



# **PEACE AIRSHED ZONE ASSOCIATION**

## **Air Quality Monitoring Network**

**October 2004**

Prepared by



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Enforcement and Monitoring Division  
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Edmonton, Alberta, T5K 2J6

**Re: Peace Airshed Zone Association – October PASZA Ambient Air Report**

Enclosed is PASZA Ambient Monitoring Report for the month of **October 2004**.

**Continuous Monitoring – Henry Pirker Station (Grande Prairie)**

Included in this report is a summary of the, monthly continuous sampling, detailed hourly average reports and multipoint calibration reports of all instruments. The measured ambient air quality was within the Provincial and Federal guidelines with no exceedences recorded. There were no significant events leading to emergency response for the month of October.

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

There were no damaged or missing passive samples; in addition there were no elevated readings leading to further investigation.

- Monthly average concentrations for SO<sub>2</sub> passives ranged from 0.1 ppb to 0.9 ppb.
- Monthly average concentrations for NO<sub>2</sub> passives ranged from 0.7 ppb to 10.5 ppb.
- Monthly average concentrations for O<sub>3</sub> passives ranged from 24.5 ppb to 37.0 ppb.

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

On Behalf of the,  
Peace Airshed Zone Association

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

Kevin Warren  
PASZA Technical Program Manager

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

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

cc Gary Cross, C.E.T., Focus AQM Technical Manager

# PASZA Monthly Continuous Data Summary

## October 2004 Monthly Overall Summary Report

### Ambient Air Quality Data

Oct-2004 Peace Airshed Zone Association							Maximum Recorded Values						Operational Time (%)
Pollutant (units)	Guidelines		Station	Monthly Average	Exceedence		1-hr				24-hr		
	1-hr	24-hr			1-hr	24-hr	Conc	Day	WSPD (km/hr)	WDIR (Sector)	Conc	Day	
SO <sub>2</sub> (ppb)	172	57	Henry Pirker	0.5	0	0	12.7	Oct-09	9.8	W	1.1	Oct-09	99.5%
NO (ppb)			Henry Pirker	11.8	0	0	312.5	Oct-28	1.3	W	62.4	Oct-27	99.7%
NO <sub>2</sub> (ppb)	212	106	Henry Pirker	10.9	0	0	59.1	Oct-28	1.3	W	25.7	Oct-29	99.7%
NO <sub>x</sub> (ppb)			Henry Pirker	22.7	0	0	370.8	Oct-28	1.3	W	83.3	Oct-27	99.7%
O <sub>3</sub> (ppb)	82		Henry Pirker	16.1	0	0	37.6	Oct-05	8.5	SSE	26.6	Oct-06	99.7%
CO (ppm)	13		Henry Pirker	0.29	0	0	2.73	Oct-28	1.3	W	0.67	Oct-28	99.7%
THC (ppm)			Henry Pirker	2.06	0	0	3.34	Oct-05	2.8	NNE	2.42	Oct-27	99.7%
TRS (ppb)			Henry Pirker	0.6	0	0	4.6	Oct-25	7.9	NE	1.3	Oct-25	99.7%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )		30 <sup>a</sup>	Henry Pirker	5.0	0	0	44.2	Oct-28	1.3	W	16.5	Oct-28	99.9%
RH (%)			Henry Pirker	72.0									99.9%
SR (W/m <sup>2</sup> )			Henry Pirker	79.9									99.9%
Temp (°C)			Henry Pirker	2.9									99.9%
WSPD v (km/hr)			Henry Pirker	3.5									99.9%
WSPD s (km/hr)			Henry Pirker	9.1									99.9%
WDIR (Deg)			Henry Pirker	WNW*									99.9%

Note: <sup>a</sup> the 24-hr Canada Wide Standard level is considered as an absolute value

\* Wind Direction is the predominate direction for the Month

# Continuous Monitoring

## Ambient Air Monitoring Network

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### Henry Pirker Station

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#### General Station Issues

Data was missing for 2 hours during the month for most parameters on October 19 - 9:00 to 10:00 and October 20 - 3:00 to 4:00 due to maintenance work on the data system.

Parameter	Make	Model	Notes
SO <sub>2</sub>	TECO	43	2 hours of data were missing on October 20 due to negative drift
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	No operational problems observed
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 - Henry Pirker Sulphur Dioxide Monthly Summary

Station: Henry Pirker

## HOURLY AVERAGE TABLE

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

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	12.7	ppb	9-Oct	6:00 7:00
Maximum 24-hr Average:	1.1	ppb	9-Oct	

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

AIC Time:	32 hrs	Operational Time:	704 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	99.5%
Percentile	99	95	75
	1.9	1.2	0.6
	50	25	5
	0.3	0.2	0.0
	1	0.0	0.0
Average	0.5 ppb		

**Status Flag Characters**

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

**Day Mountain Standard Time**

Day	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-Oct-04	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.9	
2-Oct-04	0	0	0	1	1	1	1	1	1	1	0	0	0	0	1	1	0	1	0	0	0	A	0	0	0.4	1.2	
3-Oct-04	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	A	1	0	0	0	0.4	0.8	
4-Oct-04	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	A	0	0	1	1	0	0.5	1.4	
5-Oct-04	0	0	0	0	0	0	0	0	1	2	1	2	2	1	1	1	1	A	1	1	0	0	0	1	0.8	2.0	
6-Oct-04	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.7	
7-Oct-04	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	0.3	1.0
8-Oct-04	0	0	0	0	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	0	0	0.6	1.1	
9-Oct-04	1	0	0	0	0	0	13	4	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	1.1	12.7	
10-Oct-04	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
11-Oct-04	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6	
12-Oct-04	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	1	0	0	0	0	0	0	0	0.4	1.2	
13-Oct-04	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	
14-Oct-04	0	0	0	0	0	0	0	1	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.7	
15-Oct-04	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5	
16-Oct-04	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
17-Oct-04	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4	
18-Oct-04	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0.3	0.9	
19-Oct-04	0	0	0	A	0	1	1	1	1	N	1	C	C	C	C	0	0	0	0	0	0	0	0	0	0.3	0.9	
20-Oct-04	0	0	0	N	D	0	D	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0.2	1.1	
21-Oct-04	2	2	1	A	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	0	0	1.0	2.1	
22-Oct-04	0	0	A	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0.4	0.7	
23-Oct-04	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0.6	1.3	
24-Oct-04	A	0	0	1	2	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.8	
25-Oct-04	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	A	1	0.8	2.7	
26-Oct-04	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	A	0	0	0.5	0.8	
27-Oct-04	0	0	0	0	0	0	0	1	1	1	1	1	2	1	2	2	2	2	1	1	A	0	0	0	0.9	1.9	
28-Oct-04	0	0	0	0	0	1	1	2	3	2	1	1	1	1	1	1	1	0	0	A	0	0	0	0	0.8	2.8	
29-Oct-04	0	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	0	0	1	1	0.7	1.2	
30-Oct-04	1	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0.4	0.6	
31-Oct-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.4	
Hourly Avg	0.3	0.3	0.3	0.3	0.3	0.4	0.9	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.5	0.4	0.4	0.4	0.3	0.3	0.3			
Hourly Max	1.8	1.7	1.3	1.5	1.8	1.0	12.7	4.1	2.8	2.3	2.0	2.1	1.8	1.6	1.8	1.9	1.8	1.9	1.1	1.2	2.7	1.4	0.8	1.1			

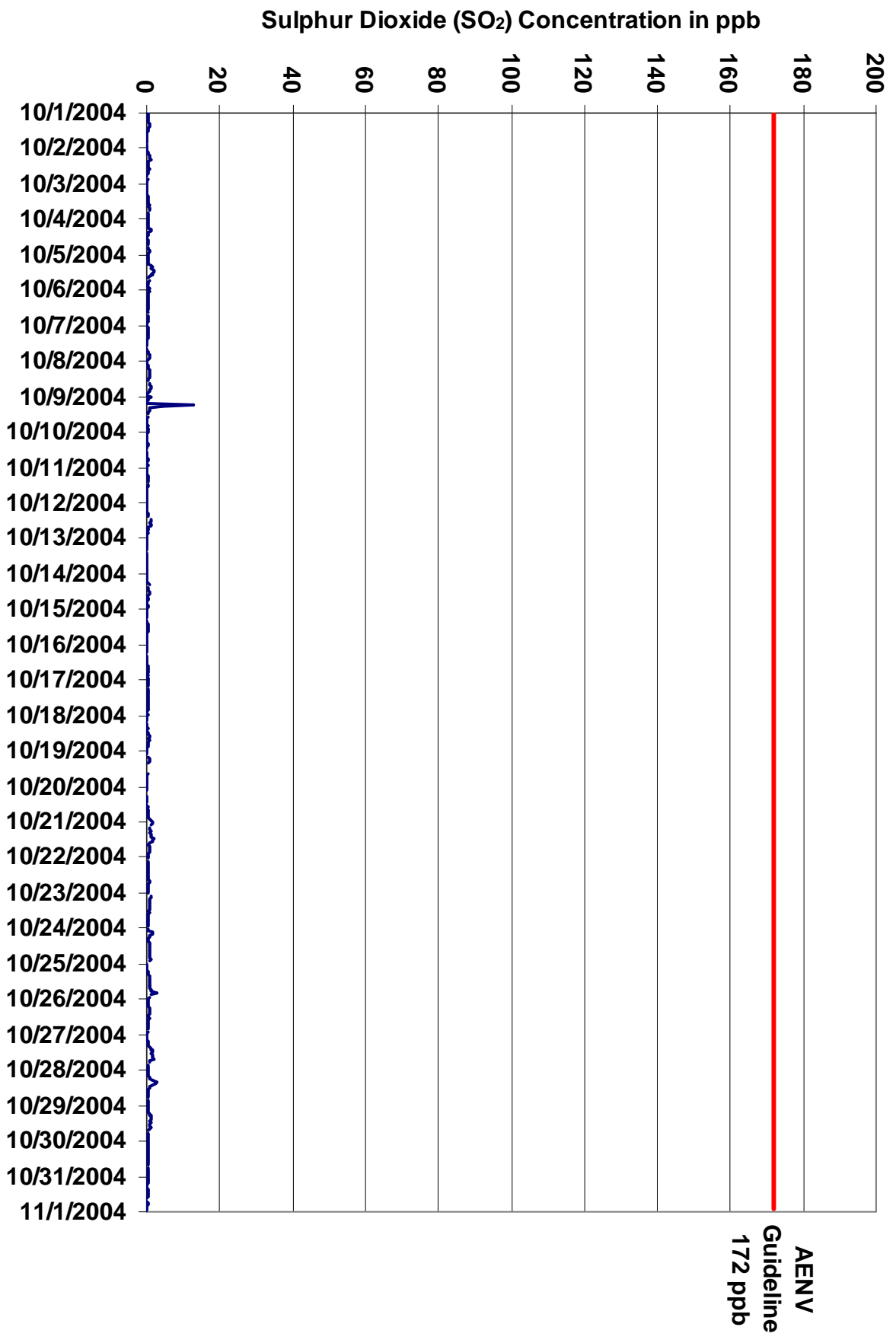


Figure 1. PASZA - Henry Pirker Sulphur Dioxide 1-hr Average Monthly Trend

Station: Henry Pirker

### HOURLY MAXIMUM TABLE

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

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004  
 Summary

Maximum 1-hr Value:	21.9	ppb	9-Oct	6:00 7:00
Maximum 24-hr Value:	2.7	ppb	9-Oct	

AIC Time:	32 hrs	Operational Time:	704 hrs					
Calibration Time:	4 hrs	AMD Operational Uptime:	99.5%					
Percentile	99	95	75	50	25	5	1	Average
	4.0	2.2	1.2	0.9	0.7	0.5	0.4	1.1 ppb

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Oct-04	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.6
2-Oct-04	1	1	1	1	1	1	1	1	2	1	1	1	1	1	2	1	1	1	1	1	A	1	1	1	1.1	2.4
3-Oct-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.4
4-Oct-04	1	1	1	1	1	1	1	3	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.2	2.7
5-Oct-04	1	1	1	1	1	1	1	2	2	2	3	3	2	2	2	2	1	A	2	1	1	1	1	1	1.5	2.7
6-Oct-04	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.9	1.6
7-Oct-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	1	1	1	0.9	1.6
8-Oct-04	1	1	1	1	1	1	1	1	2	1	1	1	1	1	A	1	2	2	2	2	1	1	1	1	1.2	1.9
9-Oct-04	3	1	1	1	1	1	22	11	2	5	4	1	1	A	1	1	1	1	1	1	1	1	1	1	2.7	21.9
10-Oct-04	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
11-Oct-04	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
12-Oct-04	1	1	1	1	1	1	1	1	1	1	A	2	2	1	2	3	1	1	1	1	1	1	1	1	1.1	2.5
13-Oct-04	1	1	1	1	1	1	0	1	0	A	1	1	0	1	1	1	1	1	1	1	1	1	1	0	0.6	0.8
14-Oct-04	1	0	0	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	0.9	1.6
15-Oct-04	1	1	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.7	1.2
16-Oct-04	1	1	0	1	1	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
17-Oct-04	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
18-Oct-04	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	0.9	1.9
19-Oct-04	1	1	1	A	1	1	1	2	1	N	1	C	C	C	C	2	1	1	1	1	1	1	1	1	0.9	1.7
20-Oct-04	0	0	1	N	D	0	D	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	2	0.6	1.6
21-Oct-04	3	3	2	A	1	2	2	2	2	2	2	4	3	2	2	1	1	1	1	1	1	1	1	1	1.8	4.4
22-Oct-04	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3
23-Oct-04	1	A	2	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.0
24-Oct-04	A	1	1	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	A	1.5	4.2
25-Oct-04	1	1	1	1	0	1	1	2	2	1	2	2	1	2	2	2	1	2	3	2	5	2	A	2	1.6	4.6
26-Oct-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.1	1.4
27-Oct-04	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	2	1	A	1	1	1	1.5	2.9
28-Oct-04	1	1	1	1	1	1	2	3	4	4	2	2	1	1	1	1	1	1	1	A	1	1	1	1	1.4	3.9
29-Oct-04	1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	2	1	1	A	1	1	1	1	1	1.4	2.4
30-Oct-04	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	1.4
31-Oct-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.0
Hourly Avg	1.0	0.8	0.9	1.0	1.0	1.0	1.8	1.5	1.3	1.4	1.3	1.3	1.2	1.1	1.2	1.2	1.0	1.1	1.1	1.0	1.0	0.9	0.9	0.8		
Hourly Max	3.5	2.6	2.0	4.2	4.2	1.6	21.9	11.3	3.6	5.1	4.0	4.4	3.0	2.3	2.5	2.9	2.6	2.7	2.5	2.2	4.6	2.4	1.4	1.6		



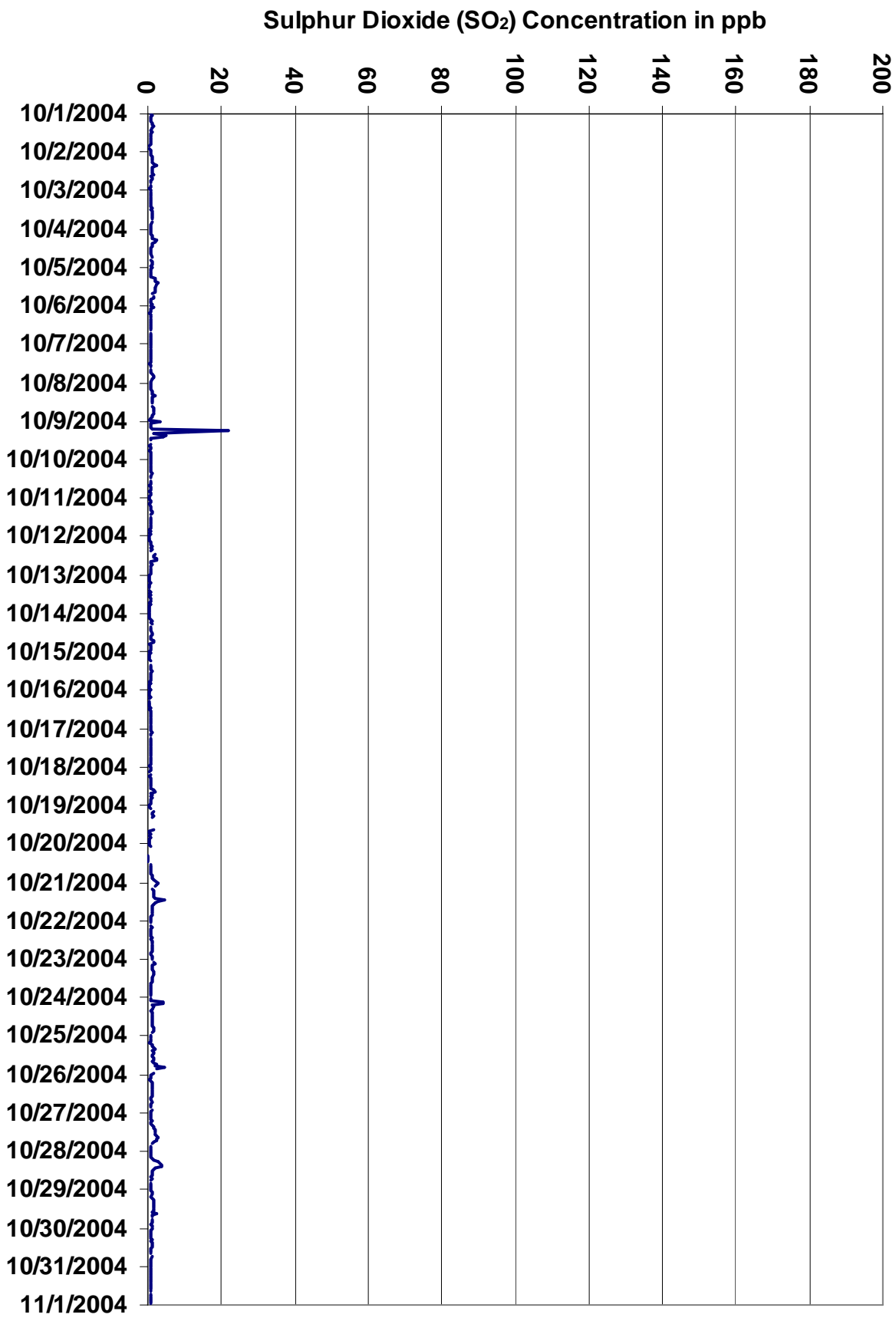
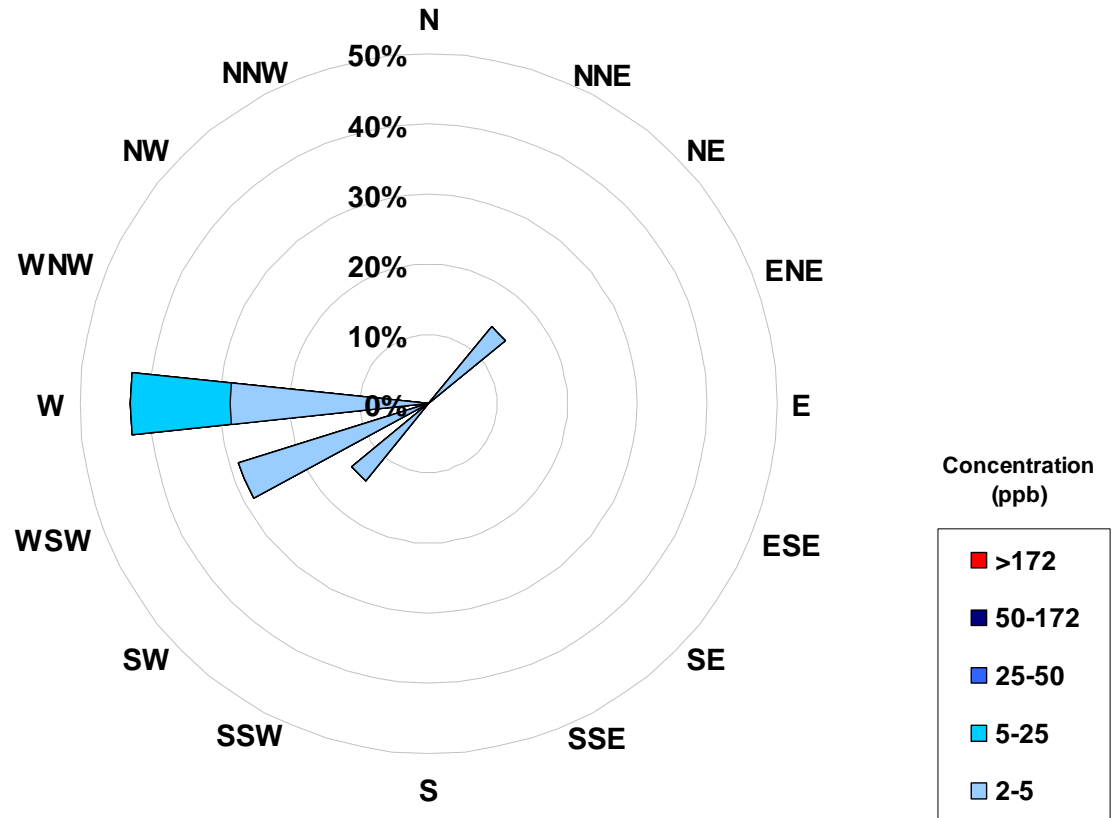


Figure 2. PASZA - Henry Pirker Sulphur Dioxide 1-hr Maximum Value Monthly Trend

**Concentration Rose for the 1-hr SO<sub>2</sub> Average Concentration Occurrences at the Henry Pirker Site for October 2004**



Frequency Distribution of SO <sub>2</sub> in ppb			
Range	Frequency (hrs)		
0 < 2	697		
2 to 5	6		
5 to 25	1		
25 to 50	0		
50 to 172	0		
> 172	0		
Total Non-Zero Values		704	

Calms	
Range	ppb
2-5	0.0%
5-25	0.0%
25-50	0.0%
50-172	0.0%
>172	0.0%

## PASZA - Henry Pirker Oxides of Nitrogen Monthly Summary

Station: Henry Pirker

### HOURLY AVERAGE TABLE

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

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	59.1 ppb 28-Oct 8:00 9:00
Maximum 24-hr Average:	25.7 ppb 29-Oct

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

AIC Time:	32 hrs	Operational Time:	705 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	99.7%
Percentile	99	95	75
	37	29	16
	50	25	5
	1	1	1
Average	10.9 ppb		

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Oct-04	15	17	17	16	18	20	20	22	19	16	11	4	3	2	2	4	5	7	9	11	9	A	4	2	11.0	22.0
2-Oct-04	3	4	12	8	12	19	19	19	22	12	7	3	1	1	3	2	2	3	3	3	A	3	3	2	7.2	22.5
3-Oct-04	2	2	1	1	2	2	3	3	2	2	2	1	1	1	1	1	4	18	A	15	12	11	10	4.2	17.5	
4-Oct-04	10	10	11	11	10	10	10	19	21	11	11	7	4	5	7	4	14	22	A	24	24	28	26	26	14.2	27.7
5-Oct-04	25	17	18	16	16	12	11	19	24	24	25	27	23	27	12	11	16	A	32	22	3	4	12	8	17.6	32.4
6-Oct-04	10	7	1	0	2	10	17	27	17	8	5	4	4	4	5	A	10	11	12	17	10	9	9	8.8	26.8	
7-Oct-04	3	4	10	10	9	15	19	19	9	3	3	2	2	3	3	A	7	11	23	30	33	30	28	18	12.9	33.4
8-Oct-04	19	12	12	4	6	9	11	14	9	7	6	4	3	4	A	8	11	17	21	27	18	1	1	1	9.8	26.8
9-Oct-04	2	3	3	4	5	4	12	14	14	9	5	3	3	A	3	4	4	4	5	13	17	13	18	15	7.7	17.8
10-Oct-04	9	4	2	3	4	6	9	7	4	3	2	2	A	2	2	3	3	11	23	26	13	13	12	4	7.3	26.3
11-Oct-04	3	5	5	5	5	8	17	18	22	19	6	A	7	5	3	5	8	12	4	4	3	6	7	7.9	21.9	
12-Oct-04	4	3	2	3	4	8	13	16	14	10	A	10	9	6	6	5	8	14	14	11	12	10	12	12	9.0	16.5
13-Oct-04	9	5	5	5	5	5	5	4	3	A	3	2	2	3	4	4	4	4	3	4	2	1	2	2	3.7	8.9
14-Oct-04	2	2	2	2	5	19	21	24	A	17	9	10	7	4	2	3	8	16	16	6	6	13	6	5	8.8	23.6
15-Oct-04	5	10	13	14	15	9	11	A	14	7	12	10	5	8	14	11	9	13	22	20	5	3	2	2	10.2	21.6
16-Oct-04	1	1	1	1	1	1	A	3	4	5	5	5	5	4	3	4	5	4	4	4	3	3	3	3	3.1	5.0
17-Oct-04	2	2	3	2	2	A	4	4	4	4	4	3	4	3	2	3	3	3	3	3	3	3	2	1	2.9	4.1
18-Oct-04	1	1	1	1	A	4	8	8	6	6	5	4	4	4	5	5	8	7	8	7	4	3	2	1	4.6	8.1
19-Oct-04	1	1	1	A	3	3	5	8	9	N	C	C	C	C	C	3	4	10	18	4	5	4	7	6	N	17.6
20-Oct-04	7	6	5	N	3	4	8	13	8	7	10	13	A	11	8	7	12	20	21	21	21	19	12	2	10.9	21.3
21-Oct-04	5	10	13	A	3	8	23	36	37	30	29	17	10	8	9	8	14	13	19	14	13	15	16	20	16.1	36.8
22-Oct-04	22	17	A	7	7	10	13	12	10	6	5	3	4	6	7	15	16	19	18	10	10	12	2	2	10.2	22.4
23-Oct-04	0	A	1	0	0	1	1	2	2	1	1	0	0	0	1	1	6	20	25	14	3	3	5	12	4.2	25.1
24-Oct-04	A	14	13	7	4	7	7	8	10	10	8	7	8	11	18	22	25	30	31	25	22	29	21	A	15.3	30.7
25-Oct-04	14	14	16	12	12	14	15	22	26	30	23	15	15	16	15	18	25	32	23	11	8	10	A	20	17.7	31.5
26-Oct-04	17	16	10	12	15	18	17	18	12	9	3	3	2	2	2	3	8	26	28	24	24	A	16	13	13.0	27.9
27-Oct-04	9	10	10	14	16	17	16	16	15	19	20	21	27	28	35	40	44	44	34	23	A	6	5	8	20.8	44.0
28-Oct-04	12	15	20	23	28	31	34	41	59	51	35	22	16	9	12	19	25	26	27	A	11	12	8	9	23.7	59.1
29-Oct-04	8	11	30	25	29	34	35	37	33	34	30	30	27	25	18	22	20	14	A	15	23	26	30	34	25.7	36.7
30-Oct-04	34	19	18	23	12	23	29	32	20	20	11	8	8	8	10	7	8	A	6	11	15	13	11	15	15.7	33.8
31-Oct-04	14	10	7	3	3	6	6	5	5	4	3	2	3	3	2	3	A	9	8	7	6	8	9	9	5.9	14.4
Hourly Avg	9.0	8.4	8.8	8.4	8.6	11.2	14.0	16.4	15.2	13.2	10.2	8.4	7.3	7.3	7.3	8.0	11.1	14.5	16.5	14.3	12.1	10.6	10.3	9.4		
Hourly Max	33.8	19.4	30.3	25.1	29.3	34.2	35.2	40.8	59.1	50.6	34.7	30.3	27.2	27.6	35.1	39.9	44.0	43.9	34.4	30.4	33.4	30.2	29.8	33.8		

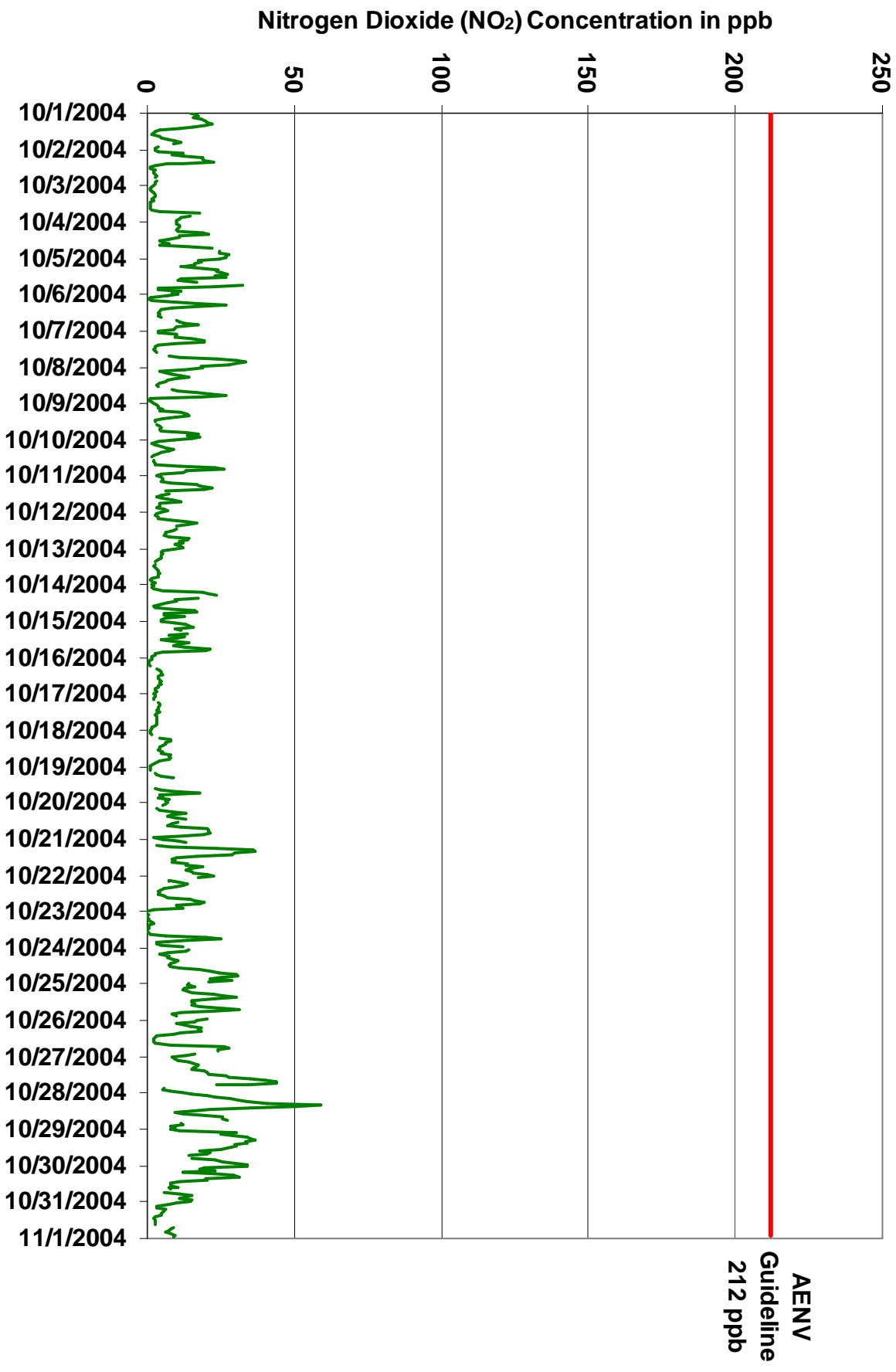


Figure 3. PASZA - Henry Pirkner Nitrogen Dioxide 1-hr Average Monthly Trend

Station: Henry Pirker

**HOURLY MAXIMUM TABLE**

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

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Maximum 1-hr Value:	75.1	ppb	28-Oct	8:00 9:00
Maximum 24-hr Value:	33.8	ppb	28-Oct	

AIC Time:	32 hrs	Operational Time:	705 hrs					
Calibration Time:	5 hrs	AMD Operational Uptime:	99.7%					
Percentile	99	95	75	50	25	5	1	Average
	45	36	23	14	7	3	2	16.0 ppb

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Oct-04	17	20	21	18	22	22	23	25	26	20	17	8	6	5	6	8	9	9	13	21	17	A	6	4	14.9	25.7
2-Oct-04	9	11	17	13	19	29	23	25	32	17	15	7	2	5	7	5	7	8	6	6	A	5	6	6	12.1	31.7
3-Oct-04	3	3	2	3	4	5	4	5	3	4	4	2	2	3	2	2	3	11	24	A	20	16	17	11	6.7	24.4
4-Oct-04	12	11	14	17	16	14	13	43	31	19	15	13	10	12	15	11	23	29	A	29	28	36	29	28	20.2	43.1
5-Oct-04	29	26	22	21	21	19	13	26	34	29	30	30	30	36	20	15	27	A	38	38	5	7	20	10	23.7	38.0
6-Oct-04	19	20	8	3	4	18	27	32	23	14	8	8	8	7	6	8	A	14	16	20	26	15	15	17	14.7	32.2
7-Oct-04	8	9	16	18	17	23	23	30	15	7	5	5	4	5	5	A	14	22	33	36	46	36	35	28	19.1	45.5
8-Oct-04	27	28	29	5	11	15	19	24	20	10	10	6	5	6	A	16	19	20	30	40	29	6	2	5	16.5	39.5
9-Oct-04	4	7	5	5	8	9	21	19	21	15	8	5	4	A	5	7	7	7	10	25	25	17	29	25	12.5	28.6
10-Oct-04	15	5	4	4	7	10	19	13	8	5	4	3	A	5	4	6	6	24	29	29	24	23	16	8	11.8	29.4
11-Oct-04	4	11	9	12	10	13	23	24	25	25	10	A	10	9	6	9	20	22	9	7	6	5	12	11	12.8	25.3
12-Oct-04	10	8	4	8	6	13	18	22	23	15	A	13	12	10	9	8	12	20	19	15	14	13	13	14	13.0	22.8
13-Oct-04	12	6	8	8	8	7	8	8	4	A	4	3	3	5	5	6	5	5	5	5	3	2	4	6	5.8	12.0
14-Oct-04	4	6	8	5	10	30	34	30	A	28	11	16	13	7	6	6	18	23	22	13	11	28	9	7	15.0	34.3
15-Oct-04	9	14	16	18	18	13	17	A	19	10	17	13	9	13	19	14	13	19	30	29	9	5	5	3	14.4	29.5
16-Oct-04	3	2	2	1	3	3	A	8	8	8	8	10	10	10	6	10	13	8	7	7	7	5	9	10	6.8	12.8
17-Oct-04	7	7	9	6	5	A	9	9	9	6	6	6	10	5	5	7	5	6	5	5	5	5	3	5	6.2	10.2
18-Oct-04	4	6	5	6	A	10	14	14	15	11	8	8	6	8	8	9	10	11	10	16	7	6	5	3	8.7	16.4
19-Oct-04	3	3	5	A	5	9	14	18	17	N	C	C	C	C	8	8	8	21	25	16	9	10	12	10	N	25.3
20-Oct-04	10	11	9	N	5	7	13	18	12	9	13	16	A	14	12	12	23	24	24	23	25	26	21	4	15.0	25.9
21-Oct-04	13	19	20	A	6	17	34	42	49	36	38	20	16	13	13	19	27	19	23	21	17	19	24	26	23.1	48.5
22-Oct-04	27	25	A	17	14	17	18	16	13	10	7	6	8	9	16	11	20	19	24	20	14	15	18	5	15.2	27.4
23-Oct-04	1	A	2	3	3	2	2	4	4	3	2	2	2	1	5	3	18	31	33	24	6	6	12	18	8.2	33.1
24-Oct-04	A	18	16	10	8	11	12	12	16	14	13	10	10	15	24	25	29	33	35	34	26	35	32	A	19.9	35.3
25-Oct-04	18	19	20	15	16	18	23	39	41	41	38	21	26	20	23	23	32	36	36	15	11	18	A	25	24.9	41.0
26-Oct-04	33	27	15	19	18	20	20	26	20	13	6	4	4	4	5	7	19	31	32	39	26	A	20	18	18.5	38.5
27-Oct-04	12	17	16	19	19	19	19	18	24	28	24	24	32	33	39	60	52	50	42	43	A	12	10	20	27.5	59.6
28-Oct-04	25	19	37	35	44	36	42	59	75	69	40	31	22	17	17	28	32	36	35	A	18	25	17	19	33.8	75.1
29-Oct-04	15	19	35	34	34	38	38	42	37	36	32	35	31	33	26	32	28	19	A	19	37	40	37	40	32.0	42.0
30-Oct-04	41	33	30	35	29	36	33	36	31	31	16	12	11	15	15	10	11	A	9	18	24	19	16	23	23.2	40.7
31-Oct-04	20	16	12	7	6	9	8	8	8	6	5	4	4	4	4	5	A	13	10	9	8	10	15	12	8.9	20.5
Hourly Avg	13.8	14.2	13.9	13.1	13.1	16.4	19.4	23.3	22.1	18.5	14.2	11.8	11.1	11.3	11.4	12.9	17.6	20.4	21.9	21.4	17.3	16.0	15.5	14.0		
Hourly Max	40.7	33.3	37.0	35.2	43.7	38.4	41.8	58.6	75.1	69.1	39.9	35.2	32.4	36.4	39.2	59.6	52.3	50.1	41.5	42.5	45.5	39.7	37.3	39.8		

