	0	0	0.4	0.6				
14-Jul-05	0 0:00	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7				
15-Jul-05	0 1:00	1	0	1	A	1	0	0	0	0	0	0	0	0	C	C	A	A	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.1			
16-Jul-05	0 0:00	0	0	0	0	A	0	0	0	1	0	1	0	1	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0.4	0.7					
17-Jul-05	0 1:00	0	1	1	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6				
18-Jul-05	0 0:00	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.0				
19-Jul-05	0 0:00	A	1	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.3				
20-Jul-05	3 A:00	A	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.6				
21-Jul-05	A 1:00	1	2	1	1	2	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	2.3				
22-Jul-05	1 1:00	1	1	1	1	1	1	1	0	1	0	1	0	1	1	2	2	1	0	1	0	0	0	A	1	1	1	1	1	1.9					
23-Jul-05	0 0:00	0	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7				
24-Jul-05	0 1:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5				
25-Jul-05	0 3:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.1				
26-Jul-05	1 1:00	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	A	1	0	0	1	1	1	1	1	0.6	3.4						
27-Jul-05	2 1:00	1	0	2	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	2.3				
28-Jul-05	5 5:00	2	2	4	2	2	1	1	1	1	1	1	1	1	1	1	1	0	A	0	0	0	1	1	1	1	1	1.5	4.7						
29-Jul-05	2 5:00	4	1	2	1	1	2	1	1	1	1	1	1	1	1	0	A	0	0	0	0	1	1	1	1	1	1.3	5.1							
30-Jul-05	6 6:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	1	1	1	1.0	6.0							
31-Jul-05	1 2:00	1	1	1	3	1	1	1	1	0	0	0	0	0	A	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0.8	3.3				
Hourly Avg	1.1	1.2	0.9	0.7	0.7	0.8	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.7	0.7	0.7	0.7	0.7						
Hourly Max	6.0	5.9	4.0	2.1	4.0	3.3	1.6	1.0	1.5	1.0	0.9	0.9	1.1	3.0	0.8	1.7	1.9	0.7	1.1	1.2	1.2	1.1	4.3	3.4											

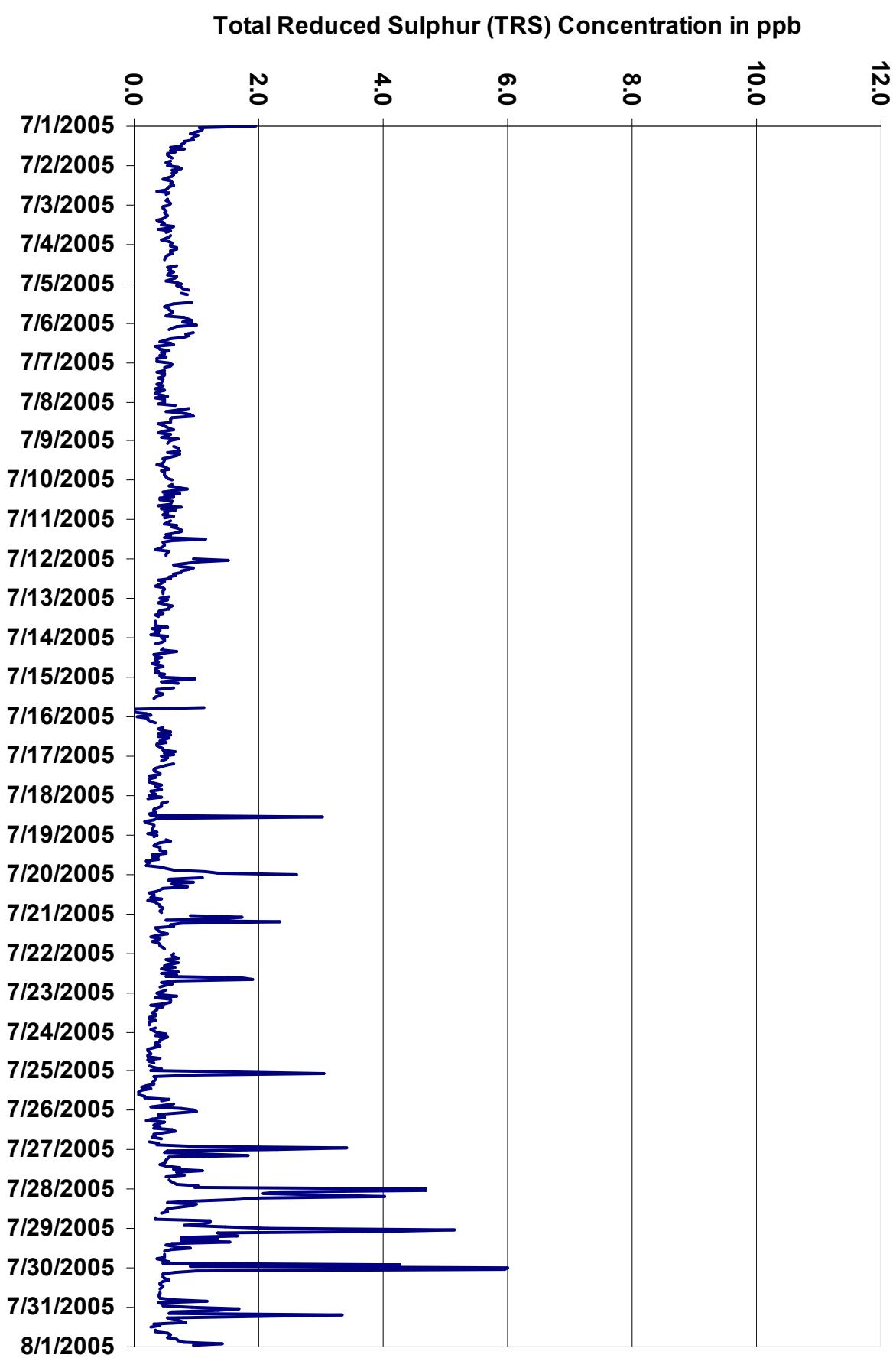
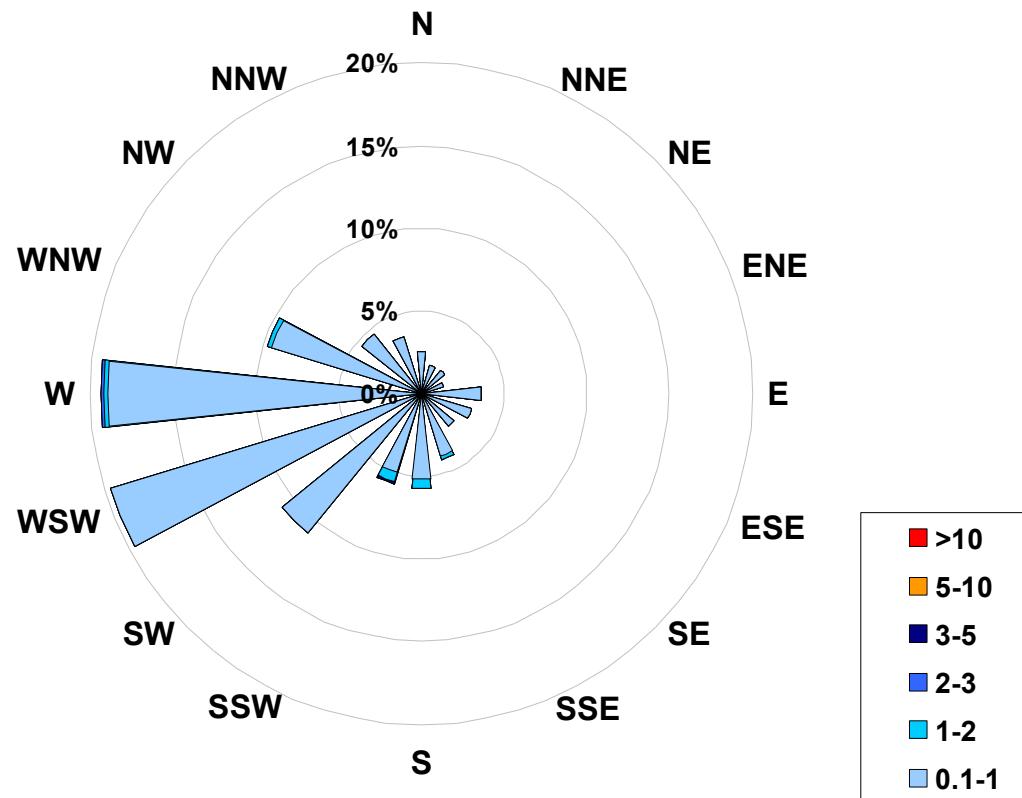


Figure 14. PASZA - Henry Pirker Total Reduced Sulphur 1-hr Maximum Value Monthly Trend

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



Calms:	0%
--------	----

Frequency Distribution of TRS in ppb		
Range		Frequency (hrs)
0.1	< 1	690
1	to 2	9
2	to 3	1
3	to 5	1
5	to 10	0
>	10	0
Total Non-Zero Values		701

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

Station: Henry Pirker  
Station Owner: PASZA

## HOURLY AVERAGE TABLE

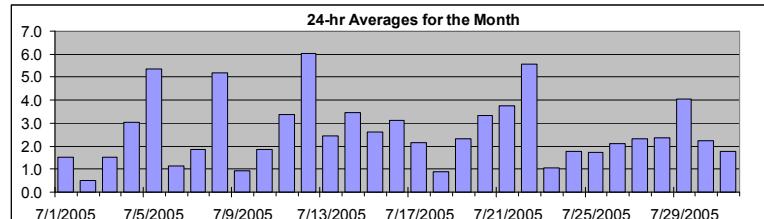
#### **Particulate Matter (PM<sub>2.5</sub>)**

**Monitoring Dates:** July 1, 2005 to August 1, 2005

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:	13.8	$\mu\text{g}/\text{m}^3$	8-Jul 9:00
Maximum 24-hr Value:	6.0	$\mu\text{g}/\text{m}^3$	12-Jul



## Status Flag Characters

Status Flag Descriptions	
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

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		
	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-Jul-05	5	2	0	0	0	0	2	3	2	1	D	0	2	1	6	0	1	0	2	1	4	3	2	1	1.5	5.9
2-Jul-05	0	1	0	1	1	1	1	0	0	0	2	0	0	0	1	0	0	0	1	1	1	2	0	0	0.5	2.3
3-Jul-05	0	1	0	0	1	2	2	2	0	0	1	0	1	0	0	1	1	2	3	5	4	5	3	2	1.5	5.3
4-Jul-05	3	2	1	4	3	4	6	9	5	3	1	0	3	2	1	1	2	1	2	4	5	6	4	4	3.0	8.7
5-Jul-05	11	6	5	5	5	6	11	9	10	5	6	8	4	4	0	5	10	1	0	0	0	5	9	5	5.3	10.8
6-Jul-05	3	5	0	0	0	0	2	3	5	D	0	0	D	D	0	0	0	0	1	4	0	0	1	0	1.2	4.9
7-Jul-05	0	0	0	0	1	4	1	0	3	0	1	5	4	1	2	2	0	2	2	6	4	2	3	1.9	5.8	
8-Jul-05	3	4	4	3	1	5	4	9	12	14	5	7	1	4	6	6	5	6	7	6	8	4	2	0	5.2	13.8
9-Jul-05	0	0	0	1	0	1	0	1	0	0	D	0	3	0	0	0	0	2	2	1	1	5	2	2	0.9	4.7
10-Jul-05	1	1	1	1	2	2	2	1	1	0	0	0	1	0	2	0	0	1	3	3	9	6	6	3	1.9	8.8
11-Jul-05	2	1	2	2	2	5	4	6	4	2	1	0	3	0	2	3	0	2	2	3	2	10	11	12	3.4	11.9
12-Jul-05	5	9	1	4	6	10	8	12	13	12	9	5	0	6	10	3	5	4	2	6	3	4	8	0	6.0	13.0
13-Jul-05	2	0	0	0	1	2	3	6	6	C	C	C	C	0	4	4	4	3	2	3	2	2	2	2	2.4	5.9
14-Jul-05	2	2	2	2	2	4	5	4	6	3	5	4	2	2	3	3	2	2	2	9	6	5	4	3.4	8.7	
15-Jul-05	4	3	4	3	3	3	5	2	1	3	4	3	3	1	1	1	4	3	2	0	3	3	5	1	2.6	5.1
16-Jul-05	0	0	0	0	1	1	1	1	2	3	3	4	6	5	5	4	4	3	3	6	6	6	5	4	3.1	6.3
17-Jul-05	3	5	5	4	3	4	3	4	3	2	2	0	0	0	0	0	1	2	2	1	3	3	0	2.2	4.9	
18-Jul-05	2	0	1	2	2	1	2	1	0	0	0	0	0	3	2	2	1	0	2	0	0	1	0	1	0.9	3.1
19-Jul-05	0	0	1	1	1	1	2	1	2	2	3	4	5	5	4	2	3	2	2	2	3	2	5	4	2.3	5.3
20-Jul-05	3	2	2	2	2	3	5	8	10	4	3	1	1	1	3	6	4	3	2	3	2	3	2	2	3.3	10.5
21-Jul-05	2	1	1	1	2	4	5	4	7	6	3	4	3	3	4	4	3	3	4	5	6	6	4	5	3.7	7.2
22-Jul-05	3	4	3	1	2	3	8	6	6	5	5	7	5	6	6	5	9	8	6	9	9	8	7	3	5.6	9.2
23-Jul-05	4	3	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	0	0	2	2	2	3	3	1.1	4.5
24-Jul-05	3	2	1	1	1	1	3	5	6	4	3	1	1	1	1	1	1	1	1	1	2	2	0	0	1.8	6.2
25-Jul-05	0	1	2	0	1	1	4	3	3	1	1	1	1	0	0	7	2	0	2	5	1	3	1	1.7	7.3	
26-Jul-05	2	1	0	0	0	1	3	3	5	3	2	4	4	5	2	0	0	2	2	4	3	2	2	0	2.1	5.5
27-Jul-05	0	0	0	1	0	1	2	3	3	4	3	5	4	3	2	7	5	4	1	1	2	2	1	0	2.3	6.6
28-Jul-05	0	0	0	0	1	3	5	8	4	4	4	3	4	0	0	0	0	2	1	4	4	3	3	3	2.4	7.8
29-Jul-05	1	3	2	4	5	4	7	10	6	7	5	5	2	4	2	0	0	3	1	5	4	3	7	7	4.0	9.8
30-Jul-05	10	7	3	3	2	2	2	2	3	1	1	0	0	0	1	2	4	0	3	1	0	1	3	2	2.3	9.7
31-Jul-05	2	2	2	0	0	0	4	4	6	4	1	0	D	1	0	0	3	0	1	4	1	3	0	1	1.8	6.0

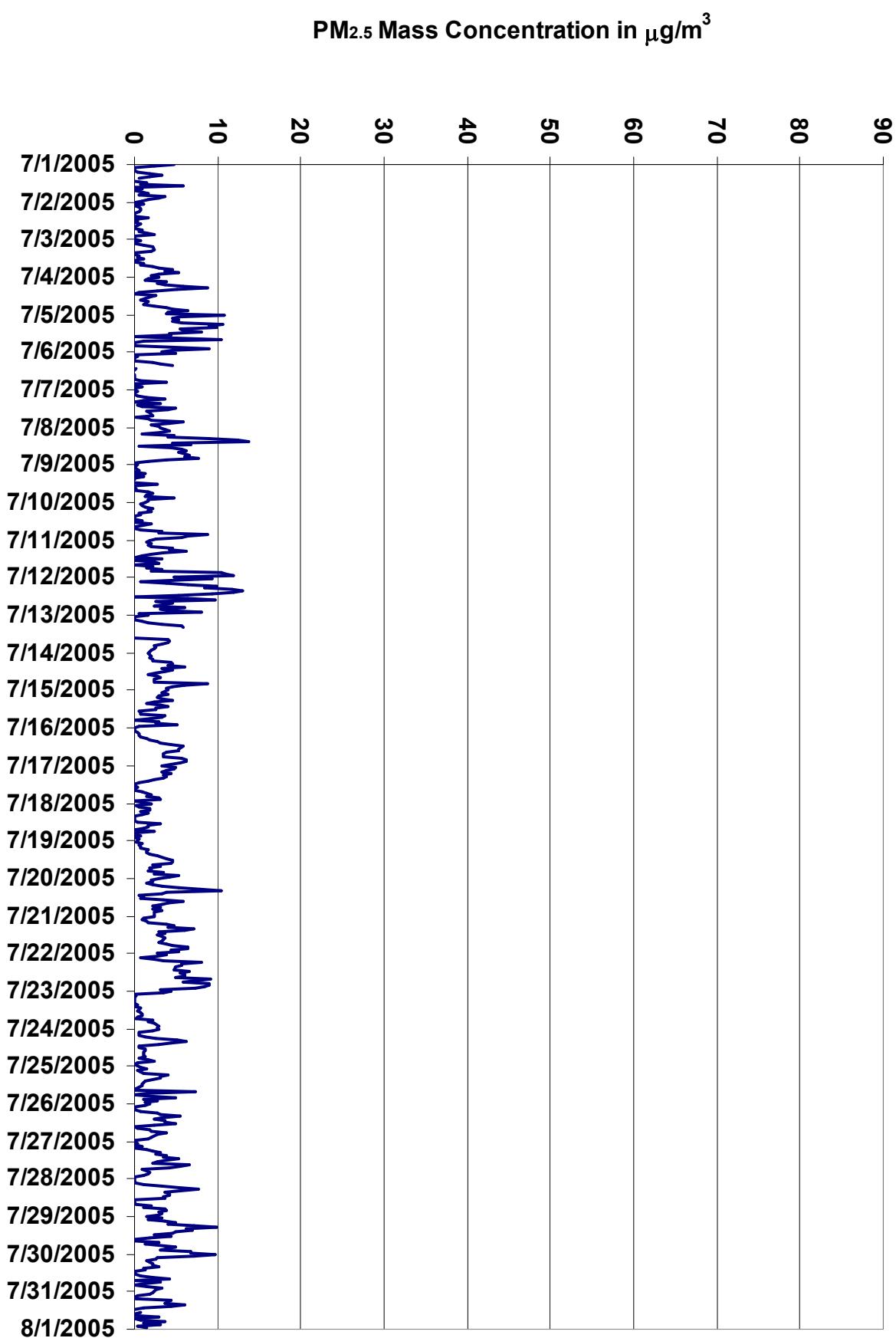


Figure 15. PASZA - Henry Pirker Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Henry Pirker  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY MAXIMUM TABLE

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

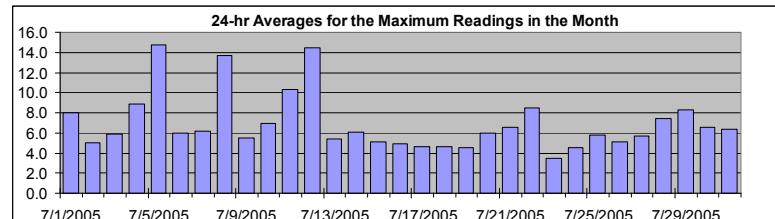
#### Summary

Maximum 1-hr Average:	38.4	µg/m <sup>3</sup>	12-Jul	14:00 15:00
Maximum 24-hr Value:	14.8	µg/m <sup>3</sup>	5-Jul	

AIC Time:	0 hrs	Operational Time:	733 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	99.2%
Percentile	99 95 75 50 25 5 1	Average	Geomean
	23.3 15.9 8.7 5.8 3.8 1.9 1.2	7.0 µg/m <sup>3</sup>	6.5 µg/m <sup>3</sup>

#### Day Mountain Standard Time

	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-hour Average	Daily Maximum
1-Jul-05	13 1:00	6	9	0	2	5	8	9	7	8	D	8	7	10	15	5	11	8	9	8	10	18	6	4	8.0	18.2	
2-Jul-05	4 2:00	4	2	3	3	4	3	4	5	4	10	4	9	9	6	9	4	6	9	3	4	4	3	3	5.0	10.0	
3-Jul-05	2 3:00	2	2	3	4	4	5	5	2	4	4	6	8	11	8	7	7	9	9	9	7	11	5	5	5.9	11.2	
4-Jul-05	6 4:00	6	6	5	12	8	7	9	15	14	7	6	5	8	9	8	9	8	6	8	9	9	15	9	12	8.8	15.5
5-Jul-05	25 5:00	25	16	12	13	13	13	16	14	19	14	14	18	16	11	13	21	29	11	12	9	7	11	16	10	14.8	29.4
6-Jul-05	6 6:00	6	9	3	2	2	3	5	6	21	D	5	9	D	D	7	6	7	5	6	9	5	4	3	3	6.0	21.0
7-Jul-05	7 7:00	3	2	1	2	3	5	7	4	5	7	4	5	21	14	7	6	8	5	5	6	6	11	6	4	6.1	21.1
8-Jul-05	8 8:00	10	6	10	16	6	15	15	17	26	18	24	21	6	10	11	11	14	12	16	12	15	21	10	4	13.7	26.3
9-Jul-05	9 9:00	3	3	3	3	2	3	3	6	3	5	D	4	26	2	4	7	2	9	8	5	6	12	4	4	5.5	26.2
10-Jul-05	10 10:00	4	4	3	6	5	4	5	3	5	6	3	5	6	5	16	8	6	7	14	10	14	12	9	6.9	15.8	
11-Jul-05	11 11:00	6	4	4	5	5	14	10	12	10	6	6	4	15	8	12	10	5	11	7	11	16	19	18	30	10.3	30.1
12-Jul-05	12 12:00	11	22	8	7	10	14	12	18	21	18	19	15	9	12	38	22	13	13	8	15	11	10	12	6	14.4	38.4
13-Jul-05	13 13:00	5	2	1	1	4	6	9	13	C	C	C	C	C	2	10	8	6	5	5	5	4	3	4	5.4	12.8	
14-Jul-05	14 14:00	2	3	4	4	4	3	6	7	8	8	6	7	7	4	4	6	6	4	4	5	17	13	7	6	6.1	17.5
15-Jul-05	15 15:00	7	5	6	4	5	5	7	6	5	5	7	5	5	6	3	2	6	5	4	2	5	5	7	4	5.1	7.5
16-Jul-05	16 16:00	1	1	1	1	2	2	2	3	3	5	5	5	6	8	7	10	6	5	6	6	8	8	9	7	5.0	9.6
17-Jul-05	17 17:00	5	7	7	6	6	7	5	5	5	4	4	2	2	3	1	1	4	3	3	3	5	11	8	4.6	10.8	
18-Jul-05	18 18:00	8	3	3	4	4	3	5	4	3	2	4	2	5	14	14	5	6	4	5	3	3	5	1	4.6	14.0	
19-Jul-05	19 19:00	2	2	2	2	2	3	3	3	3	4	5	8	8	7	7	7	5	4	4	6	5	8	7	4.5	8.3	
20-Jul-05	20 20:00	5	3	4	2	4	5	7	12	13	8	7	4	5	3	6	11	11	6	4	5	5	6	4	5	6.0	13.0
21-Jul-05	21 21:00	4	4	2	3	3	8	6	11	10	10	6	7	5	6	7	7	6	4	6	8	8	11	7	9	6.6	11.2
22-Jul-05	22 22:00	4	6	5	3	5	6	11	9	9	6	8	9	8	9	9	7	13	10	7	15	13	11	9	8	8.5	14.7
23-Jul-05	23 23:00	8	5	9	5	2	0	1	2	1	2	2	3	3	2	3	3	3	3	3	5	4	4	5	4	3.5	9.4
24-Jul-05	24 24:00	5	6	3	2	2	3	4	11	11	8	7	3	3	4	6	5	4	3	4	3	3	4	2	1	4.5	11.5
25-Jul-05	25 25:00	5	6	3	2	2	3	10	6	5	5	5	3	4	4	3	3	16	8	5	10	14	4	7	4	5.8	16.1
26-Jul-05	26 26:00	4	2	0	2	2	5	5	6	9	8	4	12	6	8	9	2	3	5	5	6	12	4	3	2	5.1	12.0
27-Jul-05	27 27:00	2	2	2	2	2	3	8	9	5	6	7	10	8	8	6	19	13	7	3	4	3	3	1	5.7	19.3	
28-Jul-05	28 28:00	2	2	4	3	4	6	8	26	7	8	9	8	21	5	4	4	4	6	5	13	7	7	6	7.4	25.8	
29-Jul-05	29 29:00	3	5	5	6	7	6	9	12	9	11	9	8	7	10	12	11	4	8	8	8	7	7	12	8.3	12.6	
30-Jul-05	30 30:00	20	18	7	6	4	4	4	7	6	5	1	4	4	4	4	8	10	8	6	7	8	3	7	4	6.6	20.3
31-Jul-05	31 31:00	5	5	4	3	3	3	9	7	8	9	7	5	D	6	5	3	11	4	5	14	8	10	3	7	6.4	14.1
	Hourly Avg	6.2	5.6	4.3	4.3	4.2	5.5	7.1	8.7	8.7	7.3	7.2	6.9	8.6	7.3	8.4	7.8	8.1	6.7	6.6	7.5	8.2	8.5	6.9	6.5		
	Hourly Max	25.3	22.2	12.4	16.3	12.7	15.3	15.8	25.8	26.3	18.2	23.8	21.2	26.2	14.0	38.4	22.0	29.4	13.4	16.3	15.1	17.5	21.4	18.3	30.1		



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

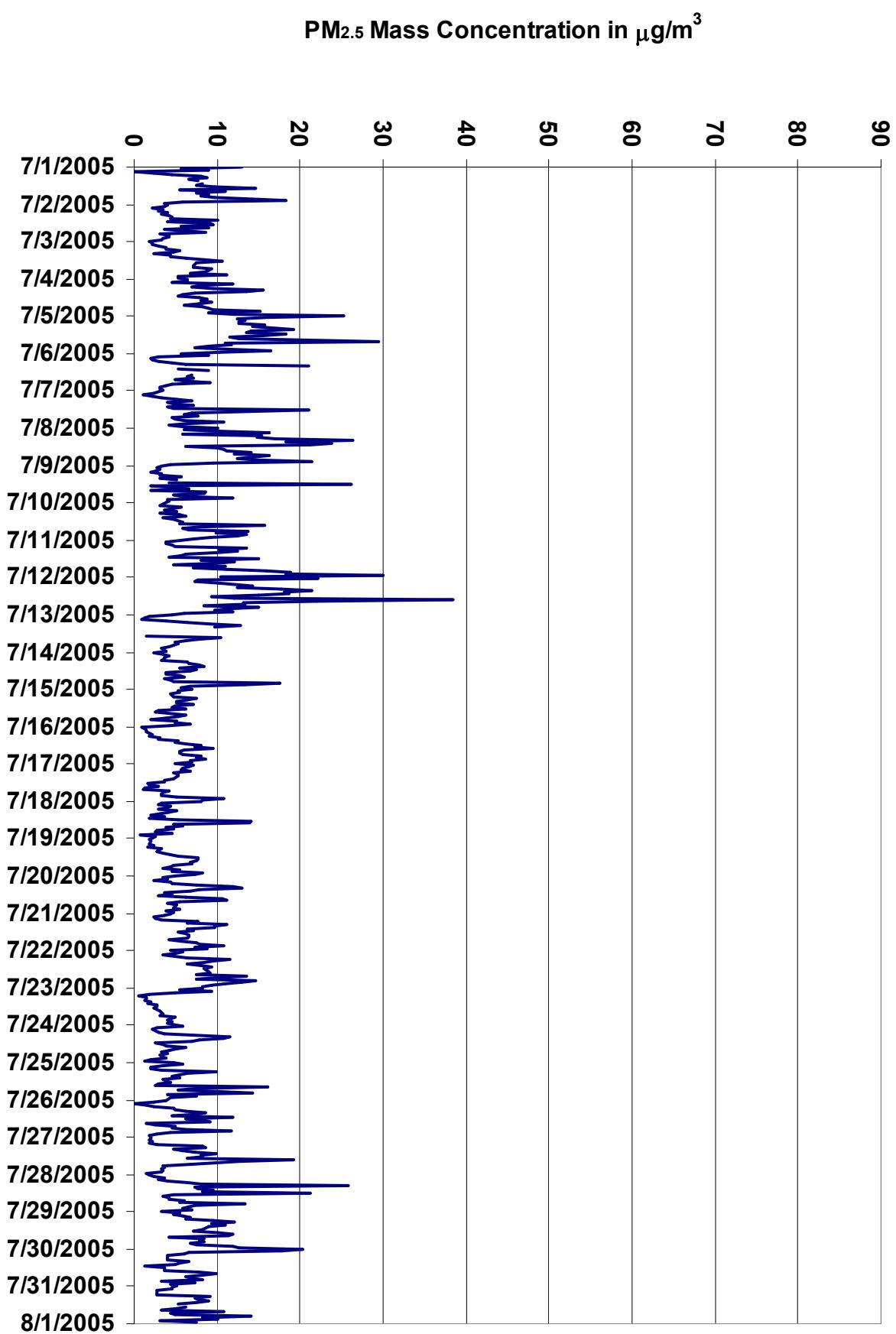
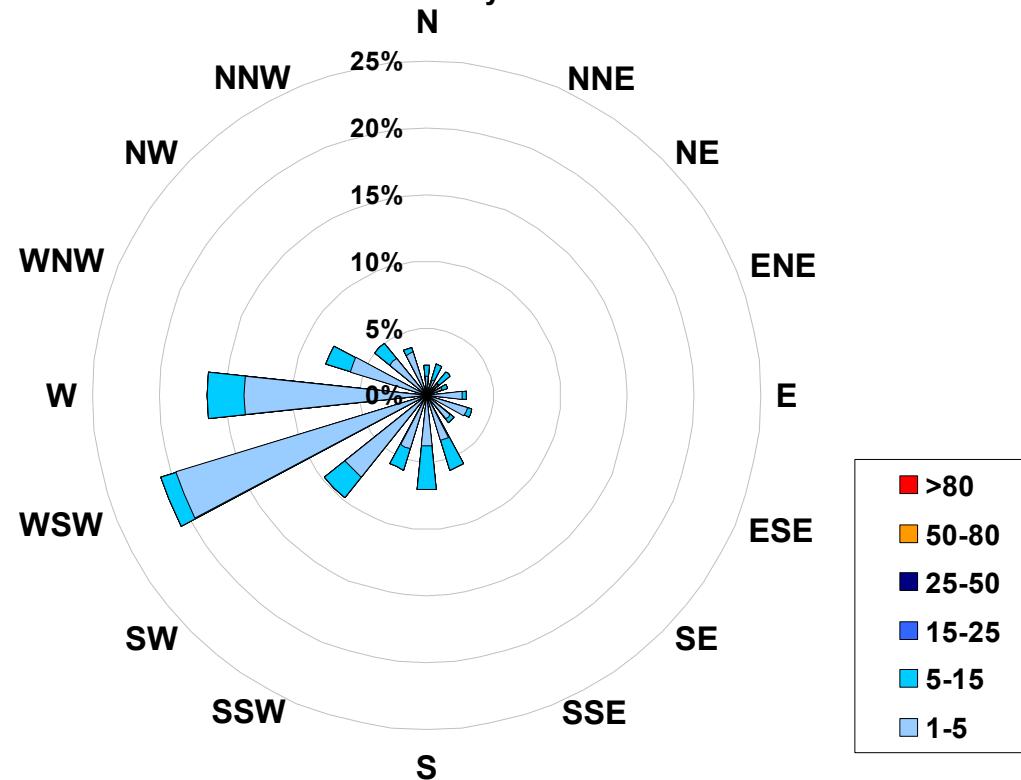


Figure 16. PASZA - Henry Pirker Particulate Matter (less than 2.5 microns) 1-hr Maximum Value Monthly Trend

**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 July 2005**



Calms:	0%
--------	----

**Frequency Distribution of PM<sub>2.5</sub> in µg/m<sup>3</sup>**

Range	Frequency (hrs)
1.0 < 5	627
5 to 15	106
15 to 25	0
25 to 50	0
50 to 80	0
> 80	0
Total Non-Zero Values	733

## PASZA - Henry Pirker Relative Humidity Monthly Summary

Station: Henry Pirker  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### Summary

Maximum 1-hr Average:	97.0	%	28-Jul	3:00 4:00
Maximum 24-hr Value:	85.6	%	27-Jul	

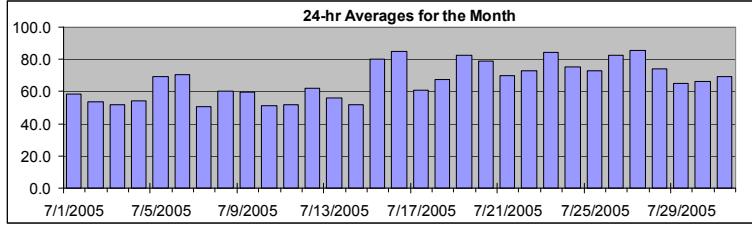
AIC Time:	0 hrs	Operational Time:	744 hrs				
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%				
Percentile			Average				
99	95	75	50	25	5	1	66.9 %
96.0	94.1	84.0	67.2	51.2	37.4	34.2	

### Day Mountain Standard Time

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	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		
	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-Jul-05	80	88	86	86	88	88	76	70	65	59	48	38	38	38	42	43	41	40	38	41	40	41	44	52	56	62	58.6	88.5
2-Jul-05	61	66	69	73	75	72	65	58	54	48	46	43	40	40	38	40	40	40	42	44	49	56	61	62	53.4	75.0		
3-Jul-05	64	67	67	64	64	65	63	59	53	48	44	43	41	38	36	37	36	39	41	44	51	58	60	60	51.8	66.9		
4-Jul-05	64	65	67	74	77	71	65	60	56	51	47	42	42	39	41	41	39	41	42	45	51	58	60	64	54.3	77.4		
5-Jul-05	70	76	81	81	82	81	78	75	67	63	58	54	47	49	47	49	72	74	68	68	67	74	86	91	69.2	91.4		
6-Jul-05	94	95	95	95	94	94	93	91	87	83	78	67	55	48	44	43	39	43	49	49	51	56	59	59	70.7	95.0		
7-Jul-05	62	65	67	69	69	67	63	58	51	48	45	42	41	38	37	37	36	36	37	45	51	54	56	56	50.5	69.4		
8-Jul-05	62	63	66	71	71	73	66	59	61	59	50	53	47	42	45	48	47	52	56	55	59	77	86	86	60.5	86.2		
9-Jul-05	91	92	86	89	89	87	73	68	65	61	46	40	48	41	38	39	37	36	42	43	45	53	58	62	59.5	91.9		
10-Jul-05	62	65	67	70	73	71	63	57	53	47	42	39	37	34	34	33	33	31	36	40	54	61	61	62	51.2	73.0		
11-Jul-05	68	70	72	75	77	78	76	62	51	46	43	39	36	34	35	34	36	32	35	35	39	48	59	67	51.9	77.8		
12-Jul-05	74	81	75	75	84	90	77	66	65	61	56	50	35	36	52	44	41	49	51	57	60	65	70	68	61.7	90.0		
13-Jul-05	75	78	78	77	80	75	70	66	64	56	49	44	46	44	41	36	38	37	42	43	46	51	54	59	56.2	80.2		
14-Jul-05	63	66	67	68	66	65	63	59	51	45	42	39	37	35	34	36	38	40	44	46	52	59	64	65	51.8	68.0		
15-Jul-05	70	75	75	75	78	88	91	93	92	88	81	75	72	72	62	75	78	76	78	85	91	94	90	79.9	94.1			
16-Jul-05	83	85	86	88	90	91	91	91	92	93	91	90	84	83	82	78	79	73	69	71	81	87	88	91	84.9	93.3		
17-Jul-05	92	93	94	93	92	89	82	76	71	62	55	48	43	38	37	35	32	33	37	40	46	53	56	67	61.0	93.6		
18-Jul-05	76	84	87	88	89	84	74	68	58	53	50	45	41	51	54	56	61	65	69	64	72	78	75	67.4	88.8			
19-Jul-05	78	81	84	85	83	83	90	92	93	93	91	89	87	82	75	72	75	74	69	70	80	86	86	87	82.6	93.0		
20-Jul-05	91	92	93	93	94	95	95	88	82	72	66	56	50	47	51	60	70	84	84	85	85	88	88	88	79.1	94.6		
21-Jul-05	89	92	93	95	95	95	94	88	79	73	62	56	53	49	47	48	46	47	49	52	60	63	67	79	69.7	95.4		
22-Jul-05	82	84	86	91	91	91	85	74	70	65	60	58	55	56	58	54	55	60	62	76	83	83	85	91	73.2	91.4		
23-Jul-05	93	93	95	94	93	92	92	87	83	81	81	78	75	74	72	73	80	82	79	82	85	85	87	84.2	94.8			
24-Jul-05	90	91	93	93	94	94	95	95	90	70	64	61	57	56	56	59	54	52	54	65	75	81	83	88	75.4	95.0		
25-Jul-05	90	92	92	91	89	88	88	78	72	63	57	52	49	46	43	40	63	77	66	71	79	83	88	89	72.6	91.8		
26-Jul-05	92	93	94	95	95	95	95	93	90	86	83	82	78	75	72	60	59	61	63	69	84	90	91	93	82.7	94.9		
27-Jul-05	95	96	95	95	95	96	96	94	86	82	78	65	60	60	57	68	89	88	90	91	93	94	95	96	85.6	96.2		
28-Jul-05	96	97	97	97	97	97	97	85	78	70	62	58	78	65	56	57	53	58	53	57	65	66	77	74.3	97.0			
29-Jul-05	78	87	83	84	85	84	79	76	78	64	59	57	56	77	61	45	38	39	38	46	53	56	69	72	65.1	86.6		
30-Jul-05	75	77	80	84	80	82	83	78	70	60	58	47	44	43	41	45	60	57	63	69	67	70	76	84	66.4	84.1		
31-Jul-05	87	90	91	91	94	96	94	88	83	73	61	51	42	42	41	41	46	46	47	59	62	70	81	86	69.4	95.6		

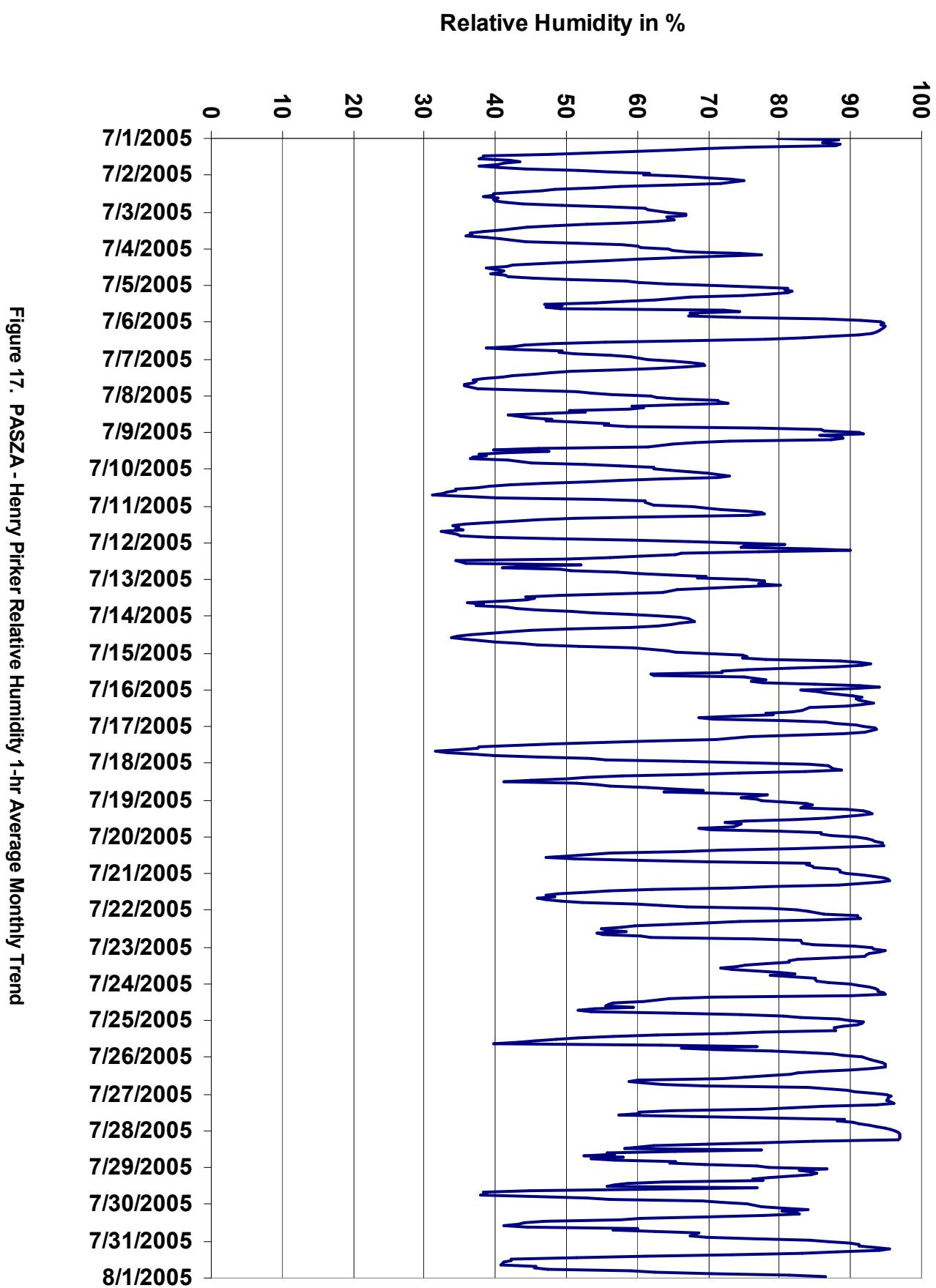
### HOURLY AVERAGE TABLE

### Relative Humidity (RH)



### 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



## PASZA - Henry Pirker Temperature Monthly Summary

Station: Henry Pirker  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### Summary

Maximum 1-hr Average:	25.8	°C	17-Jul	17:00 18:00
Maximum 24-hr Value:	19.2	°C	17-Jul	

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	15.6 °C
	24.4	22.6	19.2	15.2	12.1	9.2	7.3		

### Day Mountain Standard Time

	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	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	24:00	0:00		
1-Jul-05	14	13	12	11	10	10	13	15	17	18	21	22	23	23	22	21	21	21	22	21	21	20	17	16	14	17.4	22.8
2-Jul-05	13	12	11	10	9	10	12	14	15	16	18	19	20	20	21	20	20	20	19	18	17	15	13	13	13	15.7	20.9
3-Jul-05	12	12	12	13	13	13	13	15	16	17	18	19	20	21	21	21	21	21	19	19	17	16	15	15	15	16.5	21.1
4-Jul-05	14	13	13	11	11	12	14	16	17	19	21	21	22	23	23	24	23	23	22	21	19	19	19	17	17	18.3	23.7
5-Jul-05	16	15	14	14	14	15	15	16	18	19	20	22	24	23	23	22	18	19	19	19	19	18	16	15	14	17.8	24.0
6-Jul-05	13	13	13	13	13	13	13	13	14	14	15	16	17	17	17	19	20	20	19	17	17	15	14	13	13	15.5	20.1
7-Jul-05	12	11	11	10	10	11	12	14	16	16	17	18	18	19	20	20	20	20	20	19	18	16	15	13	13	15.6	20.2
8-Jul-05	12	12	11	10	10	10	12	14	15	16	19	19	19	20	20	19	20	19	18	19	17	11	10	10	10	15.0	20.1
9-Jul-05	9	9	9	8	7	7	11	12	13	14	17	19	18	19	20	19	19	20	18	18	16	15	13	12	12	14.2	19.6
10-Jul-05	12	11	10	9	9	9	12	14	15	17	18	19	20	21	21	22	22	22	20	18	16	14	13	13	13	15.8	21.6
11-Jul-05	11	11	10	9	8	8	9	13	16	18	19	20	21	22	22	23	22	23	22	23	21	18	15	14	14	16.5	23.0
12-Jul-05	12	10	10	9	8	7	11	14	15	17	18	21	24	24	20	23	23	20	20	19	18	16	15	15	15	16.2	24.3
13-Jul-05	13	12	11	11	11	12	13	14	15	18	20	21	21	22	22	23	22	22	21	20	18	17	16	15	15	17.2	23.0
14-Jul-05	14	13	13	13	13	13	14	15	17	18	19	20	21	21	22	21	21	21	19	19	18	16	14	14	14	17.1	21.7
15-Jul-05	13	12	12	12	12	11	11	11	12	13	14	16	16	16	17	17	15	15	15	14	13	12	13	13	13.5	17.3	
16-Jul-05	12	12	11	11	11	10	11	11	11	12	13	14	15	15	16	17	17	17	18	19	19	17	15	15	13	14.0	19.3
17-Jul-05	12	12	12	12	11	12	13	15	17	20	22	23	24	25	25	26	26	26	26	25	24	22	20	19	16	19.2	25.8
18-Jul-05	15	14	14	14	14	14	15	16	17	18	18	19	19	18	18	17	16	14	14	15	13	12	11	10	15.2	19.4	
19-Jul-05	10	10	10	10	10	9	9	9	10	10	11	12	12	14	17	16	15	14	15	14	15	12	11	11	11	11.8	16.5
20-Jul-05	10	10	10	10	9	9	9	11	12	15	17	19	20	20	19	17	15	13	13	13	13	11	11	10	10	13.1	20.0
21-Jul-05	10	10	9	8	8	8	9	11	14	15	17	18	19	20	21	20	21	21	20	19	18	17	15	14	14	15.2	21.2
22-Jul-05	13	12	12	9	9	9	12	16	17	19	20	21	22	21	21	20	20	19	17	16	16	14	13	13	13	16.3	21.6
23-Jul-05	13	13	12	12	11	11	10	10	11	12	11	12	12	13	13	11	11	11	10	9	9	8	8	8	8	11.1	13.2
24-Jul-05	8	7	6	6	5	5	6	7	10	13	15	17	18	18	18	17	18	19	18	18	15	13	12	10	10	12.2	19.1
25-Jul-05	9	9	9	9	9	9	10	12	14	17	18	20	21	22	22	22	22	17	15	17	16	15	14	13	13	14.6	22.0
26-Jul-05	12	12	11	11	11	11	12	12	14	14	14	15	16	17	18	18	19	19	18	18	17	14	13	12	12	14.2	18.7
27-Jul-05	11	11	10	11	10	10	11	12	14	16	17	19	20	20	20	18	16	16	16	15	15	14	14	14	14	14.7	20.2
28-Jul-05	13	12	12	11	11	11	11	14	15	18	20	22	16	18	20	21	22	21	22	21	19	17	16	14	14	16.7	22.1
29-Jul-05	13	12	12	11	11	11	13	14	14	18	20	21	21	15	20	23	23	23	22	21	19	17	16	14	13	16.7	23.3
30-Jul-05	13	13	12	12	12	12	13	16	19	19	21	21	22	23	23	20	20	19	18	17	16	16	15	15	15	17.0	23.5
31-Jul-05	15	14	14	14	13	12	14	15	16	19	21	23	23	24	25	24	24	24	23	21	20	18	16	15	15	18.6	24.7
Hourly Avg	12.3	11.6	11.2	10.7	10.4	10.5	11.6	13.3	14.7	16.3	17.8	18.9	19.5	19.8	20.2	20.3	19.6	19.2	18.9	18.1	16.6	15.1	14.1	13.1			
Hourly Max	16.0	14.7	14.1	14.0	13.7	13.8	14.8	16.2	18.2	19.8	21.7	23.1	24.2	25.3	25.1	25.7	25.8	25.8	25.1	24.1	22.1	20.3	19.4	17.4			

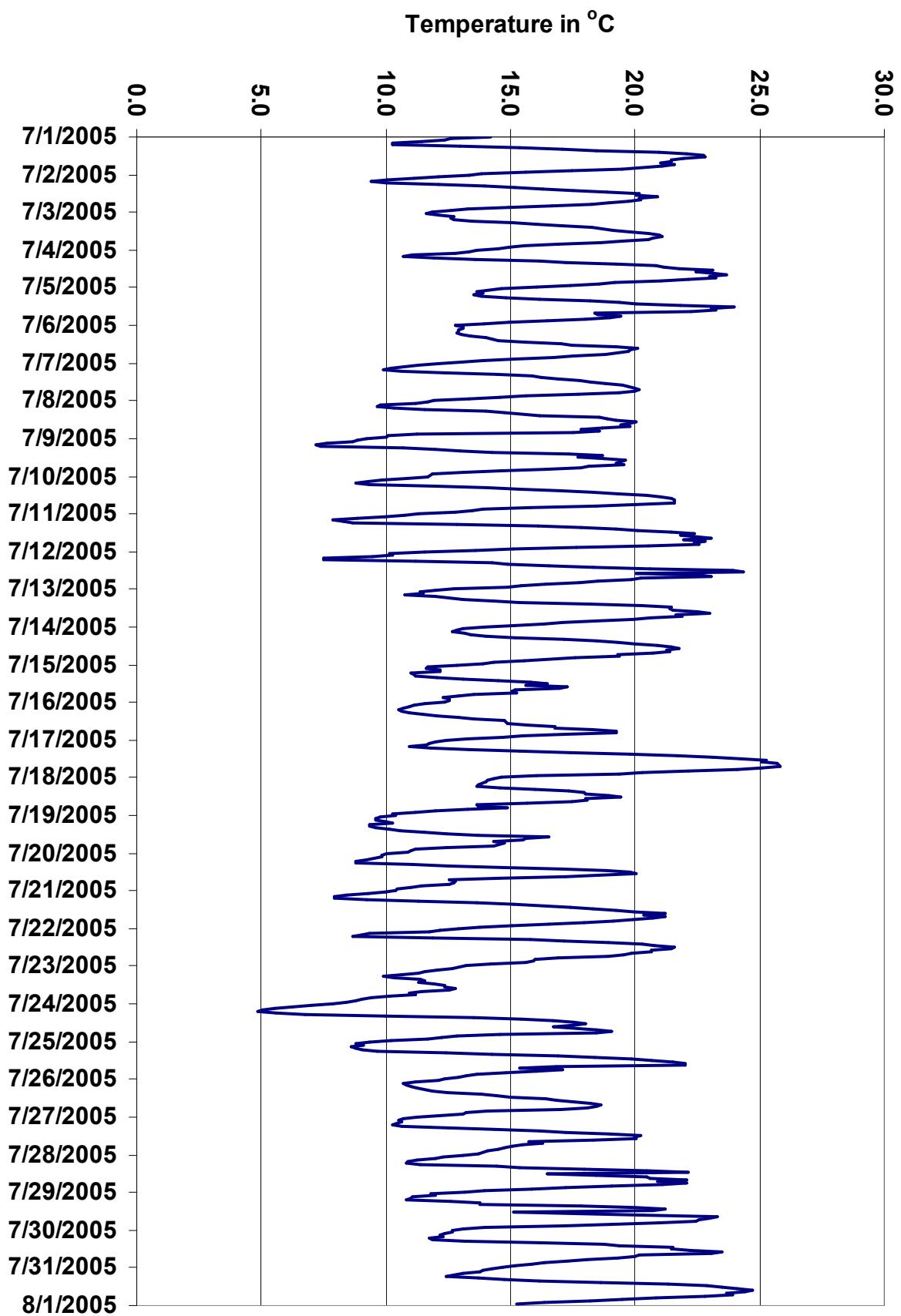


Figure 18. PASZA - Henry Pirker Temperature 1-hr Average Monthly Trend

## PASZA - Henry Pirker Solar Radiation Monthly Summary

Station: Henry Pirker  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### Summary

Maximum 1-hr Average:	907.0	W/m <sup>2</sup>	4-Jul	13:00 14:00
Maximum 24-hr Value:	341.8	W/m <sup>2</sup>	9-Jul	

AIC Time:	0 hrs	Operational Time:	743 hrs												
Calibration Time:	0 hrs	AMD Operational Uptime:	99.9%												
Percentile			Average												
99	95	75	50	25	5	1	861.5	792.7	442.9	120.3	0.4	0.0	0.0	241.3	W/m <sup>2</sup>

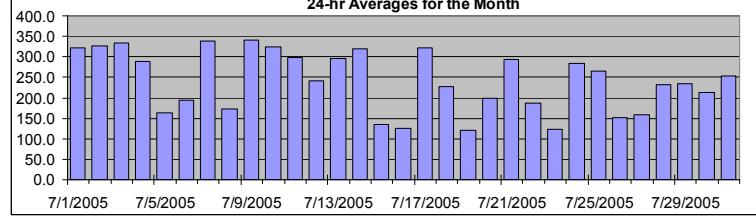
### Day Mountain Standard Time

	Hour Start 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average 0:00	Daily Maximum
	Hour End 1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00			
1-Jul-05	0	0	0	0	2	22	191	321	477	486	736	833	834	758	773	778	606	371	301	204	45	8	0	0	322.7	833.6	
2-Jul-05	0	0	0	0	7	68	169	310	497	633	754	827	836	675	761	593	595	499	358	216	47	5	0	0	327.0	835.6	
3-Jul-05	0	0	0	0	6	65	201	409	453	596	745	822	861	862	824	699	536	415	304	161	47	7	0	0	333.9	861.7	
4-Jul-05	0	0	0	0	12	55	197	280	422	623	693	513	688	907	504	542	585	359	318	170	60	6	1	0	288.9	907.0	
5-Jul-05	0	0	0	1	10	49	89	199	317	341	291	485	639	359	285	206	170	175	172	111	34	5	0	0	164.1	638.6	
6-Jul-05	0	0	0	0	5	23	56	47	70	112	188	288	498	372	731	716	633	464	264	106	60	5	0	0	193.3	731.1	
7-Jul-05	0	0	0	0	0	17	192	305	489	633	762	809	797	859	818	728	628	496	350	208	47	6	0	0	339.3	859.2	
8-Jul-05	0	0	0	0	3	26	68	215	269	329	443	500	431	386	303	318	290	173	105	212	63	0	0	0	172.2	500.1	
9-Jul-05	0	0	0	D	1	27	259	323	317	487	756	854	820	670	843	741	613	538	351	206	51	3	0	0	341.8	854.5	
10-Jul-05	0	0	0	0	2	23	187	300	486	629	744	792	872	865	749	624	627	471	261	110	34	4	0	0	324.1	872.0	
11-Jul-05	0	0	0	0	3	39	71	295	483	626	735	556	779	874	626	812	241	403	344	200	42	4	0	0	297.2	874.4	
12-Jul-05	0	0	0	0	2	25	175	271	228	259	322	582	859	681	410	823	628	192	225	75	31	2	0	0	241.3	859.0	
13-Jul-05	0	0	0	0	0	10	34	143	223	514	760	816	881	777	839	698	342	503	320	186	43	6	0	0	295.5	880.9	
14-Jul-05	0	0	0	0	3	36	145	232	449	600	682	803	853	872	793	729	577	418	204	211	58	5	0	0	319.7	872.2	
15-Jul-05	0	0	0	0	1	10	23	53	144	254	457	393	325	251	394	295	204	230	152	54	18	1	0	0	135.8	456.6	
16-Jul-05	0	0	0	0	2	21	45	91	80	60	113	200	258	192	322	339	238	450	342	197	45	4	0	0	125.0	449.8	
17-Jul-05	0	0	0	0	3	22	149	262	428	598	709	765	840	845	752	721	614	480	332	175	20	3	0	0	321.7	845.3	
18-Jul-05	0	0	0	0	1	16	153	271	466	501	422	602	475	727	600	501	265	99	103	185	50	3	0	0	226.6	726.5	
19-Jul-05	0	0	0	0	2	15	18	38	63	88	104	223	154	357	774	250	333	187	178	82	19	3	0	0	120.4	773.6	
20-Jul-05	0	0	0	0	1	15	43	181	358	330	704	795	849	614	196	199	119	106	169	65	36	2	0	0	199.2	849.4	
21-Jul-05	0	0	0	0	2	35	94	226	439	489	716	732	816	703	783	524	595	442	240	142	39	2	0	1	292.5	816.3	
22-Jul-05	0	0	0	0	1	18	141	237	438	574	640	530	566	464	313	284	138	102	45	5	3	0	1	0	187.5	639.8	
23-Jul-05	0	0	0	0	0	8	16	132	221	243	192	340	305	294	370	276	173	181	142	41	9	2	0	0	122.6	369.7	
24-Jul-05	0	0	0	0	0	15	52	167	386	598	686	736	880	734	447	605	608	474	290	104	17	1	0	0	283.4	880.2	
25-Jul-05	0	0	0	0	0	20	54	249	395	559	680	798	809	821	729	583	54	278	245	68	14	1	0	0	264.9	821.2	
26-Jul-05	0	0	0	0	1	17	64	91	105	277	226	408	491	456	350	370	374	243	133	36	5	0	0	0	151.9	490.5	
27-Jul-05	0	0	0	0	1	20	114	204	392	491	430	551	499	385	302	112	143	90	47	11	10	1	0	0	158.5	550.6	
28-Jul-05	0	0	0	0	1	19	70	258	248	568	681	603	183	582	782	407	430	375	223	120	16	1	0	0	232.0	782.2	
29-Jul-05	0	0	0	0	1	14	119	211	202	543	657	574	242	290	786	655	509	388	290	117	29	1	0	0	234.5	786.2	
30-Jul-05	0	0	0	0	0	22	52	147	435	492	494	763	547	540	652	515	167	144	84	51	18	0	0	0	213.5	763.0	
31-Jul-05	0	0	0	0	0	22	111	149	339	488	675	776	767	758	678	497	290	354	112	29	5	0	0	0	252.1	776.1	

Hourly Avg	0.0	0.0	0.0	0.0	2.4	25.7	108.1	213.4	332.9	452.3	554.8	621.6	634.0	610.7	596.4	520.7	397.6	325.8	225.9	124.5	32.7	2.9	0.0	0.0
Hourly Max	0.5	0.5	0.5	0.7	12.1	68.2	259.0	408.9	497.5	632.9	761.6	854.5	880.9	907.0	842.8	822.7	632.8	538.3	358.4	215.5	63.0	8.2	0.5	0.5

### HOURLY AVERAGE TABLE

### Solar Radiation (SR)



### 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

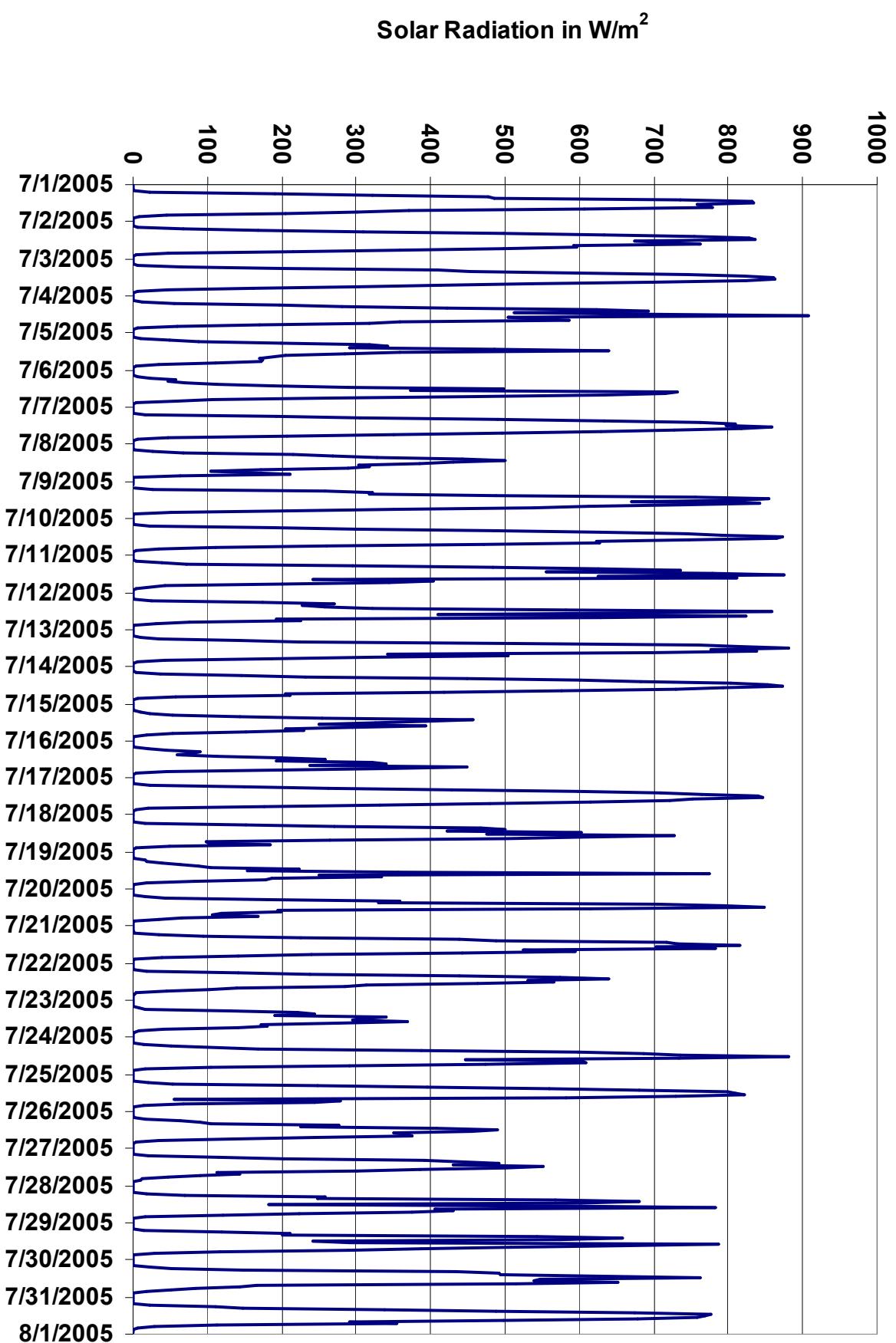


Figure 19. PASZA - Henry Pirker Solar Radiation 1-hr Average Monthly Trend

## PASZA - Henry Pirker Scalar Wind Speed Monthly Summary

Station: Henry Pirker  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

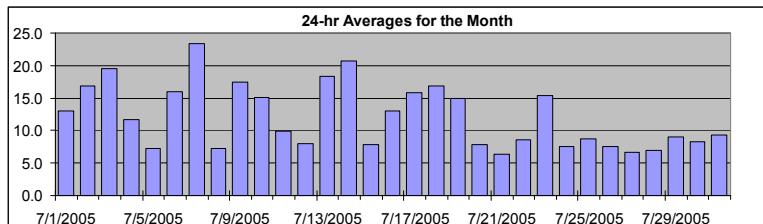
### Summary

Maximum 1-hr Average:	38.1 km/hr	7-Jul 11:00 12:00
Maximum 24-hr Value:	23.4 km/hr	7-Jul

Calm Time:	0 hrs	0% calms	Operational Time:	743 hrs				
Calibration Time:	1 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageS
	32.8	27.2	16.1	9.8	6.6	4.3	3.4	12.1 km/hr

### HOURLY AVERAGE TABLE

### Wind Speed (WSs)



### 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 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	6:00 7:00	7:00 8:00	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-Jul-05	7	5	8	8	4	6	8	10	15	13	14	18	16	17	25	22	20	17	12	11	8	17	18	17	13.1	25.1	
2-Jul-05	19	15	15	13	7	11	13	14	17	19	19	15	15	18	17	20	23	26	24	23	21	15	12	13	16.8	25.6	
3-Jul-05	12	13	15	16	21	18	18	18	27	28	29	27	25	24	25	24	26	23	24	16	11	9	10	9	19.5	28.6	
4-Jul-05	7	7	7	6	7	8	8	9	11	11	13	C	20	20	19	15	16	16	17	15	11	9	8	6	11.6	20.4	
5-Jul-05	4	5	5	4	5	5	5	5	7	6	8	8	10	13	11	15	16	5	5	9	7	6	5	3	7.2	15.7	
6-Jul-05	4	5	6	4	6	7	7	5	7	15	11	15	21	23	27	27	31	31	28	21	25	24	19	17	16.0	31.2	
7-Jul-05	16	14	14	13	14	14	13	18	31	36	37	38	36	36	35	35	31	30	29	27	15	10	11	8	23.4	38.1	
8-Jul-05	5	6	5	6	4	4	6	6	7	5	7	9	8	6	7	8	6	9	8	7	12	20	8	6	7.3	19.7	
9-Jul-05	5	7	6	6	6	6	13	17	18	17	26	23	26	24	28	27	27	26	29	24	21	14	12	12	17.4	28.7	
10-Jul-05	11	11	10	9	9	10	11	19	24	23	22	21	18	18	18	19	19	19	20	22	14	9	7	8	10	15.1	23.7
11-Jul-05	10	10	7	6	4	5	5	7	15	19	18	14	16	16	16	11	6	12	11	7	6	5	6	5	9.9	18.9	
12-Jul-05	5	4	6	5	4	4	3	6	5	4	5	8	8	10	17	17	14	11	9	8	8	8	10	14	8.1	16.9	
13-Jul-05	7	8	10	6	7	8	7	6	9	16	23	25	26	27	26	28	29	30	34	28	23	18	23	17	18.4	33.6	
14-Jul-05	15	14	12	12	12	15	17	19	26	32	29	28	28	28	30	31	26	28	27	24	16	12	8	7	20.7	31.8	
15-Jul-05	6	5	4	7	9	8	7	6	5	8	11	8	9	9	8	11	13	13	12	7	6	5	5	8	7.9	13.4	
16-Jul-05	10	9	10	11	12	10	13	14	15	12	18	19	21	19	17	13	9	12	14	15	11	10	9	7	13.0	20.8	
17-Jul-05	7	8	7	9	6	10	9	11	13	19	20	20	19	22	21	24	22	26	23	16	9	15	24	15.9	25.5		
18-Jul-05	15	11	15	13	11	11	10	13	18	21	20	21	24	24	18	21	20	28	20	17	13	11	15	12	16.8	27.6	
19-Jul-05	16	17	16	18	18	23	21	20	20	17	21	18	13	11	15	15	15	16	16	11	7	5	6	4	15.0	22.6	
20-Jul-05	4	4	5	4	3	5	4	3	6	7	9	10	12	14	11	14	13	14	9	8	9	8	9	6	7.9	13.9	
21-Jul-05	6	3	3	3	4	3	4	5	6	6	5	7	7	7	9	8	10	10	11	9	7	7	6	6.4	10.9		
22-Jul-05	6	6	6	6	6	5	5	5	5	7	8	11	12	13	13	12	10	12	11	8	10	7	11	8.6	13.3		
23-Jul-05	10	8	13	14	16	18	22	19	21	22	21	22	22	24	23	21	16	11	11	8	7	7	6	15.4	23.6		
24-Jul-05	6	3	3	3	5	4	4	4	4	5	6	7	10	10	9	14	10	9	12	16	12	8	9	6	7.5	16.3	
25-Jul-05	4	5	9	8	9	8	5	9	11	11	10	10	10	11	10	13	18	7	8	6	8	6	6	7	8.7	18.4	
26-Jul-05	5	5	5	6	7	8	6	5	5	6	6	9	9	11	10	9	10	11	11	7	12	7	7	5	7.5	11.5	
27-Jul-05	5	5	4	5	6	7	7	9	7	7	7	7	8	8	10	7	5	7	6	7	7	5	6	6.6	9.7		
28-Jul-05	5	4	5	4	4	4	6	7	8	7	8	13	11	12	10	10	8	4	6	9	8	6	7	7.0	13.0		
29-Jul-05	5	5	6	6	6	7	9	7	7	8	9	10	11	9	11	19	17	17	12	11	8	5	4	9.0	19.4		
30-Jul-05	5	9	8	6	10	10	8	9	9	10	10	11	13	10	7	8	9	9	7	7	6	5	6	6	8.2	12.9	
31-Jul-05	6	6	5	5	5	3	5	7	7	8	11	15	23	19	16	15	13	11	10	8	8	8	5	5	9.4	23.0	

1-hr Average	8.0	7.7	8.1	7.8	8.0	8.5	8.9	10.1	12.5	13.7	14.8	15.5	16.4	16.5	16.6	16.9	16.5	16.0	15.6	13.3	11.5	9.8	9.1	8.8
Hourly Max	18.8	17.2	16.1	17.8	20.8	22.6	21.8	20.3	30.6	36.2	37.4	38.1	35.9	36.3	35.5	35.0	31.0	31.2	33.6	28.0	25.4	23.8	22.5	23.5

## PASZA - Henry Pirker Vector Wind Speed Monthly Summary

Station: Henry Pirker  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### Summary

Maximum 1-hr Average:	37.8	km/hr	7-Jul	11:00 12:00
Maximum 24-hr Value:	23.0	km/hr	7-Jul	

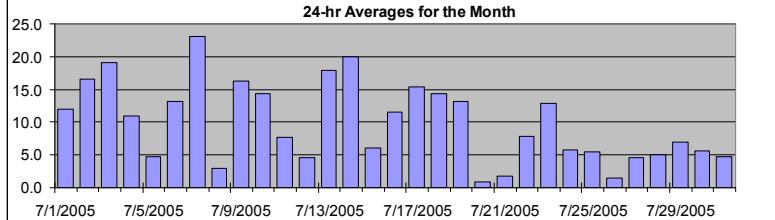
Calm Time:	2 hrs	0% calms	Operational Time:	741 hrs
Calibration Time:	1 hrs		AMD Operational Uptime:	100.0%
Percentile				AverageV
99	95	75	50	25 5 1
32.6	26.7	15.9	9.2	5.7 2.9 1.7
				72.4 km/hr

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-Jul-05	4	5	7	8	3	4	7	10	15	13	14	17	15	16	24	21	19	16	11	10	8	16	18	17	11.9	24.3
2-Jul-05	19	15	15	13	7	10	13	14	17	18	18	14	13	18	17	20	23	25	24	23	21	15	11	13	16.6	25.0
3-Jul-05	12	13	15	16	21	17	18	18	27	28	28	27	25	23	24	23	26	23	24	16	11	9	10	8	19.1	28.1
4-Jul-05	7	7	7	6	7	7	7	9	11	10	12	C	19	20	18	14	15	15	17	15	11	9	7	5	10.9	19.9
5-Jul-05	1	2	4	3	4	3	5	5	7	6	7	7	9	12	11	14	15	3	3	9	7	5	5	3	4.7	15.4
6-Jul-05	2	5	5	3	5	2	6	3	6	15	10	15	21	22	26	27	30	31	27	21	25	24	19	17	13.1	30.9
7-Jul-05	16	14	14	13	14	14	12	18	30	36	37	38	36	36	35	34	31	30	29	27	14	10	11	8	23.0	37.8
8-Jul-05	3	6	4	5	2	3	6	3	6	calm	4	8	6	5	6	8	6	8	8	7	8	19	5	6	2.9	18.8
9-Jul-05	5	6	5	6	5	6	12	16	18	17	25	23	25	23	27	27	26	25	28	24	21	14	12	12	16.3	28.4
10-Jul-05	11	11	10	9	8	10	11	19	23	23	21	20	17	17	17	18	19	19	22	14	9	7	8	9	14.3	23.4
11-Jul-05	10	10	5	5	3	4	5	6	14	19	18	13	13	15	15	3	2	11	11	6	5	5	6	4	7.7	18.5
12-Jul-05	3	2	5	5	4	3	2	6	4	4	4	7	4	5	16	16	13	3	8	8	8	10	13	17	4.6	16.2
13-Jul-05	7	8	9	5	7	7	6	6	9	16	22	24	25	27	25	28	29	29	33	28	23	18	22	17	17.9	33.4
14-Jul-05	15	14	12	12	12	15	17	19	25	31	29	28	28	28	29	31	25	28	27	23	16	12	7	7	20.0	31.5
15-Jul-05	6	4	2	6	9	8	7	4	4	7	10	7	8	8	8	10	13	13	12	4	5	5	5	7	6.0	13.2
16-Jul-05	9	9	10	11	12	10	13	14	15	12	18	19	21	18	17	11	8	11	14	15	11	10	9	7	11.5	20.7
17-Jul-05	7	8	7	9	6	10	9	11	13	19	19	20	20	19	21	20	23	22	25	23	16	9	13	23	15.4	25.3
18-Jul-05	11	11	15	12	11	11	10	12	17	20	20	21	22	22	18	21	20	26	19	17	13	11	15	11	14.3	26.4
19-Jul-05	16	17	16	18	18	22	21	20	20	17	21	18	13	10	15	12	15	16	16	11	6	5	5	3	13.1	22.5
20-Jul-05	2	3	4	2	2	5	2	2	4	6	8	10	12	13	10	11	11	14	8	8	8	8	6	6	0.9	13.6
21-Jul-05	6	1	2	2	3	2	4	4	6	5	3	4	5	4	5	7	6	8	10	11	9	7	6	6	1.8	10.7
22-Jul-05	5	6	6	6	5	5	4	3	5	7	10	11	12	13	11	9	12	11	5	10	8	6	6	7.8	12.8	
23-Jul-05	10	7	12	13	16	18	22	19	21	22	21	22	22	23	23	21	15	11	11	8	6	7	7	5	12.9	23.3
24-Jul-05	5	3	3	2	5	4	3	3	2	4	4	5	9	9	6	14	9	7	11	16	11	8	9	5	5.8	15.9
25-Jul-05	4	3	9	8	9	8	4	9	11	11	9	9	9	9	9	12	17	4	8	5	5	3	3	6	5.4	17.3
26-Jul-05	5	5	4	5	5	4	5	2	3	5	5	9	7	10	9	9	9	9	11	6	10	4	6	4	1.5	11.3
27-Jul-05	4	5	4	2	6	7	6	7	9	6	6	6	6	8	8	5	4	5	7	6	7	6	5	6	4.6	9.0
28-Jul-05	4	3	3	1	1	3	2	5	7	8	6	6	6	11	10	11	9	5	6	3	5	8	8	6	5.0	11.0
29-Jul-05	5	4	5	5	5	5	6	8	6	6	7	7	9	3	9	10	19	17	16	12	11	8	5	2	7.0	19.0
30-Jul-05	calm	8	7	5	9	10	6	9	9	9	11	12	8	6	6	9	9	7	7	6	4	6	6	6	5.6	12.4
31-Jul-05	6	6	5	5	4	2	4	6	7	7	10	14	23	18	15	14	12	10	10	7	8	7	3	3	4.8	22.6

1-hr Vector	4.7	5.2	5.8	5.1	5.0	5.6	5.7	7.1	9.5	10.9	11.2	11.3	12.2	12.1	12.3	13.5	13.3	11.4	11.2	9.8	7.9	6.8	6.1	5.0
Hourly Max	18.6	17.2	15.9	17.7	20.7	22.5	21.7	20.3	30.3	35.8	37.1	37.8	35.5	36.0	35.1	34.5	30.8	30.9	33.4	27.8	25.3	23.7	22.4	23.1

### HOURLY AVERAGE TABLE

### Wind Speed (WSv)



### 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

## PASZA - Henry Pirker Wind Direction Monthly Summary

Station: Henry Pirker  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY AVERAGE TABLE

### Wind Direction (WD)

#### Summary

Wind Data Summary											

Calm Time:	0 hrs	0% calms	Operational Time:	743 hrs							
Calibration Time:	0 hrs		AMD Operational Uptime:	99.9%							
Percentile	99	95	75	50	25	5	1	Average			
	351.8	320.8	268.4	250.5	201.5	80.2	19.5	258 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	0:00	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-Jul-05	205	190	214	236	243	253	297	268	263	271	280	288	285	277	249	234	244	234	229	222	206	260	256	256	253	WSW	
2-Jul-05	268	266	256	255	256	247	260	260	259	256	261	253	246	263	267	268	271	267	269	271	262	249	231	229	260	W	
3-Jul-05	229	237	240	243	250	246	257	261	265	262	262	268	266	272	264	261	270	279	272	274	287	278	274	250	262	224	
4-Jul-05	246	218	227	200	198	203	207	227	242	228	239	D	245	244	268	265	262	257	253	254	266	265	262	224	245	WSW	
5-Jul-05	249	283	156	184	321	125	157	173	181	166	185	179	227	244	261	262	281	298	194	206	215	173	168	91	219	SW	
6-Jul-05	75	111	116	85	99	329	0	353	235	278	259	239	246	253	257	264	255	256	265	257	256	253	252	240	257	WSW	
7-Jul-05	229	234	240	233	228	224	235	244	254	258	254	257	255	255	255	260	258	250	252	254	251	245	224	226	227	249	WSW
8-Jul-05	183	207	173	166	95	144	359	345	162	319	49	103	162	259	295	318	294	164	183	172	187	247	247	213	208	SSW	
9-Jul-05	160	231	200	189	213	179	220	212	237	240	247	234	271	257	251	250	246	250	266	267	256	240	231	239	244	WSW	
10-Jul-05	220	223	228	229	197	211	251	255	259	256	259	261	257	254	267	262	269	256	261	266	282	278	220	243	253	WSW	
11-Jul-05	249	249	258	159	169	190	150	216	234	244	256	255	241	284	209	250	292	295	314	307	251	202	157	175	245	WSW	
12-Jul-05	271	259	290	306	319	269	215	176	189	265	269	305	310	143	216	247	261	93	95	173	229	249	260	251	242	WSW	
13-Jul-05	225	235	238	264	284	285	252	208	223	248	255	267	256	261	256	268	255	263	256	251	248	246	249	244	254	WSW	
14-Jul-05	241	238	243	250	252	238	239	244	254	262	260	260	256	259	273	268	282	280	284	281	285	279	270	256	263	W	
15-Jul-05	257	238	203	200	232	252	220	196	165	172	169	163	176	247	245	197	166	167	187	313	108	127	163	212	196	SSW	
16-Jul-05	238	258	251	246	246	245	250	254	254	264	291	314	307	312	315	318	316	289	304	288	285	270	261	244	280	W	
17-Jul-05	261	265	262	258	276	255	268	263	269	262	261	261	259	260	261	251	261	261	266	257	251	240	255	314	263	W	
18-Jul-05	306	219	213	232	261	263	266	300	300	287	279	276	288	333	347	333	313	304	278	288	292	260	254	257	287	WNW	
19-Jul-05	257	255	261	259	260	278	280	280	290	302	315	302	302	226	220	254	233	239	244	240	221	177	222	217	265	W	
20-Jul-05	242	200	230	312	118	159	158	165	157	83	86	86	88	94	121	201	244	303	338	294	308	274	257	304	202	SSW	
21-Jul-05	332	1	266	165	328	277	293	282	232	251	225	244	168	166	65	119	112	97	98	91	86	77	58	49	106	ESE	
22-Jul-05	49	13	354	328	339	332	355	32	14	47	51	42	50	30	24	32	31	0	350	340	8	48	47	30	21	NNE	
23-Jul-05	36	75	296	297	283	285	291	293	295	293	290	298	301	302	309	347	356	8	23	19	358	346	347	310	NW		
24-Jul-05	339	344	315	291	358	338	348	20	287	259	268	290	315	329	300	226	241	257	245	247	247	256	248	260	275	W	
25-Jul-05	343	257	244	243	249	256	298	258	246	286	296	257	226	290	312	312	283	152	174	158	214	147	24	105	261	W	
26-Jul-05	118	84	63	113	87	85	100	173	99	70	81	114	144	187	252	252	219	229	264	286	298	305	276	279	192	SSW	
27-Jul-05	297	331	317	99	125	130	117	119	110	119	131	174	176	164	172	176	69	74	89	111	136	145	99	132	130	SE	
28-Jul-05	147	170	266	127	195	177	160	236	232	256	240	238	299	257	193	193	261	328	223	184	204	229	233	298	232	SW	
29-Jul-05	302	210	266	295	239	298	236	198	170	200	210	207	207	206	162	248	277	280	259	257	249	202	122	240	WSW		
30-Jul-05	280	193	173	216	230	235	269	269	237	259	243	263	262	267	260	266	308	300	288	307	352	40	108	127	257	WSW	
31-Jul-05	140	174	132	103	339	80	110	143	173	223	244	260	252	255	255	255	276	321	351	339	317	262	166	350	258	WSW	

Hourly Avg 251 236 241 239 249 247 256 250 250 260 261 262 260 261 263 261 266 268 266 263 259 251 245 252

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

Station: Henry Pirker  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY AVERAGE TABLE

### Wind Direction (WD)

#### Summary

|--|--|--|--|--|--|--|

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	743 hrs			
Calibration Time:	1 hrs		AMD Operational Uptime:	100.0%			
Percentile	99	95	75	50	25	5	1
	58.8	41.4	20.4	12.5	8.4	5.6	4.5

#### Status Flag Characters

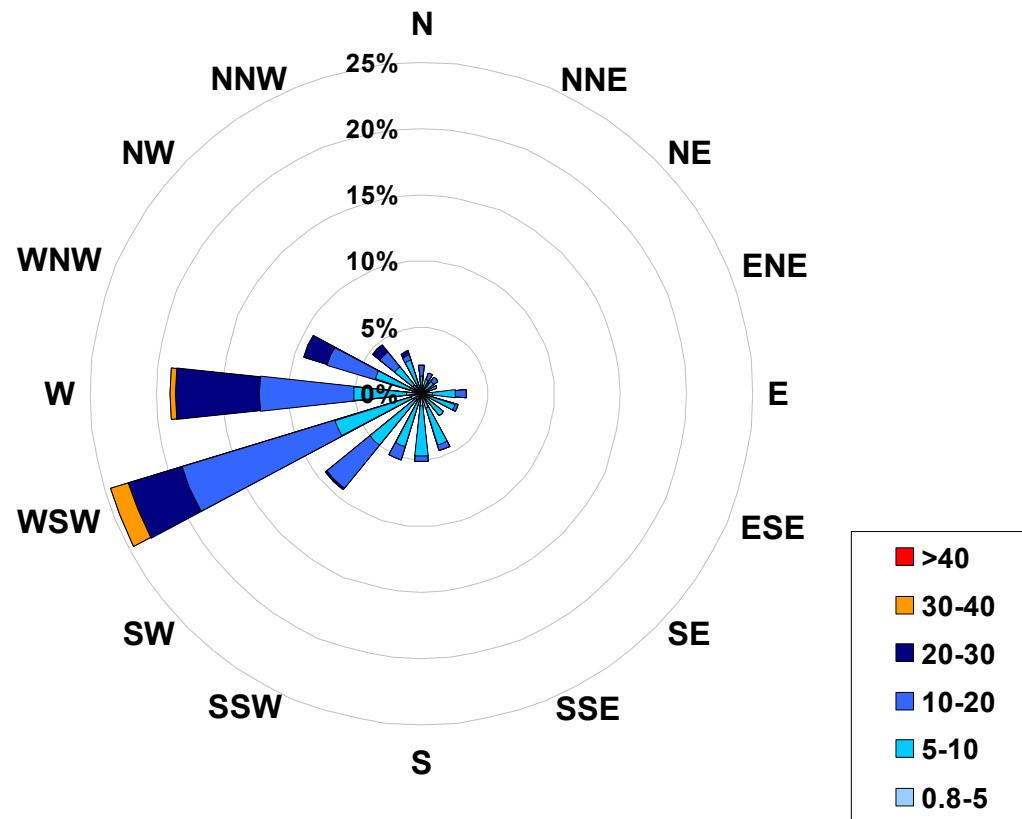
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

#### Day Mountain Standard Time

	Hour Start 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-Jul-05	36	16	8	10	49	38	14	10	9	12	16	13	11	16	10	11	13	11	15	14	9	6	4	4	49.5	
2-Jul-05	5	5	5	5	21	8	7	12	11	12	13	20	21	11	15	10	8	11	9	7	6	6	7	6	21.2	
3-Jul-05	7	6	7	6	6	6	7	8	8	7	8	10	11	12	12	12	9	8	7	6	5	6	7	10	12.2	
4-Jul-05	10	8	12	15	9	10	14	12	11	20	31	C	12	13	12	17	16	13	14	6	8	7	8	16	30.9	
5-Jul-05	43	38	41	18	42	37	20	22	14	14	18	26	21	20	12	12	8	38	53	15	12	15	18	22	52.5	
6-Jul-05	56	19	16	30	27	29	16	28	39	9	10	10	9	8	10	10	8	8	7	6	6	5	6	6	55.9	
7-Jul-05	7	6	5	6	6	6	9	9	7	7	7	6	7	8	9	8	7	8	6	6	9	8	7	10	10.3	
8-Jul-05	49	15	19	18	33	36	30	59	31	43	38	25	38	47	27	16	21	25	16	10	21	9	49	18	59.4	
9-Jul-05	22	21	20	13	20	9	9	7	9	9	8	11	13	11	9	10	10	10	7	7	6	6	9	7	22.5	
10-Jul-05	7	7	7	6	7	8	13	7	8	10	12	14	17	17	17	16	12	13	6	6	6	14	6	12	16.7	
11-Jul-05	8	11	45	12	26	23	17	20	13	10	12	22	22	18	14	29	60	27	11	14	14	18	7	33	59.7	
12-Jul-05	26	23	15	9	15	29	41	16	20	23	27	18	38	40	18	12	15	37	17	13	13	13	7	6	41.4	
13-Jul-05	11	8	8	17	12	18	12	16	14	12	10	11	10	10	9	20	7	8	6	6	5	5	5	5	20.3	
14-Jul-05	6	6	7	7	8	6	6	8	7	7	8	9	10	11	10	9	8	7	6	7	5	5	7	13	13.2	
15-Jul-05	16	26	32	16	9	9	12	38	18	21	11	34	19	22	21	20	8	10	13	29	20	11	10	11	37.6	
16-Jul-05	8	7	8	7	7	9	8	6	5	7	7	6	6	6	8	25	14	15	10	6	6	7	6	16	25.4	
17-Jul-05	11	8	12	6	11	5	9	12	10	10	10	13	13	12	10	13	9	10	6	6	6	12	15	6	14.5	
18-Jul-05	22	12	7	12	8	7	16	11	9	9	10	14	11	10	8	11	8	11	7	4	7	4	12	21.9		
19-Jul-05	4	5	6	4	5	4	5	5	5	6	5	6	17	16	12	24	8	8	8	8	16	13	16	20	24.0	
20-Jul-05	56	27	19	42	45	12	54	62	25	20	25	21	15	14	16	14	16	10	14	10	10	14	10	20	61.5	
21-Jul-05	14	38	26	48	24	33	20	18	32	29	69	52	51	61	41	40	56	28	15	10	10	9	13	14	68.6	
22-Jul-05	13	9	14	8	6	26	24	37	53	35	30	21	20	15	16	14	15	11	10	39	16	15	18	13	53.4	
23-Jul-05	12	27	15	17	5	6	5	5	7	7	8	7	9	7	11	11	12	19	22	10	8	16	26.7			
24-Jul-05	12	22	39	56	12	14	26	37	58	53	59	32	30	29	30	12	19	33	19	9	8	13	10	25	59.2	
25-Jul-05	31	18	10	10	9	16	17	10	11	12	20	22	30	26	24	22	12	41	12	23	27	31	47	14	47.5	
26-Jul-05	22	18	24	29	32	25	17	23	61	31	22	16	25	20	21	17	19	16	11	18	51	19	19	30	60.6	
27-Jul-05	27	16	12	30	12	12	16	15	11	26	25	27	35	14	16	28	62	20	12	13	12	11	20	12	62.1	
28-Jul-05	20	44	30	41	54	32	26	28	16	17	24	37	30	15	20	17	27	17	45	24	9	10	16	16	54.5	
29-Jul-05	14	22	16	23	16	26	18	12	23	24	35	20	29	21	30	11	7	9	7	8	8	23	42	42.0		
30-Jul-05	35	14	13	26	7	8	36	12	14	14	16	14	14	19	19	30	40	12	13	8	10	16	16	8	11	39.9
31-Jul-05	11	13	12	11	24	55	30	12	17	21	16	16	10	17	17	14	10	10	8	19	9	13	35	31	55.2	

Hourly Max	56	44	45	56	54	55	54	62	61	53	69	52	51	61	41	40	62	41	53	39	51	31	49	42
------------	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

**1-hr Average Wind Rose (in km/hr) Located at the Henry Pirker Site for  
July 2005**



Calms:	0%
--------	----

Frequency Distribution of Wind in km/hr			
Range		Frequency (hrs)	
0.8	< 5	73	
5	to 10	306	
10	to 20	248	
20	to 30	102	
30	to 40	14	
>	40	0	
Total Non-Zero Values		743	

# PASZA – Evergreen Park Station

## Monthly Summary Tables, Graphs, and Roses

## PASZA - Evergreen Park Sulphur Dioxide Monthly Summary

Station: Evergreen Park  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

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

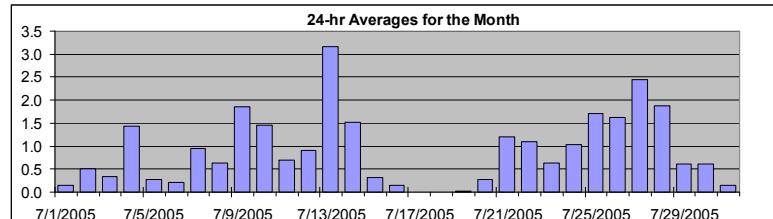
**Summary**

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	11.5 ppb 13-Jul 19:00 20:00
Maximum 24-hr Average:	3.2 ppb 13-Jul

AIC Time:	31 hrs	Operational Time:	677 hrs					
Calibration Time:	6 hrs	AMD Operational Uptime:	96.0%					
Percentile	99 6.8	95 4.1	75 1.2	50 0.5	25 0.0	5 0.0	1 0.0	Average 1.0 ppb

### HOURLY AVERAGE TABLE

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



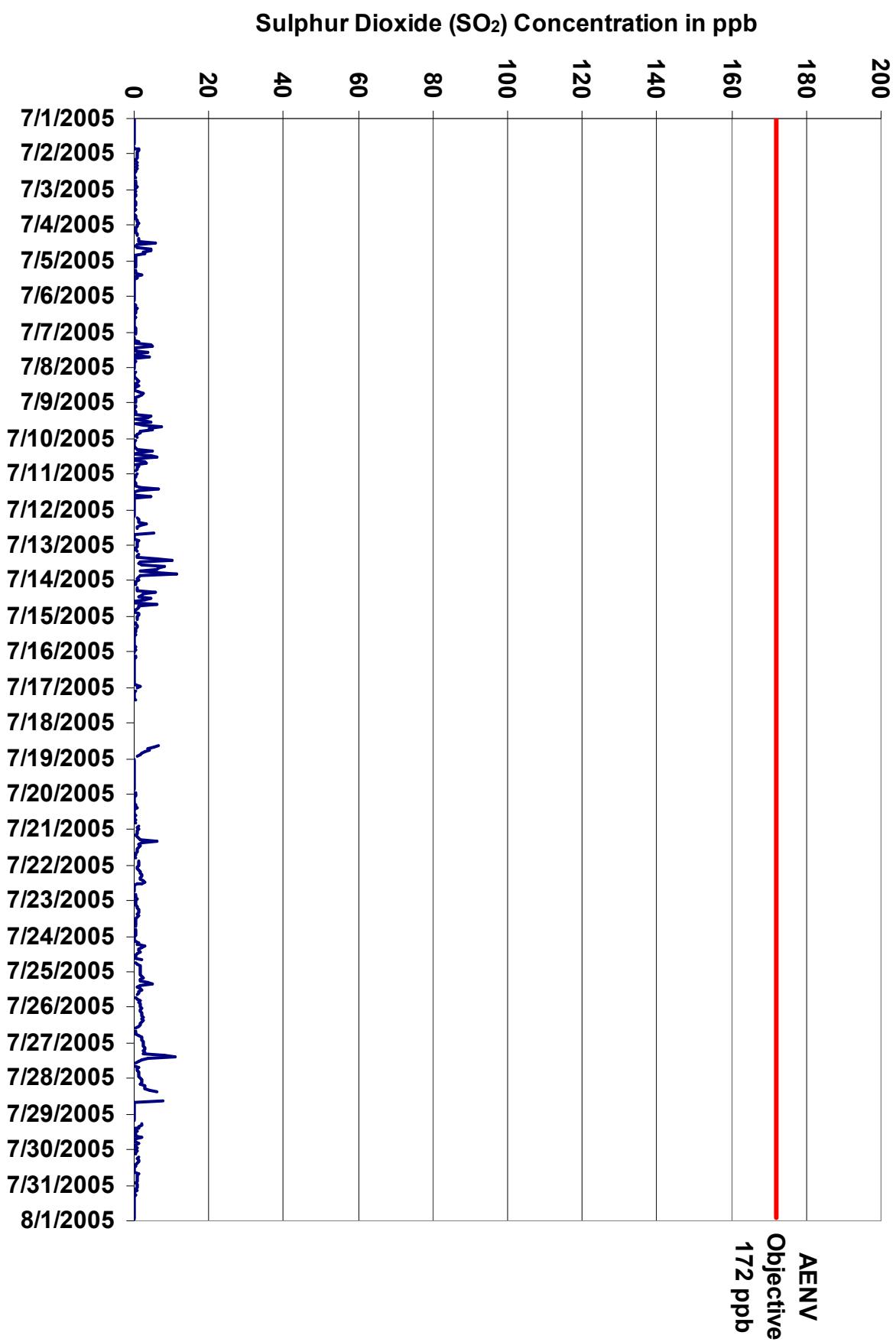
### Status Flag Characters

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

	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	Daily Maximum	
	Hour Start 1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00			
1-Jul-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	1	0.1	1.4	
2-Jul-05	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	A	0	0	1	1	1	0.5	0.9	
3-Jul-05	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	0.3	1.3	
4-Jul-05	1	1	0	1	0	0	1	1	C	1	1	1	6	1	1	1	5	5	2	3	0	0	1	1	1.4	5.8	
5-Jul-05	0	0	0	0	0	A	1	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	2.0	
6-Jul-05	0	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7	
7-Jul-05	0	0	0	0	A	0	0	0	1	1	4	5	1	0	0	0	4	1	0	4	0	0	0	0	0.9	4.8	
8-Jul-05	0	0	A	0	0	0	0	0	1	1	1	0	1	0	0	0	0	1	2	2	2	1	0	0	0.6	2.4	
9-Jul-05	0	A	1	0	0	0	0	1	1	5	3	0	3	4	1	2	7	4	5	1	1	1	1	1	1.9	7.3	
10-Jul-05	A	0	0	0	0	0	0	1	5	1	0	4	4	6	0	0	3	3	0	1	1	1	0	A	1.5	6.2	
11-Jul-05	1	0	0	0	0	0	0	1	0	2	6	1	0	0	0	4	0	0	0	0	0	0	0	0	0.7	6.5	
12-Jul-05	0	0	0	0	0	A	1	1	1	1	3	1	1	1	C	C	5	0	0	0	0	0	1	1	0.9	5.3	
13-Jul-05	1	1	1	1	1	A	1	1	1	6	10	2	1	2	8	6	6	2	6	11	2	1	1	1	3.2	11.5	
14-Jul-05	1	1	1	1	1	A	1	1	1	6	3	2	1	4	3	0	0	6	1	1	1	0	0	1	1	1.5	6.0
15-Jul-05	1	1	1	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0	
16-Jul-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	1.5	
17-Jul-05	1	A	0	0	0	0	0	0	0	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.6		
18-Jul-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	7	5	4	4	3	2	2	1	N	6.6
19-Jul-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	0.0	0.5	
20-Jul-05	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	A	1	0.3	1.0	
21-Jul-05	1	1	1	1	1	1	2	6	2	1	2	1	1	1	1	1	0	0	0	A	1	1	1	1.2	6.1		
22-Jul-05	1	1	1	1	2	2	2	2	2	3	2	1	0	0	0	0	0	A	0	0	0	1	1	1.1	2.7		
23-Jul-05	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	A	0	0	0	0	0	0.6	1.3	
24-Jul-05	0	0	0	1	1	1	1	3	2	1	1	2	1	0	0	0	2	A	0	1	2	2	2	2	1.0	2.8	
25-Jul-05	2	2	2	2	2	2	2	4	5	2	1	2	2	2	1	1	1	A	0	0	0	1	2	2	1.7	4.7	
26-Jul-05	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	0	0	A	0	0	0	1	2	2	1.6	2.4	
27-Jul-05	2	2	3	3	3	3	3	2	8	11	4	2	1	1	A	0	1	1	1	1	1	1	1	2.4	11.0		
28-Jul-05	2	2	2	2	3	3	3	3	4	6	C	C	C	A	A	8	0	0	0	0	0	0	0	1.9	7.8		
29-Jul-05	0	0	0	0	A	2	2	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1	1	0.6	2.1		
30-Jul-05	1	1	0	0	A	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1	0	0.6	1.2		
31-Jul-05	1	1	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8	
	Hourly Avg	0.7	0.6	0.6	0.6	0.6	0.7	0.8	1.1	1.8	1.9	1.8	0.9	1.2	0.8	0.7	1.1	1.7	1.0	0.9	1.0	0.6	0.6	0.7	0.8		
	Hourly Max	2.4	2.4	2.6	2.7	2.7	2.7	2.7	3.7	8.2	11.0	10.3	3.6	5.8	6.2	8.1	7.8	7.3	4.6	5.8	11.5	2.2	1.9	2.1	2.3		

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



Station: Evergreen Park  
 Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY MAXIMUM TABLE

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

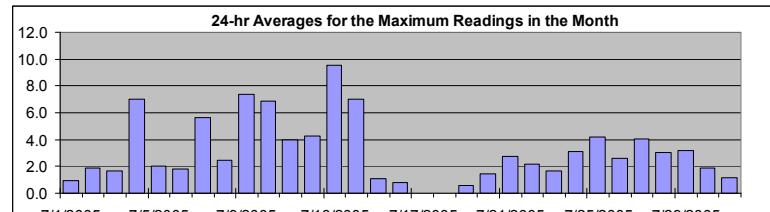
#### Summary

Maximum 1-hr Value:	35.6 ppb	12-Jul 16:00	17:00
Maximum 24-hr Value:	9.5 ppb	13-Jul	

AIC Time:	31 hrs	Operational Time:	677 hrs	
Calibration Time:	6 hrs	AMD Operational Uptime:	96.0%	
Percentile	99 95 75 50 25 5 1	Average		
	26.1 17.2 2.6 1.7 1.1 0.0 0.0	3.3 ppb		

#### Day Mountain Standard Time

	Hour Start 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
1-Jul-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	A	1	2	2	12	2	0.9	11.8
2-Jul-05	2	2	2	2	2	2	2	2	1	2	2	2	5	1	2	1	1	A	1	1	1	1	2	3	1	1.9	4.9
3-Jul-05	1	1	1	1	1	1	1	1	1	2	1	1	1	1	3	1	1	A	2	1	2	1	2	2	8	1.7	7.9
4-Jul-05	2	2	1	2	2	2	2	2	C	3	2	4	23	2	2	2	32	20	27	24	2	2	1	2	7.0	32.4	
5-Jul-05	2	1	2	1	2	A	1	1	2	1	4	3	7	3	5	5	1	1	0	1	2	0	1	1	2.1	6.5	
6-Jul-05	2	1	1	1	A	1	1	1	2	2	1	2	1	1	2	1	1	0	14	1	1	1	1	1	2	1.8	14.2
7-Jul-05	2	1	2	A	1	1	1	14	2	17	15	2	2	1	26	12	1	21	1	2	1	3	1	0	5.6	25.9	
8-Jul-05	0	1	A	1	1	1	1	2	2	2	2	2	3	2	1	3	14	4	4	4	4	2	1	2	2.4	13.9	
9-Jul-05	1	A	2	1	1	1	1	1	1	22	11	1	19	23	2	8	17	20	22	3	5	2	1	2	7.4	23.4	
10-Jul-05	A	2	1	1	1	1	1	8	22	7	1	18	15	24	4	1	13	20	2	2	2	2	2	1	A	6.9	23.6
11-Jul-05	2	1	1	1	1	1	1	2	2	9	23	11	1	1	9	23	2	0	0	0	1	1	1	1	4.0	23.3	
12-Jul-05	1	1	1	1	1	A	3	2	2	3	14	3	3	2	C	C	36	7	1	0	2	2	2	2	4.2	35.6	
13-Jul-05	2	2	2	1	2	A	2	2	2	16	27	9	2	11	27	26	22	3	25	27	5	3	2	2	9.5	26.9	
14-Jul-05	2	2	2	2	A	2	2	2	24	19	14	2	18	25	1	1	31	3	2	2	1	2	2	2	7.0	30.5	
15-Jul-05	2	2	2	A	1	2	2	2	2	1	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1.1	2.0	
16-Jul-05	1	1	A	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	3	0.8	3.0	
17-Jul-05	2	A	1	1	1	1	1	0	15	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	15.3	
18-Jul-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	8	8	5	5	5	6	3	1	A	8.3	
19-Jul-05	0	1	1	1	0	1	0	0	1	1	0	1	0	1	1	0	0	0	0	1	2	1	A	1	0.6	2.2	
20-Jul-05	2	1	1	1	1	1	1	1	1	2	1	1	1	2	1	1	1	9	1	1	1	1	A	2	2	1.4	9.2
21-Jul-05	2	2	2	2	1	2	2	4	14	3	3	6	2	2	2	2	2	2	2	1	A	2	2	2	2.8	13.6	
22-Jul-05	2	2	2	3	2	3	3	3	2	3	4	4	4	3	1	1	1	1	1	A	1	2	2	2	2.2	4.5	
23-Jul-05	2	1	2	1	2	2	2	2	2	2	2	2	1	2	2	1	1	1	A	1	1	1	1	1	1.6	2.4	
24-Jul-05	1	1	1	1	2	2	2	4	3	2	3	5	2	2	1	1	14	A	3	9	2	3	3	3	3.1	14.1	
25-Jul-05	2	3	3	3	3	2	2	14	17	3	2	8	9	2	2	4	A	2	2	3	2	3	3	3	4.2	17.2	
26-Jul-05	3	3	3	3	3	3	3	3	4	3	3	3	2	1	1	A	2	2	1	2	3	3	3	2.6	3.5		
27-Jul-05	4	3	4	4	4	4	4	3	12	20	6	3	2	2	A	2	2	2	2	3	2	2	2	4.0	19.7		
28-Jul-05	3	3	3	3	3	4	3	5	8	13	C	C	C	A	A	9	0	0	0	0	0	1	0	3.0	12.6		
29-Jul-05	0	0	1	1	1	A	5	5	2	2	2	2	2	1	1	17	2	1	2	20	2	2	2	3.2	19.5		
30-Jul-05	2	2	2	2	A	2	2	2	3	2	2	2	2	1	1	1	2	3	2	2	2	2	1	2	1.9	3.4	
31-Jul-05	2	2	2	A	2	1	1	2	1	1	1	1	0	2	1	4	4	4	0	0	0	0	0	0	1.2	4.5	
Hourly Avg	1.7	1.5	1.5	1.6	1.6	1.8	3.0	5.3	5.6	5.4	3.5	4.6	4.4	3.7	4.3	8.1	4.6	4.3	3.4	2.5	1.7	2.0	1.9				
Hourly Max	3.6	3.3	3.6	3.5	3.7	3.9	5.5	14.0	24.3	21.6	26.9	18.0	23.3	25.3	26.8	26.0	35.6	21.0	26.6	26.6	19.5	3.3	11.8	7.9			



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

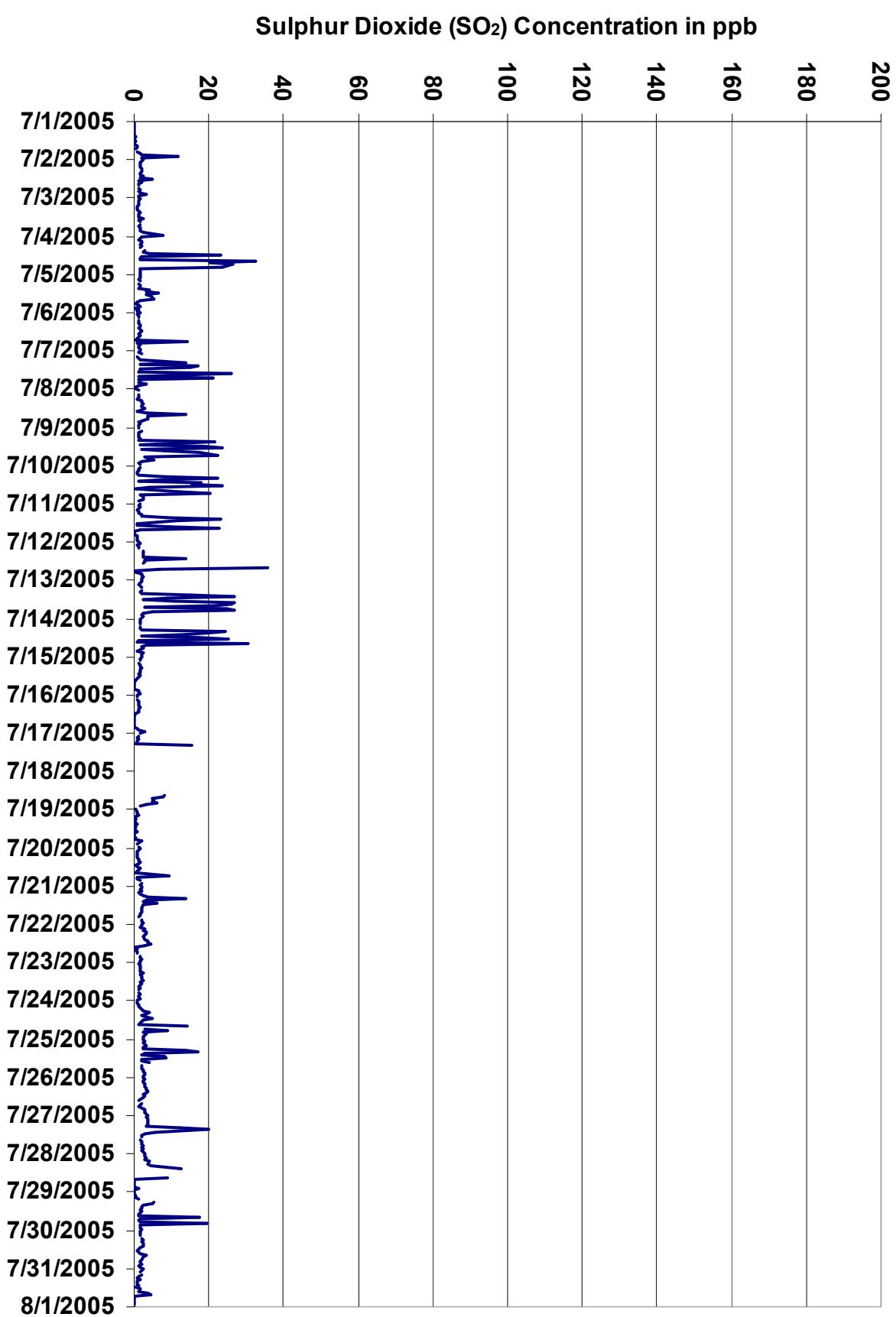
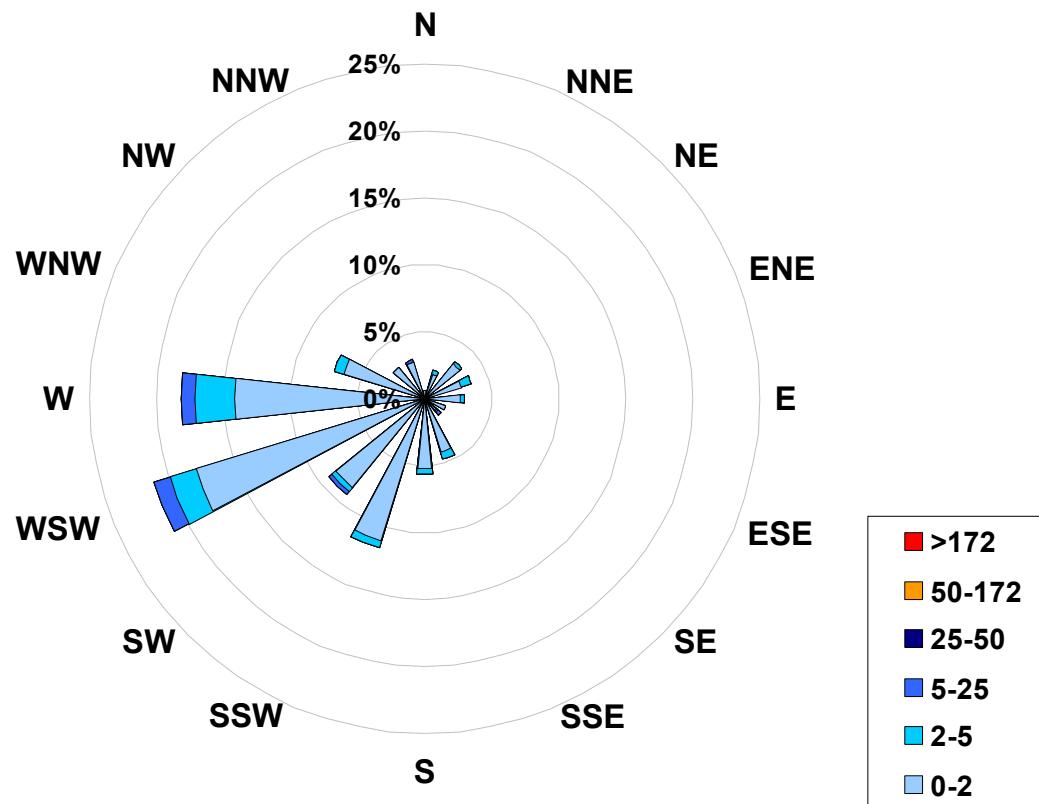


Figure 21. PASZA - Evergreen Park Sulphur Dioxide 1-hr Maximum Value Monthly Trend

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



Calms:	0%
--------	----

Frequency Distribution of SO <sub>2</sub> in ppb			Frequency (hrs)
Range			
0.0	<	2	592
2	to	5	64
5	to	25	21
25	to	50	0
50	to	172	0
	>	172	0
Total Non-Zero Values			677

## PASZA - Evergreen Park Total Reduced Sulphur Monthly Summary

Station: Evergreen Park  
 Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

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

Maximum 1-hr Average:	1.8	ppb	27-Jul	8:00 9:00
Maximum 24-hr Value:	0.6	ppb	27-Jul	

AIC Time:	32 hrs	Operational Time:	706 hrs						
Calibration Time:	6 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	
	0.9	0.6	0.5	0.5	0.4	0.3	0.2		0.5 ppb

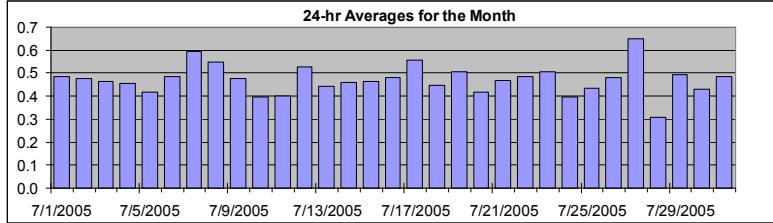
### Day Mountain Standard Time

	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	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-hour Average		
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	24:00			
1-Jul-05	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.5	0.7
2-Jul-05	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	0	1	A	0	0	0	0	0	0	0	0.5	0.5
3-Jul-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	1	0.5	0.5
4-Jul-05	0	0	0	0	0	0	0	0	0	C	0	0	1	1	1	0	1	1	0	1	1	0	1	0	0	0.5	0.5
5-Jul-05	0	0	0	0	0	0	A	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0.4	0.5
6-Jul-05	0	0	0	0	0	A	0	1	1	1	0	0	0	0	0	1	0	0	1	1	1	1	1	1	1	0.5	0.6
7-Jul-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
8-Jul-05	0	0	A	0	0	0	0	1	1	1	1	0	1	0	1	0	0	1	0	0	0	0	0	1	0	0.5	1.2
9-Jul-05	0	A	0	0	0	0	0	0	0	1	1	1	0	0	1	1	1	1	1	1	1	0	0	0	0	0.5	0.6
10-Jul-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	A	0.4	0.5
11-Jul-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0.4	0.5
12-Jul-05	0	1	1	0	0	A	1	1	1	1	1	1	1	1	1	1	C	C	1	1	1	0	1	0	1	0.5	0.6
13-Jul-05	0	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
14-Jul-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0.5	0.5
15-Jul-05	0	0	0	A	0	1	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0.5	0.6
16-Jul-05	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	1	1	1	0.5	0.6
17-Jul-05	0	A	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.6	0.8
18-Jul-05	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0.4	0.5	
19-Jul-05	1	1	1	0	0	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0.5	0.7
20-Jul-05	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	1	1	1	A	1	0	0	0	0.4	0.9
21-Jul-05	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	1	1	0	0	0	A	1	0	0	0.5	0.6
22-Jul-05	0	0	0	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.5	0.7	
23-Jul-05	0	0	1	1	1	1	1	0	0	0	1	0	0	1	1	0	1	1	A	1	0	0	0	0	0.5	0.6	
24-Jul-05	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0.4	0.6
25-Jul-05	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	1	1	0	0	0	0.4	0.6
26-Jul-05	1	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	A	0	1	1	0	0	0	0	1	0.5	0.6
27-Jul-05	0	0	0	0	0	1	1	1	2	1	1	1	0	0	0	A	1	0	0	0	0	0	1	1	0	0.6	1.8
28-Jul-05	0	0	0	0	0	0	1	1	0	C	C	A	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
29-Jul-05	0	0	0	0	0	A	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0.5	0.9
30-Jul-05	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
31-Jul-05	1	0	0	A	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0.5	0.7

Hourly Avg	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Hourly Max	0.7	0.6	0.6	0.6	0.7	1.4	1.1	0.9	1.8	1.1	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6

### HOURLY AVERAGE TABLE

### Total Reduced Sulphur (TRS)



### 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

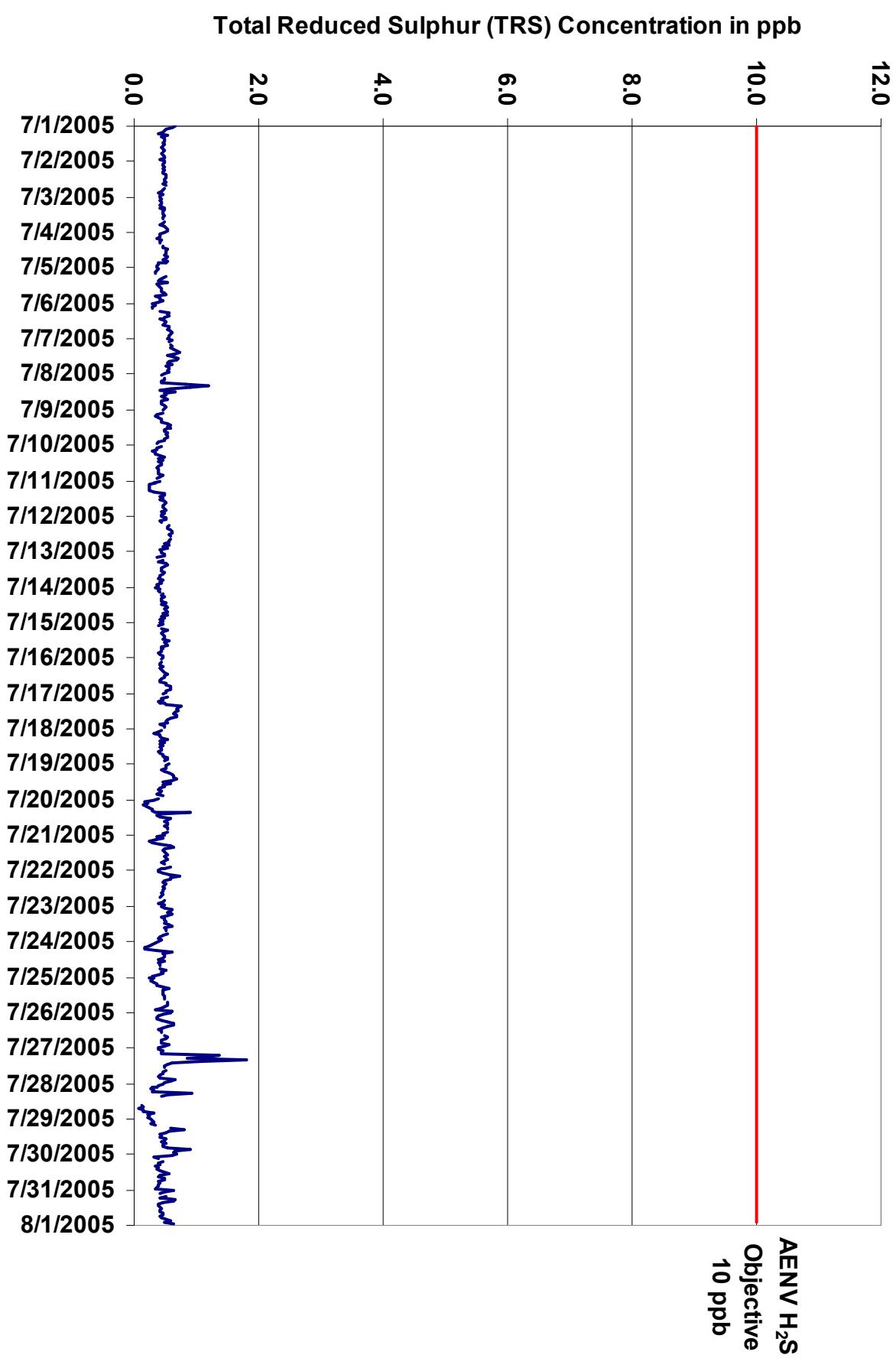


Figure 22. PASZA - Evergreen Park Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Evergreen Park  
 Station Owner: PASZA

### HOURLY MAXIMUM TABLE

### Total Reduced Sulphur (TRS)

Monitoring Dates: July 1, 2005 to August 1, 2005

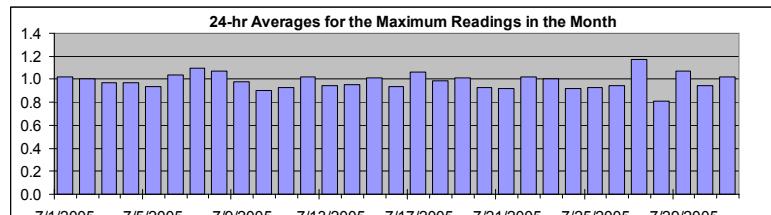
#### Summary

Maximum 1-hr Value:	2.6 ppb	27-Jul 8:00	9:00
Maximum 24-hr Value:	1.2 ppb	27-Jul	

AIC Time:	32 hrs	Operational Time:	706 hrs														
Calibration Time:	6 hrs	AMD Operational Uptime:	100.0%														
Percentile	<table border="1"> <tr> <td>99</td><td>95</td><td>75</td><td>50</td><td>25</td><td>5</td><td>1</td> </tr> <tr> <td>2.0</td><td>1.3</td><td>1.0</td><td>1.0</td><td>0.9</td><td>0.7</td><td>0.6</td> </tr> </table>			99	95	75	50	25	5	1	2.0	1.3	1.0	1.0	0.9	0.7	0.6
99	95	75	50	25	5	1											
2.0	1.3	1.0	1.0	0.9	0.7	0.6											
	Average 1.0 ppb																

#### Day Mountain Standard Time

	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-hour Average	Daily Maximum		
1-Jul-05	1:00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	1	1.0	2.4		
2-Jul-05	1:00	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	1.9		
3-Jul-05	1:00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.0	1.7	
4-Jul-05	1:00	1	1	1	1	1	1	1	1	C	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1.0	1.5	
5-Jul-05	1:00	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	0.9	1.2	
6-Jul-05	1:00	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1.0	2.5
7-Jul-05	1:00	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	1.3	
8-Jul-05	1:00	1	A	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.3	
9-Jul-05	1:00	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	1.0	1.2	
10-Jul-05	1:00	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.1	
11-Jul-05	1:00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	0.9	1.9	
12-Jul-05	1:00	1	1	1	1	1	A	1	1	1	1	1	1	1	1	C	C	1	1	1	1	1	1	1	1	1	1.0	1.3	
13-Jul-05	1:00	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	0.9	1.4	
14-Jul-05	1:00	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	0.9	1.2	
15-Jul-05	1:00	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	1.2	
16-Jul-05	1:00	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1	
17-Jul-05	1:00	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	1.1	1.8	
18-Jul-05	1:00	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.0	1.3	
19-Jul-05	1:00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.0	1.2	
20-Jul-05	1:00	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	2.0	
21-Jul-05	1:00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.2	
22-Jul-05	1:00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.0	1.4	
23-Jul-05	1:00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.0	1.2	
24-Jul-05	1:00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	0.9	2.0	
25-Jul-05	1:00	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6	
26-Jul-05	1:00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.9	1.1	
27-Jul-05	1:00	1	1	1	1	1	1	2	2	2	3	2	1	1	1	1	A	1	1	1	1	1	1	1	1	1.2	2.6		
28-Jul-05	1:00	1	1	1	1	1	1	1	2	1	1	C	C	C	A	A	1	1	1	1	1	1	1	1	1	0.8	2.0		
29-Jul-05	1:00	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	1.1	1.7	
30-Jul-05	1:00	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	0.9	1.3	
31-Jul-05	1:00	1	1	1	A	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.6	
Hourly Avg		1.0	0.9	0.9	0.9	0.9	1.0	1.0	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0			
Hourly Max		1.3	1.3	1.2	1.3	1.4	2.0	1.7	2.3	2.6	2.1	1.3	1.2	1.9	1.2	1.2	1.9	1.5	1.2	2.5	2.0	1.8	1.7	2.4	1.7				



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

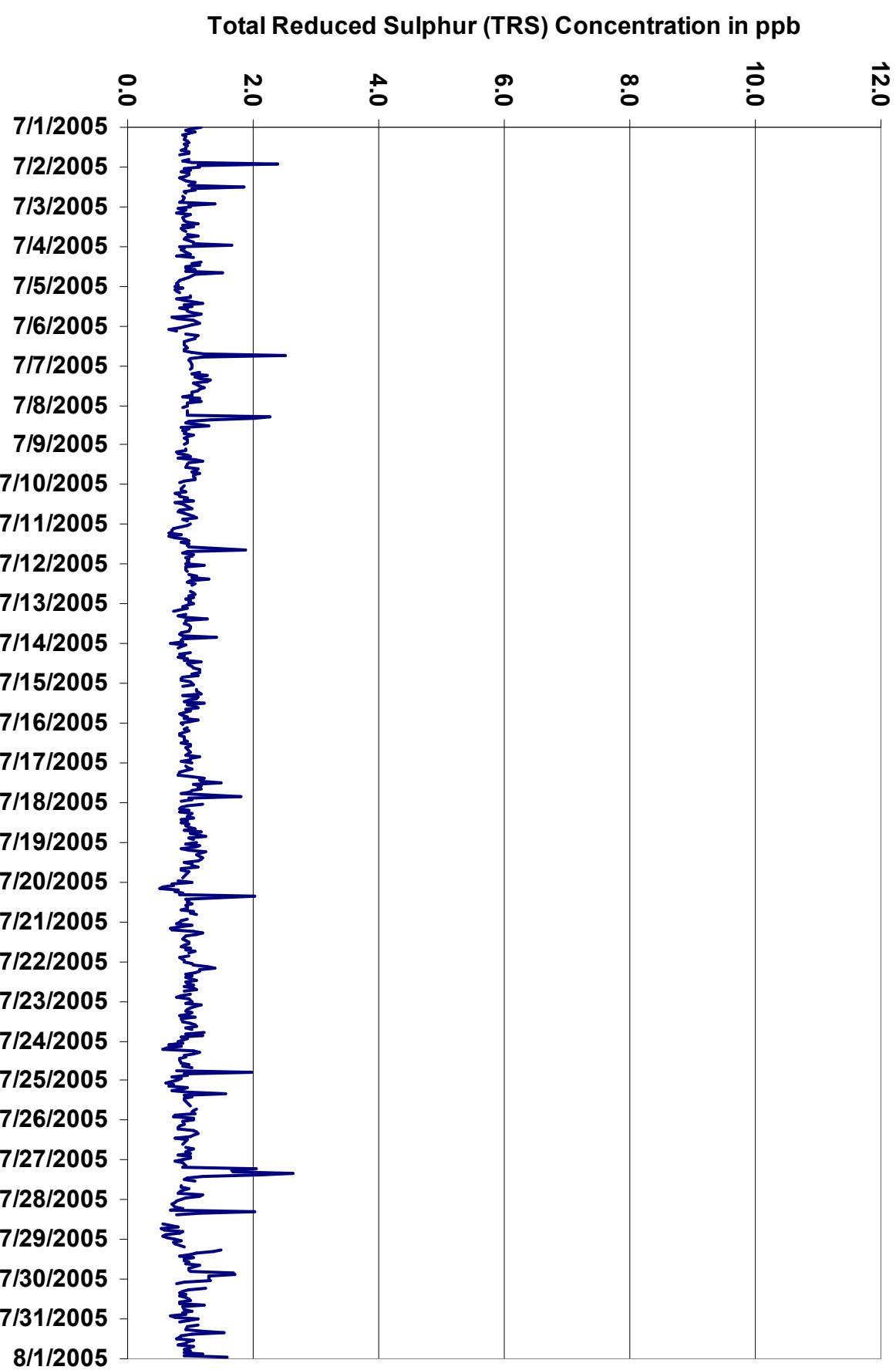
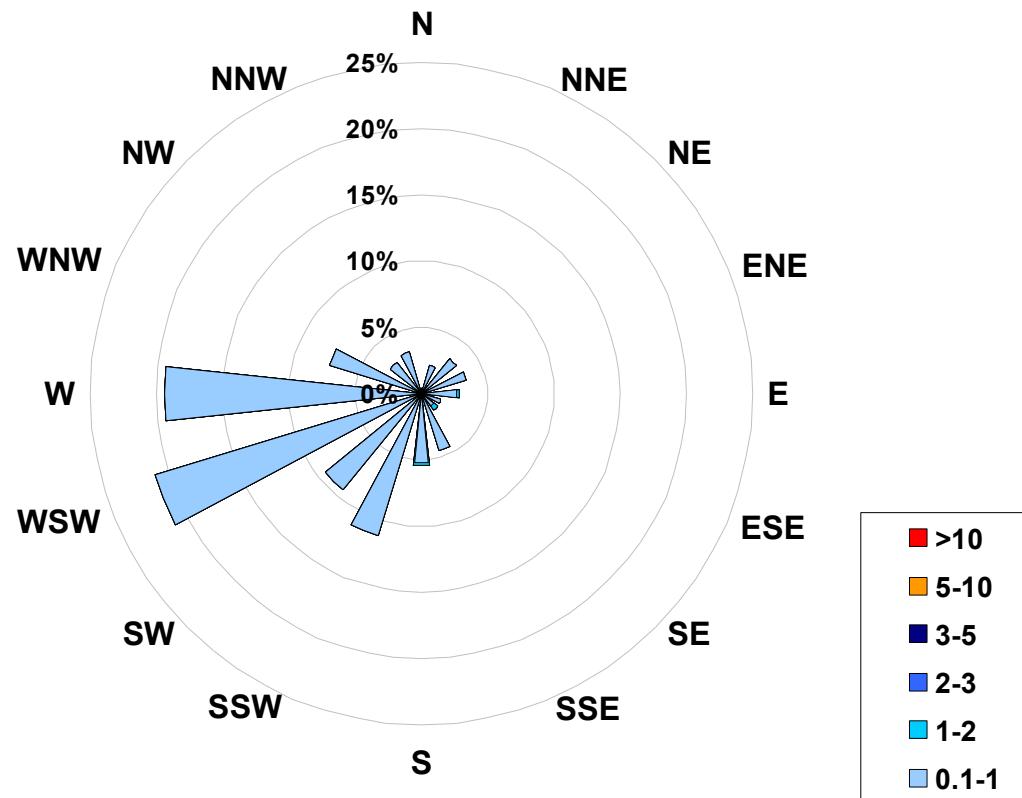


Figure 23. PASZA - Evergreen Park Total Reduced Sulphur 1-hr Maximum Value Monthly Trend

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



Calms:	0%
--------	----

Frequency Distribution of TRS in ppb		
Range	Frequency (hrs)	
0.1 < 1	701	
1 to 2	5	
2 to 3	0	
3 to 5	0	
5 to 10	0	
> 10	0	
Total Non-Zero Values	706	

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

Station: Evergreen Park  
 Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

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:	46.6 $\mu\text{g}/\text{m}^3$ 17-Jul 15:00 16:00
Maximum 24-hr Value:	13.0 $\mu\text{g}/\text{m}^3$ 17-Jul

AIC Time:	0 hrs	Operational Time:	731 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	98.5%
Percentile	99 95 75 50 25 5 1	Average	3.8 $\mu\text{g}/\text{m}^3$
	24.3 11.4 4.9 2.4 0.8 0.0 0.0	Geomean	3.2 $\mu\text{g}/\text{m}^3$

**Day Mountain Standard Time**

	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	32:00	33:00	34:00	35:00	36:00	37:00	38:00	39:00	40:00	41:00	42:00	43:00	44:00	45:00	46:00	47:00	48:00	49:00	50:00	51:00	52:00	53:00	54:00	55:00	56:00	57:00	58:00	59:00	60:00	61:00	62:00	63:00	64:00	65:00	66:00	67:00	68:00	69:00	70:00	71:00	72:00	73:00	74:00	75:00	76:00	77:00	78:00	79:00	80:00	81:00	82:00	83:00	84:00	85:00	86:00	87:00	88:00	89:00	90:00	91:00	92:00	93:00	94:00	95:00	96:00	97:00	98:00	99:00	100:00	101:00	102:00	103:00	104:00	105:00	106:00	107:00	108:00	109:00	110:00	111:00	112:00	113:00	114:00	115:00	116:00	117:00	118:00	119:00	120:00	121:00	122:00	123:00	124:00	125:00	126:00	127:00	128:00	129:00	130:00	131:00	132:00	133:00	134:00	135:00	136:00	137:00	138:00	139:00	140:00	141:00	142:00	143:00	144:00	145:00	146:00	147:00	148:00	149:00	150:00	151:00	152:00	153:00	154:00	155:00	156:00	157:00	158:00	159:00	160:00	161:00	162:00	163:00	164:00	165:00	166:00	167:00	168:00	169:00	170:00	171:00	172:00	173:00	174:00	175:00	176:00	177:00	178:00	179:00	180:00	181:00	182:00	183:00	184:00	185:00	186:00	187:00	188:00	189:00	190:00	191:00	192:00	193:00	194:00	195:00	196:00	197:00	198:00	199:00	200:00	201:00	202:00	203:00	204:00	205:00	206:00	207:00	208:00	209:00	210:00	211:00	212:00	213:00	214:00	215:00	216:00	217:00	218:00	219:00	220:00	221:00	222:00	223:00	224:00	225:00	226:00	227:00	228:00	229:00	230:00	231:00	232:00	233:00	234:00	235:00	236:00	237:00	238:00	239:00	240:00	241:00	242:00	243:00	244:00	245:00	246:00	247:00	248:00	249:00	250:00	251:00	252:00	253:00	254:00	255:00	256:00	257:00	258:00	259:00	260:00	261:00	262:00	263:00	264:00	265:00	266:00	267:00	268:00	269:00	270:00	271:00	272:00	273:00	274:00	275:00	276:00	277:00	278:00	279:00	280:00	281:00	282:00	283:00	284:00	285:00	286:00	287:00	288:00	289:00	290:00	291:00	292:00	293:00	294:00	295:00	296:00	297:00	298:00	299:00	300:00	301:00	302:00	303:00	304:00	305:00	306:00	307:00	308:00	309:00	310:00	311:00	312:00	313:00	314:00	315:00	316:00	317:00	318:00	319:00	320:00	321:00	322:00	323:00	324:00	325:00	326:00	327:00	328:00	329:00	330:00	331:00	332:00	333:00	334:00	335:00	336:00	337:00	338:00	339:00	340:00	341:00	342:00	343:00	344:00	345:00	346:00	347:00	348:00	349:00	350:00	351:00	352:00	353:00	354:00	355:00	356:00	357:00	358:00	359:00	360:00	361:00	362:00	363:00	364:00	365:00	366:00	367:00	368:00	369:00	370:00	371:00	372:00	373:00	374:00	375:00	376:00	377:00	378:00	379:00	380:00	381:00	382:00	383:00	384:00	385:00	386:00	387:00	388:00	389:00	390:00	391:00	392:00	393:00	394:00	395:00	396:00	397:00	398:00	399:00	400:00	401:00	402:00	403:00	404:00	405:00	406:00	407:00	408:00	409:00	410:00	411:00	412:00	413:00	414:00	415:00	416:00	417:00	418:00	419:00	420:00	421:00	422:00	423:00	424:00	425:00	426:00	427:00	428:00	429:00	430:00	431:00	432:00	433:00	434:00	435:00	436:00	437:00	438:00	439:00	440:00	441:00	442:00	443:00	444:00	445:00	446:00	447:00	448:00	449:00	450:00	451:00	452:00	453:00	454:00	455:00	456:00	457:00	458:00	459:00	460:00	461:00	462:00	463:00	464:00	465:00	466:00	467:00	468:00	469:00	470:00	471:00	472:00	473:00	474:00	475:00	476:00	477:00	478:00	479:00	480:00	481:00	482:00	483:00	484:00	485:00	486:00	487:00	488:00	489:00	490:00	491:00	492:00	493:00	494:00	495:00	496:00	497:00	498:00	499:00	500:00	501:00	502:00	503:00	504:00	505:00	506:00	507:00	508:00	509:00	510:00	511:00	512:00	513:00	514:00	515:00	516:00	517:00	518:00	519:00	520:00	521:00	522:00	523:00	524:00	525:00	526:00	527:00	528:00	529:00	530:00	531:00	532:00	533:00	534:00	535:00	536:00	537:00	538:00	539:00	540:00	541:00	542:00	543:00	544:00	545:00	546:00	547:00	548:00	549:00	550:00	551:00	552:00	553:00	554:00	555:00	556:00	557:00	558:00	559:00	560:00	561:00	562:00	563:00	564:00	565:00	566:00	567:00	568:00	569:00	570:00	571:00	572:00	573:00	574:00	575:00	576:00	577:00	578:00	579:00	580:00	581:00	582:00	583:00	584:00	585:00	586:00	587:00	588:00	589:00	590:00	591:00	592:00	593:00	594:00	595:00	596:00	597:00	598:00	599:00	600:00	601:00	602:00	603:00	604:00	605:00	606:00	607:00	608:00	609:00	610:00	611:00	612:00	613:00	614:00	615:00	616:00	617:00	618:00	619:00	620:00	621:00	622:00	623:00	624:00	625:00	626:00	627:00	628:00	629:00	630:00	631:00	632:00	633:00	634:00	635:00	636:00	637:00	638:00	639:00	640:00	641:00	642:00	643:00	644:00	645:00	646:00	647:00	648:00	649:00	650:00	651:00	652:00	653:00	654:00	655:00	656:00	657:00	658:00	659:00	660:00	661:00	662:00	663:00	664:00	665:00	666:00	667:00	668:00	669:00	670:00	671:00	672:00	673:00	674:00	675:00	676:00	677:00	678:00	679:00	680:00	681:00	682:00	683:00	684:00	685:00	686:00	687:00	688:00	689:00	690:00	691:00	692:00	693:00	694:00	695:00	696:00	697:00	698:00	699:00	700:00	701:00	702:00	703:00	704:00	705:00	706:00	707:00	708:00	709:00	710:00	711:00	712:00	713:00	714:00	715:00	716:00	717:00	718:00	719:00	720:00	721:00	722:00	723:00	724:00	725:00	726:00	727:00	728:00	729:00	730:00	731:00	732:00	733:00	734:00	735:00	736:00	737:00	738:00	739:00	740:00	741:00	742:00	743:00	744:00	745:00	746:00	747:00	748:00	749:00	750:00	751:00	752:00	753:00	754:00	755:00	756:00	757:00	758:00	759:00	760:00	761:00	762:00	763:00	764:00	765:00	766:00	767:00	768:00	769:00	770:00	771:00	772:00	773:00	774:00	775:00	776:00	777:00	778:00	779:00	780:00	781:00	782:00	783:00	784:00	785:00	786:00	787:00	788:00	789:00	790:00	791:00	792:00	793:00	794:00	795:00	796:00	797:00	798:00	799:00	800:00	801:00	802:00	803:00	804:00	805:00	806:00	807:00	808:00	809:00	810:00	811:00	812:00	813:00	814:00	815:00	816:00	817:00	818:00	819:00	820:00	821:00	822:00	823:00	824:00	825:00	826:00	827:00	828:00	829:00	830:00	831:00	832:00	833:00	834:00	835:00	836:00	837:00	838:00	839:00	840:00	841:00	842:00	843:00	844:00	845:00	846:00	847:00	848:00	849:00	850:00	851:00	852:00	853:00	854:00	855:00	856:00	857:00	858:00	859:00	860:00	861:00	862:00	863:00	864:00	865:00	866:00	867:00	868:00	869:00	870:00	871:00	872:00	873:00	874:00	875:00	876:00	877:00	878:00	879:00	880:00	881:00	882:00	883:00	884:00	885:00	886:00	887:00	888:00	889:00	890:00	891:00	892:00	893:00	894:00	895:00	896:00	897:00	898:00	899:00	900:00	901:00	902:00	903:00	904:00	905:00	906:00	907:00	908:00	909:00	910:00	911:00	912:00	913:00	914:00	915:00	916:00	917:00	918:00	919:00	920:00	921:00	922:00	923:00	924:00	925:00	926:00	927:00	928:00	929:00	930:00	931:00	932:00	933:00	934:00	935:00	936:00	937:00	938:00	939:00	940:00	941:00	942:00</

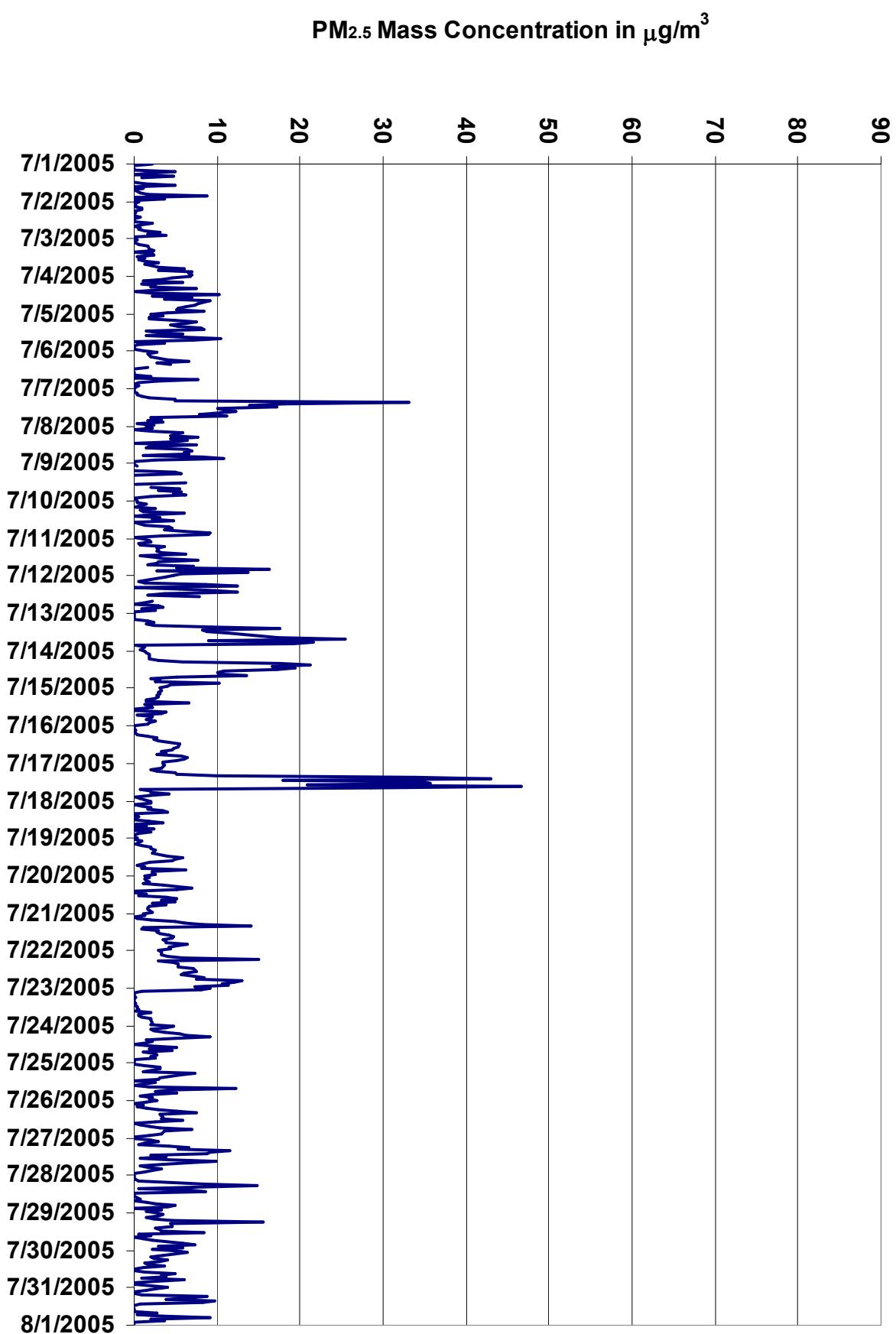


Figure 24. PASZA - Evergreen Park Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Evergreen Park  
 Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY MAXIMUM TABLE

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

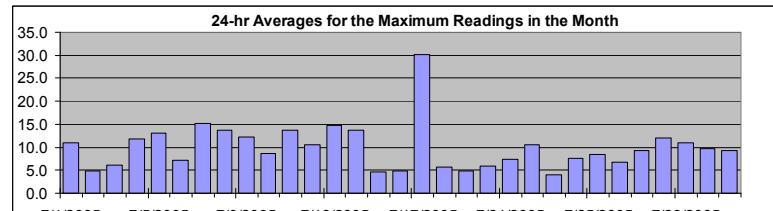
#### Summary

Maximum 1-hr Average:	104.4	µg/m <sup>3</sup>	17-Jul	10:00 11:00
Maximum 24-hr Value:	30.2	µg/m <sup>3</sup>	17-Jul	

AIC Time:	0 hrs	Operational Time:	731 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	98.5%
Percentile	99 95 75 50 25 5 1	Average	Geomean
	50.0 27.5 12.4 7.0 4.0 1.6 0.3	9.9 µg/m <sup>3</sup>	9.0 µg/m <sup>3</sup>

#### Day Mountain Standard Time

	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-hour Average	Daily Maximum
1-Jul-05	10 1:00	4	D	4	5	18	18	7	12	8	D	D	9	13	12	8	13	13	6	12	18	17	21	1	10.9	20.6	
2-Jul-05	1 2:00	3	1	1	3	5	2	3	3	3	6	5	5	9	9	6	6	4	2	4	5	5	26	0	4.8	25.6	
3-Jul-05	2 3:00	2	1	2	2	3	3	4	4	9	7	5	4	6	7	7	5	7	7	10	5	15	16	14	6.1	15.7	
4-Jul-05	13 4:00	8	7	5	8	8	7	8	19	13	5	8	24	14	16	13	22	13	14	14	8	10	17	11	11.9	23.7	
5-Jul-05	7 5:00	6	4	10	12	11	11	15	21	17	18	15	12	13	18	21	19	16	36	16	8	0	2	13.1	36.2		
6-Jul-05	6 6:00	7	5	4	6	8	12	5	7	D	12	10	D	5	5	7	8	10	21	7	4	5	4	2	7.2	20.5	
7-Jul-05	1 7:00	2	2	2	2	3	4	9	29	51	37	25	28	17	36	26	17	36	6	8	8	10	3	6	15.2	51.3	
8-Jul-05	5 8:00	5	4	5	9	9	9	15	10	13	12	12	34	9	7	16	16	19	16	31	20	43	9	3	13.8	42.9	
9-Jul-05	1 9:00	3	D	1	30	42	4	D	25	D	D	23	9	D	13	14	11	13	10	18	8	4	2	12.3	42.2		
10-Jul-05	2 10:00	2	3	3	3	10	3	6	18	9	5	15	11	13	5	7	17	13	9	11	17	16	7	3	8.6	17.7	
11-Jul-05	4 11:00	7	5	4	4	8	9	26	10	10	18	12	9	11	42	17	11	6	19	12	39	11	23	9	13.6	41.6	
12-Jul-05	6 12:00	6	4	3	3	25	28	8	13	17	21	14	11	18	C	C	18	8	2	7	7	5	8	2	10.6	27.6	
13-Jul-05	0 13:00	0	0	0	0	1	4	6	4	6	17	24	15	12	16	31	39	53	26	43	47	5	3	2	3	14.8	53.0
14-Jul-05	2 14:00	3	3	3	3	4	6	8	36	33	30	25	23	26	14	13	26	18	4	9	4	20	8	5	13.6	36.3	
15-Jul-05	4 15:00	5	4	4	5	5	5	4	4	10	5	5	4	3	2	5	6	4	7	4	3	4	3	3	4.6	10.5	
16-Jul-05	0 16:00	1	1	1	2	1	1	2	5	5	3	4	7	6	7	8	9	6	7	5	9	8	7	6	4.8	9.2	
17-Jul-05	5 17:00	5	5	5	4	7	9	17	31	69	104	32	77	79	41	94	76	4	5	4	22	7	10	13	30.2	104.4	
18-Jul-05	7 18:00	6	2	3	5	3	11	14	5	4	7	5	4	9	8	4	8	3	6	2	15	2	1	1	5.6	15.4	
19-Jul-05	1 19:00	2	2	1	2	3	3	3	4	5	4	6	8	8	8	7	2	3	3	18	5	5	4	4.8	18.4		
20-Jul-05	3 20:00	3	2	3	3	3	8	8	15	9	6	3	4	3	7	12	7	15	5	6	4	4	4	4	5.8	14.6	
21-Jul-05	3 21:00	3	2	2	4	8	14	13	27	4	3	6	5	7	9	10	8	6	6	7	9	7	5	6	7.3	27.3	
22-Jul-05	5 22:00	5	5	5	6	16	22	6	7	9	9	10	11	11	9	9	10	12	11	23	17	14	14	12	10.6	22.7	
23-Jul-05	16 23:00	10	14	3	0	1	3	2	2	2	2	2	2	2	2	2	2	6	4	6	4	3	4	5	4	4.1	16.0
24-Jul-05	7 24:00	6	6	6	5	7	9	13	11	5	5	7	4	5	18	10	18	5	8	12	4	5	2	1	7.6	18.4	
25-Jul-05	0 25:00	1	3	7	4	3	4	22	15	6	8	4	8	5	5	5	35	12	16	10	12	4	8	5	8.4	35.0	
26-Jul-05	5 26:00	5	2	3	4	5	6	10	10	7	9	8	7	10	9	5	6	7	6	14	13	7	3	2	6.8	14.3	
27-Jul-05	2 27:00	7	6	3	3	6	12	17	18	15	15	15	17	8	9	22	16	7	4	4	6	4	4	4	9.3	21.8	
28-Jul-05	4 28:00	5	6	4	3	9	32	37	10	17	19	6	17	6	7	20	24	9	11	17	14	7	7	4	12.1	37.3	
29-Jul-05	10 29:00	6	6	4	4	7	28	11	10	10	6	10	13	25	12	11	11	5	7	12	28	6	17	4	10.9	28.1	
30-Jul-05	9 30:00	16	9	8	4	5	9	15	8	6	7	6	3	6	13	20	18	24	16	17	7	1	3	7	9.8	23.8	
31-Jul-05	7 31:00	5	4	2	1	5	16	8	14	15	9	14	D	6	5	6	11	8	14	27	17	11	6	1	9.2	27.2	
	Hourly Avg	4.8	4.8	4.1	3.5	3.8	7.7	11.3	10.4	12.5	14.2	14.4	10.6	13.7	12.1	12.7	14.7	16.7	10.8	10.0	12.6	12.1	8.9	8.1	4.6		
	Hourly Max	16.0	15.9	13.8	8.5	10.3	29.5	42.2	37.3	36.3	69.0	104.4	31.7	77.3	79.4	41.6	94.4	75.7	36.1	43.2	46.7	39.1	42.9	25.6	13.8		



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

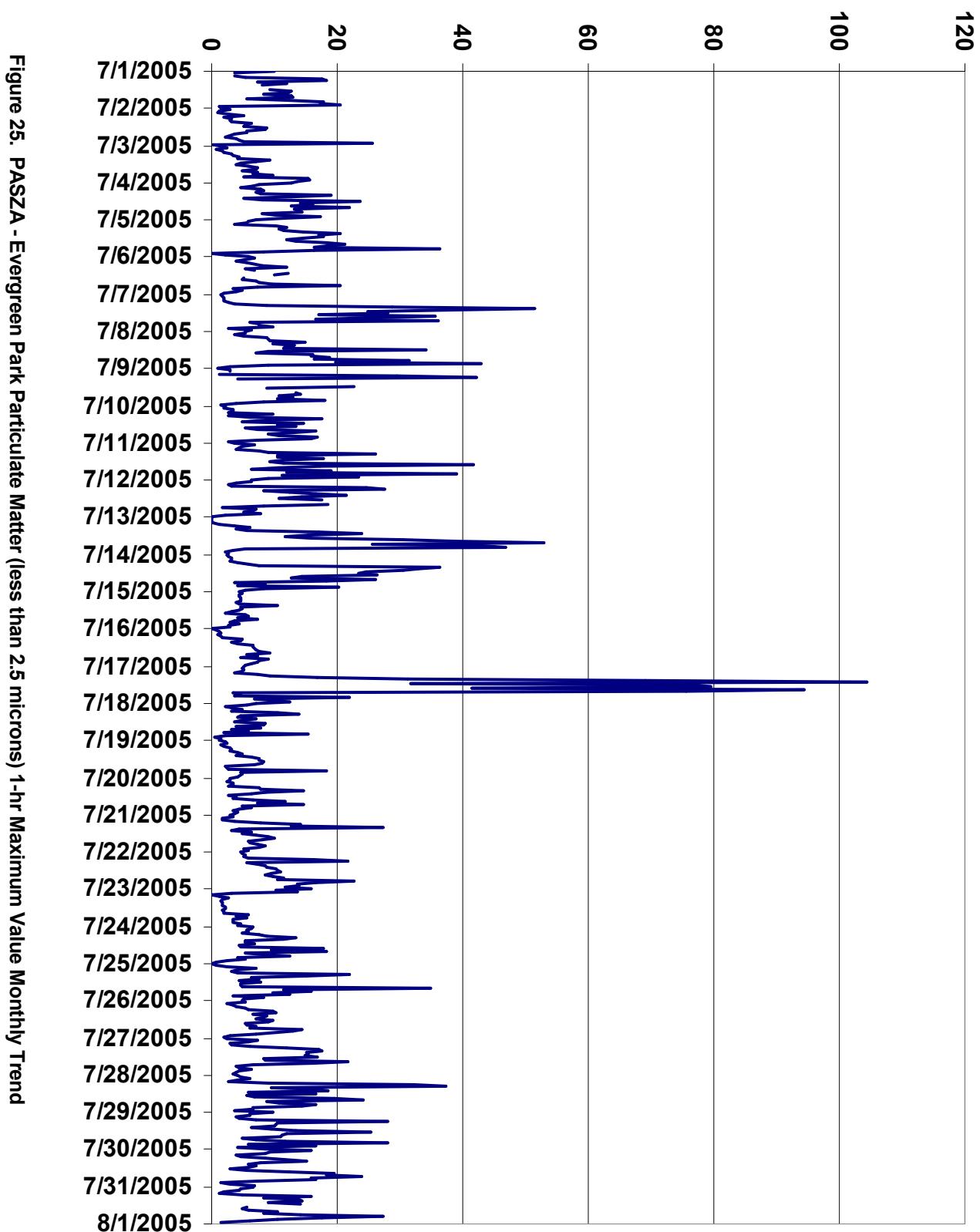
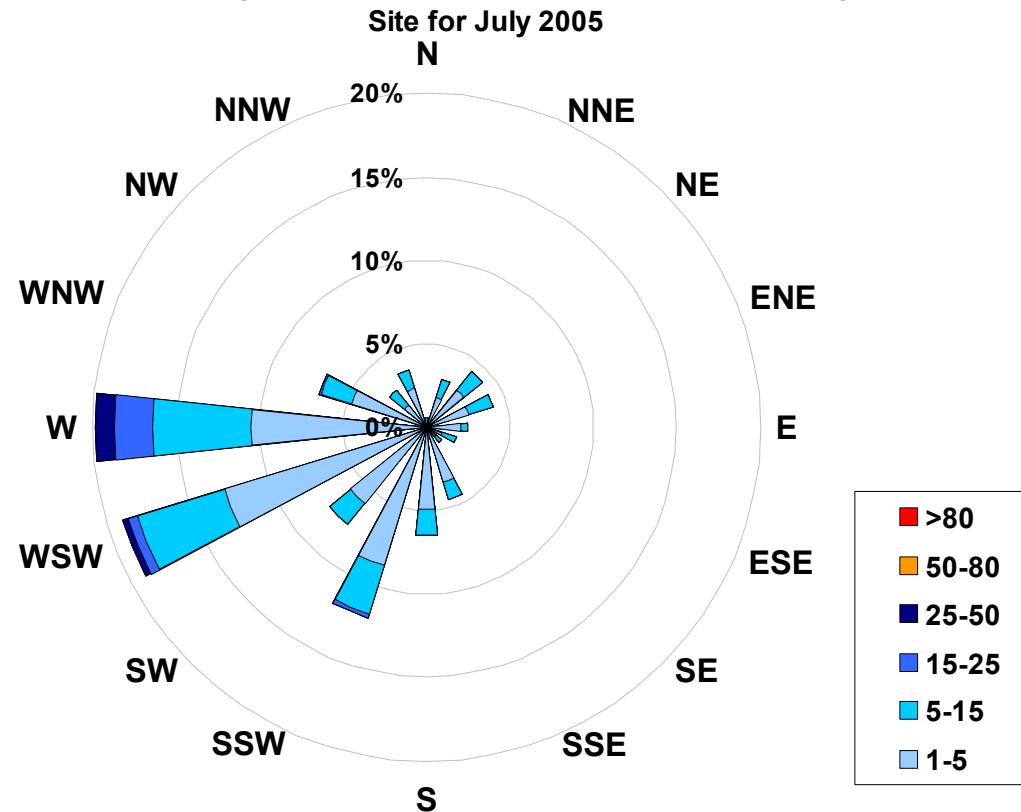


Figure 25. PASZA - Evergreen Park Particulate Matter (less than 2.5 microns) 1-hr Maximum Value Monthly Trend

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



Calms:	0%
--------	----

Frequency Distribution of PM <sub>2.5</sub> in µg/m <sup>3</sup>			
Range		Frequency (hrs)	
1.0	<	5	552
5	to	15	154
15	to	25	17
25	to	50	8
50	to	80	0
	>	80	0
Total Non-Zero Values		731	

## PASZA - Evergreen Park Temperature Monthly Summary

Station: Evergreen Park  
 Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### Summary

Maximum 1-hr Average:	25.9	°C	17-Jul	17:00 18:00
Maximum 24-hr Value:	19.3	°C	17-Jul	

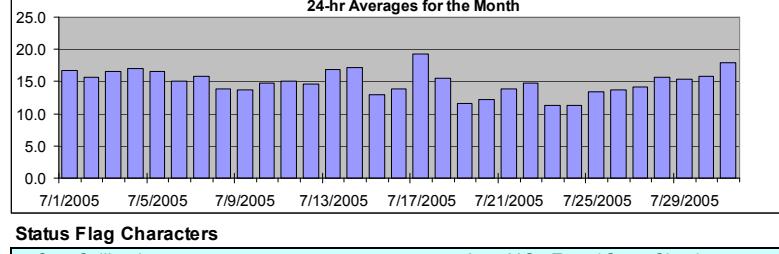
AIC Time:	0 hrs	Operational Time:	744 hrs							
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%							
Percentile	99	95	75	50	25	5	1	Average		
	24.4	22.1	18.8	14.6	11.4	7.4	5.1	14.9 °C		

### Day Mountain Standard Time

	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	24-hour Average	Daily Maximum								
	Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	25:00	26:00	27:00	28:00	29:00	30:00	31:00	24-hour Average	Daily Maximum									
1-Jul-05	13	12	11	10	9	9	12	14	15	18	20	21	22	22	21	21	21	21	22	21	21	19	18	16	14	13	12	11	10	19	16.7	22.0											
2-Jul-05	13	12	11	11	10	11	13	13	15	16	17	18	19	20	20	20	20	20	19	19	18	17	15	14	13	12	11	10	19	15.7	20.2												
3-Jul-05	12	12	13	13	13	13	13	14	16	17	18	19	20	20	21	21	21	21	19	19	18	18	16	15	13	12	11	10	19	16.5	21.0												
4-Jul-05	11	10	9	7	8	11	13	15	17	19	20	20	21	22	22	23	23	23	23	22	21	20	19	17	15	13	12	11	10	19	17.0	23.2											
5-Jul-05	13	12	11	10	10	11	14	15	18	19	20	22	23	23	23	22	19	18	19	19	19	19	18	15	13	12	11	10	19	16.6	23.2												
6-Jul-05	11	10	11	11	11	12	13	14	14	14	14	15	17	17	17	19	20	20	20	19	18	17	16	14	13	12	11	10	19	15.0	20.0												
7-Jul-05	12	12	12	11	11	11	12	14	16	16	17	18	18	19	19	19	20	20	20	20	20	20	18	16	15	13	12	11	10	19	15.9	20.3											
8-Jul-05	11	9	9	8	8	8	10	12	13	15	16	18	18	19	19	19	19	19	19	18	17	19	18	11	10	9	8	7	6	5	5	13.9	19.2										
9-Jul-05	8	8	7	6	5	5	10	11	13	15	17	18	18	19	19	19	19	19	19	19	19	18	17	15	13	12	11	10	9	8	7	6	5	13.7	19.3								
10-Jul-05	11	10	9	6	4	7	11	14	15	16	18	19	20	20	21	21	21	22	20	18	18	17	13	10	13	12	11	10	9	8	7	6	5	14.8	21.5								
11-Jul-05	12	10	8	6	5	5	6	10	15	17	19	20	21	20	19	21	22	23	22	23	21	14	11	9	8	7	6	5	4	3	2	1	15.0	22.7									
12-Jul-05	8	7	6	5	5	5	10	12	13	15	16	19	22	23	22	22	22	21	20	18	17	15	13	12	11	10	9	8	7	6	5	4	3	2	1	14.7	22.6						
13-Jul-05	12	11	11	11	12	12	12	13	15	17	19	21	21	21	22	23	22	21	21	20	19	18	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	16.8	22.9			
14-Jul-05	15	14	14	14	14	14	14	14	15	17	18	19	20	21	21	22	21	21	21	20	19	18	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	17.2	21.7			
15-Jul-05	10	9	10	11	11	11	11	11	12	13	14	15	16	16	17	16	15	15	15	15	15	14	13	13	12	12	11	10	9	8	7	6	5	4	3	2	1	13.0	16.7				
16-Jul-05	12	12	12	11	11	11	11	11	12	12	13	13	14	15	15	15	16	16	16	16	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	13.9	18.7			
17-Jul-05	13	13	12	12	11	10	13	15	17	20	21	23	24	25	25	25	26	26	26	25	24	23	20	21	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	19.3	25.9
18-Jul-05	16	14	14	14	14	14	14	14	16	17	18	18	20	18	18	18	18	18	18	16	14	15	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	15.5	20.1				
19-Jul-05	11	10	10	10	11	11	9	9	9	10	11	11	12	13	15	16	15	14	14	14	15	13	11	9	9	8	7	6	5	4	3	2	1	11.6	15.8								
20-Jul-05	8	8	8	8	7	7	7	7	9	11	14	17	18	20	20	18	16	14	13	13	13	13	12	11	10	9	8	7	6	5	4	3	2	1	12.3	19.9							
21-Jul-05	9	9	8	6	6	6	9	10	12	14	16	17	17	19	19	20	21	21	20	19	17	16	15	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	13.8	20.7			
22-Jul-05	9	8	8	7	7	7	10	13	15	17	19	20	21	21	20	20	20	20	19	19	16	15	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	14.8	20.9				
23-Jul-05	13	13	12	12	11	11	10	11	12	12	12	13	12	13	13	12	11	11	10	9	9	8	8	7	6	5	4	3	2	1	11.3	13.5											
24-Jul-05	8	7	6	5	4	4	5	7	9	12	14	16	16	17	16	16	17	16	16	17	18	17	14	13	12	12	11	10	9	8	7	6	5	4	3	2	1	11.4	17.8				
25-Jul-05	7	6	6	7	8	9	9	11	13	16	17	18	20	20	21	21	21	17	14	16	15	14	12	12	12	11	10	9	8	7	6	5	4	3	2	1	13.4	21.3					
26-Jul-05	12	11	10	10	10	10	11	11	12	13	14	15	16	17	17	18	18	18	18	18	17	14	13	12	11	10	9	8	7	6	5	4	3	2	1	13.7	18.2						
27-Jul-05	10	10	10	10	9	9	10	12	14	16	17	19	20	20	20	18	16	16	15	15	15	14	14	13	12	11	10	9	8	7	6	5	4	3	2	1	14.2	20.4					
28-Jul-05	12	11	11	9	8	9	9	13	15	17	19	21	18	18	20	21	22	21	21	21	21	21	19	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	15.7	21.8	
29-Jul-05	10	10	9	8	7	7	9	12	13	16	19	21	20	17	21	22	23	22	22	21	21	21	19	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	15.3	22.8	
30-Jul-05	9	11	11	11	11	12	12	13	16	18	18	20	21	22	21	21	21	20	19	16	15	15	14	14	13	12	11	10	9	8	7	6	5	4	3	2	1	15.8	21.5				
31-Jul-05	14	14	13	13	12	11	13	15	15	17	20	22	23	24	24	25	24	24	22	20	18	18	15	14	14	13	12	11	10	9	8	7	6	5	4	3	2	1	17.9	24.7			