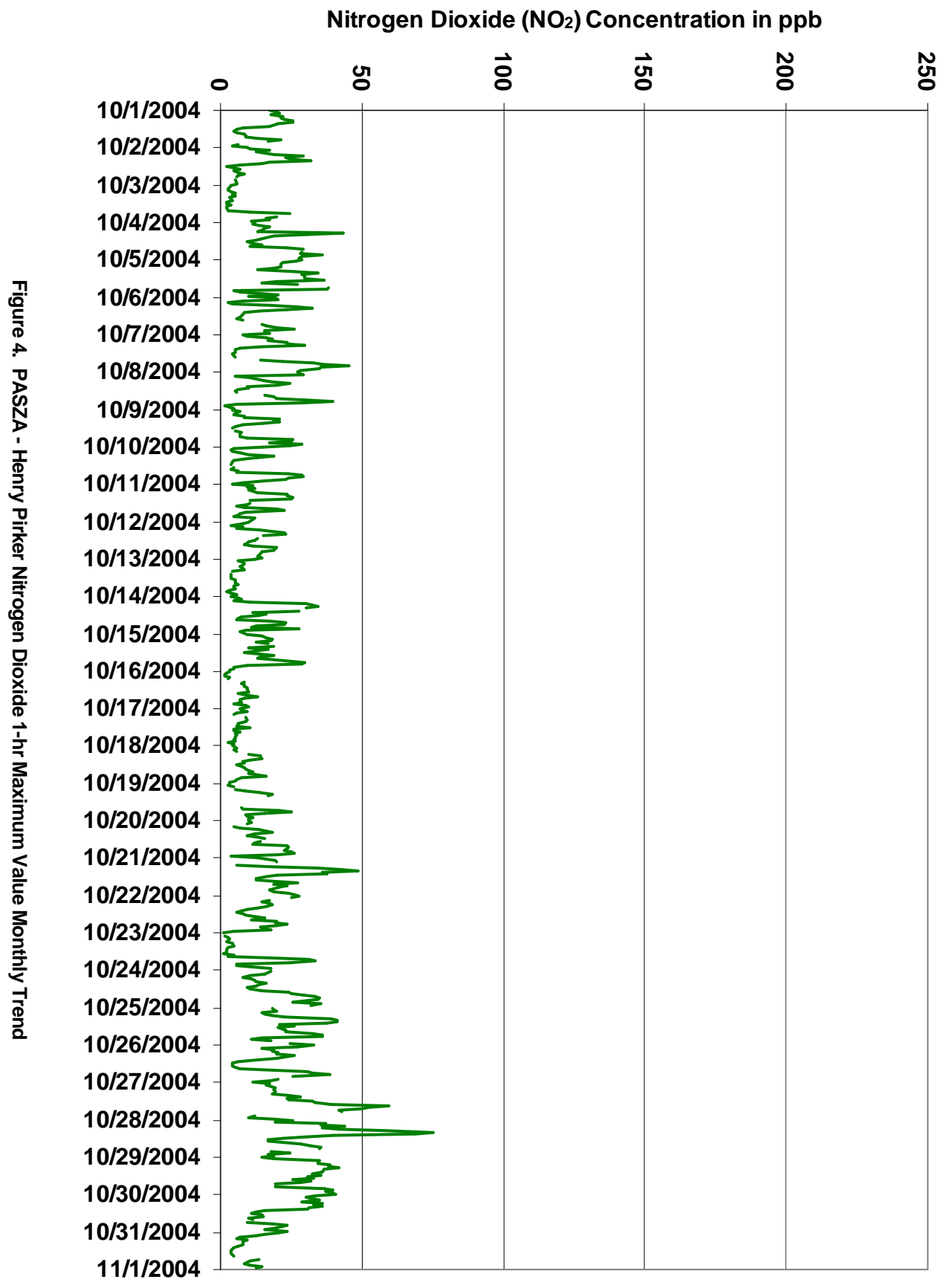
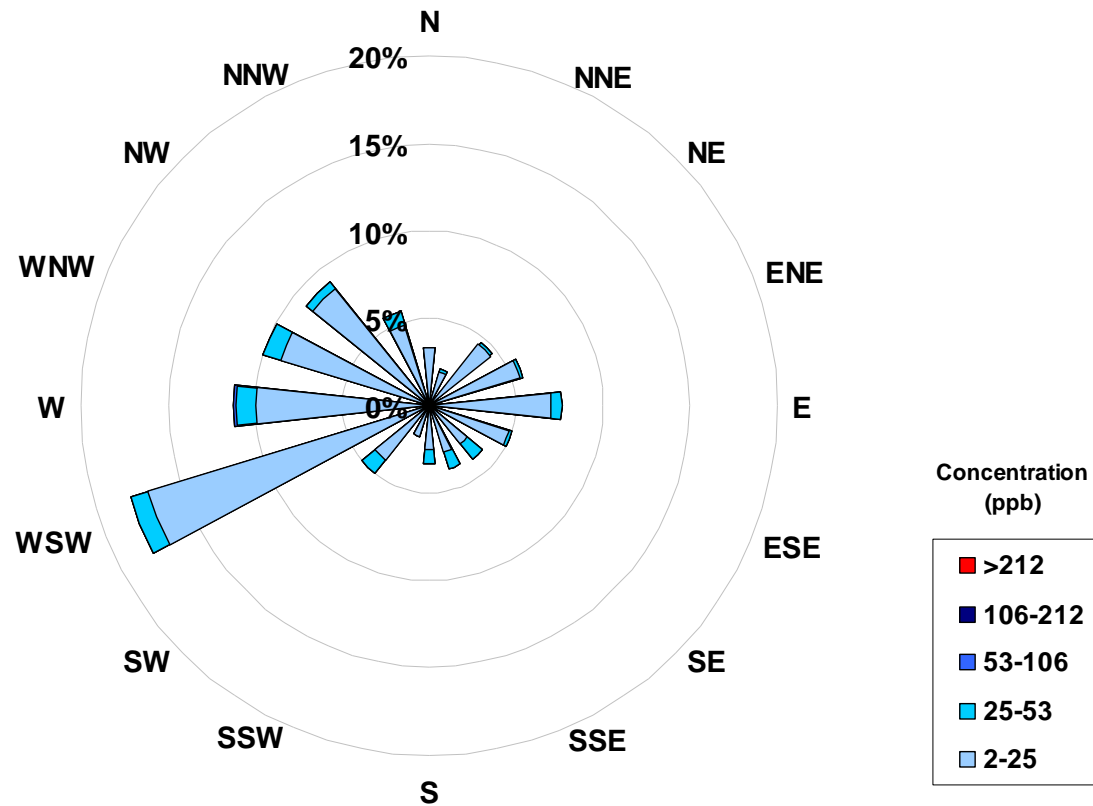


Figure 4. PASZA - Henry Pirkler Nitrogen Dioxide 1-hr Maximum Value Monthly Trend

**Concentration Rose for the 1-hr NO<sub>2</sub> Average Concentration Occurrences at the Henry Pirker Site for October 2004**



Frequency Distribution of NO <sub>2</sub> in ppb			
Range		Frequency (hrs)	
0	< 2	63	
2	to 25	580	
25	to 53	61	
53	to 106	1	
106	to 212	0	
	> 212	0	
Total Non-Zero Values			705

Calms	
Range	
ppb	
2-25	0.0%
25-53	0.0%
53-106	0.0%
106-212	0.0%
>212	0.0%

Station: Henry Pirker

### HOURLY AVERAGE TABLE

Nitric Oxide (NO)

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	312	ppb	28-Oct	8:00 9:00
Maximum 24-hr Average:	62	ppb	27-Oct	

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

AIC Time:	32 hrs		Operational Time:	705 hrs				
Calibration Time:	5 hrs		AMD Operational Uptime:	99.7%				
Percentile	99	95	75	50	25	5	1	Average
	124	63	8	2	1	0	0	11.8 ppb

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Oct-04	1	1	2	1	3	11	35	71	49	27	15	3	2	1	1	2	2	2	1	1	A	0	0	10.0	70.6	
2-Oct-04	0	0	2	1	4	38	71	88	89	17	7	2	1	1	2	2	2	2	1	A	2	1	1	14.6	89.1	
3-Oct-04	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	2	7	A	36	13	10	9	4.2	36.4	
4-Oct-04	8	6	19	23	39	42	52	147	130	18	16	8	3	2	3	2	4	10	A	6	25	36	60	22	29.6	147.5
5-Oct-04	25	6	6	9	28	33	29	114	114	61	60	51	31	38	9	4	3	A	38	20	0	0	0	0	29.6	113.7
6-Oct-04	0	0	0	0	0	1	3	12	7	4	3	2	2	2	2	A	1	1	0	1	1	0	0	1.9	11.7	
7-Oct-04	0	0	0	0	1	1	2	5	3	2	2	1	1	1	2	A	2	2	6	25	88	85	58	5	12.7	88.1
8-Oct-04	5	2	2	0	0	2	2	3	4	3	3	3	2	2	A	3	2	3	4	24	12	0	0	0	3.5	23.9
9-Oct-04	0	0	0	0	0	0	2	2	5	4	4	2	2	A	2	1	2	1	1	1	2	1	2	2	1.6	5.5
10-Oct-04	0	0	0	0	0	1	1	1	1	2	1	1	A	1	1	1	1	1	6	7	0	0	0	0	1.2	7.3
11-Oct-04	0	0	0	0	0	0	3	4	18	17	2	A	2	1	0	1	2	1	1	1	0	0	0	0	2.3	17.7
12-Oct-04	0	0	0	0	0	3	10	37	35	18	A	10	7	4	3	2	2	5	7	3	3	2	2	5	7.0	36.9
13-Oct-04	1	0	0	0	0	1	2	1	1	A	1	1	1	1	2	2	2	1	0	0	0	0	0	0	0.8	2.2
14-Oct-04	0	0	0	0	0	11	29	59	A	13	3	3	2	1	0	0	2	2	2	1	0	1	0	0	5.7	58.6
15-Oct-04	0	1	0	4	8	2	5	A	7	4	14	8	3	4	11	7	2	4	3	1	0	0	0	0	3.9	14.4
16-Oct-04	0	0	0	0	0	1	A	1	2	2	2	3	3	3	2	2	2	2	3	2	2	1	2	1.6	3.2	
17-Oct-04	1	1	2	1	1	A	2	2	3	3	5	4	4	2	2	2	2	2	1	1	1	1	1	1	2.0	4.8
18-Oct-04	1	1	1	1	A	2	4	3	3	4	4	4	4	4	6	4	5	3	3	3	2	2	2	1	3.0	5.6
19-Oct-04	1	1	1	A	1	1	1	1	1	N	C	C	C	C	C	2	2	3	4	1	2	2	1	0	N	3.6
20-Oct-04	0	0	0	N	0	0	0	1	1	5	14	25	A	17	12	9	13	16	13	14	14	9	2	1	7.6	25.4
21-Oct-04	1	2	2	A	0	0	6	44	63	49	47	21	10	9	10	8	10	6	6	5	4	3	2	5	13.6	62.9
22-Oct-04	9	3	A	1	1	2	3	6	5	4	4	4	5	6	8	7	15	11	17	14	4	4	5	1	6.1	16.6
23-Oct-04	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	6	5	1	0	0	0	0	0.7	6.0
24-Oct-04	A	1	0	0	0	0	0	1	2	5	11	12	15	21	28	31	25	48	88	89	93	124	82	A	30.8	124.0
25-Oct-04	22	7	9	6	12	29	41	74	89	62	41	27	26	20	22	18	23	60	18	1	1	1	A	4	26.6	89.5
26-Oct-04	5	4	0	1	4	8	6	10	4	3	2	2	2	3	3	2	3	19	28	12	16	A	38	6	7.9	37.8
27-Oct-04	1	3	5	9	13	30	35	49	75	111	119	95	110	90	110	118	147	192	94	27	A	0	0	0	62.4	192.4
28-Oct-04	1	1	3	3	15	41	100	199	312	217	87	31	16	8	7	8	11	11	6	A	1	1	1	1	47.0	312.5
29-Oct-04	0	1	3	2	5	30	41	69	64	62	23	26	29	19	10	12	4	1	A	0	1	3	3	6	18.1	69.4
30-Oct-04	16	2	1	3	1	7	11	41	8	13	8	5	4	3	4	3	2	A	1	1	1	1	0	1	6.0	41.4
31-Oct-04	1	1	1	1	0	1	1	1	1	2	2	2	2	2	2	1	A	1	1	1	1	1	0	0	1.0	2.2
Hourly Avg	3.4	1.5	2.1	2.4	4.6	10.0	16.5	34.9	36.6	25.3	17.3	12.4	10.3	9.4	9.1	8.6	10.2	14.4	12.6	9.2	10.8	10.2	9.1	2.5		
Hourly Max	25.0	7.3	19.4	23.0	38.6	42.0	99.6	198.6	312.5	217.3	118.8	95.1	110	90.3	110.3	117.5	147.0	192.4	94.4	89.5	92.6	124.0	82.0	21.8		



Station: Henry Pirker

**HOURLY MAXIMUM TABLE**

**Nitric Oxide (NO)**

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Maximum 1-hr Value:	387.3	ppb	28-Oct	8:00 9:00
Maximum 24-hr Value:	91.2	ppb	27-Oct	

AIC Time:	32 hrs	Operational Time:	705 hrs					
Calibration Time:	5 hrs	AMD Operational Uptime:	99.7%					
Percentile	99	95	75	50	25	5	1	Average
	202	107	21	7	2	0	0	22.4 ppb

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Oct-04	4	4	5	2	8	29	43	96	89	40	35	8	4	3	5	4	4	2	2	5	3	A	0	1	17.2	96.3
2-Oct-04	5	2	8	6	10	120	107	108	159	35	21	6	2	3	7	5	6	9	12	6	A	10	4	3	28.4	158.6
3-Oct-04	1	2	2	2	3	4	2	3	3	4	4	4	2	4	2	1	2	9	37	A	68	27	18	17	9.7	67.7
4-Oct-04	17	10	30	59	63	69	72	228	203	51	28	20	7	4	7	5	9	29	A	15	55	66	71	46	50.7	228.1
5-Oct-04	44	51	14	18	54	84	37	182	155	107	80	64	50	70	27	8	11	A	81	71	1	0	1	1	52.6	182.4
6-Oct-04	1	0	0	0	0	2	8	23	11	7	4	4	4	4	3	4	A	2	2	2	11	6	1	1	4.5	22.7
7-Oct-04	0	1	1	1	2	4	4	13	4	3	3	3	3	3	3	A	4	6	35	92	121	123	85	45	24.3	122.8
8-Oct-04	15	10	13	1	4	10	7	13	42	5	6	5	4	3	A	10	15	10	17	75	58	0	0	1	14.0	75.1
9-Oct-04	0	1	0	0	0	1	10	7	13	23	5	4	3	A	3	3	3	2	2	5	6	2	12	22	5.5	23.0
10-Oct-04	2	0	0	1	1	1	3	5	4	3	2	2	A	2	2	2	1	7	27	25	4	2	0	0	4.2	26.8
11-Oct-04	0	1	1	0	0	0	8	14	31	37	5	A	2	3	1	1	5	12	4	4	4	1	2	1	6.0	36.6
12-Oct-04	1	1	0	1	1	15	42	77	87	36	A	15	13	9	5	4	10	18	5	9	6	5	9	16.2	87.4	
13-Oct-04	4	0	0	0	1	2	5	4	2	A	2	2	2	3	3	3	2	2	1	1	0	0	1	1	1.8	5.0
14-Oct-04	1	1	1	1	4	64	72	112	A	39	6	5	3	4	2	1	11	7	10	4	9	7	0	0	15.7	111.6
15-Oct-04	0	5	2	14	17	6	12	A	16	8	27	20	7	9	26	12	12	14	14	7	2	1	5	0	10.3	27.5
16-Oct-04	1	0	1	3	8	3	A	9	5	13	12	10	13	12	5	8	17	9	16	14	7	14	9	18	8.9	17.8
17-Oct-04	8	13	13	12	8	A	10	7	18	12	17	10	19	5	3	4	3	3	2	2	2	3	3	2	7.7	18.6
18-Oct-04	3	6	9	11	A	13	21	13	13	17	10	11	7	10	12	8	8	7	5	8	4	7	5	2	9.1	20.7
19-Oct-04	2	3	5	A	7	11	10	7	11	N	C	C	C	C	C	6	5	5	8	2	3	3	1	0	N	11.4
20-Oct-04	0	0	0	N	1	1	1	4	3	8	25	33	A	23	21	17	35	29	22	20	31	24	8	1	14.0	35.1
21-Oct-04	4	6	6	A	0	2	27	80	100	82	83	26	21	14	14	22	29	8	9	9	6	6	5	13	24.9	99.6
22-Oct-04	26	22	A	4	15	15	10	17	17	7	7	8	9	18	27	24	33	21	43	32	9	8	13	2	16.8	42.7
23-Oct-04	2	A	0	1	3	0	0	0	1	1	2	1	2	1	3	2	7	17	21	6	1	0	0	0	3.0	20.8
24-Oct-04	A	1	1	1	2	3	2	6	11	9	19	15	20	29	38	39	35	97	113	149	117	157	115	A	44.5	156.7
25-Oct-04	36	22	31	16	34	74	87	182	204	87	95	45	70	30	43	48	50	115	71	8	8	9	A	18	60.0	203.6
26-Oct-04	36	16	2	7	8	15	12	30	11	6	5	4	4	4	6	3	12	42	53	37	36	A	85	17	19.6	84.5
27-Oct-04	1	6	7	17	63	54	70	155	135	127	117	132	98	131	194	242	283	132	111	A	1	0	3	91.2	282.7	
28-Oct-04	4	4	27	19	65	72	137	267	387	366	111	63	26	58	20	17	31	42	14	A	4	3	2	3	75.7	387.3
29-Oct-04	0	1	6	10	11	46	75	106	122	90	34	45	46	38	18	25	7	2	A	0	4	21	32	27	33.3	122.3
30-Oct-04	37	10	7	15	4	30	27	70	44	29	13	10	6	7	7	5	4	A	2	2	3	2	1	4	14.6	70.0
31-Oct-04	2	1	1	1	1	2	2	1	2	3	3	3	3	3	3	2	A	2	1	1	1	1	1	1	1.7	3.1
Hourly Avg	8.6	6.7	6.5	8.0	11.7	25.3	30.2	58.5	64.1	43.5	27.3	19.3	17.3	16.4	15.4	16.3	20.9	27.7	26.6	24.8	20.2	17.5	16.2	8.6		
Hourly Max	43.6	50.7	31.3	59.4	64.6	119.8	137.1	266.8	387.3	365.5	127.2	116.5	132	98.2	130.8	194.3	242.2	282.7	132.2	148.9	121.4	156.7	115.2	45.6		

Station: Henry Pirker

### HOURLY AVERAGE TABLE

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

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	371	ppb	28-Oct	8:00 9:00
Maximum 24-hr Average:	83	ppb	27-Oct	

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

AIC Time:	32 hrs							Operational Time:	705 hrs		
Calibration Time:	5 hrs							AMD Operational Uptime:	99.7%		
Percentile	99	95	75	50	25	5	1	Average			
	153	92	24	11	5	2	0	22.7 ppb			

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Oct-04	16	18	19	16	21	31	55	93	69	43	27	8	5	4	3	6	7	8	10	12	10	A	4	3	21.2	92.7
2-Oct-04	3	4	14	9	16	57	90	107	112	30	14	5	2	3	5	4	5	6	4	A	4	4	3	3	21.9	111.7
3-Oct-04	3	2	2	2	2	3	3	4	4	3	4	3	2	2	2	3	7	25	A	51	25	21	20	20	8.4	51.1
4-Oct-04	18	16	31	34	49	52	62	166	151	29	27	16	7	8	10	6	18	32	A	31	49	64	86	48	43.9	166.4
5-Oct-04	50	23	25	25	45	45	41	132	138	85	86	78	54	65	21	15	20	A	70	42	4	4	12	9	47.2	137.5
6-Oct-04	10	7	1	0	2	10	19	39	24	12	7	7	6	6	5	7	A	11	12	13	18	11	9	9	10.6	38.5
7-Oct-04	3	4	10	10	10	16	21	24	12	5	4	4	3	4	4	A	9	13	29	55	122	116	86	23	25.6	121.5
8-Oct-04	23	15	14	4	7	10	13	17	14	10	9	7	5	5	A	12	13	19	25	51	30	1	1	1	13.3	50.8
9-Oct-04	2	3	4	4	5	4	14	16	20	13	9	5	4	A	5	6	6	5	5	14	20	14	19	18	9.3	19.8
10-Oct-04	9	4	2	3	5	7	10	9	6	5	4	3	A	3	3	4	3	12	29	34	13	14	12	5	8.6	33.7
11-Oct-04	3	5	5	5	5	8	19	22	40	36	8	A	9	6	4	6	9	13	5	6	5	3	6	7	10.3	39.8
12-Oct-04	5	4	3	4	4	11	23	53	48	28	A	20	16	10	9	8	10	19	21	14	14	12	14	17	16.0	53.4
13-Oct-04	10	5	5	5	5	6	7	5	4	A	4	4	4	5	6	6	6	5	4	4	2	1	2	3	4.6	10.2
14-Oct-04	2	2	2	3	6	29	50	82	A	30	12	12	9	6	3	3	9	18	19	6	6	13	6	4	14.5	82.4
15-Oct-04	5	10	13	18	23	12	16	A	21	12	27	19	8	13	25	18	11	16	24	21	5	2	2	0	13.9	26.9
16-Oct-04	0	0	0	0	1	2	A	4	6	7	7	8	8	7	6	6	7	7	7	6	5	5	4	5	4.8	7.9
17-Oct-04	3	3	4	4	3	A	6	6	7	7	9	7	8	6	5	5	5	5	5	5	4	4	3	2	5.1	9.0
18-Oct-04	2	2	3	3	A	6	12	12	10	10	9	8	8	8	11	10	13	11	11	10	6	5	4	2	7.7	12.8
19-Oct-04	2	2	2	A	3	4	6	10	10	N	C	C	C	C	C	5	7	13	21	6	7	6	8	6	N	21.2
20-Oct-04	6	5	4	N	4	5	9	15	10	12	24	39	A	27	20	16	24	36	34	35	36	28	14	3	18.4	39.0
21-Oct-04	7	13	15	A	3	8	29	80	100	79	76	37	20	17	19	17	23	19	25	20	17	19	18	25	29.8	99.8
22-Oct-04	32	20	A	8	8	13	17	18	15	10	9	8	10	10	14	14	29	27	36	31	14	14	17	3	16.4	35.7
23-Oct-04	0	A	0	0	0	0	0	0	1	0	0	0	0	0	1	2	9	26	30	15	3	2	4	11	4.6	30.5
24-Oct-04	A	14	13	7	5	8	7	9	13	15	19	20	23	32	46	53	50	78	119	115	114	153	103	A	46.1	152.6
25-Oct-04	37	21	25	18	24	43	56	96	115	92	64	42	41	36	37	36	48	91	41	12	10	11	A	24	44.4	114.9
26-Oct-04	22	21	10	14	18	27	24	29	16	12	5	5	4	5	5	5	12	46	56	36	40	A	55	20	21.1	56.1
27-Oct-04	9	13	15	23	30	47	51	66	90	131	140	117	137	118	146	158	191	236	129	51	A	6	5	8	83.3	235.9
28-Oct-04	13	16	23	25	43	72	133	239	371	267	122	53	31	17	19	27	36	36	33	A	13	13	8	10	70.5	370.8
29-Oct-04	8	12	33	27	34	64	76	106	98	95	53	56	56	44	28	34	24	15	A	15	24	28	33	39	43.6	105.8
30-Oct-04	50	21	19	26	13	30	40	73	27	34	19	13	11	11	14	10	10	A	7	12	16	14	12	16	21.6	72.9
31-Oct-04	15	11	8	4	4	7	7	6	6	6	4	4	5	5	4	4	A	10	8	8	7	9	10	9	7.0	15.2
Hourly Avg	12.3	9.8	10.8	10.8	13.2	21.2	30.6	51.3	51.8	38.6	27.6	20.9	17.7	16.7	16.6	16.8	21.3	28.9	29.1	23.5	22.9	20.7	19.4	11.8		
Hourly Max	49.7	23.2	33.2	34.2	49.1	72.2	133.4	239.0	370.8	267.4	139.6	116.6	137	118.3	145.8	157.7	190.8	235.9	128.6	114.6	121.5	152.6	102.7	48.3		

Station: Henry Pirker

### HOURLY MAXIMUM TABLE

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

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Maximum 1-hr Value:	451.1	ppb	28-Oct	8:00 9:00
Maximum 24-hr Value:	117.5	ppb	27-Oct	

AIC Time:	32 hrs	Operational Time:	705 hrs					
Calibration Time:	5 hrs	AMD Operational Uptime:	99.7%					
Percentile	99	95	75	50	25	5	1	Average
	244	138	43	20	10	5	2	37.5 ppb

**Status Flag Characters**

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

**Day Mountain Standard Time**

Day	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-Oct-04	20	24	26	19	30	51	64	119	112	61	52	15	10	8	11	13	13	11	15	26	19	A	7	5	31.8	118.7	
2-Oct-04	14	11	24	15	29	147	127	130	184	52	36	13	4	8	14	11	12	18	17	12	A	15	9	7	39.5	184.3	
3-Oct-04	5	4	4	5	7	10	6	7	6	7	8	6	5	7	4	3	5	17	61	A	86	42	35	27	15.9	86.1	
4-Oct-04	28	21	43	76	74	83	85	269	232	71	42	33	16	16	22	16	32	59	A	43	80	98	98	73	70.1	268.9	
5-Oct-04	66	76	33	39	70	103	51	204	187	135	108	90	78	106	46	21	38	A	118	105	5	7	20	10	74.6	204.3	
6-Oct-04	20	20	8	3	5	19	35	55	34	21	12	12	12	10	9	11	A	16	18	20	32	19	16	17	18.4	54.9	
7-Oct-04	8	10	16	19	17	27	26	43	19	10	8	8	6	8	8	A	18	27	67	125	155	156	112	73	42.0	155.9	
8-Oct-04	31	37	41	6	15	25	23	37	57	14	14	11	9	8	A	24	34	28	45	115	86	6	2	6	29.3	114.7	
9-Oct-04	4	8	6	5	8	9	30	26	34	22	13	9	6	A	8	10	10	9	11	30	31	18	41	41	16.9	41.4	
10-Oct-04	17	5	4	5	8	11	22	17	11	7	6	6	A	7	5	8	7	31	54	54	29	24	16	8	15.7	54.3	
11-Oct-04	5	12	11	12	10	13	31	37	54	61	15	A	13	12	7	10	25	31	13	11	10	6	13	12	18.4	61.0	
12-Oct-04	11	9	4	9	6	28	59	99	106	50	A	27	25	18	14	12	16	30	37	20	22	19	19	23	28.8	106.5	
13-Oct-04	15	6	8	9	8	8	13	12	6	A	6	5	5	8	8	8	8	6	6	6	3	2	4	7	7.4	15.4	
14-Oct-04	4	7	8	5	14	86	95	139	A	64	18	21	17	11	9	7	28	30	29	14	17	35	9	7	29.3	139.1	
15-Oct-04	9	17	17	30	34	16	29	A	34	17	43	33	16	23	45	26	25	33	35	36	10	6	5	2	23.5	44.6	
16-Oct-04	4	2	3	2	9	4	A	17	12	21	21	18	21	19	10	18	27	14	19	21	14	18	18	26	14.7	26.9	
17-Oct-04	14	21	23	16	12	A	17	17	25	19	20	15	29	9	8	12	8	8	7	7	6	6	4	6	13.4	29.0	
18-Oct-04	6	11	14	17	A	21	27	23	25	25	17	19	13	16	19	16	17	16	15	24	11	12	10	5	16.5	26.7	
19-Oct-04	5	6	10	A	12	20	21	24	25	N	C	C	C	C	C	11	13	26	33	17	12	12	13	10	N	32.9	
20-Oct-04	10	10	7	N	6	7	14	21	14	17	39	49	A	37	30	25	59	52	44	42	55	48	29	5	28.2	58.6	
21-Oct-04	17	25	26	A	5	18	61	123	145	118	119	46	37	27	27	36	56	27	32	31	22	24	27	36	47.2	145.0	
22-Oct-04	53	46	A	21	29	32	27	32	27	15	14	13	17	27	42	30	51	40	63	52	23	22	31	7	31.2	63.4	
23-Oct-04	2	A	2	3	6	2	1	3	5	3	3	3	4	2	7	5	26	46	54	30	7	6	11	18	10.9	53.8	
24-Oct-04	A	18	16	11	9	14	14	16	21	19	32	25	30	43	63	64	64	127	145	177	142	192	142	A	62.9	192.0	
25-Oct-04	52	41	49	30	49	90	109	217	244	117	132	66	96	50	67	57	82	147	106	22	17	27	A	41	83.1	244.2	
26-Oct-04	69	43	16	26	26	35	31	57	31	20	11	8	8	9	12	10	29	72	85	75	59	A	105	34	37.8	104.5	
27-Oct-04	13	24	24	36	36	80	73	86	178	163	149	139	163	132	168	251	292	327	173	150	A	13	10	22	117.5	326.8	
28-Oct-04	28	21	63	53	96	104	177	314	451	431	151	94	48	58	29	45	62	76	49	A	20	27	18	21	105.9	451.1	
29-Oct-04	15	19	40	42	45	82	112	144	152	123	66	80	76	71	44	56	34	20	A	20	40	57	69	66	64.1	152.5	
30-Oct-04	72	43	33	50	32	66	58	105	75	60	29	22	17	21	22	14	15	A	11	19	27	21	16	27	37.1	105.0	
31-Oct-04	23	16	13	7	7	10	9	9	10	9	8	7	7	6	6	7	A	14	11	10	9	11	15	13	10.3	22.5	
Hourly Avg	21.3	20.5	19.7	20.4	23.8	40.7	48.2	80.1	84.0	60.5	41.2	30.8	28.1	26.8	26.4	27.9	38.2	46.8	47.3	45.3	36.2	32.7	30.8	21.8			
Hourly Max	71.9	75.7	62.6	76.3	95.9	146.8	176.8	314.2	451.1	431.0	150.8	139.5	163	131.9	168.2	250.9	292.1	326.8	172.5	176.8	154.9	192.0	141.6	73.4			

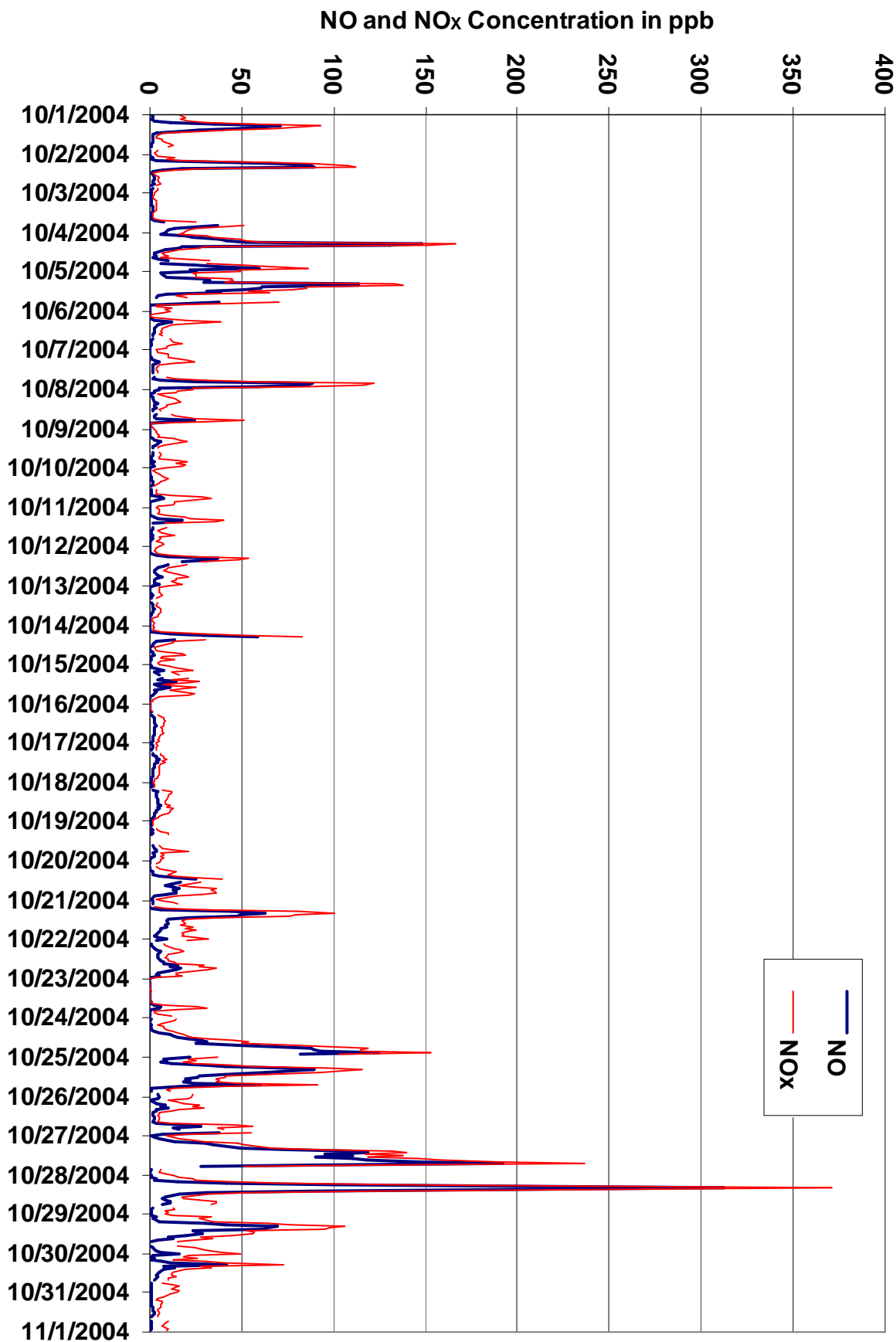


Figure 5. PASZA - Henry Pirkker Oxides of Nitrogen 1-hr Average Monthly Trends

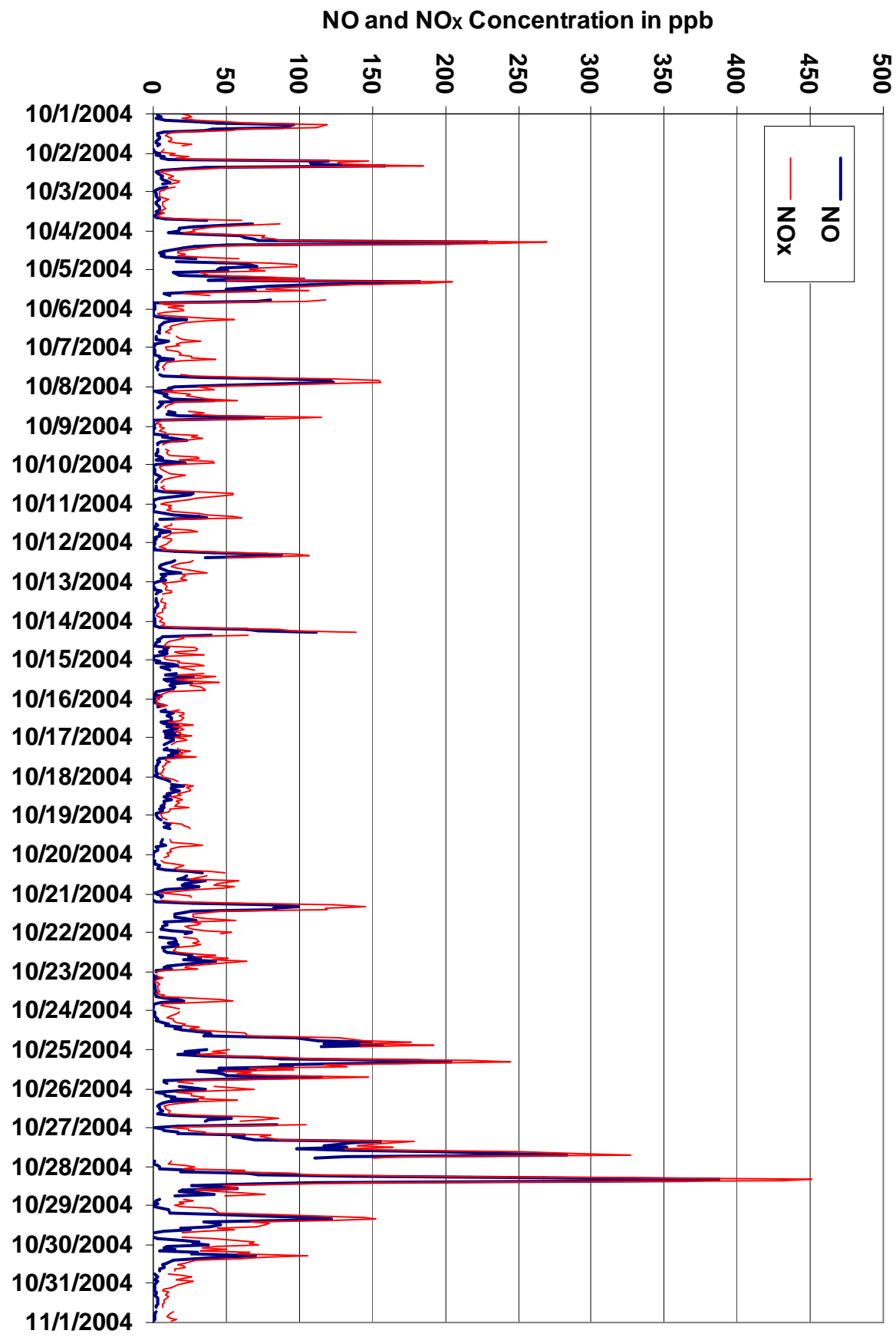


Figure 6. PASZA - Henry Pirkler Oxides of Nitrogen 1-hr Maximum Value Monthly Trends

# PASZA - Henry Pirker Ozone Monthly Summary

Station: Henry Pirker

## HOURLY AVERAGE TABLE

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

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	37.6	ppb	5-Oct	21:00 22:00
Maximum 24-hr Average:	26.6	ppb	6-Oct	

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

AIC Time:	32 hrs							Operational Time:	707 hrs	
Calibration Time:	3 hrs							AMD Operational Uptime:	99.7%	
Percentile	99	95	75	50	25	5	1	Average		
	35	30	23	18	8	1	0	16.1 ppb		

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Oct-04	2	7	6	4	4	1	1	1	4	8	12	24	28	30	30	28	27	24	20	17	19	A	23	25	15.0	30.3
2-Oct-04	24	21	8	10	4	0	0	1	2	8	16	27	30	29	24	21	19	18	17	18	A	18	17	18	15.2	30.4
3-Oct-04	18	18	18	19	18	17	16	15	16	17	17	19	20	21	22	23	24	21	7	A	1	1	1	0	15.2	23.9
4-Oct-04	0	0	0	0	0	0	0	1	1	7	9	17	25	26	25	28	20	9	A	3	1	1	1	0	7.7	28.3
5-Oct-04	0	6	1	0	0	0	0	1	2	4	4	5	5	7	19	21	20	A	1	12	36	38	29	31	10.5	37.6
6-Oct-04	26	30	32	33	37	28	18	8	17	27	30	34	35	35	36	34	A	27	24	22	16	21	21	22	26.6	37.0
7-Oct-04	29	28	19	20	20	15	14	15	25	32	34	35	36	35	36	A	31	23	9	1	1	1	0	10	20.4	36.1
8-Oct-04	6	18	19	25	23	21	18	13	17	19	19	23	26	27	A	26	25	16	10	2	4	33	33	28	19.5	33.3
9-Oct-04	28	28	27	24	23	22	14	10	9	14	18	27	31	A	33	30	28	29	28	17	11	13	9	9	21.0	33.2
10-Oct-04	15	19	22	21	19	17	16	15	18	23	26	28	A	28	28	30	30	19	7	3	17	15	13	21	19.6	30.0
11-Oct-04	22	18	17	18	21	18	5	7	4	7	22	A	21	23	28	25	17	15	22	21	20	21	19	13	17.6	27.6
12-Oct-04	16	14	14	11	11	5	1	1	2	6	A	13	17	18	17	17	16	8	5	6	5	6	3	2	9.3	18.4
13-Oct-04	5	11	12	14	14	15	14	17	18	A	18	18	17	16	16	18	20	21	26	29	34	35	32	31	19.7	34.8
14-Oct-04	31	30	28	25	21	3	1	0	A	6	15	20	26	31	34	35	29	19	15	27	26	17	23	23	21.0	34.5
15-Oct-04	19	12	5	3	3	8	6	A	5	9	5	8	14	11	5	6	9	7	9	8	13	17	13	13	9.0	18.5
16-Oct-04	10	11	14	16	18	19	A	20	19	18	19	19	20	21	20	19	19	19	19	19	19	19	20	19	18.1	20.6
17-Oct-04	19	18	18	17	16	A	14	13	13	13	14	16	16	22	24	25	26	29	31	31	30	29	29	29	21.4	30.9
18-Oct-04	29	29	29	28	A	24	20	18	20	19	21	21	21	21	20	20	17	18	17	18	21	22	23	25	21.8	29.0
19-Oct-04	26	26	25	A	24	24	22	19	19	N	24	27	28	28	28	28	26	20	C	C	C	22	19	19	23.9	28.4
20-Oct-04	18	18	18	N	20	18	14	10	14	15	14	13	A	14	17	16	12	3	2	1	1	4	11	23	12.6	22.7
21-Oct-04	18	12	11	A	24	22	9	2	4	9	13	20	27	27	27	28	23	22	16	20	22	19	16	6	17.3	28.1
22-Oct-04	2	5	A	A	21	19	14	8	8	9	12	13	14	14	13	12	5	3	0	1	7	6	7	23	9.9	22.5
23-Oct-04	23	A	25	25	24	22	22	21	21	23	24	25	26	27	27	27	23	11	7	15	25	27	25	17	22.2	27.5
24-Oct-04	A	15	15	23	25	21	20	17	15	17	19	20	18	17	15	11	8	2	1	1	2	2	1	A	13.0	25.0
25-Oct-04	1	1	1	1	1	1	1	2	3	5	11	14	16	17	18	15	7	1	8	17	19	18	A	5	8.0	19.3
26-Oct-04	7	6	13	7	5	2	4	4	9	13	18	20	21	21	22	22	20	4	1	3	0	A	0	4	9.8	22.4
27-Oct-04	10	7	8	5	2	1	1	1	1	3	5	7	8	9	7	4	2	1	0	13	A	31	31	27	8.0	31.1
28-Oct-04	22	17	11	9	4	1	0	1	2	2	5	13	20	26	26	19	10	9	7	A	21	21	27	24	13.0	26.6
29-Oct-04	27	24	7	10	3	0	0	0	1	2	5	5	9	15	24	22	23	27	A	26	19	15	10	6	12.2	27.2
30-Oct-04	3	11	10	7	20	8	1	0	12	13	21	26	27	27	26	29	27	A	28	22	19	20	21	17	17.0	28.6
31-Oct-04	17	21	22	25	27	24	26	27	27	27	29	30	29	30	30	30	A	23	24	26	28	26	24	24	26.0	30.5
Hourly Avg	15.8	16.1	15.2	15.1	15.0	12.4	9.6	8.9	11.0	13.0	16.7	19.5	21.8	22.4	23.2	22.3	19.4	15.4	12.9	14.2	15.6	17.8	16.7	17.1		
Hourly Max	30.8	29.6	31.6	33.5	37.0	27.6	25.6	26.8	27.2	32.0	33.9	35.2	36.1	35.4	35.9	34.5	30.6	29.1	30.7	30.9	36.3	37.6	32.7	30.9		

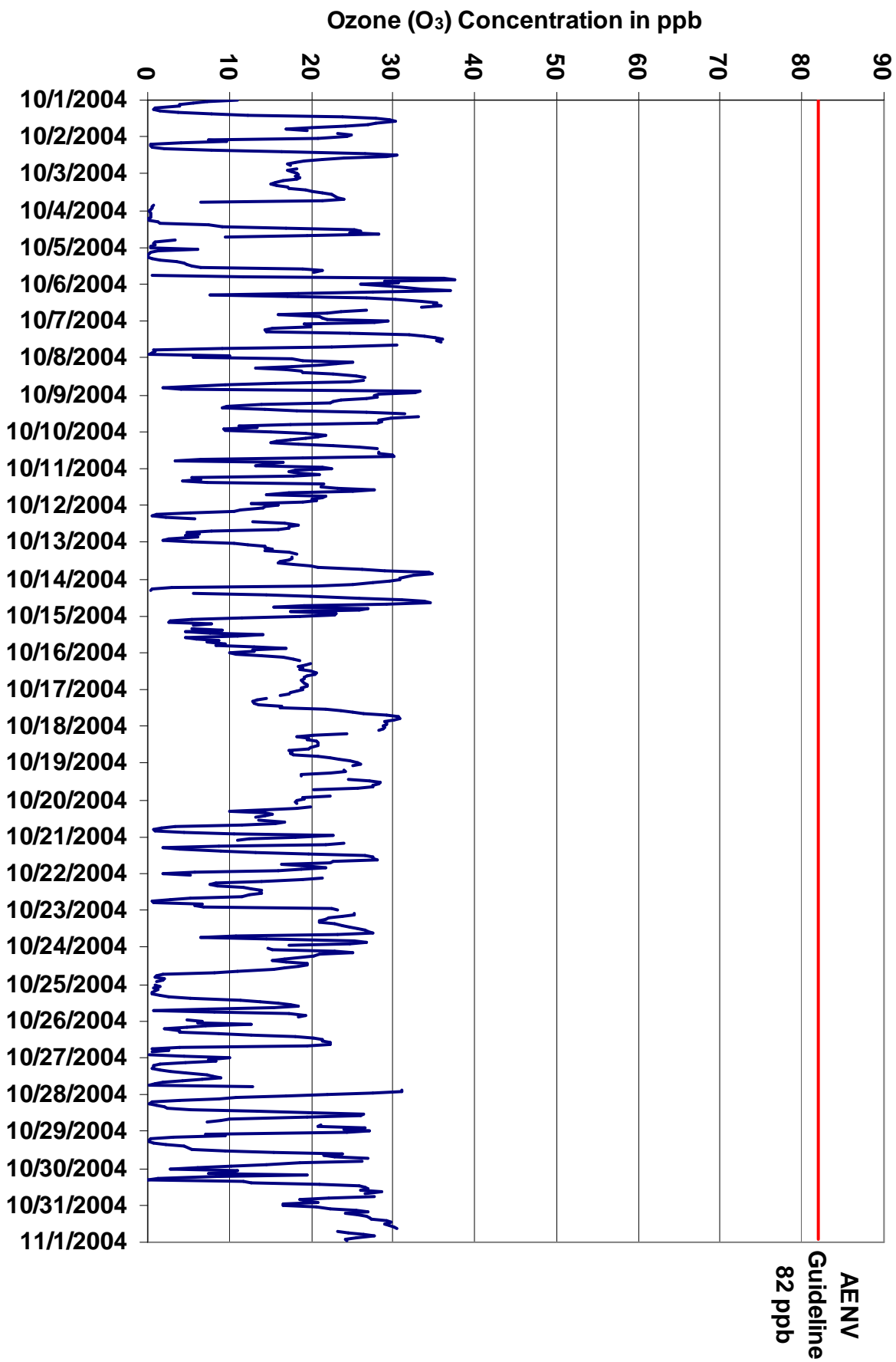


Figure 7. PASZA - Henry Pirkker Ozone 1-hr Average Monthly Trend

Station: Henry Pirker

**HOURLY MAXIMUM TABLE**

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

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Maximum 1-hr Value:	39.7	ppb	5-Oct	21:00 22:00
Maximum 24-hr Value:	31.2	ppb	6-Oct	

AIC Time:	32 hrs	Operational Time:	707 hrs					
Calibration Time:	3 hrs	AMD Operational Uptime:	99.7%					
Percentile	99	95	75	50	25	5	1	Average
	38	34	27	21	13	2	1	19.7 ppb

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum	
1-Oct-04	14	11	10	6	6	2	2	2	6	10	17	27	31	33	32	32	30	28	23	21	24	A	25	27	18.3	32.7	
2-Oct-04	26	28	14	12	13	1	1	1	4	12	21	31	32	31	28	24	21	20	19	20	A	20	19	19	18.2	32.2	
3-Oct-04	20	19	19	20	20	18	18	16	18	18	21	22	23	24	25	25	25	15	A	2	3	2	2	1	17.0	25.1	
4-Oct-04	1	2	1	1	1	1	1	4	3	10	11	23	28	30	28	32	31	19	A	14	3	2	2	1	10.8	31.9	
5-Oct-04	1	10	7	3	1	1	1	2	3	5	6	7	8	12	27	26	30	A	2	33	39	40	39	34	14.7	39.7	
6-Oct-04	33	37	33	39	39	36	26	12	25	32	33	37	38	38	38	37	A	31	28	26	22	25	26	28	31.2	39.3	
7-Oct-04	34	31	28	28	24	21	18	21	30	35	36	38	38	38	A	35	28	18	6	2	1	1	17	24.6	37.9		
8-Oct-04	14	25	27	28	25	24	22	17	20	21	23	25	27	30	A	31	30	22	16	6	19	37	34	32	24.1	36.5	
9-Oct-04	30	30	30	25	25	26	23	15	15	18	23	32	34	A	36	33	31	31	31	27	24	19	13	16	25.5	35.9	
10-Oct-04	22	20	24	23	21	20	20	21	24	25	29	29	A	30	30	34	33	25	15	7	21	18	18	24	23.2	33.9	
11-Oct-04	25	24	23	28	25	21	15	11	8	17	25	A	24	28	31	31	22	22	24	24	23	23	23	18	22.5	30.9	
12-Oct-04	19	17	16	14	13	10	3	2	5	9	A	16	22	22	20	20	25	13	9	8	8	10	6	6	12.8	25.3	
13-Oct-04	11	12	15	17	18	17	17	19	20	A	19	19	19	18	17	20	23	23	32	33	36	36	34	33	22.0	35.9	
14-Oct-04	32	31	30	29	27	13	5	1	A	10	10	20	26	30	34	36	38	35	26	19	32	30	25	26	26	25.3	37.9
15-Oct-04	23	19	11	8	8	11	9	A	10	11	11	11	17	16	7	8	13	17	17	15	15	22	17	16	13.5	22.7	
16-Oct-04	11	13	16	18	19	20	A	21	21	21	21	21	22	23	22	22	22	21	21	21	21	21	21	21	20.1	22.9	
17-Oct-04	20	20	19	19	17	A	16	16	15	14	15	18	22	24	26	28	29	32	33	32	32	31	30	30	23.3	32.6	
18-Oct-04	30	30	30	29	A	27	24	21	22	21	23	23	23	22	22	22	20	22	20	21	23	24	25	26	23.8	30.1	
19-Oct-04	27	27	27	A	25	26	25	23	24	N	28	29	30	30	29	29	29	25	C	C	C	25	21	21	26.3	30.1	
20-Oct-04	20	21	21	N	21	20	19	15	17	17	16	16	A	18	19	18	17	8	4	2	3	11	21	24	15.7	23.9	
21-Oct-04	22	17	15	A	26	26	21	5	7	13	19	22	33	30	32	34	28	27	20	23	26	24	23	19	22.2	33.5	
22-Oct-04	5	13	A	24	21	19	10	10	11	14	14	16	16	15	15	15	9	6	2	3	10	9	22	24	13.2	24.3	
23-Oct-04	24	A	26	27	25	23	23	23	23	25	25	26	27	28	28	29	27	21	13	25	28	30	29	20	25.0	29.6	
24-Oct-04	A	17	18	26	28	25	26	21	21	20	23	21	20	19	18	15	12	4	3	2	5	3	2	A	15.8	27.7	
25-Oct-04	2	3	2	2	4	1	2	4	5	10	15	17	21	19	21	21	12	2	16	19	21	20	A	10	10.8	21.5	
26-Oct-04	12	14	16	12	10	5	7	6	14	20	20	22	23	23	24	25	26	10	2	5	2	A	1	12	13.6	26.1	
27-Oct-04	12	11	11	9	4	3	2	2	2	4	7	9	11	10	9	7	3	5	2	28	A	34	34	31	10.9	34.0	
28-Oct-04	30	22	17	16	15	7	1	3	4	5	8	20	23	32	33	29	15	18	13	A	25	30	32	31	18.7	33.0	
29-Oct-04	32	30	23	19	7	3	1	1	2	5	6	11	13	24	29	33	31	32	A	29	31	24	17	21	18.5	32.6	
30-Oct-04	17	16	16	16	26	21	3	2	17	18	27	29	30	31	31	31	29	A	30	28	26	26	25	24	22.6	31.3	
31-Oct-04	24	24	26	28	29	28	28	28	29	29	31	31	31	31	32	32	A	26	26	28	29	29	28	28	28.5	32.3	
Hourly Avg	19.8	19.8	19.0	18.8	18.1	15.9	13.0	11.6	14.2	16.2	19.7	22.3	24.6	25.4	26.1	26.0	23.9	20.3	16.9	19.3	19.6	21.4	20.6	21.4			
Hourly Max	34.1	36.9	33.1	39.0	39.3	36.4	28.3	28.3	30.2	35.1	36.1	37.7	38.1	38.0	38.0	37.9	35.4	32.2	32.6	32.9	39.2	39.7	39.4	33.9			



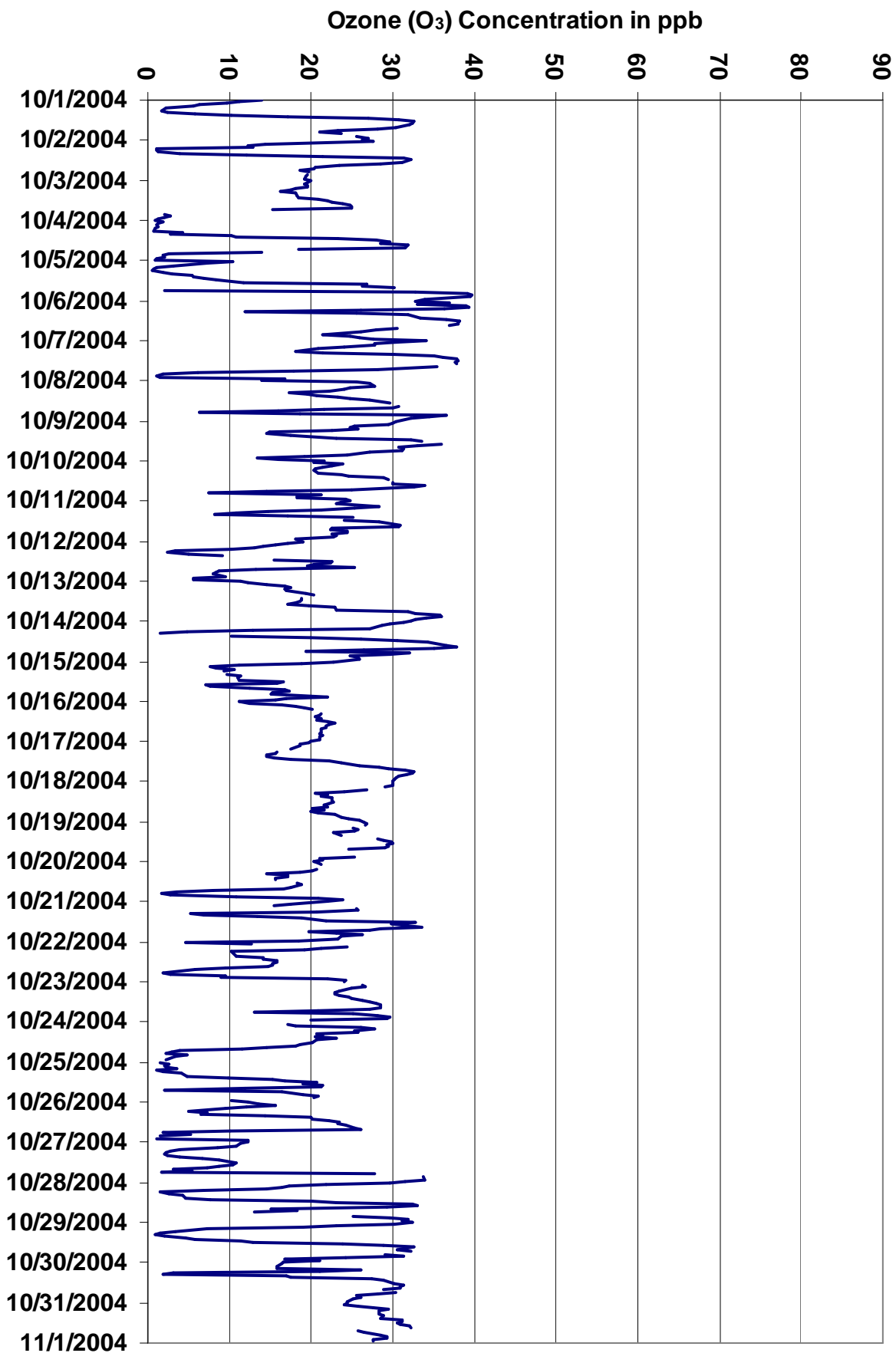


Figure 8. PASZA - Henry Piker Ozone 1-hr Maximum Value Monthly Trend

Station: Henry Pirker

### EIGHT HOUR RUNNING AVERAGE TABLE

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

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Number of 8-hr Exceedances:	0						
Maximum 8-hr Average:	34.1	ppb	7-Oct	16:00	17:00		

Guideline Limit: Canada Wide Standard 8-hr 65 ppb

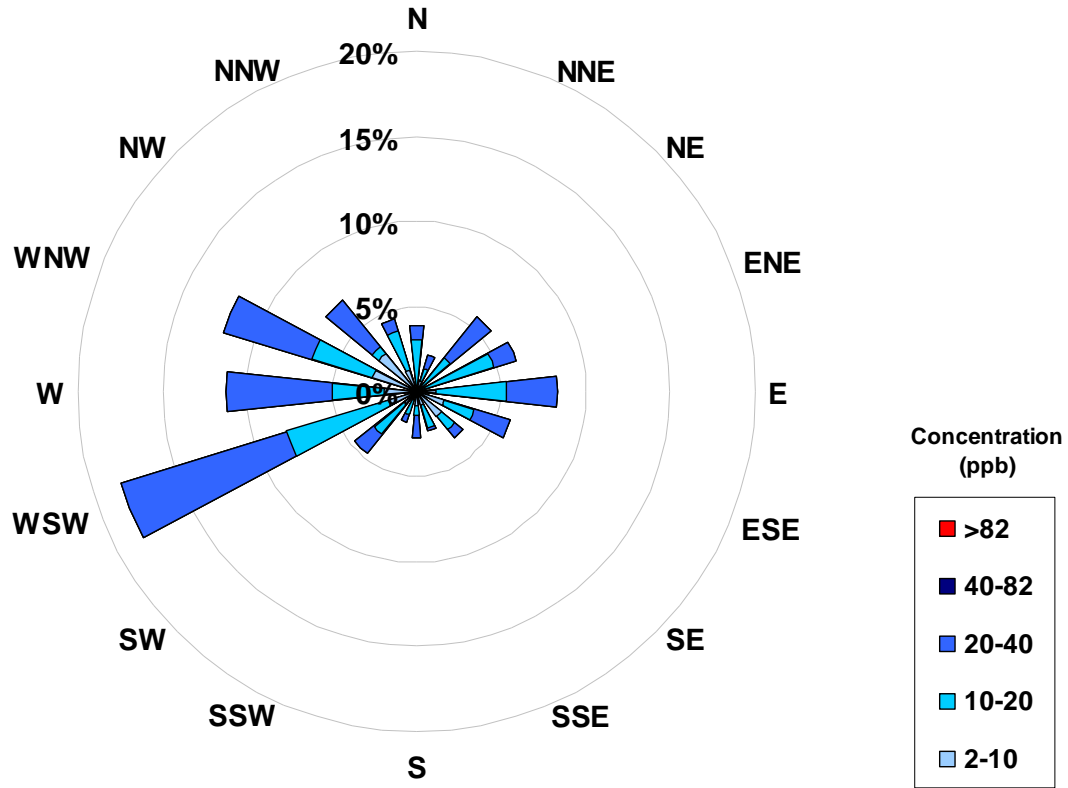
Percentile	99	95	75	50	25	5	1
	31.6	28.1	21.5	17.1	10.5	2.6	0.9

**Status Flag Characters**

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

Day	Mountain Standard Time																								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-Oct-04	11	7	6	6	6	6	5	4	3	3	4	7	10	13	17	20	23	25	26	25	24	24	23	22	13.5	26.4	
2-Oct-04	22	21	20	19	16	14	12	8	6	4	5	7	11	14	17	20	22	23	23	22	21	19	18	18	16.0	23.2	
3-Oct-04	18	18	18	18	18	18	18	17	17	17	17	17	17	18	19	20	21	21	20	20	17	14	11	8	17.2	21.1	
4-Oct-04	4	1	0	0	0	0	0	0	1	1	3	5	8	11	14	17	20	20	21	19	16	12	9	5	7.9	21.5	
5-Oct-04	2	2	2	1	1	1	1	1	1	1	1	2	3	3	6	8	11	12	11	12	17	21	22	24	6.9	23.8	
6-Oct-04	25	25	29	32	32	31	29	26	25	25	25	25	25	26	28	31	33	33	32	30	28	26	23	22	27.7	32.9	
7-Oct-04	23	23	22	22	23	22	21	20	19	20	22	24	26	28	31	33	34	33	29	24	19	14	9	9	23.0	34.1	
8-Oct-04	6	6	7	10	13	15	17	18	19	19	19	19	19	20	20	22	23	23	22	19	16	17	19	19	16.9	23.4	
9-Oct-04	19	21	23	26	28	27	24	22	20	18	17	17	18	18	20	23	26	28	29	28	25	24	21	18	22.5	29.4	
10-Oct-04	17	15	15	15	16	17	17	18	18	19	19	20	20	22	24	26	28	27	24	21	20	19	17	16	19.6	27.6	
11-Oct-04	15	15	16	18	18	19	18	16	14	12	13	12	12	13	16	19	20	21	22	22	21	21	20	18	17.1	21.5	
12-Oct-04	18	18	17	16	15	13	11	9	7	6	5	5	6	8	11	13	15	15	14	13	12	10	8	6	11.4	18.3	
13-Oct-04	5	5	6	7	8	10	11	13	15	15	16	16	17	17	17	17	17	18	19	20	23	25	27	29	15.6	28.6	
14-Oct-04	30	31	31	31	29	25	21	17	15	12	10	9	10	14	19	24	24	26	26	27	27	25	24	22	22.1	31.2	
15-Oct-04	21	20	19	16	13	12	10	8	6	6	5	6	8	8	8	8	8	8	9	9	9	9	10	11	10.3	21.2	
16-Oct-04	11	12	12	13	14	14	14	15	17	18	19	19	19	19	20	19	19	20	20	20	19	19	19	19	17.1	19.6	
17-Oct-04	19	19	19	19	18	18	17	17	16	15	14	14	14	15	16	18	20	22	24	25	27	28	29	29	19.7	29.3	
18-Oct-04	30	30	29	29	29	28	27	25	24	23	22	20	21	20	20	20	20	20	19	19	19	19	20	20	23.0	29.6	
19-Oct-04	21	22	23	24	24	25	25	24	23	N	N	23	23	24	25	26	27	26	26	N	N	N	N	N	N	N	27.0
20-Oct-04	N	N	N	N	19	19	18	17	16	16	15	15	14	14	14	15	14	13	11	9	8	7	6	7	13.3	19.3	
21-Oct-04	8	9	10	11	15	17	17	14	12	11	12	13	13	14	16	19	22	23	24	24	23	22	21	18	16.2	23.8	
22-Oct-04	15	13	13	13	13	12	11	11	12	13	13	12	11	11	12	12	12	11	9	8	7	6	5	6	10.9	15.3	
23-Oct-04	9	9	13	17	19	21	23	23	23	23	23	23	23	23	24	25	25	24	22	20	20	20	19	19	20.4	25.2	
24-Oct-04	18	19	20	21	21	20	20	19	19	19	20	19	18	18	17	17	16	14	11	9	7	5	3	2	15.5	21.0	
25-Oct-04	1	1	1	1	1	1	1	1	1	2	3	5	6	9	11	13	13	13	12	13	13	13	12	11	6.6	13.2	
26-Oct-04	11	12	12	11	9	6	6	6	6	7	8	9	11	14	16	18	20	19	16	14	12	10	7	5	11.0	19.7	
27-Oct-04	3	4	5	5	5	5	5	4	3	3	2	2	3	4	5	5	6	5	5	5	5	8	12	15	5.2	15.1	
28-Oct-04	18	20	22	21	19	15	11	8	6	4	3	4	6	9	12	14	15	16	16	17	17	16	16	17	13.5	21.8	
29-Oct-04	19	22	22	20	18	15	12	9	6	3	2	3	5	8	10	13	16	18	21	22	22	20	18	18	13.6	22.2	
30-Oct-04	15	13	12	10	10	9	8	8	9	9	10	13	13	16	19	22	24	26	27	26	25	24	23	22	16.5	26.9	
31-Oct-04	20	20	20	20	21	22	22	24	25	26	27	27	27	28	29	29	29	29	28	28	27	27	26	25	25.2	29.3	
Hourly Avg	15.2	15.1	15.5	15.7	15.9	15.4	14.6	13.7	13.0	12.3	12.5	13.3	14.1	15.4	17.1	18.9	20.0	20.3	19.9	19.0	18.2	17.6	16.7	16.0			
Hourly Max	30.0	31.0	31.2	31.8	31.9	30.6	29.3	26.4	25.3	25.7	26.6	27.1	27.4	28.3	31.0	33.3	34.1	32.9	31.9	30.3	27.5	28.1	28.8	29.3			

**Concentration Rose for the 1-hr O<sub>3</sub> Average Concentration Occurrences at the Henry Pirker Site for October 2004**



Frequency Distribution of O <sub>3</sub> in ppb			
Range		Frequency (hrs)	
0	< 2	83	
2	to 10	127	
10	to 20	237	
20	to 40	260	
40	to 82	0	
	> 82	0	
Total Non-Zero Values			707

Calms	
Range	
ppb	
2-10	0.0%
10-20	0.0%
20-40	0.0%
40-82	0.0%
>82	0.0%

# PASZA - Henry Pirker Carbon Monoxide Monthly Summary

Station: Henry Pirker

## HOURLY AVERAGE TABLE

Carbon Monoxide (CO)

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	2.73 ppm 28-Oct 8:00 9:00
Maximum 24-hr Average:	0.67 ppm 28-Oct

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

AIC Time:	33 hrs	Operational Time:	707 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	99.7%
Percentile	99	95	75
	50	25	5
	1	Average	
	1.3	0.8	0.3
	0.2	0.2	0.1
	0.1	0.1	0.3 ppm

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	0:00	24-hour Average	Daily Maximum
1-Oct-04	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.6	1.2	1.0	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.31	1.24
2-Oct-04	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.6	0.8	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.25	0.79	
3-Oct-04	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	A	0.4	0.3	0.2	0.2	0.21	0.55	
4-Oct-04	0.2	0.2	0.3	0.3	0.3	0.4	0.6	1.5	1.2	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	A	0.3	0.4	0.6	1.0	0.5	0.42	1.53		
5-Oct-04	0.5	0.3	0.2	0.2	0.3	0.3	0.3	1.1	1.1	0.8	0.5	0.6	0.4	0.5	0.3	0.2	0.3	A	0.7	0.5	0.2	0.2	0.3	0.2	0.44	1.10		
6-Oct-04	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.21	0.36		
7-Oct-04	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	A	0.2	0.2	0.3	0.5	1.3	1.3	0.9	0.3	0.32	1.28		
8-Oct-04	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.3	0.3	0.3	0.4	0.6	0.3	0.2	0.2	0.2	0.25	0.65		
9-Oct-04	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.21	0.31	
10-Oct-04	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.6	0.3	0.3	0.2	0.2	0.24	0.57	
11-Oct-04	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.4	0.2	A	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	0.22	0.50	
12-Oct-04	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.6	0.4	0.3	A	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.28	0.55		
13-Oct-04	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	0.2	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	
14-Oct-04	0.2	0.2	0.2	0.1	0.2	0.3	0.6	1.0	A	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.2	0.2	0.1	0.23	0.98		
15-Oct-04	0.1	0.2	0.2	0.4	0.4	0.3	0.3	A	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.23	0.40		
16-Oct-04	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.13	0.17	
17-Oct-04	0.1	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	0.1	0.1	0.1	0.16	0.24	
18-Oct-04	0.1	0.1	0.1	0.1	A	0.2	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.18	0.38		
19-Oct-04	0.1	0.1	0.1	A	0.1	0.2	0.3	0.2	0.2	N	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.3	0.3	0.3	0.3	0.3	0.28	0.50		
20-Oct-04	0.3	0.3	0.3	N	0.3	0.3	0.3	0.4	0.4	C	C	A	A	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.29	0.39		
21-Oct-04	0.2	0.2	0.2	A	0.1	0.1	0.2	0.5	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.26	0.48		
22-Oct-04	0.3	0.2	A	0.2	0.2	0.4	0.6	0.5	0.2	0.3	0.2	0.2	0.3	0.2	0.3	0.3	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.29	0.57		
23-Oct-04	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	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.15	0.33		
24-Oct-04	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.4	0.4	0.5	0.7	0.9	0.8	0.9	1.3	0.7	A	0.44	1.28		
25-Oct-04	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.9	1.0	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.7	0.4	0.2	0.2	0.2	A	0.2	0.36	1.01		
26-Oct-04	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	0.7	0.5	0.6	A	0.3	0.2	0.28	0.68		
27-Oct-04	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.6	0.4	0.6	0.8	0.8	0.9	0.8	1.0	1.0	1.1	1.5	0.8	0.4	A	0.2	0.2	0.2	0.57	1.51		
28-Oct-04	0.2	0.3	0.3	0.3	0.5	0.7	1.3	2.6	2.7	1.5	0.8	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.3	A	0.2	0.2	0.2	0.2	0.67	2.73		
29-Oct-04	0.2	0.2	0.2	0.3	0.4	0.7	0.9	1.3	1.1	0.9	0.6	0.6	0.7	0.6	0.4	0.5	0.3	0.3	A	0.3	0.4	0.5	0.5	0.7	0.53	1.25		
30-Oct-04	0.6	0.3	0.3	0.3	0.2	0.3	0.4	0.6	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	A	0.2	0.2	0.3	0.3	0.2	0.2	0.30	0.63		
31-Oct-04	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.23		
Hourly Avg	0.21	0.19	0.19	0.20	0.21	0.26	0.37	0.57	0.50	0.36	0.29	0.27	0.25	0.25	0.25	0.25	0.28	0.34	0.35	0.31	0.32	0.31	0.28	0.22				
Hourly Max	0.59	0.32	0.35	0.37	0.50	0.71	1.33	2.59	2.73	1.54	0.78	0.85	0.87	0.76	1.01	0.99	1.08	1.51	0.90	0.84	1.28	1.28	1.00	0.66				

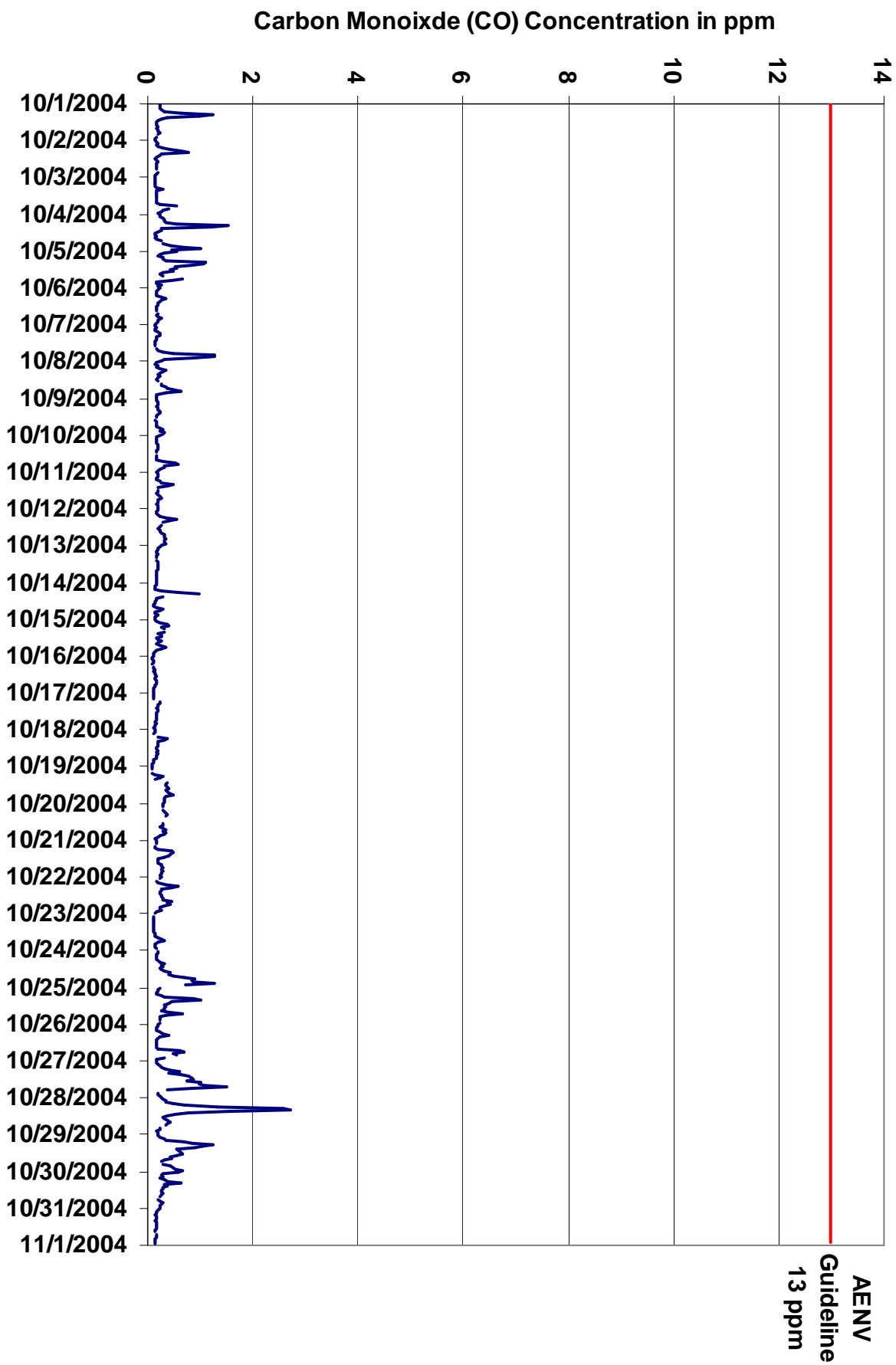


Figure 9. PASZA - Henry Pirkker Carbon Monoxide 1-hr Average Monthly Trend

Station: Henry Pirker

**HOURLY MAXIMUM TABLE**

**Carbon Monoxide (CO)**

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Maximum 1-hr Value:	5.1	ppm	28-Oct	7:00 8:00
Maximum 24-hr Value:	1.4	ppm	28-Oct	

AIC Time:	33 hrs	Operational Time:	707 hrs					
Calibration Time:	2 hrs	AMD Operational Uptime:	99.7%					
Percentile	99	95	75	50	25	5	1	Average
	3.3	1.5	0.5	0.4	0.3	0.2	0.2	0.5 ppm