### HOURLY AVERAGE TABLE

### Ambient Temperature (T)



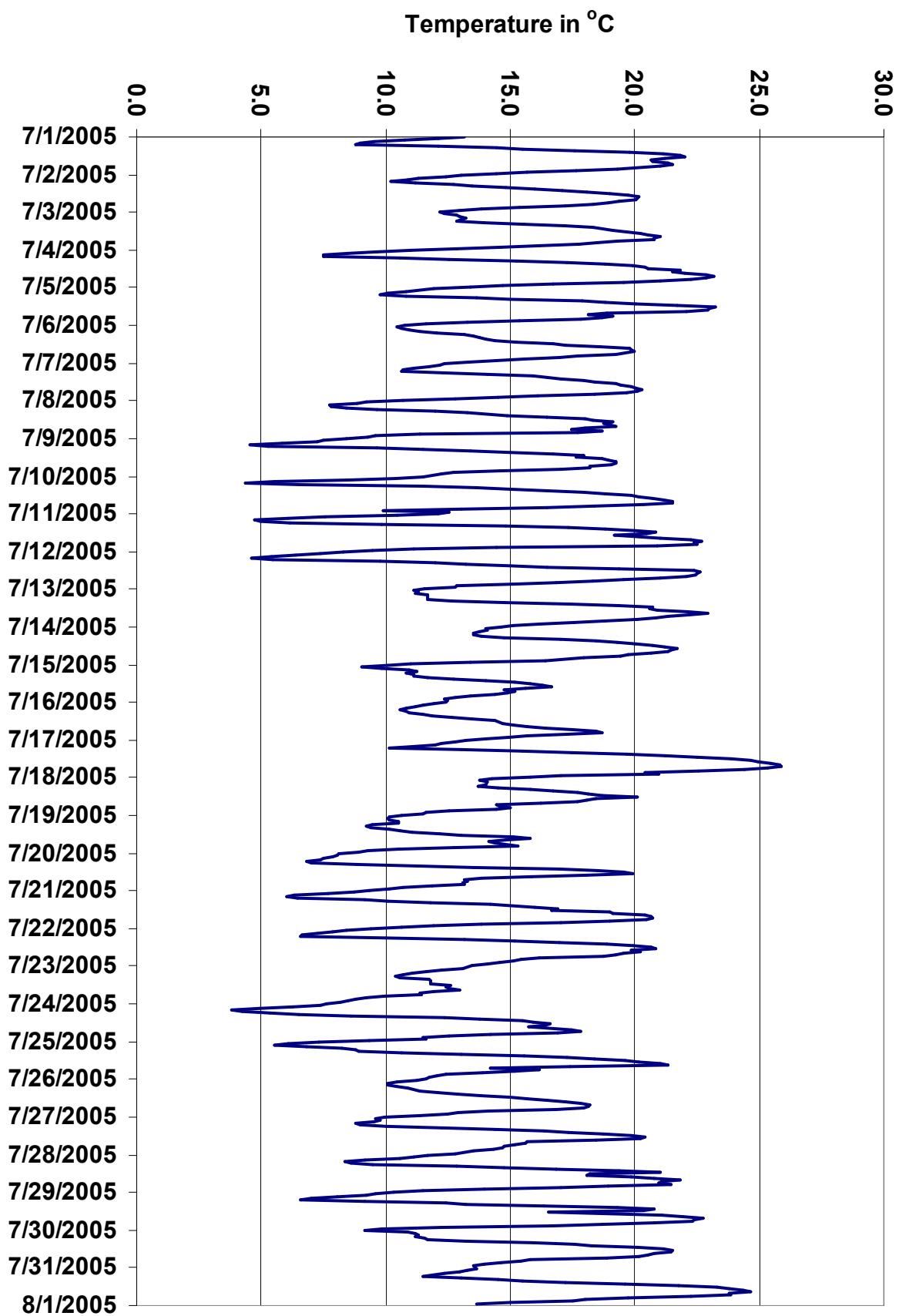


Figure 26. PASZA - Evergreen Park Temperature 1-hr Average Monthly Trend

## PASZA - Evergreen Park Scalar Wind Speed Monthly Summary

Station: Evergreen Park  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### Summary

Maximum 1-hr Average:	31.3	km/hr	7-Jul	12:00 13:00
Maximum 24-hr Value:	19.4	km/hr	7-Jul	

Calm Time:	0 hrs	0% calms	Operational Time:	744 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	Average S
	25.9	21.6	13.0	7.1	4.0	2.2	1.6	9.1 km/hr

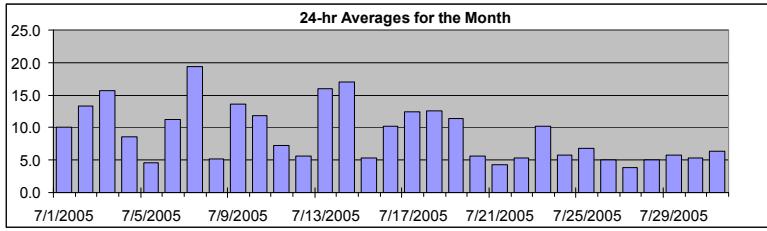
### Day Mountain Standard Time

	Hour Start 0:00	1:00	2:00	3:00	4:00	5:00	6:00	6:00 7:00	7:00 8:00	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-hr Scalar Average	Daily Max
	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-Jul-05	6	4	3	4	4	3	5	8	9	11	12	12	13	14	23	21	18	15	11	9	6	12	8	12	10.1	22.8	
2-Jul-05	11	14	12	10	6	7	10	11	16	16	14	15	14	16	15	14	17	19	18	17	13	12	12	13	13.2	18.5	
3-Jul-05	12	13	14	16	22	20	18	19	22	24	22	21	21	19	19	17	16	17	14	9	7	5	5	5	15.7	24.5	
4-Jul-05	5	3	2	3	3	5	7	8	9	8	11	13	16	18	14	13	12	11	11	14	8	6	4	3	8.5	17.7	
5-Jul-05	2	2	3	2	2	3	3	4	4	5	4	6	7	9	8	10	11	4	3	7	5	2	2	2	4.6	10.7	
6-Jul-05	2	3	2	3	4	3	3	4	6	10	7	12	19	19	18	18	24	20	17	15	15	17	14	15	11.2	24.3	
7-Jul-05	15	15	13	12	12	11	11	17	24	26	29	30	31	28	26	26	26	27	24	20	13	12	11	7	19.4	31.3	
8-Jul-05	5	2	3	5	3	3	4	6	4	4	6	5	6	4	5	5	6	7	3	3	6	21	6	4	5.2	20.7	
9-Jul-05	2	4	8	3	2	3	9	11	16	17	20	19	18	22	22	26	22	18	16	13	11	13	13	13.5	25.8		
10-Jul-05	11	12	7	3	3	7	12	16	20	18	17	18	17	16	15	15	14	15	9	5	4	5	8	11.8	20.4		
11-Jul-05	8	5	4	3	3	2	2	3	9	16	15	14	13	13	9	9	11	11	10	4	2	2	3	7.3	16.3		
12-Jul-05	2	4	2	1	2	3	2	4	4	4	5	7	6	10	18	15	12	8	6	4	4	4	4	5.7	17.9		
13-Jul-05	6	7	8	8	9	5	3	3	5	17	22	23	24	24	23	23	27	24	26	25	22	19	15	15	15.9	26.6	
14-Jul-05	16	16	18	15	15	17	19	18	22	26	24	25	23	22	21	22	19	17	15	15	11	7	3	3	17.1	25.6	
15-Jul-05	4	3	5	6	6	6	5	5	3	5	6	5	5	6	7	6	6	7	8	5	3	3	4	6	5.3	8.4	
16-Jul-05	9	9	9	11	11	11	12	11	12	10	12	14	16	13	13	8	7	8	10	10	8	7	8	7	10.3	15.6	
17-Jul-05	6	6	5	5	4	2	4	12	15	14	15	19	17	16	18	17	18	15	13	9	15	18	12.4	18.5			
18-Jul-05	11	10	12	12	7	7	8	12	13	16	18	16	17	19	10	17	16	14	16	12	8	7	9	12	12.5	19.3	
19-Jul-05	10	11	12	13	16	16	15	14	14	13	13	12	7	9	13	17	17	16	12	9	5	3	3	2	11.4	17.5	
20-Jul-05	2	4	2	2	3	3	2	3	5	6	8	9	8	5	10	12	9	7	7	7	6	6	4	4	5.6	11.6	
21-Jul-05	3	2	3	3	2	3	4	3	4	5	5	5	6	6	6	8	7	6	5	4	3	3	3	4.3	7.8		
22-Jul-05	1	3	2	2	2	2	2	5	4	5	7	7	8	8	10	10	9	8	7	7	6	5	3	5	5.4	10.3	
23-Jul-05	6	5	9	11	12	12	13	12	14	14	13	15	15	16	16	16	13	8	7	7	4	3	2	3	10.2	16.3	
24-Jul-05	2	2	2	2	2	2	3	3	4	6	6	9	10	11	10	7	8	15	7	5	8	3	3	5.8	14.6		
25-Jul-05	3	2	5	5	7	6	6	9	11	9	9	9	10	11	9	9	14	5	4	4	5	5	4	4	6.8	13.7	
26-Jul-05	3	3	3	4	4	5	4	4	3	4	5	5	6	7	9	7	8	7	5	9	5	4	3	5.0	8.9		
27-Jul-05	3	3	2	3	3	3	2	4	6	5	4	6	6	5	5	7	4	4	3	3	3	3	3	3.9	6.7		
28-Jul-05	3	4	2	3	2	2	2	3	4	5	4	9	13	8	9	8	4	6	4	3	5	6	5	5.0	12.8		
29-Jul-05	2	4	6	2	2	3	5	5	3	5	8	8	6	8	4	6	12	10	11	8	7	7	3	2	5.8	12.4	
30-Jul-05	3	8	4	5	5	7	5	4	8	8	7	7	8	6	7	8	4	5	4	2	2	2	2	5.3	8.4		
31-Jul-05	3	2	3	3	3	2	3	4	5	5	7	12	17	17	14	13	11	6	4	4	4	6	3	3	6.4	17.4	

1-hr Average	5.8	5.9	6.0	5.9	5.7	6.0	6.5	7.8	9.5	10.8	11.3	12.4	13.1	13.0	13.0	13.1	13.4	11.6	10.7	9.3	7.4	7.1	6.1	6.2
Hourly Max	16.4	16.3	18.0	16.3	21.7	20.3	19.1	18.8	23.7	26.5	28.9	30.3	31.3	28.2	25.7	25.9	26.6	26.9	26.0	25.1	21.8	20.7	14.7	18.2

### HOURLY AVERAGE TABLE

### Wind Speed (WSs)



### 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

## PASZA - Evergreen Park Vector Wind Speed Monthly Summary

Station: Evergreen Park  
 Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### Summary

Maximum 1-hr Average:	30.7	km/hr	7-Jul	12:00 13:00
Maximum 24-hr Value:	18.9	km/hr	7-Jul	

Calm Time:	27 hrs	4% calms	Operational Time:	717 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageV
	25.6	21.3	12.9	6.9	3.3	1.4	1.0	43.1 km/hr

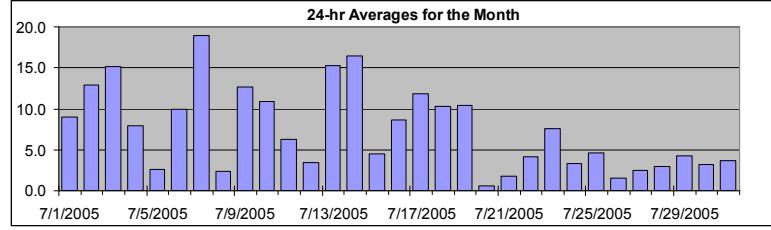
### Day Mountain Standard Time

	Hour Start 1:00	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-hr Vector Average	Daily Max
	Hour End 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-Jul-05	6	4	3	3	2	2	5	8	8	10	11	11	12	13	22	20	17	15	11	8	5	12	8	12	9.0	22.2
2-Jul-05	11	13	12	10	5	7	10	10	15	15	13	14	13	15	13	14	16	18	17	17	13	12	12	12	12.9	18.1
3-Jul-05	12	13	14	16	22	20	18	19	21	24	22	20	20	19	18	17	16	16	14	8	6	4	4	4	15.2	24.1
4-Jul-05	4	2	1	2	2	5	7	7	8	7	10	11	15	17	14	12	11	11	10	14	8	6	3	3	7.9	16.7
5-Jul-05	1	2	2	calm	calm	2	3	4	3	5	4	5	5	7	7	9	10	3	2	6	4	2	1	1	2.6	10.2
6-Jul-05	1	1	calm	2	2	1	2	1	5	9	6	12	19	18	17	18	24	19	16	15	15	17	14	14	9.9	23.9
7-Jul-05	14	14	13	12	12	10	11	17	23	26	28	30	31	28	25	25	25	27	24	19	13	12	11	6	18.9	30.7
8-Jul-05	5	2	3	5	1	2	4	5	3	3	5	3	5	2	4	4	5	6	3	2	4	20	4	3	2.3	20.0
9-Jul-05	2	3	8	1	1	3	9	11	15	17	17	20	19	18	21	22	26	21	18	15	13	11	13	13	12.7	25.5
10-Jul-05	11	12	7	2	3	7	12	16	20	18	16	17	16	16	15	13	13	13	15	9	5	4	5	8	10.9	20.2
11-Jul-05	8	5	4	2	2	2	2	3	9	16	15	13	12	9	8	9	10	10	9	4	2	1	2	3	6.3	16.0
12-Jul-05	1	1	1	1	1	1	2	4	3	3	3	6	4	7	17	14	11	5	5	4	3	3	3	5	3.4	17.2
13-Jul-05	6	7	8	8	9	3	3	3	4	16	21	22	24	22	23	26	23	26	25	22	19	15	15	15	15.3	26.2
14-Jul-05	16	16	18	15	15	17	19	18	21	25	23	25	22	21	20	21	18	16	14	14	10	7	3	3	16.4	25.0
15-Jul-05	4	3	5	6	5	6	5	3	2	4	5	5	5	3	5	5	6	7	8	5	3	3	4	6	4.5	8.2
16-Jul-05	9	9	9	11	11	11	12	11	12	10	12	13	15	12	13	8	7	7	10	9	8	7	8	6	8.6	15.2
17-Jul-05	6	6	5	5	4	1	4	12	15	13	14	18	16	15	18	17	17	17	18	15	13	8	14	18	11.8	18.0
18-Jul-05	9	9	12	12	12	6	7	8	11	12	16	17	14	17	18	9	16	15	13	16	12	8	7	9	10.3	18.4
19-Jul-05	10	11	12	13	16	16	14	13	13	13	12	7	8	13	16	17	16	12	8	5	2	3	calm	10.4	17.1	
20-Jul-05	calm	4	1	1	2	2	1	1	calm	calm	4	5	7	8	7	5	10	11	9	6	6	6	6	3	0.6	10.6
21-Jul-05	1	calm	3	1	calm	3	3	2	4	3	calm	calm	4	3	3	5	7	6	5	5	4	3	3	3	1.8	7.0
22-Jul-05	calm	2	2	1	1	1	1	calm	4	3	4	6	5	7	7	10	10	9	7	6	3	5	4	5	4.1	10.0
23-Jul-05	5	5	8	10	11	11	12	11	14	14	12	14	14	15	15	16	12	8	6	7	3	3	calm	7.6	15.6	
24-Jul-05	2	1	1	2	1	calm	1	1	1	2	4	2	8	9	9	11	10	6	8	14	7	4	8	3	3.4	14.4
25-Jul-05	2	calm	4	5	6	6	6	8	11	8	8	8	8	8	7	7	12	3	4	3	2	3	calm	4.6	12.1	
26-Jul-05	1	1	2	2	3	3	3	3	calm	2	3	4	4	5	6	8	6	6	7	6	3	7	3	1.5	8.0	
27-Jul-05	3	2	1	2	2	1	1	3	5	4	3	5	6	4	5	3	5	3	4	2	2	3	1	2.5	5.8	
28-Jul-05	2	3	2	calm	calm	2	calm	2	3	5	2	8	11	7	8	7	2	5	3	2	5	6	5	1	3.0	10.8
29-Jul-05	1	4	5	1	1	2	5	5	2	4	7	7	5	4	3	5	11	10	10	8	7	7	7	calm	4.2	11.2
30-Jul-05	calm	8	2	4	4	7	3	1	8	7	6	6	6	6	5	6	8	3	5	2	2	calm	2	3.2	8.0	
31-Jul-05	3	1	2	3	1	1	2	4	4	4	5	11	17	17	14	12	10	6	4	2	3	5	2	2	3.7	17.0

1-hr Vector	3.9	4.5	4.8	3.9	4.1	4.4	5.0	6.1	7.7	8.5	8.3	9.1	10.2	9.9	10.1	9.9	10.7	8.5	7.6	6.6	5.4	5.7	4.6	3.7
Hourly Max	16.3	16.2	17.9	16.1	21.6	20.2	19.0	18.6	23.2	26.0	28.5	29.7	30.7	27.7	25.1	25.2	26.2	26.5	25.6	24.9	21.7	20.0	14.6	17.9

### HOURLY AVERAGE TABLE

### Wind Speed (WSv)



### 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

## PASZA - Evergreen Park Wind Direction Monthly Summary

Station: Evergreen Park  
 Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY AVERAGE TABLE

### Wind Direction (WD)

#### Summary

Hourly Average Wind Direction (WD) Data													

Calm Time:	0 hrs	0% calms	Operational Time:	744 hrs									
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%									
Percentile	99	95	75	50	25	5	1	Average					
	339.5	310.1	267.3	245.2	189.4	51.3	16.4		258 deg				

#### Status Flag Characters

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

Day	Mountain Standard Time																									24-hour Average	WD Sector
	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	
1-Jul-05	200	214	203	215	173	345	292	298	283	276	286	286	280	276	251	247	243	251	246	245	206	255	259	261	258	WSW	
2-Jul-05	263	262	252	250	259	254	255	253	252	269	272	273	261	262	287	271	269	277	277	269	266	254	231	236	263	W	
3-Jul-05	228	237	236	242	249	248	248	256	257	266	266	278	275	279	275	274	273	274	277	279	288	259	281	265	262	W	
4-Jul-05	177	211	176	199	203	218	213	221	265	209	250	242	254	253	253	252	270	260	257	255	250	241	220	201	244	WSW	
5-Jul-05	150	66	202	67	86	148	195	189	194	205	188	194	235	264	281	293	284	321	144	210	200	142	196	164	226	SW	
6-Jul-05	36	134	160	52	64	315	334	270	228	281	280	247	251	253	255	262	257	266	264	243	256	258	247	236	257	WSW	
7-Jul-05	229	235	243	243	232	220	232	252	254	267	259	253	263	253	259	266	264	253	256	251	234	227	226	219	251	WSW	
8-Jul-05	205	205	172	194	168	46	36	177	185	17	71	56	219	291	287	308	297	213	186	153	196	252	211	193	221	SW	
9-Jul-05	162	209	208	139	169	211	228	226	234	254	249	250	271	261	253	257	255	253	268	264	256	227	220	224	247	WSW	
10-Jul-05	227	220	209	71	193	208	229	245	254	249	258	273	270	266	256	256	267	268	262	272	273	260	234	200	247	WSW	
11-Jul-05	250	236	186	186	194	195	198	184	225	248	257	258	248	268	241	249	263	285	311	316	276	190	195	198	250	WSW	
12-Jul-05	227	254	204	200	190	180	178	192	200	273	269	325	339	202	241	268	274	14	82	176	231	249	249	249	WSW		
13-Jul-05	213	209	227	215	223	277	219	175	202	252	256	261	254	261	262	264	258	256	263	259	251	246	239	237	251	WSW	
14-Jul-05	245	245	247	245	246	248	245	252	252	263	267	271	273	278	269	273	280	287	301	292	285	269	246	262	265	W	
15-Jul-05	217	209	195	198	218	235	250	208	162	165	157	148	172	224	280	184	163	171	197	194	147	165	191	217	195	SSW	
16-Jul-05	234	250	248	249	250	248	248	251	260	257	272	320	319	327	331	343	328	298	306	293	272	263	270	265	280	W	
17-Jul-05	268	263	269	269	289	254	270	257	251	270	272	263	260	260	251	253	264	270	265	263	251	219	250	326	263	W	
18-Jul-05	294	232	221	230	276	263	254	271	282	278	278	292	287	339	16	340	328	295	274	282	303	252	249	257	284	WNW	
19-Jul-05	268	265	263	267	263	278	278	280	273	302	317	306	294	255	236	236	256	248	250	258	258	218	214	224	268	W	
20-Jul-05	245	196	188	102	180	175	210	105	328	58	77	92	66	84	135	193	222	313	345	288	280	269	253	301	219	SW	
21-Jul-05	26	65	207	168	182	211	303	246	231	270	124	86	148	31	16	80	54	79	86	95	71	57	50	13	77	ENE	
22-Jul-05	263	334	276	310	270	327	287	59	51	54	68	87	64	55	37	35	30	25	3	20	349	36	163	44	36	NE	
23-Jul-05	40	77	297	279	267	282	287	278	278	297	295	304	309	314	311	344	29	31	44	48	52	49	44	309	NW		
24-Jul-05	27	55	173	195	94	172	70	22	53	16	304	293	346	339	251	234	252	277	248	251	230	229	246	210	266	W	
25-Jul-05	184	152	207	255	255	286	302	273	269	283	264	271	256	295	300	305	279	160	182	186	193	169	46	86	264	W	
26-Jul-05	195	112	89	119	81	79	182	284	74	70	87	172	204	239	241	234	233	274	279	328	269	242	203	220	SW		
27-Jul-05	218	252	12	160	163	138	94	159	142	144	158	189	188	177	173	118	27	64	78	132	153	164	105	98	145	SE	
28-Jul-05	198	195	231	70	134	205	228	242	276	249	216	276	271	281	213	221	197	4	59	163	224	235	216	95	237	WSW	
29-Jul-05	40	207	201	119	167	197	199	207	161	193	197	216	243	283	165	207	265	282	268	255	256	238	3	217	234	SW	
30-Jul-05	110	220	198	249	224	229	199	325	255	253	242	247	283	329	327	175	207	265	244	102	67	87	155	173	239	WSW	
31-Jul-05	177	196	76	93	310	174	120	166	195	193	226	252	257	260	255	271	277	325	22	49	332	243	113	355	256	WSW	

Hourly Avg 235 231 230 234 237 245 247 249 251 262 263 267 268 273 265 265 269 273 272 261 256 243 235 246

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

Station: Evergreen Park  
 Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY AVERAGE TABLE

### Wind Direction (WD)

#### Summary

|--|--|--|--|--|--|--|

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	744 hrs			
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%			
Percentile	99	95	75	50	25	5	1
	66.7	56.1	32.4	17.7	11.1	6.5	4.8

#### Status Flag Characters

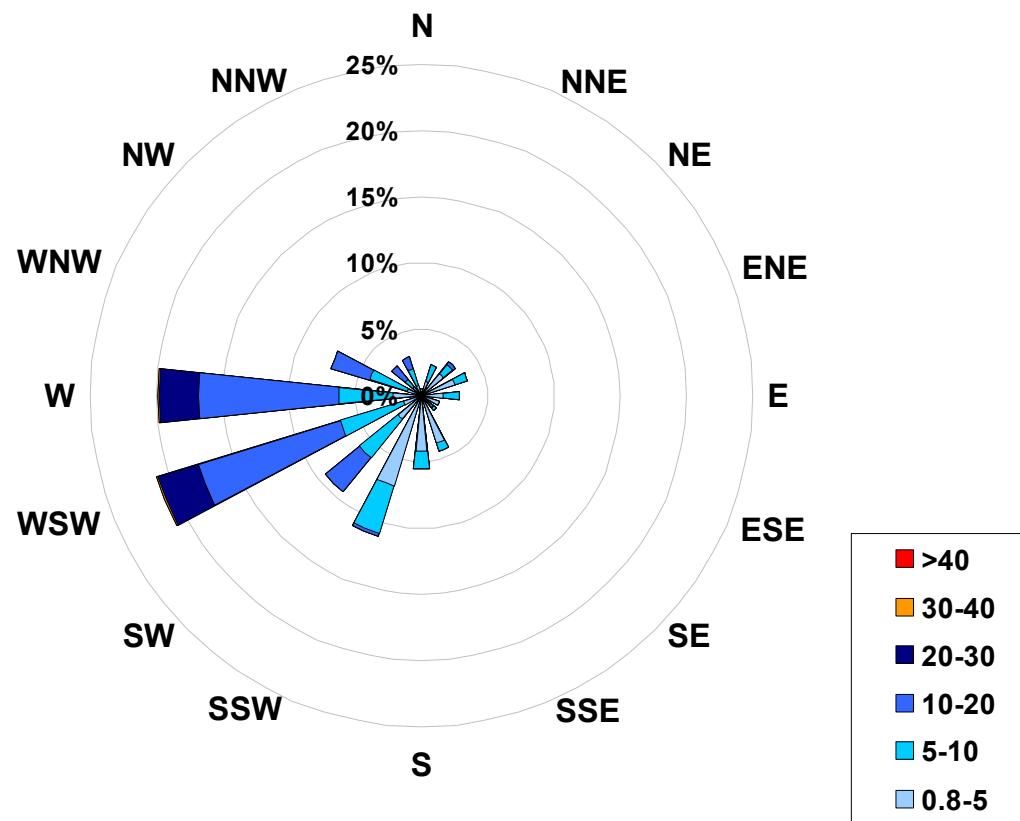
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

#### Day Mountain Standard Time

	Hour Start 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-Jul-05	19	21	30	15	32	50	18	20	16	20	21	24	22	20	10	9	10	9	13	15	6	8	8	9	50.1	
2-Jul-05	8	7	5	7	23	13	12	14	11	16	17	18	25	19	22	18	16	13	11	9	9	9	6	7	25.5	
3-Jul-05	5	6	7	7	6	6	6	7	9	10	11	13	15	15	16	16	16	16	18	13	15	15	22	16	17	22.4
4-Jul-05	32	50	55	52	23	9	7	10	15	29	24	20	17	16	11	14	20	22	11	9	10	8	9	17	54.9	
5-Jul-05	26	49	11	62	56	64	21	19	28	18	28	32	43	15	22	15	12	41	35	20	11	39	38	42	63.7	
6-Jul-05	64	67	64	48	41	43	66	34	15	14	24	10	10	9	14	14	9	14	9	9	7	7	8	7	67.3	
7-Jul-05	7	8	7	7	7	6	10	8	10	11	9	11	11	8	12	12	10	9	9	9	7	4	5	22	21.8	
8-Jul-05	10	55	11	11	33	42	22	22	59	57	27	37	39	67	36	35	32	26	20	32	27	12	24	22	66.7	
9-Jul-05	44	19	7	66	62	14	12	7	9	8	14	14	14	10	11	7	9	10	10	7	8	3	4	66.0		
10-Jul-05	4	3	13	37	32	10	7	7	8	11	14	17	19	15	19	23	25	18	12	11	14	14	8	10	36.8	
11-Jul-05	6	18	12	23	46	36	34	21	16	12	15	18	22	21	22	19	21	18	15	22	37	24	40	32	45.9	
12-Jul-05	45	46	34	47	17	36	44	15	33	26	40	24	56	47	13	18	18	35	22	28	26	19	20	8	55.8	
13-Jul-05	9	4	5	5	5	40	38	15	26	13	11	13	11	13	12	13	10	9	10	8	6	6	6	7	40.1	
14-Jul-05	6	6	5	5	5	5	6	7	8	12	10	12	12	14	13	14	15	15	15	13	13	11	44	23	44.1	
15-Jul-05	21	12	6	5	11	11	16	32	46	26	22	31	32	46	21	17	20	18	11	14	14	16	8	7	45.9	
16-Jul-05	9	8	7	7	6	5	6	9	9	9	11	11	12	10	11	35	18	21	17	15	11	9	9	9	34.8	
17-Jul-05	14	10	11	10	15	48	20	10	7	15	15	13	16	16	16	16	15	12	10	10	9	9	9	10	47.8	
18-Jul-05	15	11	5	6	14	12	10	11	18	15	17	16	12	16	21	12	15	16	13	13	13	8	6	8	20.9	
19-Jul-05	11	9	7	8	7	10	10	9	13	12	12	12	22	11	12	10	8	9	11	17	14	46	12	83	83.5	
20-Jul-05	56	30	27	39	36	26	50	34	55	28	33	35	31	28	23	13	12	17	20	14	16	15	9	33	56.2	
21-Jul-05	40	56	14	35	41	26	32	50	28	55	60	57	44	56	45	50	31	28	36	17	17	11	22	28	60.4	
22-Jul-05	51	21	26	44	26	49	53	27	58	35	40	48	27	29	14	14	13	14	21	49	43	21	50	32	58.2	
23-Jul-05	26	16	34	15	10	11	12	13	13	18	16	18	14	16	16	15	16	25	20	34	26	59	37	59.2		
24-Jul-05	20	45	40	17	54	63	56	67	70	70	46	79	31	24	25	12	18	29	17	9	11	14	10	38	79.0	
25-Jul-05	42	58	8	9	9	17	20	14	12	25	26	31	38	36	39	30	17	30	18	35	64	46	59	45	63.7	
26-Jul-05	61	51	38	43	48	26	59	59	53	31	30	33	24	26	17	26	21	12	16	34	20	41	43	32	60.8	
27-Jul-05	13	34	46	38	28	49	50	26	29	27	45	35	28	34	22	37	29	40	23	29	28	27	45	49	49.6	
28-Jul-05	49	16	35	42	54	29	66	53	21	29	53	34	27	26	24	31	59	26	35	44	18	8	8	33	66.1	
29-Jul-05	59	10	11	43	53	27	21	11	37	37	21	43	21	53	53	41	19	15	15	10	9	11	43	69	69.5	
30-Jul-05	56	12	54	31	24	13	18	68	25	20	21	28	32	38	35	21	15	26	32	52	45	50	36	20	67.8	
31-Jul-05	13	35	50	38	45	38	25	20	21	29	38	26	11	10	14	20	14	29	28	57	47	26	53	24	56.9	

Hourly Max 64 67 64 66 62 64 66 68 70 70 60 79 56 67 53 50 59 41 36 57 64 50 59 83

**1-hr Average Wind Rose (in km/hr) Located at the Evergreen Park Site for  
July 2005**



Calms: 0%

Frequency Distribution of Wind in km/hr			Frequency (hrs)
Range			
0.8	<	5	254
5	to	10	213
10	to	20	229
20	to	30	46
30	to	40	2
>	40		0
Total Non-Zero Values			744

# PASZA – Smoky Heights Station

## Monthly Summary Tables, Graphs, and Roses

## PASZA - Smoky Heights Sulphur Dioxide Monthly Summary

Station: Smoky Heights  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

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 14-Jul 3:00 4:00
Maximum 24-hr Average:	1.0 ppb 1-Jul

AIC Time:	32 hrs	Operational Time:	702 hrs					
Calibration Time:	10 hrs	AMD Operational Uptime:	100.0%					
Percentile	99 2.0	95 1.1	75 0.3	50 0.1	25 0.0	5 0.0	1 0.0	Average 0.3 ppb

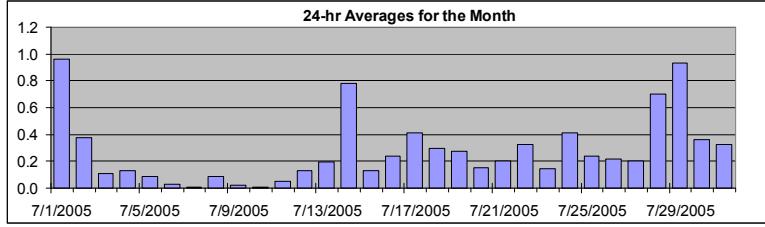
**Day Mountain Standard Time**

	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	24-hour Average	Daily Maximum
	Hour Start 1:00	Hour End 2:00																																
1-Jul-05	1	1	1	1	1	1	3	4	1	1	1	1	1	0	1	1	0	0	0	0	0	A	1	1	1.0	3.5								
2-Jul-05	0	0	0	1	2	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.4	2.0							
3-Jul-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0.1	0.6							
4-Jul-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	0.1	1.3							
5-Jul-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C	C	0	0	0	0	0	0	0	0	0	0.1	0.3							
6-Jul-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	0.3							
7-Jul-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							
8-Jul-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	0.1	0.4							
9-Jul-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	0.1							
10-Jul-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							
11-Jul-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	0.0	0.6							
12-Jul-05	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	1	1	0	0	0	0	0	0	0.1	0.6							
13-Jul-05	0	1	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0							
14-Jul-05	0	0	1	4	A	4	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	4.2							
15-Jul-05	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.1	0.6							
16-Jul-05	0	0	A	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0							
17-Jul-05	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	0	0	0	0	0.4	0.9							
18-Jul-05	A	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3							
19-Jul-05	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4							
20-Jul-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0.1	0.5							
21-Jul-05	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0.2	1.1						
22-Jul-05	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0.3	1.1							
23-Jul-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	0.1	0.3							
24-Jul-05	0	0	0	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	1	A	0	1	0	0	0.4	1.7							
25-Jul-05	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	A	1	0	0	0	0	0.2	0.7							
26-Jul-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0.2	0.6							
27-Jul-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	0	0	0	C	0	0	0	0.2	0.5							
28-Jul-05	0	0	0	2	1	A	1	0	1	2	2	1	1	0	0	0	0	0	0	0	C	C	C	A	0.7	1.9								
29-Jul-05	1	1	0	0	0	A	1	1	1	3	2	1	1	1	1	0	0	1	1	2	2	1	1	1	1	0.9	3.1							
30-Jul-05	0	1	1	1	A	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.8							
31-Jul-05	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	2	1	1	1	1	1	0	0	0	0	0.3	1.7							

Hourly Avg	0.2	0.2	0.2	0.4	0.2	0.4	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Hourly Max	1.4	0.9	1.4	4.2	2.0	3.8	4.1	3.5	1.8	3.1	2.4	1.3	1.0	1.1	1.7	0.9	1.0	0.9	0.9	1.6	1.6	1.3	0.8	0.8	0.8	0.8	0.8	0.8

### HOURLY AVERAGE TABLE

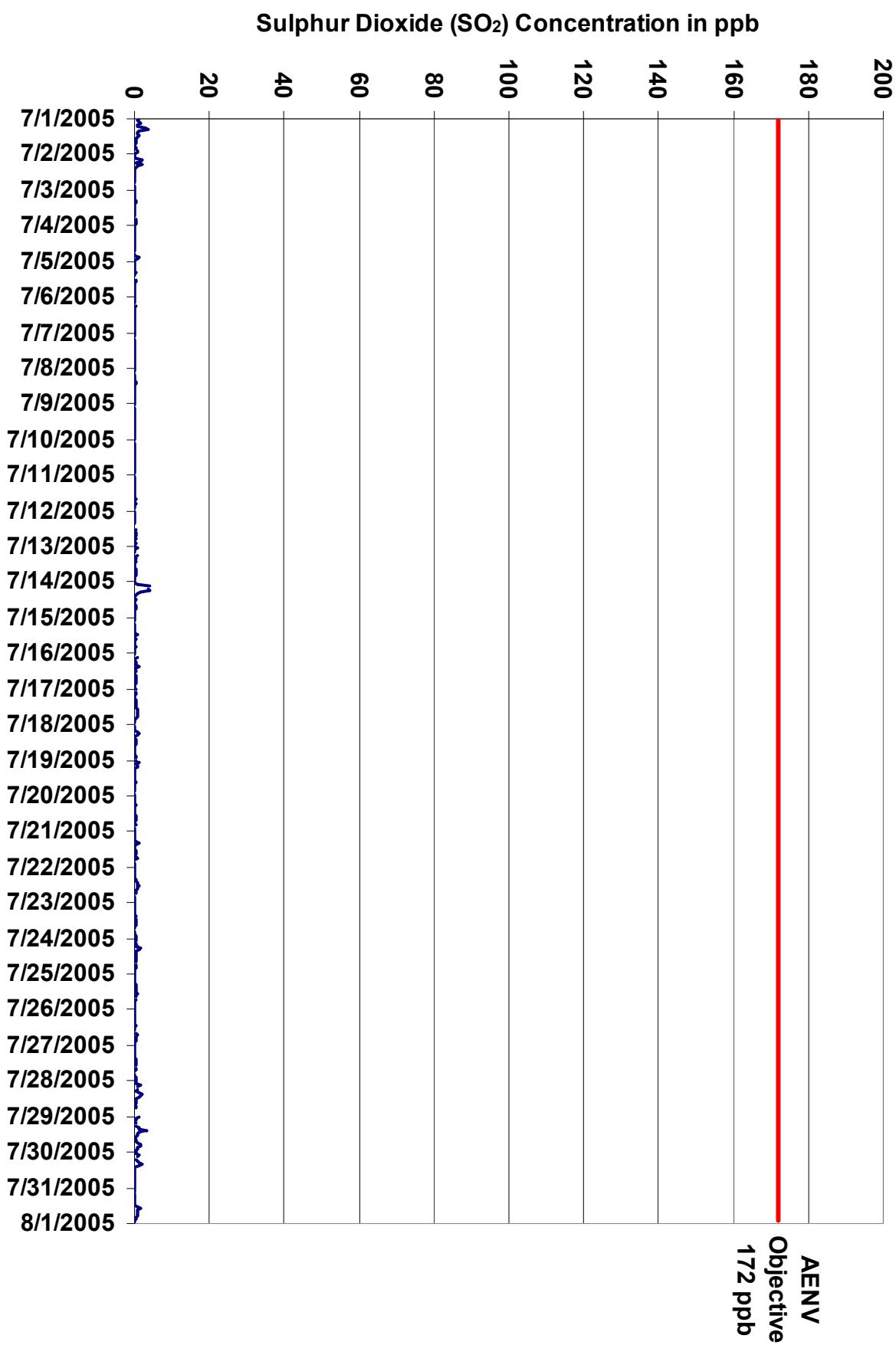
### Sulphur Dioxide (SO<sub>2</sub>)



### 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

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



Station: Smoky Heights  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY MAXIMUM TABLE

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

#### Summary

Maximum 1-hr Value:	6.7 ppb	14-Jul	6:00 7:00
Maximum 24-hr Value:	1.9 ppb	1-Jul	

AIC Time:	32 hrs	Operational Time:	702 hrs
Calibration Time:	10 hrs	AMD Operational Uptime:	100.0%
Percentile			Average
99	95	75	50
25	5	1	
4.6	2.1	0.6	0.3
0.2	0.0	0.0	0.0

#### Day Mountain Standard Time

	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-hour Average	Daily Maximum	
1-Jul-05	2:00	1	1	2	1	2	5	6	2	2	2	2	2	2	1	1	1	1	1	1	1	1	A	5	5	1.9	6.0	
2-Jul-05	0:00	1	0	3	3	3	3	3	1	1	0	1	1	1	1	0	0	0	0	1	A	1	0	0	1.0	3.3		
3-Jul-05	0:00	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	A	2	1	1	0.6	2.0	
4-Jul-05	0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	A	1	1	2	1	0.5	1.9	
5-Jul-05	1:00	0	0	0	0	0	0	0	0	1	1	1	C	C	1	1	0	0	0	0	0	0	0	0	0	0.4	1.0	
6-Jul-05	0:00	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8	
7-Jul-05	0:00	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.3	0.8	
8-Jul-05	0:00	0	0	0	A	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8	
9-Jul-05	0:00	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4	
10-Jul-05	0:00	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	0.5	
11-Jul-05	A:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	1	0	0	0	A	0.4	3.6
12-Jul-05	0:00	0	0	0	0	0	0	0	0	C	C	C	1	0	1	1	1	1	1	1	1	1	0	0	0	0.4	1.2	
13-Jul-05	1:00	4	0	0	0	A	5	1	1	0	1	0	0	0	0	0	1	0	1	0	1	1	0	1	0	0.8	4.8	
14-Jul-05	0:00	4	6	A	6	7	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.4	6.7	
15-Jul-05	0:00	1	A	0	0	1	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0.4	1.4	
16-Jul-05	0:00	A	1	1	0	1	1	1	2	0	0	0	0	0	0	0	1	1	0	1	1	1	0	0	0	0.5	1.7	
17-Jul-05	1:00	A	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.7	1.4	
18-Jul-05	A:00	1	0	1	2	2	2	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	A	0.6	2.0
19-Jul-05	1:00	2	2	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.2	
20-Jul-05	0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	2	0	A	0	0	0.4	1.6	
21-Jul-05	0:00	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	1	0	1	1	1	A	0	0	0	0.5	2.5	
22-Jul-05	0:00	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	A	1	0	0	0	0.5	1.4	
23-Jul-05	0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.5	
24-Jul-05	0:00	0	0	0	1	1	1	4	4	1	0	0	0	0	1	1	1	1	A	1	1	1	0	0	0	0.9	4.3	
25-Jul-05	0:00	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	A	1	0	0	0	0	0	0	0.4	1.0	
26-Jul-05	0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	1	0	0	0.4	1.3	
27-Jul-05	0:00	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	C	0	0	0	0	0	1	0.5	1.0	
28-Jul-05	1:00	1	4	1	A	1	1	2	3	2	2	1	0	1	1	1	0	0	1	1	C	C	C	C	A	1.2	3.8	
29-Jul-05	2:00	1	1	1	1	A	1	2	2	5	4	2	1	1	1	1	0	0	1	2	3	4	1	1	1	1.7	5.5	
30-Jul-05	1:00	1	2	1	A	1	1	2	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	2.9	
31-Jul-05	0:00	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	1	2	1	1	1	1	0	0.6	2.8	
Hourly Avg	0.4	0.5	0.6	0.9	0.5	0.8	1.0	1.1	0.9	0.8	0.6	0.6	0.5	0.6	0.5	0.5	0.6	0.5	0.6	0.6	0.7	0.6	0.6	0.4	0.5	0.5		
Hourly Max	1.9	4.1	4.5	6.3	2.5	5.7	6.7	6.0	3.6	5.5	4.0	2.1	1.6	1.7	2.8	1.5	3.6	1.2	1.6	3.1	4.2	1.9	4.6	4.5				

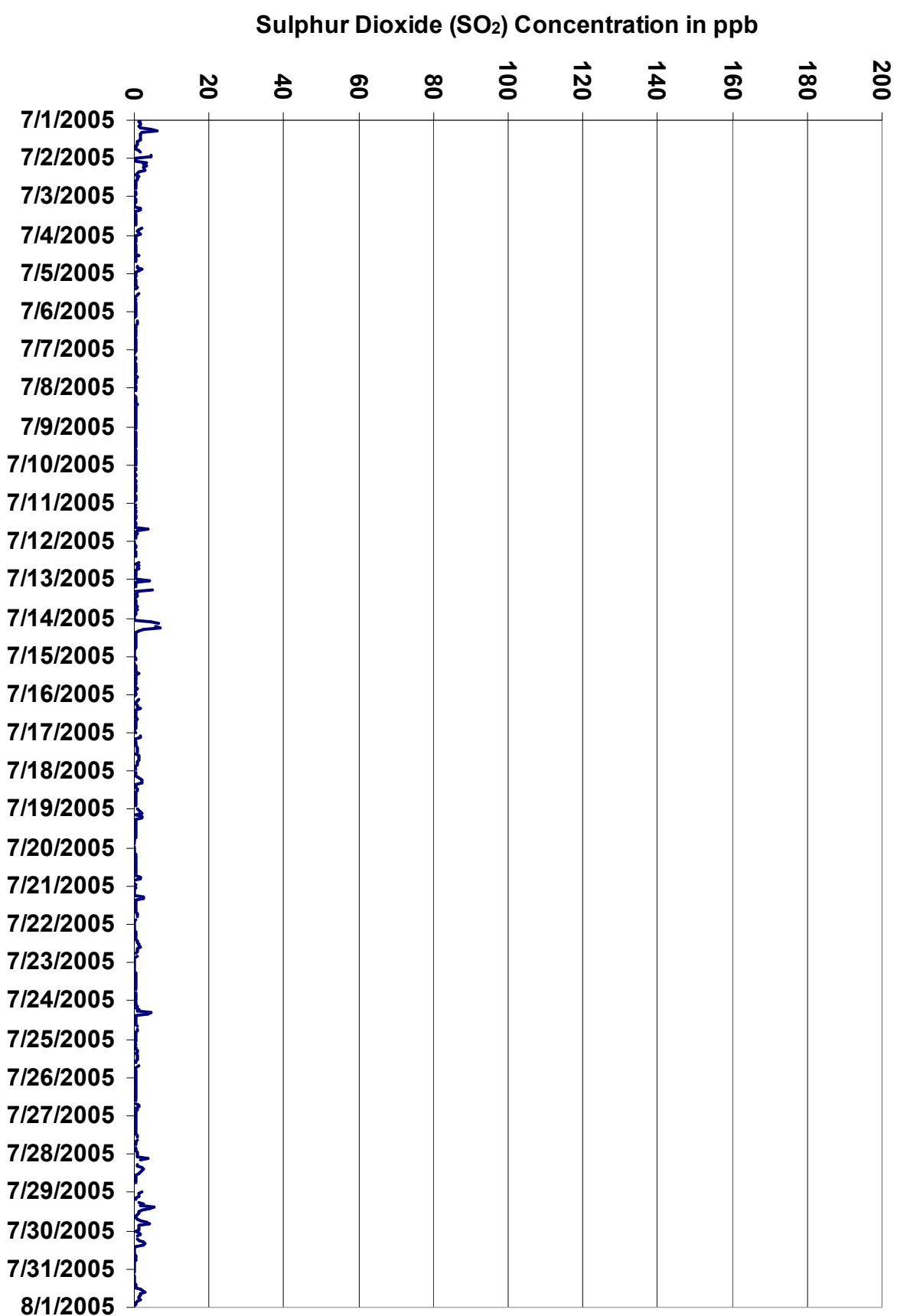
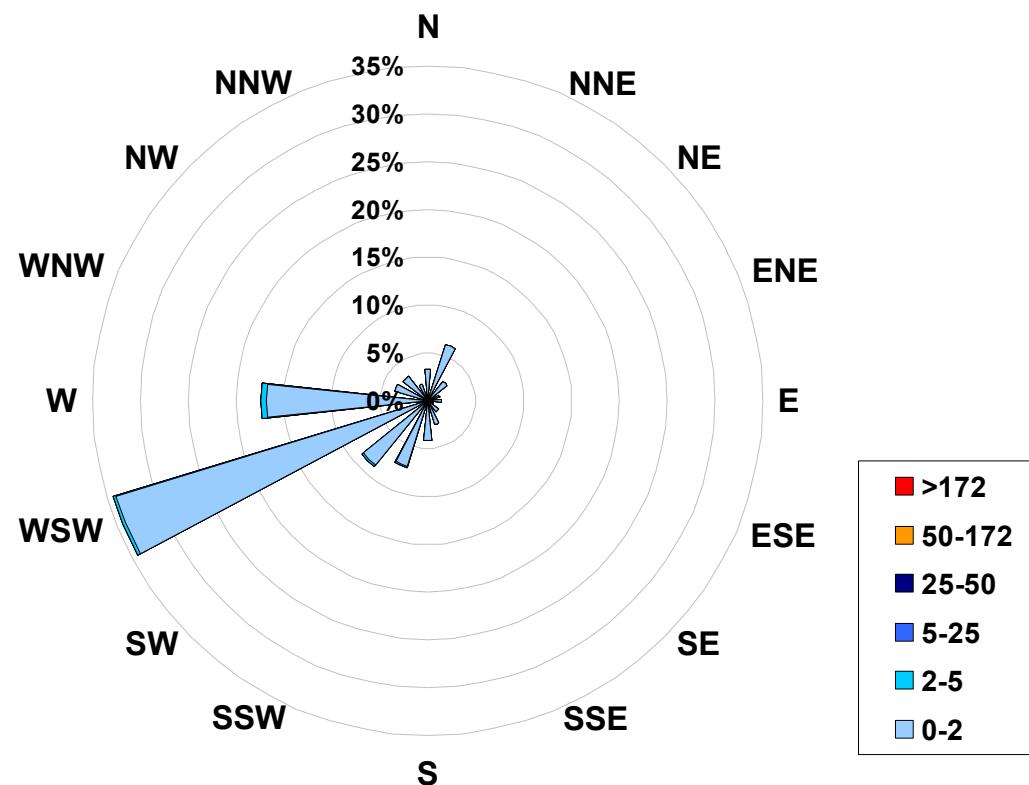


Figure 28. PASZA - Smoky Heights Sulphur Dioxide 1-hr Maximum Value Monthly Trend

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



Calms:	0%
--------	----

Frequency Distribution of SO <sub>2</sub> in ppb			Frequency (hrs)
Range			
0.0	<	2	694
2	to	5	8
5	to	25	0
25	to	50	0
50	to	172	0
> 172			0
Total Non-Zero Values			702

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

Station: Smoky Heights  
Station Owner: PASZA

## HOURLY AVERAGE TABLE

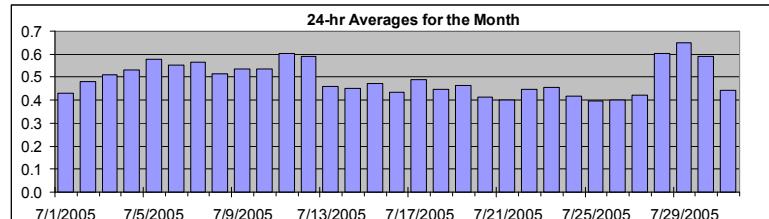
## Total Reduced Sulphur (TRS)

**Monitoring Dates:** July 1, 2005 to August 1, 2005

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

Maximum 1-hr Average: 1.4 ppb 12-Jul 0:00 1:00  
Maximum 24-hr Value: 0.7 ppb 29-Jul

AIC Time:	32 hrs	Operational Time:	702 hrs
Calibration Time:	10 hrs	AMD Operational Uptime:	100.0%
Percentile	99	95	75
	0.8	0.7	0.5
	0.5	0.4	0.3
	0.4	0.4	0.3
	0.3		
			Average
			0.5 ppb



## Status Flag Characters

Status Flag Descriptions		AIC - Zero / Span Check	
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			
	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-Jul-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	0	0.4	0.5	
2-Jul-05	0	1	0	1	0	1	1	1	1	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0.5	0.5	
3-Jul-05	0	1	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	1	1	1	0.5	0.8	
4-Jul-05	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	A	1	0	1	1	0.5	0.7	
5-Jul-05	1	1	1	1	1	1	1	0	0	0	0	C	C	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7	
6-Jul-05	1	1	1	1	1	1	A	1	1	0	0	0	1	1	0	1	0	1	0	1	1	1	1	0	1	0.6	0.8
7-Jul-05	1	0	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	0.6
8-Jul-05	1	1	1	A	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.7
9-Jul-05	1	0	A	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0.5	0.7
10-Jul-05	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	0.5	0.8
11-Jul-05	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	1	1	1	1	0.6	1.0
12-Jul-05	1	1	1	1	1	1	1	1	1	C	C	C	0	0	0	0	0	0	0	0	1	1	1	1	1	0.6	1.4
13-Jul-05	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.0
14-Jul-05	0	0	1	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.7
15-Jul-05	1	1	1	A	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.6
16-Jul-05	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
17-Jul-05	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0.5	0.6
18-Jul-05	A	0	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	0.6
19-Jul-05	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.6
20-Jul-05	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.4	0.6
21-Jul-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0.4	0.5
22-Jul-05	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	A	0	0	0	0	0.4	0.5
23-Jul-05	0	0	0	0	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.5	0.5
24-Jul-05	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.4	0.5
25-Jul-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	0.4	0.5
26-Jul-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	0.4	0.5
27-Jul-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	C	0	1	1	0.4	0.6
28-Jul-05	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	C	C	C	C	A	0.6	0.8
29-Jul-05	1	1	0	0	0	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8
30-Jul-05	1	1	1	1	A	1	1	1	1	0	1	1	0	0	0	0	0	0	1	1	1	1	1	1	1	0.6	0.8
31-Jul-05	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0.4	0.6

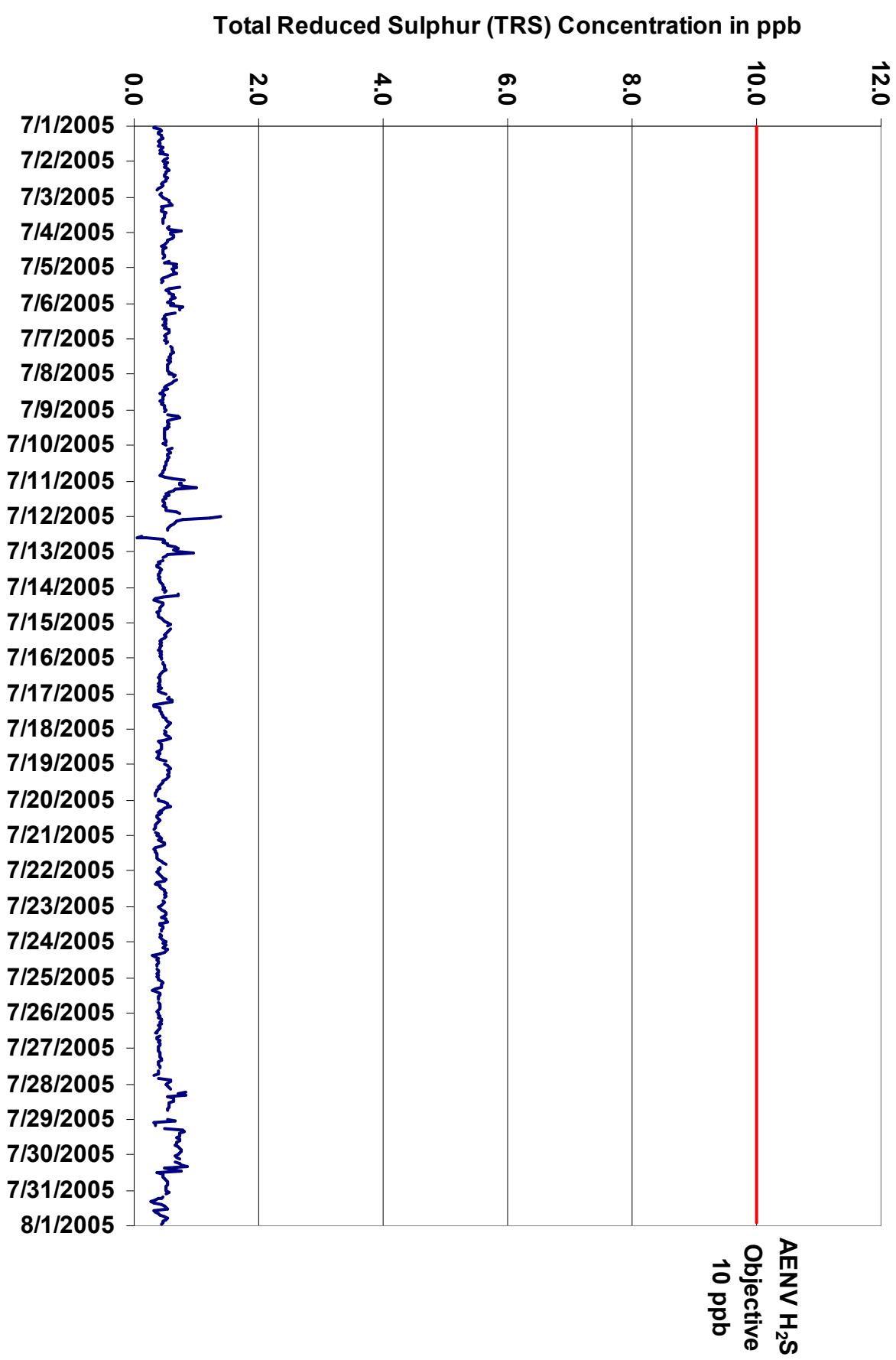


Figure 29. PASZA - Smoky Heights Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Smoky Heights  
Station Owner: PASZA

### HOURLY MAXIMUM TABLE

### Total Reduced Sulphur (TRS)

Monitoring Dates: July 1, 2005 to August 1, 2005

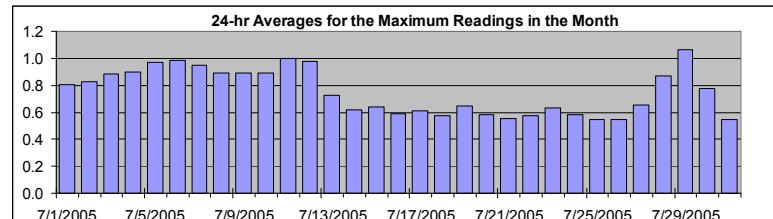
#### Summary

Maximum 1-hr Value:	2.4 ppb	13-Jul	1:00 2:00
Maximum 24-hr Value:	1.1 ppb	29-Jul	

AIC Time:	32 hrs	Operational Time:	702 hrs
Calibration Time:	10 hrs	AMD Operational Uptime:	100.0%
Percentile			Average
99	95	75	50
1.4	1.1	0.9	0.7
25	5	1	
0.6	0.5	0.4	0.7 ppb

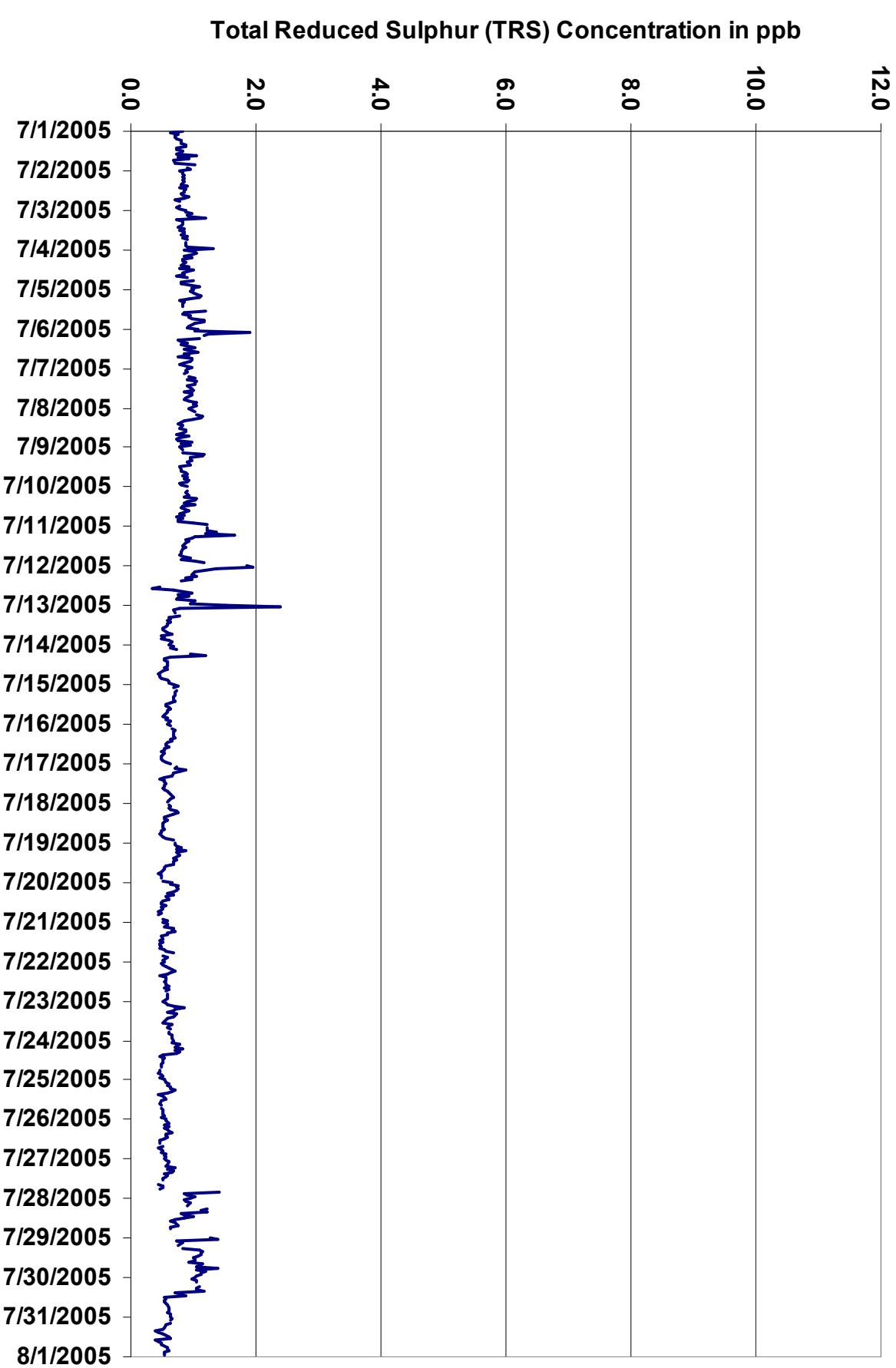
#### Day Mountain Standard Time

	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	Daily Average	Daily Maximum	
1-Jul-05	1:00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.0		
2-Jul-05	1:00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	0.9		
3-Jul-05	1:00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.3		
4-Jul-05	1:00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.1		
5-Jul-05	1:00	1	1	1	1	1	1	1	1	1	1	1	1	1	C	C	1	1	1	1	1	1	1	1	1	1	1	1.0	1.2
6-Jul-05	1:00	1	1	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.0	1.9	
7-Jul-05	1:00	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.1	
8-Jul-05	1:00	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	0.9	1.1	
9-Jul-05	1:00	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2	
10-Jul-05	1:00	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2	
11-Jul-05	1:00	A	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.7	
12-Jul-05	1:00	2	2	1	1	1	1	1	1	1	C	C	C	0	0	0	1	1	1	1	1	1	1	1	1	1	1.0	2.0	
13-Jul-05	1:00	2	2	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	2.4	
14-Jul-05	1:00	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	0.6	1.2
15-Jul-05	1:00	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	0.8	
16-Jul-05	1:00	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	1	0.6	0.7
17-Jul-05	1:00	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9	
18-Jul-05	1:00	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	0.6	0.8	
19-Jul-05	1:00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	A	1	0.6	0.9
20-Jul-05	1:00	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	1	0	0	0	0	A	1	1	0.6	0.8	
21-Jul-05	1:00	1	1	1	1	1	1	1	1	0	1	0	1	0	0	0	0	1	1	1	1	A	1	1	1	0.6	0.7		
22-Jul-05	1:00	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.6	0.7		
23-Jul-05	1:00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.6	0.9		
24-Jul-05	1:00	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	0	A	0	0	0	0	0	1	0	0.6	0.8	
25-Jul-05	1:00	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	0	A	0	1	1	1	1	1	1	0.5	0.7		
26-Jul-05	1:00	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	A	1	0	0	1	0	1	1	1	0.5	0.7		
27-Jul-05	1:00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	1	1	0	C	1	1	1	0.7	1.4		
28-Jul-05	1:00	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	C	1	C	C	0.9	1.2		
29-Jul-05	1:00	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	1.4		
30-Jul-05	1:00	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	0.8	1.2	
31-Jul-05	1:00	1	1	1	A	1	1	1	1	0	0	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	0.5	0.7	
Hourly Avg		0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8			
Hourly Max		1.8	2.4	1.9	1.4	1.2	1.7	1.2	1.1	1.2	1.1	1.1	1.1	1.0	1.2	1.1	1.0	1.1	1.0	1.4	1.2	1.4	1.1	1.2	1.3				

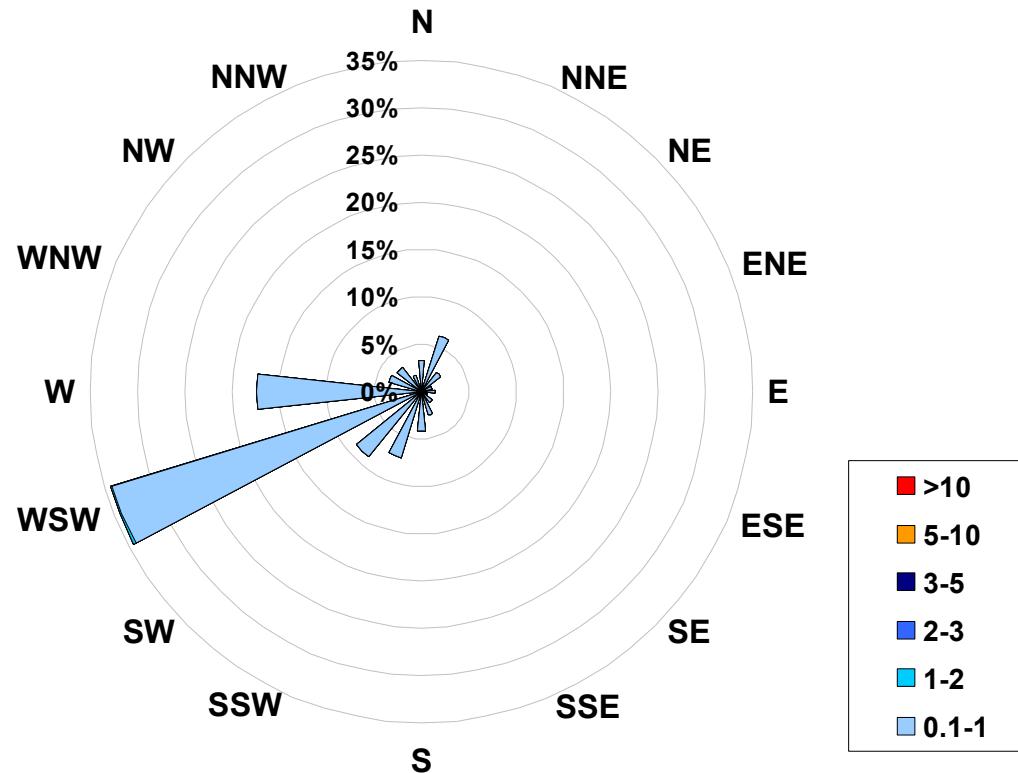


C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Figure 30. PASZA - Smoky Heights Total Reduced Sulphur 1-hr Maximum Value Monthly Trend



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



Calms:	0%
--------	----

Frequency Distribution of TRS in ppb		
Range		Frequency (hrs)
0.1	< 1	700
1	to 2	2
2	to 3	0
3	to 5	0
5	to 10	0
>	10	0
Total Non-Zero Values		702

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

Station: Smoky Heights  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

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:	50.4 $\mu\text{g}/\text{m}^3$
27-Jul 19:00 20:00	
Maximum 24-hr Value:	13.7 $\mu\text{g}/\text{m}^3$
	22-Jul

AIC Time:	0 hrs	Operational Time:	627 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	84.7%						
Percentile	99	95	75	50	25	5	1	Average	Geomean
	23.2	18.2	7.8	4.0	1.5	0.0	0.0	5.6 $\mu\text{g}/\text{m}^3$	4.1 $\mu\text{g}/\text{m}^3$

### Day Mountain Standard Time

	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	32:00	33:00	34:00	35:00	36:00	37:00	38:00	39:00	40:00	41:00	42:00	43:00	44:00	45:00	46:00	47:00	48:00	49:00	50:00	51:00	52:00	53:00	54:00	55:00	56:00	57:00	58:00	59:00	60:00	61:00	62:00	63:00	64:00	65:00	66:00	67:00	68:00	69:00	70:00	71:00	72:00	73:00	74:00	75:00	76:00	77:00	78:00	79:00	80:00	81:00	82:00	83:00	84:00	85:00	86:00	87:00	88:00	89:00	90:00	91:00	92:00	93:00	94:00	95:00	96:00	97:00	98:00	99:00	100:00	101:00	102:00	103:00	104:00	105:00	106:00	107:00	108:00	109:00	110:00	111:00	112:00	113:00	114:00	115:00	116:00	117:00	118:00	119:00	120:00	121:00	122:00	123:00	124:00	125:00	126:00	127:00	128:00	129:00	130:00	131:00	132:00	133:00	134:00	135:00	136:00	137:00	138:00	139:00	140:00	141:00	142:00	143:00	144:00	145:00	146:00	147:00	148:00	149:00	150:00	151:00	152:00	153:00	154:00	155:00	156:00	157:00	158:00	159:00	160:00	161:00	162:00	163:00	164:00	165:00	166:00	167:00	168:00	169:00	170:00	171:00	172:00	173:00	174:00	175:00	176:00	177:00	178:00	179:00	180:00	181:00	182:00	183:00	184:00	185:00	186:00	187:00	188:00	189:00	190:00	191:00	192:00	193:00	194:00	195:00	196:00	197:00	198:00	199:00	200:00	201:00	202:00	203:00	204:00	205:00	206:00	207:00	208:00	209:00	210:00	211:00	212:00	213:00	214:00	215:00	216:00	217:00	218:00	219:00	220:00	221:00	222:00	223:00	224:00	225:00	226:00	227:00	228:00	229:00	230:00	231:00	232:00	233:00	234:00	235:00	236:00	237:00	238:00	239:00	240:00	241:00	242:00	243:00	244:00	245:00	246:00	247:00	248:00	249:00	250:00	251:00	252:00	253:00	254:00	255:00	256:00	257:00	258:00	259:00	260:00	261:00	262:00	263:00	264:00	265:00	266:00	267:00	268:00	269:00	270:00	271:00	272:00	273:00	274:00	275:00	276:00	277:00	278:00	279:00	280:00	281:00	282:00	283:00	284:00	285:00	286:00	287:00	288:00	289:00	290:00	291:00	292:00	293:00	294:00	295:00	296:00	297:00	298:00	299:00	300:00	301:00	302:00	303:00	304:00	305:00	306:00	307:00	308:00	309:00	310:00	311:00	312:00	313:00	314:00	315:00	316:00	317:00	318:00	319:00	320:00	321:00	322:00	323:00	324:00	325:00	326:00	327:00	328:00	329:00	330:00	331:00	332:00	333:00	334:00	335:00	336:00	337:00	338:00	339:00	340:00	341:00	342:00	343:00	344:00	345:00	346:00	347:00	348:00	349:00	350:00	351:00	352:00	353:00	354:00	355:00	356:00	357:00	358:00	359:00	360:00	361:00	362:00	363:00	364:00	365:00	366:00	367:00	368:00	369:00	370:00	371:00	372:00	373:00	374:00	375:00	376:00	377:00	378:00	379:00	380:00	381:00	382:00	383:00	384:00	385:00	386:00	387:00	388:00	389:00	390:00	391:00	392:00	393:00	394:00	395:00	396:00	397:00	398:00	399:00	400:00	401:00	402:00	403:00	404:00	405:00	406:00	407:00	408:00	409:00	410:00	411:00	412:00	413:00	414:00	415:00	416:00	417:00	418:00	419:00	420:00	421:00	422:00	423:00	424:00	425:00	426:00	427:00	428:00	429:00	430:00	431:00	432:00	433:00	434:00	435:00	436:00	437:00	438:00	439:00	440:00	441:00	442:00	443:00	444:00	445:00	446:00	447:00	448:00	449:00	450:00	451:00	452:00	453:00	454:00	455:00	456:00	457:00	458:00	459:00	460:00	461:00	462:00	463:00	464:00	465:00	466:00	467:00	468:00	469:00	470:00	471:00	472:00	473:00	474:00	475:00	476:00	477:00	478:00	479:00	480:00	481:00	482:00	483:00	484:00	485:00	486:00	487:00	488:00	489:00	490:00	491:00	492:00	493:00	494:00	495:00	496:00	497:00	498:00	499:00	500:00	501:00	502:00	503:00	504:00	505:00	506:00	507:00	508:00	509:00	510:00	511:00	512:00	513:00	514:00	515:00	516:00	517:00	518:00	519:00	520:00	521:00	522:00	523:00	524:00	525:00	526:00	527:00	528:00	529:00	530:00	531:00	532:00	533:00	534:00	535:00	536:00	537:00	538:00	539:00	540:00	541:00	542:00	543:00	544:00	545:00	546:00	547:00	548:00	549:00	550:00	551:00	552:00	553:00	554:00	555:00	556:00	557:00	558:00	559:00	560:00	561:00	562:00	563:00	564:00	565:00	566:00	567:00	568:00	569:00	570:00	571:00	572:00	573:00	574:00	575:00	576:00	577:00	578:00	579:00	580:00	581:00	582:00	583:00	584:00	585:00	586:00	587:00	588:00	589:00	590:00	591:00	592:00	593:00	594:00	595:00	596:00	597:00	598:00	599:00	600:00	601:00	602:00	603:00	604:00	605:00	606:00	607:00	608:00	609:00	610:00	611:00	612:00	613:00	614:00	615:00	616:00	617:00	618:00	619:00	620:00	621:00	622:00	623:00	624:00	625:00	626:00	627:00	628:00	629:00	630:00	631:00	632:00	633:00	634:00	635:00	636:00	637:00	638:00	639:00	640:00	641:00	642:00	643:00	644:00	645:00	646:00	647:00	648:00	649:00	650:00	651:00	652:00	653:00	654:00	655:00	656:00	657:00	658:00	659:00	660:00	661:00	662:00	663:00	664:00	665:00	666:00	667:00	668:00	669:00	670:00	671:00	672:00	673:00	674:00	675:00	676:00	677:00	678:00	679:00	680:00	681:00	682:00	683:00	684:00	685:00	686:00	687:00	688:00	689:00	690:00	691:00	692:00	693:00	694:00	695:00	696:00	697:00	698:00	699:00	700:00	701:00	702:00	703:00	704:00	705:00	706:00	707:00	708:00	709:00	710:00	711:00	712:00	713:00	714:00	715:00	716:00	717:00	718:00	719:00	720:00	721:00	722:00	723:00	724:00	725:00	726:00	727:00	728:00	729:00	730:00	731:00	732:00	733:00	734:00	735:00	736:00	737:00	738:00	739:00	740:00	741:00	742:00	743:00	744:00	745:00	746:00	747:00	748:00	749:00	750:00	751:00	752:00	753:00	754:00	755:00	756:00	757:00	758:00	759:00	760:00	761:00	762:00	763:00	764:00	765:00	766:00	767:00	768:00	769:00	770:00	771:00	772:00	773:00	774:00	775:00	776:00	777:00	778:00	779:00	780:00	781:00	782:00	783:00	784:00	785:00	786:00	787:00	788:00	789:00	790:00	791:00	792:00	793:00	794:00	795:00	796:00	797:00	798:00	799:00	800:00	801:00	802:00	803:00	804:00	805:00	806:00	807:00	808:00	809:00	810:00	811:00	812:00	813:00	814:00	815:00	816:00	817:00	818:00	819:00	820:00	821:00	822:00	823:00	824:00	825:00	826:00	827:00	828:00	829:00	830:00	831:00	832:00	833:00	834:00	835:00	836:00	837:00	838:00	839:00	840:00	841:00	842:00	843:00	844:00	845:00	846:00	847:00	848:00	849:00	850:00	851:00	852:00	853:00	854:00	855:00	856:00	857:00	858:00	859:00	860:00	861:00	862:00	863:00	864:00	865:00	866:00	867:00	868:00	869:00	870:00	871:00	872:00	873:00	874:00	875:00	876:00	877:00	878:00	879:00	880:00	881:00	882:00	883:00	884:00	885:00	886:00	887:00	888:00	889:00	890:00	891:00	892:00	893:00	894:00	895:00	896:00	897:00	898:00	899:00	900:00	901:00	902:00	903:00	904:00	905:00	906:00	907:00	908:00	909:00	910:00	911:00	912:00	913:00	914:00	915:00	916:00	917:00	918:00	919:00	920:00	921:00	922:00	923:00	924:00	925:00	926:00	927:00	928:00	929:00	930:00	931:00	932:00	933:00	934:00	935:00	936:00	937:00	938:00	939:00	940:00	941:00	942:00	943:00	944:00	945:00	946:00	947:00	948:00	949:00	950:00	951:00	952:00	953:00	954:00	955:00	956:00	957:00	958:00	959:00	960:00	961:00	962:00	963:00	964:00	965:00	966:00