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Oct-04	0.3	0.3	0.4	0.3	0.5	0.5	1.3	1.9	1.9	0.5	0.4	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.5	0.3	A	0.3	0.2	0.51	1.89
2-Oct-04	0.2	0.3	0.3	0.3	0.9	0.6	0.7	0.8	2.6	0.4	0.3	0.3	0.2	0.3	0.4	0.3	0.3	0.3	0.3	0.3	A	1.0	0.3	0.3	0.50	2.63
3-Oct-04	0.4	0.2	0.2	0.2	0.2	0.3	0.2	0.3	3.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.6	1.1	A	1.1	0.4	0.3	0.4	0.50	3.35	
4-Oct-04	0.3	0.3	0.4	0.4	0.5	1.1	1.2	2.6	2.0	0.5	0.4	0.3	0.2	0.2	0.3	0.2	0.3	0.5	A	0.4	0.8	1.0	1.5	0.8	0.72	2.65
5-Oct-04	0.7	0.9	0.3	0.3	0.6	0.6	0.5	2.0	1.5	1.3	0.7	0.7	0.7	0.9	0.5	0.3	0.5	A	1.0	1.0	0.3	0.3	0.4	0.3	0.71	2.00
6-Oct-04	0.3	0.4	0.3	0.2	0.2	0.3	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	A	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.32	0.54
7-Oct-04	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	A	0.3	0.3	0.5	1.0	2.0	1.8	1.2	0.7	0.51	1.99	
8-Oct-04	0.5	0.3	0.2	1.5	0.3	0.7	0.7	0.5	0.4	0.5	0.6	0.3	0.3	0.3	A	0.5	0.4	0.9	0.7	1.4	0.9	0.2	0.2	0.2	0.54	1.53
9-Oct-04	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.2	A	0.2	0.2	0.3	0.3	0.3	0.3	0.5	0.3	0.5	0.5	0.32	0.50
10-Oct-04	0.4	0.2	0.3	0.2	0.2	0.3	0.3	0.7	0.4	0.3	0.3	0.3	A	0.3	0.3	0.3	0.2	0.8	0.8	0.8	0.5	0.5	0.4	0.3	0.40	0.81
11-Oct-04	0.4	0.4	0.3	0.4	0.3	0.3	0.4	0.4	1.0	0.5	0.3	A	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.4	0.3	0.3	0.3	0.38	0.99
12-Oct-04	0.3	0.3	0.3	0.2	0.4	0.4	1.0	1.2	0.8	0.5	A	0.4	0.3	0.3	0.4	0.3	0.4	0.5	0.5	0.4	0.5	0.5	0.4	0.5	0.47	1.16
13-Oct-04	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	A	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.28	0.41
14-Oct-04	0.3	0.3	0.3	0.2	0.2	0.6	1.4	2.3	A	0.6	0.3	0.4	0.3	0.3	0.2	0.2	0.4	0.5	0.5	0.3	0.3	0.4	0.2	0.2	0.46	2.31
15-Oct-04	0.2	0.3	0.4	3.3	2.0	0.5	0.6	A	0.6	0.3	0.5	0.4	0.4	0.3	0.4	0.4	0.3	0.4	1.0	0.7	0.3	0.3	0.3	0.2	0.62	3.29
16-Oct-04	0.2	0.2	0.2	0.2	0.4	0.2	A	0.2	0.5	0.4	0.4	0.4	0.3	0.5	0.2	0.2	0.3	0.5	0.8	0.3	0.3	0.3	0.2	0.3	0.33	0.82
17-Oct-04	0.2	0.2	0.2	0.2	0.2	A	0.8	1.1	0.8	0.4	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.36	1.06
18-Oct-04	0.2	0.2	0.2	0.2	A	0.4	1.2	1.4	0.5	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.40	1.42
19-Oct-04	0.2	0.2	0.2	A	0.4	0.6	1.9	0.7	0.2	N	0.5	0.5	0.4	0.6	0.7	0.5	0.6	0.7	0.6	0.5	0.4	0.4	0.4	0.4	0.53	1.93
20-Oct-04	0.4	0.4	0.4	N	0.4	0.4	0.5	0.6	0.6	C	C	A	A	1.2	0.5	0.5	0.6	0.5	0.4	0.5	0.5	0.4	0.3	0.2	0.48	1.23
21-Oct-04	0.2	0.3	0.3	A	0.2	0.2	0.3	0.9	0.7	0.7	0.6	0.5	0.4	0.3	0.3	0.6	0.5	0.5	0.4	0.5	1.0	0.4	0.4	0.5	0.46	1.01
22-Oct-04	0.6	0.4	A	0.4	0.4	0.7	1.7	2.2	0.4	1.2	0.4	0.4	0.4	0.4	0.4	0.4	1.0	0.5	1.6	0.5	0.4	0.4	0.4	0.3	0.68	2.16
23-Oct-04	0.2	A	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.4	0.4	0.6	0.3	0.3	0.2	0.3	0.4	0.26	0.57
24-Oct-04	A	0.3	0.3	0.3	0.3	0.3	0.3	0.6	4.1	0.4	0.4	0.4	0.4	0.5	0.6	0.5	0.6	1.3	1.7	1.5	1.4	1.9	1.1	A	0.87	4.14
25-Oct-04	0.4	0.4	0.3	0.3	0.3	0.9	1.0	2.4	3.4	0.7	0.7	0.5	0.7	0.4	0.5	0.4	1.0	1.5	0.6	0.3	0.3	0.4	A	0.4	0.79	3.43
26-Oct-04	0.4	0.4	0.3	0.3	0.3	0.5	0.8	0.7	0.4	0.3	0.2	0.3	0.2	0.3	0.3	0.4	1.5	1.0	0.8	0.8	A	0.9	0.3	0.50	1.53	
27-Oct-04	0.2	0.4	0.3	0.4	0.3	0.5	0.8	2.1	0.9	0.9	0.9	1.1	1.1	1.0	1.3	1.8	1.6	2.6	1.9	0.9	A	0.3	0.3	0.3	0.95	2.60
28-Oct-04	0.4	0.4	0.6	0.5	3.5	1.3	3.7	5.1	4.7	2.9	1.9	0.7	0.5	0.6	0.6	0.6	0.6	0.6	0.5	A	0.5	0.4	0.3	0.4	1.36	5.15
29-Oct-04	0.3	0.3	0.3	0.6	0.5	1.4	1.2	2.7	1.7	1.1	0.7	0.9	0.9	0.9	0.6	0.8	0.5	0.4	A	0.4	0.6	1.3	1.0	0.9	0.87	2.75
30-Oct-04	1.0	0.6	0.4	0.5	0.3	0.5	0.5	1.0	0.7	0.7	0.5	0.4	0.4	0.4	0.4	0.3	0.3	A	0.3	0.3	0.4	0.5	0.3	0.4	0.49	1.05
31-Oct-04	0.4	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.2	A	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.26	0.38
Hourly Avg	0.35	0.33	0.29	0.46	0.50	0.50	0.82	1.22	1.20	0.61	0.47	0.40	0.39	0.42	0.40	0.41	0.47	0.63	0.68	0.55	0.56	0.53	0.46	0.36		
Hourly Max	1.05	0.93	0.58	3.29	3.46	1.35	3.69	5.15	4.69	2.86	1.89	1.06	1.07	1.23	1.27	1.78	1.57	2.60	1.94	1.47	1.99	1.89	1.52	0.94		

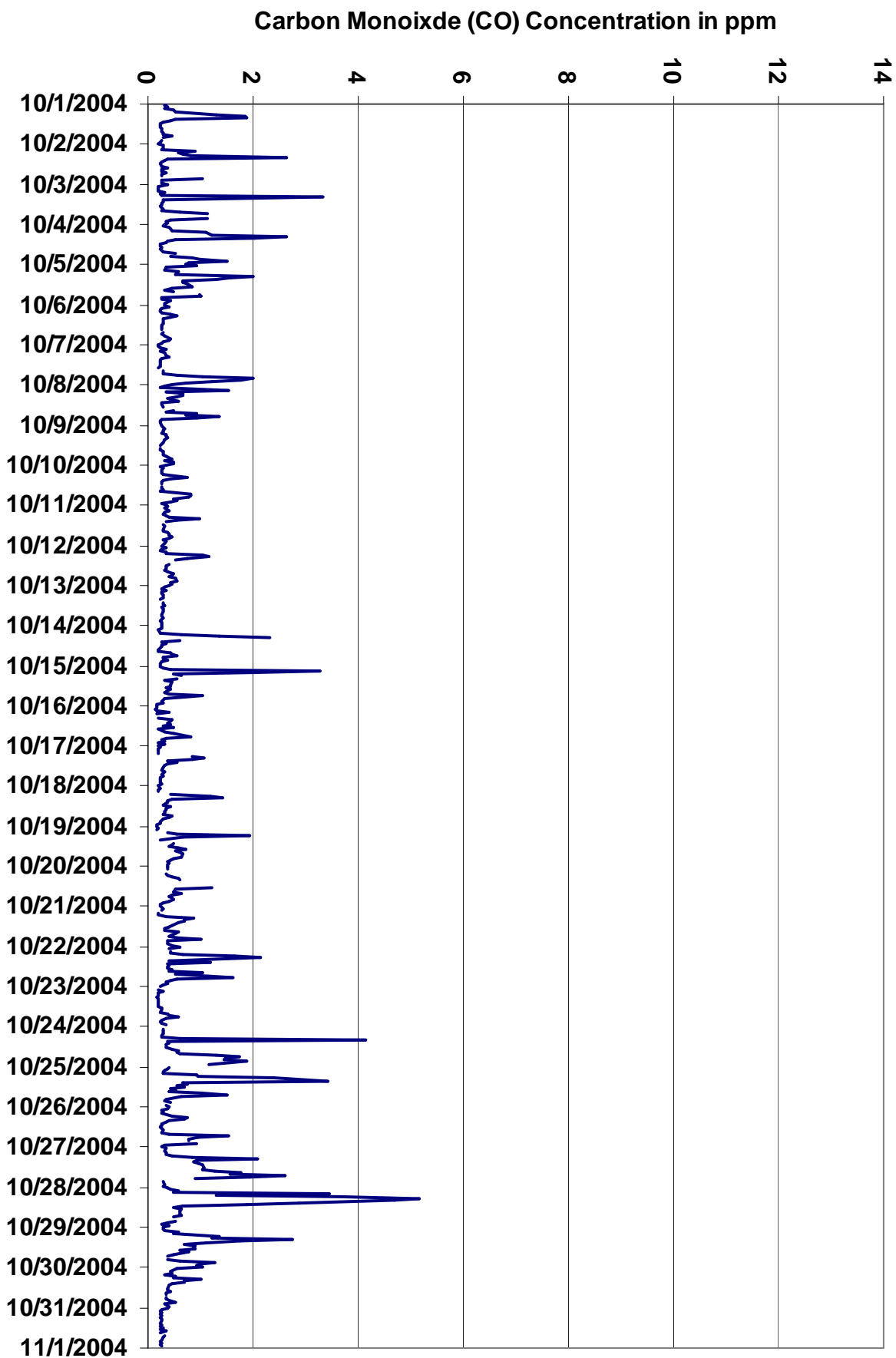
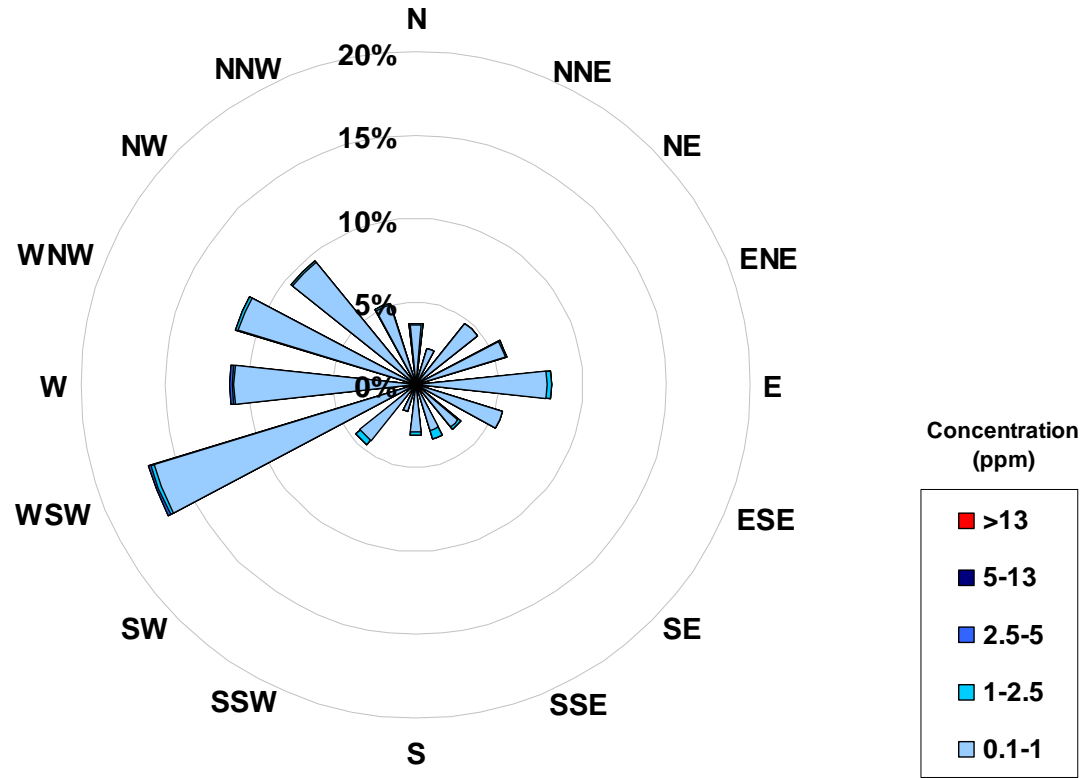


Figure 10. PASZA - Henry Pirker Carbon Monoxide 1-hr Maximum Value Monthly Trend





**Concentration Rose for the 1-hr CO Average Concentration Occurrences at the Henry Pirker Site for October 2004**



Frequency Distribution of CO in ppm			
Range	Frequency (hrs)		
0 < 0.1	6		
0.1 to 1	682		
1 to 2.5	17		
2.5 to 5	2		
5 to 13	0		
> 13	0		
<b>Total Non-Zero Values</b>	<b>707</b>		

Calms	
Range	
ppm	
0.1-1	0.0%
1-2.5	0.0%
2.5-5	0.0%
5-13	0.0%
>13	0.0%

## PASZA - Henry Pirker Total Hydrocarbon Monthly Summary

Station: Henry Pirker

### HOURLY AVERAGE TABLE

Total HydroCarbons (THC)

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	3.3	ppm	5-Oct	0:00 1:00
Maximum 24-hr Average:	2.4	ppm	27-Oct	

Guideline Limit: Alberta Environment: 

1-hr	na	ppm
------	----	-----

24-hr	na	ppm
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AIC Time:	32 hrs		Operational Time:	706 hrs				
Calibration Time:	4 hrs		AMD Operational Uptime:	99.7%				
Percentile	99	95	75	50	25	5	1	Average
	2.9	2.6	2.1	2.0	1.9	1.8	1.8	2.1 ppb

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	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-Oct-04	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.7	2.6	2.3	2.1	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	A	1.9	1.9	1.9	2.05	2.70
2-Oct-04	1.9	1.9	2.1	2.0	2.1	2.3	2.3	2.4	2.4	2.0	2.0	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.00	2.39	
3-Oct-04	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	2.0	1.9	1.9	1.9	1.9	2.1	A	2.2	2.3	2.3	2.2	2.02	2.28	
4-Oct-04	2.3	2.3	2.6	2.7	2.7	2.5	2.7	3.0	2.9	2.1	2.1	1.9	1.8	1.8	1.9	1.8	1.9	1.9	A	2.0	2.1	2.3	2.6	3.2	2.31	3.23	
5-Oct-04	3.3	2.3	2.3	2.3	2.6	2.5	2.4	2.6	2.6	2.5	2.5	2.4	2.3	2.4	2.1	2.0	2.0	A	2.3	2.3	1.9	1.9	1.9	1.9	2.33	3.34	
6-Oct-04	2.1	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.1	2.0	2.0	2.0	1.95	2.11	
7-Oct-04	1.9	1.9	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	2.0	2.2	2.6	2.6	2.5	2.1	2.04	2.65	
8-Oct-04	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	A	2.0	1.9	2.0	2.0	2.3	2.1	1.8	1.9	1.8	2.01	2.26	
9-Oct-04	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	A	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.1	1.94	2.09	
10-Oct-04	2.0	2.0	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	A	1.8	1.9	1.9	1.9	1.9	1.9	2.1	2.1	2.0	2.0	2.0	1.9	1.94	2.07	
11-Oct-04	1.9	1.9	2.0	2.0	1.9	1.9	2.0	2.0	2.1	2.0	1.9	A	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.9	1.9	1.90	2.11	
12-Oct-04	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.00	2.11	
13-Oct-04	2.1	2.0	2.0	2.0	1.9	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.84	2.06	
14-Oct-04	1.8	1.8	1.9	1.9	1.9	2.1	2.1	2.2	A	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.21	
15-Oct-04	2.0	2.1	2.2	2.2	2.3	2.1	2.0	A	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.1	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	2.02	2.28	
16-Oct-04	1.9	2.0	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.03	
17-Oct-04	2.0	2.0	2.0	2.0	1.9	A	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.91	2.01	
18-Oct-04	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	2.00	
19-Oct-04	1.9	1.9	1.9	A	1.9	2.0	2.0	2.0	2.0	2.0	N	2.0	2.0	1.9	1.9	1.9	C	C	C	C	2.0	2.0	2.1	2.0	1.97	2.07	
20-Oct-04	2.0	2.1	2.1	N	2.1	2.1	2.2	2.1	2.1	2.0	2.1	2.0	A	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.3	2.2	2.1	2.0	2.09	2.28	
21-Oct-04	2.1	2.1	2.1	A	2.0	2.1	2.2	2.3	2.4	2.3	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.4	2.3	2.11	2.44	
22-Oct-04	2.4	2.4	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.2	2.2	2.0	2.05	2.41	
23-Oct-04	2.0	A	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.01	2.09	
24-Oct-04	A	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.2	2.2	2.2	2.5	2.3	2.4	2.6	3.3	2.7	A	2.20	3.29	
25-Oct-04	2.5	2.5	2.7	2.6	2.7	2.8	2.8	2.9	2.8	2.7	2.3	2.2	2.2	2.1	2.0	2.1	2.3	2.4	2.2	2.1	2.1	2.1	A	2.2	2.40	2.89	
26-Oct-04	2.3	2.3	2.4	2.4	2.4	2.4	2.2	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.2	A	2.3	2.3	2.17	2.43	
27-Oct-04	2.2	2.2	2.1	2.1	2.2	2.3	2.4	2.6	2.6	2.7	2.7	2.6	2.6	2.5	2.7	2.7	2.8	2.9	2.8	2.3	A	1.9	1.9	1.9	2.42	2.92	
28-Oct-04	1.9	2.1	2.1	2.0	2.1	2.4	2.6	3.0	3.1	2.7	2.4	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.1	A	2.0	2.0	2.0	2.0	2.20	3.12	
29-Oct-04	2.0	2.1	2.1	2.2	2.3	2.4	2.4	2.5	2.5	2.4	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	A	2.2	2.1	2.1	2.2	2.3	2.19	2.48	
30-Oct-04	2.4	2.0	2.1	2.1	1.9	2.0	2.0	2.3	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	1.9	1.9	1.9	1.99	2.40	
31-Oct-04	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.93	2.04	
Hourly Avg	2.09	2.05	2.06	2.07	2.08	2.11	2.14	2.22	2.20	2.13	2.06	2.02	1.99	1.97	1.96	1.97	1.99	2.03	2.05	2.04	2.05	2.07	2.07	2.06			
Hourly Max	3.34	2.54	2.67	2.68	2.69	2.75	2.83	3.05	3.12	2.75	2.74	2.61	2.61	2.51	2.66	2.67	2.84	2.92	2.83	2.41	2.65	3.29	2.71	3.23			

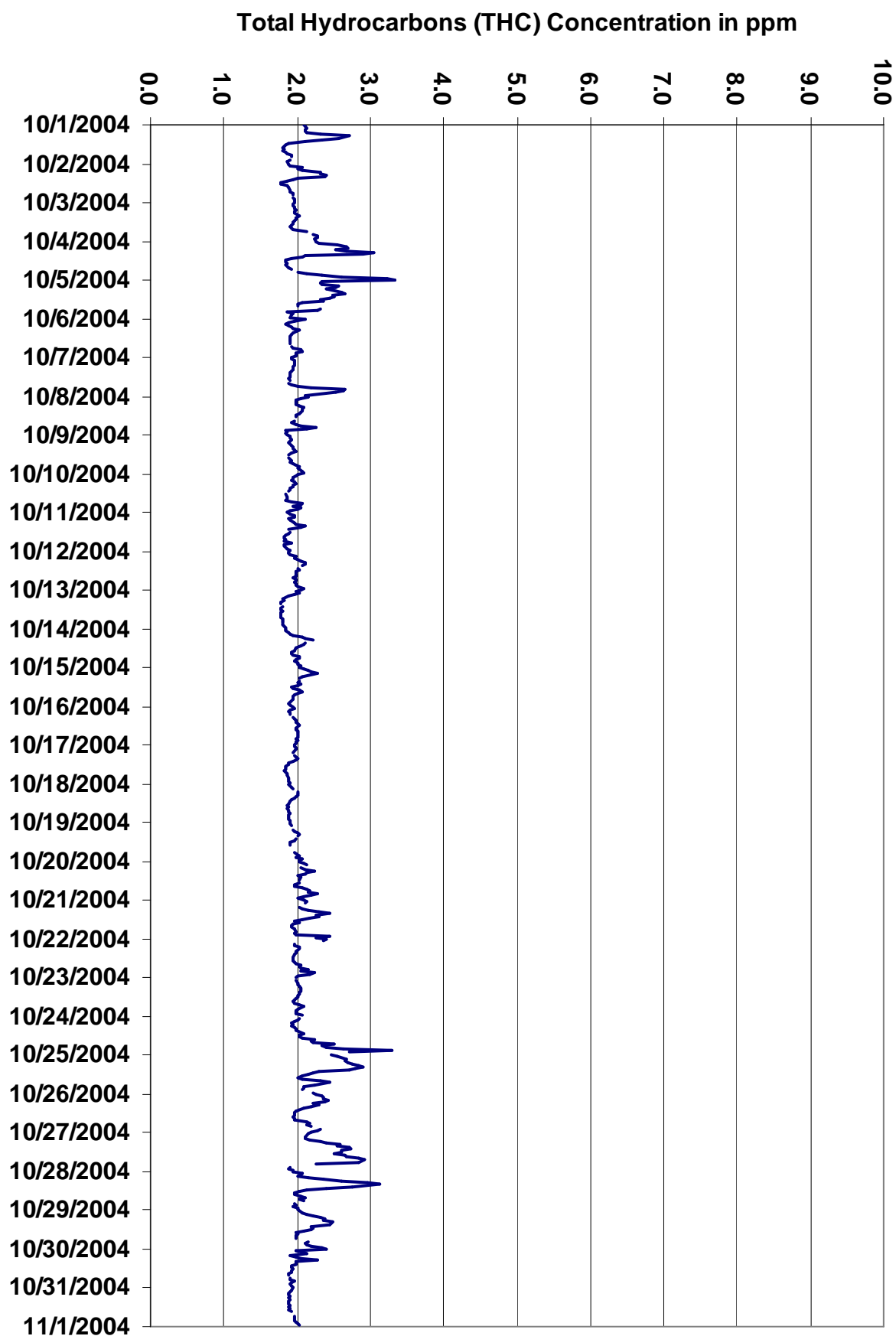


Figure 11. PASZA - Henry Pirker Total Hydrocarbons 1-hr Average Monthly Trend

Station: Henry Pirker

**HOURLY MAXIMUM TABLE**

**Total HydroCarbons (THC)**

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004  
**Summary**

Maximum 1-hr Value:	6.8	ppm	11-Oct	19:00 20:00
Maximum 24-hr Value:	2.7	ppm	25-Oct	

AIC Time:	32 hrs	Operational Time:	706 hrs					
Calibration Time:	4 hrs	AMD Operational Uptime:	99.7%					
Percentile	99	95	75	50	25	5	1	Average
	3.6	3.0	2.3	2.1	2.0	1.9	1.8	2.2 ppm

**Status Flag Characters**

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start 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-Oct-04	2.1	2.2	2.3	2.2	2.2	2.1	2.8	3.1	3.0	2.5	2.4	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	2.0	1.9	2.16	3.09	
2-Oct-04	1.9	2.0	2.5	2.2	2.3	2.5	2.4	2.5	2.7	2.0	2.0	2.0	1.8	1.9	1.9	1.9	1.9	2.0	2.0	2.0	A	2.2	2.0	2.0	2.11	2.75	
3-Oct-04	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.8	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.4	A	2.8	2.4	2.4	2.3	2.15	2.82		
4-Oct-04	2.3	2.4	2.7	2.8	3.0	2.8	2.9	3.2	3.3	2.3	2.1	2.1	1.9	1.9	1.9	1.9	2.1	A	2.2	2.4	2.7	2.8	3.6	2.49	3.64		
5-Oct-04	3.5	3.4	2.4	2.5	2.8	2.9	2.5	2.8	2.8	2.7	2.6	2.6	2.5	2.6	2.2	2.1	2.1	A	2.6	2.6	2.0	2.1	2.0	2.0	2.53	3.49	
6-Oct-04	3.1	2.2	2.0	1.9	1.9	2.0	2.0	2.3	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	A	2.0	2.0	2.5	2.8	2.1	2.0	2.0	2.11	3.14	
7-Oct-04	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	1.9	2.0	2.1	2.0	1.9	2.0	A	1.9	2.0	2.1	2.5	2.8	2.8	2.8	2.4	2.15	2.85	
8-Oct-04	2.3	2.2	2.0	2.1	2.0	2.0	2.1	2.3	2.2	2.1	2.2	2.1	2.0	2.0	A	2.0	2.0	2.0	2.2	2.7	2.8	2.0	1.9	1.9	2.14	2.75	
9-Oct-04	1.9	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.1	2.4	2.4	1.9	A	1.9	1.9	1.9	1.9	2.1	2.1	2.1	2.2	2.2	2.2	2.05	2.45	
10-Oct-04	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.1	2.3	2.2	2.0	2.3	2.2	2.0	2.02	2.28	
11-Oct-04	1.9	1.9	2.1	2.1	2.0	2.0	2.1	2.2	2.3	2.1	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	6.8	1.9	1.9	1.9	1.9	2.18	6.77	
12-Oct-04	1.9	1.9	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.2	A	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.07	2.25	
13-Oct-04	2.1	2.0	2.2	2.0	2.0	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.9	1.88	2.15	
14-Oct-04	1.9	1.9	1.9	2.0	2.0	2.4	2.3	2.5	A	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.1	2.08	2.53
15-Oct-04	2.1	2.2	2.2	2.7	2.6	2.1	2.1	A	2.1	2.1	2.1	2.2	2.0	2.0	2.2	2.2	2.1	2.1	2.2	2.1	2.0	1.9	2.0	1.9	2.14	2.67	
16-Oct-04	2.0	2.1	2.0	1.9	1.9	1.9	A	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.03	2.16	
17-Oct-04	2.0	2.0	2.0	2.0	2.0	A	2.2	2.2	2.4	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	1.99	2.41	
18-Oct-04	1.9	1.9	2.0	2.0	A	2.2	2.3	2.5	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	2.2	2.00	2.50	
19-Oct-04	2.0	1.9	1.9	A	2.0	2.0	2.4	2.1	2.0	N	2.0	2.0	1.9	2.0	1.9	C	C	C	C	2.2	2.4	2.3	2.3	2.2	2.09	2.42	
20-Oct-04	2.1	2.4	2.7	N	2.7	2.9	4.1	2.8	3.5	2.2	2.3	2.2	A	2.2	2.0	2.0	2.3	2.3	2.4	2.2	2.8	2.4	2.2	2.0	2.49	4.09	
21-Oct-04	2.2	2.2	2.2	A	2.1	2.1	2.2	2.9	2.8	2.4	2.5	2.3	2.3	2.1	2.4	2.1	2.0	2.0	2.0	2.1	2.0	2.1	3.4	3.0	2.32	3.37	
22-Oct-04	3.5	3.5	A	2.0	2.0	2.2	2.4	2.3	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.3	3.0	2.1	2.5	2.3	2.0	2.29	3.48		
23-Oct-04	2.0	A	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.1	2.0	2.1	2.0	2.2	2.07	2.25	
24-Oct-04	A	2.1	2.1	2.0	2.0	2.0	2.0	2.2	2.7	2.1	2.2	2.1	2.1	2.2	2.5	2.4	2.5	3.9	2.6	2.8	3.7	3.7	3.5	A	2.51	3.89	
25-Oct-04	2.6	2.8	2.9	2.9	2.9	2.9	3.0	3.1	3.6	3.9	2.7	2.4	2.5	2.2	2.1	2.4	2.7	2.8	2.6	2.1	2.2	2.1	A	2.4	2.67	3.93	
26-Oct-04	2.4	2.5	2.4	2.6	3.3	2.6	2.4	2.4	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.3	2.3	2.4	A	2.5	2.3	2.31	3.33	
27-Oct-04	2.3	2.2	2.2	2.1	2.3	2.4	2.6	3.1	2.7	2.8	2.8	2.7	2.8	2.8	3.3	3.0	3.0	3.4	3.1	2.9	A	1.9	1.9	2.0	2.62	3.36	
28-Oct-04	2.0	2.3	2.2	2.1	2.9	2.6	2.9	3.3	3.4	3.2	3.1	2.4	2.1	2.1	2.1	2.3	2.3	2.2	2.3	A	2.1	2.1	2.0	2.3	2.44	3.41	
29-Oct-04	2.2	2.3	2.3	2.3	2.6	2.5	2.5	2.9	2.8	2.8	2.4	2.3	2.3	2.2	2.0	2.2	2.2	2.1	A	2.4	2.3	2.2	2.5	2.5	2.38	2.89	
30-Oct-04	2.7	2.2	3.1	2.7	2.0	2.4	2.3	2.5	2.3	2.1	2.0	2.2	2.1	2.0	2.0	1.9	1.9	A	1.9	1.9	2.4	2.0	2.0	2.0	2.20	3.12	
31-Oct-04	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	2.0	A	2.0	2.0	2.0	2.0	2.0	2.1	2.1	1.97	2.13	
Hourly Avg	2.23	2.23	2.20	2.18	2.25	2.25	2.35	2.44	2.47	2.28	2.19	2.12	2.06	2.05	2.05	2.05	2.08	2.18	2.19	2.40	2.27	2.20	2.22	2.19			
Hourly Max	3.49	3.48	3.12	2.86	3.33	2.93	4.09	3.31	3.61	3.93	3.09	2.70	2.75	2.78	3.33	2.96	3.01	3.89	3.11	6.77	3.67	3.67	3.53	3.64			

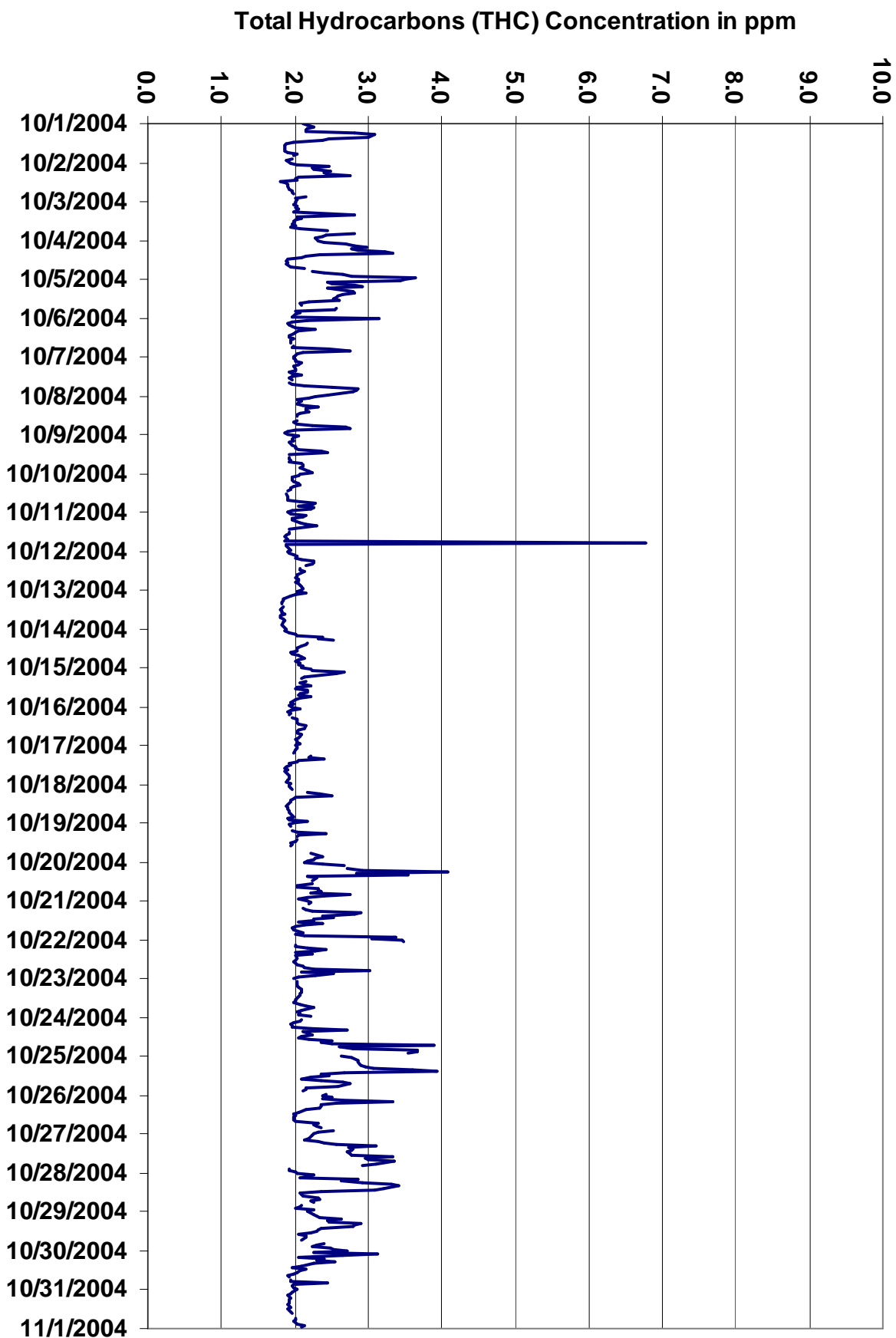


Figure 12. PASZA - Henry Pirkler Total Hydrocarbons 1-hr Maximum Value Monthly Trend

## PASZA - Henry Pirker Total Reduced Sulphur Monthly Summary

Station: Henry Pirker

### HOURLY AVERAGE TABLE

**Total Reduced Sulphur (TRS)**

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	4.6 ppb 25-Oct 20:00 21:00
Maximum 24-hr Average:	1.3 ppb 25-Oct

H<sub>2</sub>S Guideline Limit: Alberta Environment: 1-hr 10 ppb 24-hr 3 ppb

AIC Time:	32 hrs	Operational Time:	706 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	99.7%
Percentile	99	95	75
	1.7	1.2	0.7
	0.5	0.4	0.3
	0.2	0.6	ppb

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start	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	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-Oct-04	0	0	1	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.5	0.8
2-Oct-04	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	0	0	0	0.6	1.0
3-Oct-04	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	1	A	1	1	1	1	1	0.5	0.9	
4-Oct-04	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	A	0	1	1	1	1	1	0.7	1.2	
5-Oct-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	0	0	0	1	0.7	1.2	
6-Oct-04	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	A	1	1	1	1	1	1	1	1	0.5	0.6	
7-Oct-04	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	A	1	0	0	1	1	1	1	0	0	0.5	0.8	
8-Oct-04	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0.4	0.6	
9-Oct-04	0	0	0	0	0	0	0	0	1	1	1	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0.5	0.5	
10-Oct-04	0	0	0	0	1	0	0	0	0	0	1	1	A	1	1	1	0	1	1	1	1	1	1	1	0	0.5	0.6	
11-Oct-04	0	0	0	0	0	0	0	0	1	1	1	A	1	1	1	0	1	1	0	0	1	1	1	1	1	0.5	0.6	
12-Oct-04	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	0	0	1	1	1	1	1	1	0.6	0.9	
13-Oct-04	1	1	1	1	1	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5	
14-Oct-04	0	0	0	1	0	1	1	1	A	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0.5	1.0	
15-Oct-04	0	0	0	0	1	1	1	A	0	0	1	1	0	0	1	1	1	1	1	1	1	1	0	1	0	0.5	0.7	
16-Oct-04	0	0	0	1	0	0	A	0	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0.5	0.8	
17-Oct-04	1	1	1	1	1	A	1	1	1	1	1	0	0	1	0	0	0	1	0	0	0	1	1	0	0	0.6	1.2	
18-Oct-04	0	0	0	0	A	0	0	0	0	0	0	0	0	1	2	1	1	1	0	1	0	0	0	0	0	0.6	1.7	
19-Oct-04	0	0	0	A	1	1	1	1	0	N	1	1	1	1	1	1	C	C	C	C	0	0	0	0	0	0.6	1.4	
20-Oct-04	0	0	0	N	0	0	0	0	0	0	0	0	A	1	1	0	1	1	1	1	0	1	0	0	1	0.4	0.7	
21-Oct-04	1	1	1	A	1	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0.5	0.9	
22-Oct-04	1	1	A	0	0	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.7	
23-Oct-04	1	A	1	1	1	1	1	1	1	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0.5	0.7	
24-Oct-04	A	0	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.6	1.2	
25-Oct-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	5	2	A	2	2	1.3	4.6	
26-Oct-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	1.0	
27-Oct-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	A	0	0	0	0	1.0	1.7	
28-Oct-04	0	1	0	1	1	1	1	1	1	2	2	1	1	1	0	1	1	1	1	A	1	1	1	0	0	0.8	2.3	
29-Oct-04	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	0	1	1	1	1	1	0.7	1.4	
30-Oct-04	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	0.6	
31-Oct-04	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	0.3	0.4	
Hourly Avg	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.5	0.6			
Hourly Max	1.0	0.8	0.8	0.8	0.7	0.9	1.3	1.7	2.3	1.7	1.2	1.4	1.4	1.3	1.7	1.4	1.6	1.7	2.0	1.7	4.6	1.9	1.0	2.1				

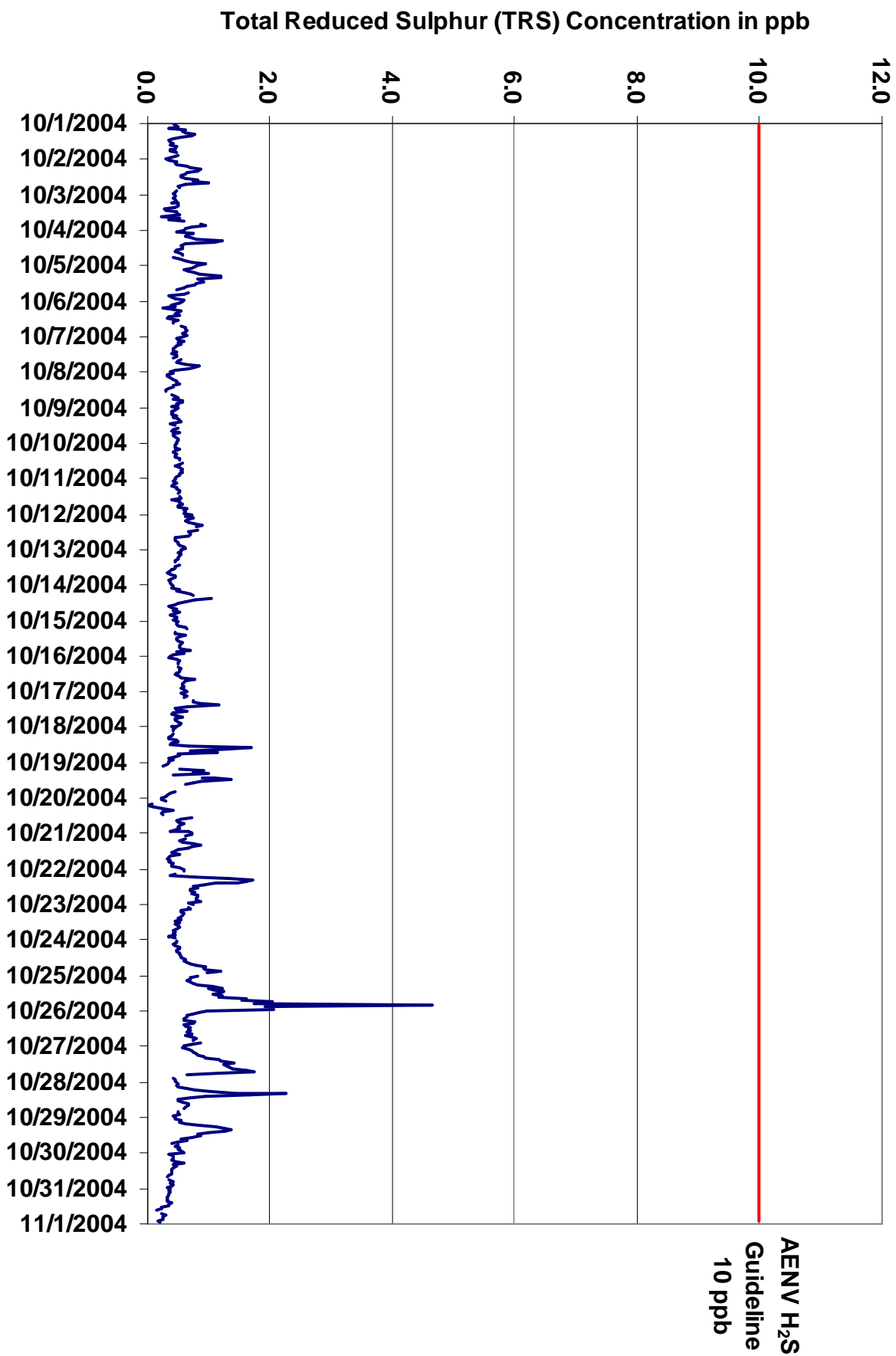


Figure 13. PASZA - Henry Pirker Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Henry Pirker

**HOURLY MAXIMUM TABLE**

**Total Reduced Sulphur (TRS)**

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Maximum 1-hr Value:	7.6	ppb	25-Oct	20:00 21:00
Maximum 24-hr Value:	2.2	ppb	25-Oct	

AIC Time:	32 hrs	Operational Time:	706 hrs					
Calibration Time:	4 hrs	AMD Operational Uptime:	99.7%					
Percentile	99	95	75	50	25	5	1	Average
	2.7	1.8	1.2	1.0	0.9	0.8	0.6	1.1 ppb

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Oct-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.0	1.4
2-Oct-04	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	2	1	1	1	1	A	1	1	1	1.2	1.7
3-Oct-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	2	1	1	1.0	1.7
4-Oct-04	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	1.2	1.9
5-Oct-04	1	2	1	1	1	1	2	2	2	2	2	1	2	1	1	1	A	1	1	1	1	1	1	1	1.3	2.0
6-Oct-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	2	1	1.1	1.5
7-Oct-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1.0	1.5
8-Oct-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.9	1.2
9-Oct-04	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.0	1.2
10-Oct-04	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4
11-Oct-04	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.2
12-Oct-04	1	1	1	1	1	1	1	1	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.7
13-Oct-04	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2
14-Oct-04	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.7
15-Oct-04	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.3
16-Oct-04	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1.1	1.9
17-Oct-04	1	1	1	1	1	A	1	1	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.6
18-Oct-04	1	1	1	1	A	1	1	1	1	1	1	1	1	2	3	3	1	2	1	1	1	1	1	1	1.2	2.7
19-Oct-04	1	1	1	A	2	2	1	2	1	N	2	2	2	2	1	1	C	C	C	C	1	1	1	1	1.3	2.5
20-Oct-04	1	1	1	N	0	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4
21-Oct-04	1	1	1	A	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5
22-Oct-04	1	1	A	1	1	1	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.4	2.2
23-Oct-04	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
24-Oct-04	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	A	1.1	1.7
25-Oct-04	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	4	4	8	3	A	3	2.2	7.6
26-Oct-04	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.2	1.6
27-Oct-04	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	1	A	1	1	1.5	2.3
28-Oct-04	1	1	1	1	1	1	1	2	3	3	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.2	2.9
29-Oct-04	1	1	1	1	1	2	2	2	2	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.2	1.9
30-Oct-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.9	1.1
31-Oct-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	1	1	1	1	0.7	1.0
Hourly Avg	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.3	1.3	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.1	1.3	1.1	1.0	1.1		
Hourly Max	1.6	1.6	1.3	1.4	2.2	1.7	1.9	2.2	2.9	2.7	1.7	2.0	2.5	1.7	2.7	2.7	2.3	2.3	4.3	3.9	7.6	3.2	1.6	3.0		



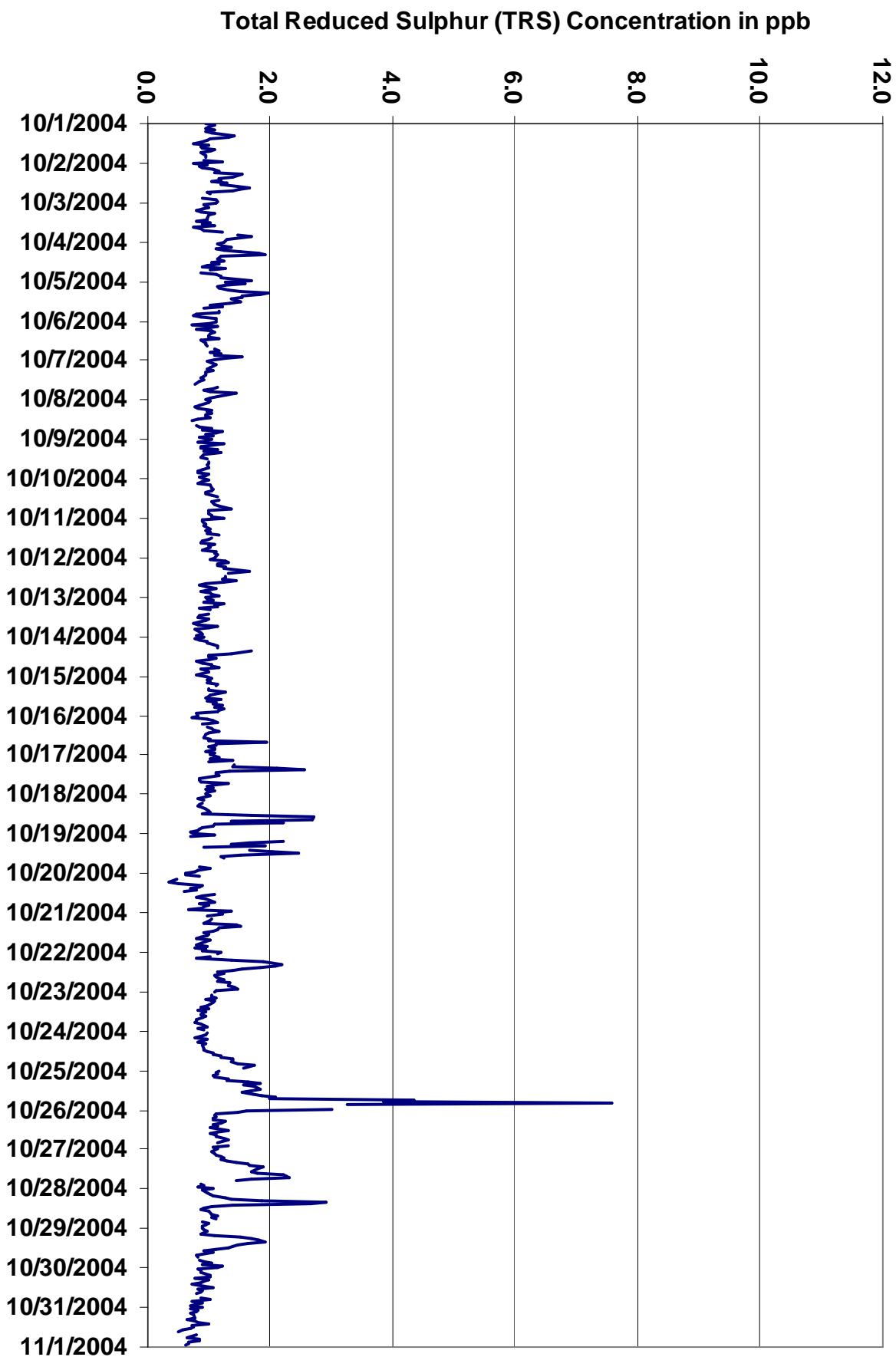


Figure 14. PASZA - Henry Pirker Total Reduced Sulphur 1-hr Maximum Value Monthly Trend

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

Station: Henry Pirker

### HOURLY AVERAGE TABLE

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

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	44.2 $\mu\text{g}/\text{m}^3$ 28-Oct 8:00 9:00
Maximum 24-hr Average:	16.5 $\mu\text{g}/\text{m}^3$ 28-Oct

Guideline Limit	Canada Wide Standard	1-hr - $\mu\text{g}/\text{m}^3$	24-hr 30 $\mu\text{g}/\text{m}^3$
(considered as an absolute value)			

AIC Time:	0 hrs	Operational Time:	740 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	99.9%
Percentile	99	95	75
	30.2	19.1	6.1
	50	25	5
	2.9	1.2	0.0
	1	0.0	0.0
Average	5.0 $\mu\text{g}/\text{m}^3$		
Geomean	3.5 $\mu\text{g}/\text{m}^3$		

**Status Flag Characters**

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

**Day Mountain Standard Time**

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-Oct-04	4	3	4	4	3	4	6	10	12	9	7	2	2	2	1	3	5	5	7	8	9	10	11	6	5.8	12.1
2-Oct-04	5	5	6	5	6	7	10	16	18	17	9	5	4	4	8	3	3	1	1	1	0	1	1	0	5.6	18.2
3-Oct-04	0	0	0	0	0	0	0	0	1	1	1	2	2	1	1	2	3	3	7	18	36	24	15	13	5.4	36.4
4-Oct-04	13	7	8	7	9	9	9	22	22	9	10	8	3	2	5	5	4	12	15	26	29	29	28	18	12.8	28.9
5-Oct-04	19	15	15	13	13	13	14	22	28	21	28	24	21	28	19	14	15	24	26	17	1	0	2	3	16.4	28.2
6-Oct-04	5	4	6	0	0	0	2	5	4	1	0	0	0	1	0	1	1	3	6	5	4	3	4	3	2.5	5.7
7-Oct-04	4	2	1	2	3	2	2	4	2	5	3	4	2	0	1	1	3	4	6	16	20	18	12	4	5.0	19.7
8-Oct-04	7	0	0	1	0	0	1	2	2	3	3	3	2	3	2	4	4	9	11	19	26	8	1	1	4.7	25.8
9-Oct-04	1	0	0	1	1	0	2	2	2	2	2	3	0	0	1	2	2	1	2	2	3	2	3	3	1.4	3.5
10-Oct-04	1	1	1	1	1	1	1	1	1	2	2	0	0	0	0	0	0	0	5	5	4	6	1	1	1.5	5.9
11-Oct-04	0	0	1	2	1	1	2	3	3	6	0	2	0	1	0	3	2	2	0	0	1	1	1	1	1.4	5.8
12-Oct-04	2	2	1	1	1	0	1	3	9	3	3	4	5	5	7	6	4	6	3	2	2	2	3	3	3.2	8.7
13-Oct-04	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2	2	4	4	4	0.9	4.5
14-Oct-04	4	2	1	2	2	5	6	9	7	6	0	0	0	0	0	0	3	6	7	5	3	2	0	0	3.0	8.8
15-Oct-04	0	0	0	0	0	0	0	1	1	0	3	3	1	4	8	5	3	4	1	3	3	1	0	0	1.8	7.9
16-Oct-04	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	2	2	2	1	2	2	1	2	0.9	2.4
17-Oct-04	2	2	1	2	2	2	2	2	2	1	2	2	1	0	0	0	0	0	1	2	3	3	2	2	1.5	3.4
18-Oct-04	1	0	2	1	1	1	2	2	1	2	1	1	1	2	1	2	2	2	2	3	2	1	0	0	1.4	2.6
19-Oct-04	1	1	0	0	1	0	0	1	1	N	0	0	0	0	0	0	0	1	2	2	2	0	0	0	0.5	2.4
20-Oct-04	0	0	0	0	0	0	1	4	2	C	C	C	12	13	13	7	6	6	8	8	6	5	4	2	4.6	13.1
21-Oct-04	4	5	5	4	3	2	3	5	9	8	9	5	1	1	1	2	2	2	5	5	5	5	3	3	4.0	9.2
22-Oct-04	4	3	3	1	1	1	2	3	4	4	5	5	5	5	6	7	9	9	9	9	9	9	9	7	5.3	9.4
23-Oct-04	6	5	5	5	5	5	6	5	5	4	4	3	3	3	3	3	3	5	7	5	4	2	2	3	4.2	6.6
24-Oct-04	4	3	5	2	1	2	2	3	3	5	7	5	5	6	8	9	8	9	11	10	9	15	9	7	6.2	15.1
25-Oct-04	5	5	4	4	5	5	6	9	12	13	8	6	6	6	6	7	7	7	5	3	3	4	4	3	5.8	12.9
26-Oct-04	2	4	3	2	4	6	6	7	7	7	5	5	5	5	5	5	5	13	10	10	9	10	8	10	6.3	13.3
27-Oct-04	6	8	6	4	6	8	7	7	13	17	21	24	28	29	31	35	35	34	21	5	1	4	8	10	15.4	35.3
28-Oct-04	13	17	18	19	21	23	26	31	44	39	25	17	11	11	12	14	11	7	7	8	7	6	5	5	16.5	44.2
29-Oct-04	4	5	6	7	8	9	9	10	12	13	11	7	10	7	5	6	4	4	3	4	4	5	7	8	7.0	12.6
30-Oct-04	8	2	1	2	1	2	2	4	4	6	5	5	4	2	3	2	3	3	3	4	5	2	1	2	3.2	8.0
31-Oct-04	1	2	2	2	2	1	2	2	2	3	2	2	1	1	1	1	2	1	1	1	1	1	1	2	1.5	2.7
Hourly Avg	4.1	3.3	3.4	3.1	3.1	3.6	4.3	6.3	7.6	7.1	5.8	4.9	4.4	4.6	4.8	4.8	4.9	6.0	6.3	6.7	6.9	5.9	4.9	4.0		
Hourly Max	18.7	16.9	18.1	19.3	21.3	22.9	26.2	31.2	44.2	39.0	27.5	24.1	28.0	29.0	31.0	35.3	35.3	34.0	25.9	25.5	36.4	28.6	27.6	18.4		

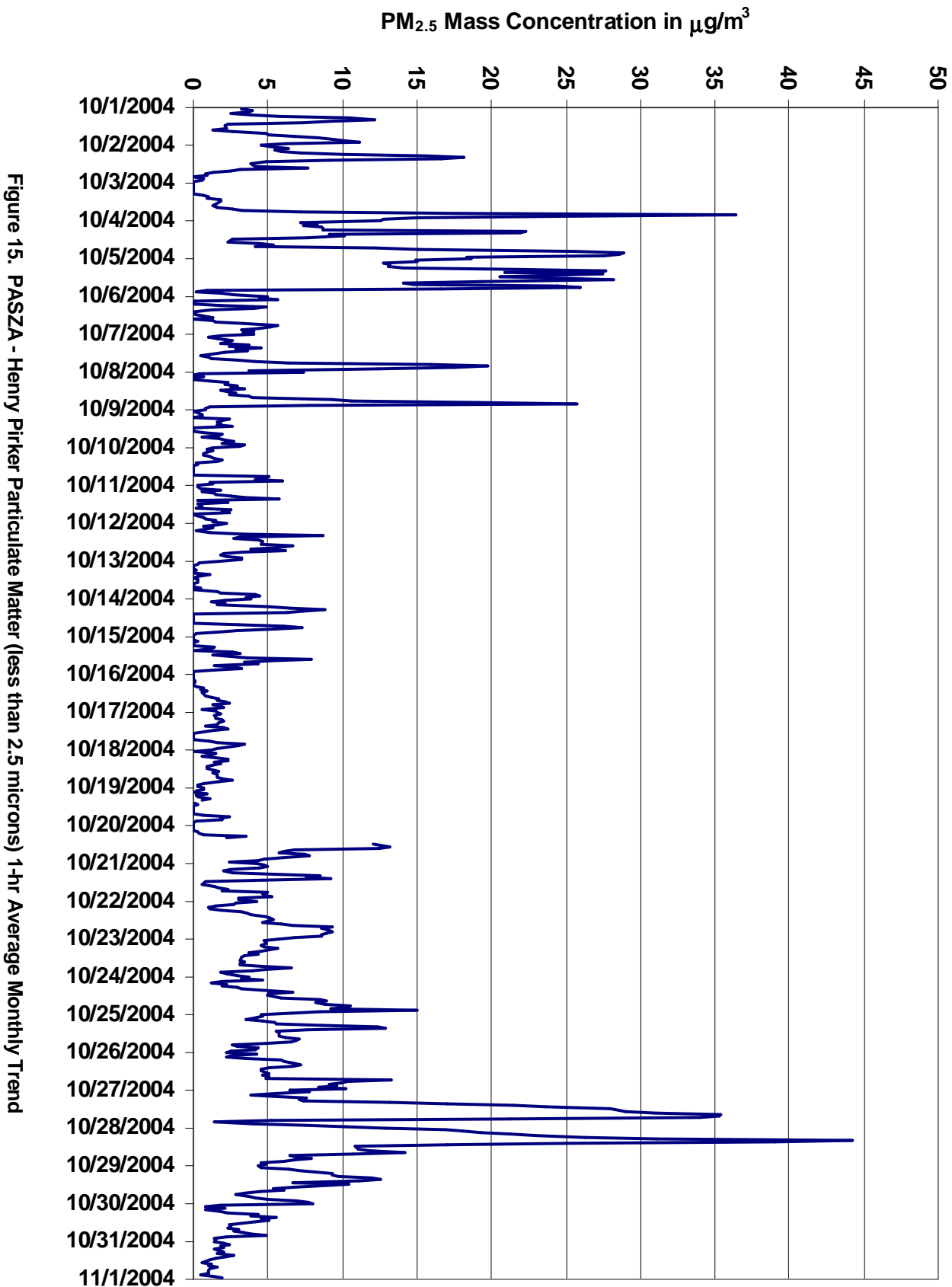


Figure 15. PASZA - Henry Pirker Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Henry Pirker

### HOURLY MAXIMUM TABLE

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

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Maximum 1-hr Value:	55.0	µg/m <sup>3</sup>	28-Oct	9:00 10:00
Maximum 24-hr Value:	22.6	µg/m <sup>3</sup>	5-Oct	

AIC Time:	0 hrs	Operational Time:	740 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	99.9%						
Percentile	99	95	75	50	25	5	1	Average	Geomean
	37.3	26.5	9.7	5.6	3.2	1.6	0.8	8.1 µg/m <sup>3</sup>	6.7 µg/m <sup>3</sup>

**Status Flag Characters**

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

**Day Mountain Standard Time**

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
1-Oct-04	8	6	5	6	5	6	8	15	17	12	13	6	5	4	5	5	9	7	10	12	12	13	15	8	8.8	17.3
2-Oct-04	6	7	11	9	9	13	14	19	23	20	14	9	7	10	13	6	5	4	3	3	3	3	2	1	8.9	22.8
3-Oct-04	2	2	1	1	2	2	2	1	2	3	3	5	4	5	3	4	4	6	13	25	40	36	21	16	8.4	39.7
4-Oct-04	15	11	11	8	11	12	13	30	31	16	14	12	7	5	7	9	8	20	35	34	37	32	30	23	18.0	37.3
5-Oct-04	21	22	20	15	16	16	17	32	33	30	32	29	26	38	34	19	33	37	31	27	5	2	4	5	22.6	38.2
6-Oct-04	12	9	10	6	5	1	5	9	6	3	4	2	4	4	2	4	5	6	8	8	7	6	8	6	5.8	11.6
7-Oct-04	7	4	4	4	5	4	4	6	5	8	6	6	5	3	4	3	5	8	10	23	27	29	22	16	9.0	28.6
8-Oct-04	20	11	1	4	5	2	4	5	5	7	5	6	6	6	4	7	7	13	18	26	37	26	6	3	9.8	36.8
9-Oct-04	3	2	3	3	3	3	5	5	4	4	4	20	2	2	3	4	4	3	4	5	6	5	6	7	4.5	19.9
10-Oct-04	4	4	4	2	3	2	4	3	5	4	3	3	1	1	1	1	2	17	7	7	12	4	4	4	4.1	16.7
11-Oct-04	3	2	3	4	3	3	5	5	5	8	3	5	3	3	4	7	5	7	3	3	2	3	4	3	4.0	8.2
12-Oct-04	4	4	3	5	3	3	3	9	17	14	6	9	7	7	11	9	7	10	6	3	4	6	6	5	6.6	16.7
13-Oct-04	4	2	2	2	2	0	2	0	2	4	2	4	3	2	2	2	2	3	1	4	3	6	6	7	2.8	6.6
14-Oct-04	6	4	3	6	4	12	9	14	12	10	3	3	3	3	2	3	11	11	12	12	7	4	2	2	6.5	13.8
15-Oct-04	1	1	0	3	2	1	1	3	3	5	7	6	3	9	14	7	6	7	5	6	5	5	2	1	4.3	14.3
16-Oct-04	0	3	1	1	2	2	2	2	1	2	2	4	2	2	3	3	4	4	5	3	4	3	2	3	2.6	5.0
17-Oct-04	3	3	3	3	4	3	3	3	4	3	4	5	4	1	1	2	1	2	2	4	7	4	3	3	3.1	6.8
18-Oct-04	3	3	3	2	2	3	4	4	3	3	4	2	3	3	3	4	3	3	3	4	3	2	1	1	3.0	4.3
19-Oct-04	2	3	1	2	3	2	3	3	2	N	2	3	0	3	3	3	3	3	6	5	4	3	3	2	2.7	6.0
20-Oct-04	1	2	1	1	2	2	2	6	4	C	C	C	20	16	19	11	9	8	10	11	8	6	6	4	7.1	19.6
21-Oct-04	6	6	7	9	4	4	4	8	13	10	15	7	6	3	5	5	5	5	7	7	7	7	6	5	6.9	15.0
22-Oct-04	6	5	7	3	2	3	3	5	5	5	7	6	7	6	7	9	12	13	11	12	11	10	10	10	7.3	12.5
23-Oct-04	7	8	7	7	6	7	7	7	6	5	6	5	5	5	5	5	6	7	8	7	5	4	4	4	6.0	8.2
24-Oct-04	5	6	7	4	3	4	4	6	5	7	9	7	7	8	11	11	10	12	13	14	13	20	14	11	8.8	19.8
25-Oct-04	7	8	7	6	7	8	8	15	18	20	12	10	11	8	11	11	10	11	8	4	6	6	7	6	9.4	19.9
26-Oct-04	5	7	5	5	6	9	8	10	10	9	7	6	6	7	7	7	7	27	13	11	11	12	12	14	9.3	27.4
27-Oct-04	8	12	11	6	9	10	9	9	20	20	24	31	32	31	33	42	38	46	30	15	5	7	9	12	19.6	46.5
28-Oct-04	16	20	20	21	24	27	29	36	53	55	28	26	12	15	15	17	17	9	9	10	9	8	6	8	20.4	55.0
29-Oct-04	6	8	9	9	11	11	11	13	15	15	16	9	18	10	8	9	8	6	4	7	7	9	10	10	10.0	17.7
30-Oct-04	13	4	3	6	3	4	6	8	10	8	6	7	6	4	4	4	5	5	5	6	7	5	3	3	5.6	13.0
31-Oct-04	3	3	4	4	4	3	3	3	3	5	4	3	3	2	3	2	3	3	3	3	2	2	4	4	3.2	4.7
Hourly Avg	6.7	6.1	5.7	5.5	5.4	5.9	6.5	9.5	11.1	10.9	8.8	8.5	7.3	7.4	8.0	7.6	8.1	9.9	10.1	10.4	10.0	9.6	7.7	6.8		
Hourly Max	21.5	21.7	19.8	20.7	24.4	26.5	29.2	36.1	52.8	55.0	32.5	30.5	32.3	38.2	34.4	42.4	38.3	46.5	34.8	33.7	39.7	36.4	29.9	23.3		

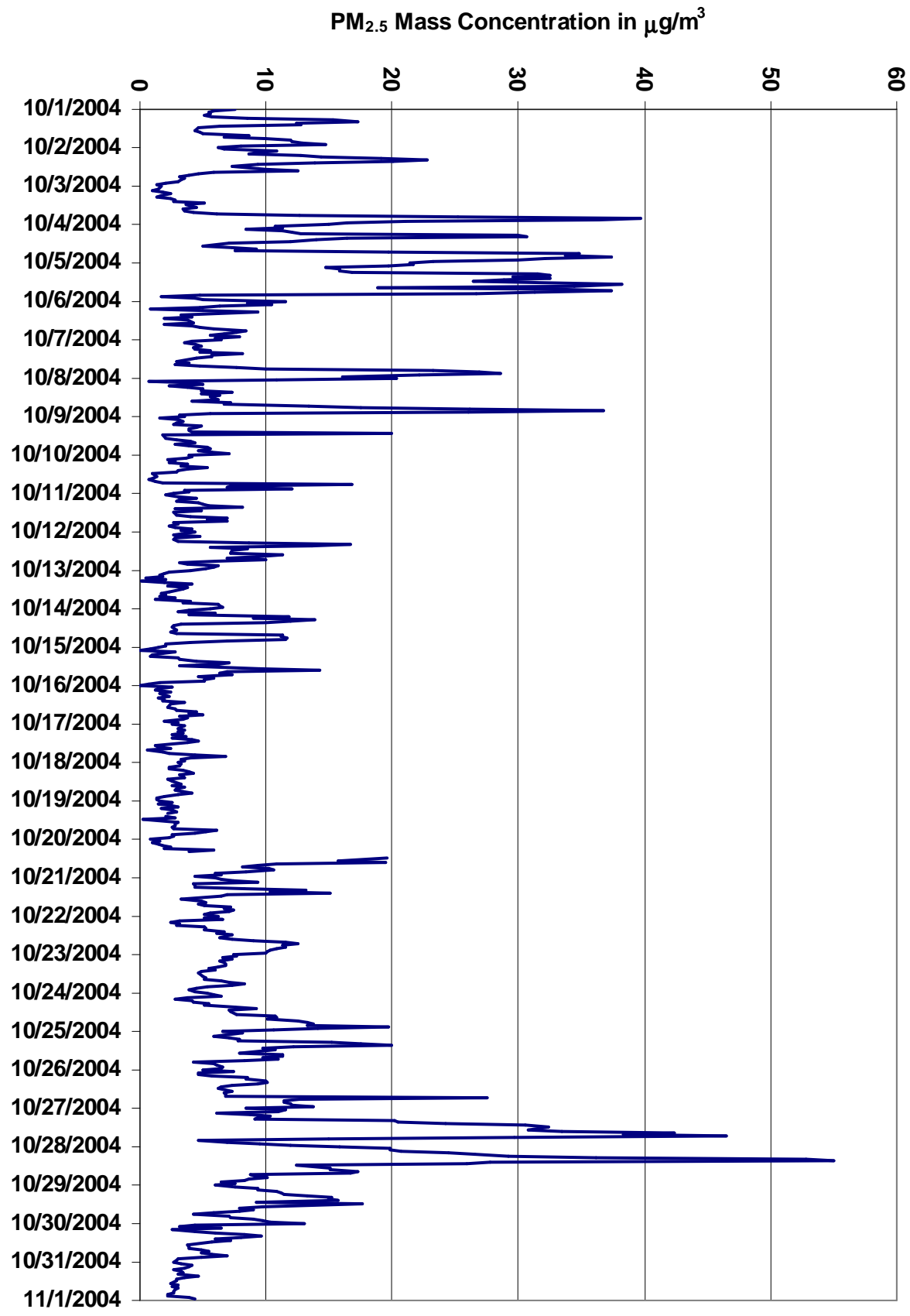
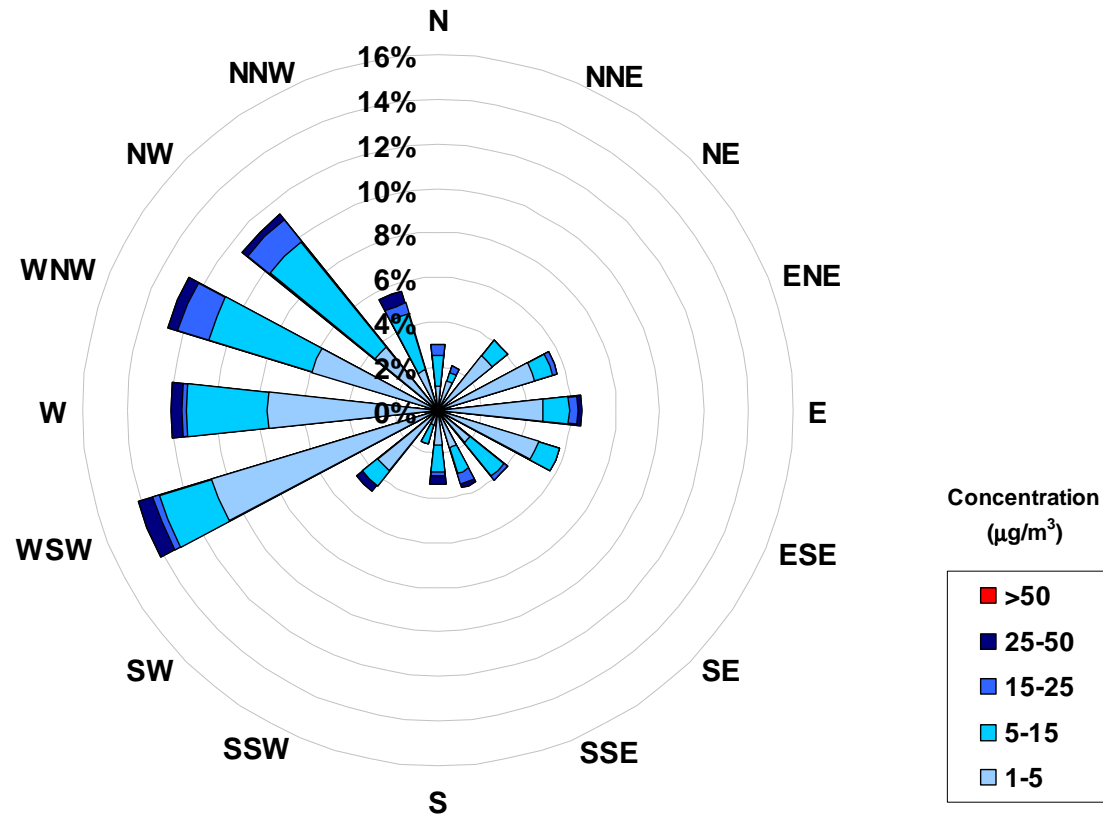


Figure 16. PASZA - Henry Pirkker Particulate Matter (less than 2.5 microns) 1-hr Maximum Value Monthly

**Concentration Rose for the 1-hr PM<sub>2.5</sub> Average Concentration Occurrences at the Henry Pirker Site for October 2004**



Frequency Distribution of PM <sub>2.5</sub> in µg/m <sup>3</sup>			
Range			Frequency (hrs)
0	<	1	166
1	to	5	338
5	to	15	181
15	to	25	34
25	to	50	21
	>	50	0
Total Non-Zero Values			740

Calms	
Range µg/m <sup>3</sup>	
1-5	0.0%
5-15	0.0%
15-25	0.0%
25-50	0.0%
>50	0.0%

# PASZA - Henry Pirker Meteorological Parameters Monthly Summary

Station: Henry Pirker

## HOURLY AVERAGE TABLE

Relative Humidity (RH - %)

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	96.6 % 12-Oct 4:00 5:00
Maximum 24-hr Average:	90.2 % 15-Oct

AIC Time:	0 hrs	Operational Time:	743 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	99.9%
Percentile	99	95	75
	95.3	91.4	85.0
	50	25	5
	75.7	61.3	41.2
	1	32.9	
	Average		
	72.0 ppb		

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start	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-Oct-04	75	79	81	85	82	85	86	82	70	59	55	45	41	38	36	37	36	40	44	50	51	55	57	56	59	86
2-Oct-04	59	63	76	78	81	84	87	85	72	62	51	44	40	41	54	61	63	66	70	71	71	72	75	75	67	87
3-Oct-04	75	75	76	75	76	77	78	79	77	72	73	69	64	59	54	51	48	51	62	75	84	87	88	90	71	90
4-Oct-04	93	93	93	93	93	93	94	92	77	63	56	45	37	35	35	32	34	40	45	60	65	65	72	69	66	94
5-Oct-04	74	73	80	83	85	87	90	84	68	61	57	52	55	52	43	41	40	46	51	48	45	46	50	54	61	90
6-Oct-04	62	60	70	73	67	65	68	75	69	61	51	41	33	28	26	26	25	29	37	41	46	48	52	53	50	75
7-Oct-04	53	59	66	64	69	72	65	63	55	50	45	40	38	36	32	33	36	45	50	59	62	69	73	63	54	73
8-Oct-04	69	61	58	60	59	59	60	61	59	57	55	50	46	45	41	39	40	45	51	61	68	77	82	88	58	88
9-Oct-04	89	85	83	85	83	83	82	83	80	76	70	57	48	41	42	49	49	51	57	63	70	69	74	77	69	89
10-Oct-04	75	77	76	76	76	77	75	77	71	61	55	50	48	45	46	41	42	48	51	51	49	54	61	61	60	77
11-Oct-04	61	69	71	74	72	75	83	83	75	72	64	63	62	59	58	78	84	88	91	93	94	95	94	95	77	95
12-Oct-04	95	95	95	96	97	96	97	97	92	81	74	70	67	70	76	78	79	83	86	88	88	89	90	91	86	97
13-Oct-04	93	93	93	92	90	80	77	70	67	66	66	65	64	65	64	62	62	64	62	63	62	61	62	62	71	93
14-Oct-04	62	64	69	73	73	83	82	78	76	73	65	50	43	36	37	34	37	43	49	59	82	85	82	82	63	85
15-Oct-04	87	91	94	95	96	95	93	94	93	91	89	85	82	81	86	88	87	90	90	90	92	93	94	89	90	96
16-Oct-04	87	87	84	84	87	88	89	87	85	82	80	80	78	75	77	78	79	81	82	83	85	86	87	87	83	89
17-Oct-04	87	87	87	88	88	88	88	89	88	87	83	79	79	72	71	71	71	70	68	69	83	88	90	88	82	90
18-Oct-04	89	89	89	89	88	88	88	90	90	90	88	87	85	83	84	85	86	88	89	90	90	89	88	88	88	90
19-Oct-04	87	85	83	83	83	83	82	85	82	N	75	66	63	62	62	65	69	77	81	80	82	84	85	85	78	87
20-Oct-04	84	84	84	85	86	86	88	89	88	85	74	69	79	76	73	76	68	79	79	81	83	86	86	80	81	89
21-Oct-04	79	79	79	78	78	78	78	80	76	59	51	53	52	50	48	52	59	67	71	71	72	74	80	81	69	81
22-Oct-04	84	84	83	84	85	87	86	85	83	81	79	79	82	80	81	82	84	86	88	90	91	91	89	85	85	91
23-Oct-04	85	84	84	82	80	79	84	87	82	78	79	81	77	75	77	72	73	79	78	80	84	84	85	86	81	87
24-Oct-04	87	88	88	87	86	87	87	87	86	80	65	57	54	56	61	66	65	72	85	88	89	90	87	85	78	90
25-Oct-04	84	84	84	83	83	83	83	85	80	70	68	59	63	59	58	63	71	78	76	73	75	79	81	84	75	85
26-Oct-04	87	88	86	88	88	88	89	88	87	86	89	86	84	82	82	83	87	90	89	90	91	87	88	87	87	91
27-Oct-04	89	89	89	88	87	87	85	84	84	85	83	79	71	60	51	57	66	76	80	62	57	60	62	66	75	89
28-Oct-04	70	75	80	80	82	87	89	91	92	72	59	57	54	54	54	60	63	61	66	69	68	68	64	69	70	92
29-Oct-04	65	67	70	73	80	81	81	81	78	76	71	67	61	54	45	44	50	54	57	58	58	59	63	66	65	81
30-Oct-04	74	80	85	85	81	84	88	91	80	70	64	60	57	57	53	50	54	57	61	62	64	66	70	74	69	91
31-Oct-04	77	74	73	70	68	68	67	66	64	63	60	56	54	52	50	50	54	59	62	62	62	62	61	64	62	77
Hourly Avg	79	79	81	82	82	82	83	83	78	72	68	63	60	57	57	58	60	64	68	70	73	75	76	77		
Hourly Max	95	95	95	96	97	96	97	97	93	91	89	87	85	83	86	88	87	90	91	93	94	95	94	95		

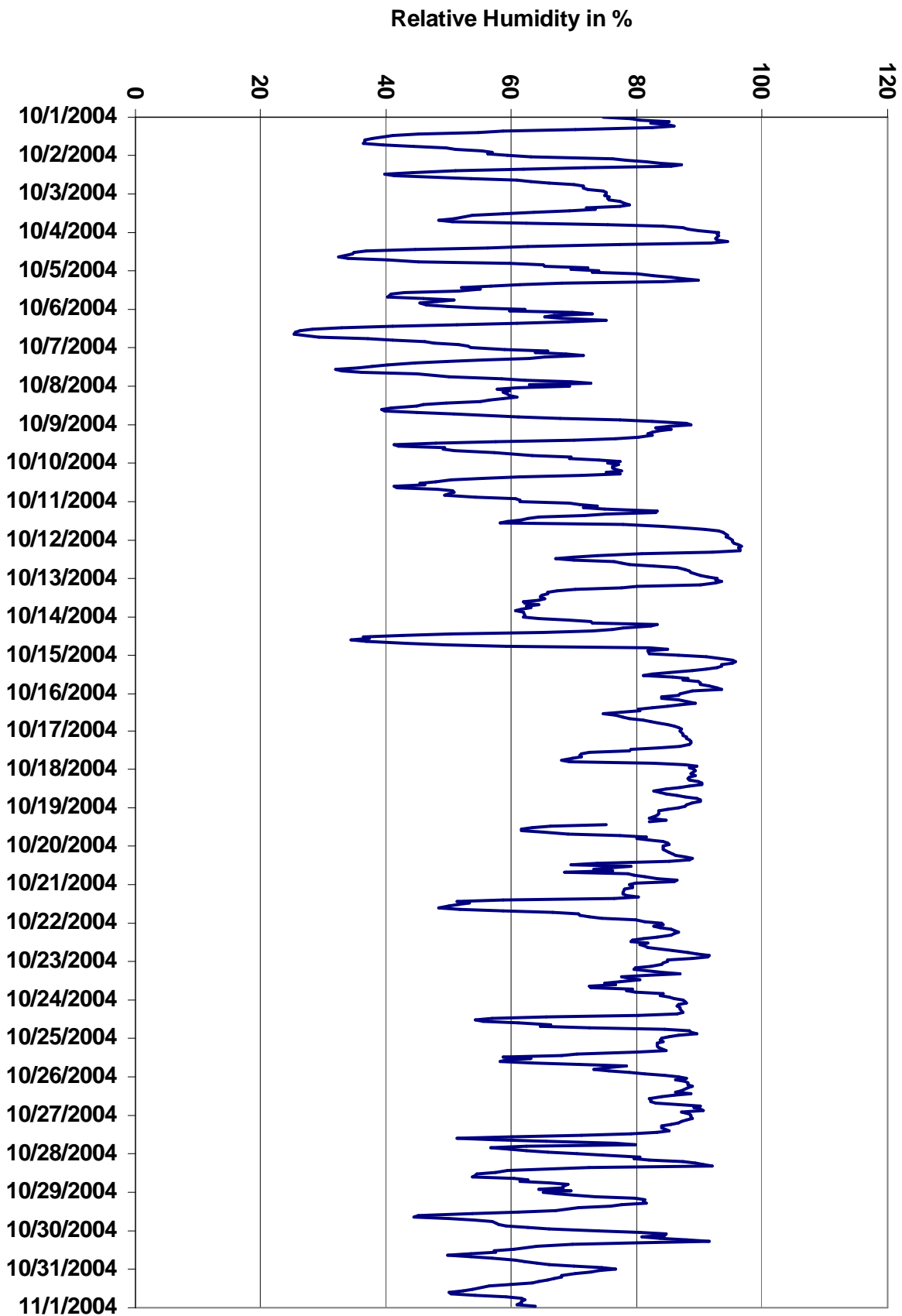


Figure 17. PASZA - Henry Pirkler Relative Humidity 1-hr Average Monthly Trend



Station: Henry Pirker

**HOURLY AVERAGE TABLE**

**Ambient Temperature (AT - °C)**

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	21.0	°C	4-Oct	15:00 16:00
Maximum 24-hr Average:	14.9	°C	13-Oct	