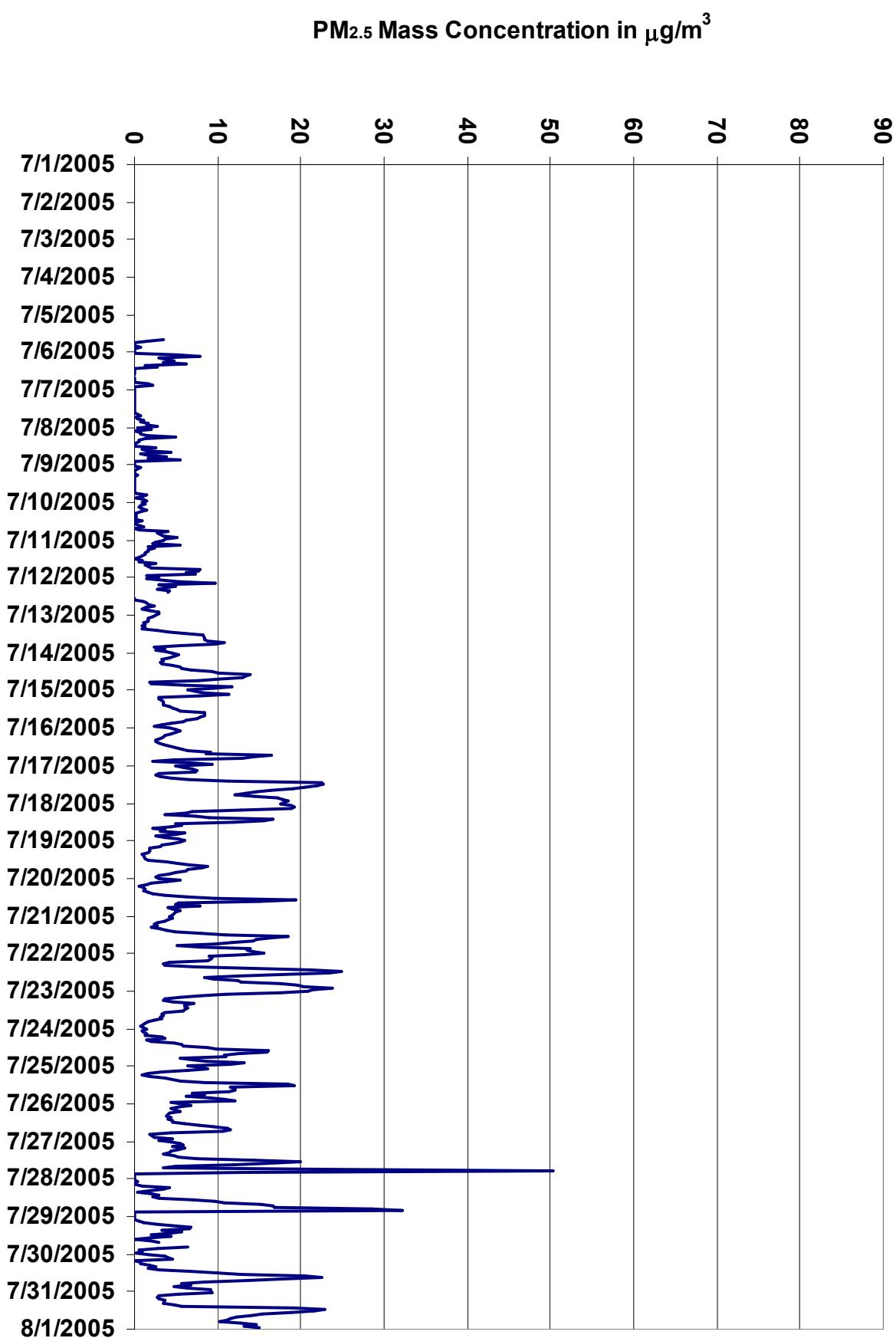


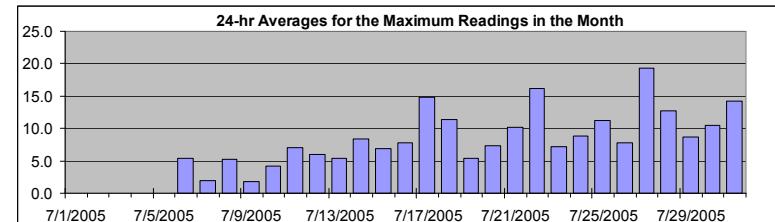
Figure 31. PASZA - Smoky Heights Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Smoky Heights  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY MAXIMUM TABLE

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



#### Summary

Maximum 1-hr Average:	109.1	µg/m³	27-Jul	19:00 20:00
Maximum 24-hr Value:	19.3	µg/m³	27-Jul	

AIC Time:	0 hrs	Operational Time:	627 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	84.7%
Percentile	99 95 75 50 25 5 1	Average	Geomean
	26.9 21.9 11.2 6.3 3.5 1.2 0.1	8.6 µg/m³	7.6 µg/m³

#### Day Mountain Standard Time

	Hour Start 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum	
1-Jul-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		
2-Jul-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		
3-Jul-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		
4-Jul-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		
5-Jul-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	9	5	2	0	3	6	4	0	9.5	
6-Jul-05	0	6	17	17	5	13	12	15	6	5	7	1	2	0	0	D	0	0	0	1	5	5	3	2	5.3	17.4		
7-Jul-05	1	1	0	0	1	1	2	1	2	2	2	2	2	1	1	4	2	2	3	3	2	4	3	5	1.9	4.8		
8-Jul-05	3	10	1	2	4	3	19	5	3	3	3	3	1	4	3	5	16	3	4	6	4	11	4	5	5.2	19.2		
9-Jul-05	0	1	2	1	1	1	2	1	2	1	2	1	2	0	2	2	2	4	4	2	2	3	2	1.8	3.9			
10-Jul-05	2	3	3	2	3	2	2	2	2	1	3	4	4	1	2	6	1	3	11	6	8	11	13	8	4.2	13.3		
11-Jul-05	5	4	5	14	3	5	5	4	3	3	4	3	1	4	5	8	5	5	4	25	14	10	24	6	7.1	24.7		
12-Jul-05	9	6	12	19	5	7	6	4	7	8	C	C	C	3	1	12	3	3	4	2	2	3	4	4	5.9	19.0		
13-Jul-05	4	3	2	3	2	2	2	2	2	2	4	6	8	10	10	10	11	13	12	8	4	5	3	4	5.4	12.7		
14-Jul-05	5	6	6	5	4	4	4	4	4	6	6	7	9	11	12	16	15	14	12	10	3	5	8	14	8.4	15.9		
15-Jul-05	8	10	16	11	4	3	4	4	4	5	6	5	6	6	10	10	9	8	9	8	7	5	4	3	6.9	15.6		
16-Jul-05	6	6	7	6	5	4	4	4	3	4	4	4	4	7	8	7	11	13	19	16	16	11	4	8	7.8	18.8		
17-Jul-05	10	7	8	8	8	5	4	4	4	6	8	20	25	25	24	22	21	18	17	20	15	17	21	20	14.8	25.3		
18-Jul-05	23	20	20	20	19	9	8	7	9	14	19	19	15	11	11	9	3	5	4	7	7	3	5	6	11.3	23.5		
19-Jul-05	7	7	5	5	4	3	3	3	2	2	2	2	3	6	7	10	12	11	9	8	6	5	4	3	5.4	11.9		
20-Jul-05	5	7	6	4	3	2	2	2	2	3	9	6	9	15	23	20	10	7	11	5	6	7	6	6	7.3	22.7		
21-Jul-05	5	6	5	4	4	3	4	3	4	5	7	11	14	22	19	17	17	14	12	7	10	16	18	16	10.2	22.0		
22-Jul-05	17	19	10	10	10	8	8	4	5	10	26	27	25	22	14	11	13	14	17	19	22	25	28	23	16.2	27.7		
23-Jul-05	22	23	12	10	8	6	4	7	9	7	7	8	9	7	5	4	4	4	5	4	3	2	1	2	7.2	23.3		
24-Jul-05	2	2	2	2	2	5	6	2	5	6	8	7	11	12	20	18	14	13	13	9	9	11	16	16	8.9	19.7		
25-Jul-05	8	10	9	9	4	3	2	4	7	7	13	25	24	18	17	14	14	10	14	9	10	13	13	11	11.2	24.7		
26-Jul-05	7	8	7	5	8	7	6	5	6	6	5	7	8	9	10	13	17	15	14	7	4	5	7	4	7.8	16.9		
27-Jul-05	6	6	7	7	7	6	5	5	13	6	7	14	22	23	18	16	9	8	81	109	82	3	1	1	19.3	109.1		
28-Jul-05	1	0	8	4	2	4	7	7	4	5	6	4	6	13	14	13	19	22	20	74	68	0	2	0	12.7	74.3		
29-Jul-05	2	1	2	3	4	5	8	12	12	11	10	13	12	15	19	11	12	10	D	15	11	4	4	4	8.7	19.2		
30-Jul-05	4	8	10	11	4	2	2	4	5	3	5	10	13	18	26	25	21	19	13	8	14	6	11	11	10.5	26.2		
31-Jul-05	10	11	11	4	4	4	7	5	7	12	24	27	26	22	18	16	14	15	16	16	18	19	16	19	14.3	26.6		
Hourly Avg	6.7	7.3	7.4	7.1	4.8	4.6	5.3	4.6	5.2	5.6	8.5	9.7	10.6	11.1	11.6	12.1	10.6	9.6	12.5	14.7	13.1	8.0	8.9	7.8				
Hourly Max	23.5	23.3	20.2	20.1	18.8	13.0	19.2	14.5	13.2	13.6	26.4	27.1	26.5	23.8	26.2	25.4	21.4	22.4	80.9	109.1	82.4	25.2	27.7	23.1				

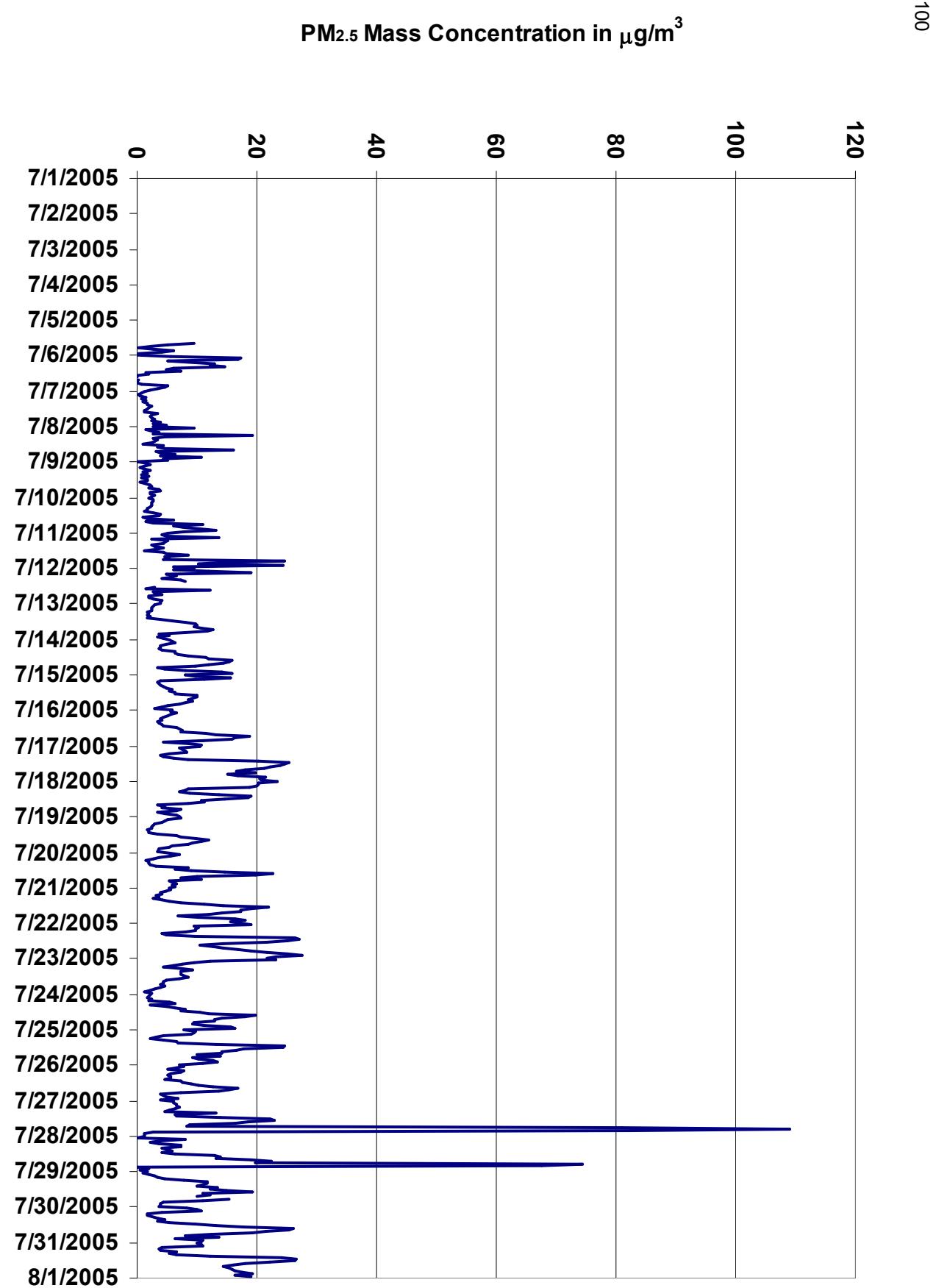
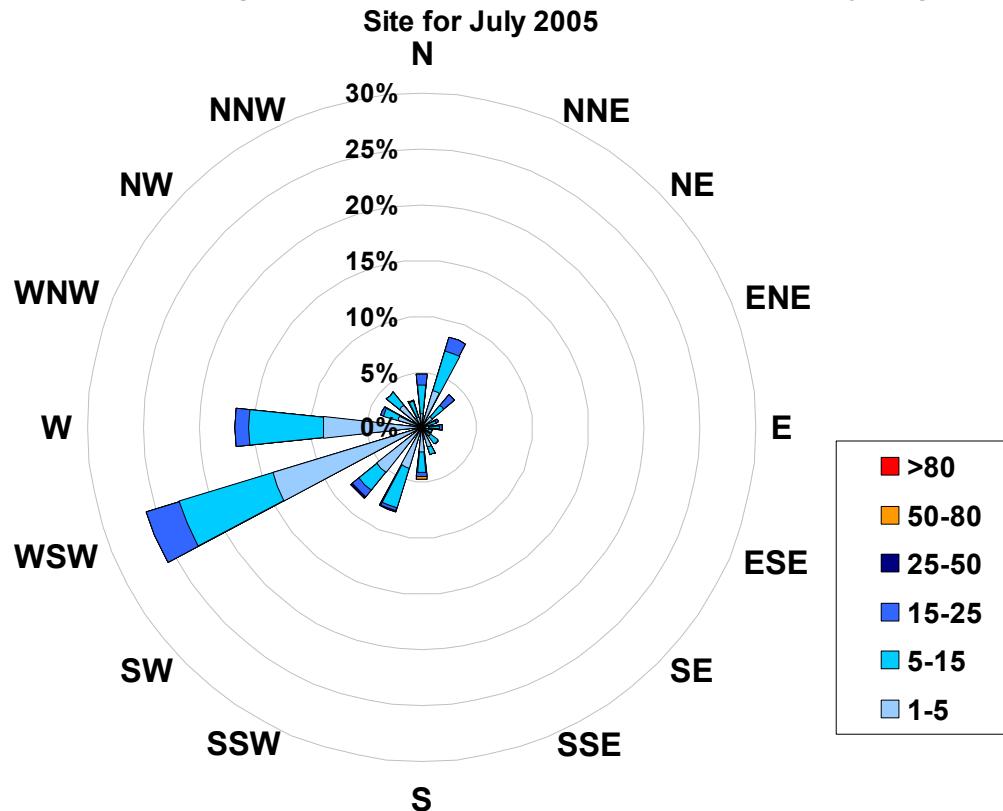


Figure 32. PASZA - Smoky Heights Particulate Matter (less than 2.5 microns) 1-hr Maximum Value Monthly Trend

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



Calms: 0%

Frequency Distribution of PM <sub>2.5</sub> in µg/m <sup>3</sup>			
Range		Frequency (hrs)	
1.0	<	5	377
5	to	15	197
15	to	25	50
25	to	50	2
50	to	80	1
	>	80	0
Total Non-Zero Values		627	

## PASZA - Smoky Heights Temperature Monthly Summary

Station: Smoky Heights  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### Summary

Maximum 1-hr Average:	23.9	°C	17-Jul	17:00 18:00
Maximum 24-hr Value:	17.1	°C	17-Jul	

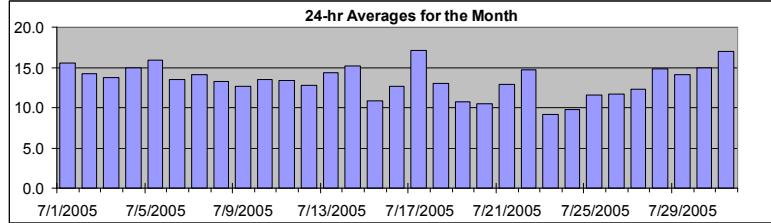
AIC Time:	0 hrs	Operational Time:	744 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	13.4 °C
	22.8	20.5	17.3	13.2	9.7	6.4	4.1		

### Day Mountain Standard Time

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average			
	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		
	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-Jul-05	11	12	12	12	11	11	11	12	15	18	18	19	20	20	20	18	19	20	19	19	19	17	13	14	13	15.6		
2-Jul-05	12	10	10	10	10	10	10	12	14	15	16	17	18	19	19	19	19	19	18	18	17	15	13	11	10	14.2		
3-Jul-05	9	7	7	7	7	8	10	12	14	16	17	18	19	19	20	20	20	20	19	19	18	15	12	10	8	13.7		
4-Jul-05	8	7	6	5	5	7	10	12	15	17	19	19	20	21	21	21	21	21	21	20	18	16	14	13		14.9		
5-Jul-05	13	12	11	10	10	12	14	15	18	20	20	21	22	23	21	21	19	16	16	16	15	13	11	11		15.9		
6-Jul-05	9	9	8	9	9	11	12	13	13	13	14	15	16	16	18	19	19	19	19	18	17	15	14	12	12		13.5	
7-Jul-05	11	10	9	8	8	8	11	13	14	16	16	17	17	18	18	18	19	19	19	19	18	16	14	12	9		14.1	
8-Jul-05	10	10	8	8	7	8	9	11	12	13	15	17	18	18	18	18	18	18	18	18	17	17	13	9	8		13.3	
9-Jul-05	6	6	5	6	5	6	8	10	13	14	15	16	17	17	18	18	18	18	18	18	17	16	15	13	12	11		12.6
10-Jul-05	9	8	6	6	5	7	9	12	14	15	17	17	18	19	19	19	20	20	20	19	18	16	12	9	8		13.5	
11-Jul-05	8	7	6	5	3	5	7	9	11	15	17	18	19	20	21	20	21	21	21	20	18	13	9	7			13.4	
12-Jul-05	6	5	4	4	4	7	10	13	15	18	18	20	21	23	22	14	13	14	15	14	14	12	10	10			12.7	
13-Jul-05	10	9	8	9	9	10	10	11	12	13	16	18	19	18	16	19	21	20	20	18	16	15	14	13			14.4	
14-Jul-05	12	11	11	11	11	11	12	13	15	17	18	19	19	20	20	20	20	20	19	18	17	16	13	11	9		15.1	
15-Jul-05	8	7	7	7	8	9	9	10	10	11	12	12	13	14	15	15	14	14	14	13	10	10	9	9			10.8	
16-Jul-05	9	10	10	9	9	9	9	10	10	11	12	13	13	15	15	16	17	18	17	18	15	13	13	12			12.7	
17-Jul-05	11	10	9	8	8	9	11	13	16	17	19	21	22	23	23	24	24	24	24	23	20	19	17	17			17.1	
18-Jul-05	15	14	13	12	12	12	12	14	15	15	16	15	14	12	14	15	14	14	14	15	13	12	9	8	8		13.1	
19-Jul-05	7	8	7	7	8	8	8	8	9	10	10	11	12	16	16	16	15	14	13	13	12	11	10	9			10.7	
20-Jul-05	8	5	5	6	5	6	7	8	9	10	13	15	17	18	18	17	14	10	11	11	10	10	9	9			10.5	
21-Jul-05	9	9	9	9	9	9	9	11	11	12	14	15	15	16	17	17	18	18	18	17	15	13	12	12			12.9	
22-Jul-05	11	10	10	10	9	9	11	13	14	16	18	19	19	19	19	19	18	18	18	18	17	16	14	13	12		14.7	
23-Jul-05	11	11	11	11	11	10	10	10	10	11	10	9	9	9	8	8	8	8	7	7	7	6	6				9.1	
24-Jul-05	4	3	2	2	2	3	6	7	9	10	11	12	13	14	15	16	16	16	16	17	15	13	10	8	8		9.8	
25-Jul-05	7	7	6	5	5	6	7	9	11	14	16	17	16	15	17	18	18	18	15	14	12	12	11	11			11.6	
26-Jul-05	9	9	9	9	8	8	9	9	10	10	11	13	14	15	16	15	15	16	16	15	14	13	10	8			11.7	
27-Jul-05	8	8	8	8	8	8	8	8	9	10	14	16	17	18	18	18	16	16	14	14	14	13	13	13			12.3	
28-Jul-05	12	11	10	10	10	10	12	14	15	17	19	18	17	19	20	19	19	19	18	17	16	14	13	12			14.8	
29-Jul-05	11	10	10	9	8	8	9	11	13	15	17	19	20	18	15	18	19	19	19	20	19	17	14	11	9			14.1
30-Jul-05	8	9	11	11	10	10	11	12	14	16	18	20	20	20	21	20	19	19	18	17	15	14	13	13			15.0	
31-Jul-05	13	12	12	12	11	11	12	14	15	17	19	20	22	22	23	23	22	23	22	20	18	17	15	14			17.0	

### HOURLY AVERAGE TABLE

### Ambient Temperature (T)



### 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

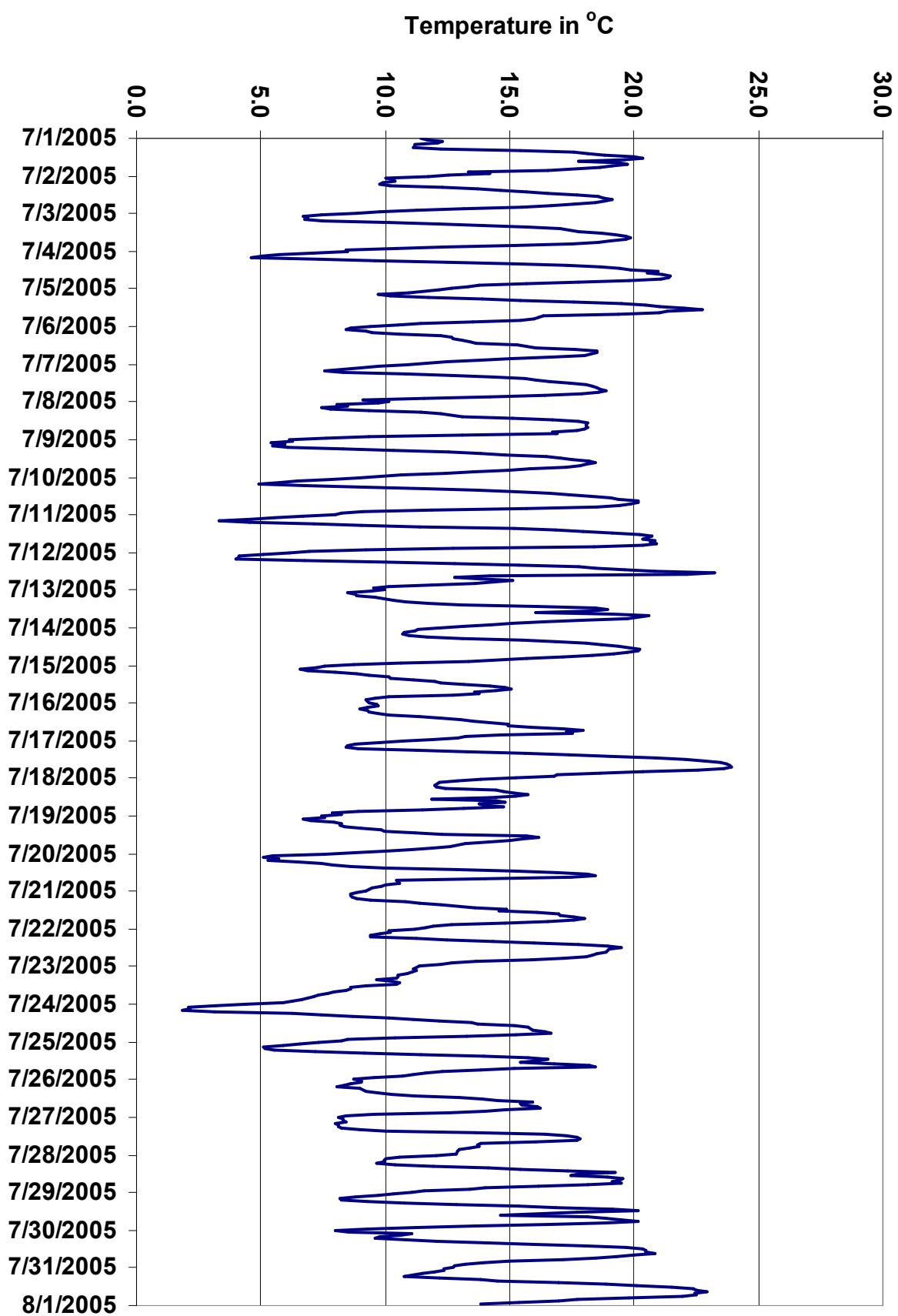


Figure 33. PASZA - Smoky Heights Temperature 1-hr Average Monthly Trend

## PASZA - Smoky Heights Scalar Wind Speed Monthly Summary

Station: Smoky Heights  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

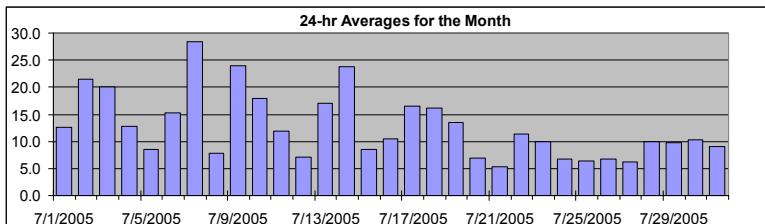
### Summary

Maximum 1-hr Average:	44.4	km/hr	7-Jul	11:00 12:00
Maximum 24-hr Value:	28.5	km/hr	7-Jul	

Calm Time:	1 hrs	0% calms	Operational Time:	743 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageS
	37.8	28.8	17.1	10.3	6.4	3.2	1.8	12.7 km/hr

### HOURLY AVERAGE TABLE

### Wind Speed (WSs)



### 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	6:00 7:00	7:00 8:00	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-Jul-05	5	9	11	10	11	10	13	12	9	10	8	7	8	7	10	10	26	24	20	15	10	11	22	23	12.6	26.1	
2-Jul-05	23	15	21	17	19	21	19	23	28	28	23	22	20	20	22	28	28	26	27	22	16	15	15	16	21.4	28.4	
3-Jul-05	13	12	12	14	13	15	18	24	31	33	31	30	28	25	27	24	26	26	21	19	14	8	8	9	20.1	33.0	
4-Jul-05	10	9	5	5	8	5	5	6	8	14	21	22	23	24	22	22	22	18	19	12	10	8	4	6	12.9	24.3	
5-Jul-05	7	8	5	4	6	6	7	7	8	10	11	14	15	15	15	13	16	16	6	9	7	6	1	2	8.5	16.1	
6-Jul-05	4	2	2	3	3	2	4	5	4	8	12	15	18	22	23	23	30	31	31	28	24	26	23	25	15.3	31.3	
7-Jul-05	24	24	22	19	17	16	24	29	32	40	41	44	42	41	40	41	39	33	30	28	22	15	10	9	28.5	44.4	
8-Jul-05	15	10	9	7	8	4	6	6	9	7	4	5	3	6	6	5	6	5	2	2	6	22	20	11	7.8	22.5	
9-Jul-05	11	11	11	14	14	13	15	19	23	29	29	36	34	33	35	33	33	32	33	30	23	22	21	15	23.9	36.1	
10-Jul-05	13	15	12	12	11	16	15	23	26	26	26	23	22	23	21	21	23	21	17	18	14	10	11	13	17.9	26.4	
11-Jul-05	11	10	8	7	8	5	8	11	14	17	17	17	18	19	23	21	17	15	13	10	5	3	4	4	11.9	22.8	
12-Jul-05	5	4	5	5	9	8	8	6	6	5	5	3	5	9	16	17	11	4	4	13	6	2	4	10	7.1	17.0	
13-Jul-05	12	12	10	9	9	10	13	9	9	11	15	17	16	22	10	24	29	28	30	26	22	21	23	21	17.0	29.9	
14-Jul-05	22	22	22	22	21	22	25	33	33	31	30	29	30	29	29	27	28	30	26	19	10	6	2	23.8	33.5		
15-Jul-05	6	7	6	5	7	7	6	9	8	3	7	10	10	12	16	11	15	13	12	14	6	4	5	5	8.5	15.7	
16-Jul-05	5	7	12	12	9	12	15	15	13	12	12	13	11	13	11	9	10	10	8	7	8	8	10	8	10.4	14.7	
17-Jul-05	10	9	7	9	9	7	11	16	18	21	19	21	21	21	22	23	22	22	24	19	16	13	18	16.5	23.5		
18-Jul-05	17	23	18	17	15	18	15	17	19	12	9	11	15	17	15	20	21	23	21	17	11	10	12	13	16.1	23.5	
19-Jul-05	15	15	11	16	17	20	17	16	12	19	18	17	14	11	10	14	15	16	10	10	8	9	7	5	13.5	20.2	
20-Jul-05	5	5	5	5	3	1	3	2	2	1	5	7	9	10	11	9	18	18	14	7	7	3	5	7	6.9	18.5	
21-Jul-05	5	2	4	6	3	1	1	1	5	6	8	9	9	7	7	8	7	6	6	5	5	4	5	6	5.4	9.1	
22-Jul-05	6	6	6	7	7	8	8	9	10	10	12	14	14	16	16	13	13	13	14	12	12	21	15	9	11.3	21.0	
23-Jul-05	12	9	6	7	9	13	13	16	18	17	14	10	11	10	10	9	8	8	7	6	5	3	3	9.9	18.1		
24-Jul-05	4	6	5	5	7	4	7	7	6	6	6	7	7	6	5	5	6	4	6	9	11	12	11	10	6.8	12.5	
25-Jul-05	7	8	7	6	4	5	4	6	6	5	6	6	6	12	10	8	9	9	5	5	4	5	4	4	6.4	11.8	
26-Jul-05	4	4	3	5	4	3	4	5	4	5	8	5	4	7	9	7	8	12	12	15	14	8	9	3	5	6.8	14.8
27-Jul-05	6	6	4	5	5	3	3	4	5	5	5	8	10	10	10	7	9	8	3	2	6	8	10	8	6.1	10.2	
28-Jul-05	7	5	6	7	10	6	7	9	11	9	12	14	11	18	18	19	14	10	10	9	6	6	6	6	9.9	18.6	
29-Jul-05	5	10	7	7	6	6	8	9	11	11	10	12	15	21	11	11	11	12	14	6	10	9	7	7	9.8	20.7	
30-Jul-05	6	7	11	9	11	11	9	8	14	17	18	19	20	16	9	10	10	9	7	8	3	5	2	4	10.2	20.3	
31-Jul-05	3	2	6	2	calm	3	3	8	11	8	12	16	21	23	21	17	14	9	5	2	5	4	4	6	9.0	22.6	

## PASZA - Smoky Heights Vector Wind Speed Monthly Summary

Station: Smoky Heights  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

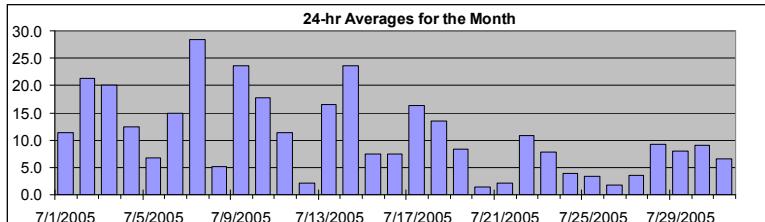
### Summary

Maximum 1-hr Average:	44.1	km/hr	7-Jul	11:00 12:00
Maximum 24-hr Value:	28.4	km/hr	7-Jul	

Calm Time:	7 hrs	1% calms	Operational Time:	737 hrs
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%
Percentile				AverageV
99	95	75	50	25 5 1
37.6	28.6	16.9	10.0	6.0 2.7 1.4
				84.4 km/hr

### HOURLY AVERAGE TABLE

### Wind Speed (WSv)



### 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-Jul-05	4	9	11	10	11	10	13	12	9	9	8	6	6	2	9	7	26	24	20	15	10	11	22	23	11.3	25.9
2-Jul-05	23	15	21	17	19	21	19	23	28	28	23	21	20	20	22	27	28	26	27	22	16	15	15	14	21.3	28.2
3-Jul-05	13	12	12	14	13	15	18	24	31	33	31	30	27	25	27	24	25	26	21	19	14	8	8	9	20.0	32.8
4-Jul-05	10	9	5	5	8	5	5	6	7	13	21	22	22	24	21	21	21	18	19	12	10	7	4	6	12.5	23.9
5-Jul-05	7	8	4	4	6	5	7	7	7	10	11	13	14	15	13	15	16	5	9	7	6	calm	2	6.8	15.7	
6-Jul-05	3	2	2	3	2	2	4	5	3	6	12	15	17	22	23	22	30	31	31	28	23	26	23	25	14.9	31.0
7-Jul-05	24	24	22	19	17	16	24	29	32	40	40	44	42	41	39	40	39	33	30	27	22	15	10	9	28.4	44.1
8-Jul-05	15	10	9	7	8	4	5	1	8	7	2	4	3	3	6	5	6	3	1	2	6	21	19	11	5.1	21.1
9-Jul-05	10	11	11	14	14	13	15	19	23	29	29	35	34	33	35	33	33	32	33	30	23	22	21	15	23.7	35.5
10-Jul-05	13	15	12	12	11	16	15	23	26	26	26	22	21	22	20	20	22	21	17	18	13	10	11	13	17.8	26.1
11-Jul-05	11	10	8	7	8	4	8	11	14	17	16	16	16	17	22	20	16	15	12	10	4	3	3	3	11.3	21.9
12-Jul-05	5	4	5	5	8	7	8	6	6	3	5	2	4	9	15	13	11	1	4	13	3	1	3	9	2.1	15.1
13-Jul-05	11	12	9	9	9	10	13	8	9	11	15	16	15	21	10	24	28	28	30	26	22	21	23	21	16.5	29.7
14-Jul-05	22	22	22	22	21	22	22	25	33	33	30	30	28	30	28	29	27	28	29	26	19	9	5	2	23.6	33.4
15-Jul-05	6	6	6	4	7	6	6	9	8	2	6	9	10	12	16	11	15	13	12	13	6	4	5	5	7.5	15.5
16-Jul-05	5	7	12	12	9	12	14	15	13	12	11	12	11	13	11	9	10	9	8	7	8	7	10	8	7.4	14.7
17-Jul-05	10	8	7	9	8	7	11	16	17	21	19	21	20	20	22	23	21	21	21	23	18	16	13	17	16.3	23.5
18-Jul-05	16	23	18	17	15	18	15	17	19	11	9	10	15	16	15	20	21	23	21	16	11	10	11	13	13.4	23.2
19-Jul-05	15	15	11	16	17	20	17	16	12	19	18	17	14	10	6	13	13	16	7	10	7	9	6	4	8.3	20.2
20-Jul-05	3	5	5	4	3	1	3	1	2	1	5	6	9	10	11	9	11	18	18	10	6	2	4	6	1.4	17.9
21-Jul-05	5	2	2	6	3	calm	calm	calm	4	6	7	8	9	5	5	7	7	5	6	5	5	4	5	5	2.2	8.6
22-Jul-05	5	6	6	7	7	8	8	9	9	10	12	14	14	15	16	13	13	13	14	12	12	20	15	9	10.8	19.8
23-Jul-05	12	9	6	7	8	11	12	13	16	18	17	13	10	11	10	10	9	8	8	6	5	5	3	3	7.8	17.9
24-Jul-05	4	6	5	5	7	4	7	7	6	6	6	6	5	3	3	3	4	3	2	8	10	12	11	10	4.0	12.2
25-Jul-05	6	7	7	6	4	5	4	5	6	5	4	5	11	9	8	8	8	7	2	4	3	4	4	4	3.4	11.3
26-Jul-05	4	4	3	5	4	3	4	5	7	5	4	7	8	7	7	11	12	15	14	7	7	2	4	4	1.8	14.5
27-Jul-05	5	5	4	5	5	3	3	2	3	5	5	8	10	10	10	6	9	8	2	2	6	8	9	3.6	9.7	
28-Jul-05	7	5	6	7	9	6	7	9	11	9	11	14	11	18	17	18	14	9	10	8	5	6	5	6	9.3	18.1
29-Jul-05	5	10	6	6	5	6	8	9	10	10	10	12	14	19	6	10	11	10	14	6	10	9	7	7	7.9	19.3
30-Jul-05	6	6	11	7	10	11	9	8	14	17	18	18	20	16	8	9	9	7	7	5	1	4	4	9.0	19.8	
31-Jul-05	3	1	5	2	calm	2	2	8	11	8	11	16	21	22	21	17	14	8	4	2	4	calm	3	5	6.5	22.0

1-hr Vector	7.6	7.7	7.5	7.3	7.6	7.8	8.1	9.1	10.0	10.7	10.9	11.3	11.2	11.4	10.4	11.1	13.0	13.2	11.9	10.1	7.9	7.0	7.3	7.1
Hourly Max	23.7	24.0	22.4	21.9	21.3	21.5	23.6	28.8	33.4	39.5	40.3	44.1	41.8	40.6	39.5	40.4	38.8	33.0	33.2	29.7	23.5	26.3	23.3	25.2

**PASZA - Smoky Heights Wind Direction Monthly Summary**

Station: Smoky Heights  
 Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

**HOURLY AVERAGE TABLE****Wind Direction (WD)****Summary**

Wind Direction (WD)													

Calm Time:	0 hrs	0% calms	Operational Time:	744 hrs									
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%									
Percentile	99	95	75	50	25	5	1	Average					
	352.6	317.3	261.0	245.7	202.8	23.5	8.5		253 deg				

**Status Flag Characters**

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

**Day Mountain Standard Time**

	Hour Start 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	WD Sector	
1-Jul-05	237	212	241	227	223	246	251	267	299	296	294	210	289	13	303	264	247	254	252	249	262	269	255	267	258	WSW	
2-Jul-05	264	265	262	262	258	256	260	255	260	259	254	254	252	256	254	263	259	270	259	253	249	249	244	245	257	WSW	
3-Jul-05	249	247	248	254	262	260	259	259	264	267	264	263	259	256	246	249	256	264	265	255	251	253	258	265	258	WSW	
4-Jul-05	259	238	252	242	223	225	196	218	214	216	239	252	247	244	254	257	249	252	253	248	261	261	259	235	245	WSW	
5-Jul-05	244	249	210	263	264	220	192	188	178	184	190	188	215	235	261	257	269	280	164	161	186	197	152	257	225	SW	
6-Jul-05	292	281	240	279	337	352	267	252	213	253	263	249	227	235	250	254	249	247	245	251	246	245	243	243	248	WSW	
7-Jul-05	245	241	240	245	245	237	238	243	250	253	244	251	252	249	243	250	251	251	252	243	241	244	240	240	263	247	WSW
8-Jul-05	250	267	260	211	194	255	236	97	185	209	315	84	76	234	239	294	299	311	114	127	157	250	258	203	238	WSW	
9-Jul-05	213	234	219	237	243	249	235	233	239	243	248	249	251	248	249	252	253	243	241	253	250	239	240	237	244	WSW	
10-Jul-05	239	244	246	244	247	238	247	249	253	257	264	262	251	247	251	259	246	250	252	250	262	254	262	255	252	WSW	
11-Jul-05	261	255	239	225	250	217	201	217	211	239	243	240	241	236	227	236	246	236	236	237	253	237	264	329	238	WSW	
12-Jul-05	257	252	234	241	194	207	196	188	180	160	131	239	357	32	66	136	81	3	203	224	321	8	241	260	190	S	
13-Jul-05	266	268	243	225	246	254	249	232	223	214	236	268	271	277	267	262	268	266	255	255	250	249	250	250	255	WSW	
14-Jul-05	252	262	262	264	265	265	263	261	260	265	272	262	258	253	258	260	258	270	266	274	272	256	243	310	263	W	
15-Jul-05	249	238	259	263	262	238	236	247	198	193	172	184	175	178	210	204	194	199	207	242	227	227	262	250	216	SW	
16-Jul-05	251	233	247	251	241	242	249	254	252	262	320	343	347	358	345	359	349	350	309	291	270	289	272	255	288	WNW	
17-Jul-05	265	253	237	258	259	235	241	244	250	248	256	261	260	259	248	247	250	243	246	241	240	255	246	281	251	WSW	
18-Jul-05	255	245	241	250	247	256	273	283	312	324	337	358	353	332	340	304	304	281	280	293	277	266	270	256	285	WNW	
19-Jul-05	251	258	255	244	255	266	273	280	312	327	322	317	309	317	296	119	137	192	202	196	192	221	242	226	264	W	
20-Jul-05	212	253	245	264	220	192	186	177	174	27	40	43	62	57	53	65	213	273	269	352	313	109	291	311	294	WNW	
21-Jul-05	2	21	311	242	260	294	256	86	182	164	141	152	162	146	91	92	142	90	85	51	34	16	15	27	109	ESE	
22-Jul-05	19	16	16	19	17	20	29	33	25	24	39	44	35	33	24	17	9	7	9	11	19	74	14	4	25	NNE	
23-Jul-05	8	26	38	49	351	292	303	289	289	301	308	314	354	0	12	13	16	15	16	19	13	350	357	321	340	NNW	
24-Jul-05	259	261	268	266	273	279	257	250	226	214	239	246	232	24	42	32	88	65	139	183	212	249	265	263	246	WSW	
25-Jul-05	226	207	209	211	202	204	155	177	158	154	224	298	253	264	267	255	276	272	342	16	330	341	60	51	244	WSW	
26-Jul-05	6	12	33	42	29	16	46	29	34	67	163	150	168	190	203	223	238	256	266	271	321	11	292	296	268	W	
27-Jul-05	18	31	35	31	51	68	113	131	114	143	171	186	188	172	171	169	223	216	220	182	191	185	182	197	171	S	
28-Jul-05	219	230	211	255	243	244	256	247	251	233	231	249	260	281	238	223	234	223	204	201	229	207	261	233	238	WSW	
29-Jul-05	256	272	255	219	206	213	196	192	201	216	201	208	200	244	148	166	166	186	268	267	252	266	262	272	220	SW	
30-Jul-05	281	214	221	245	252	256	234	235	239	248	254	250	261	266	264	264	217	238	232	219	150	139	17	37	246	WSW	
31-Jul-05	27	341	290	328	330	230	239	188	196	209	243	244	255	252	251	255	260	277	324	351	353	184	86	49	251	WSW	

Hourly Avg 258 253 249 250 251 251 248 247 248 253 256 255 255 259 255 255 252 251 257 254 253 255 255 255 248 258 260

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

Station: Smoky Heights  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY AVERAGE TABLE

### Wind Direction (WD)

#### Summary

|--|--|--|--|--|--|--|

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	744 hrs			
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%			
Percentile	99	95	75	50	25	5	1
	51.7	35.4	14.4	9.1	6.0	3.1	2.4

#### Status Flag Characters

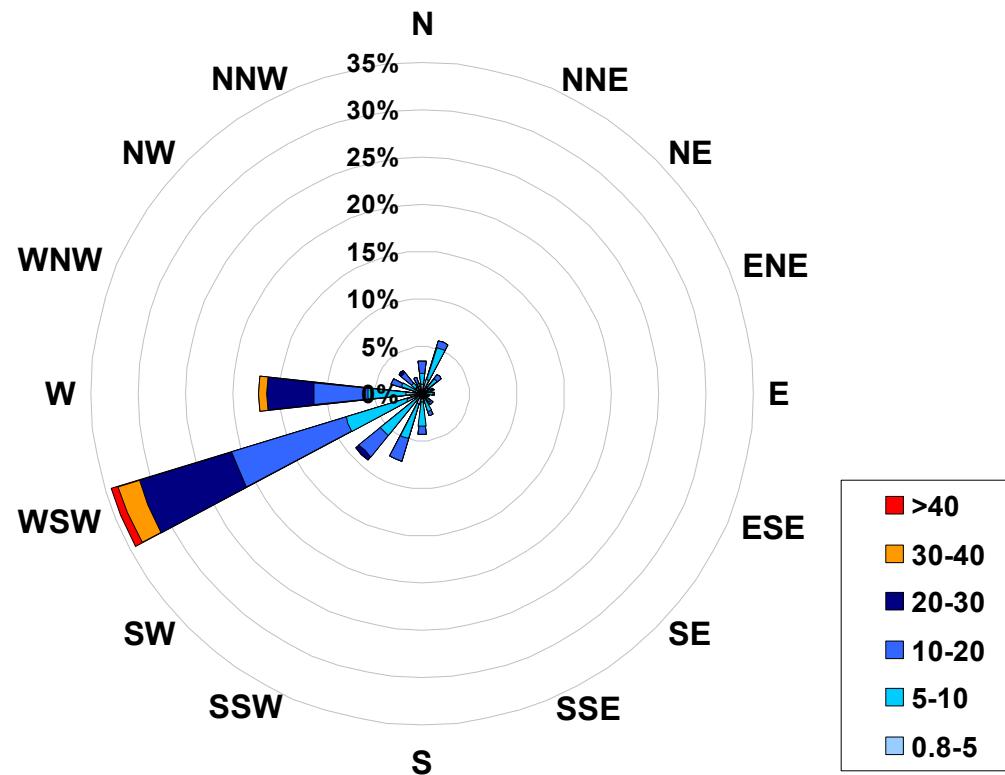
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

#### Day Mountain Standard Time

	Hour Start 1:00	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	Daily Maximum
1-Jul-05	22	13	4	4	5	7	5	6	12	15	19	30	49	54	19	29	8	8	5	5	3	3	6	3	3	54.4	
2-Jul-05	2	3	3	4	3	3	4	5	6	9	12	13	15	15	9	9	9	7	8	5	4	3	2	4		15.2	
3-Jul-05	2	2	3	2	3	2	3	5	5	5	6	7	11	11	8	11	10	6	6	5	3	5	7	7		11.3	
4-Jul-05	6	15	29	14	8	10	9	14	16	13	10	10	8	8	10	10	12	12	8	6	7	8	19	7		29.4	
5-Jul-05	6	15	16	11	7	18	7	9	16	20	16	14	12	16	8	7	6	8	21	7	7	11	58	29		57.9	
6-Jul-05	18	14	24	18	33	35	9	12	32	34	6	7	10	7	6	9	7	8	5	5	4	4	4	3		34.7	
7-Jul-05	3	3	3	3	3	4	4	6	5	7	8	7	7	8	7	8	6	7	6	4	4	3	4	5		8.2	
8-Jul-05	3	12	6	12	7	9	12	29	11	11	50	23	36	40	26	20	16	35	62	19	6	16	8	17		61.8	
9-Jul-05	6	5	6	3	2	4	4	4	7	8	8	9	9	8	8	9	9	8	5	4	5	3	3	3		8.7	
10-Jul-05	3	4	3	3	4	3	4	5	7	8	8	12	14	14	13	15	12	11	8	5	3	4	3	3		14.8	
11-Jul-05	3	9	7	9	8	14	5	7	7	13	16	19	14	18	15	12	15	11	11	7	10	6	29	10		29.2	
12-Jul-05	9	7	6	7	5	5	8	11	17	28	21	32	21	22	14	23	12	44	45	5	11	35	41	5		44.7	
13-Jul-05	4	3	5	6	3	5	5	6	7	9	12	12	10	9	6	5	7	7	6	4	4	3	3	3		11.9	
14-Jul-05	3	3	3	2	2	2	3	3	4	6	6	8	10	9	9	10	7	7	7	5	4	4	9	21		20.9	
15-Jul-05	14	17	9	20	5	7	4	5	14	48	18	12	11	12	8	13	9	6	6	10	9	9	5	7		48.5	
16-Jul-05	5	4	2	3	3	4	4	5	5	7	14	11	9	12	10	13	15	14	16	11	6	4	7	7		16.5	
17-Jul-05	5	14	8	4	4	6	5	4	7	7	7	11	11	12	11	8	9	7	6	4	3	7	5	6		13.8	
18-Jul-05	8	4	5	5	7	6	8	6	9	12	16	24	9	10	10	9	8	7	5	9	4	3	6	3		24.0	
19-Jul-05	5	4	6	3	4	3	4	3	9	6	6	8	14	17	35	14	13	8	45	4	12	5	34	25		45.2	
20-Jul-05	42	33	12	15	20	21	13	25	31	48	15	19	14	18	14	13	25	6	21	36	16	40	19	13		48.1	
21-Jul-05	7	27	17	11	26	41	49	57	21	19	20	28	21	45	34	22	24	24	20	7	5	5	7	11		57.4	
22-Jul-05	9	5	7	6	6	6	7	9	11	10	11	11	9	10	8	6	6	7	7	11	10	11		11.4			
23-Jul-05	5	6	9	13	19	12	6	6	7	8	13	11	8	11	9	9	11	12	10	11	9	22	7		21.6		
24-Jul-05	9	5	11	9	7	13	10	12	18	23	28	31	37	30	51	70	32	51	39	6	8	4	4	11		69.6	
25-Jul-05	16	12	7	8	4	9	16	9	21	26	52	38	16	12	14	18	21	52	43	44	19	12	12	22		52.2	
26-Jul-05	10	14	37	10	13	18	11	13	13	16	21	14	17	22	28	14	11	9	7	4	12	21	19	9		37.2	
27-Jul-05	18	8	15	10	11	28	20	31	29	26	26	25	16	16	12	11	8	9	33	17	8	6	5	6		33.1	
28-Jul-05	13	8	6	11	7	11	8	7	9	13	13	14	10	9	10	13	8	9	9	7	26	10	19	14		26.2	
29-Jul-05	12	3	11	14	12	10	6	6	8	16	15	16	14	15	21	12	10	27	6	8	6	7	11	8		27.2	
30-Jul-05	11	18	19	17	7	6	12	8	6	8	11	10	10	12	31	12	16	14	8	6	40	10	24	8		40.3	
31-Jul-05	10	37	6	14	53	25	44	12	6	15	18	13	12	12	8	10	11	10	21	32	41	48	27	16		52.7	

Hourly Max	42	37	37	20	53	41	49	57	32	48	52	38	49	54	51	70	32	52	62	44	41	48	58	29
------------	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

**1-hr Average Wind Rose (in km/hr) Located at the Smoky Heights Site for July 2005**



Calms: 0%

Frequency Distribution of Wind in km/hr			
Range		Frequency (hrs)	
0.8	< 5	5	107
5	to 10	10	254
10	to 20	20	233
20	to 30	30	120
30	to 40	40	24
>	40	40	5
Total Non-Zero Values		743	

# PASZA – Beaverlodge Station

## Monthly Summary Tables, Graphs, and Roses

**PASZA - Beaverlodge AQI Monthly Summary**

Station: Beaverlodge  
 Station Owner: PASZA

**Air Quality Index (AQI)**

Monitoring Dates: July 1, 2005 to August 1, 2005

**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:	736
Number of 1-hr Fair Readings:	1
Number of 1-hr Poor Readings:	0
Number of 1-hr Very Poor Readings:	0

**Status Flag Characters**

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

**Day Mountain Standard Time**

	Hour Start 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-Jul-05	13	11	10	9	6	5	6	8	11	14	16	16	16	15	15	16	16	16	16	16	16	17	15	15	
2-Jul-05	16	15	15	15	13	10	10	11	12	12	13	13	12	12	11	10	10	11	10	10	11	11	10	8	
3-Jul-05	7	9	10	11	10	10	11	12	13	13	14	14	15	16	16	18	20	22	21	20	17	16	15	13	
4-Jul-05	11	10	11	11	9	7	8	9	10	12	14	13	13	12	12	12	11	11	10	10	10	10	10	10	
5-Jul-05	9	9	9	9	7	7	4	5	7	7	10	13	15	14	14	12	12	14	14	14	14	14	12	14	
6-Jul-05	13	13	8	7	5	7	7	10	7	12	10	11	14	16	15	16	14	14	14	13	13	13	12	12	
7-Jul-05	12	12	11	11	9	9	11	12	12	13	13	14	15	15	15	15	15	15	15	16	15	13	12	11	
8-Jul-05	11	10	10	10	7	8	6	6	9	10	16	19	18	18	19	19	19	17	18	17	20	20	17	16	
9-Jul-05	14	13	14	12	12	9	10	10	11	12	14	14	14	15	14	14	14	14	14	14	14	13	12	11	
10-Jul-05	10	10	9	9	7	7	9	10	11	12	13	13	13	13	13	13	13	13	13	12	11	10	9	10	
11-Jul-05	10	10	9	8	7	8	8	9	12	13	10	12	13	13	13	13	13	13	12	11	9	10	11	7	
12-Jul-05	7	7	7	7	8	6	7	7	10	11	14	17	16	14	13	15	17	16	14	13	13	12	12	11	
13-Jul-05	11	8	8	7	6	5	8	12	13	13	13	13	13	14	15	15	14	14	14	14	14	14	13	13	
14-Jul-05	14	15	14	14	13	11	13	13	14	15	14	14	14	14	1	1	1	17	16	15	15	14	13	12	13
15-Jul-05	14	14	12	7	6	8	9	11	11	15	21	23	24	24	24	23	21	18	17	14	15	14	14	15	
16-Jul-05	17	17	16	13	11	10	11	10	11	12	12	13	13	14	17	16	17	14	15	14	12	13	13	13	
17-Jul-05	10	9	8	7	7	7	8	6	7	A	A	A	A	A	A	A	14	14	14	14	14	14	20	22	
18-Jul-05	17	14	11	12	12	11	12	15	15	19	19	21	20	20	19	19	18	20	19	18	16	14	15	13	
19-Jul-05	12	13	14	15	15	17	16	16	15	14	13	14	15	15	17	17	17	16	17	17	15	13	14	12	
20-Jul-05	15	8	9	12	12	10	8	8	9	15	18	19	21	21	18	17	17	17	18	16	16	16	14	13	10
21-Jul-05	9	10	8	5	4	5	5	6	7	10	18	18	21	22	23	22	23	23	25	23	19	17	15	17	
22-Jul-05	17	17	17	15	15	12	7	10	11	19	22	25	26	24	22	22	20	20	18	16	15	16	13	13	
23-Jul-05	10	7	7	7	7	7	6	6	6	6	7	7	8	9	10	10	11	12	12	12	11	10	9	11	
24-Jul-05	10	9	6	5	6	8	7	8	9	10	11	13	13	13	14	14	15	16	13	11	10	9	8		
25-Jul-05	7	7	6	5	6	4	9	5	8	11	14	15	16	16	15	14	14	14	14	12	13	12	12	9	
26-Jul-05	9	8	7	8	6	3	5	6	7	8	9	11	10	12	15	16	15	14	14	14	12	11	9	8	
27-Jul-05	7	8	6	4	3	4	6	4	6	8	10	11	12	13	14	13	12	12	10	10	6	5	4	5	
28-Jul-05	5	6	7	8	5	5	4	6	8	10	12	15	21	23	20	19	18	18	18	16	14	14	14	11	
29-Jul-05	12	10	10	8	7	7	6	6	9	13	14	15	15	16	17	18	18	17	16	16	15	14	14	15	
30-Jul-05	10	8	8	8	9	10	9	8	9	11	13	15	15	14	14	14	13	14	14	11	11	9	11	7	
31-Jul-05	7	7	8	7	8	9	8	7	8	10	13	14	14	14	14	14	14	14	13	9	8	10	9	8	

## PASZA - Beaverlodge Sulphur Dioxide Monthly Summary

Station: Beaverlodge  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

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:	3.2 ppb 8-Jul 19:00 20:00
Maximum 24-hr Average:	0.6 ppb 22-Jul

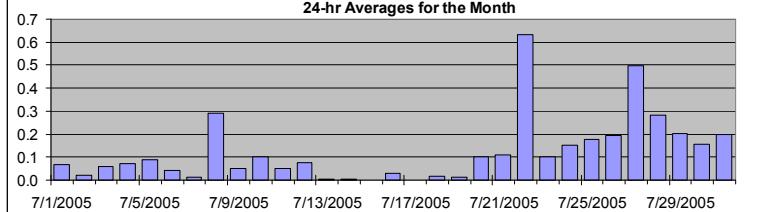
AIC Time:	0 hrs	Operational Time:	733 hrs					
Calibration Time:	11 hrs	AMD Operational Uptime:	100.0%					
Percentile	99 1.3	95 0.4	75 0.2	50 0.1	25 0.0	5 0.0	1 0.0	Average 0.1 ppb

**Day Mountain Standard Time**

	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	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	24:00				
1-Jul-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	0	0.1	0.2	
2-Jul-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	0	0	0.0	0.1
3-Jul-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	0	0	0.1	0.2
4-Jul-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	0	0	0.1	0.2
5-Jul-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	0	0	0.1	0.2
6-Jul-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	0	0	0.0	0.2
7-Jul-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	0	0	0.0	0.2
8-Jul-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	0	0	0.0	0.1
9-Jul-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	0	0	0.1	0.2
10-Jul-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	0	0	0.1	0.2
11-Jul-05	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
12-Jul-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	0	0	0.1	0.3
13-Jul-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	0	0	0.0	0.1
14-Jul-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	0	0	0.0	0.1
15-Jul-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	0	0	0.0	0.0
16-Jul-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	0	0	0.0	0.2
17-Jul-05	0	0	0	0	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0	N	0.1
18-Jul-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	0	0	0.0	0.3
19-Jul-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	0	0	0.0	0.1
20-Jul-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	0	0	0.1	0.4
21-Jul-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	0	0	0.1	0.4
22-Jul-05	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	1	0	0	0	0	0	0	0	0	0.6	2.2
23-Jul-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	0	0	0.1	0.6
24-Jul-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	0	0	0.1	0.5
25-Jul-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	0	0	0.2	0.5
26-Jul-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	0	0	0.2	0.4
27-Jul-05	0	0	0	0	0	0	0	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.7
28-Jul-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	0	0	0.3	0.9
29-Jul-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	0	0	0.2	0.4
30-Jul-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	0	0	0.2	0.5
31-Jul-05	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6

### HOURLY AVERAGE TABLE

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



### 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

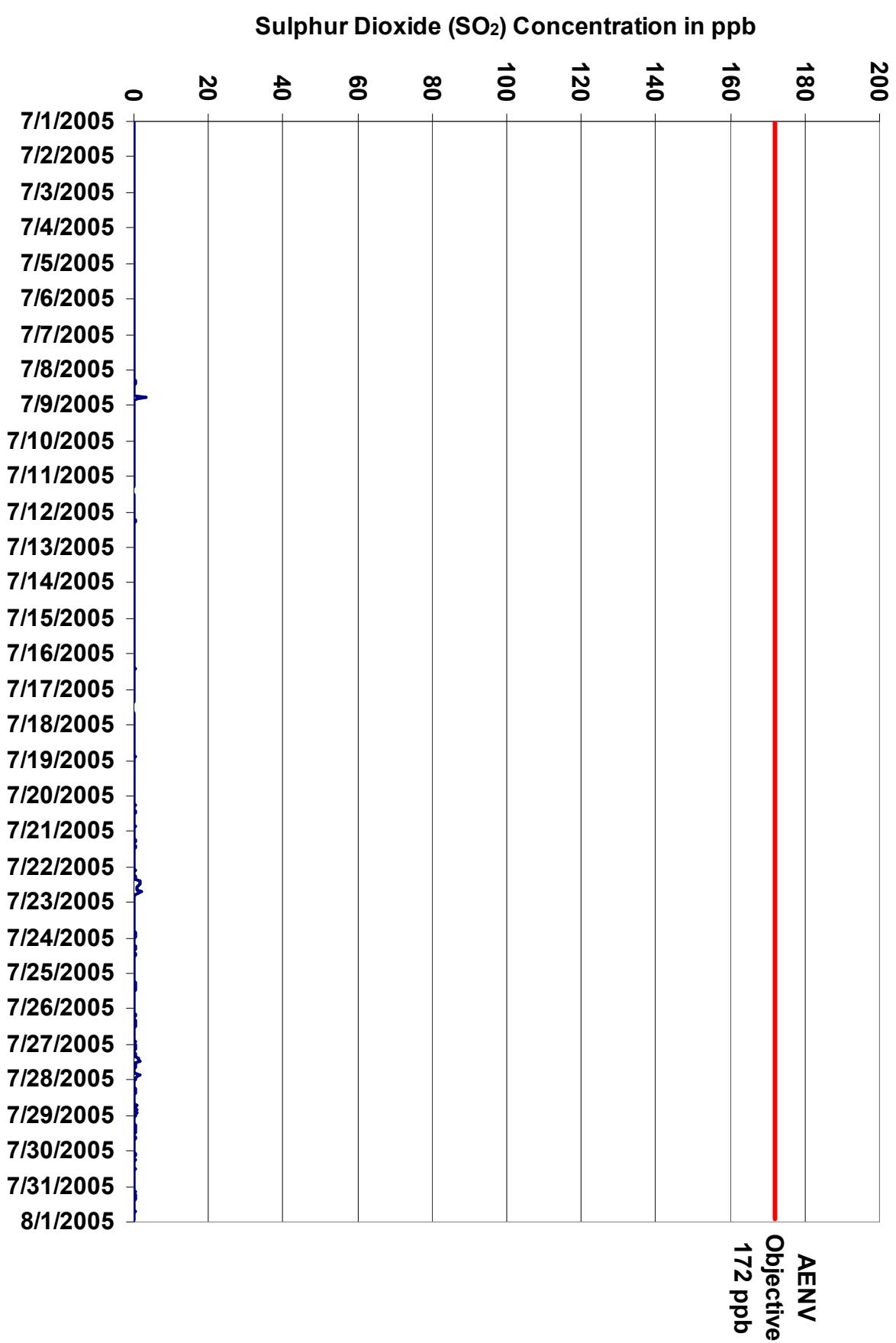


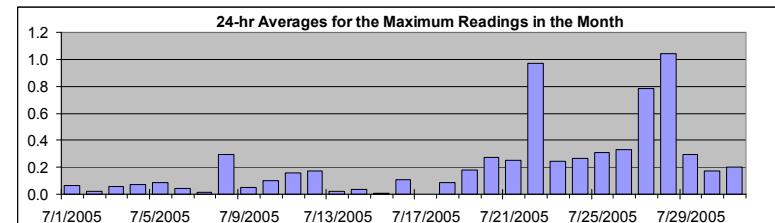
Figure 34. PASZA - Beaverlodge Sulphur Dioxide 1-hr Average Monthly Trend

Station: Beaverton  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY MAXIMUM TABLE

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



#### Summary

Maximum 1-hr Value:	5.7	ppb	28-Jul	20:00 21:00
Maximum 24-hr Value:	1.0	ppb	28-Jul	

AIC Time:	0 hrs	Operational Time:	733 hrs
Calibration Time:	11 hrs	AMD Operational Uptime:	100.0%
Percentile			Average
99	95	75	50
2.3	0.8	0.2	0.1
25	5	1	
0.0	0.0	0.0	0.0
			Average
			0.2 ppb

#### Status Flag Characters

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

#### Day Mountain Standard Time

	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	Daily Average	Daily Maximum	
1-Jul-05	0:00 1:00	0	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		
2-Jul-05	0:00 1:00	0	0	0	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		
3-Jul-05	0:00 1:00	0	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		
4-Jul-05	0:00 1:00	0	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		
5-Jul-05	0:00 1:00	0	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		
6-Jul-05	0:00 1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2		
7-Jul-05	0:00 1:00	0	0	0	0	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	
8-Jul-05	0:00 1:00	0	0	0	0	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	
9-Jul-05	0:00 1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
10-Jul-05	0:00 1:00	0	0	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-Jul-05	0:00 1:00	0	0	0	0	0	0	0	C	C	C	C	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8	
12-Jul-05	0:00 1:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6	
13-Jul-05	0:00 1:00	0	0	0	0	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	
14-Jul-05	0:00 1:00	0	0	0	0	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	
15-Jul-05	0:00 1:00	0	0	0	0	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	
16-Jul-05	0:00 1:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6	
17-Jul-05	0:00 1:00	0	0	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0	N	0.1
18-Jul-05	0:00 1:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6	
19-Jul-05	0:00 1:00	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	3.0	
20-Jul-05	0:00 1:00	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3	
21-Jul-05	0:00 1:00	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4	
22-Jul-05	0:00 1:00	0	0	0	0	0	0	1	1	1	2	2	2	2	2	1	1	2	3	3	0	0	0	0	0	0	1.0	3.2	
23-Jul-05	0:00 1:00	0	0	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	1.2	
24-Jul-05	0:00 1:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3	
25-Jul-05	0:00 1:00	0	0	0	0	0	0	1	1	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0.3	1.0	
26-Jul-05	0:00 1:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.6	
27-Jul-05	0:00 1:00	0	1	1	1	0	0	0	0	1	2	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0.8	2.2	
28-Jul-05	0:00 1:00	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	4	2	1	6	2	2	4	0	1.0	5.7		
29-Jul-05	0:00 1:00	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6	
30-Jul-05	0:00 1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5	
31-Jul-05	0:00 1:00	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6	
Hourly Avg		0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.3	0.4	0.4	0.3	0.2	0.2	0.1	0.2	0.3	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.2		
Hourly Max		0.4	0.5	0.5	0.6	1.3	0.6	0.9	1.4	0.6	1.9	3.0	2.0	1.6	1.6	0.9	0.8	2.3	3.6	2.6	3.2	5.7	2.2	2.2	3.6	0.2	0.6		

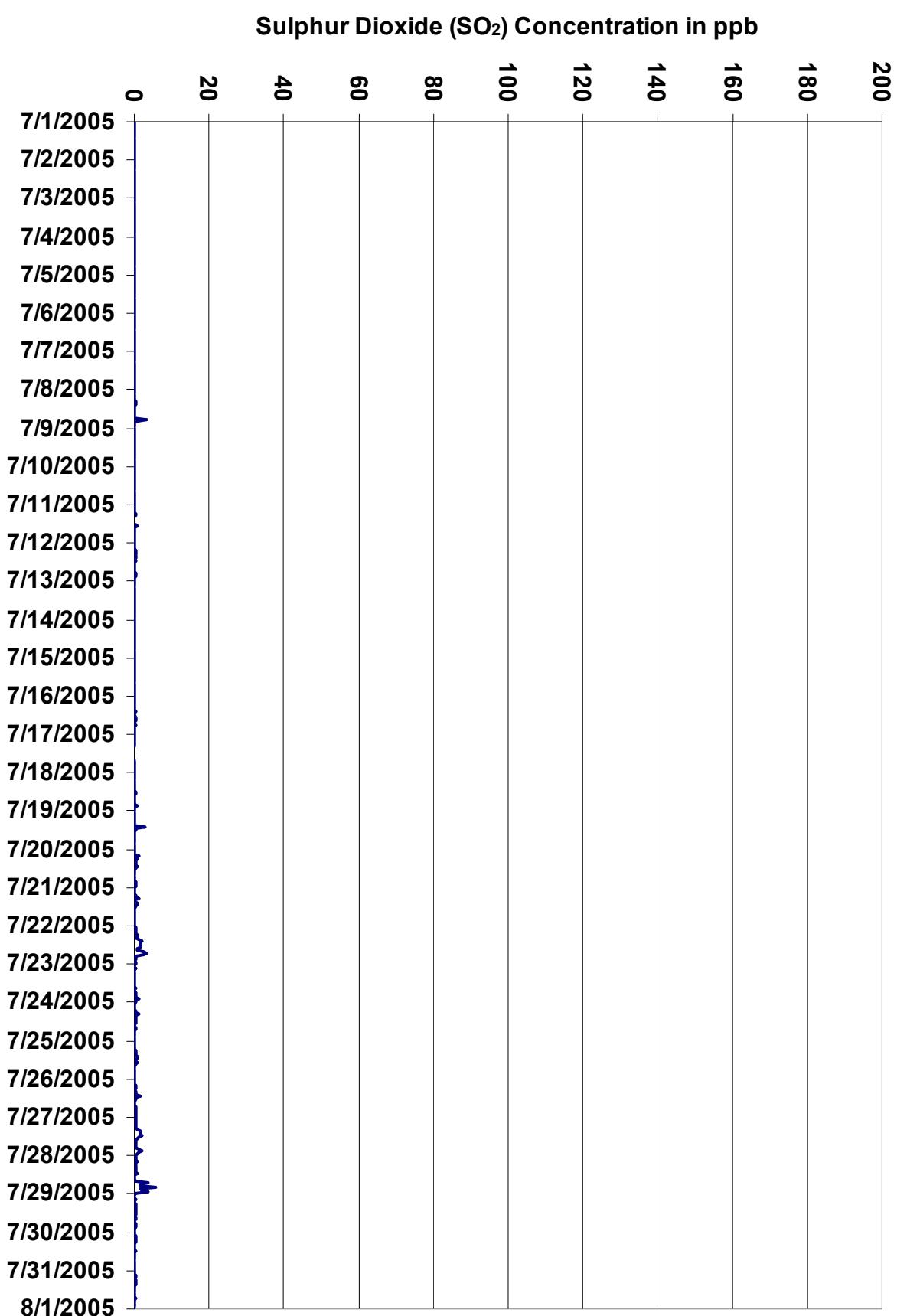
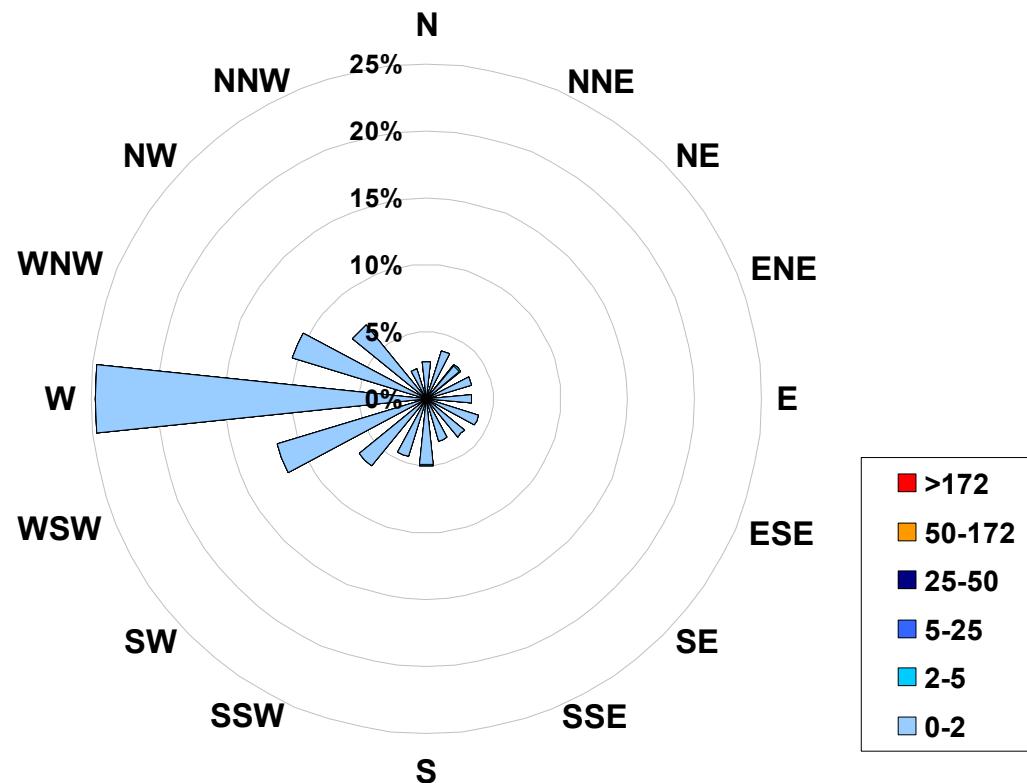


Figure 35. PASZA - Beaverlodge Sulphur Dioxide 1-hr Maximum Value Monthly Trend

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



**Calms:** 0%

Frequency Distribution of SO <sub>2</sub> in ppb			Frequency (hrs)
Range			
0.0	<	2	731
2	to	5	2
5	to	25	0
25	to	50	0
50	to	172	0
	>	172	0
Total Non-Zero Values			733

## PASZA - Beaverlodge Nitrogen Dioxide Monthly Summary

Station: Beaverlodge  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

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:	9.5 ppb 13-Jul 5:00 6:00
Maximum 24-hr Average:	3.7 ppb 21-Jul

AIC Time:	0 hrs	Operational Time:	737 hrs							
Calibration Time:	7 hrs	AMD Operational Uptime:	100.0%							
Percentile	99	95	75	50	25	5	1	Average		
	7.0	5.0	3.0	2.0	1.1	0.8	0.0	2.3 ppb		

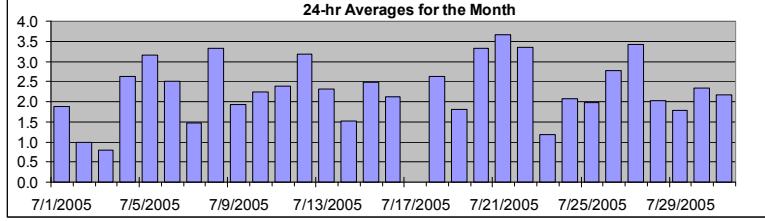
**Day Mountain Standard Time**

	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	24-hour Average	Daily Maximum
	Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	25:00	26:00	27:00	28:00	29:00	30:00	31:00	24-hour Average	Daily Maximum	
1-Jul-05	3	3	3	4	4	5	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1.9	5.0	1.9	5.0					
2-Jul-05	2	1	1	1	2	3	3	2	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1.0	3.0			
3-Jul-05	3	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0.8	3.0				
4-Jul-05	3	4	3	3	4	7	6	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	4	4	4	2.6	7.0					
5-Jul-05	5	2	2	2	3	5	8	7	4	3	2	2	1	1	1	1	2	2	1	1	2	3	8	6	3	3.2	8.0								
6-Jul-05	3	2	7	5	7	5	5	4	5	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2.5	7.0					
7-Jul-05	1	1	1	2	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	4	1.5	4.0							
8-Jul-05	4	5	4	4	4	5	7	8	5	4	3	2	1	1	2	2	2	2	2	2	2	2	2	2	2	3	3	3.3	8.0						
9-Jul-05	3	3	2	3	3	5	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1.9	5.0						
10-Jul-05	2	3	3	3	4	5	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	5	4	2	2.3	5.0							
11-Jul-05	2	2	2	2	4	3	4	3	2	1	2	2	3	0	1	2	1	1	2	3	5	4	2	4	2.4	5.2									
12-Jul-05	4	3	3	4	4	6	7	5	5	3	2	2	2	2	2	1	1	1	2	4	4	5	3	2	3.2	7.0									
13-Jul-05	2	4	4	5	6	10	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2.3	9.5							
14-Jul-05	1	2	2	1	2	3	3	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	2	2	5	2	1.5	4.9							
15-Jul-05	2	2	2	5	6	5	3	2	2	2	1	1	1	1	1	2	2	2	3	4	3	3	2	2	2.5	6.0									
16-Jul-05	2	2	2	2	4	3	2	2	2	2	2	2	2	2	1	1	2	1	3	2	2	3	3	2	3	2.1	4.3								
17-Jul-05	4	3	3	3	3	3	2	2	0	C	C	C	C	C	C	C	2	2	2	3	3	3	3	3	N	3.5									
18-Jul-05	3	3	3	2	2	3	4	2	2	2	2	2	2	2	2	3	4	3	2	2	3	6	3	3	2.6	5.9									
19-Jul-05	3	2	2	1	1	2	2	2	2	2	1	1	1	2	2	2	2	2	2	2	4	2	4	1.8	3.7										
20-Jul-05	2	5	3	2	3	4	6	4	3	2	2	3	2	2	4	4	4	2	2	2	3	4	6	6	3.3	6.4									
21-Jul-05	4	3	5	6	6	6	5	3	3	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3.7	6.4								
22-Jul-05	3	3	3	2	3	6	9	6	6	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	3.4	8.6								
23-Jul-05	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1.2	2.0								
24-Jul-05	2	2	3	3	2	2	2	2	2	2	1	2	1	1	1	2	2	2	3	3	3	3	3	3	3	2.1	3.3								
25-Jul-05	3	3	3	3	2	3	3	4	2	1	1	1	1	1	3	1	1	2	2	2	2	2	2	2	2	2.0	3.6								
26-Jul-05	2	2	3	3	4	5	4	4	4	3	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2.8	4.8								
27-Jul-05	3	3	5	6	6	5	4	3	3	2	2	2	2	2	2	2	1	2	2	3	8	6	6	4	3.4	8.2									
28-Jul-05	3	3	2	2	3	3	4	3	2	2	1	1	1	1	1	1	1	1	1	2	2	3	3	2	3	2.0	4.0								
29-Jul-05	2	2	2	3	3	3	4	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.8	4.0								
30-Jul-05	2	4	4	4	3	3	3	2	1	1	1	1	1	1	1	2	1	1	2	2	3	2	3	7	2.3	7.0									
31-Jul-05	5	4	4	3	3	3	3	2	2	1	1	0	0	0	1	1	1	1	4	4	2	2	2	2	2	2.2	5.0								

Hourly Avg	2.7	2.7	2.8	2.9	3.4	3.9	4.0	3.0	2.2	1.7	1.6	1.3	1.3	1.2	1.3	1.5	1.5	1.5	1.5	1.6	2.1	2.6	3.1	2.8	2.8
Hourly Max	5.0	5.0	7.0	6.1	7.0	9.5	8.6	8.0	5.8	4.0	3.4	3.2	3.1	2.8	4.2	4.4	3.8	3.2	3.8	4.1	8.2	8.0	6.4	7.0	

### HOURLY AVERAGE TABLE

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



### 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

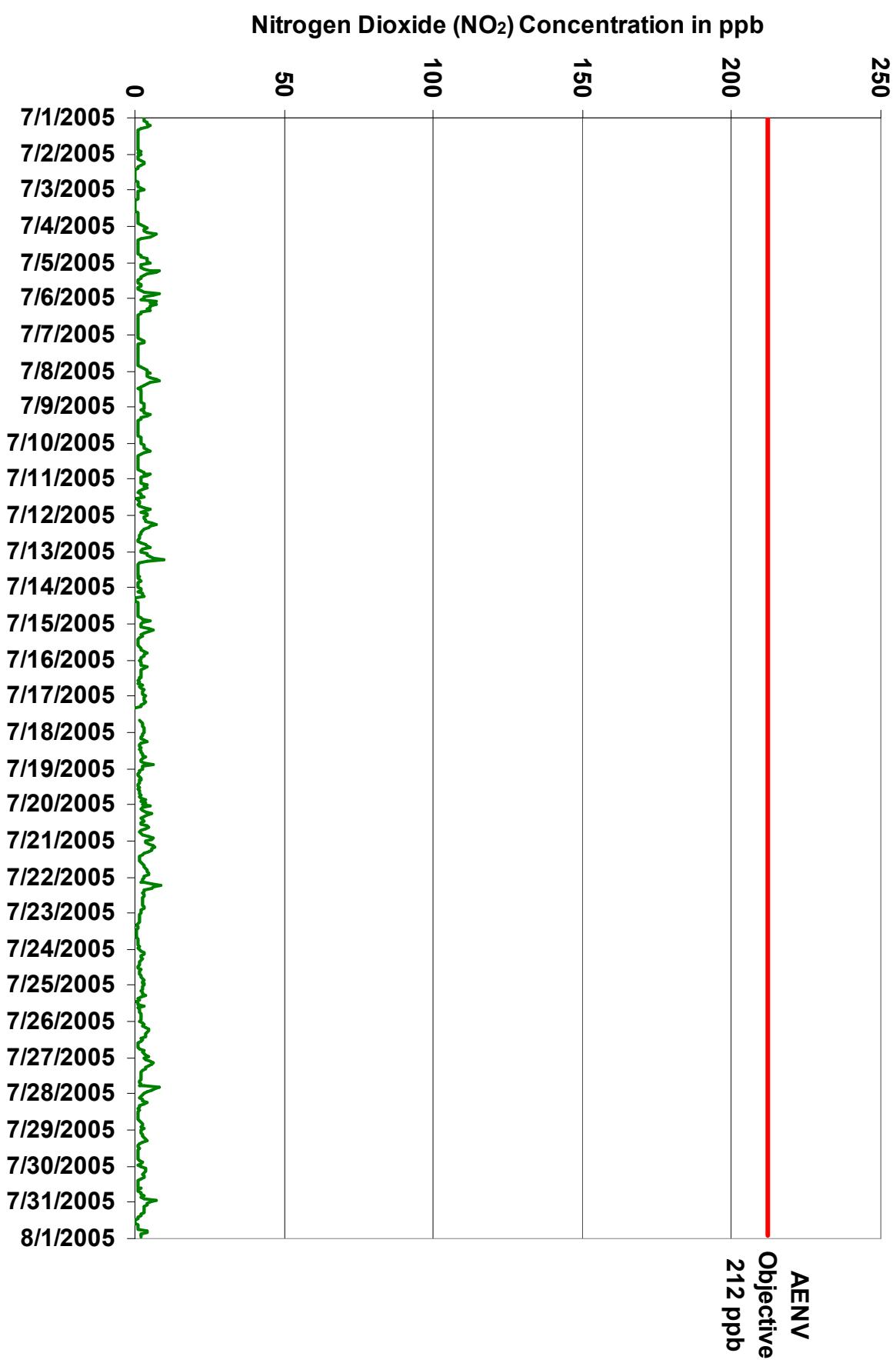


Figure 36. PASZA - Beaverlodge Nitrogen Dioxide 1-hr Average Monthly Trend

Station: Beaverlodge  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY MAXIMUM TABLE