AIC Time:	0 hrs		Operational Time:	743 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	99.9%				
Percentile	99	95	75	50	25	5	1	Average
	18.6	16.1	8.5	2.3	-3.5	-8.4	-12.5	2.9 ppb

**Status Flag Characters**

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

**Day Mountain Standard Time**

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-Oct-04	-1	-1	-2	-2	-2	-2	-2	-2	2	7	10	14	16	18	19	18	18	16	14	13	12	11	10	10	8.1	18.6
2-Oct-04	10	9	5	5	4	3	3	4	8	11	15	17	19	18	15	12	10	7	5	4	4	3	3	3	8.2	18.6
3-Oct-04	3	2	2	2	2	2	2	2	2	5	5	8	9	11	13	14	15	14	10	8	5	3	3	2	5.9	14.8
4-Oct-04	1	1	1	1	1	0	0	1	6	10	13	18	20	20	20	21	19	17	14	10	9	8	7	7	9.4	21.0
5-Oct-04	6	6	5	4	3	2	1	2	8	11	13	15	14	16	19	19	17	16	14	15	16	15	14	13	11.1	19.5
6-Oct-04	11	11	11	9	8	8	7	6	9	11	13	15	16	17	17	17	17	16	13	11	9	8	7	7	11.4	17.3
7-Oct-04	9	8	6	6	6	5	6	7	9	10	11	12	13	14	14	14	13	11	9	7	6	4	4	5	8.7	14.2
8-Oct-04	4	5	5	5	5	5	5	5	6	7	8	11	13	13	15	16	16	14	12	10	8	9	8	7	8.8	16.2
9-Oct-04	7	7	7	7	7	7	7	6	7	8	10	13	14	15	14	12	12	12	10	8	6	6	5	4	8.8	14.5
10-Oct-04	5	5	5	6	5	5	6	5	7	11	13	14	15	15	15	15	14	13	12	12	12	10	9	9	9.8	15.3
11-Oct-04	10	8	8	7	8	8	5	6	8	10	12	12	12	13	13	11	10	9	9	8	7	7	7	7	9.0	13.3
12-Oct-04	7	7	7	5	5	3	3	3	5	8	10	12	12	12	11	11	11	10	9	9	9	8	8	8	8.1	12.1
13-Oct-04	8	9	9	9	10	13	14	16	16	17	17	18	18	18	18	18	18	17	17	16	16	16	15	15	14.9	18.3
14-Oct-04	14	13	11	10	10	8	8	8	8	9	11	12	13	14	13	14	13	11	10	9	6	6	6	6	10.2	14.4
15-Oct-04	5	3	2	2	2	1	1	1	2	2	3	5	6	6	6	6	6	5	4	4	4	4	2	2	3.4	5.9
16-Oct-04	1	1	0	-1	-2	-3	-3	-4	-4	-4	-4	-4	-3	-3	-3	-3	-4	-4	-4	-4	-4	-4	-5	-4	-3.1	1.4
17-Oct-04	-4	-4	-4	-4	-4	-4	-4	-4	-4	-3	-2	-1	-1	0	0	0	-1	-1	-2	-2	-3	-3	-4	-4	-2.6	-0.3
18-Oct-04	-4	-4	-4	-4	-4	-4	-4	-4	-4	-3	-2	-2	-2	-2	-2	-3	-3	-3	-4	-4	-4	-4	-5	-5	-3.6	-1.9
19-Oct-04	-6	-6	-6	-7	-7	-7	-8	-8	-8	N	-7	-5	-4	-4	-4	-6	-7	-8	-9	-9	-9	-9	-9	-9	-7.0	-4.0
20-Oct-04	-9	-8	-8	-8	-8	-8	-9	-9	-8	-7	-4	-3	-5	-4	-4	-4	-3	-5	-5	-5	-4	-4	-4	-4	-6.0	-2.7
21-Oct-04	-5	-6	-6	-6	-6	-6	-7	-9	-8	-3	-1	0	1	1	2	1	-1	-3	-5	-5	-6	-6	-7	-8	-4.2	2.3
22-Oct-04	-9	-9	-7	-7	-6	-6	-6	-5	-4	-4	-3	-2	-1	-1	0	0	-1	-1	-2	-2	-2	-2	-2	-2	-3.5	-0.4
23-Oct-04	-3	-4	-4	-5	-6	-6	-6	-6	-6	-5	-5	-5	-4	-3	-3	-3	-4	-6	-6	-6	-6	-6	-7	-6	-5.1	-2.9
24-Oct-04	-7	-6	-6	-6	-7	-7	-7	-7	-6	-5	-1	1	3	3	2	0	0	-2	-5	-7	-9	-8	-11	-12	-4.6	2.7
25-Oct-04	-13	-13	-13	-13	-12	-13	-14	-13	-10	-3	-1	1	0	2	3	2	0	-3	-2	-1	-2	-2	-3	-5	-5.3	2.8
26-Oct-04	-8	-8	-7	-9	-10	-9	-6	-5	-4	-3	-3	-3	-3	-2	-2	-2	-3	-4	-4	-4	-4	-6	-10	-9	-5.5	-2.2
27-Oct-04	-8	-8	-8	-9	-9	-10	-11	-13	-12	-8	-4	0	1	4	7	5	3	0	-2	3	5	5	5	4	-2.4	7.4
28-Oct-04	4	3	2	2	1	-1	-2	-3	-3	3	6	7	7	7	7	5	4	4	2	1	1	0	1	-1	2.4	7.4
29-Oct-04	0	-1	-1	-2	-4	-5	-5	-5	-4	-3	-2	-1	2	5	8	9	8	6	5	5	5	4	4	3	1.4	9.1
30-Oct-04	2	0	-1	0	2	1	-1	-2	0	1	3	3	4	4	5	6	4	3	2	2	1	1	0	-1	1.6	5.6
31-Oct-04	-1	0	-1	0	-1	-1	0	0	1	1	2	3	4	4	4	3	2	1	0	-1	-1	-1	-2	-2	0.6	4.2
Hourly Avg	1.0	0.6	0.2	-0.1	-0.3	-0.7	-0.9	-0.9	0.6	3.0	4.4	6.0	6.7	7.5	7.8	7.3	6.6	5.2	4.0	3.4	2.8	2.3	1.7	1.2		
Hourly Max	14.4	13.4	11.4	10.2	10.2	12.7	13.8	15.5	16.2	16.9	17.2	18.0	19.7	19.6	19.7	21.0	18.8	17.2	16.7	16.2	16.1	15.8	15.2	14.6		

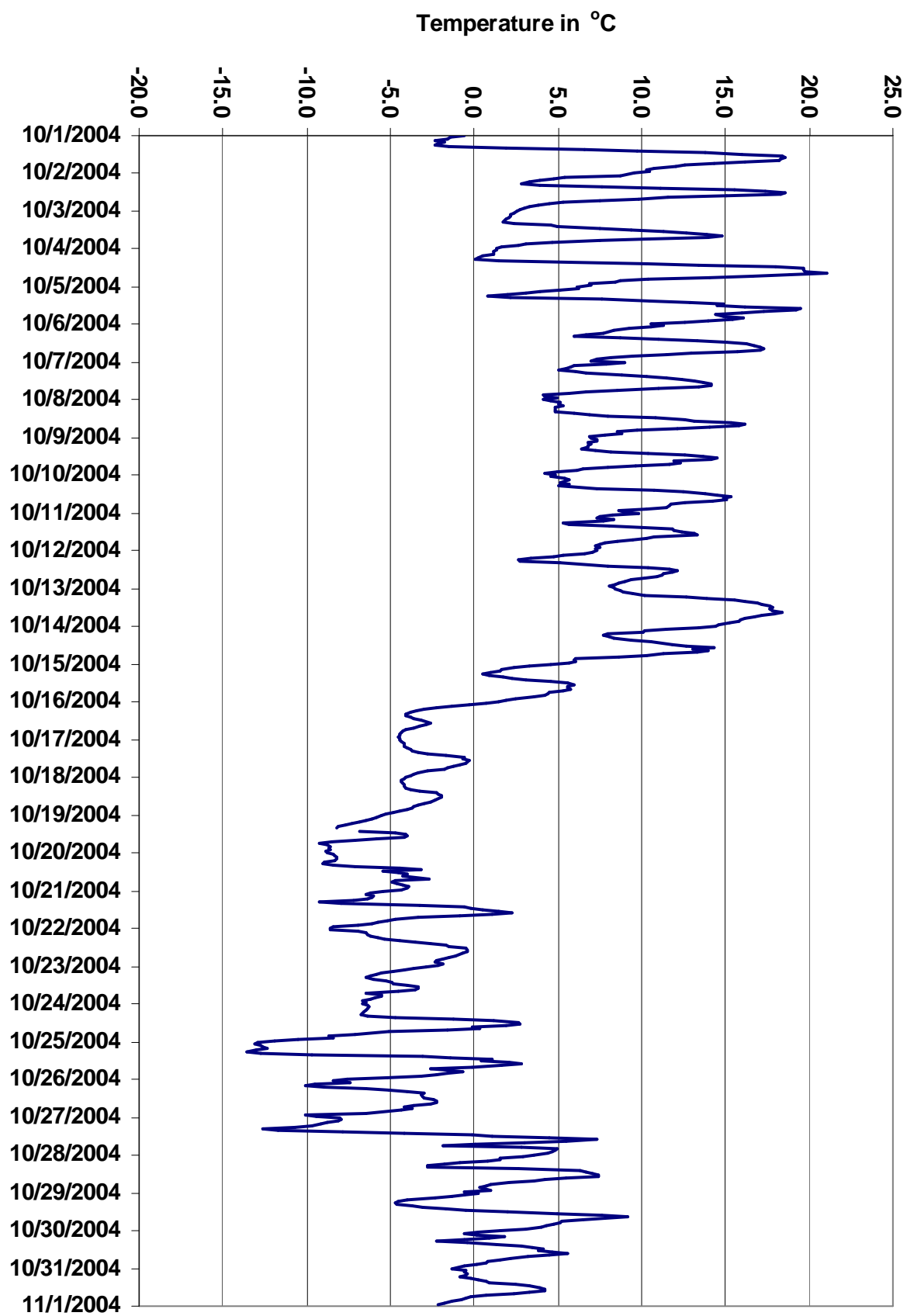


Figure 18. PASZA - Henry Pirkler Temperature 1-hr Average Monthly Trend

Station: Henry Pirker

**HOURLY AVERAGE TABLE**

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

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	518.6	W/m <sup>2</sup>	1-Oct	12:00 13:00
Maximum 24-hr Average:	142.4	W/m <sup>2</sup>	2-Oct	

AIC Time:	0 hrs		Operational Time:	743 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	99.9%				
Percentile	99	95	75	50	25	5	1	Average
	492.6	389.5	120.6	0.0	0.0	0.0	0.0	79.9 ppb

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Oct-04	0	0	0	0	0	0	0	31	164	297	391	468	519	503	349	233	173	83	9	0	0	0	0	0	134	519
2-Oct-04	0	0	0	0	0	0	0	0	38	136	271	389	457	502	494	438	353	241	98	2	0	0	0	0	142	502
3-Oct-04	0	0	0	0	0	0	0	14	70	231	224	474	509	503	455	360	237	100	3	0	0	0	0	0	133	509
4-Oct-04	0	0	0	0	0	0	0	41	187	275	374	451	389	284	275	347	79	49	2	0	0	0	0	0	115	451
5-Oct-04	0	0	0	0	0	0	0	48	226	259	337	338	212	318	513	200	55	31	0	0	0	0	0	0	106	513
6-Oct-04	0	0	0	0	0	0	0	26	157	285	388	466	499	490	440	343	222	85	2	0	0	0	0	0	142	499
7-Oct-04	0	0	0	0	0	0	0	30	149	272	380	455	490	482	434	324	157	45	0	0	0	0	0	0	134	490
8-Oct-04	0	0	0	0	0	0	0	6	119	150	197	396	279	262	258	208	83	19	0	0	0	0	0	0	82	396
9-Oct-04	0	0	0	0	0	0	0	11	71	141	328	454	477	475	367	132	166	65	0	0	0	0	0	0	112	477
10-Oct-04	0	0	0	0	0	0	0	12	109	247	305	408	422	430	224	179	90	17	0	0	0	0	0	0	102	430
11-Oct-04	0	0	0	0	0	0	0	19	80	151	180	131	138	213	130	64	32	7	0	0	0	0	0	0	48	213
12-Oct-04	0	0	0	0	0	0	0	17	141	248	343	398	392	311	212	192	98	26	0	0	0	0	0	0	99	398
13-Oct-04	0	0	0	0	0	0	0	1	33	85	69	99	85	75	120	153	61	22	0	0	0	0	0	0	33	153
14-Oct-04	0	0	0	0	0	0	0	2	21	71	118	137	215	253	149	207	107	15	0	0	0	0	0	0	54	253
15-Oct-04	0	0	0	0	0	0	0	1	37	81	84	142	220	124	68	88	45	3	0	0	0	0	0	0	37	220
16-Oct-04	0	0	0	0	0	0	0	0	7	23	42	58	96	145	95	49	34	5	0	0	0	0	0	0	23	145
17-Oct-04	0	0	0	0	0	0	0	2	29	64	153	214	106	112	82	60	16	1	0	0	0	0	0	0	35	214
18-Oct-04	0	0	0	0	0	0	0	1	26	67	134	158	179	188	146	113	55	12	0	0	0	0	0	0	45	188
19-Oct-04	0	0	0	0	0	0	0	2	45	N	217	390	484	420	318	162	79	20	0	0	2	2	2	2	93	484
20-Oct-04	2	2	2	1	2	2	2	2	2	2	213	461	225	302	237	187	162	14	0	0	0	0	0	0	76	461
21-Oct-04	0	0	0	0	0	0	0	2	68	210	314	385	417	402	347	253	116	12	0	0	0	0	0	0	105	417
22-Oct-04	0	0	0	0	0	0	0	1	27	77	122	154	140	182	127	81	41	15	0	0	0	0	0	0	40	182
23-Oct-04	0	0	0	0	0	0	0	2	34	100	161	164	267	282	256	191	89	8	0	0	0	0	0	0	65	282
24-Oct-04	0	0	0	0	0	0	0	0	13	69	106	216	399	382	307	152	94	16	0	0	0	0	0	0	73	399
25-Oct-04	0	0	0	0	0	0	0	1	68	141	220	329	297	251	313	161	57	4	0	0	0	0	0	0	77	329
26-Oct-04	0	0	0	0	0	0	0	0	13	34	58	83	94	120	108	64	32	5	0	0	0	0	0	0	25	120
27-Oct-04	0	0	0	0	0	0	0	1	33	121	223	302	376	361	305	195	62	3	0	0	0	0	0	0	83	376
28-Oct-04	0	0	0	0	0	0	0	0	30	170	264	336	363	347	254	110	45	6	0	0	0	0	0	0	80	363
29-Oct-04	0	0	0	0	0	0	0	1	29	55	46	50	175	174	249	171	54	4	0	0	0	0	0	0	42	249
30-Oct-04	0	0	0	0	0	0	0	0	18	123	251	274	207	149	172	199	68	2	0	0	0	0	0	0	61	274
31-Oct-04	0	0	0	0	0	0	0	0	22	88	264	326	341	342	341	167	63	2	0	0	0	0	0	0	82	342
Hourly Avg	0	0	0	0	0	0	0	10	70	147	222	296	307	303	261	184	94	26	1	0	0	0	0	0		
Hourly Max	2	2	2	1	2	2	2	48	226	297	391	474	519	503	513	360	241	100	9	0	2	2	2	2		

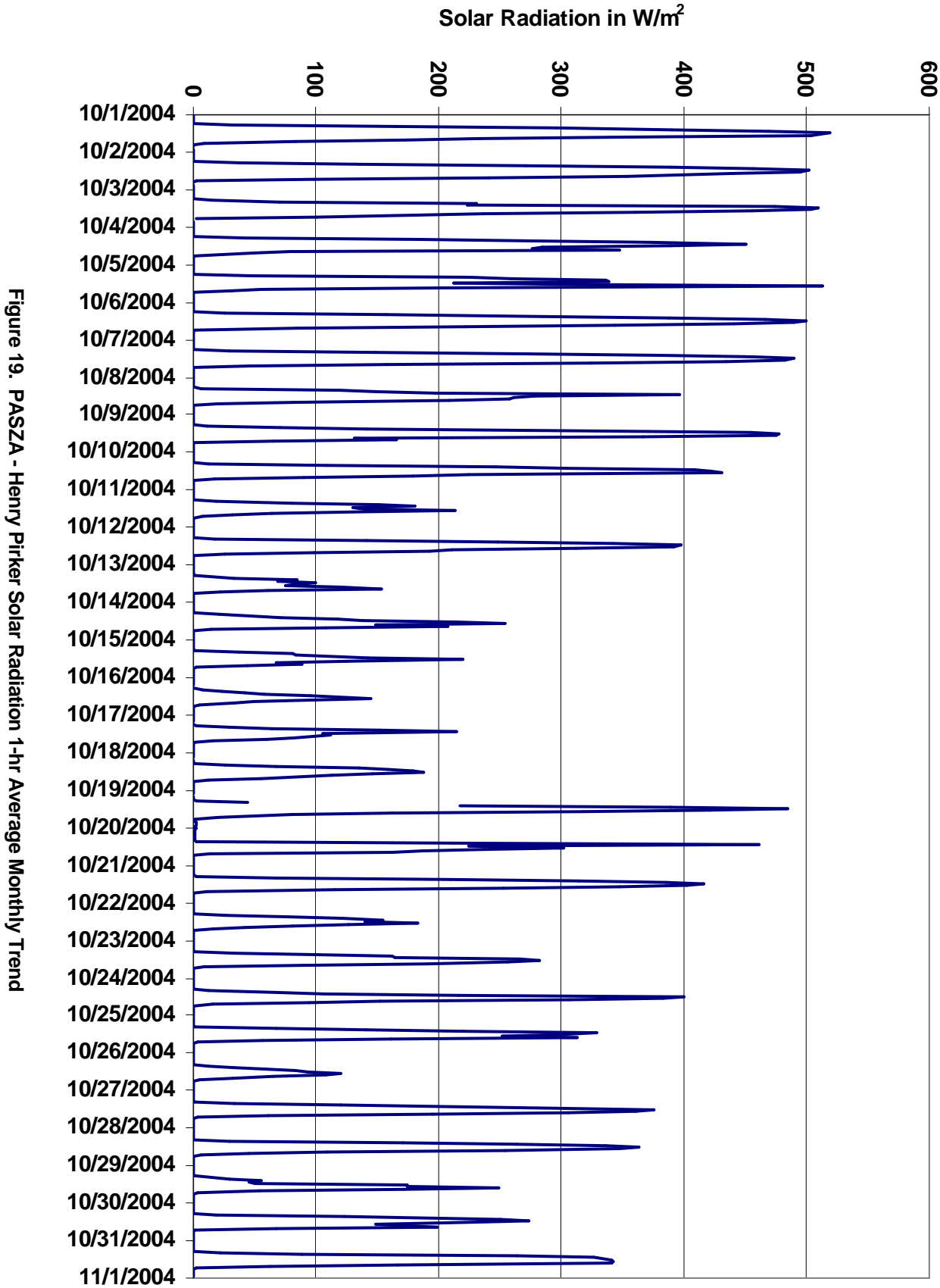


Figure 19. PASZA - Henry Pirkler Solar Radiation 1-hr Average Monthly Trend

Station: Henry Pirker

**HOURLY AVERAGE TABLE**

**Wind Speed (WSv - Km/hr)**

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**

Maximum 1-hr Average:	44.6	km/hr	13-Oct	11:00 12:00
Maximum 24-hr Average:	24.0	km/hr	13-Oct	

Calm Time:	7 hrs	1% calms	Operational Time:	736 hrs					
Calibration Time:	0 hrs		AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	AverageS	AverageV
	32.1	22.2	12.3	7.4	4.3	2.1	1.1	9.1 km/hr	3.5 km/hr

**Status Flag Characters**

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

Day	Mountain Standard Time																							24-hr Vector Average	Daily Max		
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00			
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-Oct-04	4	4	4	3	4	4	4	4	5	3	7	14	14	8	15	19	21	21	18	13	17	12	13	12	7.3	21.0	
2-Oct-04	8	7	4	5	4	3	2	2	1	4	4	14	22	23	17	17	15	12	12	13	12	10	9	10	5.9	23.3	
3-Oct-04	10	11	9	10	10	9	8	9	9	9	8	9	7	6	6	7	5	5	3	1	4	4	3	3	6.0	10.7	
4-Oct-04	2	2	2	1	3	3	2	3	4	8	8	12	20	18	14	13	13	7	8	1	2	1	3	3	5.2	20.1	
5-Oct-04	2	3	2	3	calm	3	2	2	3	3	2	3	4	6	10	9	9	6	2	8	10	8	6	6	1.0	10.1	
6-Oct-04	3	10	22	22	24	15	13	10	11	12	10	16	22	22	21	21	21	17	14	13	8	6	6	8	13.7	23.5	
7-Oct-04	14	12	6	8	12	8	10	14	18	27	32	35	32	29	30	25	19	10	4	calm	3	2	3	5	13.5	35.5	
8-Oct-04	3	5	7	8	7	8	7	8	8	8	7	9	8	10	6	7	8	7	3	1	8	31	19	11	3.9	31.1	
9-Oct-04	7	11	7	7	6	6	10	7	6	9	9	18	23	26	28	25	19	21	19	8	9	7	3	3	12.0	28.0	
10-Oct-04	7	7	12	13	10	8	9	5	5	13	19	23	18	16	14	16	19	4	3	6	7	7	5	4	9.5	22.8	
11-Oct-04	5	5	4	7	8	8	4	4	1	2	5	7	9	14	10	3	3	9	8	7	6	7	5	5	4.8	14.2	
12-Oct-04	9	7	6	6	7	6	3	4	3	4	3	1	2	6	8	9	9	8	8	6	4	6	5	5	0.9	9.4	
13-Oct-04	6	7	9	10	11	18	21	27	32	33	35	45	40	33	32	31	30	30	26	24	28	28	22	20	24.0	44.6	
14-Oct-04	19	14	9	6	5	2	4	4	5	4	3	4	5	2	3	3	4	5	8	18	7	9	9	8	5.5	19.2	
15-Oct-04	8	3	3	3	5	6	7	6	4	9	2	3	6	2	4	4	3	4	4	7	13	17	17	18	2.7	18.2	
16-Oct-04	20	19	20	21	21	20	19	17	15	14	14	12	8	7	7	7	8	9	8	7	7	7	9	7	11.3	21.2	
17-Oct-04	8	8	8	8	9	9	9	8	10	12	13	15	14	16	16	16	16	15	17	16	15	15	15	15	12.4	17.1	
18-Oct-04	14	14	12	12	12	13	11	12	11	10	9	10	9	11	11	12	11	11	10	10	12	12	12	12	11.1	13.5	
19-Oct-04	12	13	12	11	9	10	9	8	8	N	9	8	9	7	6	6	5	5	3	5	5	6	6	7	5.5	12.7	
20-Oct-04	6	7	5	7	8	6	5	5	6	4	3	5	10	7	7	8	3	6	5	4	3	6	9	14	2.8	13.9	
21-Oct-04	13	12	9	13	11	11	9	5	3	3	4	6	6	4	2	1	6	9	9	9	8	4	calm	4	2.7	13.3	
22-Oct-04	1	1	6	7	5	6	6	8	7	8	9	8	6	6	4	3	3	3	3	5	8	6	8	15	2.8	14.6	
23-Oct-04	17	16	14	14	16	17	15	14	13	14	16	15	14	14	14	12	10	6	7	7	7	6	4	2	11.8	17.2	
24-Oct-04	1	1	2	4	4	4	4	4	3	3	4	4	4	3	4	3	1	2	3	1	3	calm	2	3	0.5	4.4	
25-Oct-04	3	2	4	3	4	4	4	4	calm	3	3	3	4	7	3	6	6	5	5	5	6	7	5	5	4	3.8	7.4
26-Oct-04	5	5	6	5	5	4	6	5	6	6	14	13	12	11	11	7	5	2	4	4	2	1	5	5	5.2	13.7	
27-Oct-04	4	3	4	3	2	2	4	3	3	2	2	3	5	3	2	3	4	1	5	13	17	19	16	10	5.1	19.1	
28-Oct-04	4	5	3	6	3	3	calm	1	calm	3	2	8	10	6	4	4	5	10	7	6	7	8	13	5	5.1	12.8	
29-Oct-04	7	7	6	4	4	5	4	5	1	4	5	6	4	7	7	9	11	11	8	6	6	5	3	5	5.3	11.3	
30-Oct-04	4	3	2	7	11	7	4	4	11	6	10	15	14	15	13	21	21	24	18	11	9	9	8	7	10.7	24.1	
31-Oct-04	6	8	12	15	16	15	19	22	26	25	23	22	18	19	22	23	18	15	18	18	17	13	9	9	16.9	26.4	
1-hr Vector	3.3	2.9	2.4	2.4	2.8	2.2	2.2	1.8	2.6	3.5	4.8	6.7	7.1	6.1	5.7	5.3	4.6	3.3	2.2	1.8	2.3	2.9	3.5	2.9			
Hourly Max	19.6	19.0	21.7	22.2	23.5	19.7	20.6	26.7	32.0	32.7	35.3	44.6	40.3	32.7	32.2	31.0	30.2	29.9	26.2	23.7	27.5	31.1	22.3	19.9			

Station: Henry Pirker

**HOURLY AVERAGE TABLE**

**Wind Direction (WD - Degrees)**

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**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
	356.4	336.1	290.4	249.7	111.0	38.9	10.3	278 deg

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average
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-Oct-04	113	124	109	127	113	155	150	151	158	174	214	253	253	280	293	273	259	251	256	258	254	269	300	302	256
2-Oct-04	316	326	330	323	305	357	305	237	301	287	297	320	319	328	46	56	48	57	70	68	77	71	83	85	17
3-Oct-04	90	94	100	102	96	92	99	90	90	87	83	101	107	105	113	108	102	86	78	350	327	321	305	298	91
4-Oct-04	269	267	105	226	321	311	281	11	163	213	205	255	274	273	268	270	272	288	314	295	310	85	163	159	267
5-Oct-04	26	79	312	358	29	294	297	320	174	183	256	290	309	338	326	313	315	298	179	162	173	163	124	104	290
6-Oct-04	181	271	303	293	269	251	230	220	241	240	263	238	240	238	243	241	235	257	265	259	257	327	284	247	254
7-Oct-04	256	259	239	235	251	220	233	229	233	246	256	262	264	264	260	264	275	286	299	25	84	101	91	118	255
8-Oct-04	107	73	107	108	81	76	83	90	95	102	94	121	108	102	82	60	80	77	80	344	313	317	305	298	61
9-Oct-04	247	210	201	195	244	289	261	273	260	261	246	255	252	259	270	275	262	258	273	247	247	220	229	231	255
10-Oct-04	238	253	244	240	250	244	206	327	272	238	241	250	249	257	263	255	257	242	143	149	155	210	202	179	242
11-Oct-04	234	252	335	246	227	246	241	220	109	259	232	212	223	235	240	264	263	331	348	352	346	315	267	291	261
12-Oct-04	253	288	330	294	320	315	300	316	307	330	272	251	187	120	110	110	131	133	129	121	111	114	157	155	158
13-Oct-04	145	152	213	243	253	262	272	263	258	264	261	255	256	257	254	254	255	255	256	256	259	260	270	276	257
14-Oct-04	276	284	316	333	350	291	312	318	321	315	300	285	283	291	272	274	10	36	352	357	352	237	251	242	306
15-Oct-04	271	340	130	115	92	101	112	111	85	118	142	30	111	218	199	178	271	12	28	351	345	354	357	357	29
16-Oct-04	356	1	358	358	354	355	358	1	1	356	0	6	28	42	24	41	75	73	69	69	55	64	68	70	15
17-Oct-04	72	71	64	65	72	60	55	53	59	68	66	73	74	89	92	96	95	101	96	93	94	89	85	89	81
18-Oct-04	85	75	67	62	60	60	60	61	60	55	47	45	44	41	39	37	31	35	30	33	35	35	37	38	49
19-Oct-04	37	34	33	38	45	47	42	43	29	N	53	37	16	19	41	81	79	107	100	155	189	190	265	302	44
20-Oct-04	305	274	222	175	170	161	162	145	152	137	285	329	353	338	338	340	264	257	281	332	256	255	290	303	278
21-Oct-04	287	279	268	296	304	281	268	281	265	302	233	227	245	299	243	19	72	90	92	100	100	96	141	286	285
22-Oct-04	306	304	118	111	77	86	83	72	80	92	94	104	91	86	82	76	6	13	43	314	317	288	281	319	54
23-Oct-04	305	302	309	309	303	297	290	292	288	299	297	296	292	293	296	297	288	283	252	293	300	305	293	253	296
24-Oct-04	169	227	177	116	121	138	125	114	133	167	206	234	273	301	349	327	166	191	319	268	344	78	316	334	183
25-Oct-04	324	323	343	323	326	328	316	2	300	324	288	277	290	284	293	336	345	331	40	47	48	45	353	328	335
26-Oct-04	288	329	342	317	323	320	322	325	280	302	298	301	307	311	311	307	295	44	106	97	64	51	310	332	315
27-Oct-04	327	303	312	321	334	305	317	316	285	290	273	138	298	263	236	294	335	278	297	259	263	258	258	262	277
28-Oct-04	304	352	298	296	322	348	222	252	259	249	240	246	258	313	311	304	287	260	256	273	302	257	266	297	280
29-Oct-04	257	247	224	158	176	133	141	131	166	142	139	132	132	138	132	180	190	182	173	179	165	149	180	188	170
30-Oct-04	253	288	252	246	256	256	264	214	254	259	282	277	260	258	250	252	254	255	255	247	212	221	218	239	252
31-Oct-04	246	227	250	256	256	246	248	250	253	254	256	258	260	259	259	258	259	261	253	252	251	246	223	211	252
Hourly Avg	290	303	309	296	298	294	275	289	264	258	265	266	271	277	276	275	269	265	279	286	284	281	283	297	

Station: Henry Pirker

**STANDARD DEVIATION TABLE**

**Wind Direction (WD - Degrees)**

Station Owner: PASZA

Monitoring Dates: October 1, 2004 to November 1, 2004

**Summary**


Determined by the Yamartino 15-min interval calculation

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
	57.1	40.8	18.4	11.3	7.5	4.2	3.4

**Status Flag Characters**

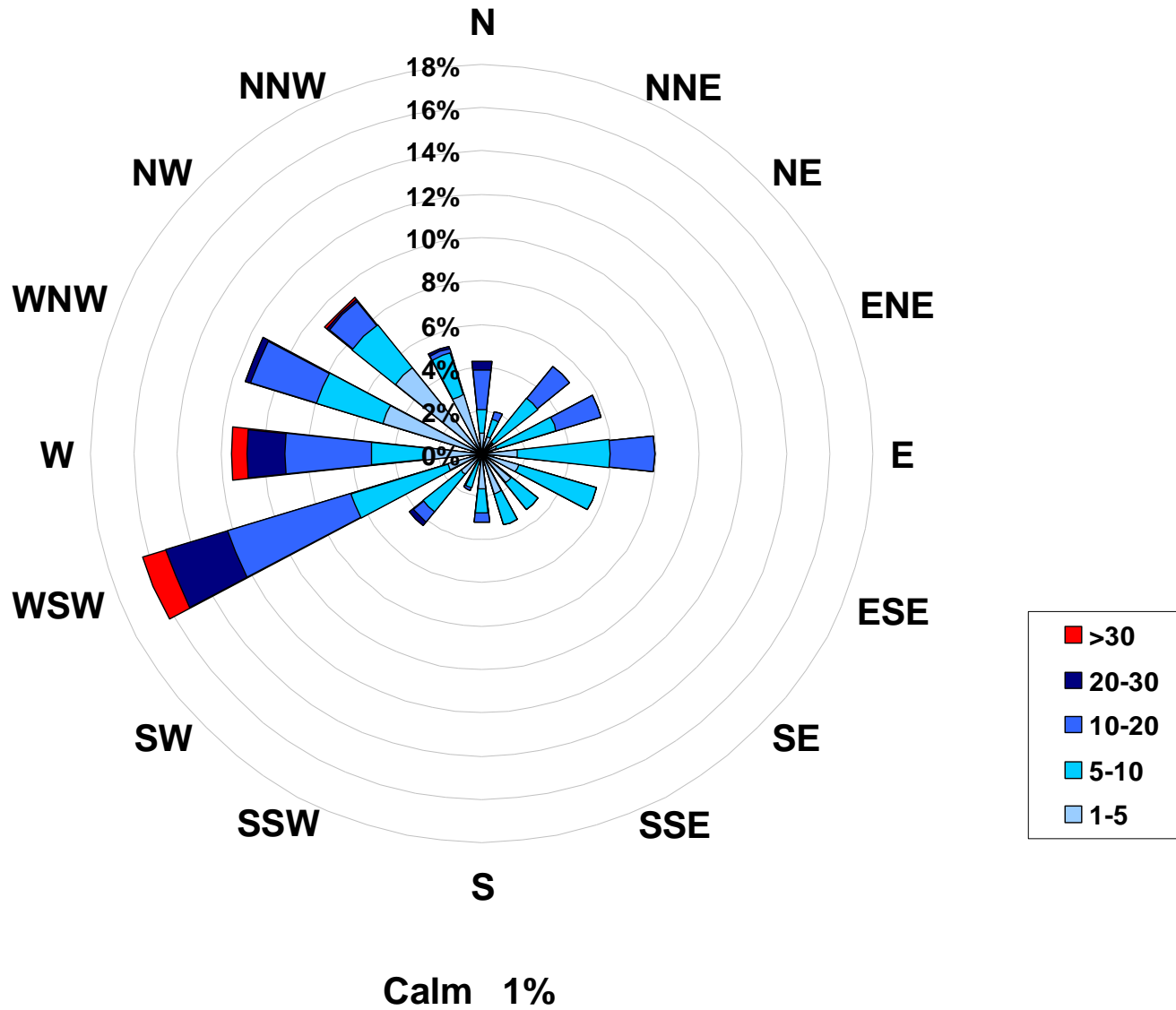
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	0:00	Daily Maximum
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	0:00		
1-Oct-04	10	13	7	15	11	6	23	8	10	34	17	10	10	15	17	8	5	4	4	4	3	14	10	8	8	34.0	
2-Oct-04	10	7	17	19	13	31	26	21	32	11	20	11	8	13	12	13	14	10	11	8	11	11	11	10	10	31.5	
3-Oct-04	10	8	11	10	9	11	9	8	11	14	13	19	23	29	27	20	36	12	10	35	22	12	21	25	25	35.9	
4-Oct-04	20	37	19	20	17	17	33	46	41	12	14	11	9	7	8	10	5	12	8	46	49	56	19	16	16	55.9	
5-Oct-04	34	41	61	47	50	31	52	49	22	37	58	31	27	12	13	15	7	14	23	16	6	5	8	7	7	60.6	
6-Oct-04	26	15	5	8	9	6	9	7	8	11	12	11	10	11	11	10	9	6	5	5	8	12	15	9	9	25.5	
7-Oct-04	7	8	17	14	7	9	9	7	6	7	7	7	8	9	7	8	6	5	36	60	31	20	40	9	9	59.7	
8-Oct-04	37	15	8	10	11	9	10	12	11	15	13	15	14	10	19	13	10	17	60	70	26	4	5	13	13	69.7	
9-Oct-04	35	10	14	19	14	18	6	8	23	11	15	9	8	9	7	5	6	6	4	8	5	10	40	39	39	39.7	
10-Oct-04	6	11	6	5	6	7	10	29	42	8	8	8	11	11	11	10	5	29	35	13	8	6	16	37	37	41.7	
11-Oct-04	16	13	35	42	10	9	18	22	47	50	16	14	14	9	11	8	40	43	6	5	8	9	14	10	10	50.4	
12-Oct-04	5	6	8	15	5	15	31	33	17	14	35	34	60	26	15	12	11	8	6	9	13	10	11	6	6	59.6	
13-Oct-04	7	12	9	5	6	6	6	6	5	4	4	3	3	3	3	4	4	4	4	4	4	4	4	3	3	11.6	
14-Oct-04	3	4	8	19	12	37	14	16	7	17	18	16	18	42	23	27	27	13	13	5	25	7	8	11	11	42.1	
15-Oct-04	12	29	11	15	10	11	8	11	21	13	26	43	19	55	22	20	19	17	13	8	6	4	4	4	4	55.4	
16-Oct-04	4	4	4	4	5	4	4	4	4	5	5	10	17	15	16	18	13	13	13	11	15	12	10	13	13	18.4	
17-Oct-04	10	11	9	10	10	13	12	14	13	9	9	9	9	8	8	7	6	7	7	7	7	7	7	7	7	7	14.0
18-Oct-04	7	7	7	7	8	7	8	9	8	11	13	13	17	10	9	9	10	10	10	12	9	9	9	10	10	17.0	
19-Oct-04	9	8	9	12	14	11	14	14	14	N	21	19	15	17	25	24	30	14	27	23	30	16	18	12	12	30.2	
20-Oct-04	10	13	16	10	11	16	20	22	23	48	40	33	7	14	13	12	35	10	10	13	20	11	8	4	4	48.5	
21-Oct-04	5	5	8	4	7	6	8	13	17	12	18	11	18	23	38	45	23	5	5	6	5	44	45	18	18	45.3	
22-Oct-04	50	56	21	8	12	11	10	10	14	9	11	12	13	17	23	33	43	43	26	28	7	14	17	7	7	56.2	
23-Oct-04	5	7	5	6	6	6	5	4	5	6	5	5	6	7	6	5	3	5	9	7	6	7	10	23	23	23.0	
24-Oct-04	24	29	32	15	13	11	15	17	27	38	17	16	18	16	17	41	36	29	11	34	14	37	18	36	36	40.6	
25-Oct-04	15	66	31	15	22	19	17	36	26	27	40	15	15	18	12	18	26	19	18	14	24	20	11	12	12	66.1	
26-Oct-04	17	22	15	13	8	11	8	27	16	12	5	7	11	10	8	14	13	19	10	18	30	44	10	6	6	43.8	
27-Oct-04	14	17	10	17	18	36	10	10	14	18	38	27	36	16	53	30	8	31	14	12	8	6	5	8	8	53.0	
28-Oct-04	24	16	19	4	20	22	22	41	42	19	34	8	7	16	19	30	17	5	10	11	10	11	11	36	36	42.3	
29-Oct-04	19	9	14	21	41	12	16	14	62	17	38	17	32	12	13	15	7	5	6	8	12	17	27	11	11	61.6	
30-Oct-04	22	23	39	26	8	10	17	13	4	14	11	5	7	7	14	5	4	4	4	4	9	10	11	7	7	39.4	
31-Oct-04	11	7	6	5	4	5	5	4	3	3	5	5	5	5	5	5	4	5	4	3	4	4	6	5	5	11.1	

Hourly Max	50	66	61	47	50	37	52	49	62	50	58	43	60	55	53	45	43	43	60	70	49	56	45	39	39
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### Wind Rose for the 1-hr Average Meterological Data at the Henry Pirker Site for October 2004





# PEACE AIRSHED ZONE ASSOCIATION

## PASZA Monthly Passive Data Summary

Table 1. PASZA Passive Stations for October 2004

PASZA					
Station Number	Station Name	SO <sub>2</sub> ppb	O <sub>3</sub> ppb	NO <sub>2</sub> ppb	Site Legal
<b>Duplicates</b>					
11a	Guy	0.2	27.4	1.4	
11b	Guy	0.3	32.9	1.6	
17a	Puskwaskau	0.4	31.5	2.0	
17b	Puskwaskau	0.3	30.4	2.3	
18a	Crooked Creek	0.3	34.2	1.5	
18b	Crooked Creek	0.3	31.8	1.5	
49a	Grande Prairie HP	0.3	24.2	10.2	
49b	Grande Prairie HP	0.3	24.8	10.8	
1	Silver Valley	0.5	32.9	1.6	08-27-081-11 W6M
2	Bay Tree	0.3	36.2	1.2	13-16-078-13 W6M
3	Forth Creek	0.3	35.6	1.4	04-13-082-07 W6M
4	Gordondale	0.4	36.1	1.4	04-34-078-10 W6M
5	Boone Creek	0.3	29.5	1.5	01-23-076-11 W6M
7	Steeprock Creek	0.2	36.8	0.9	09-35-072-13 W6M
9	Spirit River	0.3	34.7	2.1	08-12-079-07 W6M
10	Woking	0.5	34.4	1.3	01-13-076-07 W6M
11	Webber Creek	0.3	30.2	1.5	09-36-074-09 W6M
12	Hythe	0.2	33.4	1.9	14-36-072-11 W6M
14	Sylvester	0.1	29.0	1.1	08-06-069-12 W6M
16	Beaverlodge	0.4	32.7	3.0	15-36-071-10 W6M
17	Poplar	0.3	31.0	2.2	13-06-073-08 W6M

Table 1. PASZA Passive Stations for October 2004 (Continued)

PASZA					
Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
18	Saddle Hills	0.3	33.0	1.5	04-25-074-07 W6M
19	Wanham	0.5	35.0	1.5	16-22-077-03 W6M
20	Shaftesbury	0.2	31.4	1.1	04-03-082-23 W5M
21	Eaglesham	0.2	35.7	1.1	16-21-079-25 W5M
23	Bear Lake	0.3	28.3	2.7	15-31-072-06 W6M
24	Wembley	0.1	29.3	2.7	12-31-070-08 W6M
25	Pinto Creek	0.2	29.3	1.6	04-24-069-11 W6M
26	Flyingshot	0.2	31.0	3.2	15-36-070-07 W6M
27	Grande Prairie I	0.3	26.2	10.3	08-15-071-06 W6M
28	Clairmont Lake	0.4	33.6	1.9	09-06-073-04 W6M
29	Smoky Heights	0.9	33.5	1.4	04-06-075-02 W6M
30	Fitzsimmons	0.3	31.0	2.0	15-36-072-03 W6M
32	Gold Creek	0.4	27.7	1.8	06-33-067-05 W6M
33	Wapiti	0.3	35.8	1.5	02-25-071-03 W6M
34	Puskwaskau	0.2	32.2	0.7	15-35-074-25 W5M
35	Jean Cote	0.2	34.7	1.6	12-35-079-21 W5M
36	Guy	0.2	32.4	1.3	03-04-076-22 W5M
37	Crooked Creek	0.3	29.0	2.3	16-01-071-26 W5M
38	Karr Creek	0.2	24.9	0.7	10-16-065-02 W6M
39	Clouston Creek	0.3	36.7	1.3	12-01-073-22 W5M
40	McLennan	0.4	35.7	2.1	03-29-077-19 W5M
41	Valleyview	0.4	35.9	1.5	09-30-069-22 W5M
42	Sunset House	0.4	37.0	0.9	05-32-070-19 W5M
43	High Prairie	0.3	33.3	2.2	16-13-074-17 W5M
44	Peavine	0.1	32.2	1.3	03-05-079-15 W5M
45	Gift Lake	0.2	31.1	1.9	10-07-079-12 W5M
46	Little Smoky	0.3	26.8	3.5	12-01-065-21 W5M
47	Kinuso	0.2	35.4	1.2	12-10-073-10 W5M
48	Deer Mountain	0.3	30.7	1.3	15-22-068-09 W5M
49	Grande Prairie HP	0.3	24.5	10.5	17-26-071-06 W6M

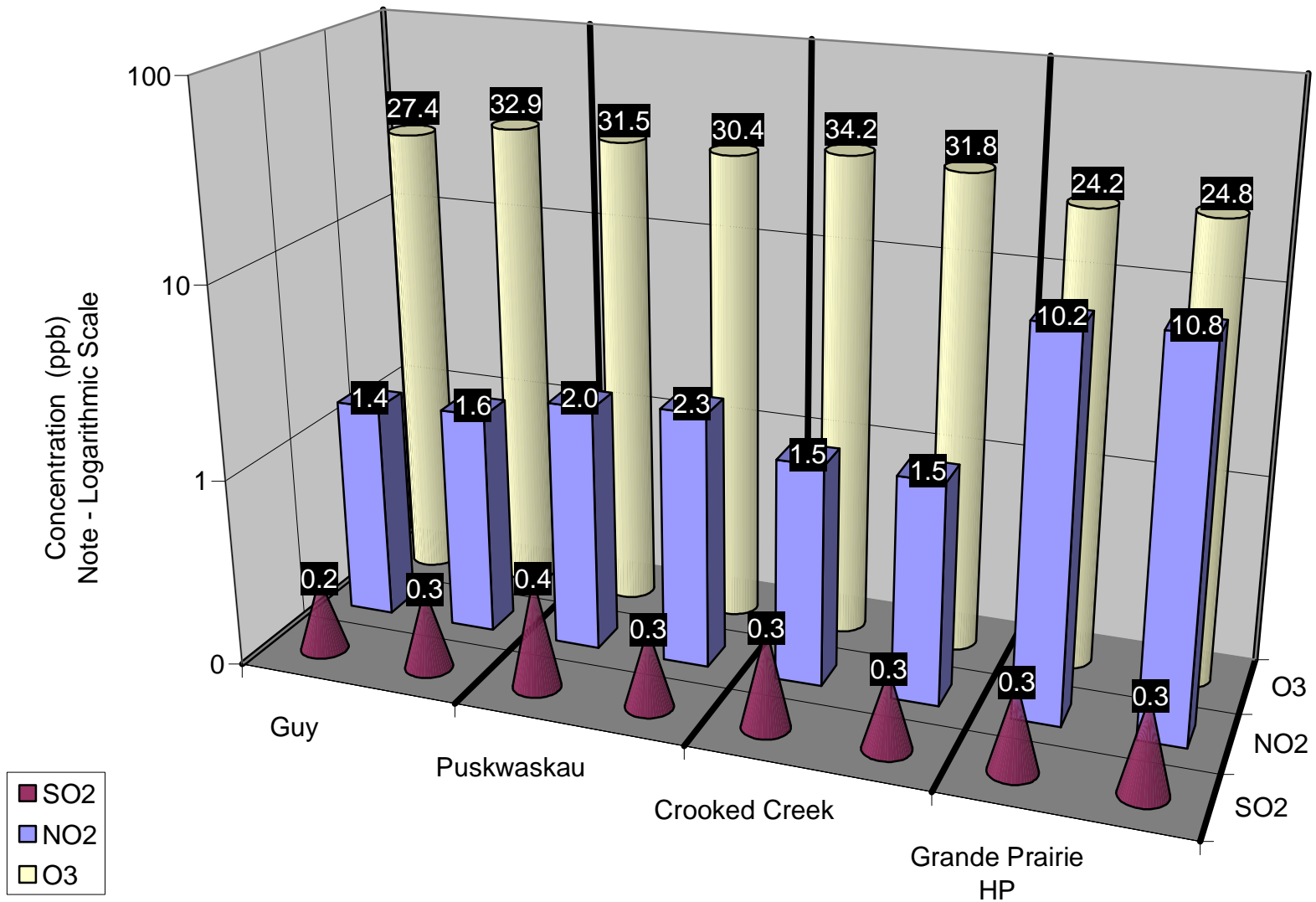


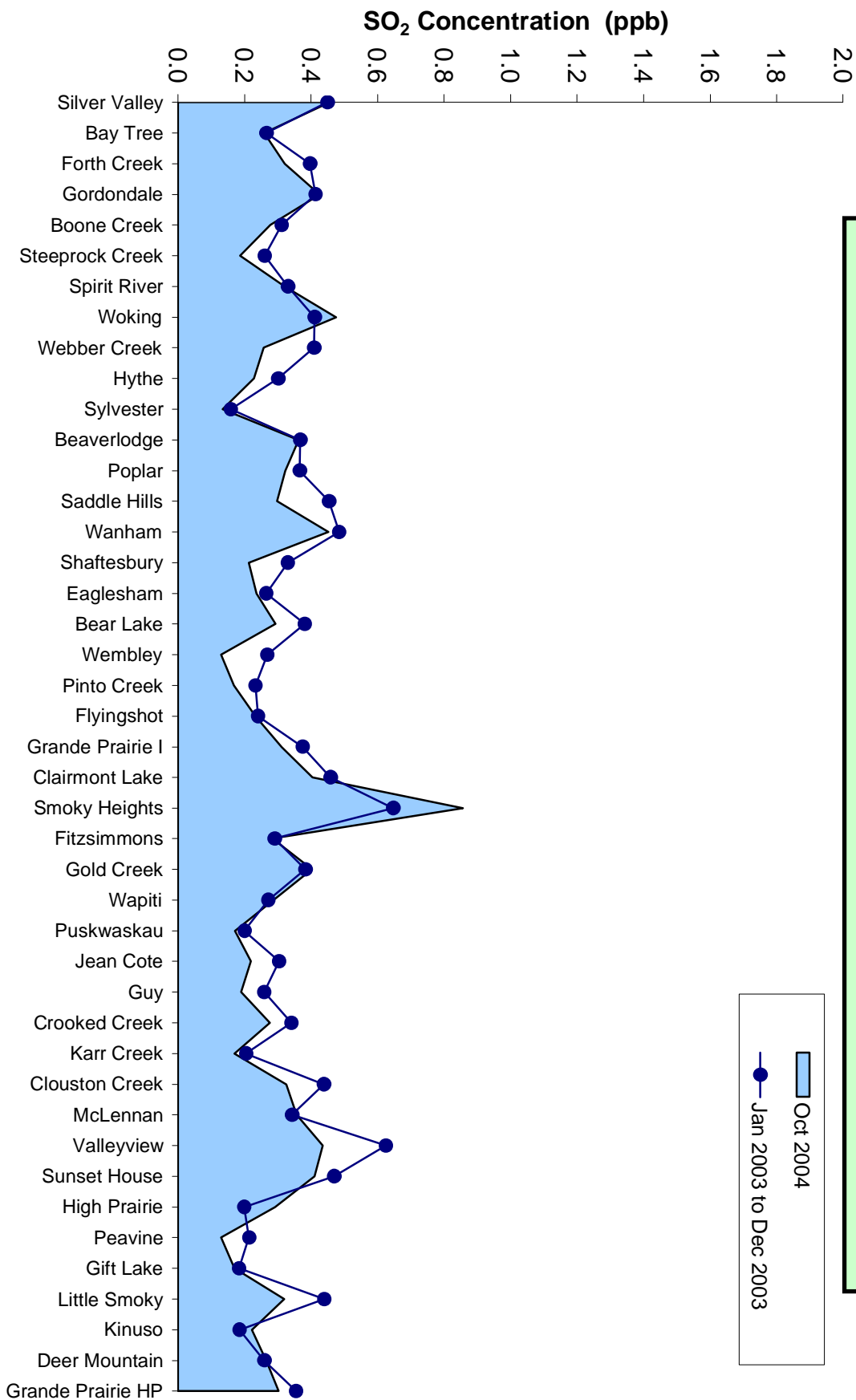
Figure 20. Duplicate Summary Chart

**Table 2. Passive Summary Results for October 2004**

Stats	Sulphur Dioxide SO <sub>2</sub>	Ozone O <sub>3</sub>	Nitrogen Dioxide NO <sub>2</sub>
	ppb	ppb	ppb
<b>Passive Summary for Sept 2004 (PASZA Zone)</b>			
<b>Mean</b>	<b>0.3</b>	<b>32.2</b>	<b>2.1</b>
<b>Standard Deviation</b>	<b>0.1</b>	<b>3.4</b>	<b>2.0</b>
<b>Minimum</b>	<b>0.1</b>	<b>24.5</b>	<b>0.7</b>
	<b>Wembley (#24)</b>	<b>Grande Prairie HP (#49)</b>	<b>Puskwaskau (#34)</b>
<b>Maximum</b>	<b>0.9</b>	<b>37.0</b>	<b>10.5</b>
	<b>Smoky Heights (#29)</b>	<b>Sunset House (#42)</b>	<b>Grande Prairie HP (#49)</b>
<b>Comparison between Continuous and Passive monitoring at Beaverlodge (passive #16 Beaverlodge)</b>			
	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
<b>AENV Beaverlodge station</b>	<b>0.5</b>	<b>27.3</b>	<b>4.5</b>
<b>PASZA Beaverlodge passive</b>	<b>0.4</b>	<b>32.7</b>	<b>3.0</b>
<b>Comparison between Continuous and Passive monitoring at Henry Pirker (passive #49 Grande Prairie HP)</b>			
	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
<b>PASZA Henry Pirker station</b>	<b>0.5</b>	<b>15.8</b>	<b>11.0</b>
<b>PASZA Grande Prairie passive</b>	<b>0.3</b>	<b>24.5</b>	<b>10.5</b>



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



**Figure 22. SO<sub>2</sub> Summary Chart**

PASZA Passive O<sub>3</sub> Stations - Oct 2004  
Average Concentrations in ppb

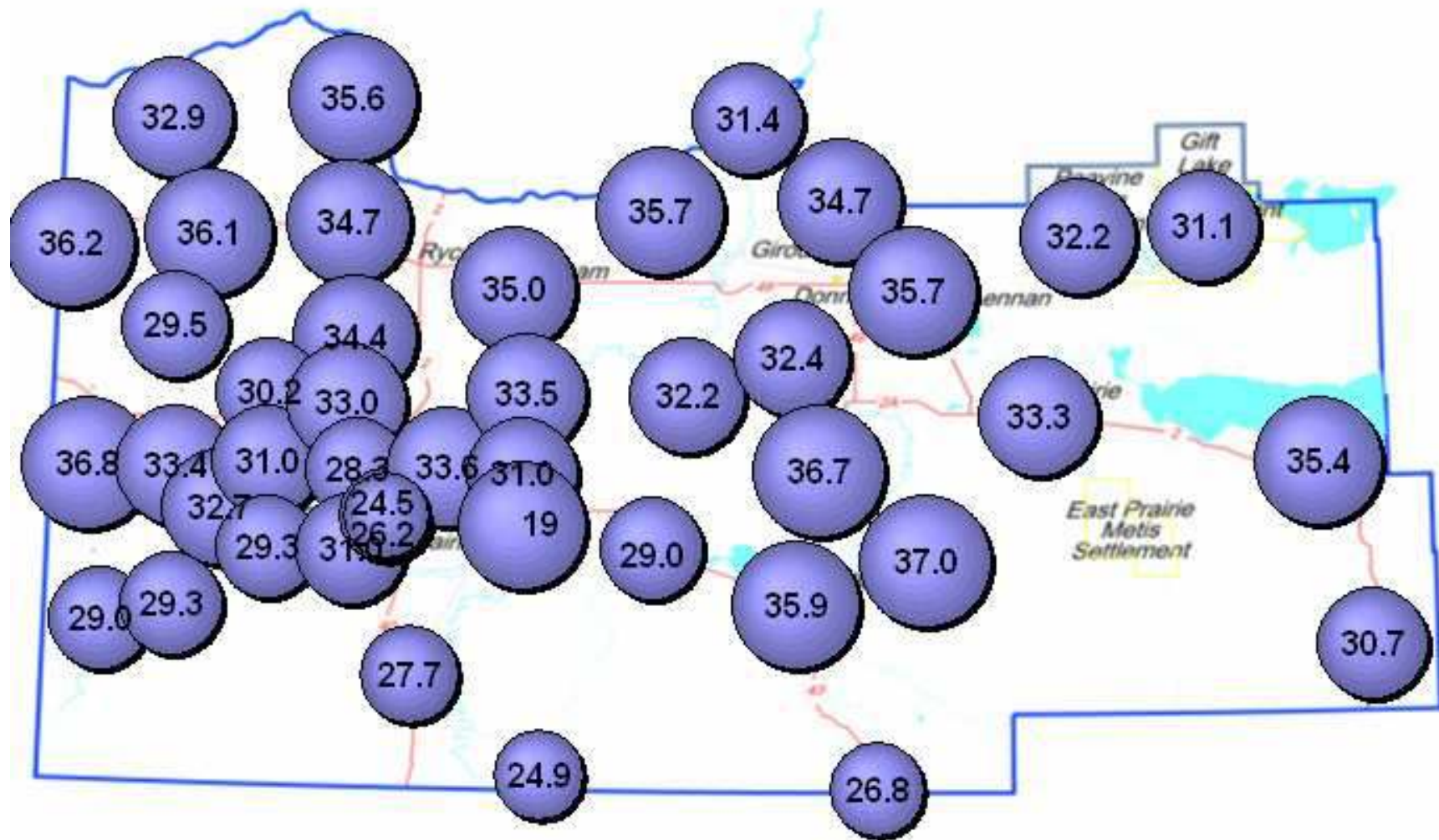
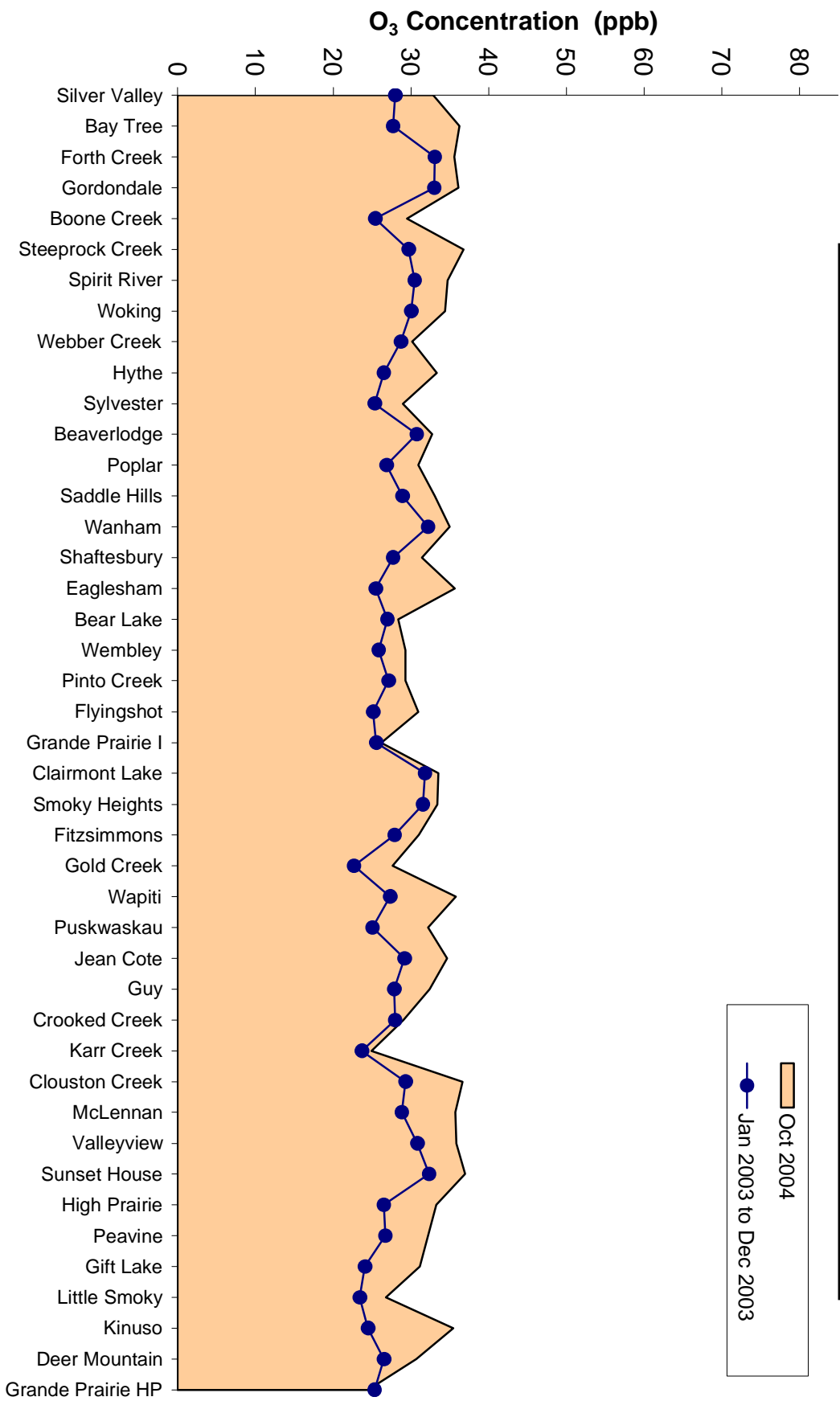


Figure 23. O<sub>3</sub> Bubble Chart



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

**Figure 24. O<sub>3</sub> Summary Chart**



PASZA Passive NO<sub>2</sub> Stations - Oct 2004  
Average Concentrations in ppb

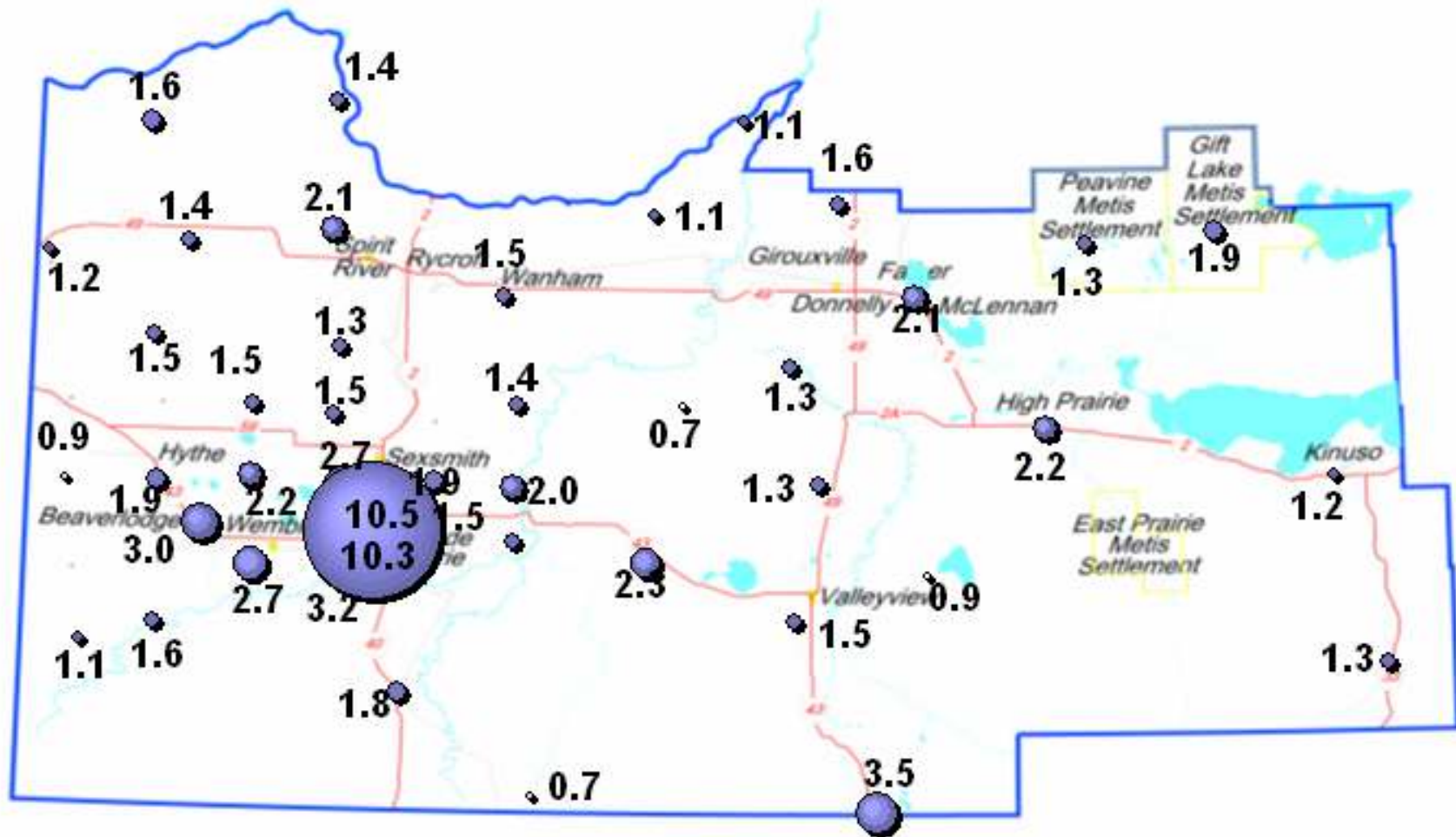


Figure 25. NO<sub>2</sub> Bubble Chart

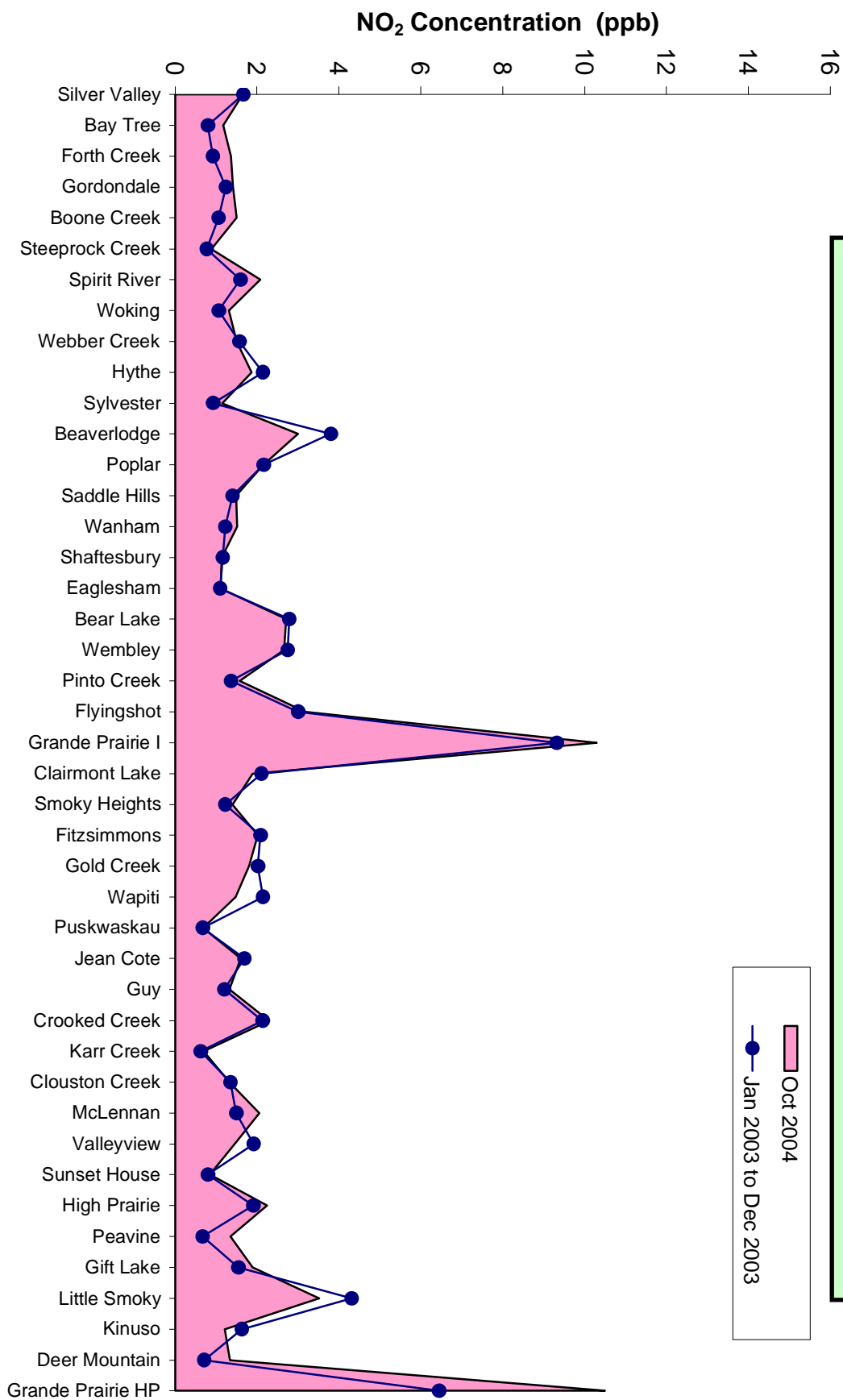


Figure 26. NO<sub>2</sub> Summary Chart

Alberta Ambient Air Quality Guidelines - Annual NO<sub>2</sub> Guideline is 32 ppb

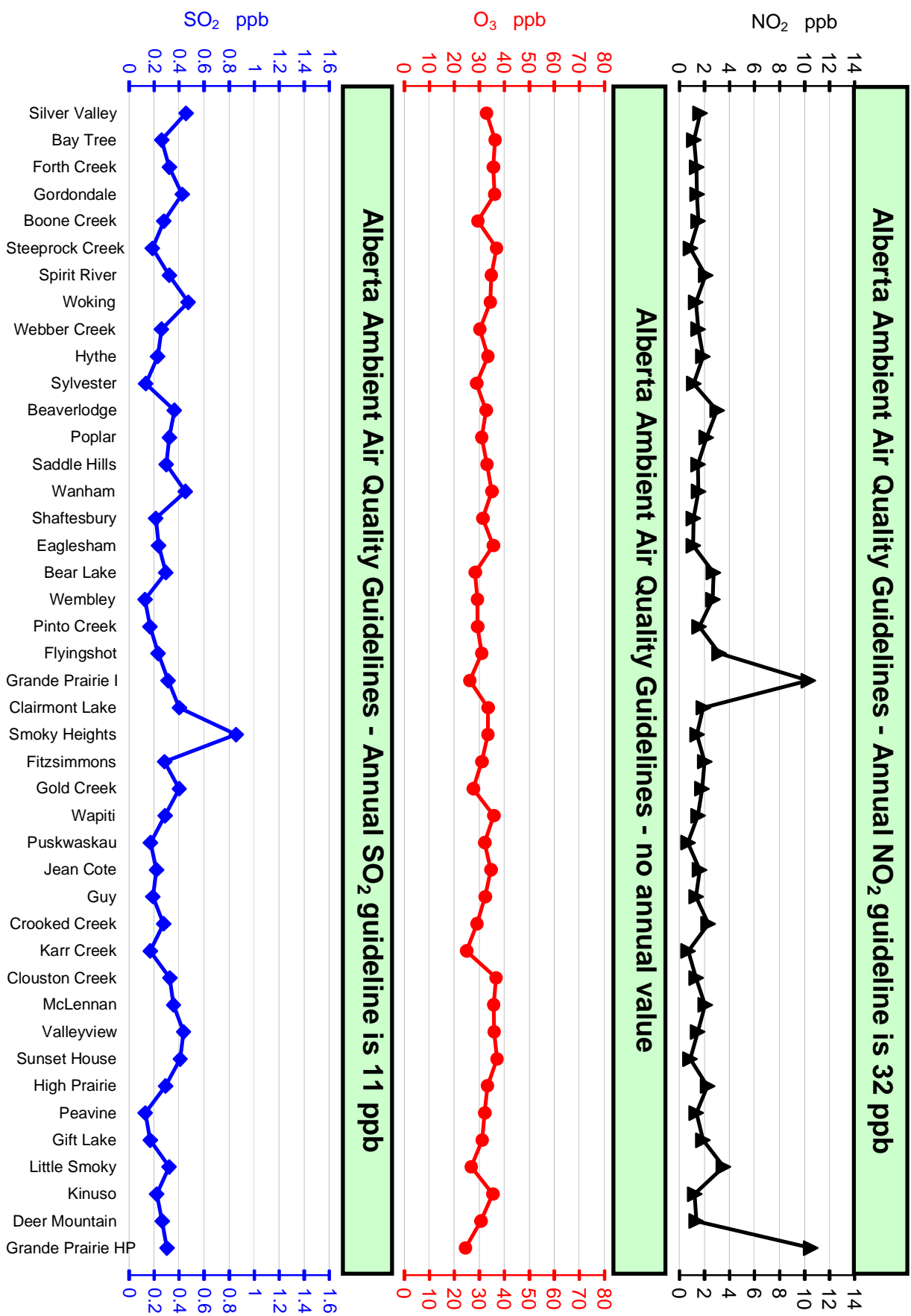


Figure 27. Overview Summary

## **October 2004 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>**

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

Calibration Date	October 19, 2004	Previous Calibration	September 1, 2004
Station Number	1	Station Location	Muskoseepi Park
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	11:13	End Time (MST)	14:07
Barometric Pressure	27.7 inches Hg	Station Temperature	20.5 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	2,452 ng/min	Perm-tube Expiry Date	
Correction factor	0.938300	Perm-tube Cert #	19-18743
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 10 volt	DACS channel #	8
	<u>Before</u>		<u>After</u>
DACS slope	0.005000	DACS slope	0.005000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	0.988280	Calculated slope	0.972065
Calculated intercept	0.314696	Calculated intercept	-0.541576
Analyzer make	TEI Model 43A	Analyzer serial #	43A-21120-195

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
SO2 zero pot	177		177	
SO2 span pot	199		199	
UV Lamp voltage	922	V	922	V
Vacuum	22.2	in Hg	22.2	in Hg

**Calibration Data**

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
zero	2369.2	0.0	-0.5	N/A
2525	2369.2	395.0	406.3	0.9723
5010	4700.9	199.1	206.3	0.9653
9955	9340.8	100.2	104.4	0.9595
zero	2434.9	0.0	-0.5	As Found Zero
2595	2434.9	384.4	387.6	As Found Span
Average Correction Factor				0.9657

Calculated value of As Found Response: 383.812 ppm Percent Change of As Found: 0.1%

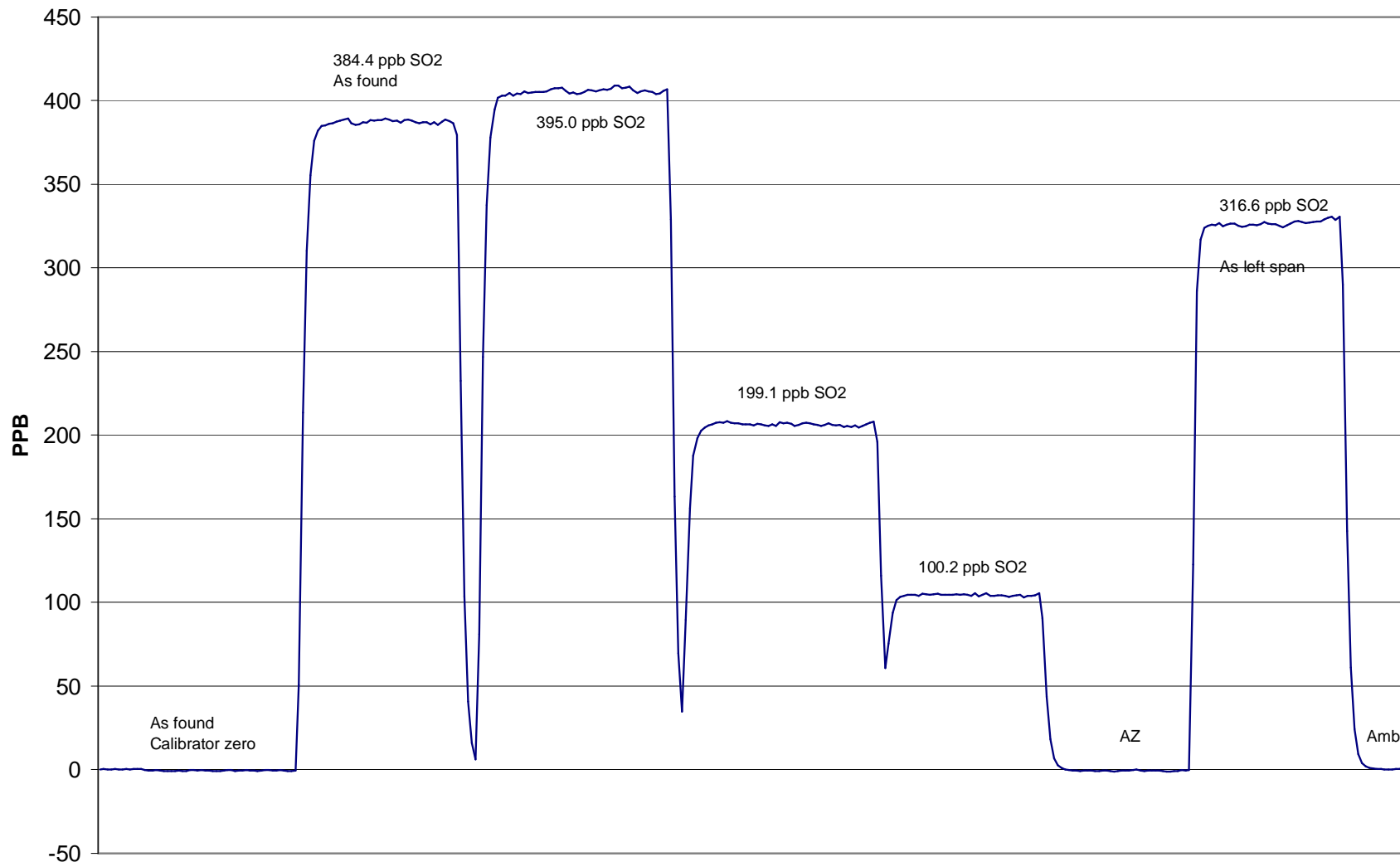
	before calibration		after calibration	
Auto zero	-0.2	ppm	-1.1	ppm
Auto span	332.6	ppm	316.6	ppm

Notes: New calibration permeation tube utilized; as found change reflective of new device.  
No zero or span adjustments performed. UV lamp voltage has increased in the last month.