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

#### Summary

Maximum 1-hr Value:	129.2 ppb	25-Jul 14:00 15:00
Maximum 24-hr Value:	8.7 ppb	25-Jul

AIC Time:	0 hrs	Operational Time:	737 hrs											
Calibration Time:	7 hrs	AMD Operational Uptime:	100.0%											
Percentile			Average											
99	95	75	50	25	5	1	12.9	8.3	4.0	2.8	1.8	1.0	0.0	3.6 ppb

#### Day Mountain Standard Time

	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-hour Average	Daily Maximum	
	Hour Start Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	1.9	5.0
1-Jul-05	3	3	3	4	4	5	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1.0	3.0	
2-Jul-05	2	1	1	1	2	3	3	2	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1	1	0.8	3.0	
3-Jul-05	3	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2.6	7.0	
4-Jul-05	3	4	3	3	4	7	6	5	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2	4	4	4	3.2	8.0
5-Jul-05	5	2	2	2	3	5	8	7	4	3	2	2	1	1	1	1	2	2	1	1	2	3	8	6	3	2.5	7.0	
6-Jul-05	3	2	7	5	7	5	5	4	5	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.5	4.0	
7-Jul-05	1	1	1	2	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	3.3	8.0	
8-Jul-05	4	5	4	4	4	5	7	8	5	4	3	2	1	2	2	2	2	2	2	2	2	2	2	2	3	2.3	5.0	
9-Jul-05	3	3	2	3	3	5	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1.9	5.0	
10-Jul-05	2	3	3	3	4	5	3	2	1	1	1	1	1	1	1	1	1	1	1	1	2	3	3	5	4	2.3	5.0	
11-Jul-05	2	2	2	2	4	3	7	4	2	2	6	18	94	2	2	3	3	2	3	6	8	6	3	5	8.0	94.2		
12-Jul-05	5	5	3	4	5	10	9	7	6	8	3	2	2	2	3	2	2	2	4	7	8	10	4	3	4.8	10.0		
13-Jul-05	11	10	4	6	7	13	7	2	2	2	2	2	2	2	2	2	2	2	2	7	3	4	3	2	2	4.2	13.0	
14-Jul-05	2	3	2	2	5	3	3	0	0	0	2	3	1	4	2	3	3	2	2	2	4	5	10	4	2.8	10.0		
15-Jul-05	4	5	2	6	9	8	5	3	3	3	2	2	2	2	2	3	4	2	3	4	3	3	2	2	3.5	9.0		
16-Jul-05	2	2	2	3	8	6	3	3	3	3	3	2	2	2	2	2	2	6	3	3	4	4	4	5	3.3	8.0		
17-Jul-05	6	3	5	3	6	5	3	2	0	C	C	C	C	C	C	C	C	2	3	3	4	4	5	4	N	5.7		
18-Jul-05	5	5	4	3	3	5	6	5	3	3	4	4	4	3	4	4	4	8	7	4	3	6	13	5	4.5	12.5		
19-Jul-05	5	3	2	2	3	4	3	3	3	2	2	2	2	2	3	4	3	4	3	4	6	6	6	6	3.1	5.6		
20-Jul-05	7	9	4	3	3	7	11	8	4	3	3	5	3	3	10	9	7	4	2	3	5	11	14	9	5.9	14.3		
21-Jul-05	5	5	7	8	8	9	9	13	4	4	3	2	2	3	3	3	4	4	5	5	7	5	6	6	5.1	13.0		
22-Jul-05	4	4	4	4	4	13	12	11	8	5	7	3	5	4	3	4	4	4	3	4	5	4	3	3	5.0	13.0		
23-Jul-05	3	2	2	3	2	2	2	2	1	2	2	1	1	1	1	1	1	2	2	2	2	2	2	2	1.6	2.8		
24-Jul-05	3	4	4	4	4	3	4	4	2	2	2	2	2	3	2	2	2	3	2	4	4	5	4	6	3.0	5.7		
25-Jul-05	4	4	3	3	3	5	4	5	3	2	5	1	3	3	129	2	3	3	4	4	4	9	5	3	3	8.7	129.2	
26-Jul-05	3	4	5	4	11	9	7	6	5	5	5	3	3	4	3	2	2	2	2	8	5	4	7	9	4.7	10.7		
27-Jul-05	5	5	8	9	9	6	5	5	3	3	27	13	2	2	3	5	2	5	4	7	10	9	8	8	6.6	26.7		
28-Jul-05	4	3	6	3	4	5	6	6	3	2	4	5	3	3	3	2	3	2	3	5	8	4	4	11	4.1	11.1		
29-Jul-05	5	3	3	3	3	5	8	6	9	2	2	2	3	1	1	2	2	2	2	4	6	5	3	3	3.4	9.1		
30-Jul-05	6	5	5	6	5	4	6	3	2	1	1	1	1	1	1	2	1	1	2	2	3	2	3	7	2.9	7.0		
31-Jul-05	5	4	4	3	3	3	3	3	2	2	1	1	0	0	0	1	1	1	1	4	4	2	2	2	2.2	5.0		
Hourly Avg	3.9	3.6	3.4	3.5	4.5	5.5	5.3	4.2	2.8	2.3	3.2	2.7	4.8	1.8	6.2	2.2	2.3	2.2	2.4	3.1	4.0	4.5	4.1	4.1				
Hourly Max	10.6	9.6	8.2	8.7	10.7	13.0	12.2	13.0	9.1	7.9	26.7	18.1	94.2	3.9	129.2	8.6	7.6	6.6	6.7	7.8	9.8	12.5	14.3	11.1				

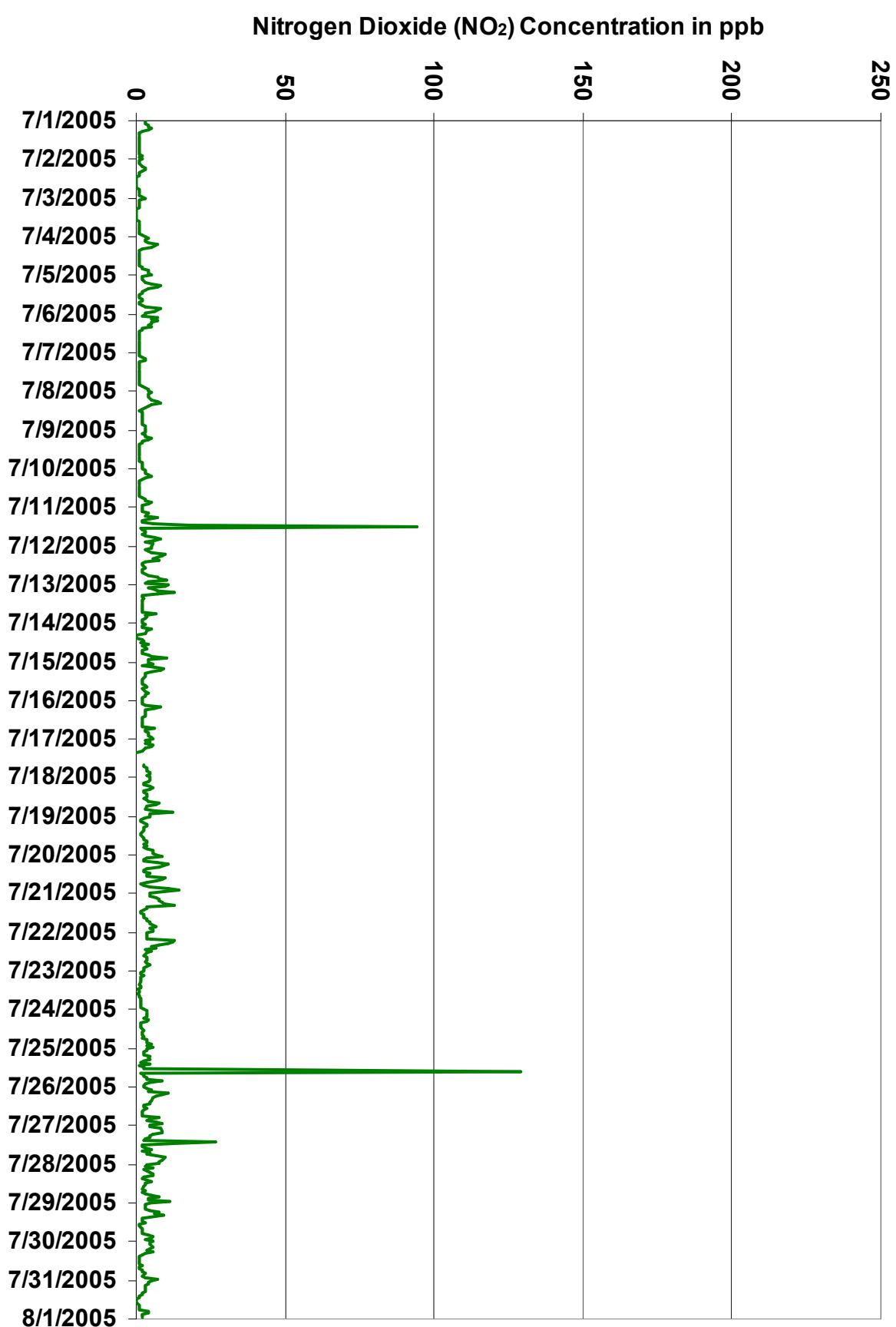
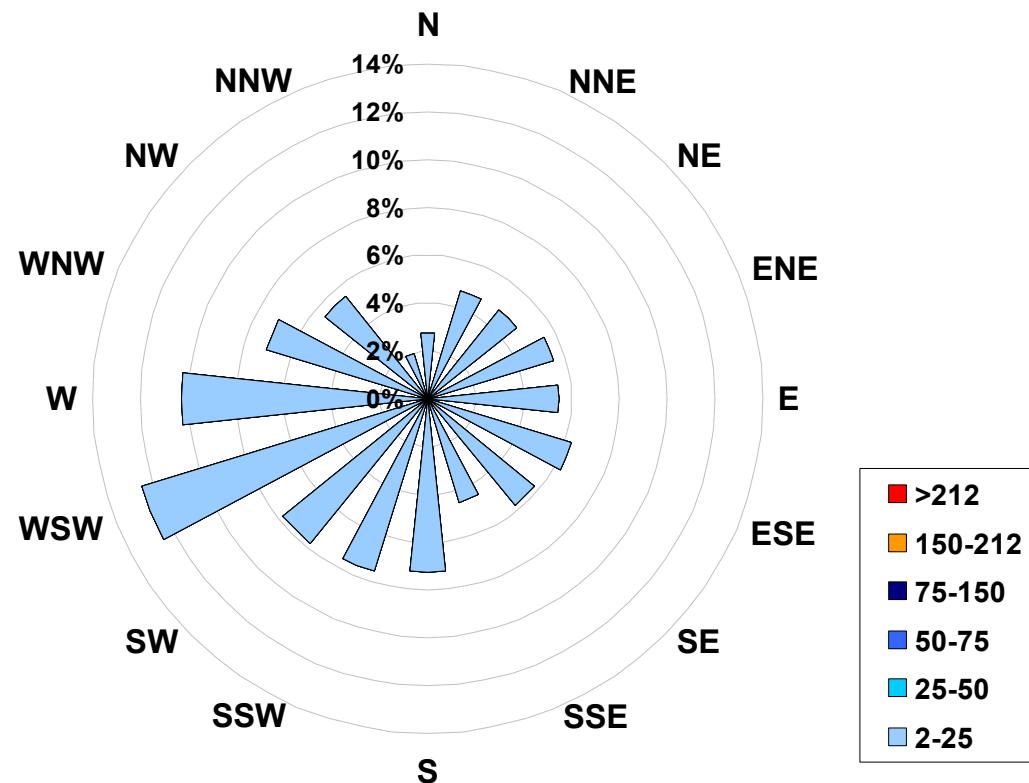


Figure 37. PASZA - Beaverlodge Nitrogen Dioxide 1-hr Maximum Value Monthly Trend

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



Calms: 0%

**Frequency Distribution of NO<sub>2</sub> in ppb**

Range		Frequency (hrs)
2.0	< 25	737
25	to 50	0
50	to 75	0
75	to 150	0
150	to 212	0
	> 212	0
Total Non-Zero Values		737

## PASZA - Beaverlodge Nitric Oxide Monthly Summary

Station: Beaverlodge  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

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

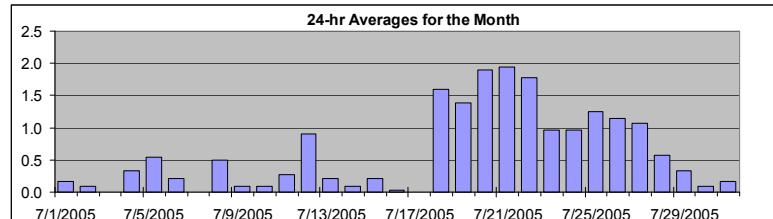
Summary

Maximum 1-hr Average:	9.2	ppb	22-Jul	6:00 7:00
Maximum 24-hr Average:	1.9	ppb	21-Jul	

AIC Time:	0 hrs	Operational Time:	737 hrs					
Calibration Time:	7 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	5.3	2.2	1.0	0.0	0.0	0.0	0.0	0.6 ppb

### HOURLY AVERAGE TABLE

### Nitric Oxide (NO)



### 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

	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	25:00	26:00	27:00	28:00	29:00	30:00	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	25:00	26:00	27:00	28:00	29:00	30:00		
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	24:00	25:00	26:00	27:00	28:00	29:00	30:00			
1-Jul-05	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.0	
2-Jul-05	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0	
3-Jul-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	0	0	0	0	0	0	0.0	0.0	
4-Jul-05	0	0	0	0	0	2	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	3.0	
5-Jul-05	0	0	0	0	0	0	3	4	2	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	4.0	
6-Jul-05	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.0	
7-Jul-05	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	
8-Jul-05	0	0	0	0	0	0	0	2	5	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	5.0	
9-Jul-05	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0	
10-Jul-05	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0	
11-Jul-05	0	0	0	0	0	0	2	1	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.4	
12-Jul-05	0	0	0	0	0	6	8	4	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	7.5	
13-Jul-05	0	0	0	0	0	3	2	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	2.9	
14-Jul-05	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0	
15-Jul-05	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0	
16-Jul-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	0	0	0	0	0	0	0.0	0.5	
17-Jul-05	0	0	0	0	1	2	1	1	0	C	C	C	C	C	C	C	C	2	2	2	2	2	2	2	2	2	2	2	2	2	2	N	1.9
18-Jul-05	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1.6	2.5		
19-Jul-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	1	1	1	1	1	1.4	1.5	
20-Jul-05	1	1	1	1	1	2	8	5	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.9	8.1	
21-Jul-05	1	1	1	2	1	3	7	7	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.9	7.4	
22-Jul-05	1	1	1	1	1	2	9	5	5	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.8	9.2	
23-Jul-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	1	1	1	1	1	1.0	1.3	
24-Jul-05	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.9	
25-Jul-05	1	1	1	1	1	1	1	4	7	3	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	6.7	
26-Jul-05	0	0	0	0	1	4	2	2	3	3	3	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1	4.3	
27-Jul-05	0	0	1	1	1	2	3	5	2	1	2	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1	4.9	
28-Jul-05	0	0	0	0	0	0	3	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	3.0	
29-Jul-05	0	0	0	0	0	0	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.4	
30-Jul-05	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0	
31-Jul-05	0	0	0	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.0	

Hourly Avg 0.3 0.3 0.4 0.4 0.4 1.2 2.3 2.1 1.4 0.8 0.7 0.5 0.4 0.4 0.3 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4

Hourly Max 1.6 1.6 1.6 1.9 1.6 5.5 9.2 7.4 4.9 2.7 2.5 2.2 1.5 2.4 1.5 1.5 1.6 1.7 1.7 1.7 1.7 1.7 1.6 1.6 1.6 1.6 1.6 1.6 1.6

Station: Beaverlodge  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### Summary

Maximum 1-hr Value:	141.2 ppb	11-Jul 13:00	14:00
Maximum 24-hr Value:	7.1 ppb	11-Jul	

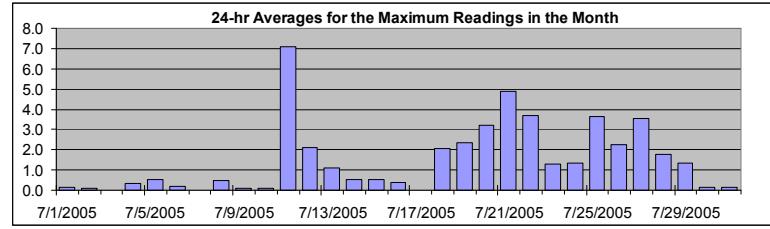
AIC Time:	0 hrs	Operational Time:	737 hrs
Calibration Time:	7 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	
	15.5 5.0 1.4 0.4 0.0 0.0 0.0	1.5 ppb	

### Day Mountain Standard Time

	Hour Start 1:00	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	Daily Average	Daily Maximum
1-Jul-05	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.0	
2-Jul-05	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0	
3-Jul-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	0	0.0	0.0	
4-Jul-05	0	0	0	0	0	0	2	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	3.0	
5-Jul-05	0	0	0	0	0	0	3	4	2	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	4.0	
6-Jul-05	0	0	1	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.0	
7-Jul-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	0	0.0	0.0	
8-Jul-05	0	0	0	0	0	0	0	2	5	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	5.0	
9-Jul-05	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0	
10-Jul-05	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0	
11-Jul-05	0	0	0	0	0	0	5	2	1	1	4	10	3	141	0	1	0	0	0	1	0	0	0	0	0	7.1	141.2	
12-Jul-05	0	0	0	0	2	15	12	8	4	2	1	0	2	1	1	0	0	0	0	1	0	0	0	0	0	2.1	15.2	
13-Jul-05	3	2	0	0	1	5	3	1	1	1	1	0	1	0	0	1	1	1	4	0	0	0	0	0	0	1.1	5.1	
14-Jul-05	0	0	0	0	1	1	1	0	0	0	1	2	1	2	1	1	1	1	0	0	0	0	0	0	0	0.5	2.0	
15-Jul-05	0	0	0	1	1	3	2	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.9	
16-Jul-05	0	0	0	0	1	1	0	1	0	0	1	0	1	1	0	0	0	2	1	0	0	0	0	0	0	0.4	2.0	
17-Jul-05	0	0	1	0	3	6	2	1	0	C	C	C	C	C	C	C	2	3	3	3	3	2	2	2	N	5.5		
18-Jul-05	2	2	2	2	2	3	3	4	3	3	3	3	3	3	3	2	3	2	2	2	2	1	1	1	1	2.0	3.5	
19-Jul-05	1	1	1	1	1	1	1	1	2	2	9	2	2	2	2	8	2	2	2	1	2	1	1	1	1	2.3	8.7	
20-Jul-05	1	2	1	2	1	2	23	9	4	3	2	3	2	1	2	4	2	2	1	1	1	1	1	2	1	3.2	23.0	
21-Jul-05	1	1	1	4	2	9	16	55	4	3	3	1	1	2	1	1	2	2	2	1	1	1	1	1	1	4.9	54.5	
22-Jul-05	1	1	1	1	1	12	25	16	8	3	5	1	2	1	1	1	1	1	1	1	1	1	1	1	1	3.7	25.0	
23-Jul-05	1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	2	1	1	1	1	1	1	1	1	1.3	1.9	
24-Jul-05	1	1	1	1	2	1	4	4	3	2	2	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1.3	3.8	
25-Jul-05	1	1	1	1	1	4	16	12	4	2	13	14	1	3	8	2	2	2	2	1	1	1	1	1	3.7	15.6		
26-Jul-05	1	1	1	1	7	13	4	2	4	4	4	2	1	1	1	1	0	0	0	0	0	0	0	0	2.3	13.1		
27-Jul-05	0	0	4	3	2	5	5	9	3	2	21	10	1	1	1	4	0	1	1	1	1	0	0	0	3.5	21.4		
28-Jul-05	0	0	0	0	0	1	4	7	5	2	4	1	1	1	1	0	1	0	1	1	0	0	0	0	1.8	7.3		
29-Jul-05	1	0	0	1	0	2	13	3	5	1	1	0	1	0	0	0	1	0	0	0	0	0	0	0	1.4	12.8		
30-Jul-05	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0		
31-Jul-05	0	0	0	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.0		
Hourly Avg	0.5	0.5	0.5	0.6	1.0	2.9	5.0	5.0	2.1	1.3	2.7	1.8	0.9	5.5	1.1	0.8	0.6	0.7	0.7	0.6	0.4	0.4	0.4	0.4	0.7			
Hourly Max	3.0	2.3	4.4	4.2	7.5	15.2	25.0	54.5	8.0	4.4	21.4	14.4	3.0	141.2	8.4	4.3	2.4	2.7	4.1	2.7	2.7	1.7	2.2	2.2	7.3			

### HOURLY MAXIMUM TABLE

### Nitric Oxide (NO)



### 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

## PASZA - Beaverlodge Oxides of Nitrogen Monthly Summary

Station: Beaverlodge  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

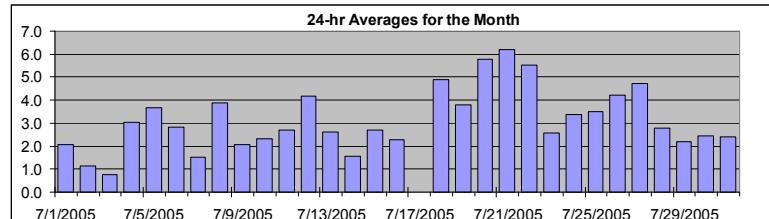
Guideline Limit: Alberta Environment: 1-hr na ppb 24-hr na ppb  
Summary

Maximum 1-hr Average:	18.2	ppb	22-Jul	6:00 7:00
Maximum 24-hr Average:	6.2	ppb	21-Jul	

AIC Time:	0 hrs	Operational Time:	737 hrs						
Calibration Time:	7 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	
	11.9	7.1	4.0	2.9	1.5	1.0	0.0		3.1 ppb

### HOURLY AVERAGE TABLE

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



### 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

	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	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	24:00	0:00		
1-Jul-05	3	3	3	4	4	6	6	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2.1	6.0
2-Jul-05	2	1	1	1	2	4	4	2	1	1	1	1	0	0	0	0	0	0	1	0	1	1	1	1	1	1.1	4.0
3-Jul-05	3	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0.8	3.0
4-Jul-05	3	4	3	3	5	9	8	8	3	2	1	1	1	1	1	1	1	1	1	1	1	2	2	4	4	3.0	9.0
5-Jul-05	5	2	2	2	3	5	12	10	5	4	3	2	2	2	1	1	2	2	2	1	2	3	8	6	3	3.7	12.0
6-Jul-05	3	2	8	5	7	6	6	5	7	2	2	2	2	1	1	1	1	1	1	2	1	1	1	1	1	2.8	8.0
7-Jul-05	1	1	1	2	3	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	4	1.5	4.0
8-Jul-05	4	5	4	4	4	5	9	13	8	5	5	2	1	2	2	2	2	2	2	2	2	2	2	3	3	3.9	13.0
9-Jul-05	3	3	2	3	3	6	4	3	2	2	1	2	1	1	1	1	1	1	1	1	1	2	2	2	2	2.1	6.0
10-Jul-05	2	3	3	3	4	6	4	2	1	1	1	1	1	1	1	1	1	1	1	1	2	3	3	5	4	2.3	6.0
11-Jul-05	2	2	2	2	4	4	6	4	2	1	3	3	3	1	1	2	2	1	2	3	5	4	2	4	2.7	5.6	
12-Jul-05	4	3	3	4	4	11	15	9	7	4	3	2	2	2	2	2	1	1	2	4	4	5	3	2	4.2	14.7	
13-Jul-05	2	4	4	5	6	12	6	2	1	1	1	1	1	1	1	1	1	2	1	1	2	1	1	1	1	2.6	12.5
14-Jul-05	1	2	2	1	2	3	3	0	0	0	1	1	1	1	1	1	1	1	1	1	1	2	2	5	2	1.6	5.0
15-Jul-05	2	2	2	5	7	5	4	3	4	3	1	1	1	1	1	2	2	3	4	3	3	2	2	2.7	6.7		
16-Jul-05	2	2	2	2	5	4	2	2	2	2	2	2	1	2	1	3	2	2	3	3	2	3	3	2	2.3	4.6	
17-Jul-05	4	3	3	3	4	5	3	3	0	C	C	C	C	C	C	C	4	5	5	5	5	6	5	5	N	5.9	
18-Jul-05	6	5	5	4	4	5	7	5	4	4	4	4	4	4	4	5	5	6	5	4	4	5	8	5	4.9	8.0	
19-Jul-05	4	4	4	3	3	4	4	4	4	4	3	3	3	3	4	4	4	4	4	4	4	4	5	4	3.8	5.5	
20-Jul-05	4	7	5	4	4	6	15	9	7	5	5	6	4	4	6	6	6	4	3	4	4	4	6	8	5.8	14.5	
21-Jul-05	5	5	6	8	9	9	14	13	7	6	4	3	3	3	4	4	5	5	6	6	6	6	6	5	6.2	13.7	
22-Jul-05	5	4	4	4	4	8	18	12	11	5	5	4	5	4	4	4	4	4	4	4	4	5	3	3	5.5	18.2	
23-Jul-05	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2.6	3.3	
24-Jul-05	3	3	4	4	3	3	5	4	4	3	3	3	2	3	2	3	3	3	3	4	4	4	4	4	3.4	4.5	
25-Jul-05	4	3	4	4	3	4	7	10	5	3	4	2	2	2	4	2	2	3	3	3	3	3	3	3	3.5	10.5	
26-Jul-05	3	3	4	4	5	9	6	6	7	7	6	4	4	3	2	2	2	2	2	4	3	4	4	5	4.2	9.4	
27-Jul-05	3	4	6	7	7	7	9	5	3	4	3	2	3	3	3	2	3	2	4	4	9	7	6	4	4.7	9.0	
28-Jul-05	3	3	2	3	3	3	7	6	3	3	2	2	2	2	1	1	1	2	3	3	3	2	3	2	2.8	6.9	
29-Jul-05	2	2	2	3	3	4	6	6	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	3	2.2	6.0	
30-Jul-05	2	4	4	4	3	3	4	4	2	2	1	1	1	1	1	2	1	1	2	2	3	2	3	7	2.5	7.0	
31-Jul-05	5	4	4	3	3	3	4	5	3	4	1	1	0	0	0	1	1	2	4	4	2	2	2	2	2.4	5.0	
Hourly Avg	3.2	3.2	3.3	3.4	4.1	5.4	6.5	5.4	3.7	2.8	2.5	2.1	1.9	1.8	1.9	2.0	2.0	2.1	2.3	2.7	3.2	3.6	3.3	3.3			
Hourly Max	5.5	6.8	8.0	8.5	8.5	12.5	18.2	13.0	11.1	6.7	6.1	5.9	4.7	4.4	6.2	6.4	5.9	5.3	6.0	6.2	9.0	8.0	8.1	7.3			

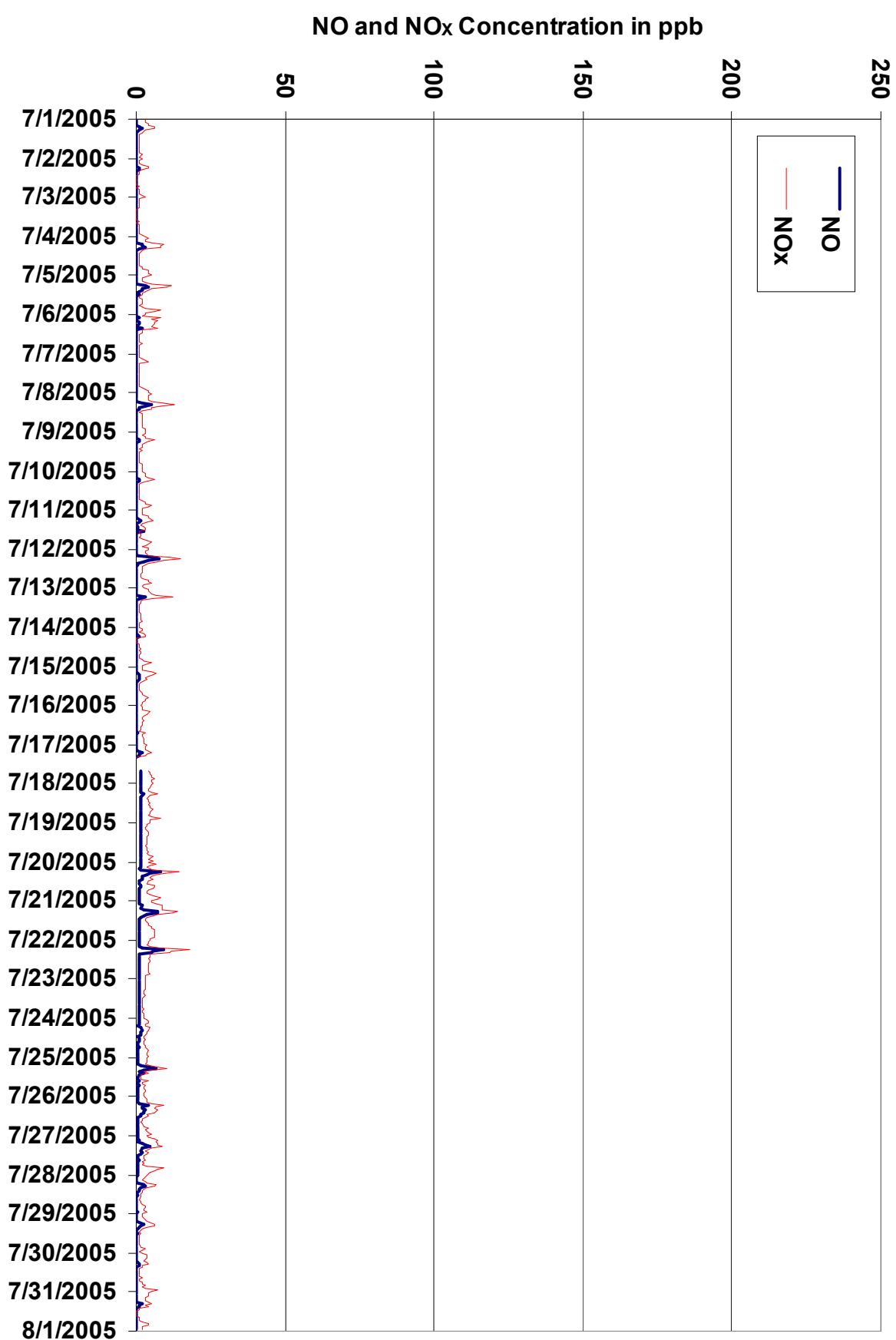


Figure 38. PASZA - Beaverlodge Oxides of Nitrogen 1-hr Average Monthly Trend

Station: Beaverton  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY MAXIMUM TABLE

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

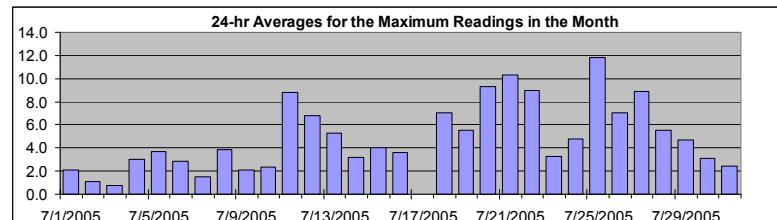
#### Summary

Maximum 1-hr Value:	131.1 ppb	25-Jul 14:00 15:00
Maximum 24-hr Value:	11.8 ppb	25-Jul

AIC Time:	0 hrs	Operational Time:	737 hrs											
Calibration Time:	7 hrs	AMD Operational Uptime:	100.0%											
Percentile			Average											
99	95	75	50	25	5	1	25.0	12.1	5.7	3.8	2.0	1.0	0.0	4.9 ppb

#### Day Mountain Standard Time

	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-hour Average	Daily Maximum	
1-Jul-05	1:00	3	3	3	4	4	6	6	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2.1	6.0	
2-Jul-05	2	1	1	1	2	4	4	2	1	1	1	1	0	0	0	0	0	0	0	1	0	1	1	1	1	1.1	4.0	
3-Jul-05	3	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	0.8	3.0	
4-Jul-05	3	4	3	3	5	9	8	8	3	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2	4	4	3.0	9.0
5-Jul-05	5	2	2	2	3	5	12	10	5	4	3	2	2	1	1	1	2	2	1	2	1	2	3	8	6	3.7	12.0	
6-Jul-05	3	2	8	5	7	6	6	5	7	2	2	2	1	1	1	1	1	1	1	2	1	1	1	1	1	2.8	8.0	
7-Jul-05	1	1	1	2	3	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.5	4.0	
8-Jul-05	4	5	4	4	4	5	9	13	8	5	5	2	1	2	2	2	2	2	2	2	2	2	2	3	3	3.9	13.0	
9-Jul-05	3	3	2	3	3	6	4	3	2	2	1	2	1	1	1	1	1	1	1	1	1	1	2	2	2	2.1	6.0	
10-Jul-05	2	3	3	3	4	6	4	2	1	1	1	1	1	1	1	1	1	1	1	1	2	3	3	5	4	2.3	6.0	
11-Jul-05	2	2	2	2	4	4	12	6	3	2	7	20	97	4	2	4	3	2	3	6	8	6	3	6	8.8	97.4		
12-Jul-05	5	5	3	5	6	25	20	16	9	10	4	2	3	3	4	3	2	2	4	7	8	10	3	3	6.8	25.1		
13-Jul-05	14	12	4	6	8	18	10	2	3	3	3	2	2	2	2	3	3	3	11	3	4	3	3	2	5.3	18.2		
14-Jul-05	2	3	2	2	5	4	3	0	0	0	3	4	2	6	2	4	5	2	2	2	4	5	10	4	3.2	10.1		
15-Jul-05	4	6	2	7	10	11	6	4	5	4	3	2	2	2	2	3	4	2	3	4	3	3	2	2	4.0	11.1		
16-Jul-05	2	2	2	3	8	7	3	3	3	3	4	3	3	2	2	2	3	8	3	3	4	4	4	5	3.6	8.1		
17-Jul-05	6	3	5	3	9	11	5	3	0	C	C	C	C	C	C	C	C	5	6	6	7	7	8	7	N	10.9		
18-Jul-05	7	7	7	5	5	8	9	9	6	6	7	6	6	5	6	7	10	9	6	6	6	9	15	7	7.1	15.1		
19-Jul-05	7	5	4	4	5	6	6	6	5	5	5	5	5	5	9	6	7	6	6	5	6	8	7	7	5.5	9.4		
20-Jul-05	8	11	5	4	4	9	31	17	8	6	6	8	5	5	12	13	8	5	3	4	6	13	16	11	9.3	31.2		
21-Jul-05	7	6	9	12	10	16	25	65	8	8	6	3	3	4	4	4	5	6	6	6	8	7	7	10.3	65.1			
22-Jul-05	5	5	4	5	5	24	36	26	16	9	12	5	7	5	4	5	5	5	5	5	6	5	4	4	8.9	36.0		
23-Jul-05	4	3	3	4	3	3	4	4	3	4	4	3	3	3	2	3	3	3	3	3	3	3	4	3	3.2	4.1		
24-Jul-05	4	5	5	5	6	5	8	7	6	5	4	3	3	4	4	3	3	4	4	6	6	7	5	7	4.8	8.3		
25-Jul-05	5	5	4	4	4	9	20	15	6	4	18	6	4	5	131	3	5	5	6	5	10	6	4	4	11.8	131.1		
26-Jul-05	4	5	6	5	18	21	11	7	10	8	8	4	5	5	4	2	2	2	2	8	5	4	7	9	7.1	21.4		
27-Jul-05	5	5	13	11	10	10	10	14	6	4	28	14	3	3	4	9	3	6	4	8	11	9	8	9	8.9	28.2		
28-Jul-05	4	3	6	3	4	6	9	13	5	4	7	6	3	4	3	2	4	2	3	6	8	4	4	16	5.5	16.0		
29-Jul-05	6	3	3	3	3	6	20	9	15	3	3	2	4	2	2	2	2	3	2	4	6	5	3	4.7	20.4			
30-Jul-05	6	5	5	6	5	5	8	4	2	2	1	1	1	1	1	2	1	1	2	2	3	2	3	7	3.1	7.6		
31-Jul-05	5	4	4	3	3	3	4	5	3	4	1	1	0	0	0	0	1	1	2	4	4	2	2	2	2.4	5.0		
Hourly Avg	4.5	4.2	4.1	4.2	5.5	8.5	10.2	9.1	4.9	3.8	4.9	3.8	5.7	2.7	7.0	3.0	3.0	3.1	3.2	3.8	4.6	5.0	4.6	4.8				
Hourly Max	13.8	11.8	13.2	12.3	17.9	25.1	36.0	65.1	16.1	10.0	28.2	20.3	97.4	5.8	131.1	13.0	10.0	9.2	10.9	8.4	11.2	15.1	16.0	16.0				



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

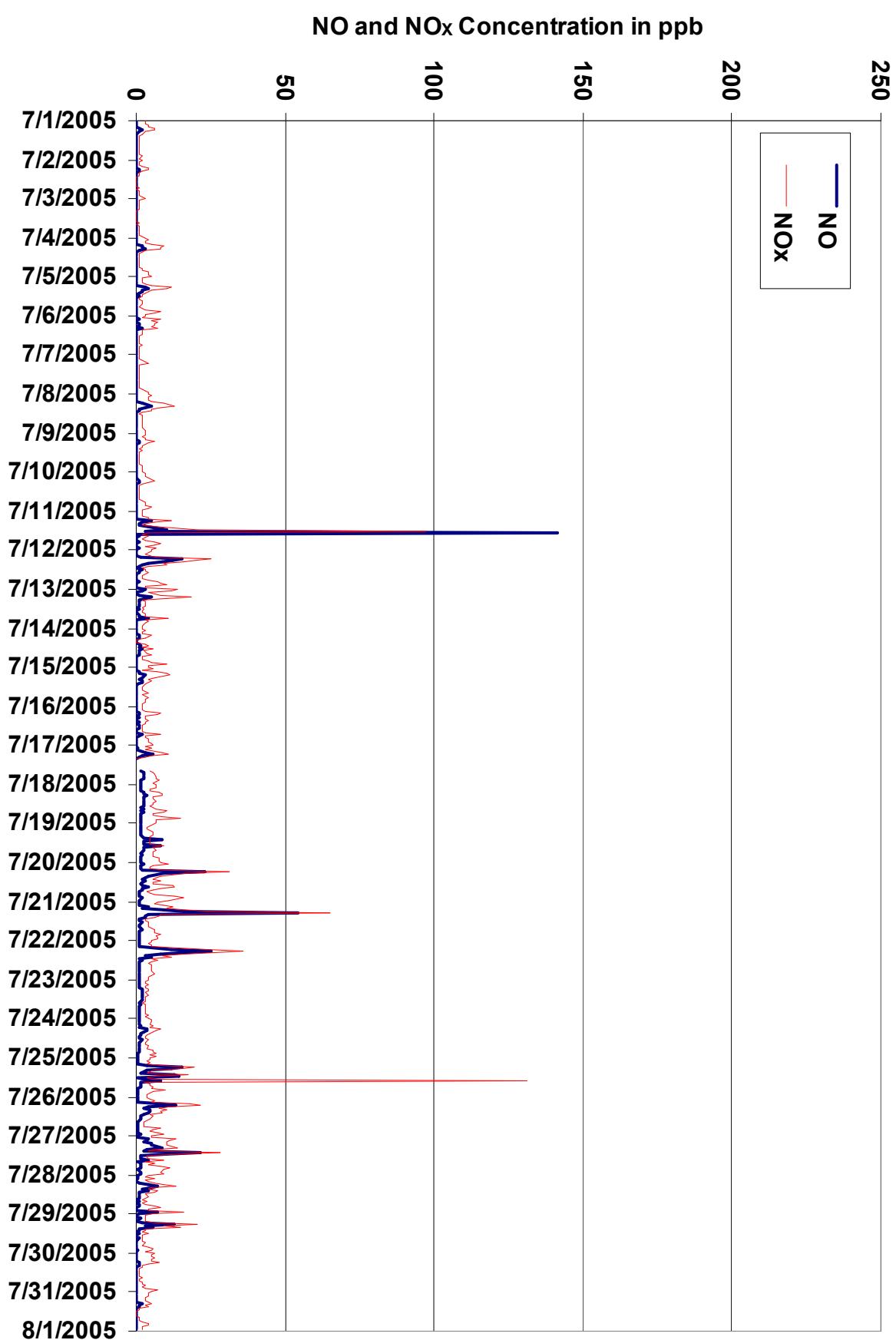


Figure 39. PASZA - Beaverlodge Oxides of Nitrogen 1-hr Maximum Value Monthly Trend

## PASZA - Beaverlodge Ozone Monthly Summary

Station: Beaverlodge  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

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

**Summary**

Number of 1-hr Exceedances: 0

Maximum 1-hr Average: 50.8 ppb 22-Jul 12:00 13:00

Maximum 24-hr Average: 33.8 ppb 22-Jul

AIC Time:	0 hrs	Operational Time:	738 hrs					
Calibration Time:	6 hrs	AMD Operational Uptime:	100.0%					
Percentile	99 46.7	95 39.0	75 29.2	50 25.0	25 18.3	5 11.5	1 8.3	Average 24.4 ppb

**Day Mountain Standard Time**

	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	32:00	33:00	34:00	35:00	36:00	37:00	38:00	39:00	40:00	41:00	42:00	43:00	44:00	45:00	46:00	47:00	48:00	49:00	50:00	51:00	52:00	53:00	54:00	55:00	56:00	57:00	58:00	59:00	60:00	61:00	62:00	63:00	64:00	65:00	66:00	67:00	68:00	69:00	70:00	71:00	72:00	73:00	74:00	75:00	76:00	77:00	78:00	79:00	80:00	81:00	82:00	83:00	84:00	85:00	86:00	87:00	88:00	89:00	90:00	91:00	92:00	93:00	94:00	95:00	96:00	97:00	98:00	99:00	100:00	101:00	102:00	103:00	104:00	105:00	106:00	107:00	108:00	109:00	110:00	111:00	112:00	113:00	114:00	115:00	116:00	117:00	118:00	119:00	120:00	121:00	122:00	123:00	124:00	125:00	126:00	127:00	128:00	129:00	130:00	131:00	132:00	133:00	134:00	135:00	136:00	137:00	138:00	139:00	140:00	141:00	142:00	143:00	144:00	145:00	146:00	147:00	148:00	149:00	150:00	151:00	152:00	153:00	154:00	155:00	156:00	157:00	158:00	159:00	160:00	161:00	162:00	163:00	164:00	165:00	166:00	167:00	168:00	169:00	170:00	171:00	172:00	173:00	174:00	175:00	176:00	177:00	178:00	179:00	180:00	181:00	182:00	183:00	184:00	185:00	186:00	187:00	188:00	189:00	190:00	191:00	192:00	193:00	194:00	195:00	196:00	197:00	198:00	199:00	200:00	201:00	202:00	203:00	204:00	205:00	206:00	207:00	208:00	209:00	210:00	211:00	212:00	213:00	214:00	215:00	216:00	217:00	218:00	219:00	220:00	221:00	222:00	223:00	224:00	225:00	226:00	227:00	228:00	229:00	230:00	231:00	232:00	233:00	234:00	235:00	236:00	237:00	238:00	239:00	240:00	241:00	242:00	243:00	244:00	245:00	246:00	247:00	248:00	249:00	250:00	251:00	252:00	253:00	254:00	255:00	256:00	257:00	258:00	259:00	260:00	261:00	262:00	263:00	264:00	265:00	266:00	267:00	268:00	269:00	270:00	271:00	272:00	273:00	274:00	275:00	276:00	277:00	278:00	279:00	280:00	281:00	282:00	283:00	284:00	285:00	286:00	287:00	288:00	289:00	290:00	291:00	292:00	293:00	294:00	295:00	296:00	297:00	298:00	299:00	300:00	301:00	302:00	303:00	304:00	305:00	306:00	307:00	308:00	309:00	310:00	311:00	312:00	313:00	314:00	315:00	316:00	317:00	318:00	319:00	320:00	321:00	322:00	323:00	324:00	325:00	326:00	327:00	328:00	329:00	330:00	331:00	332:00	333:00	334:00	335:00	336:00	337:00	338:00	339:00	340:00	341:00	342:00	343:00	344:00	345:00	346:00	347:00	348:00	349:00	350:00	351:00	352:00	353:00	354:00	355:00	356:00	357:00	358:00	359:00	360:00	361:00	362:00	363:00	364:00	365:00	366:00	367:00	368:00	369:00	370:00	371:00	372:00	373:00	374:00	375:00	376:00	377:00	378:00	379:00	380:00	381:00	382:00	383:00	384:00	385:00	386:00	387:00	388:00	389:00	390:00	391:00	392:00	393:00	394:00	395:00	396:00	397:00	398:00	399:00	400:00	401:00	402:00	403:00	404:00	405:00	406:00	407:00	408:00	409:00	410:00	411:00	412:00	413:00	414:00	415:00	416:00	417:00	418:00	419:00	420:00	421:00	422:00	423:00	424:00	425:00	426:00	427:00	428:00	429:00	430:00	431:00	432:00	433:00	434:00	435:00	436:00	437:00	438:00	439:00	440:00	441:00	442:00	443:00	444:00	445:00	446:00	447:00	448:00	449:00	450:00	451:00	452:00	453:00	454:00	455:00	456:00	457:00	458:00	459:00	460:00	461:00	462:00	463:00	464:00	465:00	466:00	467:00	468:00	469:00	470:00	471:00	472:00	473:00	474:00	475:00	476:00	477:00	478:00	479:00	480:00	481:00	482:00	483:00	484:00	485:00	486:00	487:00	488:00	489:00	490:00	491:00	492:00	493:00	494:00	495:00	496:00	497:00	498:00	499:00	500:00	501:00	502:00	503:00	504:00	505:00	506:00	507:00	508:00	509:00	510:00	511:00	512:00	513:00	514:00	515:00	516:00	517:00	518:00	519:00	520:00	521:00	522:00	523:00	524:00	525:00	526:00	527:00	528:00	529:00	530:00	531:00	532:00	533:00	534:00	535:00	536:00	537:00	538:00	539:00	540:00	541:00	542:00	543:00	544:00	545:00	546:00	547:00	548:00	549:00	550:00	551:00	552:00	553:00	554:00	555:00	556:00	557:00	558:00	559:00	560:00	561:00	562:00	563:00	564:00	565:00	566:00	567:00	568:00	569:00	570:00	571:00	572:00	573:00	574:00	575:00	576:00	577:00	578:00	579:00	580:00	581:00	582:00	583:00	584:00	585:00	586:00	587:00	588:00	589:00	590:00	591:00	592:00	593:00	594:00	595:00	596:00	597:00	598:00	599:00	600:00	601:00	602:00	603:00	604:00	605:00	606:00	607:00	608:00	609:00	610:00	611:00	612:00	613:00	614:00	615:00	616:00	617:00	618:00	619:00	620:00	621:00	622:00	623:00	624:00	625:00	626:00	627:00	628:00	629:00	630:00	631:00	632:00	633:00	634:00	635:00	636:00	637:00	638:00	639:00	640:00	641:00	642:00	643:00	644:00	645:00	646:00	647:00	648:00	649:00	650:00	651:00	652:00	653:00	654:00	655:00	656:00	657:00	658:00	659:00	660:00	661:00	662:00	663:00	664:00	665:00	666:00	667:00	668:00	669:00	670:00	671:00	672:00	673:00	674:00	675:00	676:00	677:00	678:00	679:00	680:00	681:00	682:00	683:00	684:00	685:00	686:00	687:00	688:00	689:00	690:00	691:00	692:00	693:00	694:00	695:00	696:00	697:00	698:00	699:00	700:00	701:00	702:00	703:00	704:00	705:00	706:00	707:00	708:00	709:00	710:00	711:00	712:00	713:00	714:00	715:00	716:00	717:00	718:00	719:00	720:00	721:00	722:00	723:00	724:00	725:00	726:00	727:00	728:00	729:00	730:00	731:00	732:00	733:00	734:00	735:00	736:00	737:00	738:00	739:00	740:00	741:00	742:00	743:00	744:00	745:00	746:00	747:00	748:00	749:00	750:00	751:00	752:00	753:00	754:00	755:00	756:00	757:00	758:00	759:00	760:00	761:00	762:00	763:00	764:00	765:00	766:00	767:00	768:00	769:00	770:00	771:00	772:00	773:00	774:00	775:00	776:00	777:00	778:00	779:00	780:00	781:00	782:00	783:00	784:00	785:00	786:00	787:00	788:00	789:00	790:00	791:00	792:00	793:00	794:00	795:00	796:00	797:00	798:00	799:00	800:00	801:00	802:00	803:00	804:00	805:00	806:00	807:00	808:00	809:00	810:00	811:00	812:00	813:00	814:00	815:00	816:00	817:00	818:00	819:00	820:00	821:00	822:00	823:00	824:00	825:00	826:00	827:00	828:00	829:00	830:00	831:00	832:00	833:00	834:00	835:00	836:00	837:00	838:00	839:00	840:00	841:00	842:00	843:00	844:00	845:00	846:00	847:00	848:00	849:00	850:00	851:00	852:00	853:00	854:00	855:00	856:00	857:00	858:00	859:00	860:00	861:00	862:00	863:00	864:00	865:00	866:00	867:00	868:00	869:00	870:00	871:00	872:00	873:00	874:00	875:00	876:00	877:00	878:00	879:00	880:00	881:00	882:00	883:00	884:00	885:00	886:00	887:00	888:00	889:00	890:00	891:00	892:00	893:00	894:00	895:00	896:00	897:00	898:00	899:00	900:00	901:00	902:00	903:00	904:00	905:00	906:00	907:00	908:00	909:00	910:00	911:00	912:00	913:00	914:00	915:00	916:00	917:00	918:00	919:00	920:00	921:00	922:00	923:00	924:00	925:00	926:00	927:00	928:00	929:00	930:00	931:00	932:00	933:00	934:00	935:00	936:00	937:00	938:00	939:00	940:00	941:00	942:00	943:00	944:00	945:00	946:00	947:00	948:00	949:00	950:00	951:00	952:00	953:00	954:00	955:00	956:00	957:00	958:00	959:00	960:00	961:00	962:00	963:00

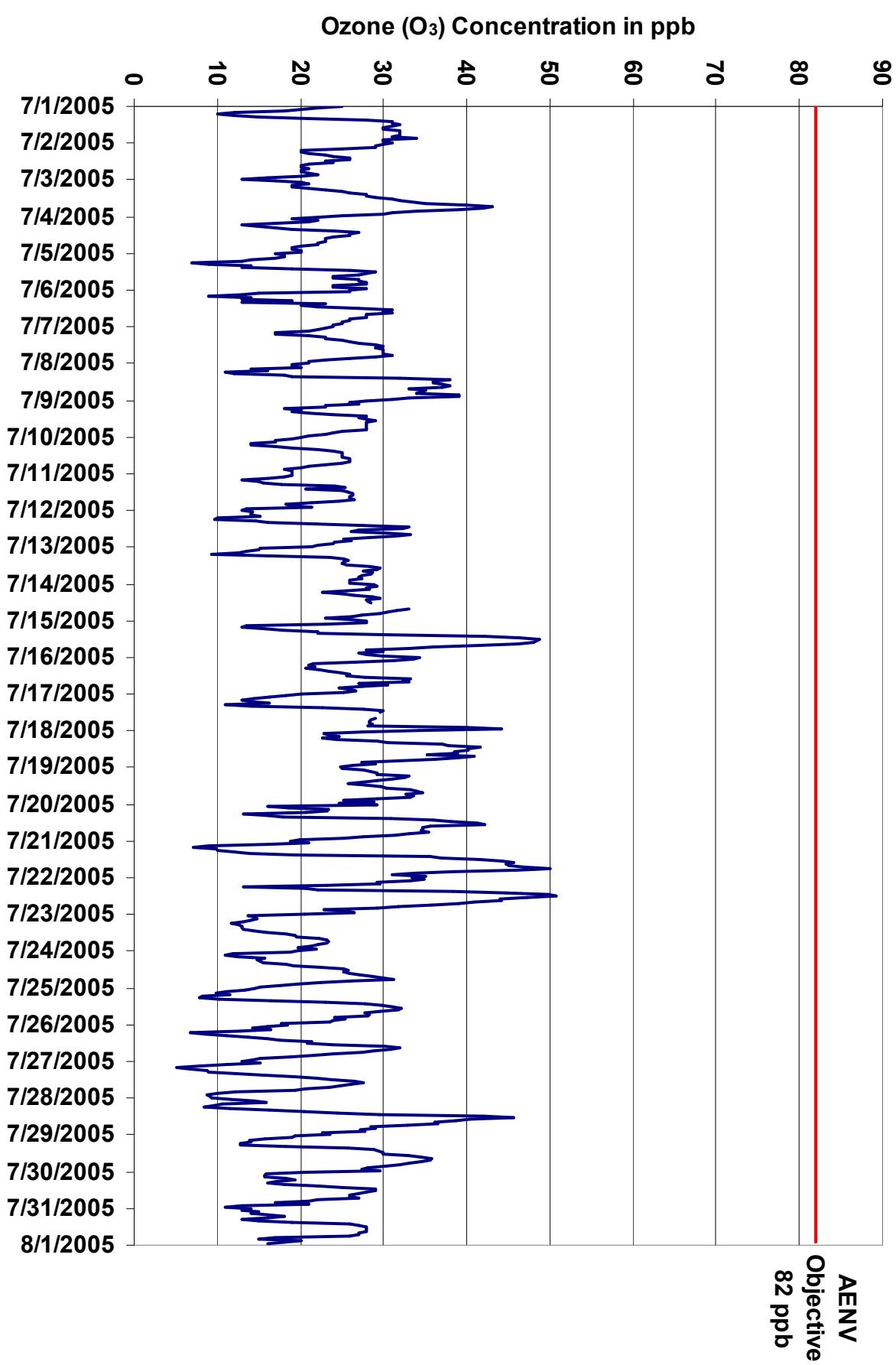


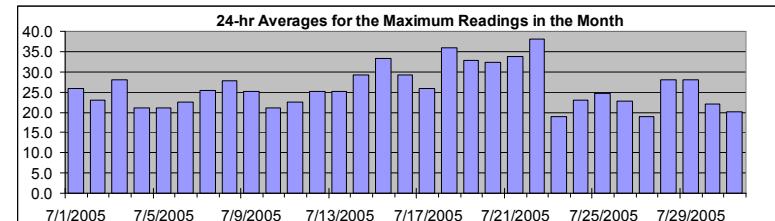
Figure 40. PASZA - Beaverlodge Ozone 1-hr Average Monthly Trend

Station: Beavertodge  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY MAXIMUM TABLE

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



#### Summary

Maximum 1-hr Value:	54.0	ppb	22-Jul	12:00 13:00
Maximum 24-hr Value:	38.0	ppb	22-Jul	

AIC Time:	0 hrs	Operational Time:	738 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	100.0%
Percentile	99	95	75
	50.8	42.7	30.8
	26.0	19.9	13.0
			10.5
	Average		
	26.1	ppb	

#### Status Flag Characters

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

#### Day Mountain Standard Time

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	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	
	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-Jul-05	25	22	20	18	12	10	12	15	21	28	31	31	32	31	30	30	32	32	32	31	34	30	30	25.9	34.0		
2-Jul-05	31	30	29	29	25	20	20	21	23	24	26	26	23	24	21	20	20	21	20	21	22	20	16	23.0	31.0		
3-Jul-05	13	17	20	21	19	19	21	23	25	26	28	28	29	31	32	35	40	43	42	39	34	31	30	25	28.0	43.0	
4-Jul-05	22	19	22	21	17	13	15	17	19	24	27	26	26	24	23	23	23	22	22	20	19	19	20	20	21.0	27.0	
5-Jul-05	17	18	18	17	14	13	7	9	14	13	19	26	29	28	27	24	24	27	27	28	28	24	24	28	21.0	29.0	
6-Jul-05	26	26	15	13	9	14	13	19	13	23	20	22	27	31	30	31	28	28	28	26	26	25	25	24	22.6	31.0	
7-Jul-05	24	23	22	21	17	17	21	23	23	25	26	27	29	30	29	30	30	30	30	31	29	26	23	21	25.3	31.0	
8-Jul-05	21	19	19	20	14	16	11	12	18	19	32	38	36	36	37	38	37	33	35	34	39	33	31	27.8	39.0		
9-Jul-05	28	26	27	23	23	18	20	19	21	24	28	27	28	29	28	28	28	28	28	28	25	24	23	21	25.1	29.0	
10-Jul-05	20	19	17	17	14	14	17	19	22	24	25	25	25	26	26	26	26	25	23	21	20	18	19	19	21.1	26.0	
11-Jul-05	19	19	18	16	13	15	18	20	26	27	27	28	28	27	27	27	27	26	24	21	21	22	17	22.6	27.9		
12-Jul-05	15	17	14	16	17	17	16	17	20	25	32	35	36	29	29	35	38	33	30	28	29	27	25	24	25.3	37.7	
13-Jul-05	23	17	15	16	15	13	23	26	26	27	26	26	27	30	31	31	29	30	30	29	28	29	27	27	25.1	31.2	
14-Jul-05	30	30	28	29	28	26	27	28	31	31	28	29	29	C	C	C	35	33	31	31	30	28	26	28	29.3	34.7	
15-Jul-05	30	30	23	15	15	20	21	25	25	42	48	50	51	51	50	49	44	36	33	28	30	27	28	30	33.4	51.3	
16-Jul-05	36	36	33	29	24	24	23	22	24	26	26	27	27	30	36	35	38	32	32	31	27	27	28	29	29.2	38.2	
17-Jul-05	23	20	17	15	15	17	17	11	14	25	31	32	31	C	C	C	30	32	29	29	30	30	49	46	25.9	49.4	
18-Jul-05	43	31	25	26	27	25	29	31	35	39	41	43	44	43	41	41	48	49	41	39	35	30	31	29	36.0	48.7	
19-Jul-05	26	26	30	30	31	35	34	33	30	29	27	30	33	34	41	37	40	38	37	38	33	29	33	29	32.7	41.4	
20-Jul-05	35	24	23	26	26	23	20	22	37	38	40	43	44	42	37	37	37	37	35	34	32	34	26	32.4	43.6		
21-Jul-05	32	29	19	13	10	14	18	15	16	28	43	40	44	46	47	46	47	51	53	51	44	37	33	37	33.9	52.6	
22-Jul-05	37	37	35	34	33	33	24	26	29	42	49	52	54	52	47	47	44	41	39	34	31	29	29	35	38.0	54.0	
23-Jul-05	22	15	16	16	15	14	13	14	14	14	17	17	21	21	21	24	24	24	24	23	23	21	25	18.8	24.8		
24-Jul-05	24	22	14	13	15	17	18	18	20	21	25	27	27	27	28	29	30	32	34	29	25	24	19	17	23.0	34.0	
25-Jul-05	16	15	12	14	16	12	13	14	20	27	30	32	33	34	34	33	31	32	31	33	33	27	29	23	24.8	33.7	
26-Jul-05	25	18	20	19	15	12	11	14	16	19	23	24	24	28	33	33	33	31	31	28	27	22	20	18	22.7	33.5	
27-Jul-05	19	19	15	12	10	10	11	11	15	18	24	23	26	29	30	28	28	28	23	22	16	12	11	11	18.9	29.7	
28-Jul-05	10	14	16	17	14	12	11	15	19	24	27	39	50	51	44	41	40	39	37	32	33	31	31	30	28.1	50.6	
29-Jul-05	26	21	21	17	15	15	18	16	24	30	30	32	33	35	36	37	38	37	34	34	33	30	29	31	28.1	37.7	
30-Jul-05	25	22	20	19	22	23	20	16	18	22	25	29	29	28	27	26	27	22	21	17	21	13	11	22.0	29.0		
31-Jul-05	14	13	15	14	16	18	16	13	15	19	26	27	28	28	28	28	27	27	26	17	15	20	18	16	20.2	28.0	

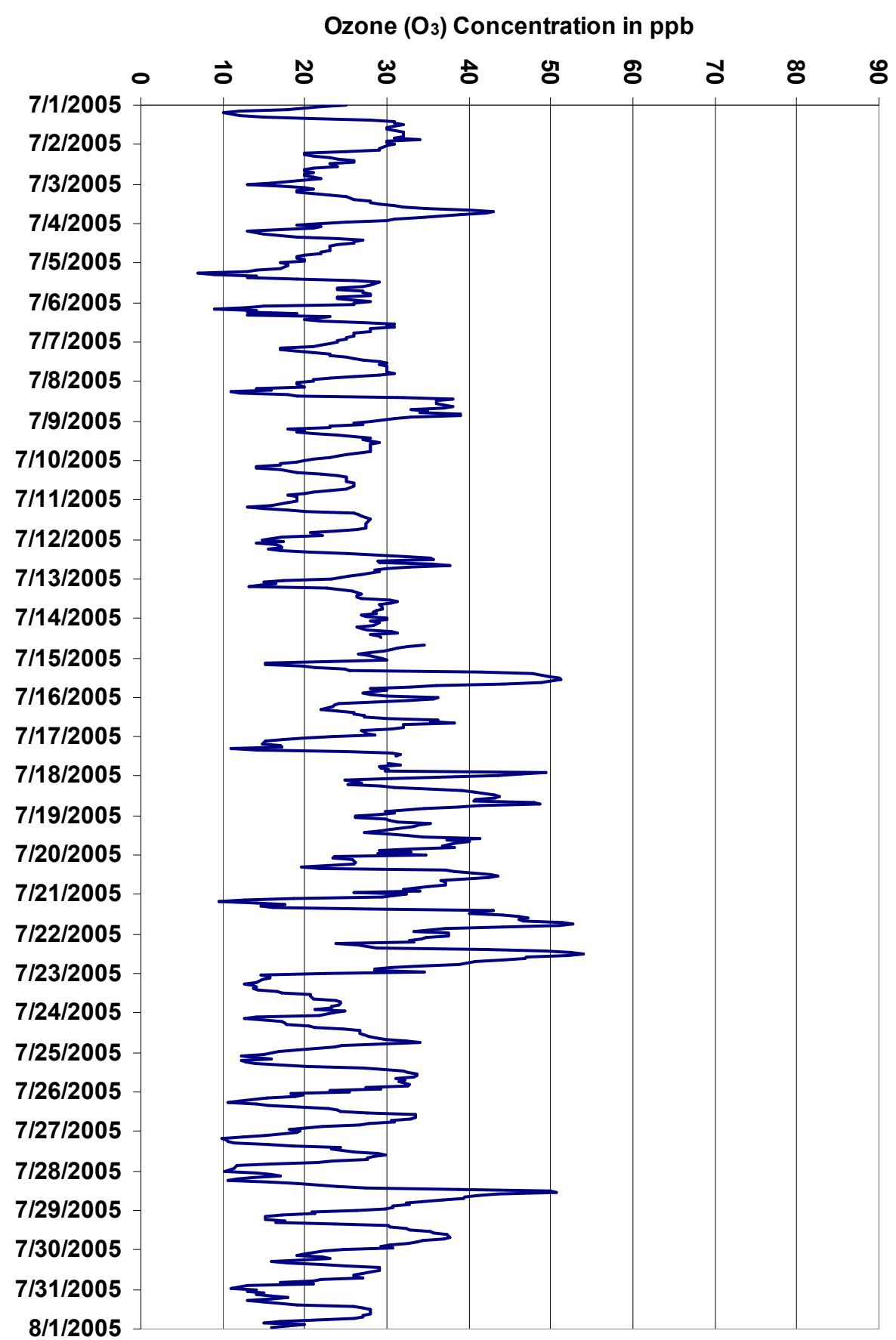
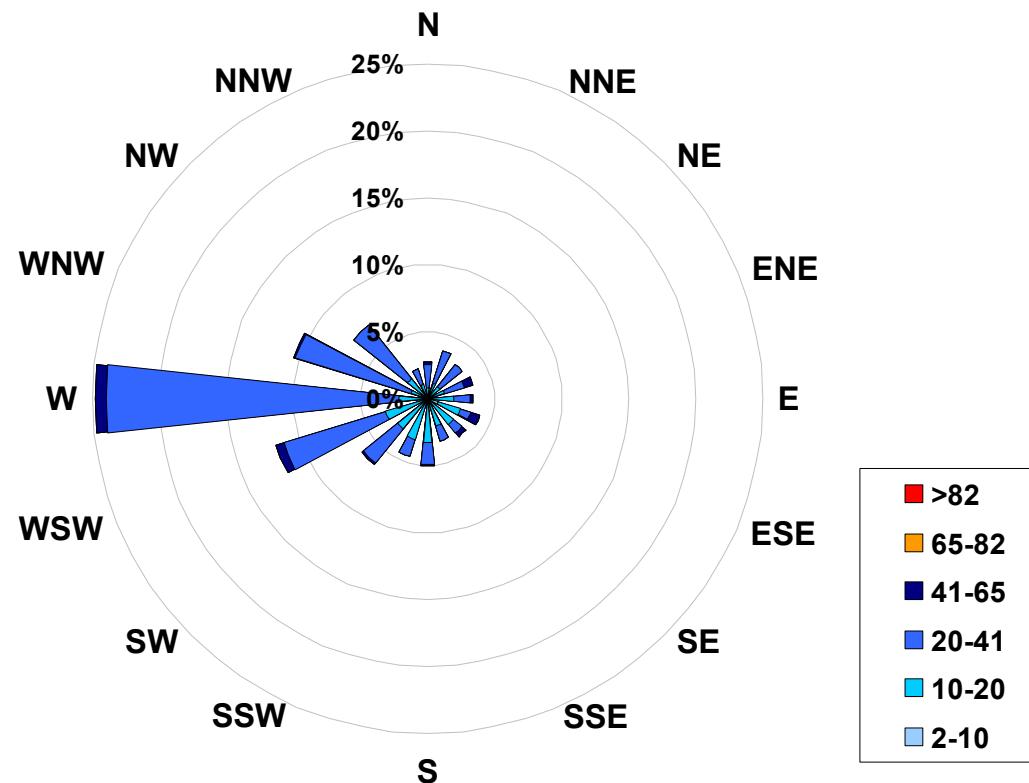


Figure 41. PASZA - Beaverlodge Ozone 1-hr Maximum Value Monthly Trend

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



**Calms:** 0%

Frequency Distribution of O <sub>3</sub> in ppb			Frequency (hrs)
Range			
2.0	<	10	23
10	to	20	217
20	to	41	468
41	to	65	29
65	to	82	0
	>	82	0
Total Non-Zero Values			738

### PASZA - Beaverlodge Ozone Monthly Summary

Station: Beaverlodge  
Station Owner: PASZA

#### EIGHT HOUR RUNNING AVERAGE TABLE

Monitoring Dates: July 1, 2005 to August 1, 2005

Objective Limit: Alberta Environment: 8-hr 65 ppb

**Summary**

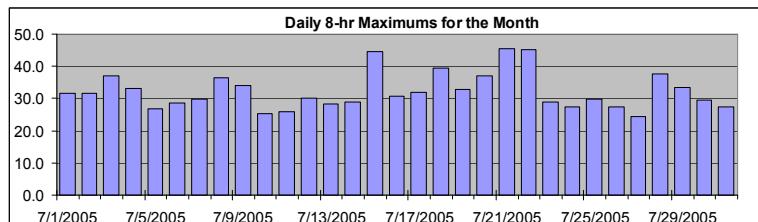
Number of 8-hr Exceedances:

0

Maximum 8-hr Average:

45.5 ppb 21-Jul 19:00 20:00

#### Ozone ( $O_3$ )



#### 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

#### Percentile

Percentile	99	95	75	50	25	5	1
	43.9	36.8	28.6	24.3	19.1	13.4	11.1

#### Day Mountain Standard Time

	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	32:00	33:00	34:00	35:00	36:00	37:00	38:00	39:00	40:00	41:00	42:00	43:00	44:00	45:00	46:00	47:00	48:00	49:00	50:00	51:00	52:00	53:00	54:00	55:00	56:00	57:00	58:00	59:00	60:00	61:00	62:00	63:00	64:00	65:00	66:00	67:00	68:00	69:00	70:00	71:00	72:00	73:00	74:00	75:00	76:00	77:00	78:00	79:00	80:00	81:00	82:00	83:00	84:00	85:00	86:00	87:00	88:00	89:00	90:00	91:00	92:00	93:00	94:00	95:00	96:00	97:00	98:00	99:00	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	32:00	33:00	34:00	35:00	36:00	37:00	38:00	39:00	40:00	41:00	42:00	43:00	44:00	45:00	46:00	47:00	48:00	49:00	50:00	51:00	52:00	53:00	54:00	55:00	56:00	57:00	58:00	59:00	60:00	61:00	62:00	63:00	64:00	65:00	66:00	67:00	68:00	69:00	70:00	71:00	72:00	73:00	74:00	75:00	76:00	77:00	78:00	79:00	80:00	81:00	82:00	83:00	84:00	85:00	86:00	87:00	88:00	89:00	90:00	91:00	92:00	93:00	94:00	95:00	96:00	97:00	98:00	99:00	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	32:00	33:00	34:00	35:00	36:00	37:00	38:00	39:00	40:00	41:00	42:00	43:00	44:00	45:00	46:00	47:00	48:00	49:00	50:00	51:00	52:00	53:00	54:00	55:00	56:00	57:00	58:00	59:00	60:00	61:00	62:00	63:00	64:00	65:00	66:00	67:00	68:00	69:00	70:00	71:00	72:00	73:00	74:00	75:00	76:00	77:00	78:00	79:00	80:00	81:00	82:00	83:00	84:00	85:00	86:00	87:00	88:00	89:00	90:00	91:00	92:00	93:00	94:00	95:00	96:00	97:00	98:00	99:00	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	32:00	33:00	34:00	35:00	36:00	37:00	38:00	39:00	40:00	41:00	42:00	43:00	44:00	45:00	46:00	47:00	48:00	49:00	50:00	51:00	52:00	53:00	54:00	55:00	56:00	57:00	58:00	59:00	60:00	61:00	62:00	63:00	64:00	65:00	66:00	67:00	68:00	69:00	70:00	71:00	72:00	73:00	74:00	75:00	76:00	77:00	78:00	79:00	80:00	81:00	82:00	83:00	84:00	85:00	86:00	87:00	88:00	89:00	90:00	91:00	92:00	93:00	94:00	95:00	96:00	97:00	98:00	99:00	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	32:00	33:00	34:00	35:00	36:00	37:00	38:00	39:00	40:00	41:00	42:00	43:00	44:00	45:00	46:00	47:00	48:00	49:00	50:00	51:00	52:00	53:00	54:00	55:00	56:00	57:00	58:00	59:00	60:00	61:00	62:00	63:00	64:00	65:00	66:00	67:00	68:00	69:00	70:00	71:00	72:00	73:00	74:00	75:00	76:00	77:00	78:00	79:00	80:00	81:00	82:00	83:00	84:00	85:00	86:00	87:00	88:00	89:00	90:00	91:00	92:00	93:00	94:00	95:00	96:00	97:00	98:00	99:00	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	32:00	33:00	34:00	35:00	36:00	37:00	38:00	39:00	40:00	41:00	42:00	43:00	44:00	45:00	46:00	47:00	48:00	49:00	50:00	51:00	52:00	53:00	54:00	55:00	56:00	57:00	58:00	59:00	60:00	61:00	62:00	63:00	64:00	65:00	66:00	67:00	68:00	69:00	70:00	71:00	72:00	73:00	74:00	75:00	76:00	77:00	78:00	79:00	80:00	81:00	82:00	83:00	84:00	85:00	86:00	87:00	88:00	89:00	90:00	91:00	92:00	93:00	94:00	95:00	96:00	97:00	98:00	99:00	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	32:00	33:00	34:00	35:00	36:00	37:00	38:00	39:00	40:00	41:00	42:00	43:00	44:00	45:00	46:00	47:00	48:00	49:00	50:00	51:00	52:00	53:00	54:00	55:00	56:00	57:00	58:00	59:00	60:00	61:00	62:00	63:00	64:00	65:00	66:00	67:00	68:00	69:00	70:00	71:00	72:00	73:00	74:00	75:00	76:00	77:00	78:00	79:00	80:00	81:00	82:00	83:00	84:00	85:00	86:00	87:00	88:00	89:00	90:00	91:00	92:00	93:00	94:00	95:00	96:00	97:00	98:00	99:00	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	32:00	33:00	34:00	35:00	36:00	37:00	38:00	39:00	40:00	41:00	42:00	43:00	44:00	45:00	46:00	47:00	48:00	49:00	50:00	51:00	52:00	53:00	54:00	55:00	56:00	57:00	58:00	59:00	60:00	61:00	62:00	63:00	64:00	65:00	66:00	67:00	68:00	69:00	70:00	71:00	72:00	73:00	74:00	75:00	76:00	77:00	78:00	79:00	80:00	81:00	82:00	83:00	84:00	85:00	86:00	87:00	88:00	89:00	90:00	91:00	92:00	93:00	94:00	95:00	96:00	97:00	98:00	99:00	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	32:00	33:00	34:00	35:00	36:00	37:00	38:00	39:00	40:00	41:00	42:00	43:00	44:00	45:00	46:00	47:00	48:00	49:00	50:00	51:00	52:00	53:00	54:00	55:00	56:00	57:00	58:00	59:00	60:00	61:00	62:00	63:00	64:00	65:00	66:00	67:00	68:00	69:00	70:00	71:00	72:00	73:00	74:00	75:00	76:00	77:00	78:00	79:00	80:00	81:00	82:00	83:00	84:00	85:00	86:00	87:00	88:00	89:00	90:00	91:00	92:00	93:00	94:00	95:00	96:00	97:00	98:00	99:00	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00

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

Station: Beaverlodge  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

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:	18.9 $\mu\text{g}/\text{m}^3$ 22-Jul 21:00 22:00
Maximum 24-hr Value:	6.9 $\mu\text{g}/\text{m}^3$ 22-Jul

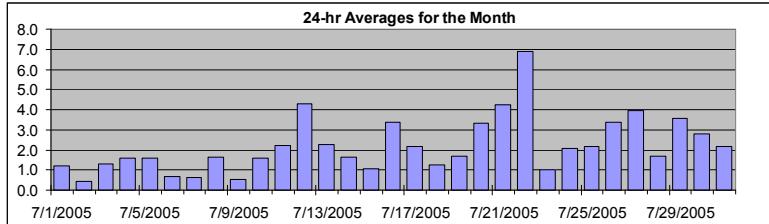
AIC Time:	0 hrs	Operational Time:	723 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	97.2%
Percentile	99 95 75 50 25 5 1	Average	2.2 $\mu\text{g}/\text{m}^3$
	10.0 6.9 3.3 1.6 0.3 0.0 0.0	Geomean	1.8 $\mu\text{g}/\text{m}^3$

### Day Mountain Standard Time

	Hour Start 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum	
1-Jul-05	0	1	0	0	1	2	3	4	3	0	0	0	0	2	1	4	1	1	1	1	2	0	0	0	1	1	1.2	4.3
2-Jul-05	0	0	1	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0.4	1.7
3-Jul-05	0	0	1	1	1	3	3	1	0	1	0	1	0	1	1	0	1	1	0	2	2	3	4	2	1	2	1.3	3.8
4-Jul-05	3	2	0	1	1	2	4	3	4	1	0	1	0	0	0	0	1	0	2	1	5	1	2	3	2	1.6	4.5	
5-Jul-05	2	1	2	3	1	2	4	4	4	5	3	0	0	0	2	7	0	0	0	0	0	0	0	0	0	1.6	7.0	
6-Jul-05	0	0	2	2	1	2	1	0	4	0	3	D	D	0	0	0	0	0	0	0	0	0	0	0	0	0.7	4.3	
7-Jul-05	0	0	0	0	0	1	0	0	1	1	0	1	0	0	0	0	1	0	1	1	2	2	2	1	0	0.7	2.1	
8-Jul-05	1	0	0	0	1	1	2	3	5	2	5	0	2	2	2	1	2	1	2	2	4	1	1	0	0	1.6	4.7	
9-Jul-05	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	1	1	1	1	2	1	1	1	1	0.5	1.7	
10-Jul-05	1	1	1	1	1	2	1	2	1	0	0	1	1	1	1	1	0	1	4	3	4	5	4	2	1.6	5.1		
11-Jul-05	2	3	2	1	2	2	3	4	1	1	1	3	1	2	0	2	1	0	4	3	4	4	4	2	6	2.2	6.4	
12-Jul-05	6	3	4	2	3	7	8	8	12	8	2	3	7	5	4	1	2	0	5	4	2	4	1	0	4.3	11.6		
13-Jul-05	1	1	1	1	2	5	5	3	2	3	3	2	2	0	2	3	4	2	1	3	3	2	2	1	2.3	5.5		
14-Jul-05	0	2	3	2	3	4	2	2	2	0	0	2	1	1	1	1	1	1	1	3	5	1	1	0	1.6	4.8		
15-Jul-05	0	0	1	2	1	0	2	1	2	D	D	0	0	0	0	4	3	3	2	2	D	0	0	0	1.1	3.7		
16-Jul-05	0	1	0	0	1	2	3	3	3	5	5	5	5	4	4	7	4	8	4	6	3	2	3	2	3.4	8.0		
17-Jul-05	2	2	2	2	5	7	3	3	3	10	D	0	0	D	0	D	D	0	1	1	0	1	4	0	2.2	10.0		
18-Jul-05	3	1	0	0	0	0	0	0	0	D	0	0	3	0	5	1	0	3	0	0	0	9	2	0	1.2	8.9		
19-Jul-05	1	1	0	0	0	0	2	1	2	2	3	3	4	2	0	0	4	5	2	0	2	1	2	2	1.7	5.2		
20-Jul-05	2	3	3	3	3	4	10	8	6	0	4	3	2	2	4	6	4	2	1	3	1	2	1	3	3.3	9.7		
21-Jul-05	2	1	1	1	2	4	4	6	4	3	0	3	2	4	5	4	7	5	7	9	9	6	5	4	4.2	9.4		
22-Jul-05	5	4	4	4	3	4	9	7	7	4	7	9	9	7	4	3	5	3	10	13	19	8	6	6.9	18.9			
23-Jul-05	5	D	D	0	0	0	0	0	0	0	0	0	D	1	1	0	1	1	3	2	3	3	1	1.0	5.5			
24-Jul-05	3	2	1	1	3	6	5	4	3	2	1	1	2	4	0	1	1	1	0	5	3	2	0	0	2.1	5.6		
25-Jul-05	0	0	0	0	2	2	10	0	2	0	1	0	0	0	1	11	3	D	2	5	3	2	1	3	2.2	10.5		
26-Jul-05	2	0	2	0	4	0	7	5	4	3	3	6	4	4	4	0	3	2	6	8	4	6	2	2	3.4	7.9		
27-Jul-05	2	6	3	0	0	5	7	5	3	5	4	7	4	5	6	4	7	4	3	4	6	5	1	0	4.0	7.0		
28-Jul-05	0	0	1	0	0	3	2	3	4	5	3	D	0	2	0	0	4	0	0	4	0	1	1	5	1.7	5.0		
29-Jul-05	0	1	3	6	4	6	6	6	5	2	6	D	6	D	0	2	2	3	3	4	4	3	5	1	3.6	6.5		
30-Jul-05	7	9	5	5	4	3	4	2	0	0	0	D	0	7	1	0	D	6	3	0	0	2	0	3	2.8	8.6		
31-Jul-05	4	2	2	0	0	3	7	5	1	0	0	D	0	1	0	0	1	3	11	8	0	D	0	0	2.2	10.9		

### HOURLY AVERAGE TABLE

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



### 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

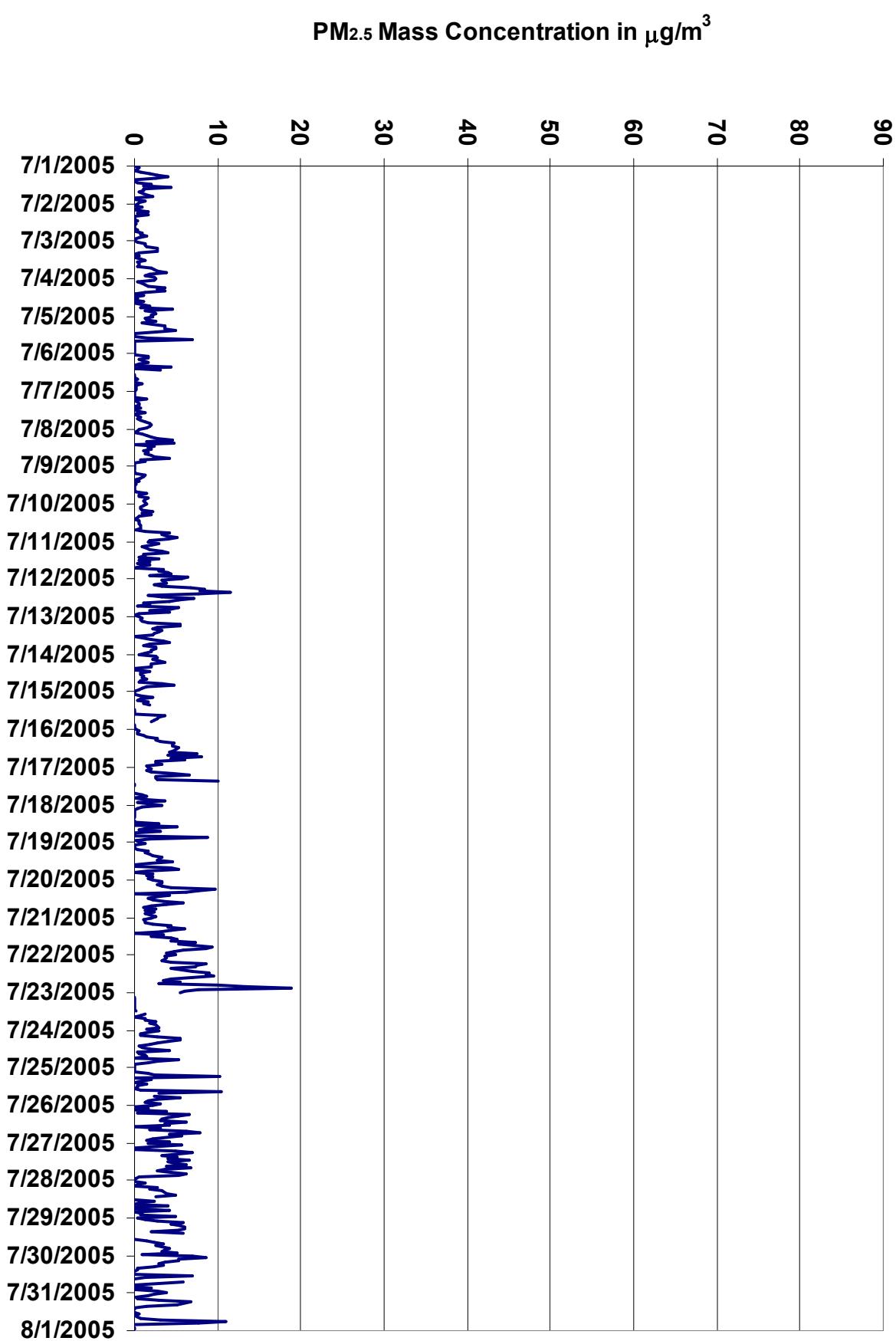


Figure 42. PASZA - Beaverlodge Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Beaverlodge  
 Station Owner: PASZA

### HOURLY MAXIMUM TABLE

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

Monitoring Dates: July 1, 2005 to August 1, 2005

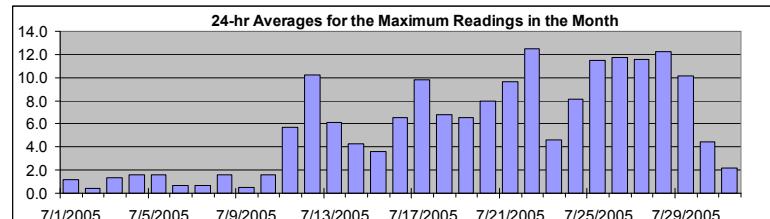
#### Summary

Maximum 1-hr Average:	57.2	µg/m <sup>3</sup>	17-Jul	9:00 10:00
Maximum 24-hr Value:	12.5	µg/m <sup>3</sup>	22-Jul	

AIC Time:	0 hrs	Operational Time:	723 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	97.2%
Percentile	99 95 75 50 25 5 1	Average	Geomean
	22.7 16.4 8.8 4.3 1.2 0.0 0.0	5.7 µg/m <sup>3</sup>	3.8 µg/m <sup>3</sup>

#### Day Mountain Standard Time

	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	24-hour Average	Daily Maximum	
1-Jul-05	0:00 1:00	0	1	0	0	1	2	3	4	3	0	0	0	0	2	1	4	1	1	1	1	2	0	0	1	1	1	1.2	4.3
2-Jul-05	0:00 1:00	0	0	1	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0.4	1.7	
3-Jul-05	0:00 1:00	0	0	1	1	1	3	3	1	0	1	0	1	0	1	1	0	1	1	0	2	2	3	4	2	1	2	1.3	3.8
4-Jul-05	0:00 1:00	3	2	0	1	1	2	4	3	4	1	0	1	0	0	0	0	1	0	2	1	5	1	2	3	2	1.6	4.5	
5-Jul-05	0:00 1:00	2	1	2	3	1	2	4	4	4	5	3	0	0	0	0	2	7	0	0	0	0	0	0	0	0	1.6	7.0	
6-Jul-05	0:00 1:00	0	0	2	2	1	2	1	0	4	0	3	D	D	0	0	0	0	0	0	0	0	0	0	0	0	0.7	4.3	
7-Jul-05	0:00 1:00	0	0	0	0	0	1	0	0	1	1	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0.7	2.1	
8-Jul-05	0:00 1:00	1	0	0	1	1	2	3	5	2	5	0	0	2	2	2	1	2	1	2	2	4	1	1	0	0	1.6	4.7	
9-Jul-05	0:00 1:00	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	1	1	1	2	1	1	1	0.5	1.7	
10-Jul-05	0:00 1:00	1	1	1	1	1	2	1	2	1	0	0	1	1	1	1	1	1	0	1	4	3	4	5	4	2	1.6	5.1	
11-Jul-05	0:00 1:00	2	3	2	1	2	2	6	8	7	7	6	8	5	16	6	5	7	5	5	9	5	9	5	9	5.7	15.9		
12-Jul-05	0:00 1:00	8	5	6	5	5	12	17	12	18	15	10	15	22	9	8	7	9	6	31	9	7	8	1	1	10.3	30.7		
13-Jul-05	0:00 1:00	2	3	3	3	3	13	10	12	6	9	7	6	10	7	6	10	11	5	4	4	4	3	4	2	6.1	12.7		
14-Jul-05	0:00 1:00	2	3	5	5	6	6	6	6	2	0	0	5	5	4	4	5	5	3	3	9	10	3	3	2	4.3	10.0		
15-Jul-05	0:00 1:00	1	2	5	5	2	3	5	5	6	D	D	1	5	4	3	8	12	3	2	2	D	0	0	0	3.6	11.7		
16-Jul-05	0:00 1:00	2	2	2	2	3	3	5	4	6	7	8	6	9	11	14	13	10	16	9	8	4	4	5	5	6.5	16.1		
17-Jul-05	0:00 1:00	5	4	5	4	9	25	10	3	3	57	D	9	10	D	0	D	D	4	6	5	3	7	14	12	9.8	57.2		
18-Jul-05	0:00 1:00	13	6	2	0	3	1	5	3	5	D	4	5	14	6	15	10	15	14	3	4	4	16	7	3	6.8	15.6		
19-Jul-05	0:00 1:00	2	4	2	1	1	2	3	3	3	4	7	7	11	9	9	8	19	18	6	10	4	4	10	10	6.5	18.8		
20-Jul-05	0:00 1:00	6	6	5	5	5	7	14	13	11	7	9	12	9	7	17	7	7	5	10	2	4	6	7	7.9	16.8			
21-Jul-05	0:00 1:00	5	3	5	5	5	9	10	9	7	8	11	13	12	13	12	13	17	12	11	18	13	8	7	5	9.6	17.6		
22-Jul-05	0:00 1:00	6	6	5	6	5	10	14	12	15	13	14	19	13	16	14	13	14	9	9	16	18	36	9	9	12.5	36.0		
23-Jul-05	0:00 1:00	10	D	D	7	0	2	2	1	3	2	3	3	4	D	6	6	5	11	3	7	5	6	7	5	4.6	10.9		
24-Jul-05	0:00 1:00	6	4	5	4	5	10	17	8	8	7	6	7	10	13	12	14	11	11	13	9	7	7	2	8.2	16.6			
25-Jul-05	0:00 1:00	2	2	4	6	6	6	24	14	8	6	8	8	12	10	11	30	20	D	19	20	17	13	13	5	11.5	29.9		
26-Jul-05	0:00 1:00	15	4	7	4	8	6	10	11	8	11	9	15	11	16	16	12	23	22	22	14	10	10	8	9	11.7	22.7		
27-Jul-05	0:00 1:00	9	11	6	6	10	14	15	20	9	13	17	14	12	12	14	18	20	14	11	9	8	7	6	3	11.5	19.8		
28-Jul-05	0:00 1:00	4	2	6	7	4	9	7	9	10	13	20	D	11	14	19	22	16	17	23	15	9	18	10	15	12.2	22.8		
29-Jul-05	0:00 1:00	5	3	7	13	8	10	13	13	11	9	15	D	23	D	6	11	14	14	8	9	8	6	9	9	10.2	22.7		
30-Jul-05	0:00 1:00	19	15	8	9	6	6	8	2	0	0	0	D	0	7	1	0	D	6	3	0	0	2	0	3	4.4	19.3		
31-Jul-05	0:00 1:00	4	2	2	0	0	3	7	5	1	0	0	0	D	0	1	0	0	1	3	11	8	0	D	0	0	2.2	10.9	
	Hourly Avg	4.3	3.2	3.3	3.5	3.3	5.7	7.3	6.2	5.3	6.9	5.5	6.1	7.1	6.2	6.5	7.8	8.2	7.0	7.1	6.8	5.1	6.3	4.4	4.1				
	Hourly Max	19.3	15.4	8.1	12.9	9.8	25.1	24.2	19.8	17.8	57.2	20.2	18.8	22.7	16.3	18.7	29.9	22.7	22.2	30.7	19.7	17.5	36.0	14.4	15.2				



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

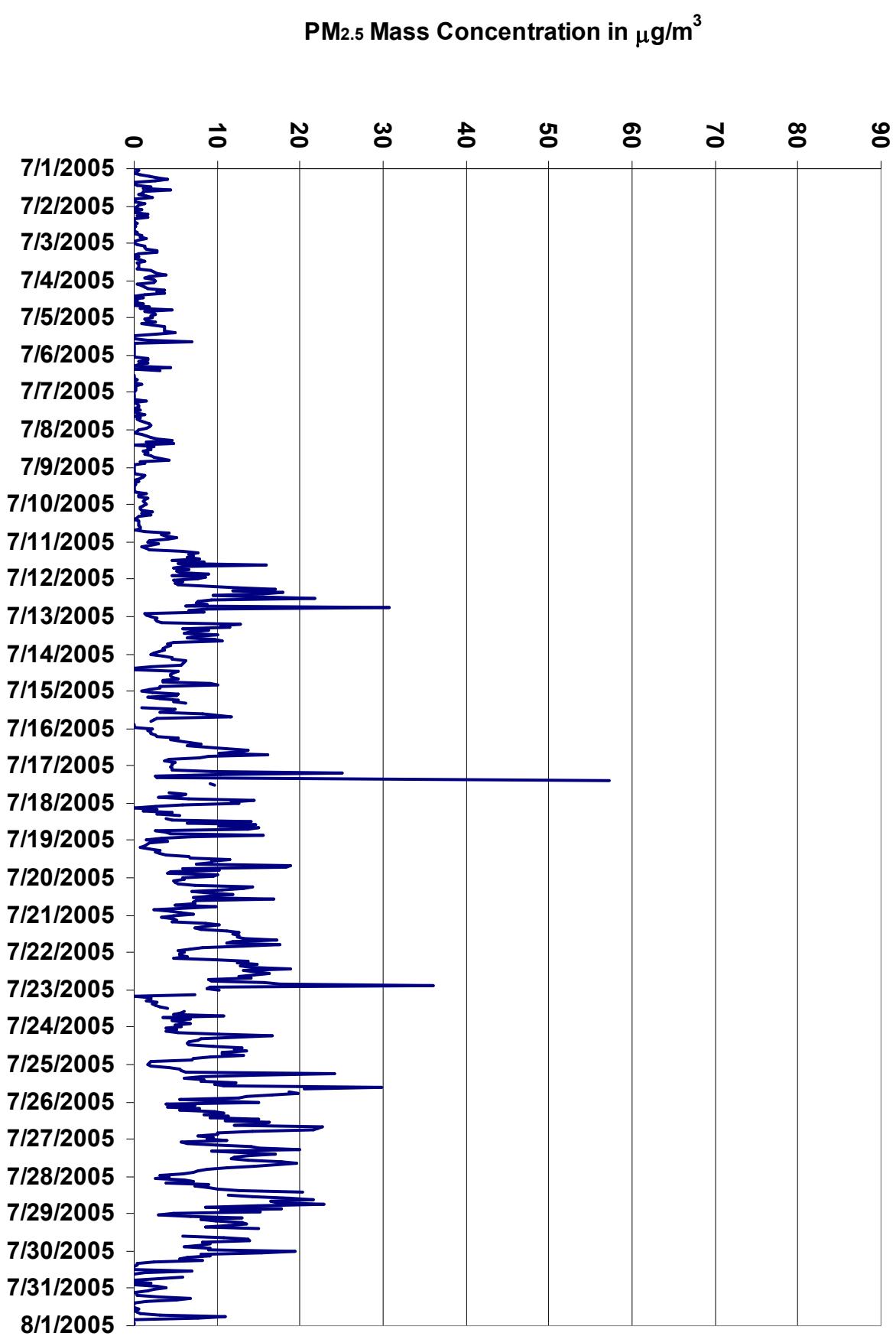
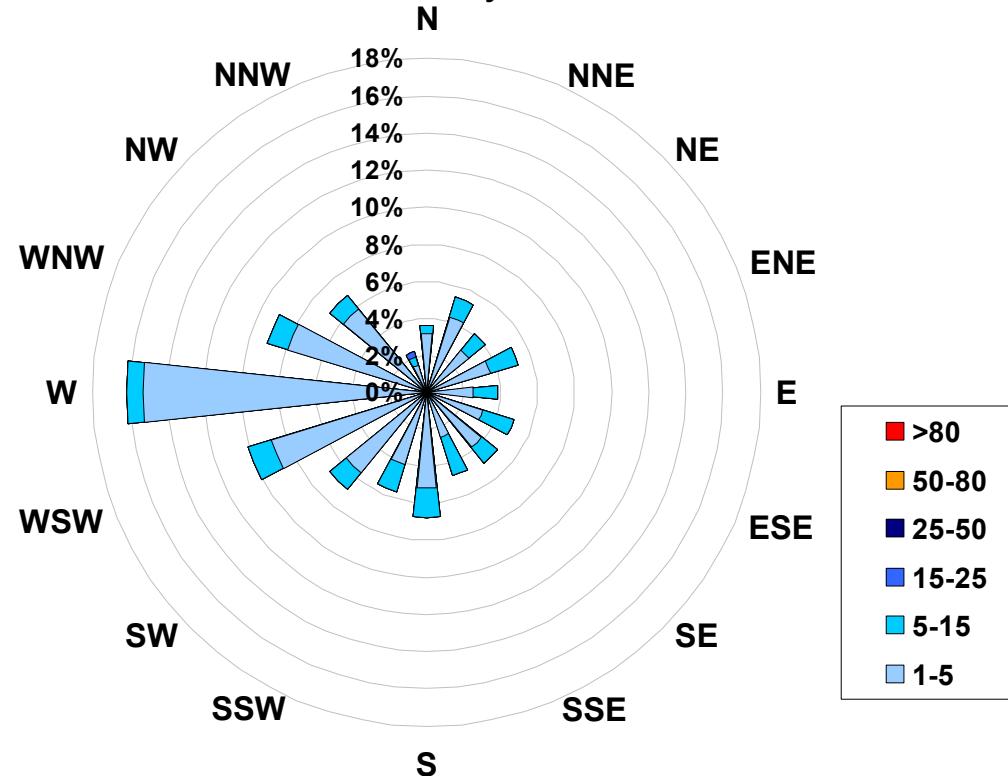


Figure 43. PASZA - Beaverlodge Particulate Matter (less than 2.5 microns) 1-hr Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Particulate Matter (less than 2.5 microns) (in micrograms per cubic meter) Located at the Beaverlodge Site for July 2005**



<b>Calms:</b>	<b>0%</b>
---------------	-----------

Frequency Distribution of PM <sub>2.5</sub> in $\mu\text{g}/\text{m}^3$			
Range		Frequency (hrs)	
1.0	<	5	632
5	to	15	89
15	to	25	1
25	to	50	0
50	to	80	0
> 80		0	
Total Non-Zero Values			723

## PASZA - Beaverlodge Relative Humidity Monthly Summary

Station: Beaverlodge  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### Summary

Maximum 1-hr Average:	97.3	%	27-Jul	5:00 6:00
Maximum 24-hr Value:	87.1	%	16-Jul	

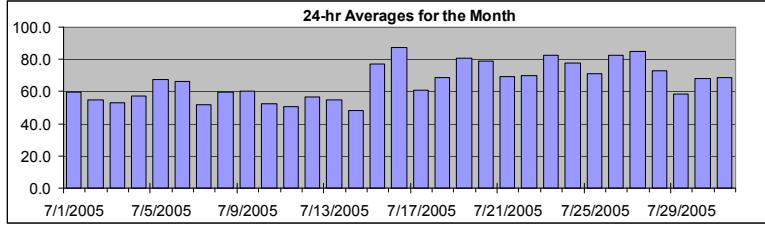
AIC Time:	0 hrs	Operational Time:	744 hrs				
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%				
Percentile			Average				
99	95	75	50	25	5	1	66.2 %
96.8	94.1	82.6	68.0	49.0	36.0	31.3	

### Day Mountain Standard Time

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	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
	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-Jul-05	81	85	89	88	89	85	75	69	60	48	41	39	39	44	50	50	45	44	43	42	47	53	63	69	59.9	89.0
2-Jul-05	69	73	77	73	72	72	73	64	54	48	42	40	39	38	37	36	37	40	41	44	50	58	66	72	54.8	77.0
3-Jul-05	77	77	75	75	77	70	62	56	49	44	42	41	40	38	37	36	35	38	38	42	48	55	56	65	53.0	77.0
4-Jul-05	70	74	71	73	75	76	69	68	62	54	47	46	43	43	40	40	40	40	43	46	48	56	59	64	57.2	76.0
5-Jul-05	71	75	79	78	80	77	81	76	70	59	51	47	44	47	70	69	60	61	64	67	69	76	74	67.3	81.0	
6-Jul-05	75	75	82	86	88	86	82	76	85	90	85	75	63	52	47	41	41	41	45	50	57	61	67	66.3	90.0	
7-Jul-05	67	70	72	72	76	71	61	52	49	48	45	41	39	38	37	35	35	36	37	38	44	55	65	66	52.0	76.0
8-Jul-05	63	65	68	68	72	70	73	68	57	58	44	43	47	47	43	42	47	51	46	50	62	86	85	82	59.9	86.0
9-Jul-05	84	86	84	87	85	79	76	77	70	62	51	53	42	37	36	37	36	40	40	41	48	56	61	71	60.0	87.0
10-Jul-05	75	72	75	77	80	69	66	58	49	42	38	37	36	35	32	31	31	33	40	46	50	55	62	70	52.5	80.0
11-Jul-05	72	74	75	80	80	71	66	61	48	41	38	39	33	32	29	32	33	28	31	37	44	51	50	68	50.5	80.0
12-Jul-05	70	71	80	70	62	59	55	52	52	50	40	30	35	49	52	43	44	46	58	56	63	67	72	77	56.4	79.6
13-Jul-05	77	81	80	79	77	76	68	53	48	45	46	45	41	33	31	33	37	39	40	47	54	60	65	68	55.0	80.9
14-Jul-05	58	54	54	58	60	58	52	46	39	36	34	33	33	33	35	38	39	42	46	48	58	64	70	71	48.3	70.9
15-Jul-05	69	69	81	90	93	94	94	89	86	75	61	54	53	50	52	58	84	84	96	90	83	83	83	77.2	96.0	
16-Jul-05	86	89	92	93	94	93	92	93	93	90	89	87	84	79	68	80	88	86	76	82	89	89	90	89	87.1	94.0
17-Jul-05	96	97	97	97	94	81	77	77	66	60	49	43	42	40	37	33	33	34	37	41	44	50	59	79	61.0	97.0
18-Jul-05	90	89	92	86	77	77	66	60	56	47	46	38	43	43	54	69	84	76	76	67	71	78	78	68.6	91.9	
19-Jul-05	87	90	88	85	82	85	92	92	93	92	91	82	71	67	70	64	63	72	74	69	74	82	81	87	80.5	92.9
20-Jul-05	83	91	92	89	89	90	85	79	77	63	60	56	52	50	61	86	91	85	80	81	84	89	90	93	79.0	93.4
21-Jul-05	94	93	96	96	97	96	86	86	90	79	60	53	47	46	42	39	44	47	49	54	63	69	72	70	69.5	96.8
22-Jul-05	76	77	78	83	84	82	76	71	65	61	60	58	60	60	60	56	53	53	55	59	66	91	96	95	69.8	96.0
23-Jul-05	95	96	94	93	91	91	90	85	82	83	82	78	73	69	69	70	68	70	78	80	83	85	89	90	82.7	96.3
24-Jul-05	93	92	96	96	97	95	89	89	81	75	59	58	61	67	61	61	50	51	63	75	81	87	92	94	77.6	96.9
25-Jul-05	94	96	96	97	95	95	96	94	85	79	80	77	77	78	61	56	68	55	55	70	80	82	80	90	71.0	96.6
26-Jul-05	90	92	94	94	93	95	95	89	72	62	57	51	47	43	38	36	56	68	55	55	70	80	82	80	82.6	95.7
27-Jul-05	95	94	95	96	97	97	94	91	87	80	70	65	64	61	65	69	77	81	87	90	94	96	96	97.3	85.0	97.3
28-Jul-05	97	97	93	88	91	93	88	82	77	69	61	70	63	58	61	54	61	57	56	56	62	71	69	75	72.8	97.3
29-Jul-05	77	84	86	90	90	88	80	80	74	62	55	45	46	36	32	31	32	33	35	38	46	51	54	54	58.3	90.2
30-Jul-05	67	76	80	81	85	83	83	77	72	62	54	43	43	42	58	57	56	56	67	72	78	72	82	81	67.8	84.9
31-Jul-05	82	86	88	88	88	87	86	85	76	67	54	47	43	40	38	39	42	42	48	66	83	89	90	91	68.5	91.0

### HOURLY AVERAGE TABLE

### Relative Humidity (RH)



### 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

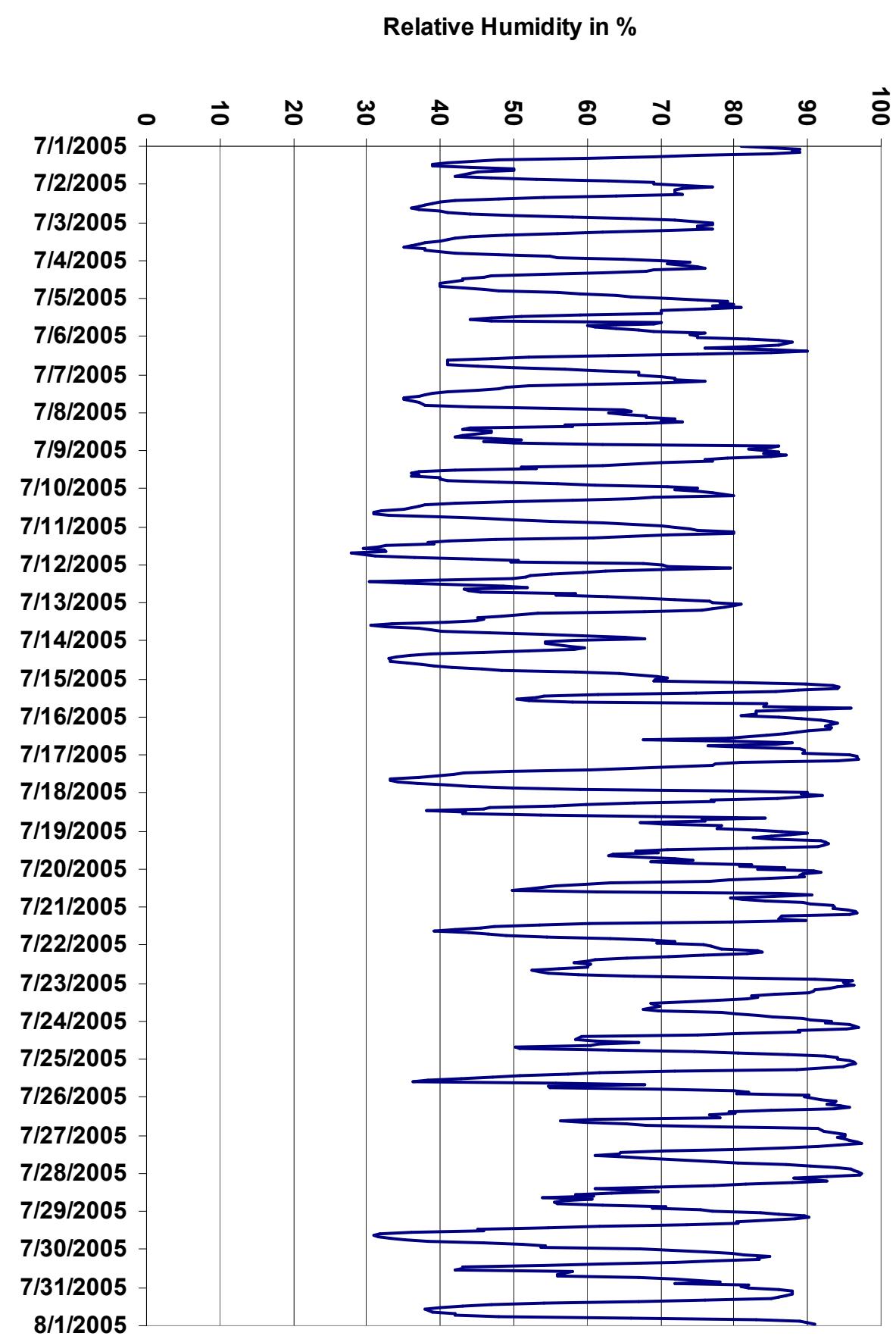


Figure 44. PASZA - Beaverlodge Relative Humidity 1-hr Average Monthly Trend

**PASZA - Beaverlodge Temperature Monthly Summary**

Station: Beaverlodge  
 Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

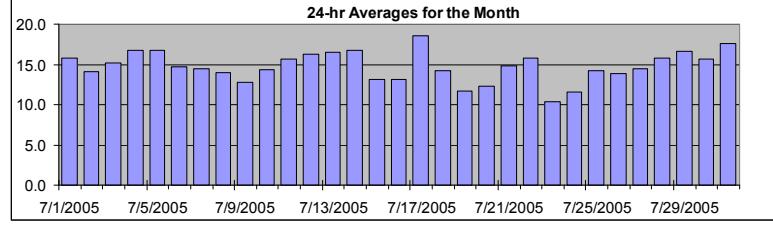
**Summary**

Maximum 1-hr Average:	25.3	°C	17-Jul	15:00 16:00
Maximum 24-hr Value:	18.5	°C	17-Jul	

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	14.8 °C
	23.8	21.5	18.3	14.5	11.2	8.6	6.4		

**Day Mountain Standard Time**

	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	24-hour Average	Daily Maximum
	Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	25:00	26:00	27:00	28:00	29:00	30:00	31:00	24-hour Average	Daily Maximum	
1-Jul-05	12	11	10	10	9	10	12	15	18	20	20	21	21	20	19	19	20	20	20	21	21	18	14	12	11	15.8	21.2	15.8	21.2						
2-Jul-05	10	9	8	9	9	10	10	12	15	16	17	18	19	19	19	19	18	18	18	17	15	13	12	10	14.1	19.4	14.1	19.4							
3-Jul-05	9	9	10	10	9	11	13	14	16	17	18	19	19	20	20	20	20	20	19	18	18	17	15	14	13	15.2	19.6	15.2	19.6						
4-Jul-05	12	11	11	11	10	10	12	13	16	18	20	20	20	21	22	22	22	21	21	21	19	18	16	16	16.7	22.0	16.7	22.0							
5-Jul-05	15	14	13	13	13	14	13	15	17	18	20	21	23	23	22	18	18	19	18	18	18	17	16	14	14	16.8	22.6	16.8	22.6						
6-Jul-05	13	14	13	13	12	13	14	14	13	13	14	15	16	18	18	18	19	19	19	18	17	15	13	12	11	14.7	18.7	14.7	18.7						
7-Jul-05	11	10	9	9	8	10	12	14	15	16	16	18	18	18	19	19	20	19	19	19	18	17	14	11	11	14.5	19.5	14.5	19.5						
8-Jul-05	11	11	10	10	9	10	11	13	15	16	18	18	18	19	19	19	19	18	17	19	19	14	9	9	9	14.0	19.0	14.0	19.0						
9-Jul-05	8	8	7	6	6	7	9	10	11	14	16	15	17	18	18	18	18	18	17	17	16	15	13	12	9	12.7	18.2	12.7	18.2						
10-Jul-05	8	9	8	7	7	9	11	13	16	17	18	18	19	19	21	21	21	19	18	17	15	14	12	10	14.3	20.7	14.3	20.7							
11-Jul-05	9	9	9	7	6	8	10	13	17	19	19	19	21	22	22	21	22	22	22	20	20	17	15	15	11	15.7	22.4	15.7	22.4						
12-Jul-05	10	10	8	9	11	14	16	17	19	19	22	24	22	20	19	21	21	21	21	17	18	15	13	12	12	16.2	23.9	16.2	23.9						
13-Jul-05	11	10	11	11	11	12	14	18	19	20	20	20	21	22	22	21	21	20	19	18	16	14	13	12	16.5	22.2	16.5	22.2							
14-Jul-05	14	15	15	13	13	14	16	17	19	19	20	20	21	20	19	19	19	18	18	17	15	13	12	12	16.7	20.6	16.7	20.6							
15-Jul-05	12	12	11	11	10	11	11	12	13	15	15	16	16	17	17	16	13	13	12	13	13	12	12	11	13.1	17.0	13.1	17.0							
16-Jul-05	10	10	10	10	10	11	11	11	12	13	13	13	14	16	18	16	15	16	18	16	14	13	13	12	13.2	18.1	13.2	18.1							
17-Jul-05	11	10	10	10	10	14	15	15	19	20	22	23	24	25	24	25	25	25	25	24	23	21	19	17	14	18.5	25.3	18.5	25.3						
18-Jul-05	13	13	13	13	14	13	14	16	17	18	18	19	18	19	17	14	11	12	12	12	15	13	10	10	14.2	19.2	14.2	19.2							
19-Jul-05	8	8	9	9	9	9	9	9	9	10	10	12	15	16	15	16	16	15	14	15	14	12	11	10	11.6	15.8	11.6	15.8							
20-Jul-05	10	9	9	9	9	9	10	12	14	16	17	18	19	19	15	10	11	12	12	12	12	11	10	9	12.2	18.7	12.2	18.7							
21-Jul-05	10	10	9	8	8	8	11	11	11	14	17	19	20	20	20	21	20	20	19	19	17	16	14	14	14.8	21.4	14.8	21.4							
22-Jul-05	13	13	12	11	11	13	15	17	18	19	20	20	20	19	19	19	19	19	19	18	17	17	14	13	13	15.8	19.9	15.8	19.9						
23-Jul-05	13	10	10	10	9	9	10	10	10	10	10	11	12	12	12	13	12	11	10	10	9	9	7	10.4	12.8	10.4	12.8								
24-Jul-05	7	6	5	4	5	6	8	9	11	13	16	16	16	15	16	17	19	18	14	13	13	11	10	9	11.5	19.1	11.5	19.1							
25-Jul-05	9	8	7	7	7	8	9	14	16	17	18	20	20	21	22	18	16	18	16	18	16	13	13	12	12	14.2	21.9	14.2	21.9						
26-Jul-05	12	11	11	10	10	10	11	13	14	15	16	16	16	15	18	19	18	18	18	18	16	13	13	12	12	13.8	19.4	13.8	19.4						
27-Jul-05	11	12	12	11	9	9	11	13	14	15	17	18	18	19	19	18	17	17	16	15	15	15	14	13	14.4	19.2	14.4	19.2							
28-Jul-05	13	12	12	12	10	10	11	13	15	18	21	17	18	19	20	21	20	21	20	20	17	15	15	13	15.8	21.0	15.8	21.0							
29-Jul-05	13	11	11	10	9	9	12	13	15	17	19	21	21	22	23	23	22	22	21	20	18	16	15	14	14	16.6	22.8	16.6	22.8						
30-Jul-05	13	12	12	12	11	11	11	13	15	17	19	21	21	22	23	23	22	22	21	20	18	16	15	14	14	15.7	21.7	15.7	21.7						
31-Jul-05	14	14	13	13	13	13	13	14	17	19	21	22	23	23	24	24	23	23	21	19	17	15	14	14	14	17.6	24.0	17.6	24.0						

**HOURLY AVERAGE TABLE****Ambient Temperature (T)****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

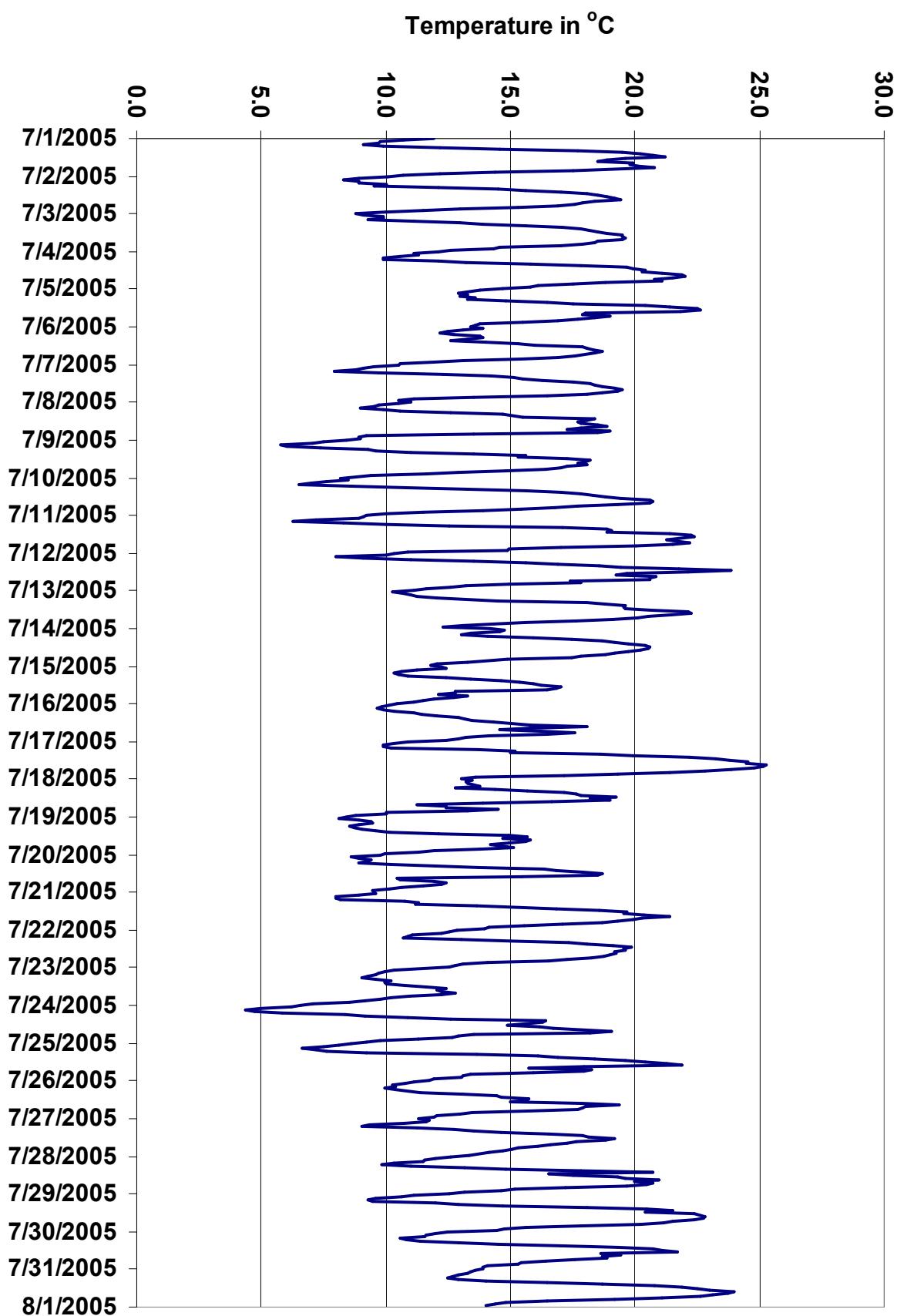


Figure 45. PASZA - Beaverlodge Temperature 1-hr Average Monthly Trend

## PASZA - Beaverlodge Scalar Wind Speed Monthly Summary

Station: Beaverlodge  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

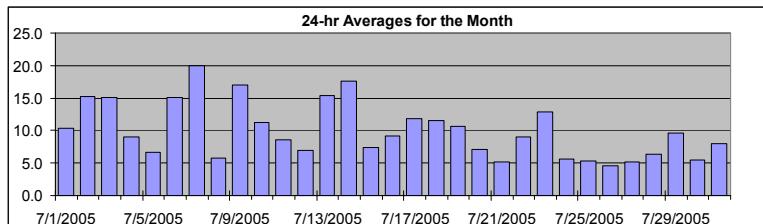
### Summary

Maximum 1-hr Average:	32.0	km/hr	9-Jul	14:00 15:00
Maximum 24-hr Value:	19.9	km/hr	7-Jul	

Calm Time:	1 hrs	0% calms	Operational Time:	743 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageS
	29.7	24.3	14.2	7.5	4.5	2.5	1.8	10.0 km/hr

### HOURLY AVERAGE TABLE

### Wind Speed (WSs)



### 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 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	6:00 7:00	7:00 8:00	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-Jul-05	7	5	4	3	3	2	3	3	5	11	14	14	14	18	23	21	18	14	10	11	14	11	11	9	10.4	23.4
2-Jul-05	8	10	3	6	6	5	8	11	17	20	20	20	21	21	22	24	25	23	23	22	18	15	11	7	15.2	25.2
3-Jul-05	4	5	6	7	6	7	11	18	22	23	25	22	22	23	20	23	23	24	23	14	9	10	7	6	15.0	24.9
4-Jul-05	4	5	5	3	4	3	3	5	8	12	14	15	14	15	19	15	13	13	13	8	6	8	6	5	9.0	19.4
5-Jul-05	3	4	2	3	3	2	4	2	4	4	4	6	12	17	14	12	9	14	14	8	6	4	4	4	6.6	16.6
6-Jul-05	4	3	2	4	8	5	3	5	9	8	11	17	20	20	26	30	30	27	30	27	25	20	16	14	15.1	30.1
7-Jul-05	14	9	7	8	3	11	22	27	28	31	31	31	30	29	29	26	26	26	27	25	16	13	7	5	19.9	31.3
8-Jul-05	6	5	3	3	3	2	3	6	3	5	6	6	6	7	4	3	4	6	5	8	24	10	6	6	5.8	24.3
9-Jul-05	7	6	8	5	7	3	6	12	15	18	22	23	26	29	32	27	29	28	26	22	16	17	15	7	16.9	32.0
10-Jul-05	6	6	7	8	8	3	9	10	13	17	20	17	17	17	18	15	16	19	13	7	6	6	9	6	11.3	19.9
11-Jul-05	3	7	8	4	5	4	6	6	15	14	14	14	16	9	15	14	8	14	10	6	3	4	6	2	8.6	16.3
12-Jul-05	calm	4	5	3	4	2	3	4	2	6	4	5	13	18	14	11	11	11	7	5	9	8	5	5	6.9	18.5
13-Jul-05	6	3	3	2	2	2	4	11	18	21	23	22	22	23	29	26	28	24	24	18	17	16	15	13	15.4	29.0
14-Jul-05	17	18	17	14	9	6	16	20	22	22	23	26	25	27	24	23	24	23	20	13	9	10	6	7	17.6	26.8
15-Jul-05	6	5	4	2	3	4	5	5	8	9	12	13	13	10	10	11	12	12	3	4	8	5	5	6	7.4	13.4
16-Jul-05	6	7	6	5	4	5	9	11	11	13	14	15	15	15	16	16	6	6	11	8	7	6	7	5	9.2	15.5
17-Jul-05	3	3	2	2	3	2	4	4	7	8	17	18	16	18	17	19	20	23	21	18	15	13	19	9	11.8	23.2
18-Jul-05	5	7	8	9	9	8	8	14	13	18	16	22	17	12	16	15	13	15	11	9	9	8	7	7	11.5	21.6
19-Jul-05	6	7	10	13	15	17	16	16	17	17	14	13	11	11	8	10	8	13	6	8	5	6	4	3	10.6	17.3
20-Jul-05	2	3	3	3	4	4	2	4	5	8	11	12	13	12	15	16	15	13	4	4	5	5	4	4	7.1	15.6
21-Jul-05	4	4	3	5	5	3	2	4	3	2	3	4	4	4	6	5	8	10	11	9	6	6	7	6	5.2	11.3
22-Jul-05	3	3	6	6	8	5	3	4	3	9	12	12	13	14	13	12	11	11	13	12	13	10	9	10	9.0	14.0
23-Jul-05	10	18	17	15	14	14	12	15	16	16	17	16	17	18	17	16	12	11	10	7	5	4	4	5	12.8	17.9
24-Jul-05	6	5	3	2	4	3	4	5	5	5	4	6	5	9	10	9	4	7	17	8	4	7	2	2	5.6	16.9
25-Jul-05	2	2	2	2	3	1	2	2	4	7	7	8	9	9	7	14	8	5	4	6	7	5	8	5	5.3	13.7
26-Jul-05	4	3	3	4	6	4	4	4	4	3	5	7	9	7	4	4	7	3	4	7	3	3	4	3	4.5	8.7
27-Jul-05	4	4	3	2	4	3	2	6	6	6	6	7	8	9	12	8	4	5	5	7	6	4	4	3	5.2	12.0
28-Jul-05	2	3	6	7	3	4	2	3	5	6	7	10	18	15	11	10	7	5	9	7	5	2	4	4	6.4	17.5
29-Jul-05	4	3	2	4	4	4	4	3	5	6	6	13	12	19	24	24	24	19	16	14	8	8	5	2	9.6	24.2
30-Jul-05	3	5	3	5	5	4	5	8	8	5	5	10	8	4	8	6	9	6	5	5	4	4	4	4	5.5	10.2
31-Jul-05	6	6	5	3	5	5	2	5	4	8	11	15	19	17	13	13	10	9	6	5	7	8	5	6	8.0	18.5

1-hr Average	5.5	5.8	5.3	5.2	5.4	4.8	6.0	8.0	9.8	11.5	12.8	14.2	14.9	15.3	16.0	15.3	14.3	14.1	13.1	10.6	9.5	8.3	7.2	5.8
Hourly Max	16.6	18.2	17.3	15.0	15.0	17.3	22.1	26.5	28.1	30.6	30.6	31.3	30.3	29.3	32.0	30.0	30.0	28.2	30.1	26.5	24.5	20.4	18.8	13.6

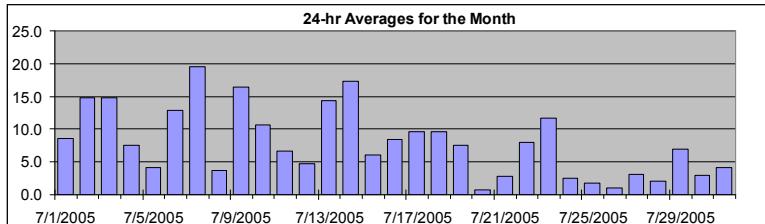
## PASZA - Beaverlodge Vector Wind Speed Monthly Summary

Station: Beaverlodge  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY AVERAGE TABLE

### Wind Speed (WSv)



#### Summary

Maximum 1-hr Average:	32.0	km/hr	9-Jul	14:00 15:00
Maximum 24-hr Value:	19.6	km/hr	7-Jul	

Calm Time:	6 hrs	1% calms	Operational Time:	738 hrs
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%
Percentile				AverageV
99 95 75 50 25 5 1				42.3 km/hr

#### Day Mountain Standard Time

	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	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	
	Hour End	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	0:00		
1-Jul-05	7	5	4	3	3	2	3	3	5	11	14	14	14	18	23	21	18	14	10	11	14	11	11	9	8.6	23.4	
2-Jul-05	8	10	3	6	6	5	8	11	17	20	20	20	21	21	22	24	25	23	23	22	18	15	11	7	14.8	25.2	
3-Jul-05	4	5	6	7	6	7	11	18	22	23	25	22	22	23	20	23	23	24	23	14	9	10	7	6	14.8	24.9	
4-Jul-05	4	5	5	3	4	3	3	5	8	12	14	15	14	15	19	15	13	13	13	8	6	8	6	5	7.6	19.4	
5-Jul-05	3	4	2	3	3	2	4	2	4	4	4	6	12	17	14	12	9	14	14	8	6	4	4	4	4.2	16.6	
6-Jul-05	4	3	2	4	8	5	3	5	9	8	11	17	20	20	26	30	30	27	30	27	25	20	16	14	12.9	30.1	
7-Jul-05	14	9	7	8	3	11	22	27	28	31	31	31	30	29	29	26	26	26	27	25	16	13	7	5	19.6	31.3	
8-Jul-05	6	5	3	3	3	2	3	6	3	5	6	6	6	7	4	3	4	6	5	8	24	10	6	6	3.7	24.3	
9-Jul-05	7	6	8	5	7	3	6	12	15	18	22	23	26	29	32	27	29	28	26	22	16	17	15	7	16.4	32.0	
10-Jul-05	6	6	7	8	8	3	9	10	13	17	20	17	17	17	18	15	16	19	19	13	7	6	6	9	10.6	19.9	
11-Jul-05	3	7	8	4	5	4	5	5	15	13	14	13	16	4	14	11	7	13	10	6	3	4	5	1	6.7	15.7	
12-Jul-05	calm	3	2	3	4	calm	1	3	2	5	1	2	11	18	14	11	11	11	11	6	5	9	8	4	4	4.7	18.3
13-Jul-05	5	2	3	2	2	2	4	10	17	21	22	22	21	22	29	26	28	24	24	18	17	16	15	13	14.4	28.5	
14-Jul-05	17	18	17	14	9	5	16	20	21	22	23	25	24	26	24	23	24	23	20	13	9	10	6	7	17.3	26.4	
15-Jul-05	6	5	4	2	3	4	5	5	8	8	12	13	12	10	9	9	8	12	3	4	8	5	5	6	6.1	13.3	
16-Jul-05	6	7	6	5	4	5	9	11	10	13	14	15	15	14	15	15	15	5	5	11	8	7	6	7	8.4	15.4	
17-Jul-05	3	3	2	2	3	2	4	4	7	8	16	18	16	17	16	19	20	23	21	18	15	13	17	8	9.6	23.2	
18-Jul-05	4	7	8	9	8	7	8	14	13	18	16	21	15	12	15	15	11	13	11	8	9	8	7	6	9.6	21.5	
19-Jul-05	6	7	10	13	15	13	16	16	17	17	14	13	10	11	7	9	4	12	6	8	5	5	3	2	7.5	17.0	
20-Jul-05	1	1	3	3	4	3	3	calm	3	4	7	11	12	12	10	15	15	13	4	4	5	4	4	2	0.7	15.4	
21-Jul-05	3	4	2	3	5	1	2	4	2	1	2	2	1	2	4	3	8	9	11	9	6	6	6	6	2.9	11.2	
22-Jul-05	3	3	6	5	8	4	1	2	3	9	12	12	13	14	13	12	11	11	13	12	12	10	9	9	8.0	13.7	
23-Jul-05	7	18	16	15	14	14	12	15	16	16	17	16	17	18	17	16	12	10	10	7	5	4	4	5	11.7	17.6	
24-Jul-05	5	4	2	1	4	3	3	5	5	4	2	5	3	7	9	7	3	6	17	8	3	7	1	2	2.5	16.5	
25-Jul-05	2	2	1	1	calm	calm	calm	1	3	7	6	8	9	9	7	14	8	5	4	4	7	5	8	5	1.7	13.7	
26-Jul-05	4	3	3	4	6	4	4	4	4	3	5	7	9	7	4	4	7	2	4	7	3	3	4	3	1.0	8.7	
27-Jul-05	4	4	3	2	4	3	2	6	6	6	6	7	8	9	8	8	4	5	5	7	6	4	4	3	3.1	8.9	
28-Jul-05	2	3	6	7	3	4	2	3	5	6	7	10	18	15	11	10	7	5	8	6	5	2	4	4	2.1	17.5	
29-Jul-05	4	3	2	4	4	4	4	3	5	6	6	13	12	19	24	24	19	16	14	8	8	5	2	6.9	24.2		
30-Jul-05	3	5	3	5	5	4	5	8	8	5	5	10	8	4	8	6	9	6	5	5	4	4	4	4	3.0	10.2	
31-Jul-05	6	6	5	3	5	5	2	5	4	8	11	15	19	17	13	13	10	9	6	5	7	8	5	6	4.2	18.5	

1-hr Vector	2.5	2.2	2.3	2.2	1.1	0.9	3.0	4.8	7.5	8.4	9.3	10.8	11.2	11.6	12.3	11.3	10.4	10.6	8.9	6.3	6.5	6.0	4.2	2.4
Hourly Max	16.5	18.2	17.2	14.8	14.9	13.8	22.1	26.5	28.1	30.6	30.6	31.3	30.3	29.3	32.0	30.0	30.0	28.2	30.1	26.5	24.5	20.4	17.1	13.6

## PASZA - Beaverlodge Wind Direction Monthly Summary

Station: Beaverlodge  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY AVERAGE TABLE

### Wind Direction (WD)

#### Summary

|--|--|--|--|--|--|--|--|--|--|--|--|

Calm Time:	0 hrs						0% calms	Operational Time:						744 hrs																	
Calibration Time:	0 hrs												AMD Operational Uptime: 100.0%																		
Percentile	99	95	75	50	25	5	1	Average												351.1 322.4 276.6			254.0 159.9 32.7			9.1			273 deg		

#### Status Flag Characters

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

Day	Mountain Standard Time																									24-hour Average	WD Sector
	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	
1-Jul-05	254	229	115	90	145	111	183	191	249	278	296	302	289	251	237	237	238	225	223	229	262	268	260	259	250	WSW	
2-Jul-05	259	259	258	254	244	209	237	253	265	263	269	276	272	283	284	282	279	273	268	263	261	261	257	236	267	W	
3-Jul-05	232	258	261	274	260	249	264	279	277	276	273	278	266	266	273	267	272	271	277	286	284	297	307	249	273	W	
4-Jul-05	230	172	196	138	170	144	212	191	199	249	268	281	264	262	276	265	268	260	278	291	283	262	264	257	257	WSW	
5-Jul-05	299	31	149	344	93	124	178	127	209	200	175	203	255	270	274	283	289	271	254	259	246	200	89	81	256	WSW	
6-Jul-05	111	77	121	107	345	22	29	18	270	274	244	251	257	268	268	263	258	264	265	264	263	257	260	263	265	W	
7-Jul-05	253	260	276	235	199	237	258	265	266	264	270	268	271	270	272	276	274	260	259	261	258	256	247	223	264	W	
8-Jul-05	226	218	204	205	118	187	43	350	302	183	20	254	239	292	307	281	184	223	182	175	256	238	276	245	243	WSW	
9-Jul-05	204	220	250	228	235	199	246	237	253	261	267	285	274	265	269	264	263	266	268	264	262	259	254	261	261	W	
10-Jul-05	240	226	231	245	241	209	240	256	272	285	296	287	288	283	276	287	278	270	273	297	302	290	262	271	273	W	
11-Jul-05	222	245	246	164	143	157	151	194	256	267	267	242	261	318	274	278	307	257	260	257	243	314	339	151	259	W	
12-Jul-05	73	90	75	79	64	171	234	238	220	219	43	279	225	259	268	277	274	264	296	289	282	273	249	261	263	W	
13-Jul-05	262	151	125	168	109	160	213	271	277	290	280	280	284	283	277	283	271	274	264	256	258	261	265	266	272	W	
14-Jul-05	272	275	278	282	276	226	267	266	279	281	275	275	274	267	266	271	274	286	280	286	299	301	301	276	W		
15-Jul-05	321	304	237	229	187	172	190	153	189	249	273	268	274	274	252	218	251	261	259	203	267	259	253	254	251	WSW	
16-Jul-05	250	254	260	246	250	267	295	298	302	323	325	324	316	323	326	328	344	297	321	310	306	324	322	298	309	NW	
17-Jul-05	76	86	98	135	101	140	210	209	247	264	276	282	267	259	278	264	261	265	262	260	257	264	319	8	269	W	
18-Jul-05	267	236	256	271	322	329	313	290	292	289	290	286	315	341	24	16	354	305	296	302	281	279	307	301	305	NW	
19-Jul-05	292	297	288	289	294	308	0	0	0	0	359	326	316	295	293	263	235	213	218	225	252	302	317	41	310	NW	
20-Jul-05	11	205	61	56	40	43	167	185	129	125	134	115	108	110	207	243	323	307	351	11	356	315	305	12	100	E	
21-Jul-05	19	39	323	278	45	345	271	257	233	133	179	171	133	129	171	125	122	115	111	97	102	110	94	69	110	ESE	
22-Jul-05	59	48	30	26	24	11	68	25	246	59	64	85	75	72	61	69	58	46	50	38	23	342	18	35	48	NE	
23-Jul-05	345	313	339	315	321	320	317	315	311	311	313	317	327	324	331	333	353	17	32	26	28	15	26	19	332	NNW	
24-Jul-05	4	21	249	76	74	109	160	193	222	234	313	48	130	188	225	190	183	255	275	246	190	235	213	116	221	SW	
25-Jul-05	86	90	114	51	356	179	119	248	301	308	285	271	310	323	334	319	47	118	158	163	140	71	32	295	334	NNW	
26-Jul-05	338	44	227	96	62	198	215	98	175	136	166	159	195	263	269	283	226	129	91	96	28	353	39	351	161	SSE	
27-Jul-05	13	40	65	277	321	83	105	152	169	169	170	176	164	152	34	97	69	78	114	128	134	133	171	116	122	ESE	
28-Jul-05	104	240	261	261	146	81	108	182	213	230	248	297	256	237	223	160	57	51	60	82	323	154	269	85	232	SW	
29-Jul-05	98	126	121	77	90	90	156	160	189	215	255	282	269	272	281	277	281	286	288	301	311	1	268	277	W		
30-Jul-05	197	172	197	204	234	234	220	229	246	253	228	275	301	305	213	185	277	294	300	12	51	52	83	154	246	WSW	
31-Jul-05	125	125	122	189	102	110	195	202	230	238	259	275	254	260	264	267	288	309	358	156	216	299	6	49	258	WSW	

Hourly Avg 271 261 263 265 308 252 254 263 265 273 278 278 273 274 274 274 277 272 273 266 270 277 293 286

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

Station: Beaverlodge  
Station Owner: PASZA

Monitoring Dates: July 1, 2005 to August 1, 2005

### HOURLY AVERAGE TABLE

### Wind Direction (WD)

#### Summary

|--|--|--|--|--|--|--|--|

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	744 hrs
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%
Percentile	99	95	75	50
	56.0	34.3	14.0	9.2
	25	5	1	4.6
	5.0	3.0	2.0	1.0
	3.0	2.0	1.0	0.0
	1.0	0.0	0.0	0.0

#### Status Flag Characters

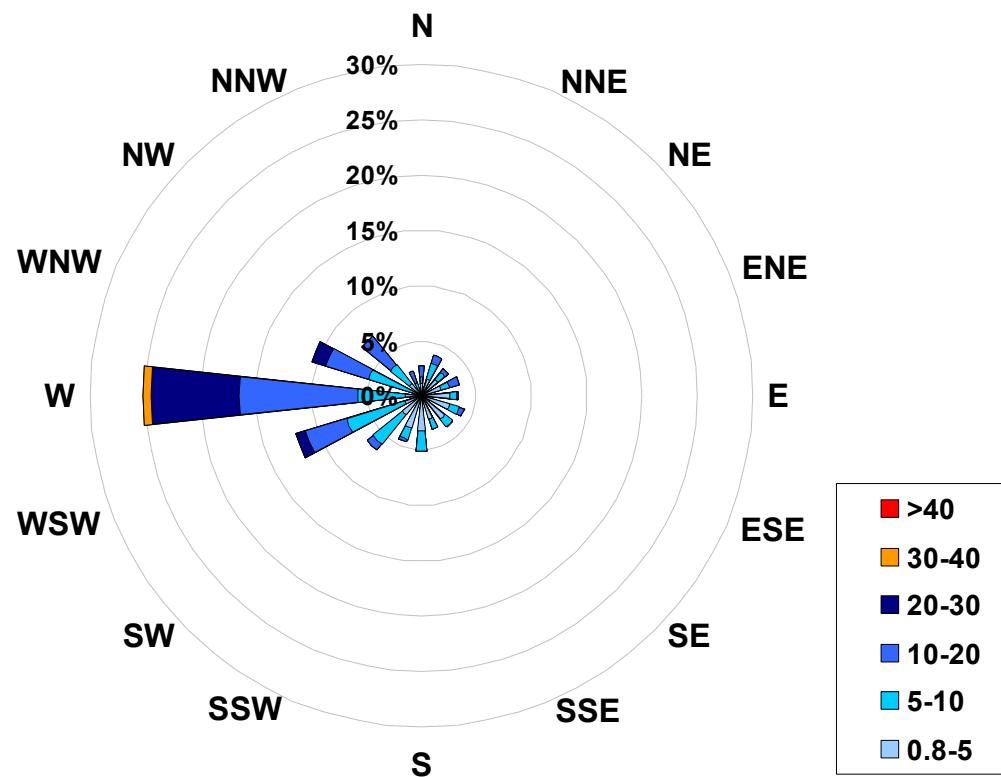
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

#### Day Mountain Standard Time

	Hour Start 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-Jul-05	5	3	6	7	9	9	8	15	16	10	10	10	10	8	8	8	7	7	8	8	7	3	5	16.0	
2-Jul-05	2	2	14	16	5	11	7	9	9	9	9	9	9	10	10	9	9	9	8	8	8	8	9	16.0	
3-Jul-05	19	10	11	9	8	9	10	9	9	9	9	9	9	10	9	9	9	9	8	9	8	7	10	19.0	
4-Jul-05	5	12	9	5	9	10	11	9	11	9	10	10	10	10	9	10	10	9	8	8	5	6	3	12.0	
5-Jul-05	8	8	11	6	8	21	11	11	12	13	22	21	14	9	9	8	10	9	8	7	3	4	8	22.0	
6-Jul-05	6	6	7	6	9	8	14	10	8	10	8	9	8	9	9	8	9	9	8	8	8	8	8	14.0	
7-Jul-05	8	9	8	6	9	9	9	9	9	9	9	9	9	9	9	9	9	9	8	8	8	7	16	11	
8-Jul-05	6	4	3	5	10	15	7	12	12	17	17	13	11	9	12	18	14	9	14	9	9	9	9	18.0	
9-Jul-05	16	14	8	13	6	11	8	8	8	9	9	10	10	9	9	9	9	9	9	9	8	8	7	16.0	
10-Jul-05	7	12	5	5	4	22	8	9	10	11	10	11	10	12	10	11	11	9	9	8	6	7	4	13	
11-Jul-05	17	10	7	16	14	9	18	18	10	17	12	14	16	58	15	24	15	13	9	12	14	19	10	28	
12-Jul-05	16	22	31	23	9	28	50	26	41	25	38	54	40	10	9	12	12	13	15	13	8	8	17	45	
13-Jul-05	35	31	17	22	19	16	20	13	11	10	9	9	10	11	8	10	9	9	8	8	8	8	8	34.6	
14-Jul-05	8	8	8	7	9	22	18	10	11	10	11	13	13	12	11	12	9	8	8	8	9	7	10	21.8	
15-Jul-05	8	7	10	34	17	20	15	15	15	23	12	10	12	13	15	12	22	8	9	9	7	5	6	33.6	
16-Jul-05	6	5	4	5	6	7	5	5	6	5	5	5	5	5	9	8	7	8	12	5	5	4	4	17	
17-Jul-05	20	16	15	13	11	17	13	12	14	10	9	7	12	8	11	12	7	4	5	4	4	5	11	18.9	
18-Jul-05	39	11	13	5	22	7	11	5	7	9	8	7	13	14	13	7	16	15	6	10	5	3	7	38.9	
19-Jul-05	7	5	4	4	4	32	0	0	0	0	5	6	11	12	49	18	32	8	11	9	11	10	13	26	
20-Jul-05	34	17	14	18	18	39	41	29	21	17	11	14	13	13	17	10	8	5	23	18	8	6	25	44.2	
21-Jul-05	40	14	28	41	13	42	32	13	32	51	40	58	50	59	61	53	21	16	7	7	5	3	6	61.2	
22-Jul-05	23	11	6	22	6	62	62	45	39	18	13	10	11	9	7	9	6	5	4	4	5	11	8	62.4	
23-Jul-05	16	7	17	5	5	6	6	6	7	6	5	6	9	6	10	12	13	8	10	11	10	9	5	16.9	
24-Jul-05	7	31	33	29	6	8	12	14	25	34	53	26	28	22	20	18	40	33	8	10	25	10	45	52.6	
25-Jul-05	18	24	40	60	44	53	57	32	23	17	25	17	15	17	20	14	9	15	7	45	8	8	11	59.6	
26-Jul-05	7	9	7	5	9	9	16	13	13	19	12	12	10	13	19	29	13	34	24	14	15	9	8	34.4	
27-Jul-05	15	5	4	10	8	7	7	10	9	10	13	13	9	10	44	14	8	7	9	9	8	4	6	43.6	
28-Jul-05	9	13	5	5	19	8	15	10	10	14	21	12	9	9	9	11	12	12	15	10	13	4	17	21.0	
29-Jul-05	11	12	15	14	8	13	14	11	18	19	14	12	9	10	10	9	10	9	9	8	7	7	12	10	
30-Jul-05	13	9	11	6	13	18	9	8	8	15	17	12	20	15	9	10	8	9	5	10	4	3	6	20.0	
31-Jul-05	8	8	9	8	6	11	11	9	14	12	10	10	9	9	11	9	9	10	15	18	7	7	8	18.0	

Hourly Max	40	31	40	60	44	62	62	45	41	51	53	58	50	59	61	53	40	34	24	45	25	19	45	45
------------	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

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



Calms: 0%

Frequency Distribution of Wind in km/hr		
Range	Frequency (hrs)	
0.8 < 5	229	
5 to 10	225	
10 to 20	208	
20 to 30	75	
30 to 40	6	
> 40	0	
Total Non-Zero Values	743	

## PEACE AIRSHED ZONE ASSOCIATION

# PASZA Monthly Passive Data Summary

**Table 1. PASZA Passive Stations for July 2005**

PASZA					Site Legal
Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	
<b>Duplicates</b>					
43a	High Prairie	0.1	20.3	1.1	
43b	High Prairie	0.1	26.0	0.9	
44a	Peavine	N/A	19.8	0.4	
44b	Peavine	0.3	18.1	0.5	
45a	Gift Lake	0.2	16.5	0.6	
45b	Gift Lake	N/A	20.9	0.7	
49a	Grande Prairie HP	0.2	27.9	4.4	
49b	Grande Prairie HP	0.2	24.5	4.7	

1	Silver Valley	0.2	22.9	1.6	08-27-081-11 W6M
2	Bay Tree	0.1	20.8	0.6	13-16-078-13 W6M
3	Forth Creek	0.1	23.5	0.8	04-13-082-07 W6M
4	Gordondale	0.2	23.4	1.1	04-34-078-10 W6M
5	Boone Creek	0.1	15.0	0.7	01-23-076-11 W6M
7	Steeprock Creek	0.2	22.1	0.6	09-35-072-13 W6M
9	Spirit River	0.2	21.2	1.2	08-12-079-07 W6M
10	Woking	0.3	21.9	1.1	01-13-076-07 W6M
11	Webber Creek	0.2	24.6	1.3	09-36-074-09 W6M
12	Hythe	0.4	24.6	1.1	14-36-072-11 W6M
14	Sylvester	0.1	18.1	0.3	08-06-069-12 W6M
16	Beaverlodge	0.1	26.1	1.9	15-36-071-10 W6M
17	Poplar	0.3	23.7	1.0	13-06-073-08 W6M
18	Saddle Hills	0.2	21.6	0.9	04-25-074-07 W6M

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

PASZA					
Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
19	Wanham	0.3	26.6	0.7	16-22-077-03 W6M
20	Shaftesbury	0.1	18.7	0.8	04-03-082-23 W5M
21	Eaglesham	0.2	18.8	0.9	16-21-079-25 W5M
23	Bear Lake	0.1	22.7	1.3	15-31-072-06 W6M
24	Wembley	0.2	16.8	1.4	12-31-070-08 W6M
25	Pinto Creek	0.1	20.9	0.6	04-24-069-11 W6M
26	Flyingshot	0.2	19.9	1.2	15-36-070-07 W6M
27	Grande Prairie I	0.2	23.9	3.2	08-15-071-06 W6M
28	Clairmont Lake	0.2	22.1	1.3	09-06-073-04 W6M
29	Smoky Heights	0.3	28.5	1.2	04-06-075-02 W6M
30	Fitzsimmons	0.2	21.6	1.3	15-36-072-03 W6M
32	Gold Creek	0.4	16.4	0.9	06-33-067-05 W6M
33	Wapiti	0.2	26.3	1.2	02-25-071-03 W6M
34	Puskwaskau	0.0	19.4	0.1	15-35-074-25 W5M
35	Jean Cote	1.0	19.8	1.3	12-35-079-21 W5M
36	Guy	0.1	21.4	0.8	03-04-076-22 W5M
37	Crooked Creek	0.2	22.2	1.0	16-01-071-26 W5M
38	Karr Creek	Sample could not be collected due to accident and road closure			10-16-065-02 W6M
39	Clouston Creek	0.2	27.1	0.8	12-01-073-22 W5M
40	McLennan	0.2	21.1	1.8	03-29-077-19 W5M
41	Valleyview	0.2	26.8	0.7	09-30-069-22 W5M
42	Sunset House	0.1	24.9	0.6	05-32-070-19 W5M
43	High Prairie	0.1	23.2	1.0	16-13-074-17 W5M
44	Peavine	0.1	18.9	0.4	03-05-079-15 W5M
45	Gift Lake	0.1	18.7	0.7	10-07-079-12 W5M
46	Little Smoky	0.1	17.8	1.2	12-01-065-21 W5M
47	Kinuso	0.1	17.2	0.4	12-10-073-10 W5M
48	Deer Mountain	0.1	19.1	0.6	15-22-068-09 W5M
49	Grande Prairie HP	0.2	26.2	4.5	17-26-071-06 W6M

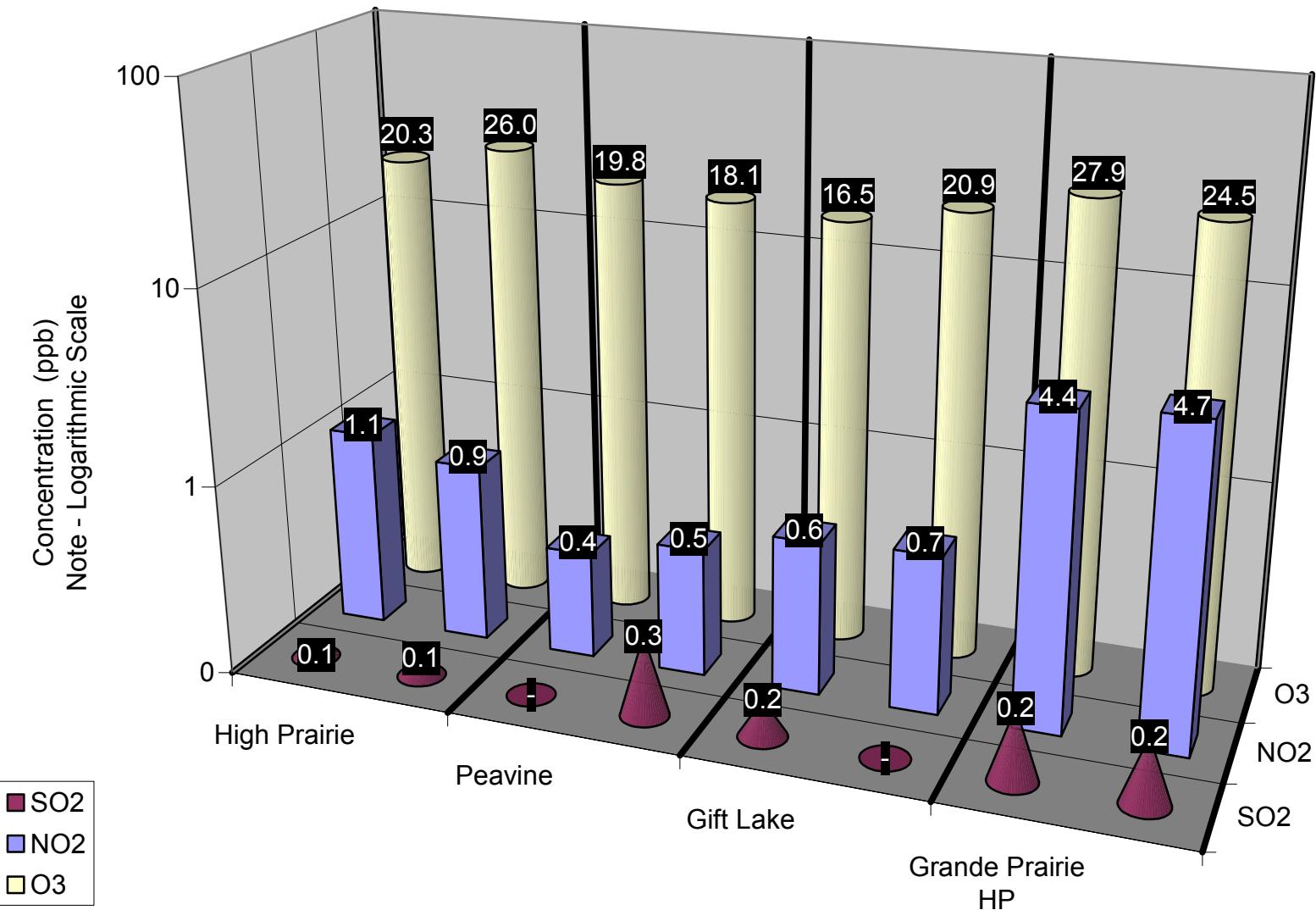


Figure 46. Duplicate Summary Chart

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

Stats	Sulphur Dioxide SO <sub>2</sub>	Ozone O <sub>3</sub>	Nitrogen Dioxide NO <sub>2</sub>
	ppb	ppb	ppb
Passive Summary for July 2005 (PASZA Zone)			
Mean	0.2	21.8	1.1
Standard Deviation	0.1	3.3	0.8
Minimum	0.0	15.0	0.1
	Puskwaskau (#34)	Boone Creek (#5)	Puskwaskau (#34)
Maximum	1.0	28.5	4.5
	Jean Cote (#35)	Smoky Heights (#29)	Grande Prairie HP (#49)

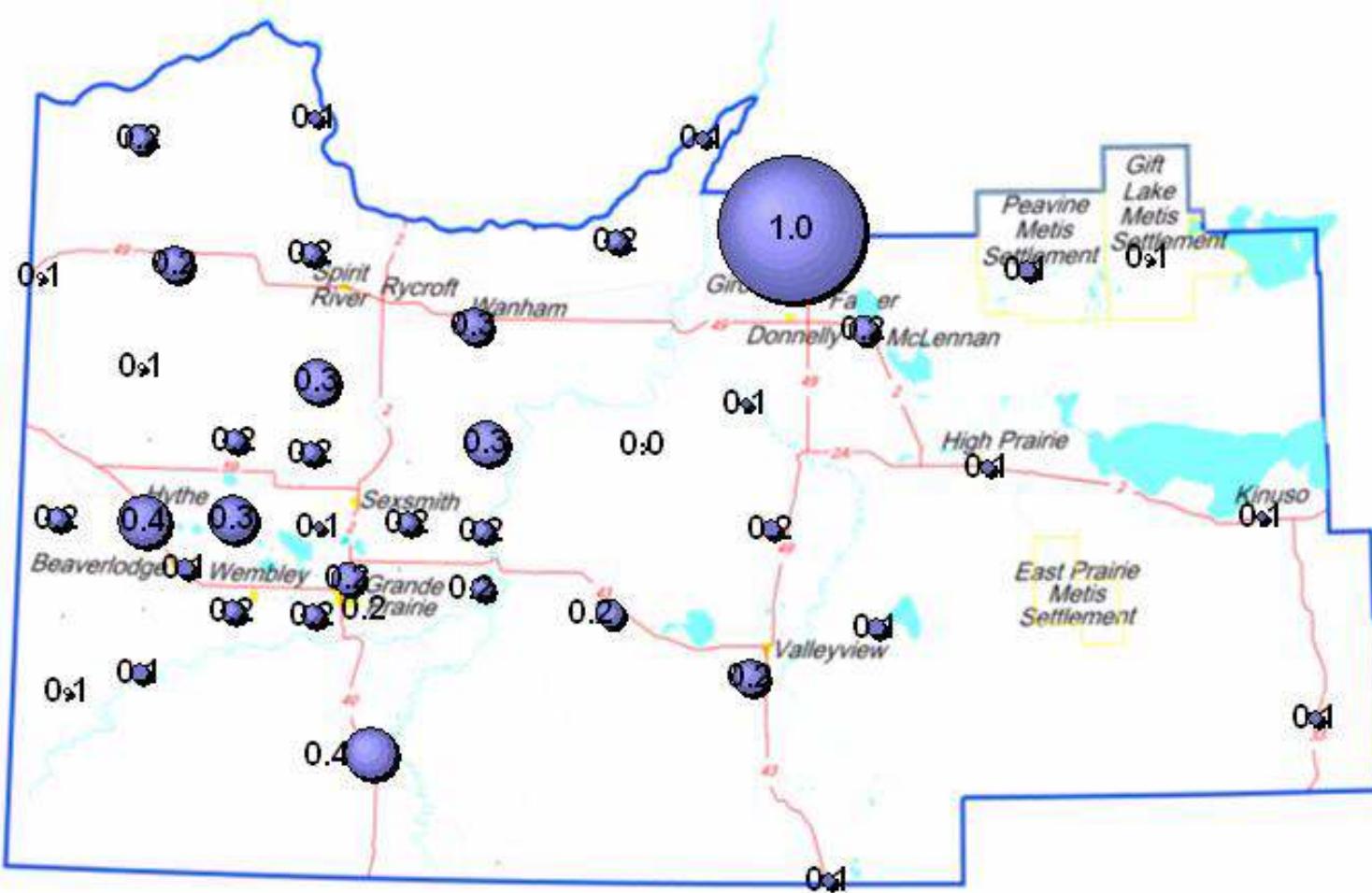
**Comparison between Continuous and Passive monitoring at Beaverlodge (passive #16 Beaverlodge)**

	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
AENV Beaverlodge station	0.1	24.6	2.3
PASZA Beaverlodge passive	0.1	26.1	1.9

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

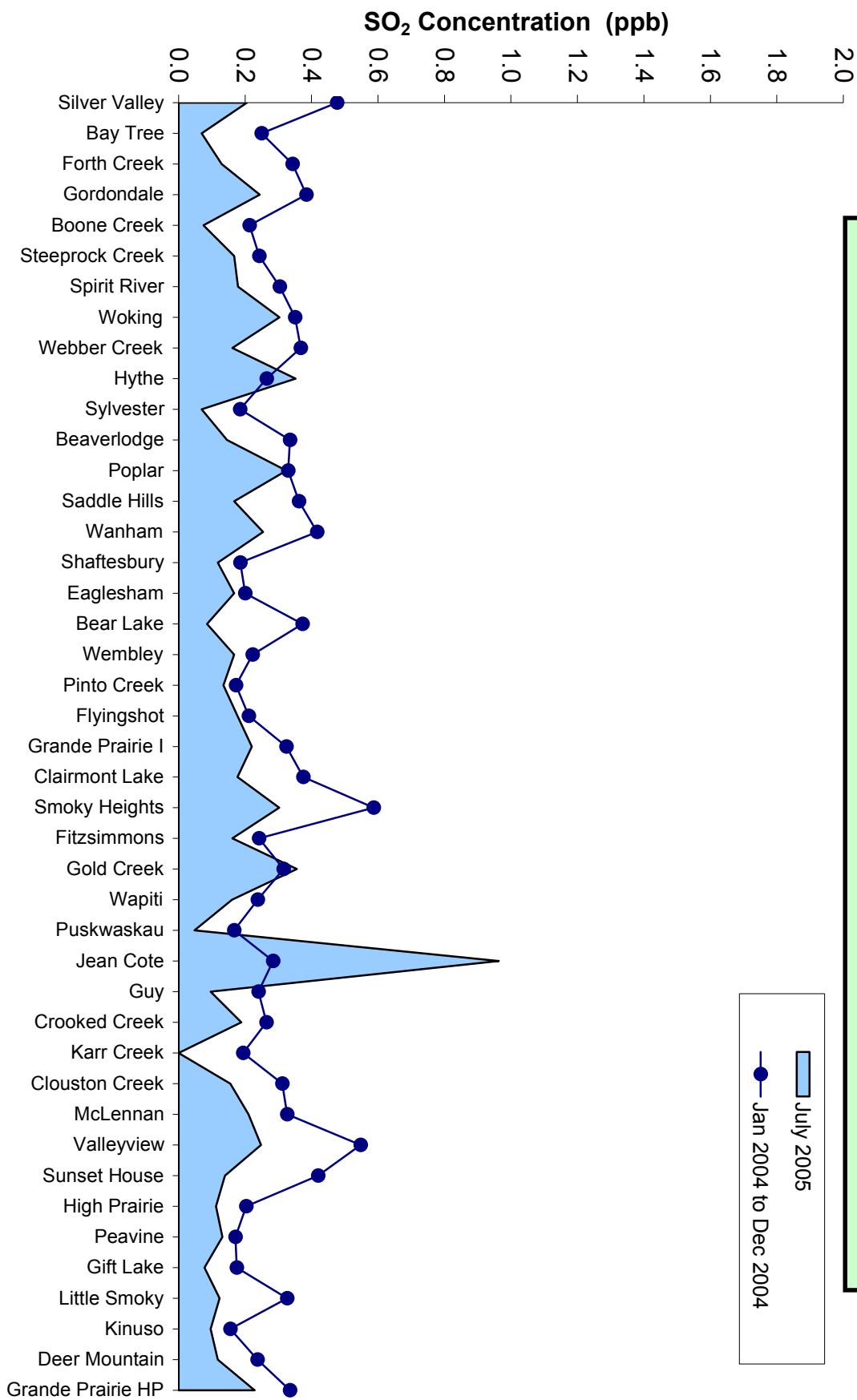
	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
PASZA Henry Pirker station	0.3	18.7	5.6
PASZA Grande Prairie passive	0.2	26.2	4.5

**PASZA Passive SO<sub>2</sub> Stations - July 2005**  
**Average Concentrations in ppb**



**Figure 34. SO<sub>2</sub> Bubble Chart**

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



**Figure 35. SO<sub>2</sub> Summary Chart**

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

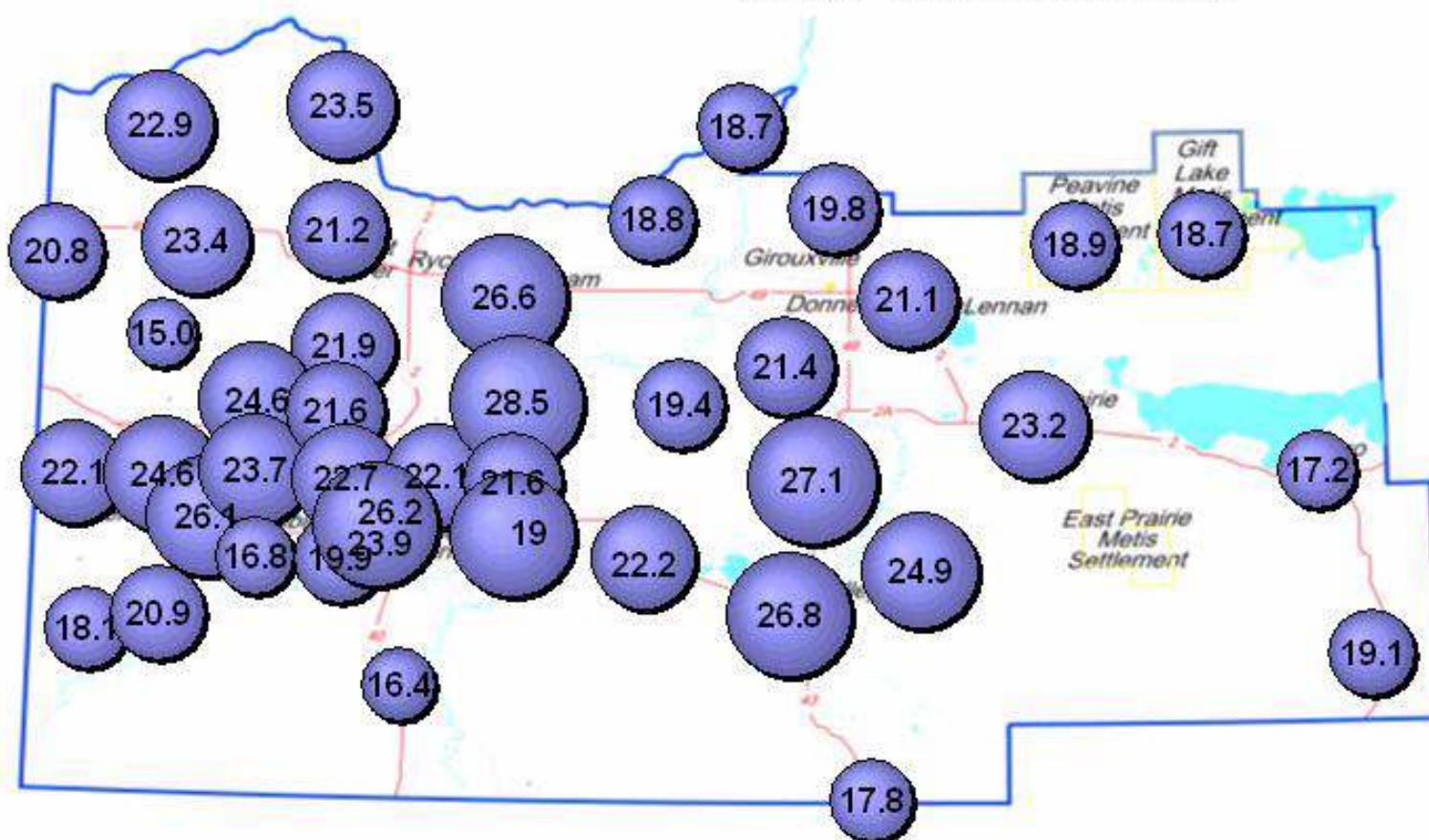
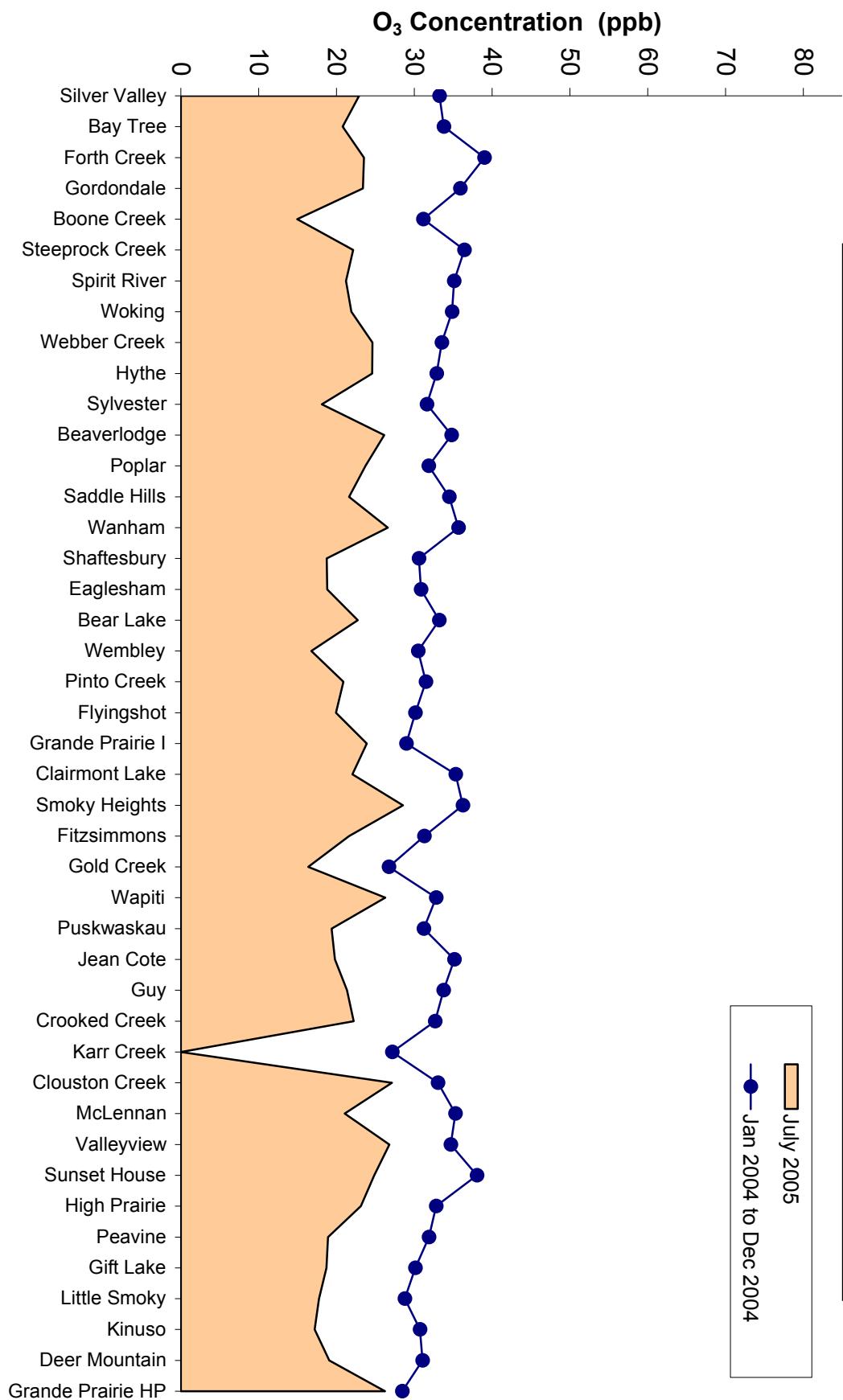


Figure 36. O<sub>3</sub> Bubble Chart

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



**Figure 37. O<sub>3</sub> Summary Chart**

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

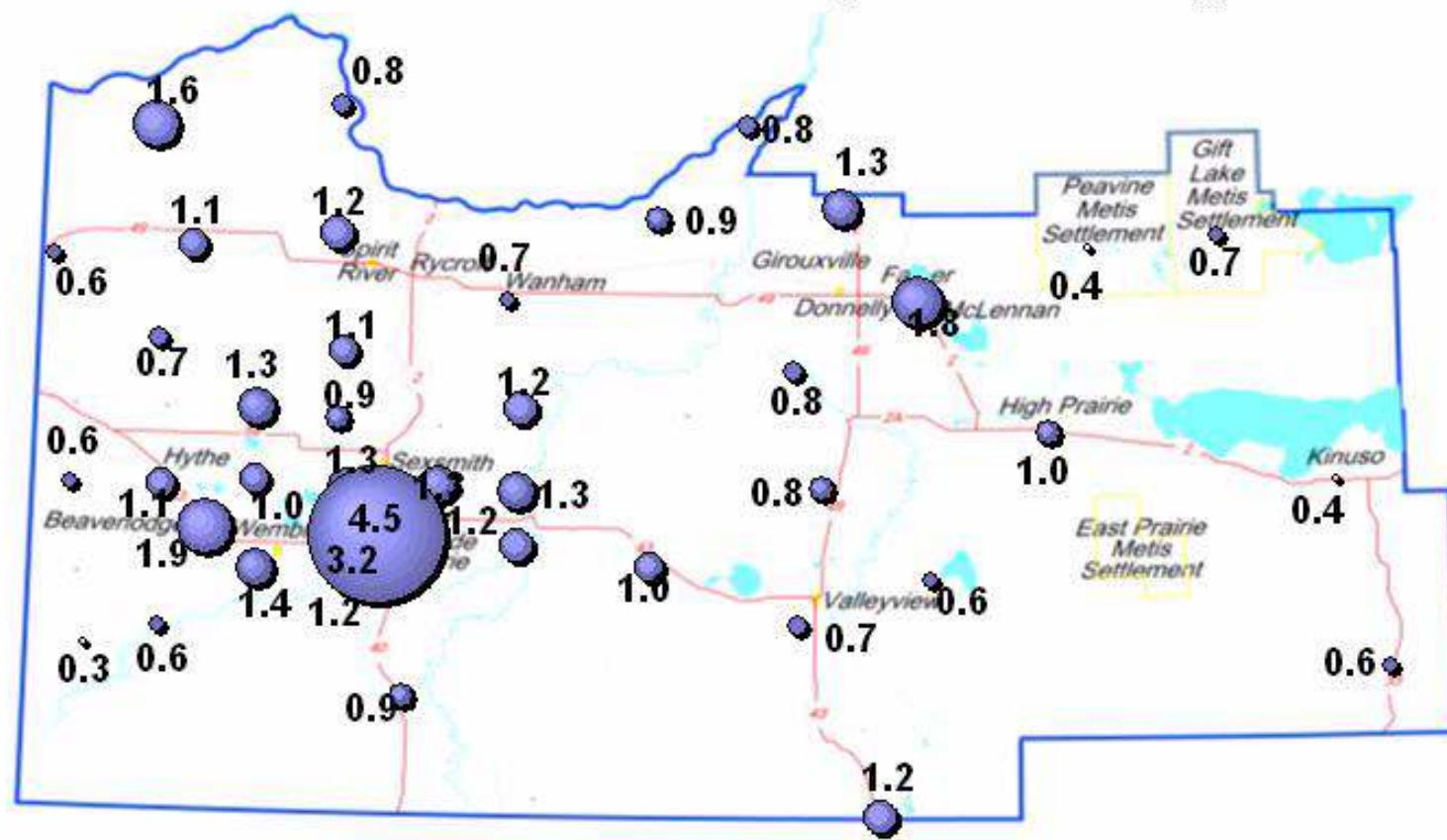
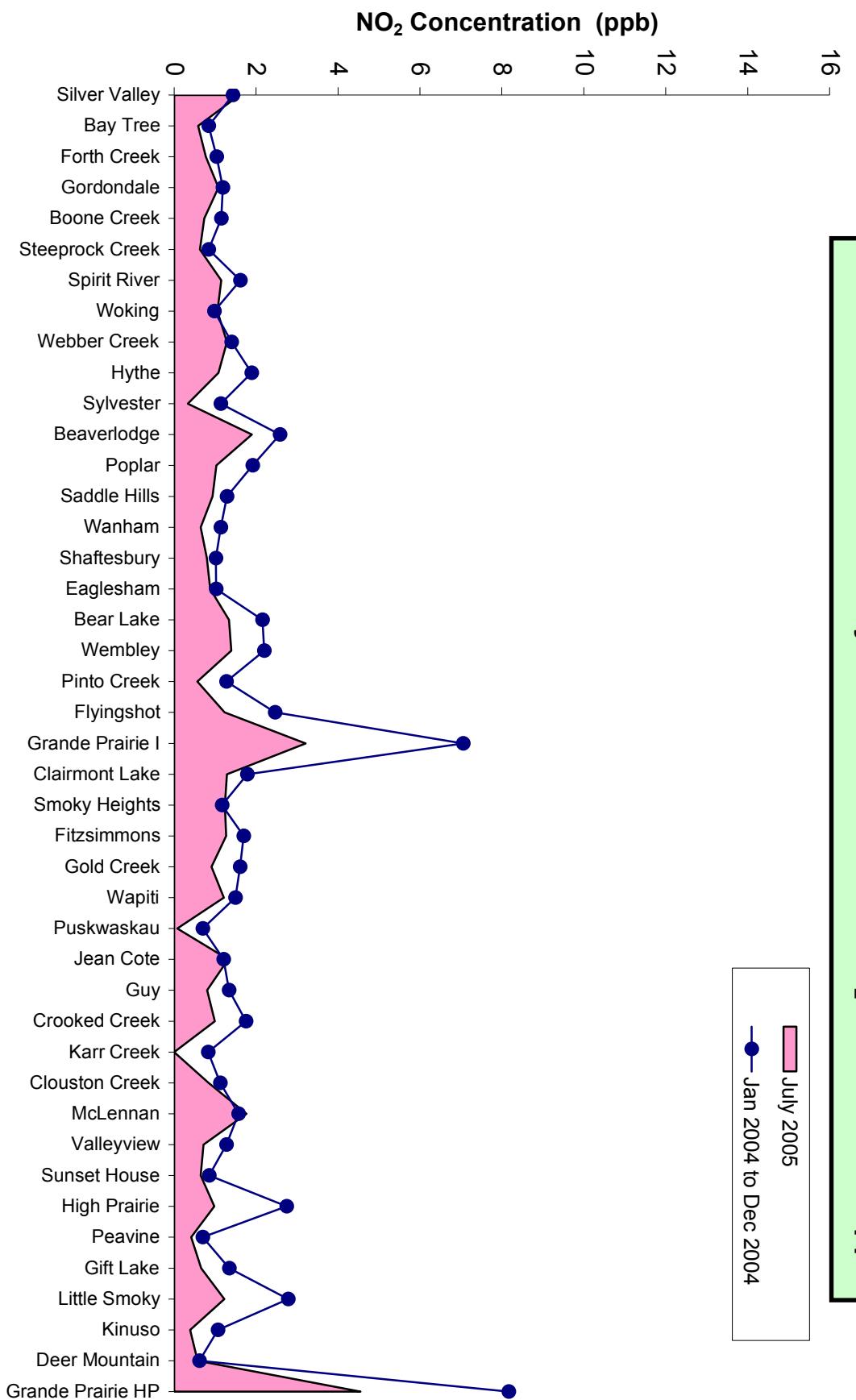
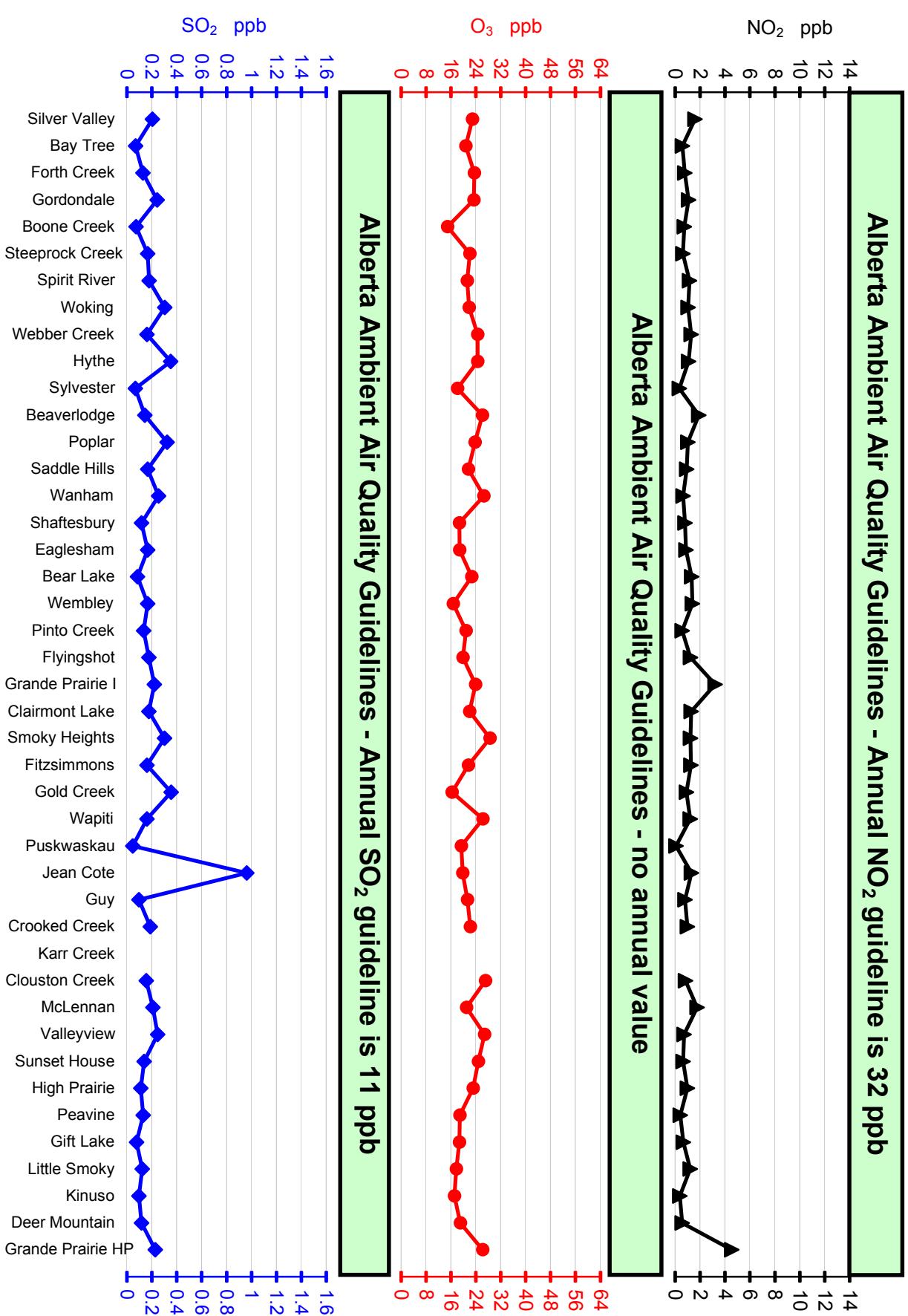


Figure 38. NO<sub>2</sub> Bubble Chart



**Figure 39. NO<sub>2</sub> Summary Chart**



**Figure 40. Overview Summary**

## **July 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 SO2  
 Air Monitoring Network PASZA



### Station Information

Calibration Date	July 14, 2005	Previous Calibration	June 7, 2005
Station Number	1	Station Location	Muskoseepi Park
Reason:	Routine	Install	Removal
Start Time (MST)	7:48	End Time (MST)	11:20
Barometric Pressure	27.7 inches Hg	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Concentration	50.8 ppm	Cal Gas Expiry Date	11/22/2006
Gas Cert Reference	BAL786	DACS serial No.	1
DACS make	Focus AP1000	DACS channel #	8
DACS voltage range	0 - 10 volt		
Calculated slope	Before 0.988588	Calculated slope	After 0.998044
Calculated intercept	0.037218	Calculated intercept	-0.237090
Analyzer make	TEI Model 43A	Analyzer serial #	43A-21120-195
Concentration range	before 0 - 500	after ppb	0 - 500 ppb
SO2 zero pot	171		187
SO2 span pot	350		163
UV Lamp voltage	932	V	935
Sample Flow	425	ccm	430
Vacuum	19.3	" Hg	18.5 " Hg

### Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (lc)	Correction factor (Cc/lc)
4993	0.00	0.0	-0.3	N/A
4993	39.97	403.4	404.1	0.9983
4993	19.98	202.5	203.6	0.9945
4993	9.99	101.4	102.2	0.9923
4993	0.00	0.0	-0.3	As found zero
4993	39.99	403.6	439.5	As found span
		Average Correction Factor		0.9950

Calculated value of As Found Response: 434.8 ppm Percent Change of As Found: -7.7%

Auto zero	before calibration		after calibration	
	-0.6	ppm	-2.5	ppm
	359.0	ppm	302.8	ppm

Notes: Zero and Span Adjustment made.

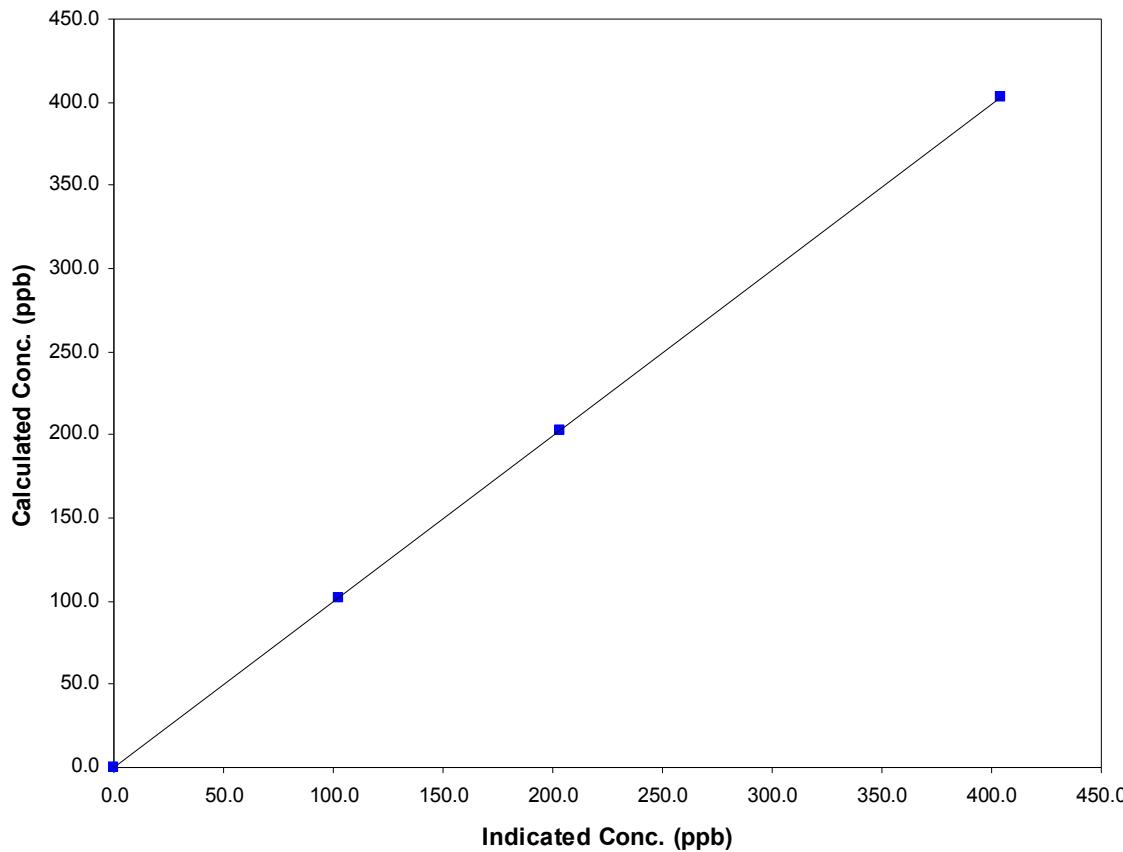
Calibration Performed By: Dawn Ewan

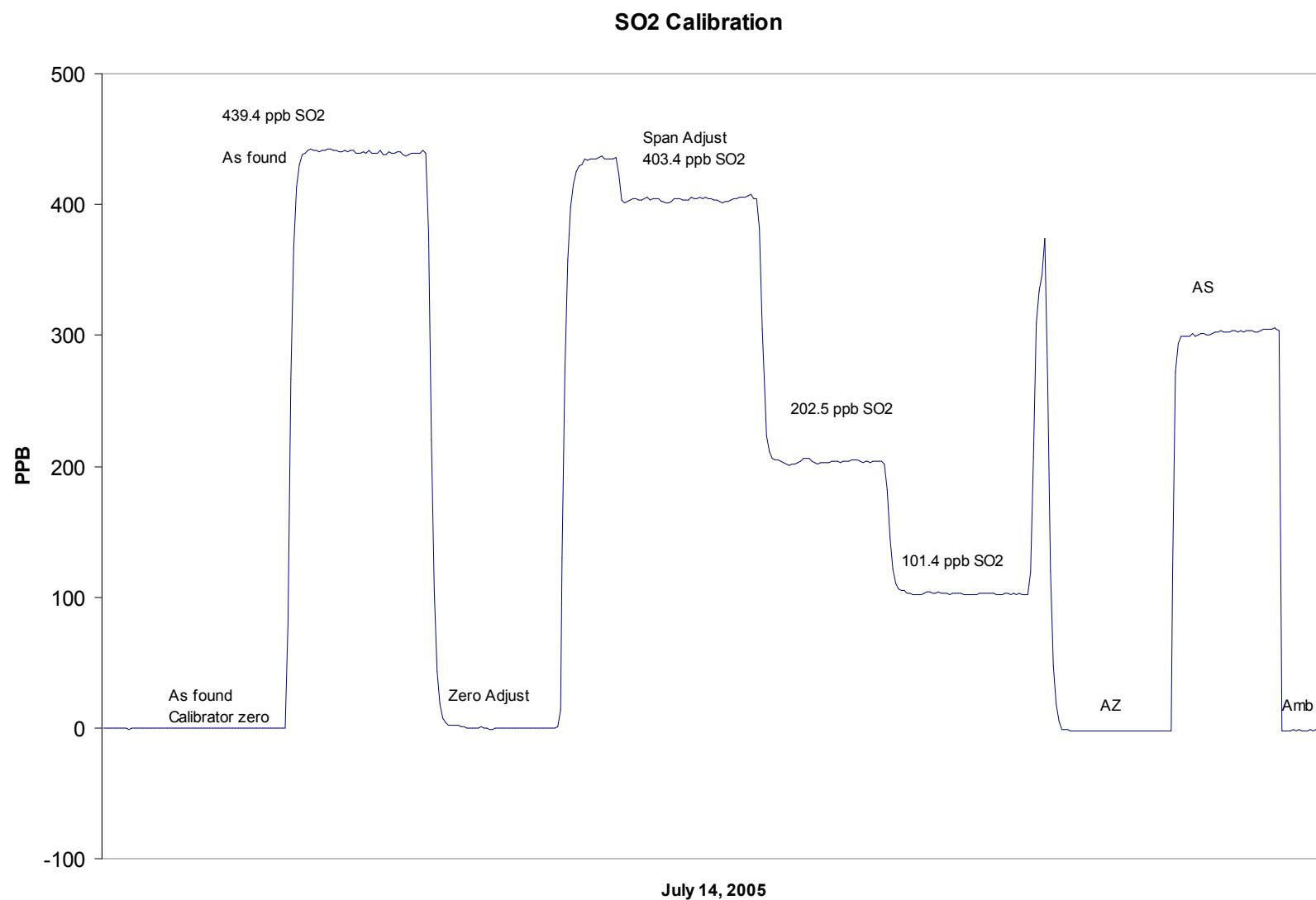
**Calibration Summary**Parameter SO2Air Monitoring Network PASZA**Station Information**

Calibration Date	July 14, 2005	Previous Calibration	June 7, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	7:48	End Time (MST)	11:20
Analyzer make/model	TEI Model 43A	Analyzer serial #	43A-21120-195

**Calibration Data**

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (lc)	Correction factor (Cc/lc)	Statistical Evaluation	
0.0	-0.3	N/A	Correlation Coefficient	0.999992
403.4	404.1	0.9983		
202.5	203.6	0.9945		
101.4	102.2	0.9923		
			Slope	0.998044
			Intercept	-0.237090

**SO2 Calibration Curve**



# Calibration Report

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



## Station Information

Calibration Date	July 14, 2005			Previous Calibration	June 7, 2005
Station Number	1			Station Location	Muskoseepi Park
Reason:	Routine	Installation	Removal	Other:	Install Span/zero Board and Ribbon Cable
Start Time (MST)	7:48			End Time (MST)	13:10
Barometric Pressure	0.927	Atm		Station Temperature	20.0 Deg C
Calibrator	Environics 6100			Serial Number	3474
NO Cal Gas Conc	50.3	ppm		Cal Gas Expiry Date	22-Nov-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	1.001403	1.002140	1.000219
	Data Offset	0.199782	0.075497	0.099497
After	Data Slope	1.024118	1.003082	0.999353
	Data Offset	-1.724540	-1.104197	-2.411468
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	6.3	ppb	7.8	mV
NOx background	6.5	ppb	8.2	mV
NO coefficient	1.058		0.939	
NOx coefficient	1.002		1.002	
Chamber Temp	49.9	Deg C	49.6	Deg C
Cooler Temp	-2.4	Deg C	-2.4	Deg C
Converter Temp	318.0	Deg C	318.0	Deg C
Vacuum	214.9	mm Hg	199.2	mm Hg

Notes: Zero and Span Adjustment made.

## Calibration Report

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



### Station Information

Calibration Date: July 14, 2005 Station Location: Muskoseepi Park

### Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	
zero	4993	0.00	0.0	0.0	0.0	0.0	0.1	0.0	N/A	N/A	
1	4993	39.97	401.1	399.5	1.6	400.3	399.2	1.1	1.0019	1.0006	
2	4993	19.98	201.3	200.5	0.8	202.6	208.9	0.5	0.9936	0.9598	
3	4993	9.99	100.8	100.4	0.4	102.5	102.3	0.2	0.9833	0.9815	
AFZ	4993	0.00	0.0	0.0	0.0	1.3	0.5	0.7	0.0000	0.0000	
AFS	4993	39.97	401.1	399.5	1.6	452.0	450.7	1.3	0.8873	0.8863	
						Average Correction Factor		0.9930	0.9806		

As Found Concentrations: NO<sub>x</sub>= 450.8 NO= 450.3 As Found Percent Change NO<sub>x</sub>= 12.4% NO= 12.7%

### GPT Calibration Data

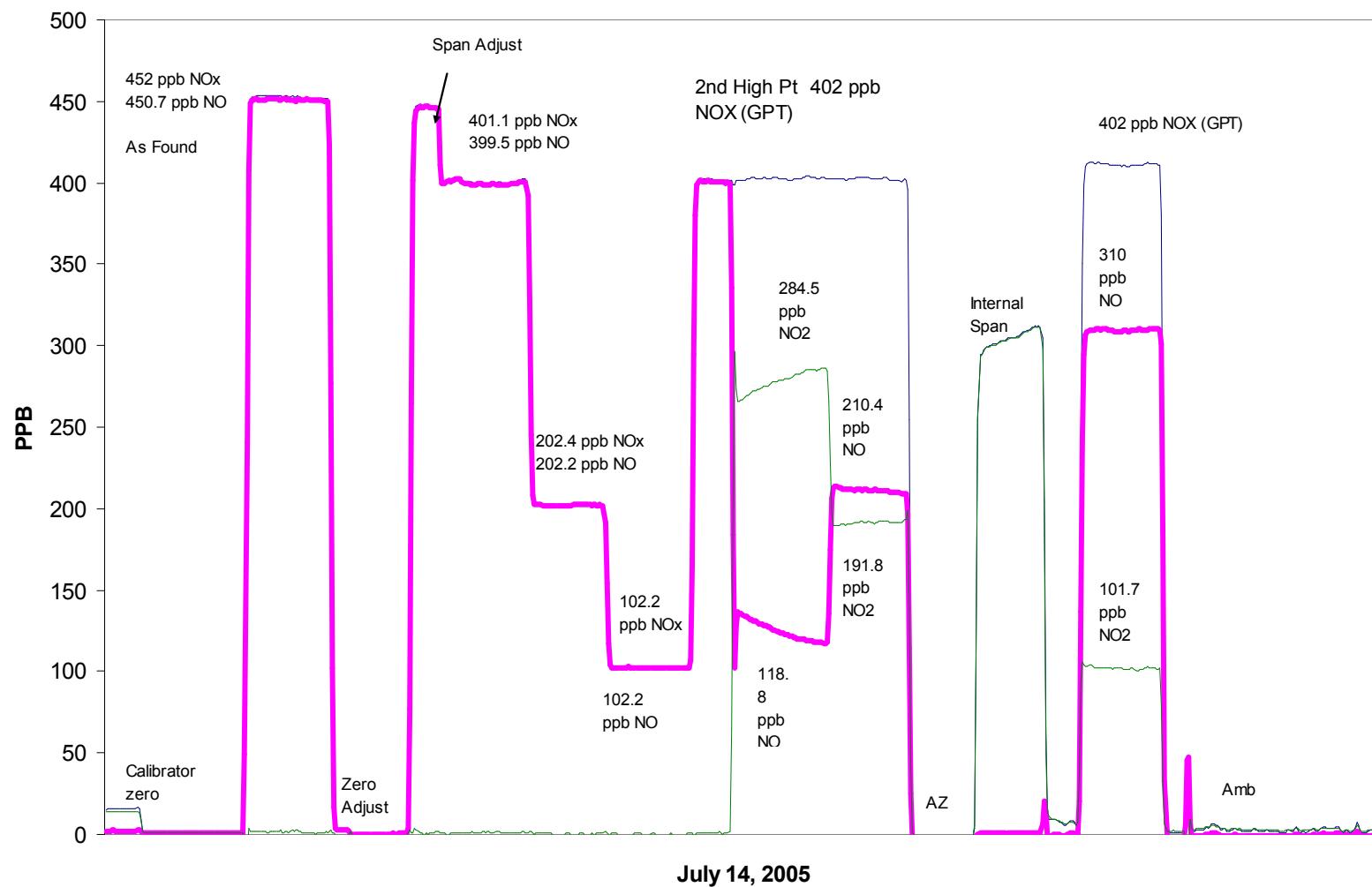
Dilution Flow 4993 ccm Source Gas Flow 39.97 ccm

O <sub>3</sub> Setpoint (ppb)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NOx Correction factor	NO Correction factor	NO <sub>2</sub> Correction factor	Converter Efficiency
0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A	N/A
NO point	405.5	398.2	7.3	401.9	400.9	1.0	1.0089	0.9933	N/A	N/A
300	405.5	116.3	289.2	403.0	118.8	284.5	1.0062	0.9791	1.0163	98.4%
200	405.5	207.9	197.6	402.0	210.4	191.8	1.0087	0.9879	1.0303	97.1%
100	405.5	307.2	98.3	411.1	309.8	101.7	0.9865	0.9916	0.9667	103.4%
				Average Correction Factor		1.0005	0.9862	1.0045	0.996	

### AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO <sub>2</sub>	NO	ppb	NOx	NO <sub>2</sub>	NO	ppb
Auto zero	0.1	0.2	0.1	ppb	307.5	312.9	-1.9	ppb
Auto span	NA	NA	NA	ppb	NA	NA	NA	ppb

Calibration Performed By: Dawn Ewan

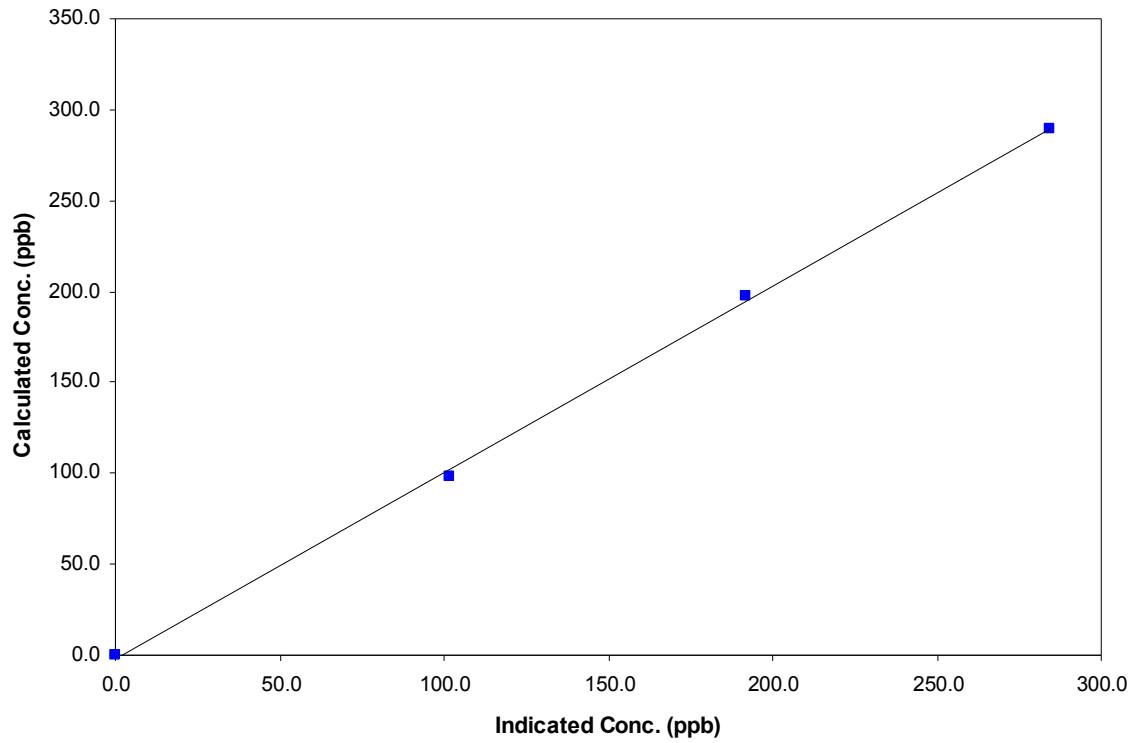
**NOx Calibration**

**Calibration Summary**Parameter **NO<sub>2</sub>**Air Monitoring Network **PASZA****Station Information**

Calibration Date	July 14, 2005	Previous Calibration	June 7, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	7:48	End Time (MST)	13:10
Analyzer make	Teco 42C	Analyzer serial #	508011073

**Calibration Data**

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (lc)	Correction factor (Cc/lc)	Statistical Evaluation	
0.0	0.0	0.0000	Correlation Coefficient	0.999391
289.2	284.5	1.0163		
197.6	191.8	1.0303		
98.3	101.7	0.9667		
			Slope	1.024118
			Intercept	-1.724540

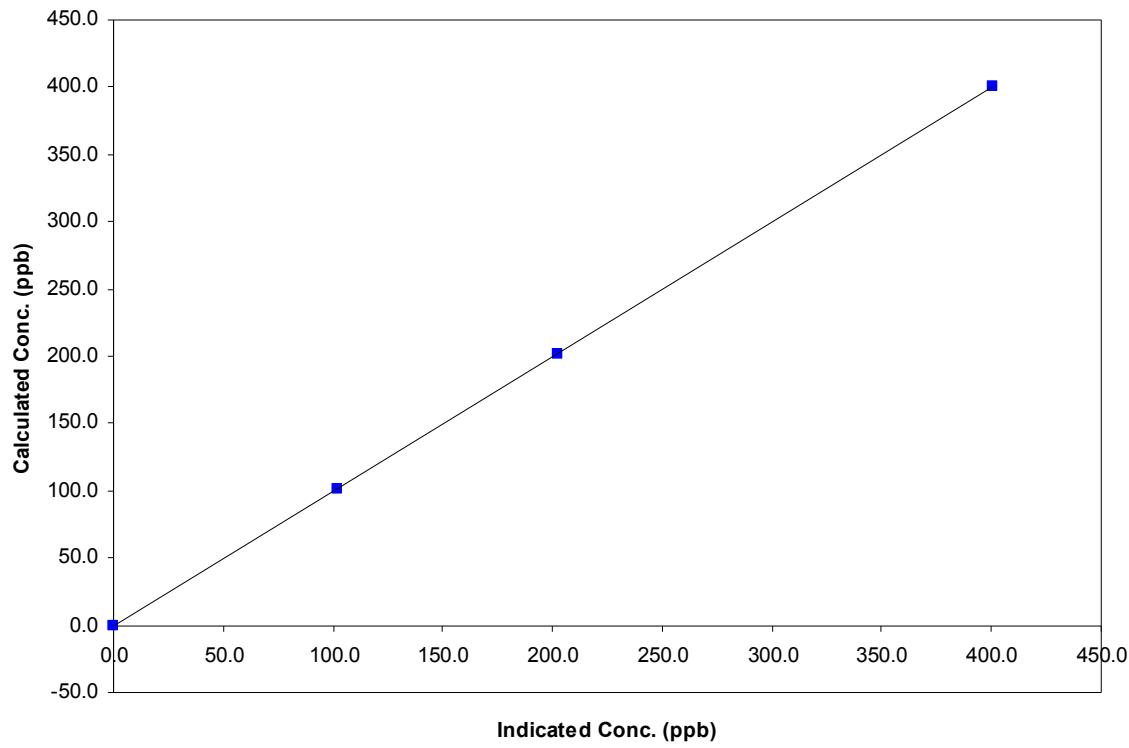
**NO<sub>2</sub> Calibration Curve**

**Calibration Summary**Parameter NO<sub>x</sub>Air Monitoring Network PASZA**Station Information**

Calibration Date	July 14, 2005	Previous Calibration	June 7, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	7:48	End Time (MST)	13:10
Analyzer make	Teco 42C	Analyzer serial #	508011073

**Calibration Data**

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (lc)	Correction factor (Cc/lc)	Statistical Evaluation	
0.0	0.0	0.0000	Correlation Coefficient	0.999965
401.1	400.3	1.0019		
201.3	202.6	0.9936		
100.8	102.5	0.9833		
			Slope	1.003082
			Intercept	-1.104197

**NOx Calibration Curve**

## Calibration Summary

Parameter **NO**  
Air Monitoring Network

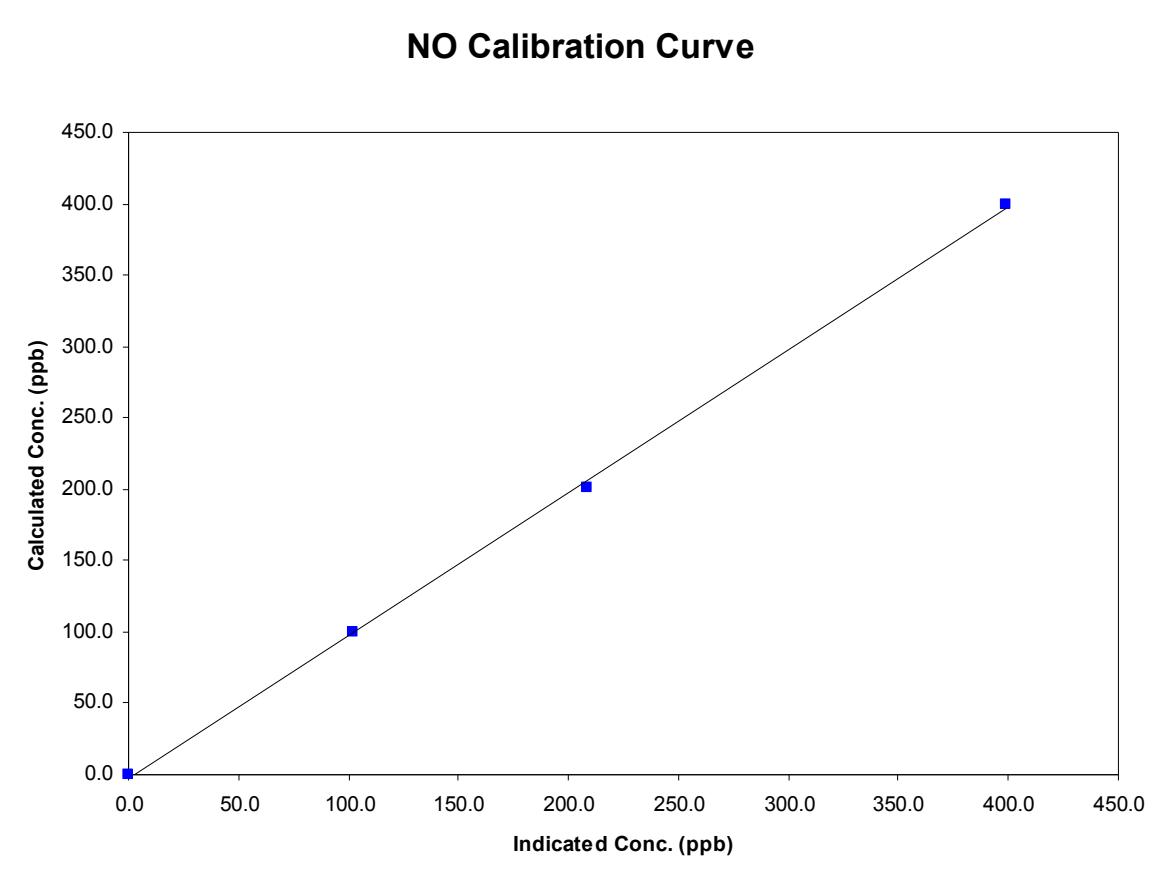


## ***Station Information***

Calibration Date	July 14, 2005	Previous Calibration	June 7, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	7:48	End Time (MST)	13:10
Analyzer make	Teco 42C	Analyzer serial #	508011073

## **Calibration Data**

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (lc)	Correction factor (Cc/lc)	Statistical Evaluation	
0.0	0.1	N/A		
399.5	399.2	1.0006	Correlation Coefficient	0.999443
200.5	208.9	0.9598	Slope	0.999353
100.4	102.3	0.9815		
			Intercept	-2.411468



**Calibration Report**

Parameter O3  
 Air Monitoring Network PASZA

**Station Information**

Calibration Date	July 14, 2005	Previous Calibration	June 7, 2005
Station Number	1	Station Location	Muskoseepi Park
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	13:00	End Time (MST)	15:10
Barometric Pressure	0.926 atm	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	45269
DACS voltage range	0 - 1 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	1.047905	Calculated slope	1.006241
Calculated intercept	-2.690889	Calculated intercept	1.478082
Analyzer make	API Model 400	Analyzer serial #	383
Concentration range	before		after
offset	0 - 500	ppb	0 - 500
slope	-1.2	ppb	-1.2
Lamp measure	1.048		1.037
Lamp Reference	2632	mV	2500
Pressure	2633	mV	2500
Sample Flow	26.9	inches Hg	27.2
Lamp temp	664	ccm	667
	52	Deg C	52

**Calibration Data**

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.8	N/A
4995	0.00	289.0	288.6	1.0013
4995	0.00	197.6	191.3	1.0330
4995	0.00	98.3	94.7	1.0381
4995	0.00	0.0	0.8	As found zero
4995	0.00	289.0	270.3	As found span
		Average Correction Factor	1.0241	

Calculated value of As Found Response: 279.7 ppm Percent Change of As Found: -3.2%

Auto zero Auto span	before calibration		after calibration	
	1.5	ppb	2.2	ppb
	272.9	ppb	264.8	ppb

Notes: A span adjustment was performed.

**Calibration Summary**Parameter O<sub>3</sub>

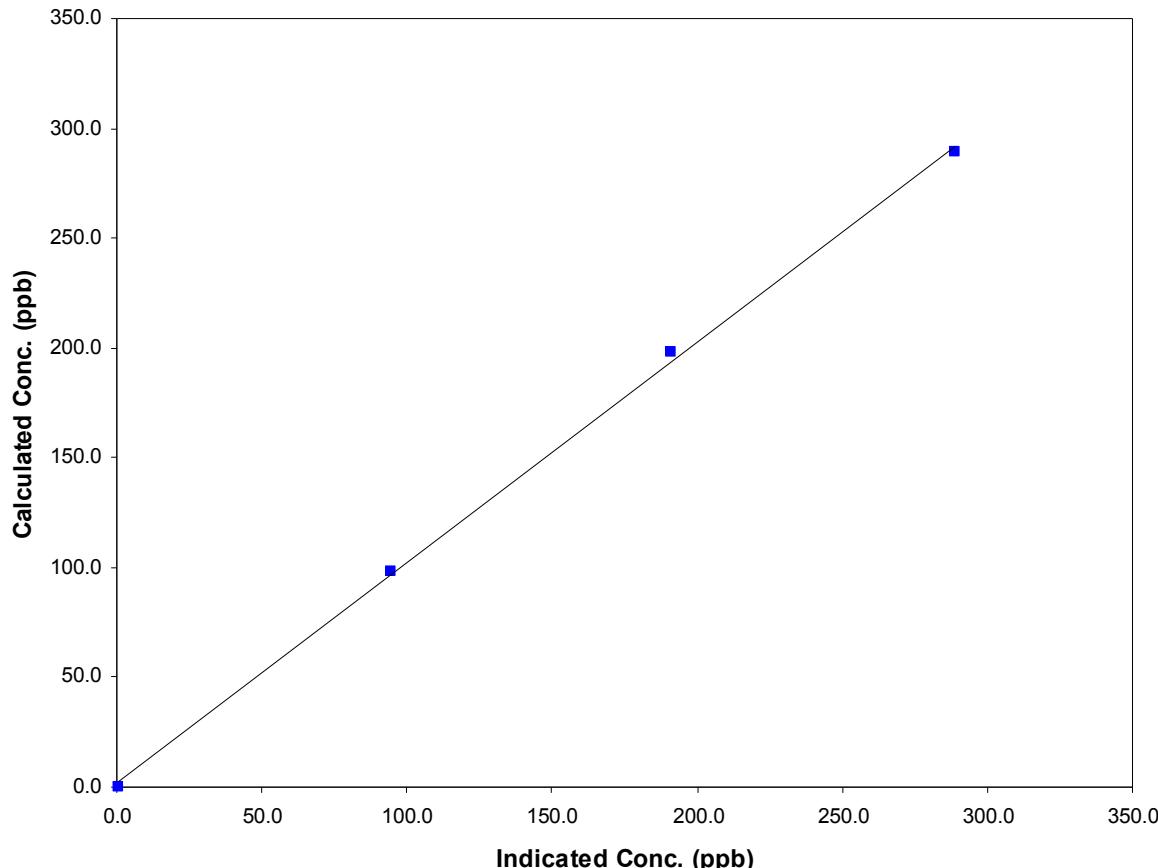
Air Monitoring Network \_\_\_\_\_

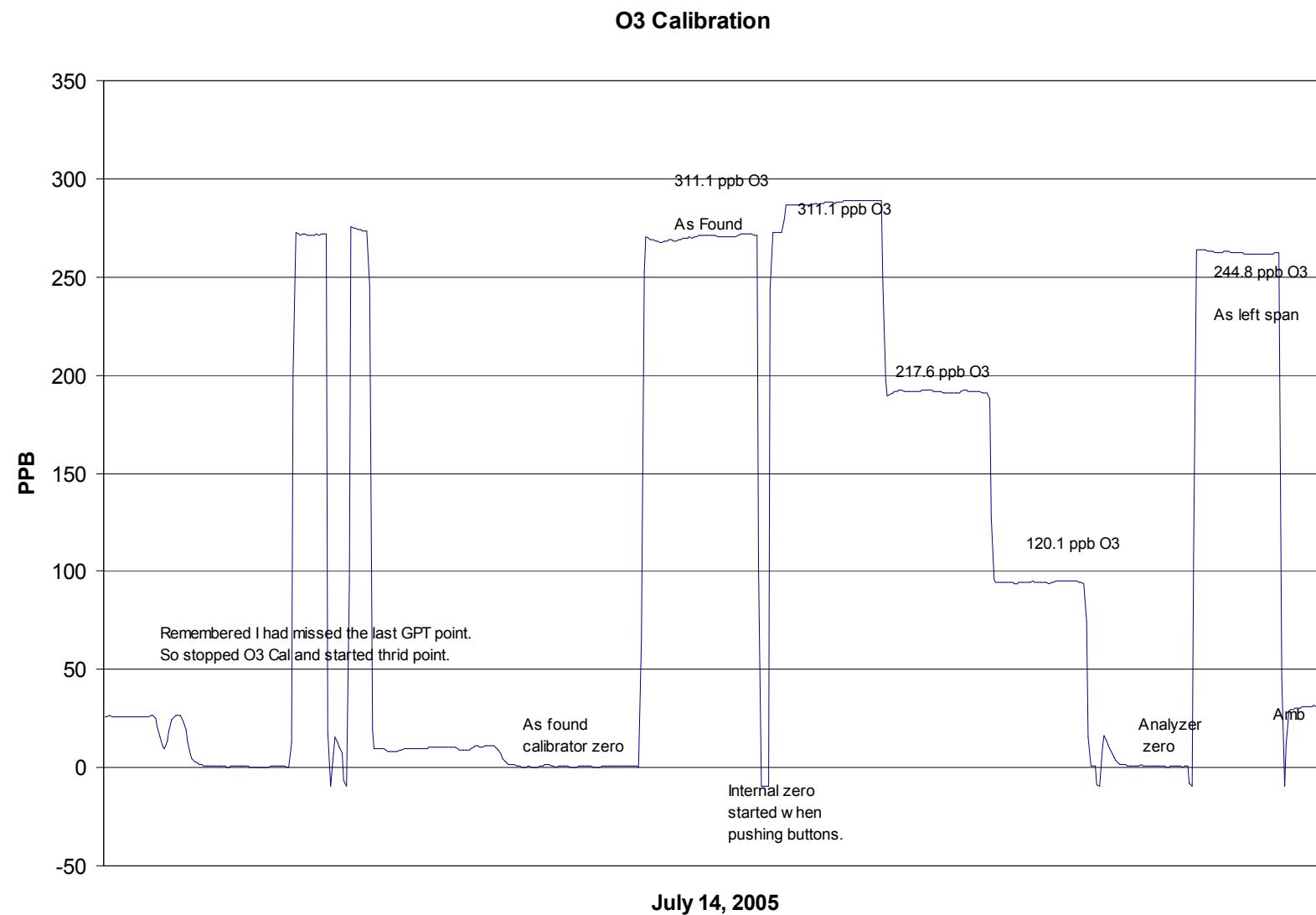
**PASZA****Station Information**

Calibration Date	July 14, 2005	Previous Calibration	June 7, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	13:00	End Time (MST)	15:10
Analyzer make/model	API Model 400	Analyzer serial #	383

**Calibration Data**

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.8	NA		
289.0	288.6	1.0013	Correlation Coefficient	0.999371
197.6	191.3	1.0330		
98.3	94.7	1.0381	Slope	1.006241
			Intercept	1.478082

**O<sub>3</sub> Calibration Curve**



**Calibration Report**

Parameter CO  
 Air Monitoring Network PASZA

**Station Information**

Calibration Date	July 15, 2005	Previous Calibration	June 7, 2005
Station Number	1	Station Location	Muskoseepi Park
Reason:	Routine	Install	Removal
Start Time (MST)	9:36	End Time (MST)	12:52
Barometric Pressure	0.923	ATM	20.0 Deg C
Calibrator	Environics 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
Calculated slope	Before 1.004957	Calculated slope	After 1.004134
Calculated intercept	0.418846	Calculated intercept	0.393082
Analyzer make	TEI Model 48C	Analyzer serial #	508011062
Concentration range	before 0 - 25	after ppm	0 - 25 ppm
CO span setting	1.018		1.018
CO zero setting	0.429		1.133
Sample pressure	677.8	mm Hg	675.8 mm Hg
Sample Flow	1.067	LPM	1.068 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	-0.35	N/A
4993	39.97	23.82	23.37	1.0194
4993	19.96	11.95	11.43	1.0447
4993	9.97	5.98	5.56	1.0755
4993	0.00	0.00	0.35	As Found Zero
4993	39.97	23.82	24.89	As Found Span
Average Correction Factor				1.0465

Calculated value of As Found Response: 25.079 ppm Percent Change of As Found: -5.3%

Auto zero	before calibration		after calibration	
	0.13	ppm	0.05	ppm
	20.13	ppm	19.82	ppm

Notes:

---



---



---

Calibration Performed By: Kelly Baragar

**Calibration Summary**

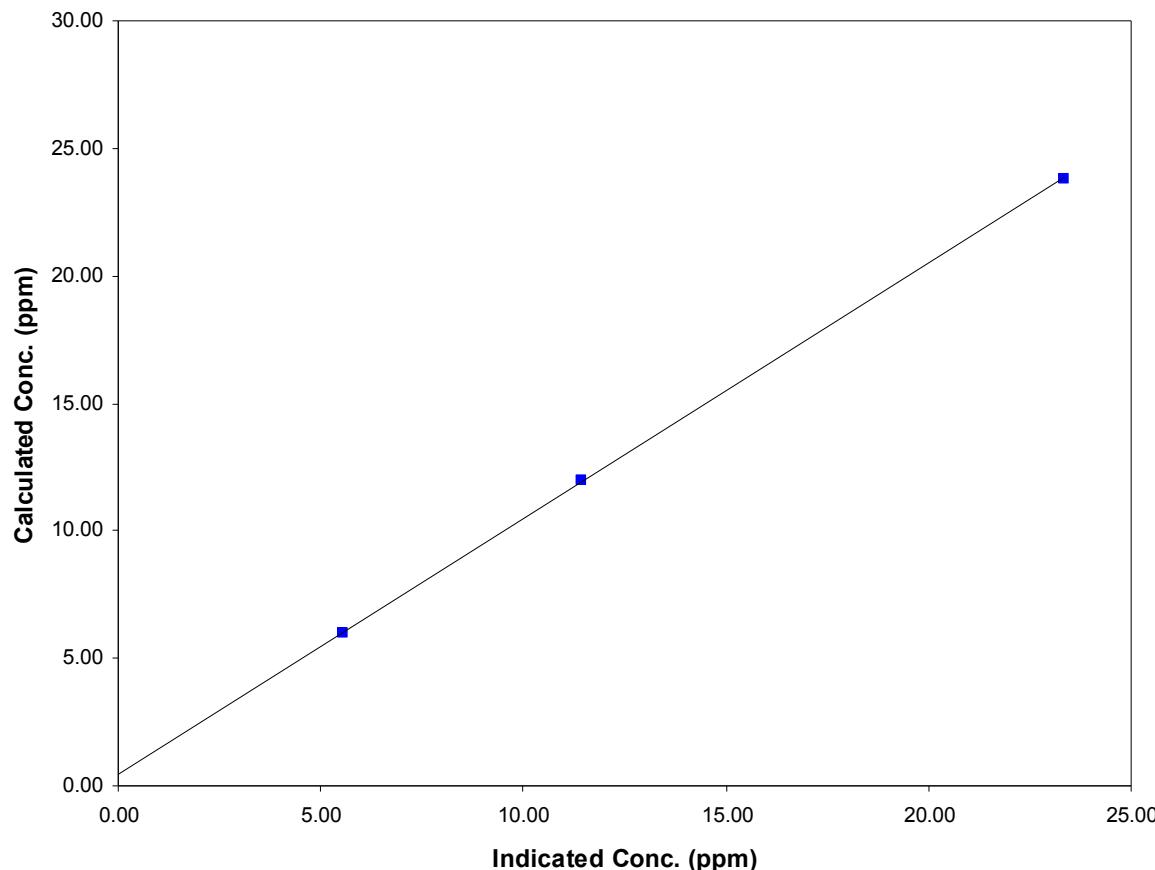
Parameter co  
 Air Monitoring Network PASZA

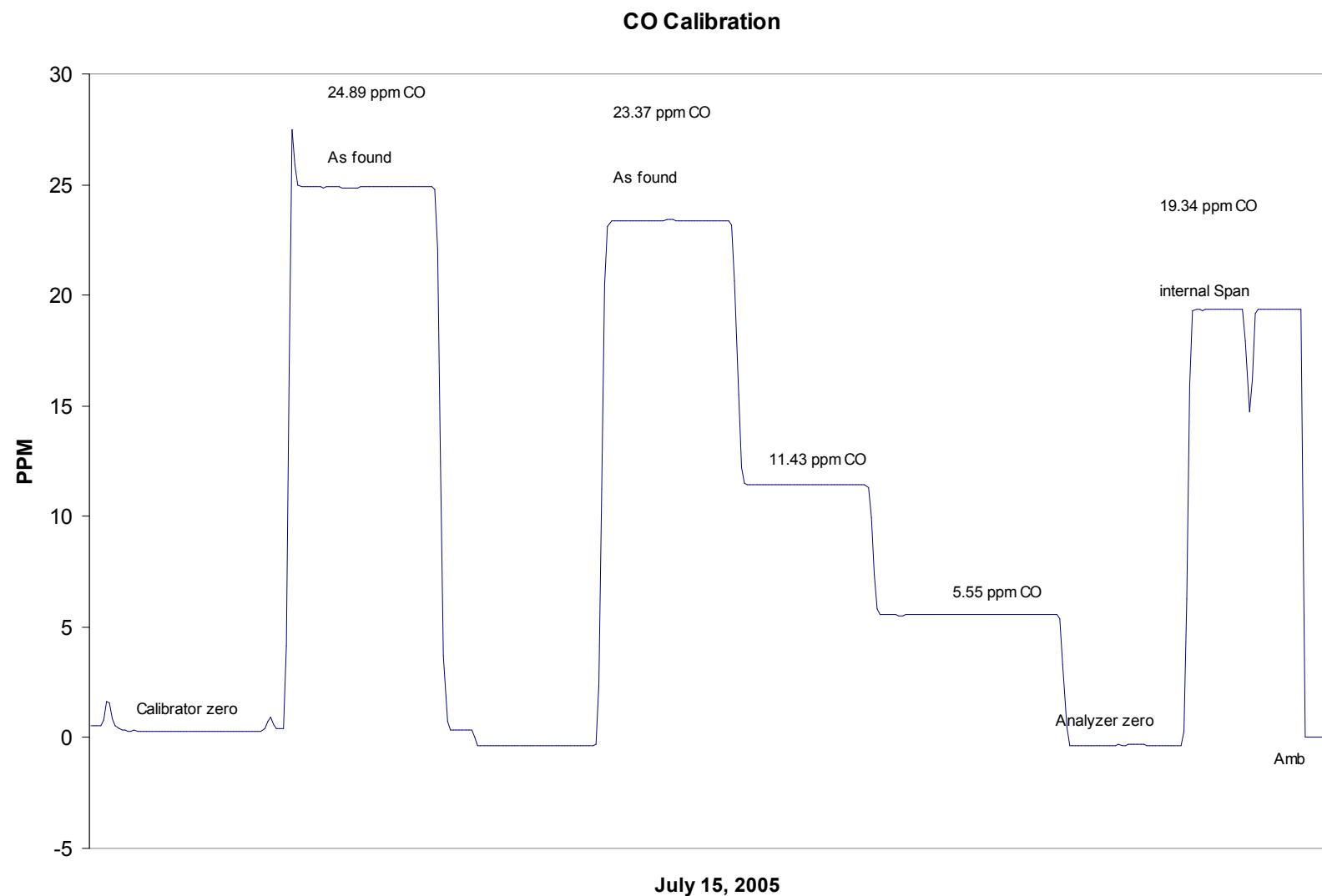
**Station Information**

Calibration Date	July 15, 2005	Previous Calibration	June 7, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	9:36	End Time (MST)	12:52
Analyzer make/model	TEI Model 48C	Analyzer serial #	508011062

**Calibration Data**

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (lc)	Correction factor (Cc/lc)	Statistical Evaluation	
0.000	-0.353	N/A		
23.825	23.371	1.0194	Correlation Coefficient	0.999975
11.945	11.433	1.0447		
5.978	5.559	1.0755	Slope	1.004134
			Intercept	0.393082

**CO Calibration Curve**



# Calibration Report

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



## ***Station Information***

Calibration Date	July 15, 2005		Previous Calibration	June 6, 2005	
Station Number	1		Station Location	Muskoseepi Park	
Reason:	Routine	Install	Removal	Other:	
Start Time (MST)	12:14		End Time (MST)	16:15	
Barometric Pressure	0.921	ATM	Station Temperature	20.0	Deg C
Calibrator	Environics 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	0.993977		Calculated slope	0.987086	
Calculated intercept	0.004913		Calculated intercept	-0.048307	
Analyzer make	TEI Model 51C-LT		Analyzer serial #	51CLT-79009-390	
	before			after	
Concentration range	0 - 25	ppm	0 - 25	ppm	
THC sample pressure	6.11	psi	6.1	psi	
THC span counts	6847	capture	6847	capture	
THC zero counts	1297	capture	1297	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	0.03	N/A
4993	64.97	19.55	19.88	0.9838
4993	34.96	10.58	10.73	0.9868
4993	9.97	3.03	3.16	0.9588
4993	0.00	0.00	0.10	As Found Zero
4993	64.97	19.55	19.88	As Found Span
Average Correction Factor				0.9764

Calculated value of As Found Response: 19.668 ppm Percent Change of As Found: -0.6%

	before calibration		after calibration	
Auto zero	0.04	ppm	0.02	ppm
Auto span	21.40	ppm	22.15	ppm

## Notes:

Calibration Performed By: Dawn Ewan

## Calibration Summary

Parameter THC  
 Air Monitoring Network PASZA



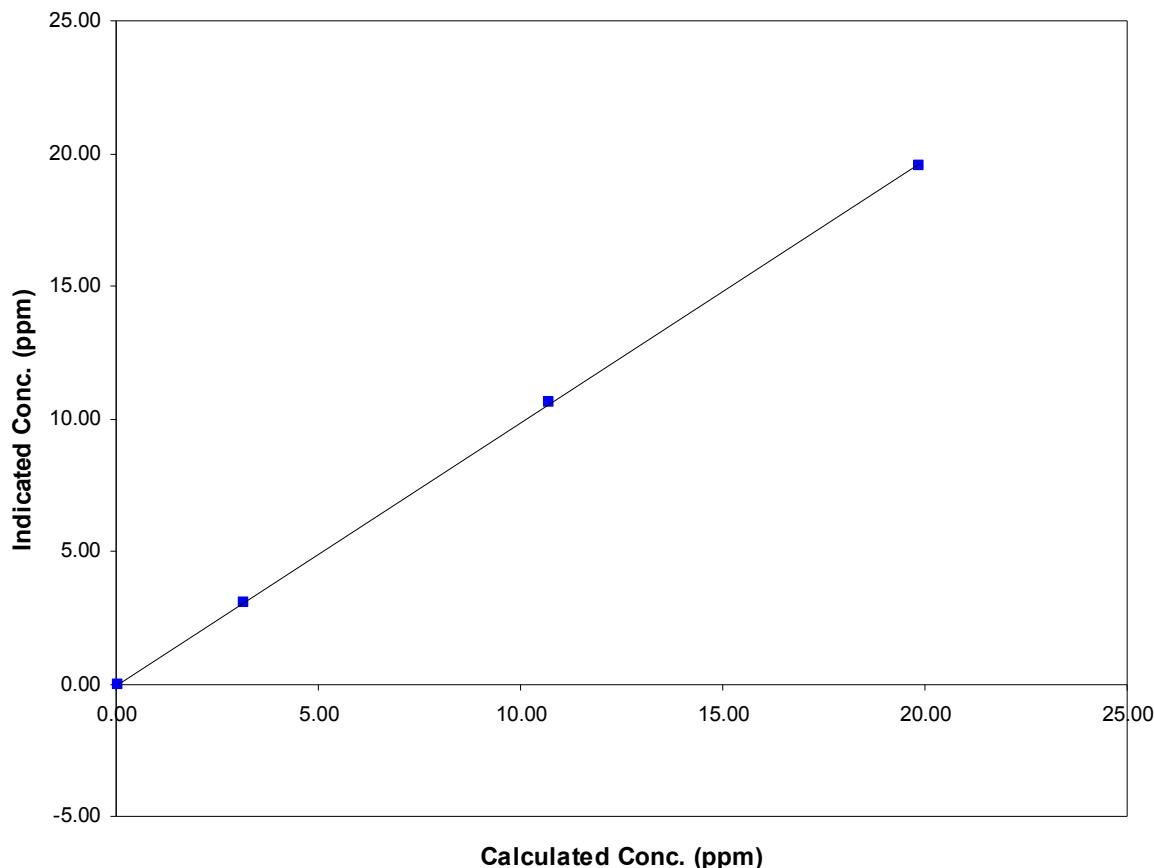
### Station Information

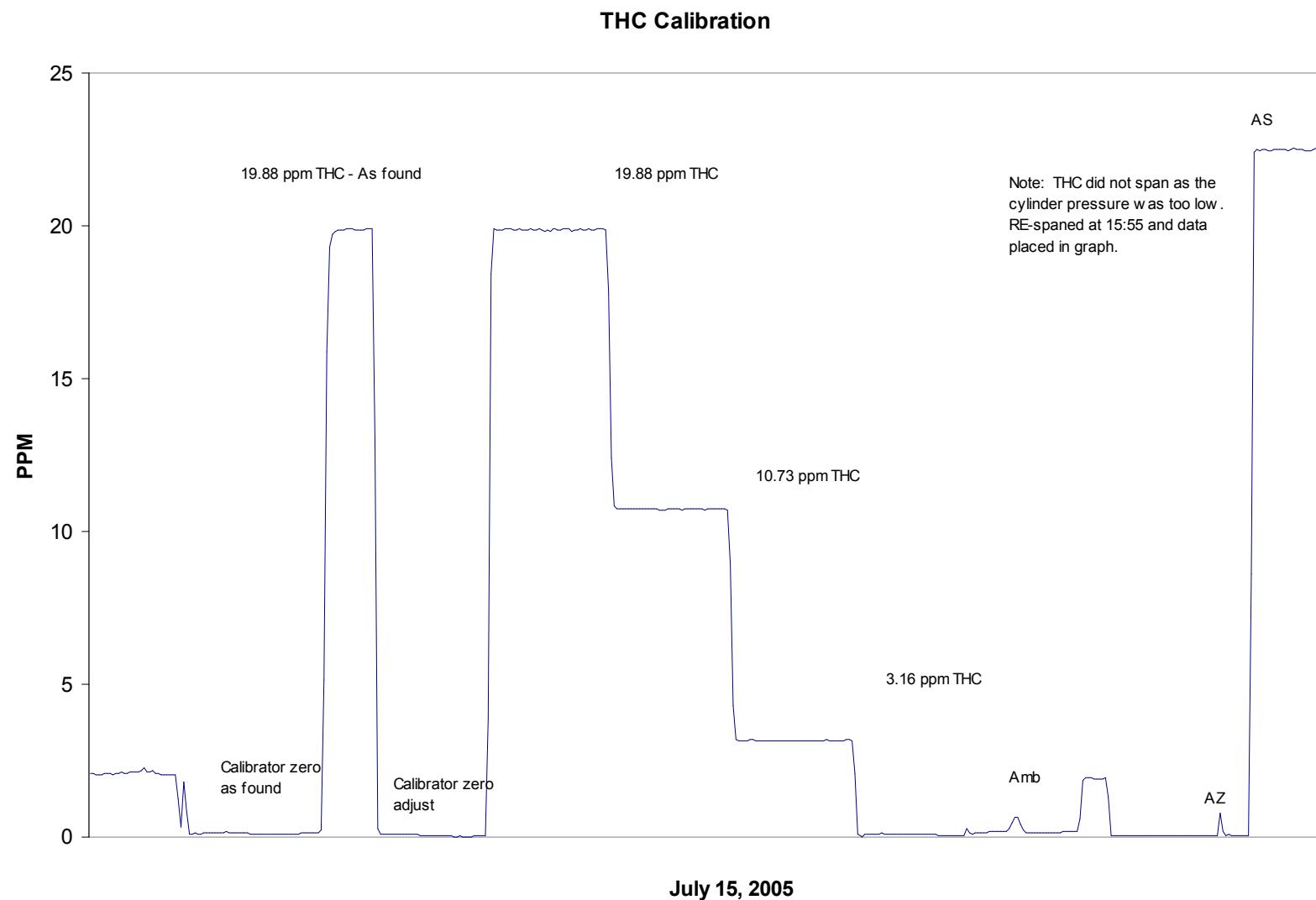
Calibration Date	July 15, 2005	Previous Calibration	June 6, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	12:14	End Time (MST)	16:15
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (lc)	Correction factor (Cc/lc)	Statistical Evaluation	
0.000	0.035	N/A		
19.553	19.876	0.9838	Correlation Coefficient	0.999982
10.584	10.727	0.9868	Slope	0.987086
3.034	3.164	0.9588	Intercept	-0.048307

### THC Calibration Curve





# Calibration Report

## Parameter TRS

### Air Monitoring Network



## **Station Information**

### **Calibration Data**

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (lc)	Correction factor (Cc/lc)
4993	0.00	0.0	-0.3	N/A
4993	79.95	79.1	80.8	0.9786
4993	39.96	39.9	39.4	1.0125
4993	19.98	20.0	18.9	1.0612
4993	0.00	0.0	-0.3	As found zero
4993	79.95	79.1	81.4	As found span
Average Correction Factor				1.0174

Calculated value of As Found Response: 82.7 ppm Percent Change of As Found: -4.6%

	before calibration		after calibration	
Auto zero	0.0	ppm	1.3	ppm
Auto span	68.8	ppm	67.2	ppm

**Notes:**

**Calibration Summary**

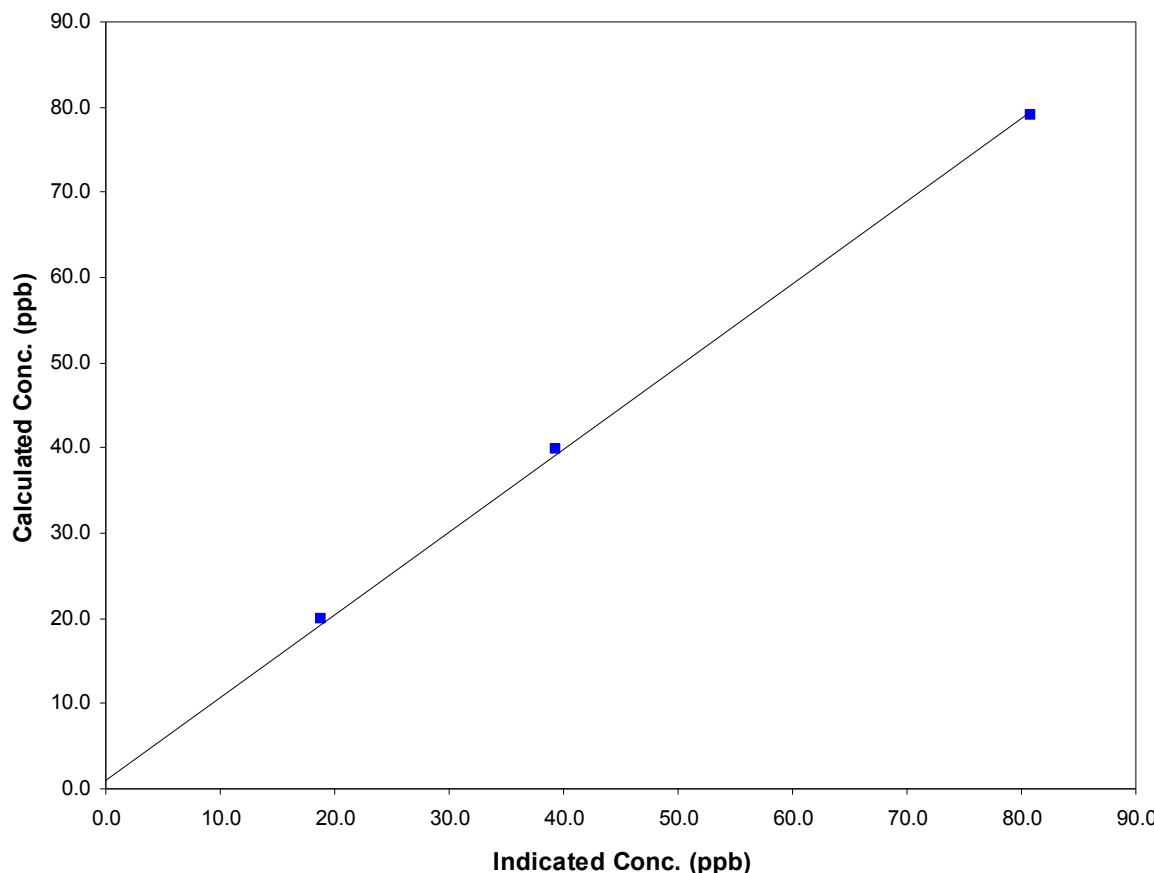
Parameter TRS  
 Air Monitoring Network PASZA

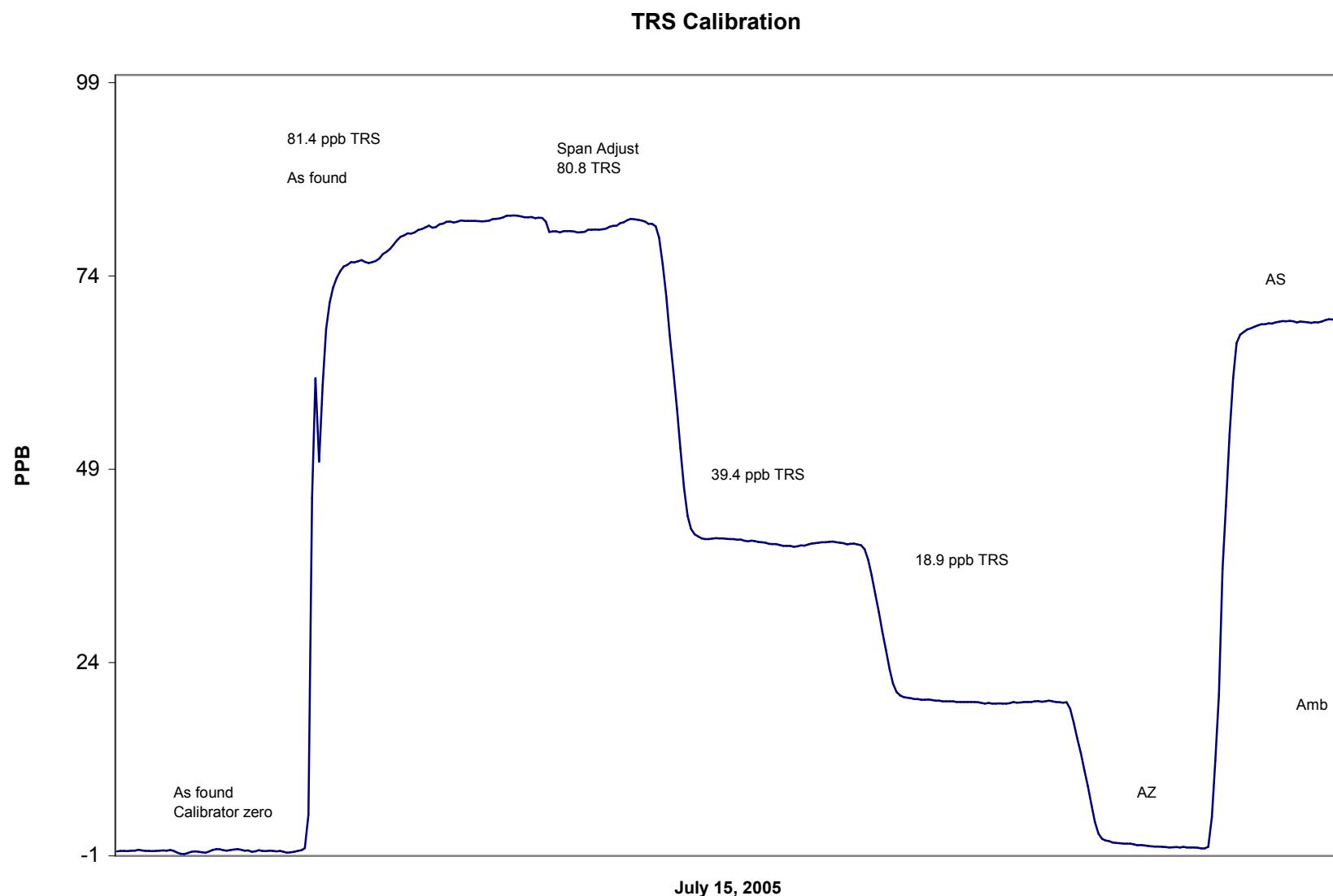
**Station Information**

Calibration Date	July 15, 2005	Previous Calibration	June 7, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	14:23	End Time (MST)	17:20
Analyzer make/model	Teco 43C	Analyzer serial #	3.199E+13

**Calibration Data**

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (lc)	Correction factor (Cc/lc)	Statistical Evaluation	
0.0	-0.3	N/A		
79.1	80.8	0.9786	Correlation Coefficient	0.999569
39.9	39.4	1.0125		
20.0	18.9	1.0612	Slope	0.970361
			Intercept	1.090784

**TRS Calibration Curve**



**Calibration Report**

Parameter **PM2.5**  
 Air Monitoring Network **PASZA**

**Station Information**

Calibration Date	July 13, 2005	Previous Calibration	June 7, 2005
Station Number	1	Station Location	Muskoseepi Park
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	8:52	End Time (MST)	16:45
Barometric Pressure	0.924 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	2.990	SLPM	2.990	SLPM
Aux Flow Set Point	16.67	SLPM	16.67	SLPM
Filter Load	60	%	24	%
Ko Factor	12122		12122	
Temperature	17.9	Deg C	17.9	Deg C
Pressure	0.930	ATM	0.930	ATM

**Calibration Data**

Parameter	Set Point	Indicated Reading (measured externally)	Tolerance	TEOM Reading
zero flow - main	0.0	0.00		0.02
zero flow - auxillary	0.0	0.00		-0.01
flow recovery - main	45 - 60 Seconds	na	45 - 60 Seconds	27
flow recovery - aux	46 - 60 Seconds	na	46 - 60 Seconds	51
Temperature	measured	18.0	+/- 1.0 Deg C	17.9
Pressure	measured	0.924	+/- 1.5% ΔATM	0.930
Total Flow	16.67 SLPm	16.15		16.60
Main Flow	13.67 SLPm	13.60	+/- 1.0 SLPm	13.67
Auxillary Flow	3.0 SLPm	3.036	+/- 0.2 SLPm	2.990
Leak Check - main	0.0	0.00	<0.15 SLPm	0.02
Leak Check - aux	0.0	0.00	<0.15 SLPm	0.07
Ko Factor (w/o filter)	measured	324.854	filter weight (g)	0.11398
Ko Factor (w/ filter)	measured	230.124	% Ko difference	0.0%

Notes: Cleaned filter head.  
Changed Filter.

Calibration Performed By: Dawn Ewan

# Calibration Report

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



## **Station Information**

Calibration Date	July 28, 2005	Previous Calibration	June 20, 2005
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	Install	Removal
Start Time (MST)	9:55	End Time (MST)	16:00
Barometric Pressure	27.6	inches Hg	23.0
Calibrator	VICI Metronics	Station Temperature	Deg C
Perm-tube Conc	3,141	ng/min	111-1695
Correction factor	0.929029	Perm-tube Expiry Dat	June 30/05
DACS make	Focus AP1000	Perm-tube Cert #	19-14433
DACS voltage range	0 - 10 volt	DACS serial No.	45274
		DACS channel #	4
	<u>Before</u>		<u>After</u>
Calculated slope	1.273587	Calculated slope	0.998494
Calculated intercept	-5.152738	Calculated intercept	-4.831759
Analyzer make	API 100	Analyzer serial #	32
Concentration range	before		after
Sample Flow	500	ppb	500
UV Lamp Voltage	553	ccm	488
Lamp Ratio	3150	mv	3263
Rx Cell Temp	90	%	93
PMT Temp	50	Deg C	50
IZS Temp	10	Deg C	10
Slope	40	Deg C	40
Intercept	9.78		6.69
	211.8		180.7

## **Calibration Data**

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (lc)	Correction factor (Cc/lc)
zero	2532.5	0.0	-0.7	N/A
2726	2532.5	473.4	475.4	0.9957
5022	4665.6	257.0	265.5	0.9679
10160	9438.9	127.0	137.8	0.9218
zero	2536.2	0.0	-3.4	As Found Zero
2730	2536.2	472.7	322.2	As Found Span
Average Correction Factor				0.9618

Calculated value of As Found Response: 409.537 ppm Percent Change of As Found: 13.4%

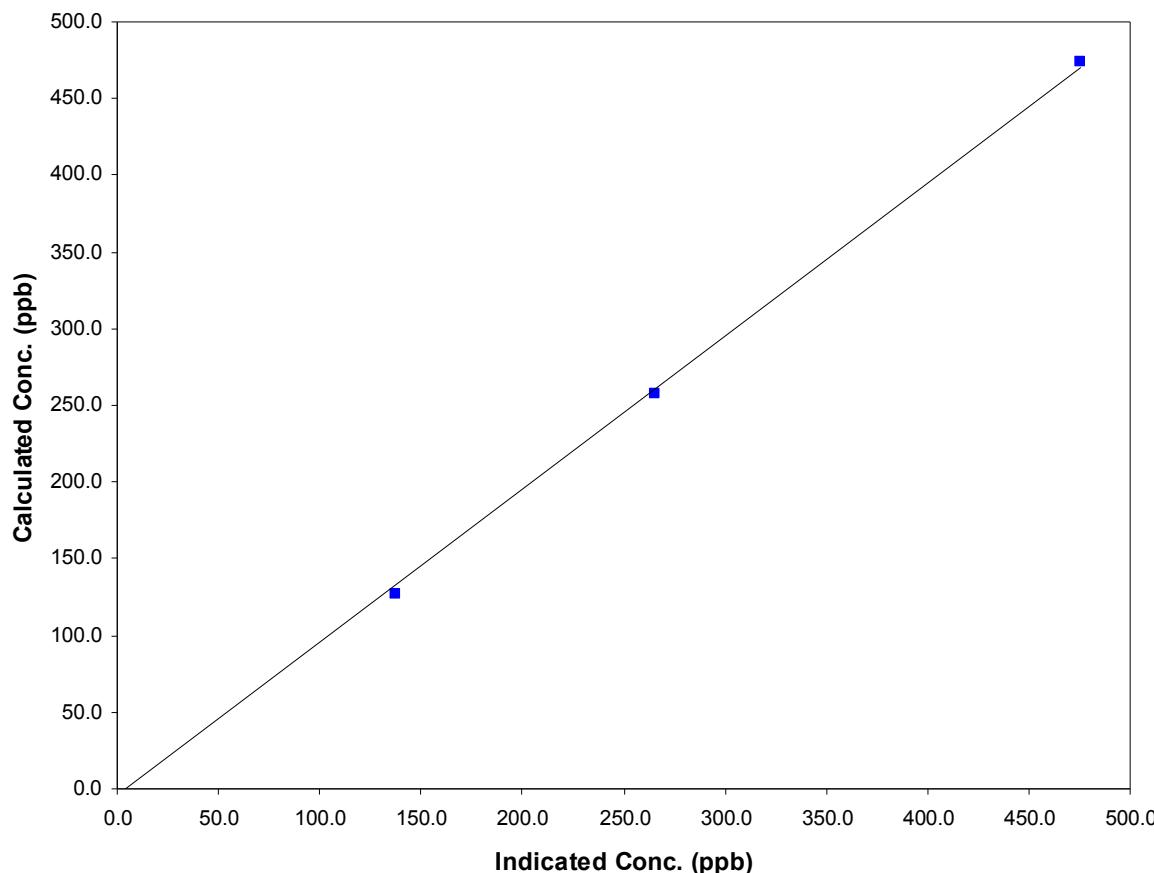
	before calibration		after calibration	
Auto zero	-1.6	ppm	-4.2	ppm
Auto span	227.5	ppm	355.6	ppm

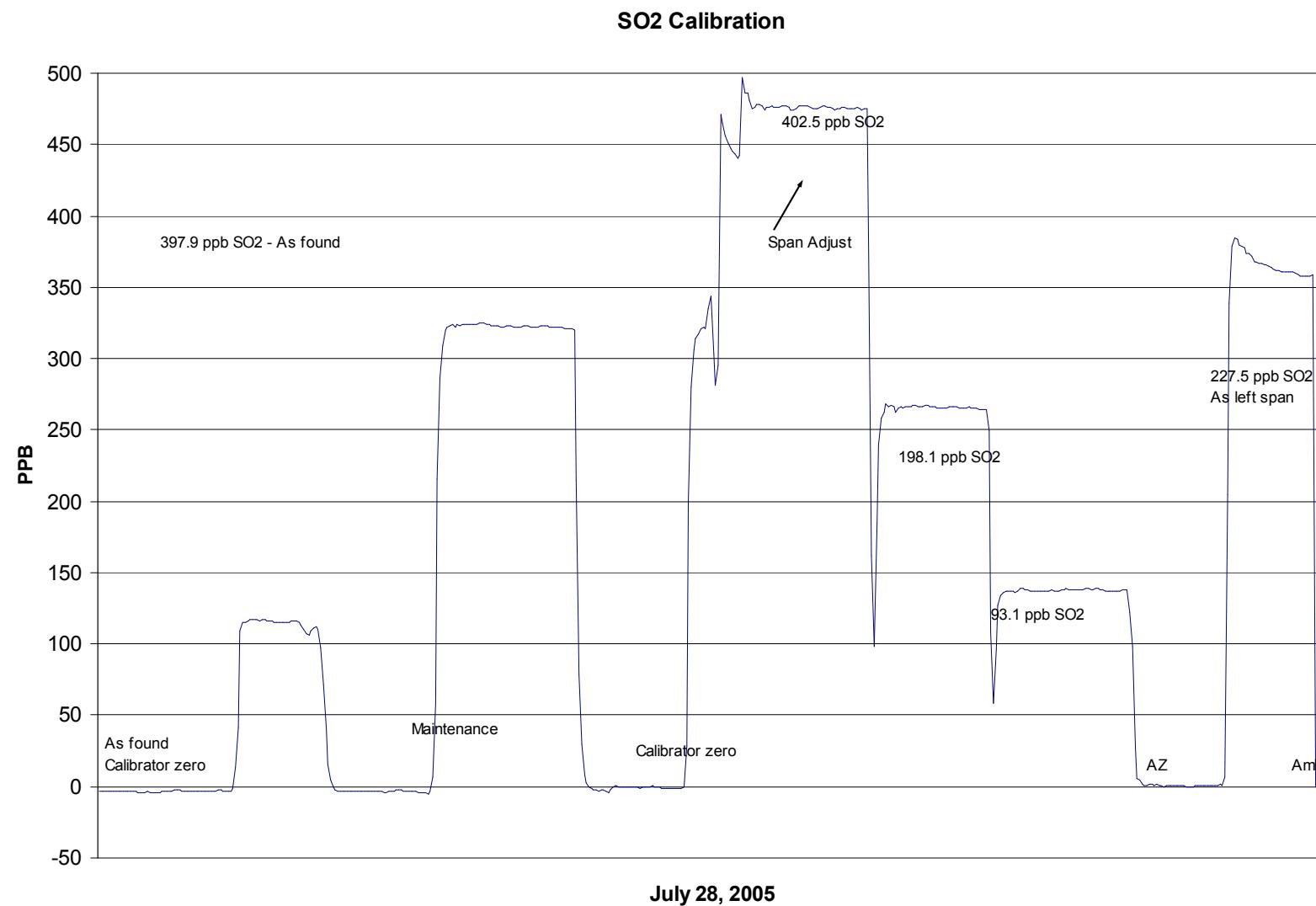
**Calibration Summary**Parameter **SO2**Air Monitoring Network **PASZA****Station Information**

Calibration Date	July 28, 2005	Previous Calibration	June 20, 2005
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	9:55	End Time (MST)	16:00
Analyzer make/model	API 100	Analyzer serial #	32

**Calibration Data**

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (lc)	Correction factor (Cc/lc)	Statistical Evaluation	
0.0	-0.7	N/A		
473.4	475.4	0.9957	Correlation Coefficient	0.999292
257.0	265.5	0.9679		
127.0	137.8	0.9218	Slope	0.998494
			Intercept	-4.831759

**SO2 Calibration Curve**



# Calibration Report

**Parameter** \_\_\_\_\_ **TRS**  
**Air Monitoring Network**



## ***Station Information***

Calibration Date	July 28, 2005	Previous Calibration	June 20, 2005	
Station Number	2	Station Location	Evergreen Park	
Reason:	Routine	Install	Removal	
Start Time (MST)	9:55	End Time (MST)	16:00	
Barometric Pressure	27.6	inches Hg	23.0	
Calibrator	VICI Metronics	Station Temperature	Deg C	
Perm-tube Conc	181	ng/min	111-1695	
Correction factor	0.929029	Perm-tube Expiry Date	June 30/05	
DACS make	Focus AP1000	Perm-tube Cert #	04-19367	
DACS voltage range	0 - 10 volt	DACS serial No.	1	
		DACS channel #	9	
	<u>Before</u>		<u>After</u>	
Calculated slope	0.984290	Calculated slope	0.993735	
Calculated intercept	0.313464	Calculated intercept	-0.064253	
Analyzer make	TEI Model 43C	Analyzer serial #	0436610005	
Concentration range	before		after	
Background	100	ppb	100	ppb
coefficient	13.3	ppb	13.5	ppb
Lamp Voltage	1.224		1.253	
Chamber Temp	753	volts	753	volts
Perm Gas Temp	44.5	Deg C	44.3	Deg C
Pressure	45	Deg C	45	Deg C
Sample Flow	633.8	mm Hg	640.7	mm Hg
Lamp Intesity	463	ccm	466	ccm
	32,400	mv	32,200	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (lc)	Correction factor (Cc/lc)
zero	2532.5	0.0	0.0	N/A
2726	2532.5	51.4	51.8	0.9918
5022	4665.6	27.9	28.0	0.9957
10160	9438.9	13.8	14.0	0.9817
zero	2536.2	0.0	0.2	As Found Zero
2730	2536.2	51.3	50.1	As Found Span
Average Correction Factor				0.9897

Calculated value of As Found Response: 49.50 ppm Percent Change of As Found: 3.5%

	before calibration		after calibration	
Auto zero	0.1	ppm	-0.5	ppm
Auto span	73.8	ppm	60.6	ppm

**Notes:**

**Calibration Summary**

Parameter TRS  
 Air Monitoring Network \_\_\_\_\_

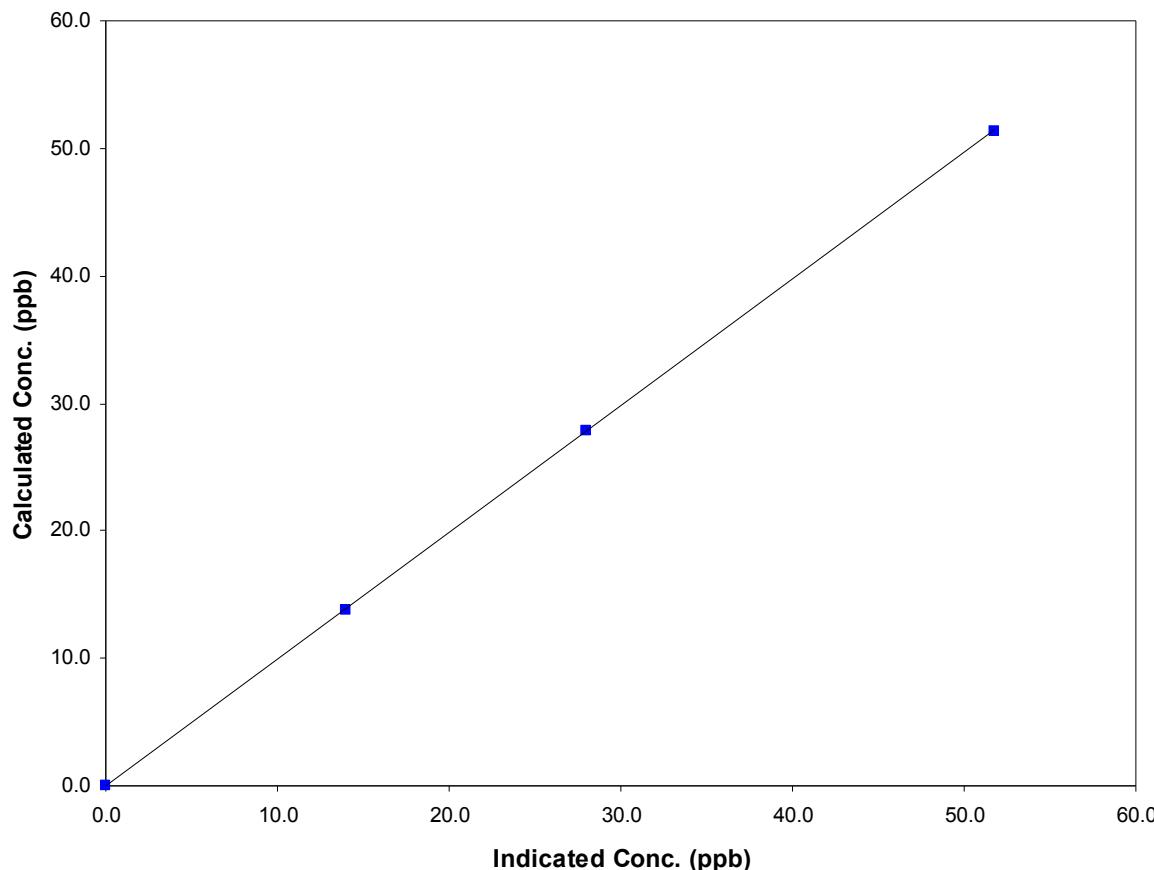
PASZA

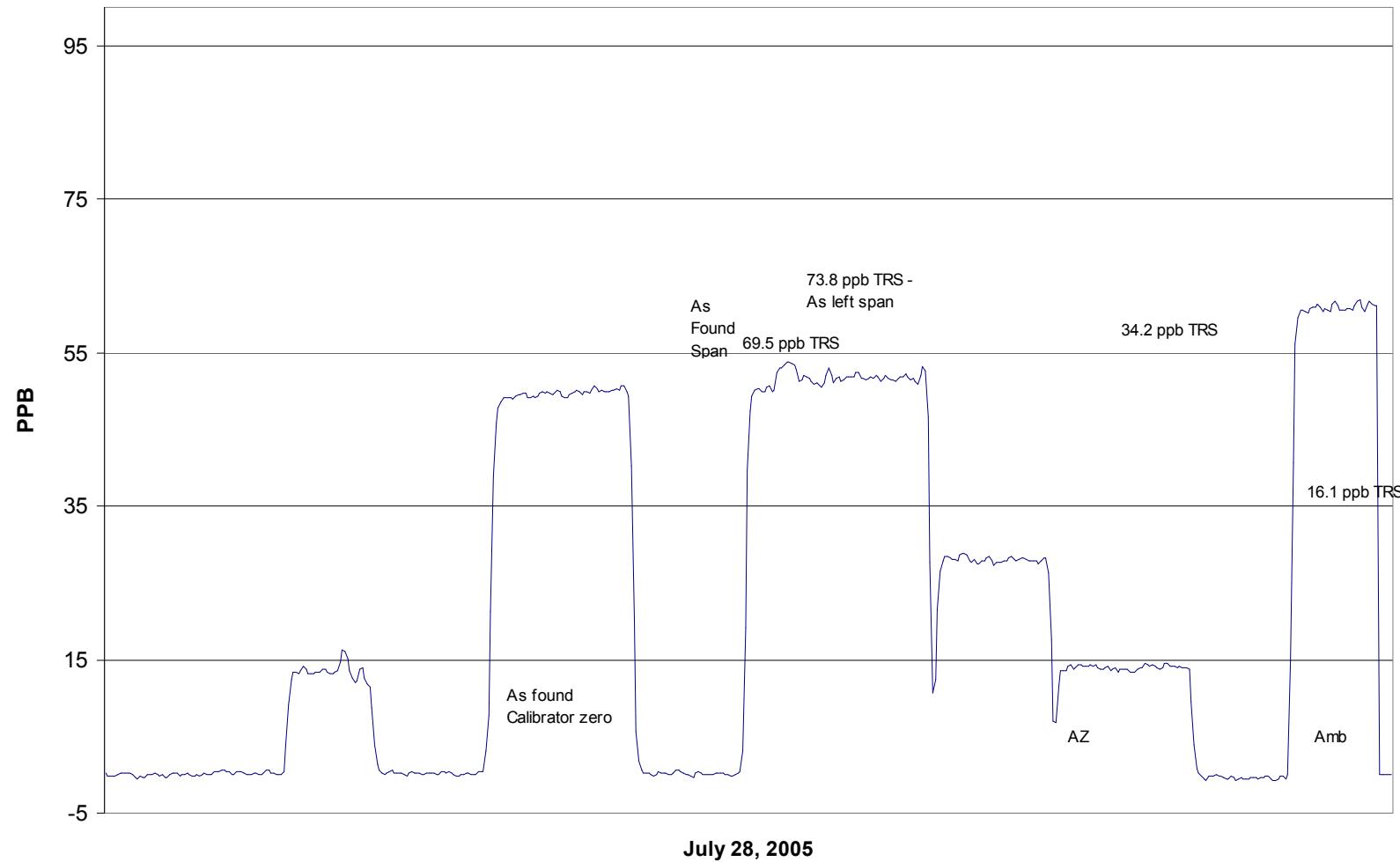
**Station Information**

Calibration Date	July 28, 2005	Previous Calibration	June 20, 2005
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	9:55	End Time (MST)	16:00
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

**Calibration Data**

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (lc)	Correction factor (Cc/lc)	Statistical Evaluation	
0.0	0.0	N/A		
51.4	51.8	0.9918	Correlation Coefficient	0.999981
27.9	28.0	0.9957		
13.8	14.0	0.9817	Slope	0.993735
			Intercept	-0.064253

**TRS Calibration Curve**

**TRS Calibration**

# Calibration Report

## Parameters

so,

## Air Monitoring Network

PASZA



## **Station Information**

Station Information			
Calibration Date	July 28, 2005	Previous Calibration	June 23, 2005
Station Number	3	Station Location	Smoky Heights
Reason:	Routine	Install	Removal
Start Time (MST)	19:30	End Time (MST)	23:12
Barometric Pressure	27.58	inches Hg	18.0
Calibrator	VICI Metronics	Station Temperature	Deg C
Perm-tube Conc	3,141	ng/min	111-1695
Correction factor	0.943965	Perm-tube Expiry Date	June 30/05
DACS make	Focus AP1000	Perm-tube Cert #	19-14433
DACS voltage range	0 - 10 volt	DACS serial No.	45274
		DACS channel #	4
	<u>Before</u>		<u>After</u>
Calculated slope	0.991832	Calculated slope	0.983871
Calculated intercept	1.532871	Calculated intercept	1.929856
Analyzer make	API 102A	Analyzer serial #	212
Concentration range	before		after
Sample Flow	500	ppb	500
UV Lamp Voltage	524	ccm	545
Lamp Ratio	3390	mv	3290
Rx Cell Temp	93	%	90
PMT Temp	51	Deg C	51
IZS Temp	7.1	Deg C	6.8
Slope	45	Deg C	45
Intercept	0.817		1.202
	20.6		18.3

## **Calibration Data**

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (lc)	Correction factor (Cc/lc)
zero	2591.2	0.0	1.2	N/A
2745	2591.2	462.7	469.7	0.9851
5075	4790.6	250.3	251.7	0.9943
10110	9543.5	125.6	121.9	1.0308
zero	2591.2	0.0	2.1	As Found Zero
2745	2591.2	462.7	331.4	As Found Span
Average Correction Factor				1.0034

Calculated value of As Found Response:

328.167 ppm

### Percent Change of As Found:

29.1%

	before calibration		after calibration	
Auto zero	2.1	ppm	4.6	ppm
Auto span	232.5	ppm	342.0	ppm

**Calibration Summary**

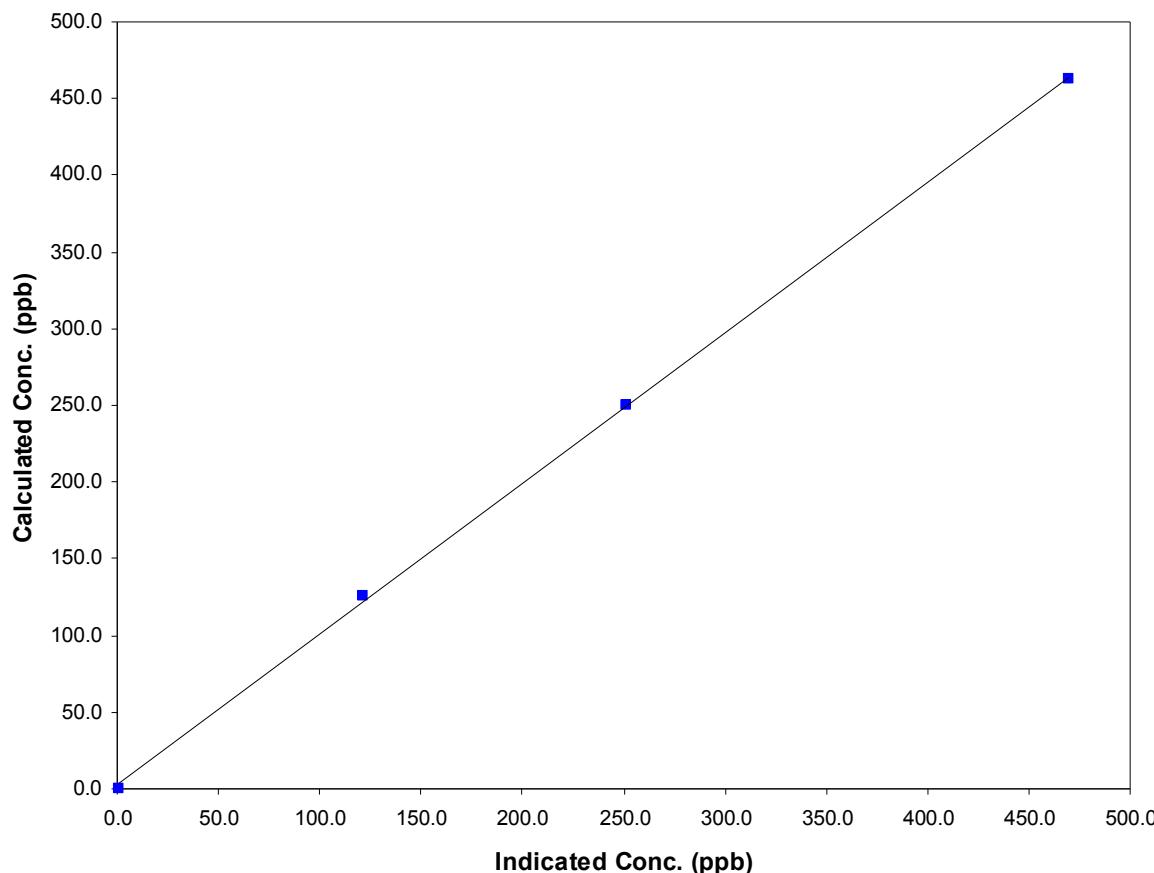
Parameter **SO<sub>2</sub>**  
 Air Monitoring Network **PASZA**

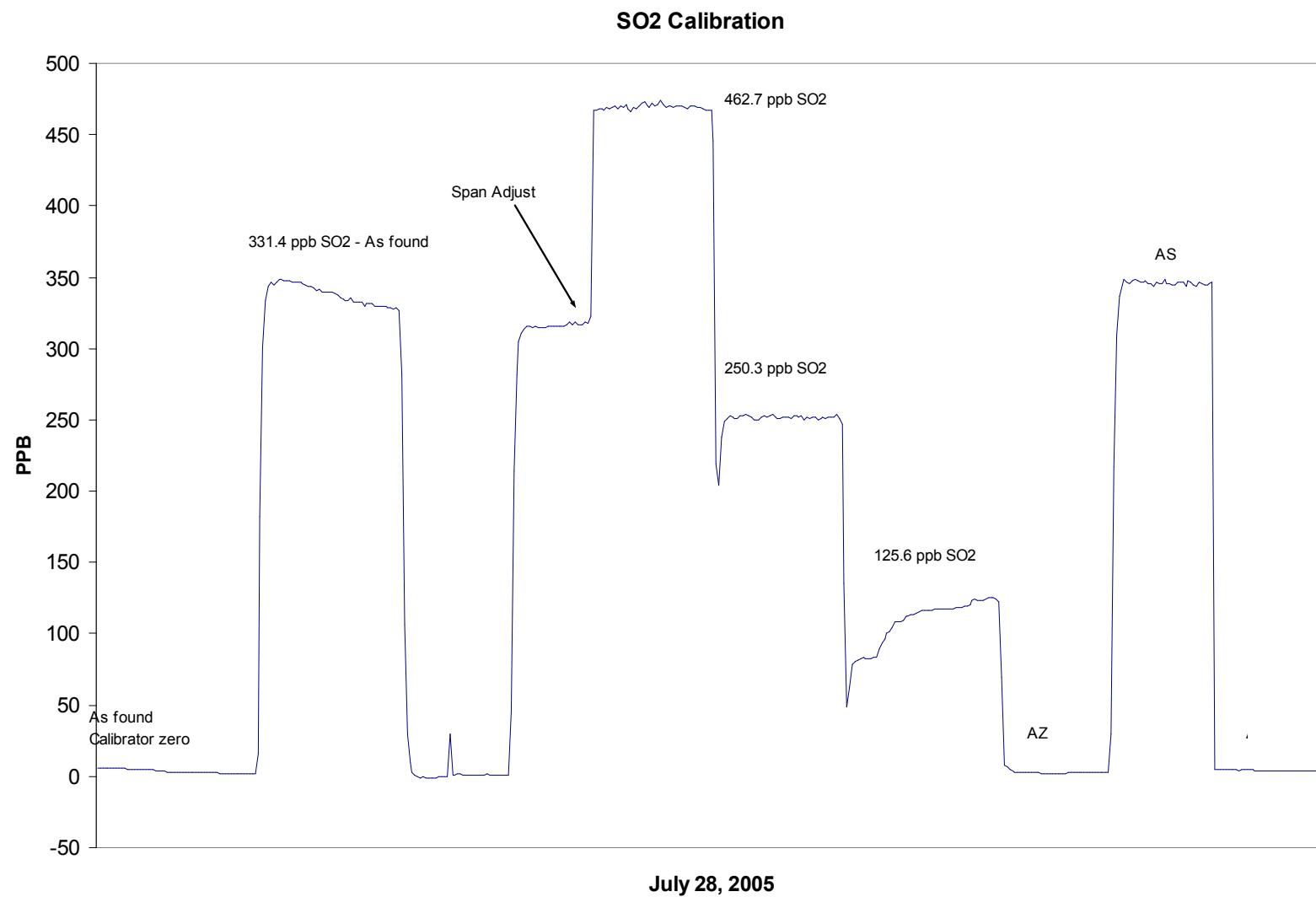
**Station Information**

Calibration Date	July 28, 2005	Previous Calibration	June 23, 2005
Station Number	3	Station Location	Smoky Heights
Start Time (MST)	19:30	End Time (MST)	23:12
Analyzer make/model	API 102A	Analyzer serial #	212

**Calibration Data**

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (lc)	Correction factor (Cc/lc)	Statistical Evaluation	
0.0	1.2	N/A		
462.7	469.7	0.9851	Correlation Coefficient	0.999772
250.3	251.7	0.9943		
125.6	121.9	1.0308	Slope	0.983871
			Intercept	1.929856

**SO<sub>2</sub> Calibration Curve**



# Calibration Report

Parameter **TRS**  
Air Monitoring Network



## **Station Information**

## **Calibration Data**

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (lc)	Correction factor (Cc/lc)
zero	2530.3	0.0	-0.1	N/A
2745	2530.3	51.4	51.8	0.9931
5075	4678.1	27.8	28.1	0.9890
10110	9319.3	14.0	12.1	1.1506
zero	2530.3	0.0	0.8	As Found Zero
2745	2530.3	51.4	56.3	As Found Span
Average Correction Factor				1.0442

Calculated value of As Found Response: 55.10 ppm Percent Change of As Found: -7.1%

	before calibration		after calibration	
Auto zero	-0.2	ppm	-0.1	ppm
Auto span	72.3	ppm	71.5	ppm

**Notes:**

## Calibration Summary

Parameter TRS

Air Monitoring Network PASZA



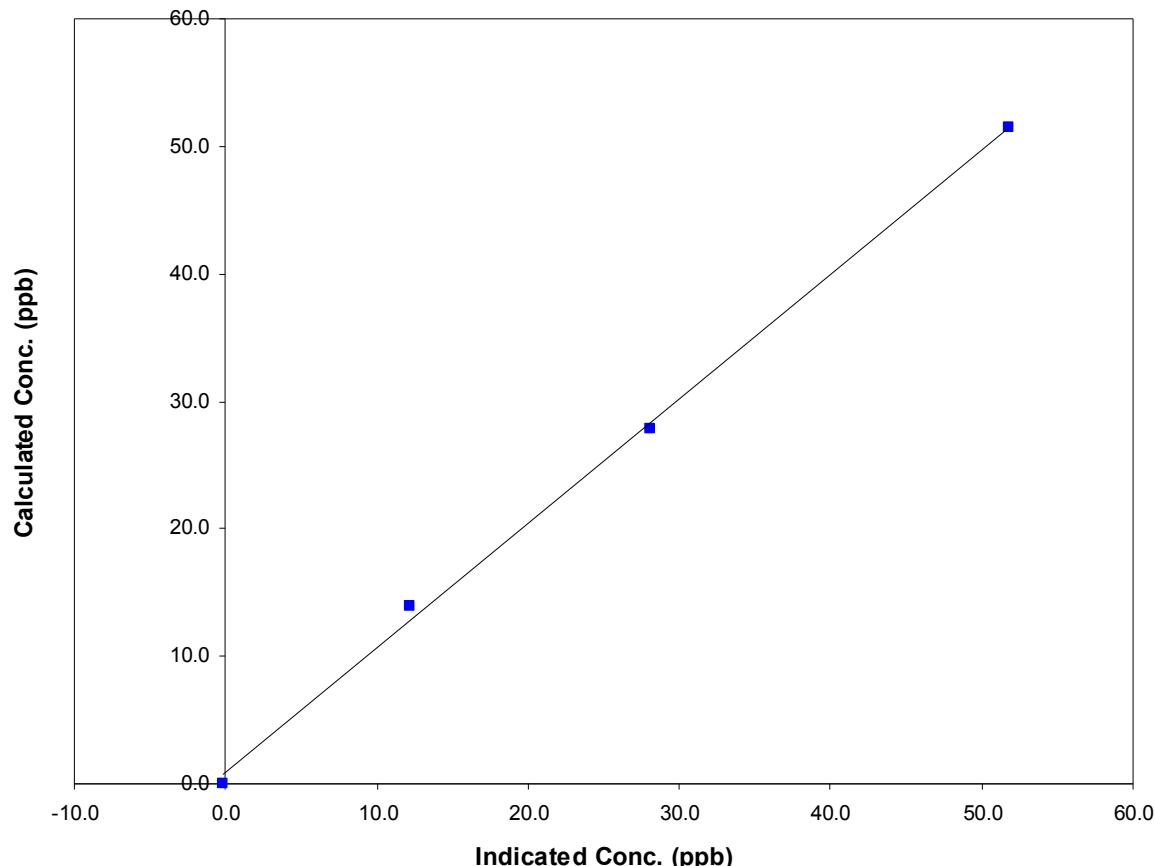
### Station Information

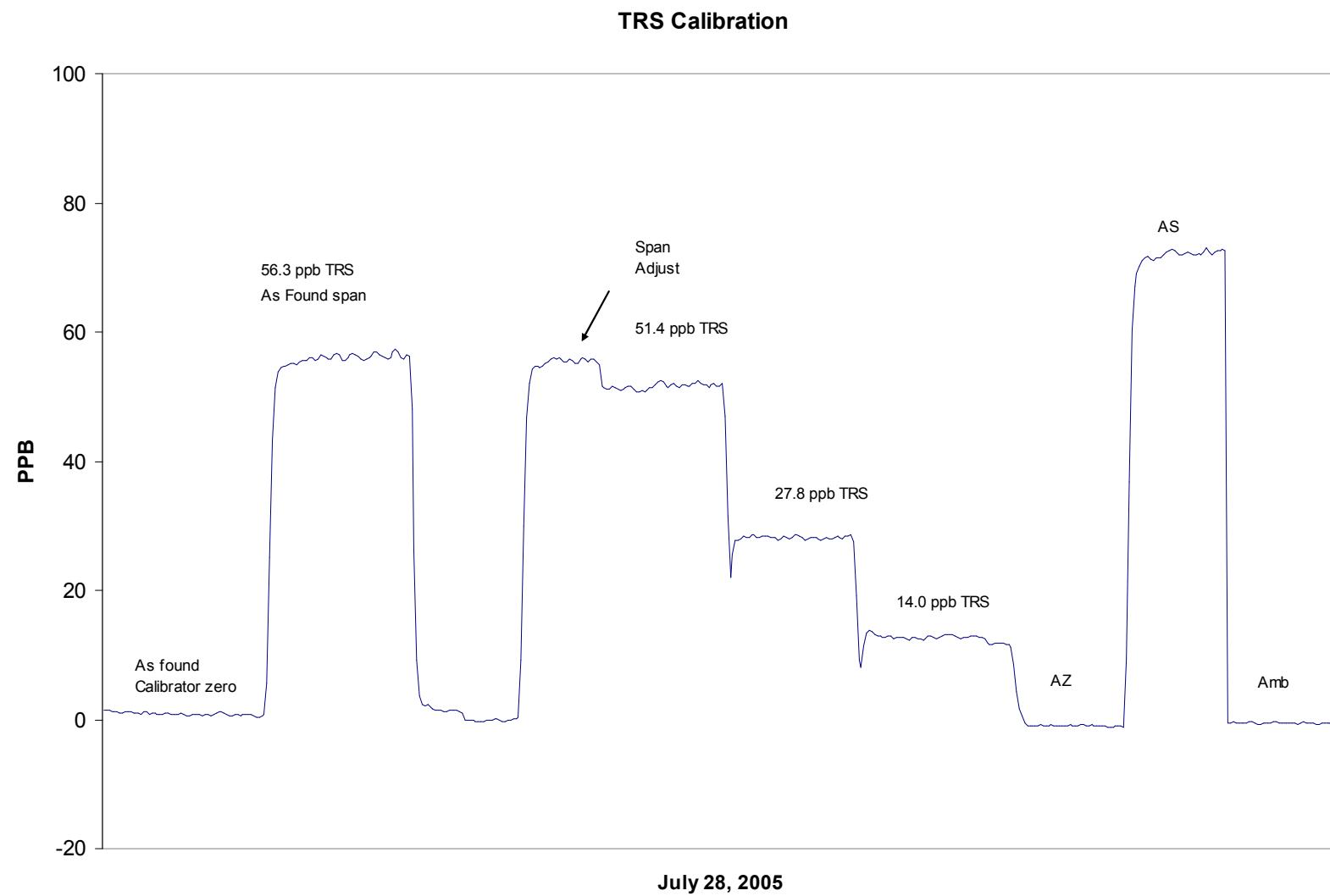
Calibration Date	July 28, 2005	Previous Calibration	June 23, 2005
Station Number	3	Station Location	Smoky Heights
Start Time (MST)	19:30	End Time (MST)	23:12
Analyzer make/model	TEI Model 43C	Analyzer serial #	436610004

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (lc)	Correction factor (Cc/lc)	Statistical Evaluation	
0.0	-0.1	N/A		
51.4	51.8	0.9931	Correlation Coefficient	0.998333
27.8	28.1	0.9890		
14.0	12.1	1.1506	Slope	0.977345
			Intercept	0.836924

### TRS Calibration Curve





**Calibration Report**

Parameter **PM2.5**  
 Air Monitoring Network **PASZA**

**Station Information**

Calibration Date	July 5, 2005	Previous Calibration	June 23, 2005
Station Number	1	Station Location	Smoky Heights
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	13:50	End Time (MST)	
Barometric Pressure	0.919 inches Hg	Station Temperature	22.0 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	3.000
Aux Flow Set Point	16.67	SLPM	16.67
Filter Load	54	%	18
Ko Factor			10997
Temperature	22.9	Deg C	22.9
Pressure	0.923	ATM	0.923
Main Fadj			
Aux Fadj			

**Calibration Data**

Parameter	Set Point	Indicated Reading	Tolerance	New Reading
zero flow - main	0.0	0.00		
zero flow - auxillary	0.0	0.01		
flow recovery - main	45 - 60 Seconds	>45	45 - 60 Seconds	>45
flow recovery - aux	46 - 60 Seconds	>45	46 - 60 Seconds	>45
Temperature	10.49 measured	22.9	+/- 1.0 Deg C	22.9
Pressure	0.924 measured	0.923	+/- 1.5% ΔATM	0.923
Total Flow	16.67 SLPm	16.30		16.30
Main Flow	13.67 SLPm	13.71	+/- 1.0 SLPm	13.71
Auxillary Flow	3.0 SLPm	3.010	+/- 0.2 SLPm	3.010
Leak Check - main	0.0	0.04	<0.15 SLPm	0.04
Leak Check - aux	0.0	0.08	<0.15 SLPm	0.08
Ko Factor	measured	NA		NA

Notes: Data running in the negative on arrival.

All Parameters running to spec.

Step 4 indicated on screen.

Change filter, Changed Blue Filter.

Calibration Performed By: Dawn Ewan

# Calibration Report

Air Monitoring Network **PASZA**



## **Station Information**

Calibration Date	July 11, 2005	Previous Calibration	May 17, 2005	
Station Number	4	Station Location	Beaverlodge	
Reason:	Routine	Install	Removal	
Start Time (MST)	8:48	End Time (MST)	11:46	
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	1.046733	Calculated slope	1.001235	
Calculated intercept	0.338827	Calculated intercept	0.238810	
Analyzer make	TEI Model 43CTL	Analyzer serial #	43CTL-74200-376	
	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.97	ppb	2.43	ppb
Coefficient	1.359		1.122	
Lamp Voltage	997.0	Volts	1000.0	Volts
Chamber Temp	44.1	Deg C	43.9	Deg C
Sample Flow	602	ccm	608	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	-0.01	N/A
4993	39.97	81.79	81.60	1.0024
4993	19.96	41.00	40.52	1.0119
4993	10.00	20.59	20.15	1.0219
4993	0.00	0.00	-0.01	As Found Zero
4993	39.97	81.79	76.14	As Found Span
Average Correction Factor				1.0121

Calculated value of As Found Response: 80.046 ppm Percent Change of As Found: 2.1%

	before calibration		after calibration	
Auto zero	0.07	ppm	0.36	ppm
Auto span	7.40	ppm	28.85	ppm

Notes: No zero adj. Adjusted span. Initial Jump in first point caused by operator error.

**Calibration Summary**

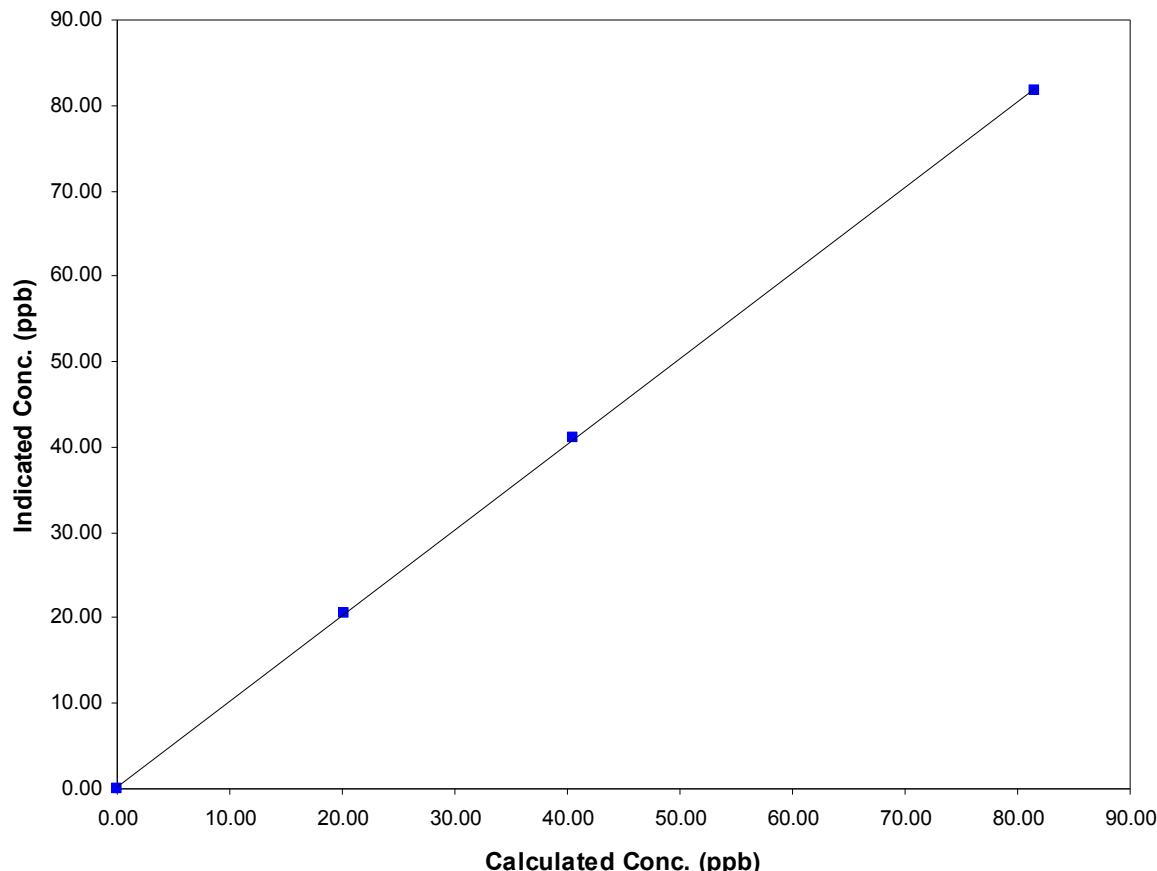
Parameter **SO<sub>2</sub>**  
 Air Monitoring Network **PASZA**

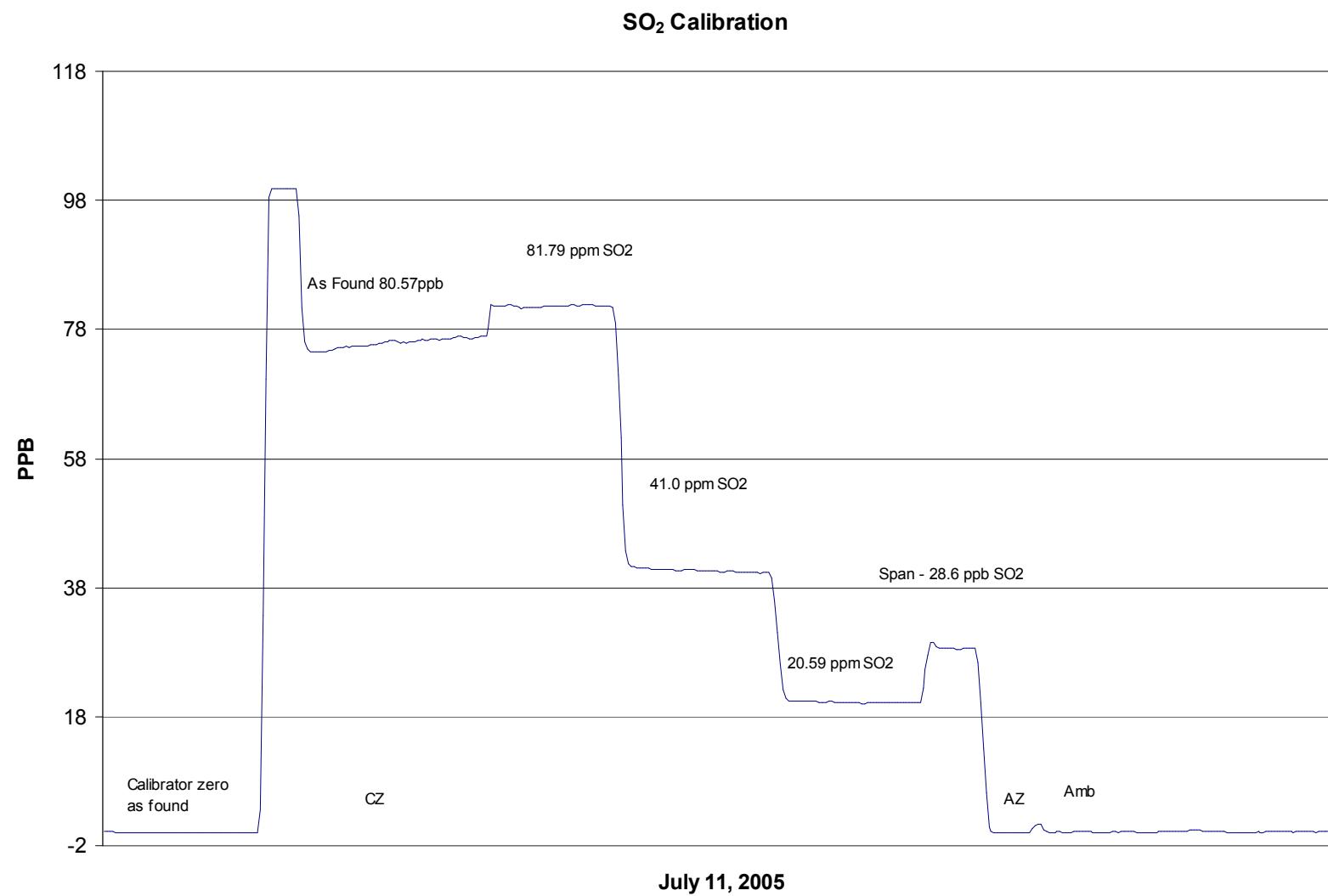
**Station Information**

Calibration Date	July 11, 2005	Previous Calibration	May 17, 2005
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:48	End Time (MST)	11:46
Analyzer make/model	TEI Model 43CTL	Analyzer serial #	43CTL-74200-376

**Calibration Data**

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (lc)	Correction factor (Cc/lc)	Statistical Evaluation	
0.000	-0.007	N/A		
81.795	81.596	1.0024	Correlation Coefficient	0.999961
41.003	40.519	1.0119		
20.588	20.147	1.0219	Slope	1.001235
			Intercept	0.238810

**SO<sub>2</sub> Calibration Curve**



# Calibration Report

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



## Station Information

Calibration Date	July 17, 2005			Previous Calibration	June 8, 2005	
Station Number	4			Station Location	AG Canada Research Station	
Reason:	Routine	Installation	Removal	Other:		
Start Time (MST)	8:40			End Time (MST)	12:40	
Barometric Pressure	0.918	Atm		Station Temperature	20.0	Deg C
Calibrator	Environics 6100			Serial Number	3016	
NO Cal Gas Conc	50.3	ppm		Cal Gas Expiry Date	22-Nov-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	1.000323	1.012447	1.013664	
	Data Offset	0.449577	-2.090985	-1.785209	
After	Data Slope	0.993332	0.993668	0.997664	
	Data Offset	-0.048419	-0.315305	-0.243597	
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	0-1000	ppb	0-1000	ppb
NO background	1.1	ppb	1.1	mV
NOx background	1.2	ppb	1.2	mV
NO coefficient	0.922		0.922	
NOx coefficient	1.005		1.005	
Chamber Temp	49.1	Deg C	1.0	Deg C
Cooler Temp	-2.2	Deg C	-2.0	Deg C
Converter Temp	324.0	Deg C	323.0	Deg C
Sample flow	836	LPM	835.0	LPM
Pressure	162.4	inches Hg	162.3	inches Hg
Box Temp	33.1	ccm	33.3	ccm

Notes: No adjustments made.

Forgot that the analyzer range was 1000ppb next time will have higer cal numbers.

## Calibration Report

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

Air Monitoring Network **PASZA**



### Station Information

Calibration Date: July 17, 2005

Station Location: AG Canada Research Station

### Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NOx Correction factor	NO Correction factor	
zero	4993	0.00	0.0	0.0	0.0	-0.4	-0.4	-0.4	N/A	N/A	
	4993	39.97	401.1	399.5	1.6	403.6	400.4	2.7	0.9936	0.9976	
	4993	19.98	201.3	200.5	0.8	203.0	201.2	1.0	0.9913	0.9964	
	4993	9.99	100.8	100.4	0.4	102.6	101.8	0.4	0.9827	0.9866	
AFZ	4993	0.00	0.0	0.0	0.0	-0.4	-0.4	-0.4	0.0000	0.0000	
	4993	39.97	401.1	399.5	1.6	403.6	400.4	2.6	0.9937	0.9976	
									Average Correction Factor	0.9892	0.9935

As Found Concentrations:

NO<sub>x</sub>= 401.9

NO= 399.1

As Found Percent Change NO<sub>x</sub>= 0.2%

NO= -0.1%

### GPT Calibration Data

Dilution Flow	4993		ccm	Source Gas Flow	39.97		ccm				
O <sub>3</sub> Setpoint (ppb)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NOx Correction factor	NO Correction factor	NO <sub>2</sub> Correction factor	Converter Efficiency	
0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A	N/A	
NO point	399.0	399.5	-0.5	403.7	400.7	2.5	0.9884	0.9971	N/A	N/A	
300	399.0	119.7	279.3	402.1	120.2	281.1	0.9923	0.9956	0.9938	100.6%	
200	399.0	209.5	189.5	401.6	210.2	190.7	0.9936	0.9965	0.9937	100.6%	
100	399.0	303.5	95.5	401.9	304.5	96.9	0.9928	0.9969	0.9849	101.5%	
						Average Correction Factor	0.9929	0.9963	0.9908	100.9%	

### AIC Data

	Previous calibration				Current calibration				
Parameter	NOx	NO <sub>2</sub>	NO	ppb	NOx	NO <sub>2</sub>	NO	ppb	
Auto zero	0.1	0.2	0.1	ppb	243.8	15.5	228.6	ppb	
Auto span	NA	NA	NA	ppb	NA	NA	NA	ppb	

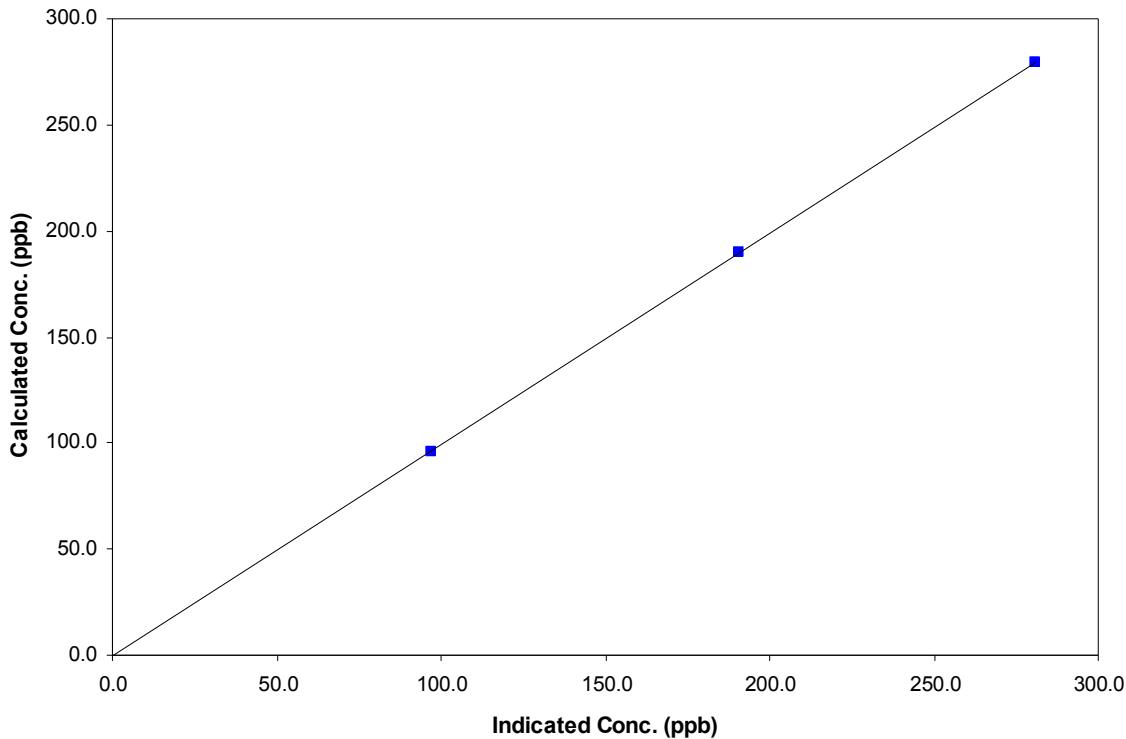
Calibration Performed By: Dawn Ewan

**Calibration Summary**Parameter **NO<sub>2</sub>**Air Monitoring Network **PASZA****Station Information**

Calibration Date	July 17, 2005	Previous Calibration	June 8, 2005
Station Number	4	Station Location	AG Canada Research Station
Start Time (MST)	8:40	End Time (MST)	12:40
Analyzer make	Teco 42C	Analyzer serial #	508011073

**Calibration Data**

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (lc)	Correction factor (Cc/lc)	Statistical Evaluation	
0.0	-0.4	0.0000		
279.3	281.1	0.9938	Correlation Coefficient	0.999980
189.5	190.7	0.9937		
95.5	96.9	0.9849	Slope	0.993332
			Intercept	-0.048419

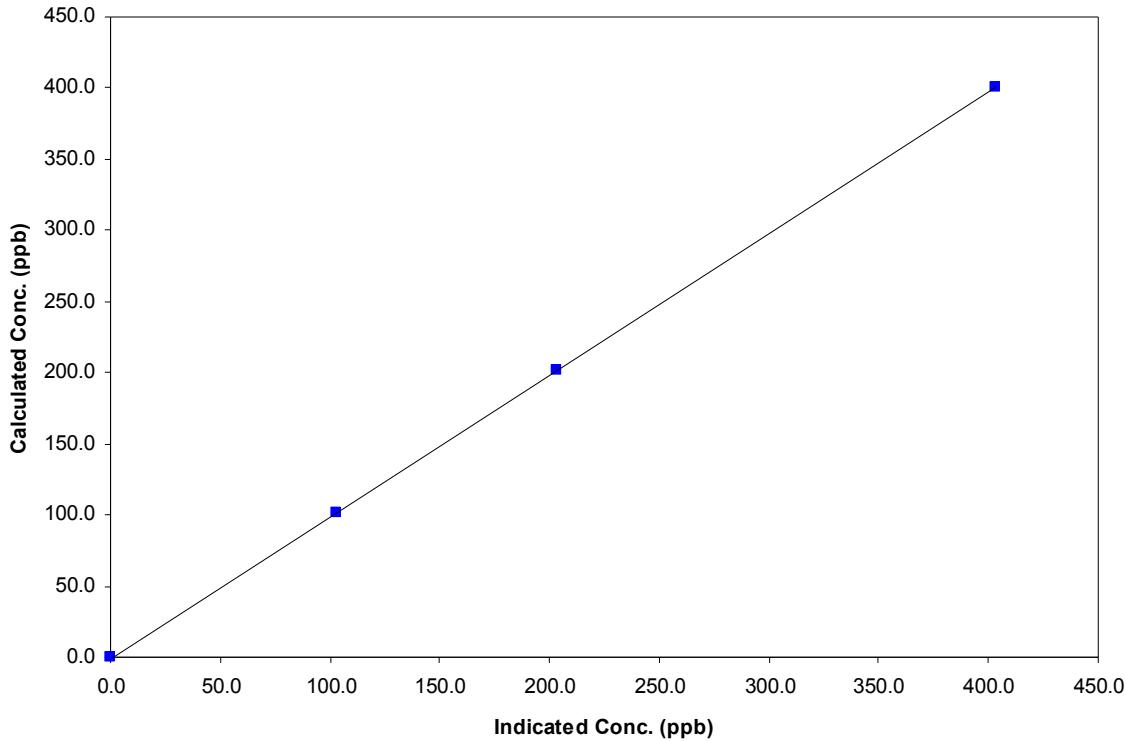
**NO<sub>2</sub> Calibration Curve**

**Calibration Summary**Parameter **NO<sub>x</sub>**Air Monitoring Network **PASZA****Station Information**

Calibration Date	July 17, 2005	Previous Calibration	June 8, 2005
Station Number	4	Station Location	AG Canada Research Station
Start Time (MST)	8:40	End Time (MST)	12:40
Analyzer make	Teco 42C	Analyzer serial #	508011073

**Calibration Data**

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (lc)	Correction factor (Cc/lc)	Statistical Evaluation	
0.0	-0.4	0.0000	Correlation Coefficient	0.999986
401.1	403.6	0.9936		
201.3	203.0	0.9913		
100.8	102.6	0.9827		
			Slope	0.993668
			Intercept	-0.315305

**NOx Calibration Curve**

**Calibration Summary**

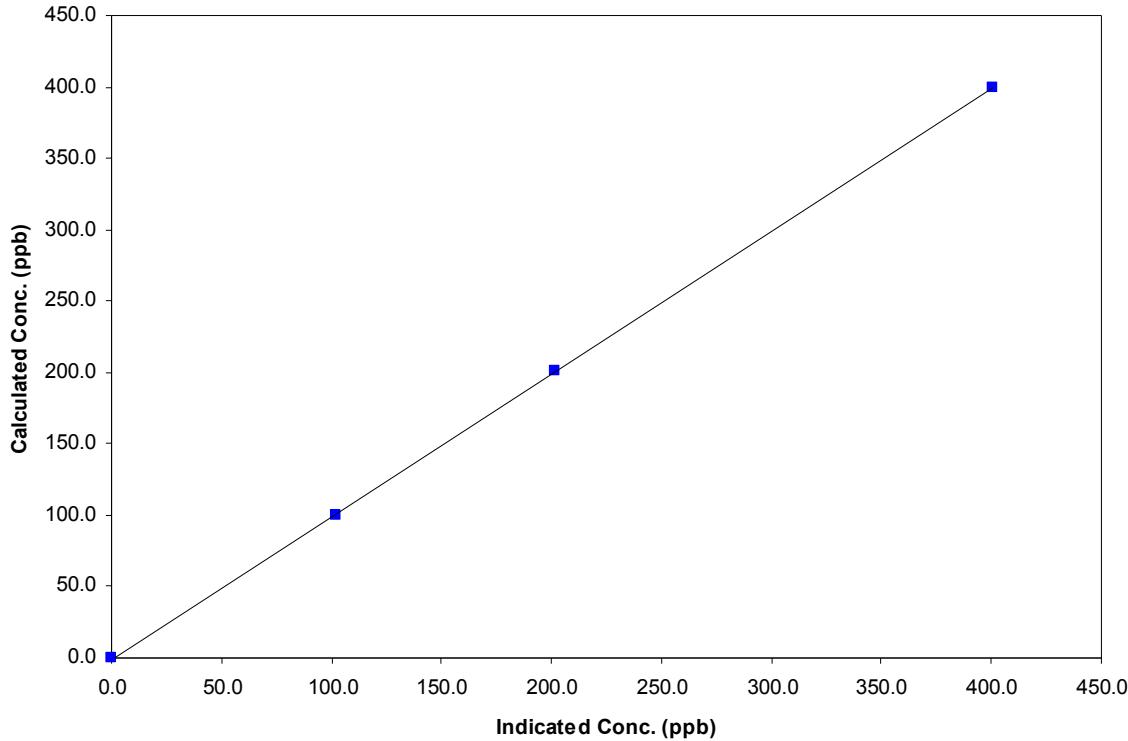
Parameter NO  
 Air Monitoring Network PASZA

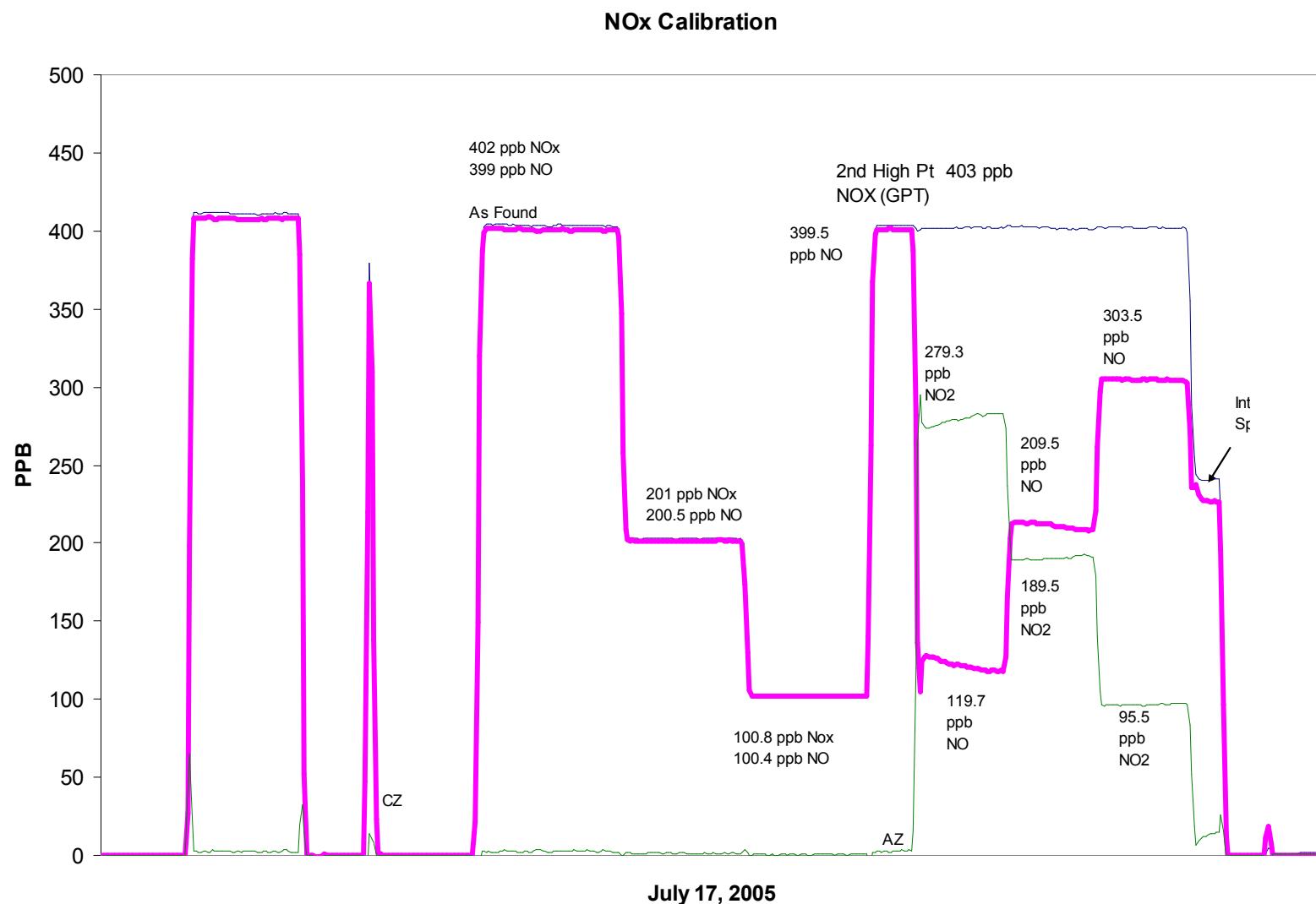
**Station Information**

Calibration Date	July 17, 2005	Previous Calibration	June 8, 2005
Station Number	4	Station Location	AG Canada Research Station
Start Time (MST)	8:40	End Time (MST)	12:40
Analyzer make	Teco 42C	Analyzer serial #	508011073

**Calibration Data**

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (lc)	Correction factor (Cc/lc)	Statistical Evaluation	
0.0	-0.4	N/A		
399.5	400.4	0.9976	Correlation Coefficient	0.999985
200.5	201.2	0.9964	Slope	0.997664
100.4	101.8	0.9866	Intercept	-0.243597

**NO Calibration Curve**



**Calibration Report**

Parameter O3  
 Air Monitoring Network PASZA

**Station Information**

Calibration Date	July 14, 2005	Previous Calibration	June 7, 2005
Station Number	1	Station Location	Muskoseepi Park
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	13:00	End Time (MST)	15:38
Barometric Pressure	0.926 atm	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA

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

Calculated slope	1.047905	Calculated slope	1.018895
Calculated intercept	-2.690889	Calculated intercept	2.206776

Analyzer make	API Model 400	Analyzer serial #	383
---------------	---------------	-------------------	-----

Concentration range offset slope Lamp measure Lamp Reference Pressure Sample Flow Lamp temp	before		after	
	0 - 500	ppb	0 - 500	ppb
	-1.2	ppb	-1.2	ppb
	1.048		1.037	
Lamp measure	2632	mV	2500	mV
Lamp Reference	2633	mV	2500	mV
Pressure	26.9	inches Hg	27.2	inches Hg
Sample Flow	664	ccm	667	ccm
Lamp temp	52	Deg C	52	Deg C

**Calibration Data**

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.2	N/A
4995	0.00	289.2	284.6	1.0161
4995	0.00	197.6	188.2	1.0503
4995	0.00	98.3	92.6	1.0612
4995	0.00	0.0	-0.2	As found zero
4995	0.00	289.2	284.4	As found span
Average Correction Factor				1.0425

Calculated value of As Found Response: 295.6 ppm Percent Change of As Found: 2.2%

Auto zero Auto span	before calibration		after calibration	
	1.5	ppb	1.8	ppb
	272.9	ppb	133.6	ppb

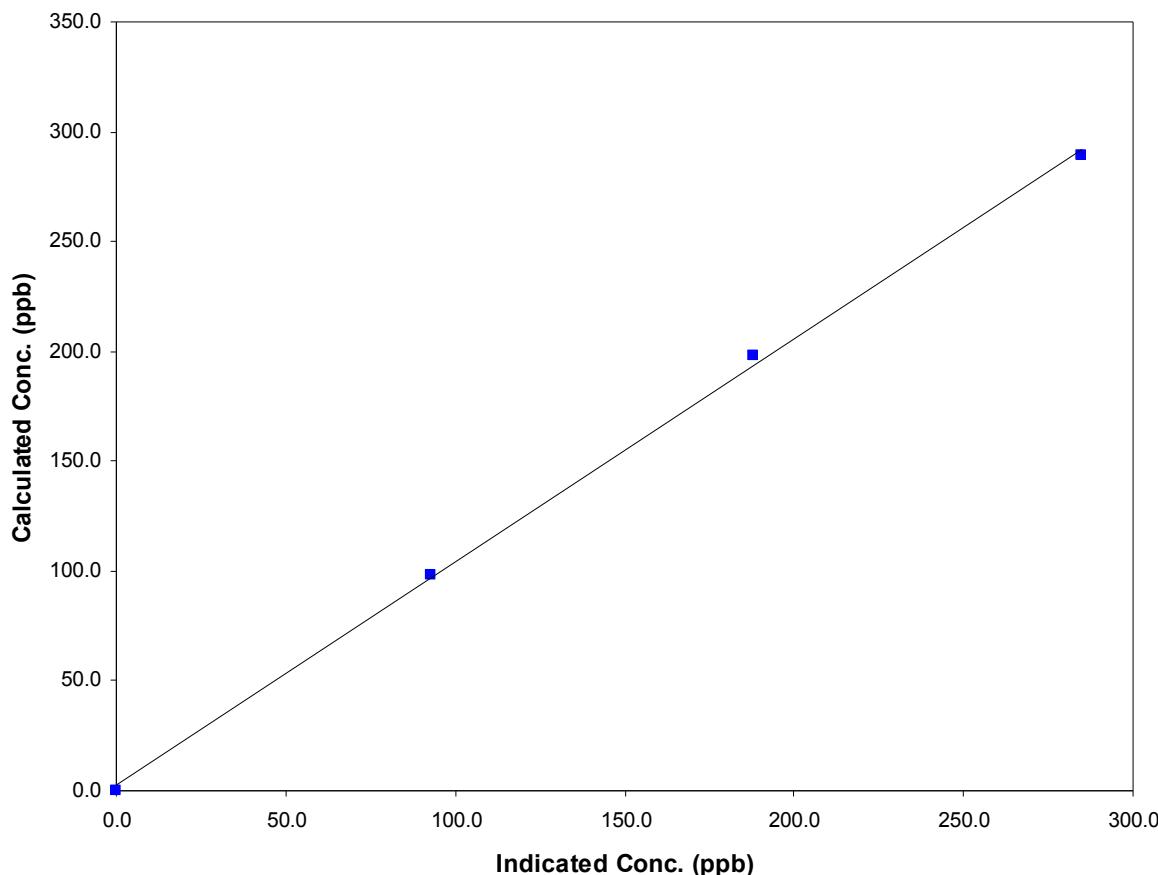
Notes: No adjustments made

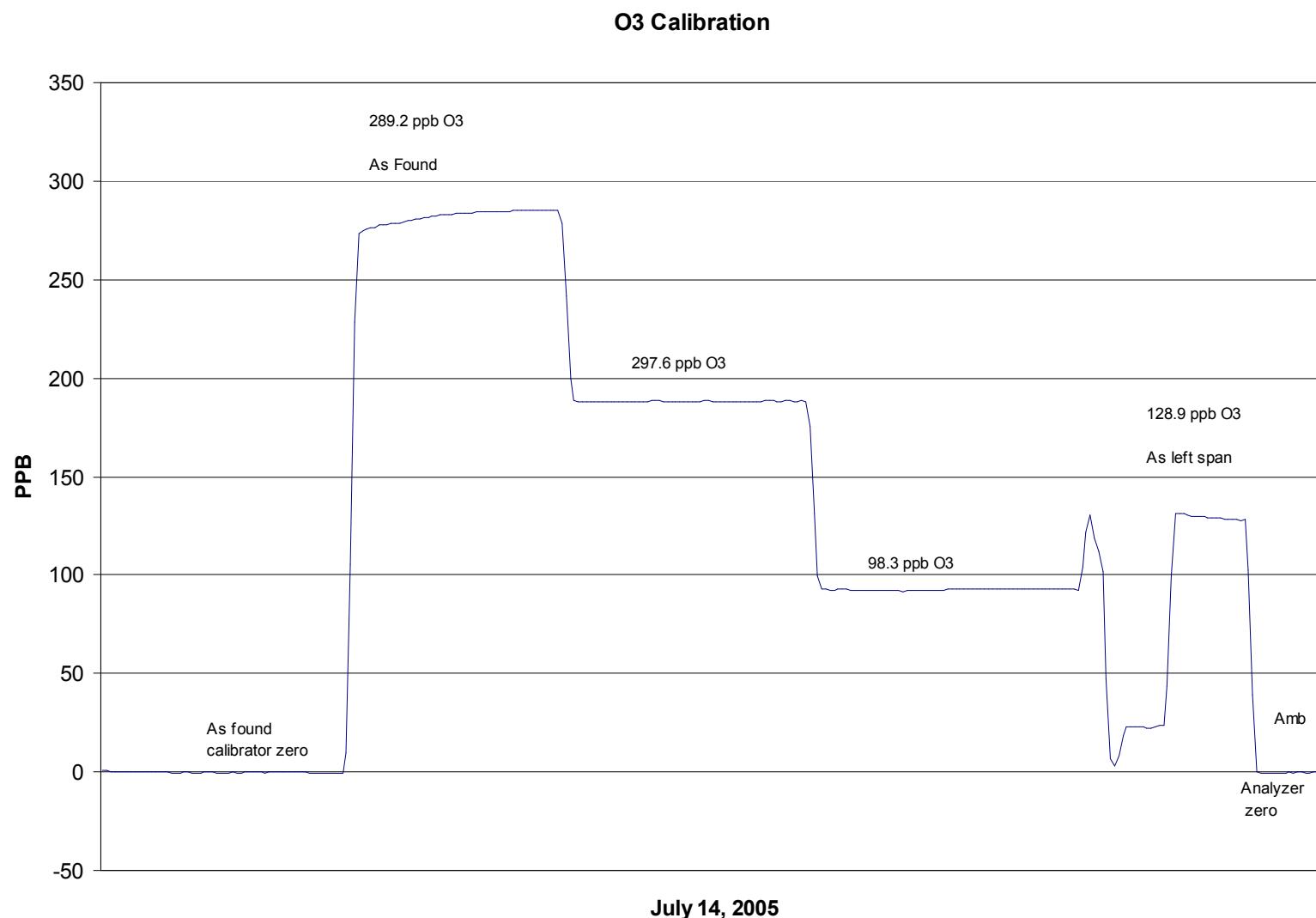
**Calibration Summary**Parameter O3Air Monitoring Network PASZA**Station Information**

Calibration Date	July 14, 2005	Previous Calibration	June 7, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	13:00	End Time (MST)	15:38
Analyzer make/model	API Model 400	Analyzer serial #	383

**Calibration Data**

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	NA		
289.2	284.6	1.0161	Correlation Coefficient	0.999326
197.6	188.2	1.0503		
98.3	92.6	1.0612	Slope	1.018895
			Intercept	2.206776

**O3 Calibration Curve**



**Calibration Report**

Parameter **PM2.5**  
 Air Monitoring Network **PASZA**

**Station Information**

Calibration Date	July 17, 2005	Previous Calibration	
Station Number	1	Station Location	Muskoseepi Park
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	13:25	End Time (MST)	13:55
Barometric Pressure	0.918 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	2.990	SLPM
Aux Flow Set Point	16.67	SLPM	16.67	SLPM
Filter Load	22	%	24	%
Ko Factor	14287		14287	
Temperature	24.4	Deg C	24.0	Deg C
Pressure	0.923	ATM	0.930	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		0.02
flow recovery - main	45 - 60 Seconds	na	45 - 60 Seconds	25
flow recovery - aux	46 - 60 Seconds	na	46 - 60 Seconds	39
Temperature	measured	24.9	+/- 1.0 Deg C	24.4
Pressure	measured	0.918	+/- 1.5% ΔATM	0.924
Total Flow	16.67 SLPm	16.14		
Main Flow	13.67 SLPm	13.70	+/- 1.0 SLPm	13.67
Auxillary Flow	3.0 SLPm	3.028	+/- 0.2 SLPm	3.000
Leak Check - main	0.0	0.00	<0.15 SLPm	-0.60
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:

---

Did not do KO Filter, just done with AB ENV audit.

---

Calibration Performed By: **Dawn Ewan**

---