Calibration Performed By: Kelly Baragar



### SO2 Calibration



October 19, 2004

# Calibration Report

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



## Station Information

Calibration Date	<u>October 19, 2004</u>	Previous Calibration	<u>September 1, 2004</u>
Station Number	<u>1</u>	Station Location	<u>Muskoseepi Park</u>

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

Start Time (MST)	<u>10:18</u>	End Time (MST)	<u>14:45</u>
Barometric Pressure	<u>0.924</u> Atm	Station Temperature	<u>20.5</u> Deg C
Calibrator	<u>EnviroNics 6100</u>	Serial Number	<u>3016</u>
NO Cal Gas Conc	<u>50.3</u> ppm	Cal Gas Expiry Date	<u>19-Jan-06</u>
NOx Cal Gas Conc	<u>50.5</u> ppm	Cal Gas Serial #	<u>ALM025793</u>

## DACS Information

DACS make FOCUS AP1000    DACS serial No. 45269

Parameter		NO2	NOx	NO
Before	DACS slope	0.050000	0.050000	0.050000
	DACS offset	0.000000	0.000000	0.000000
After	DACS slope	0.050000	0.050000	0.050000
	DACS offset	0.000000	0.000000	0.000000
Before	Data Slope	1.005927	0.998361	0.998180
	Data Offset	-0.966547	0.087998	-0.042497
After	Data Slope	1.006644	1.004048	1.005330
	Data Offset	-0.202691	-0.251840	-0.402057
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

## Analyzer Information

Analyzer make/model TEI Model 42    Analyzer serial # 42-28486-231

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO background	9.8	ppb	9.8	mV
NOx background	10.2	ppb	10.2	mV
NO coefficient	1.148		1.148	
NOx coefficient	1.003		1.003	
Chamber Temp	49.9	Deg C	49.9	Deg C
Cooler Temp	2.9	Deg C	2.9	Deg C
Converter Temp	324.0	Deg C	324.0	Deg C
Vacuum	22.4	inches Hg	22.4	inches Hg
Box temp	29.5	ccm	29.5	ccm

Notes: No adjustments or maintenance performed.



# Calibration Report

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



## Station Information

Calibration Date: **October 19, 2004** Station Location: **Muskosepi Park**

## Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NO <sub>x</sub> conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NO <sub>x</sub> conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NO <sub>x</sub> Correction factor	NO Correction factor
zero	4993	0.00	0.0	0.0	0.0	0.1	0.1	0.1	N/A	N/A
1	4993	39.97	401.1	399.5	1.6	399.9	397.8	2.0	1.0028	1.0043
2	4993	19.98	201.3	200.5	0.8	199.9	199.4	0.3	1.0071	1.0052
3	4993	9.99	100.8	100.4	0.4	101.4	101.0	0.2	0.9943	0.9943
AFZ	4993	0.00	0.0	0.0	0.0	0.1	0.1	0.1	0.0000	0.0000
AFS	4993	39.97	401.1	399.5	1.6	396.5	395.4	0.9	1.0115	1.0102
Average Correction Factor									1.0014	1.0013

As Found Concentrations: **NO<sub>x</sub>= 396.5** **NO= 395.3** As Found Percent Change **NO<sub>x</sub>= -1.1%** **NO= -1.0%**

## GPT Calibration Data

Dilution Flow 4993 ccm Source Gas Flow 39.97 ccm

O3 Setpoint (ppb)	Calculated NO <sub>x</sub> conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NO <sub>x</sub> conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NO <sub>x</sub> Correction factor	NO Correction factor	NO <sub>2</sub> Correction factor	Converter Efficiency
0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A	N/A
350	395.9	87.9	308.0	395.0	87.8	306.6	1.0023	1.0008	1.0046	99.5%
200	395.9	218.5	177.5	393.2	217.7	175.3	1.0069	1.0035	1.0122	98.8%
100	395.9	308.1	87.8	395.5	306.9	88.2	1.0010	1.0040	0.9949	100.5%
Average Correction Factor							1.0034	1.0028	1.0039	99.6%

## AIC Data

Parameter	Previous calibration				Current calibration			
	NO <sub>x</sub>	NO <sub>2</sub>	NO		NO <sub>x</sub>	NO <sub>2</sub>	NO	
Auto zero	0.1	-0.7	-0.4	ppb	5.6	1.1	3.9	ppb
Auto span	313.8	309.1	5.3	ppb	409.1	399.9	9.1	ppb

Calibration Performed By: Kelly Baragar

## Calibration Summary

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

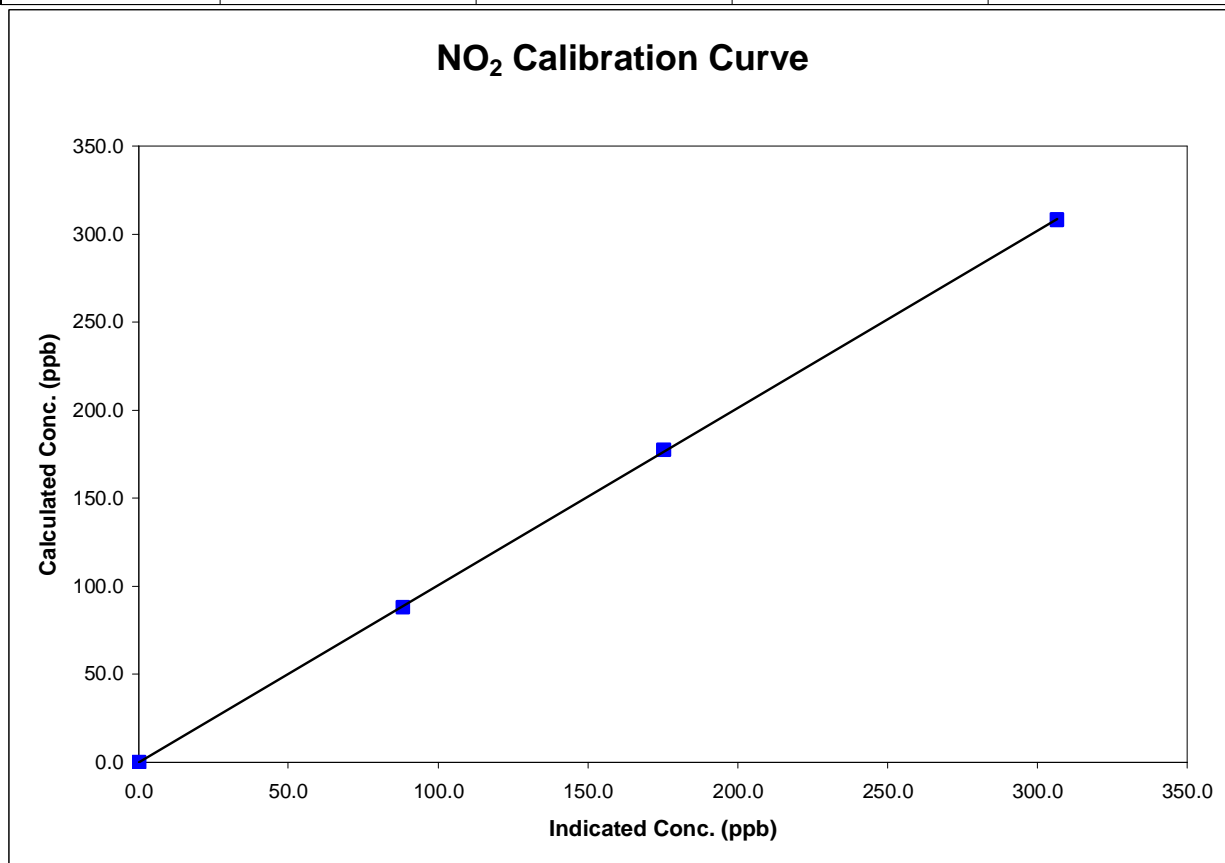


### Station Information

Calibration Date	October 19, 2004	Previous Calibration	September 1, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	10:18	End Time (MST)	14:45
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	0.0000	Correlation Coefficient	0.999956
308.0	306.6	1.0046		
177.5	175.3	1.0122		
87.8	88.2	0.9949		
			Slope	1.006644
			Intercept	-0.202691



## Calibration Summary

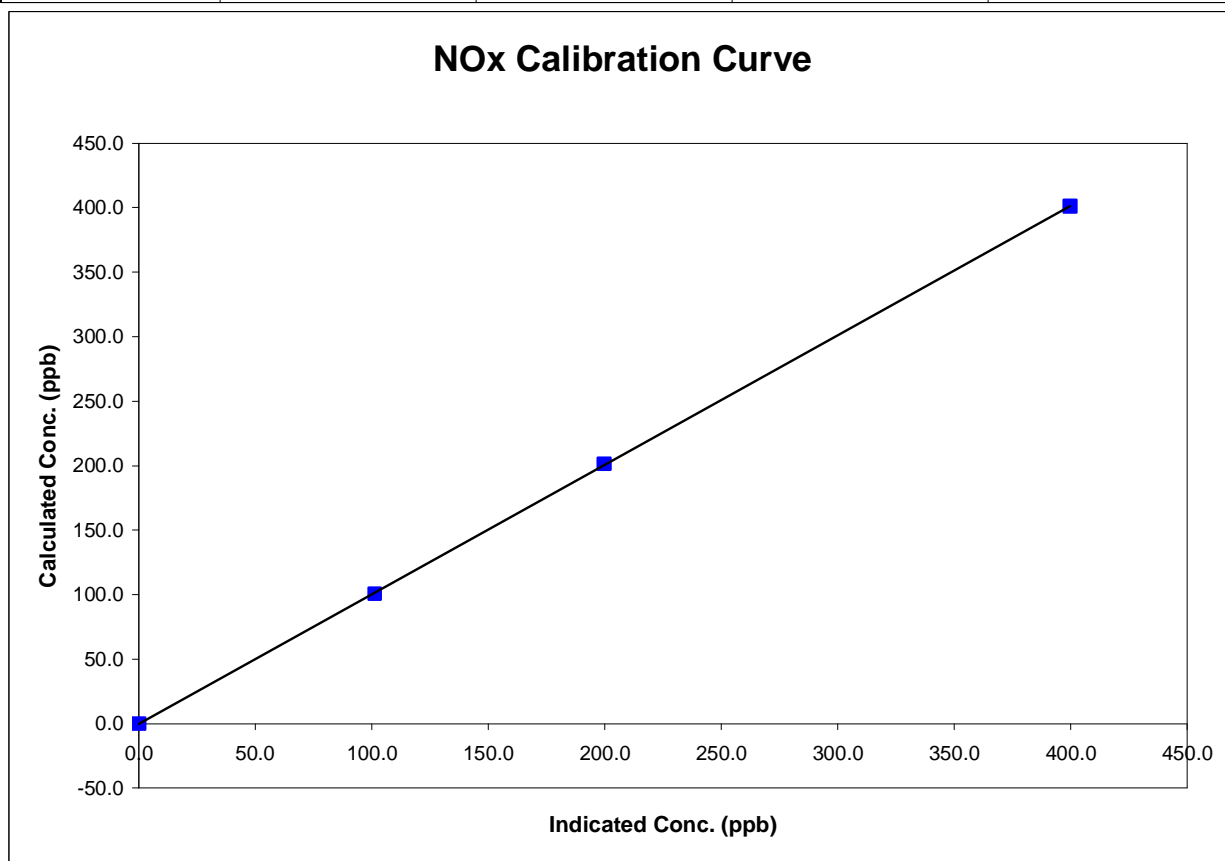
Parameter NO<sub>x</sub>Air Monitoring Network PASZA

### Station Information

Calibration Date	October 19, 2004	Previous Calibration	September 1, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	10:18	End Time (MST)	14:45
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	0.0000	Correlation Coefficient	0.999985
401.1	399.9	1.0028		
201.3	199.9	1.0071		
100.8	101.4	0.9943		
			Slope	1.004048
			Intercept	-0.251840



## Calibration Summary

Parameter NO  
 Air Monitoring Network PASZA

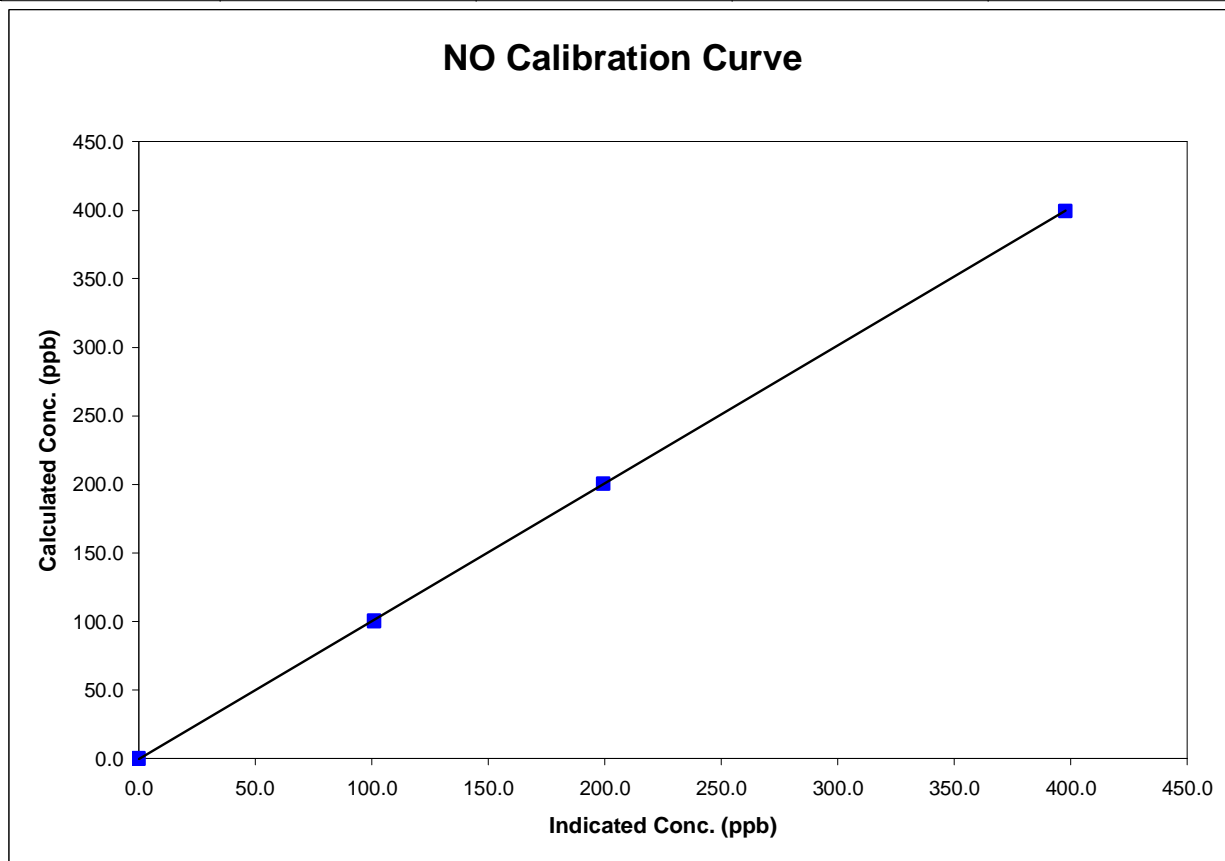


### Station Information

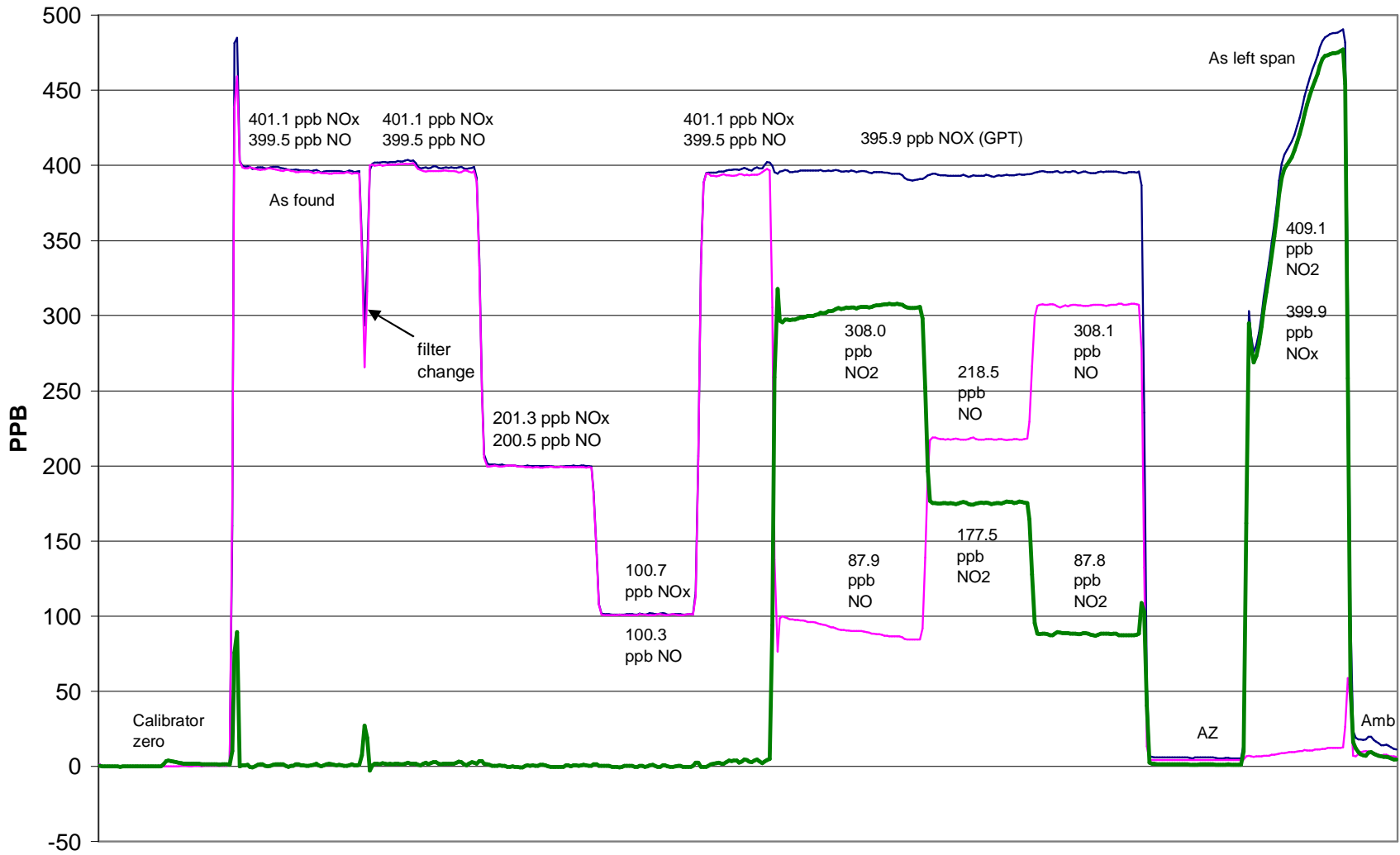
Calibration Date	October 19, 2004	Previous Calibration	September 1, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	10:18	End Time (MST)	14:45
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
399.5	397.8	1.0043	Correlation Coefficient	0.999991
200.5	199.4	1.0052		
100.4	101.0	0.9943	Slope	1.005330
			Intercept	-0.402057



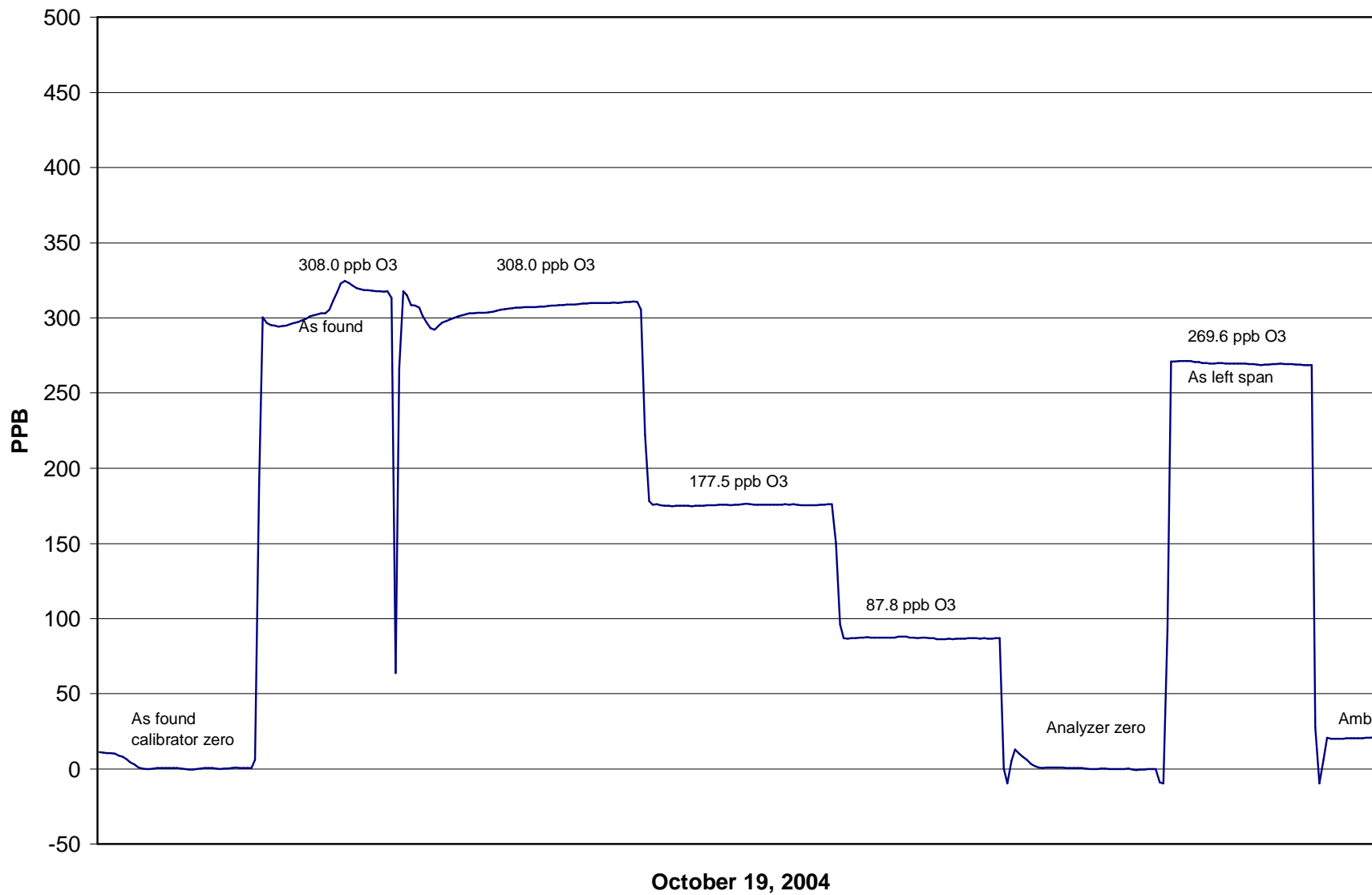
### NOx Calibration







### O3 Calibration





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

Calibration Date	October 20, 2004	Previous Calibration	September 1, 2004
Station Number	1	Station Location	Muskoseepi Park
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	9:03	End Time (MST)	11:37
Barometric Pressure	0.916 mb	Station Temperature	22.0 Deg C
Calibrator	Envionics 6100	Serial Number	3016
Cal Gas Conc	3000 ppm	Cal Gas Expiry Date	12/10/2005
		Cal Gas Cylinder #	ALM 005412
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
DACS slope	0.005000	DACS slope	0.005000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	1.002354	Calculated slope	1.008445
Calculated intercept	-0.137198	Calculated intercept	-0.276902
Analyzer make	TEI Model 48	Analyzer serial #	ACM-13989-143

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
CO span setting	718		718	
CO zero setting	536		536	
Sample pressure	691	mm Hg	691	mm Hg

**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	0.30	N/A
4993	39.97	23.82	23.93	0.9957
4993	19.96	11.95	12.06	0.9901
4993	9.97	5.98	6.21	0.9634
4993	0.00	0.00	0.30	As Found Zero
4993	39.97	23.82	23.89	As Found Span
Average Correction Factor				0.9831

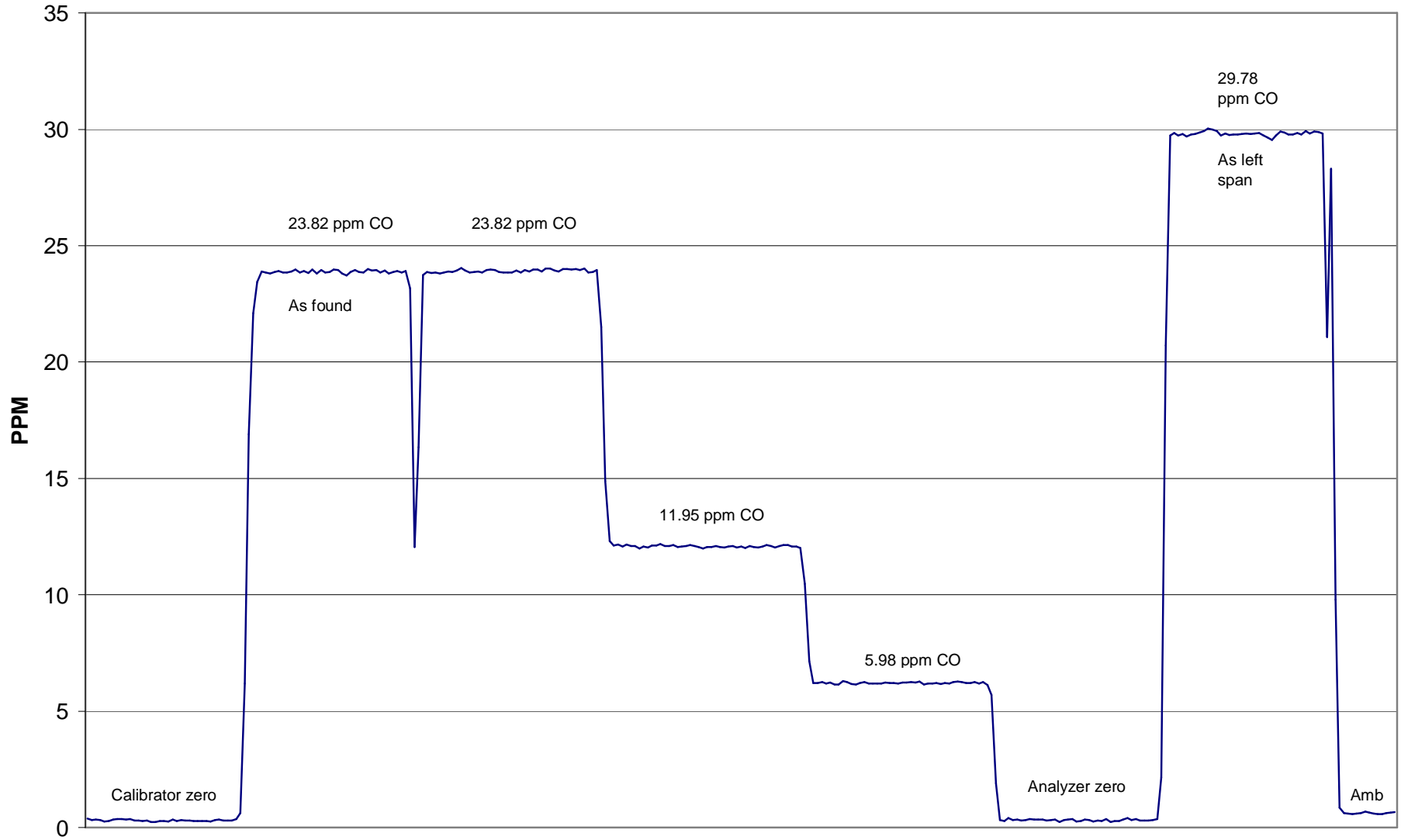
Calculated value of As Found Response: 23.505 ppm Percent Change of As Found: 1.3%

	before calibration		after calibration	
Auto zero	0.05	ppm	0.05	ppm
Auto span	29.47	ppm	29.78	ppm

Notes: No adjustments required, all analyzer functions are fine.Calibration Performed By: Kelly Baragar



### CO Calibration



October 20, 2004

# Calibration Report

Parameter THCAir Monitoring Network PASZA

## Station Information

Calibration Date	October 19, 2004	Previous Calibration	September 2, 2004
Station Number	1	Station Location	Muskoseepi Park
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	15:40	End Time (MST)	18:57
Barometric Pressure	27.65 inches Hg	Station Temperature	21.0 Deg C
Calibrator	Envionics 6100	Serial Number	3016
Cal Gas Concentration	700 ppm CH4/ 299 ppm C3H8	Cal Gas Expiry Date	12/10/2005
Cal Gas CH4 equiv	1522.25 ppm	Cal Gas Cylinder #	ALM 030358
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
DACS slope	0.005000	DACS slope	0.005000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	0.994540	Calculated slope	0.995216
Calculated intercept	0.073545	Calculated intercept	0.042264
Analyzer make	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.09	psi	6.07	psi
THC span counts	6876	capture	6876	capture
THC zero counts	1291	capture	1259	capture

## Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4993	0.00	0.00	-0.01	N/A
4993	64.97	19.55	19.65	0.9952
4993	34.98	10.59	10.52	1.0071
4993	9.97	3.03	3.01	1.0063
4993	0.00	0.00	-0.06	As Found Zero
4993	64.97	19.55	19.65	As Found Span
Average Correction Factor				1.0029

Calculated value of As Found Response: 19.680 ppm      Percent Change of As Found: -0.6%

	before calibration		after calibration	
Auto zero	0.05	ppm	0.01	ppm
Auto span	20.84	ppm	20.80	ppm

Notes: Analyzer was zero adjusted. No other maintenance required.

Calibration Performed By: Kelly Baragar

## Calibration Summary

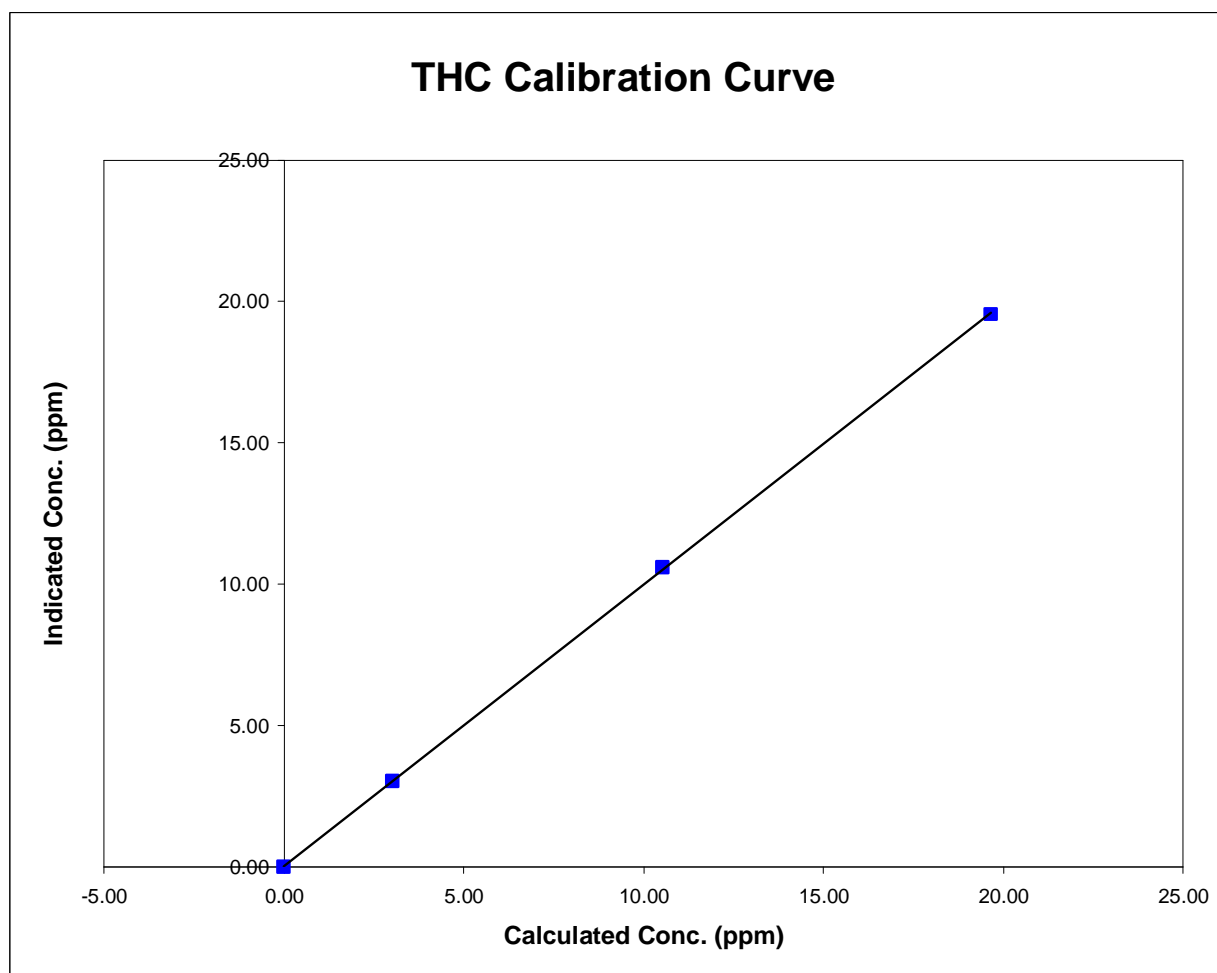
Parameter THCAir Monitoring Network PASZA

### Station Information

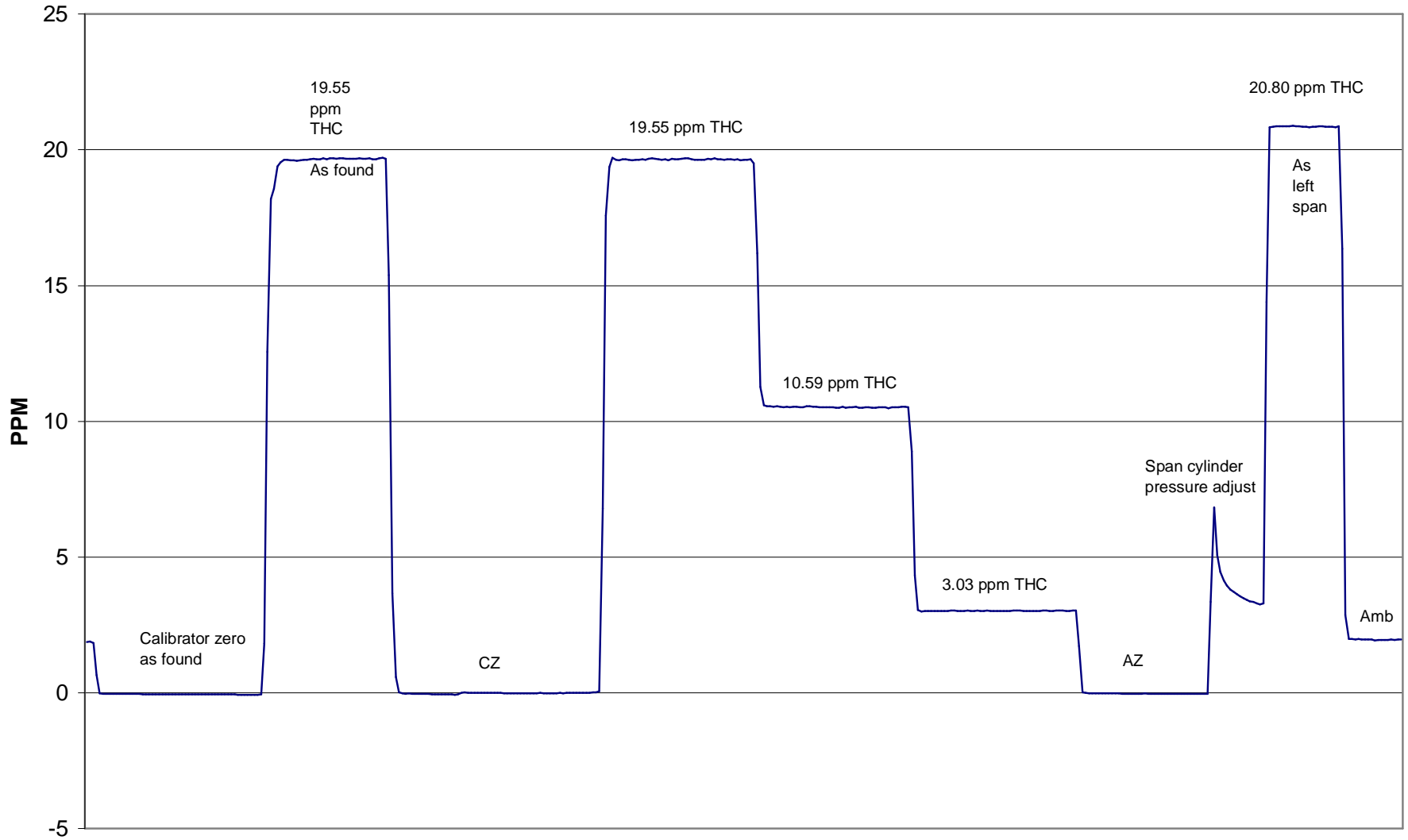
Calibration Date	October 19, 2004	Previous Calibration	September 2, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	15:40	End Time (MST)	18:57
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.012	N/A		
19.553	19.648	0.9952	Correlation Coefficient	0.999958
10.590	10.516	1.0071		
3.034	3.015	1.0063	Slope	0.995216
			Intercept	0.042264



### THC Calibration



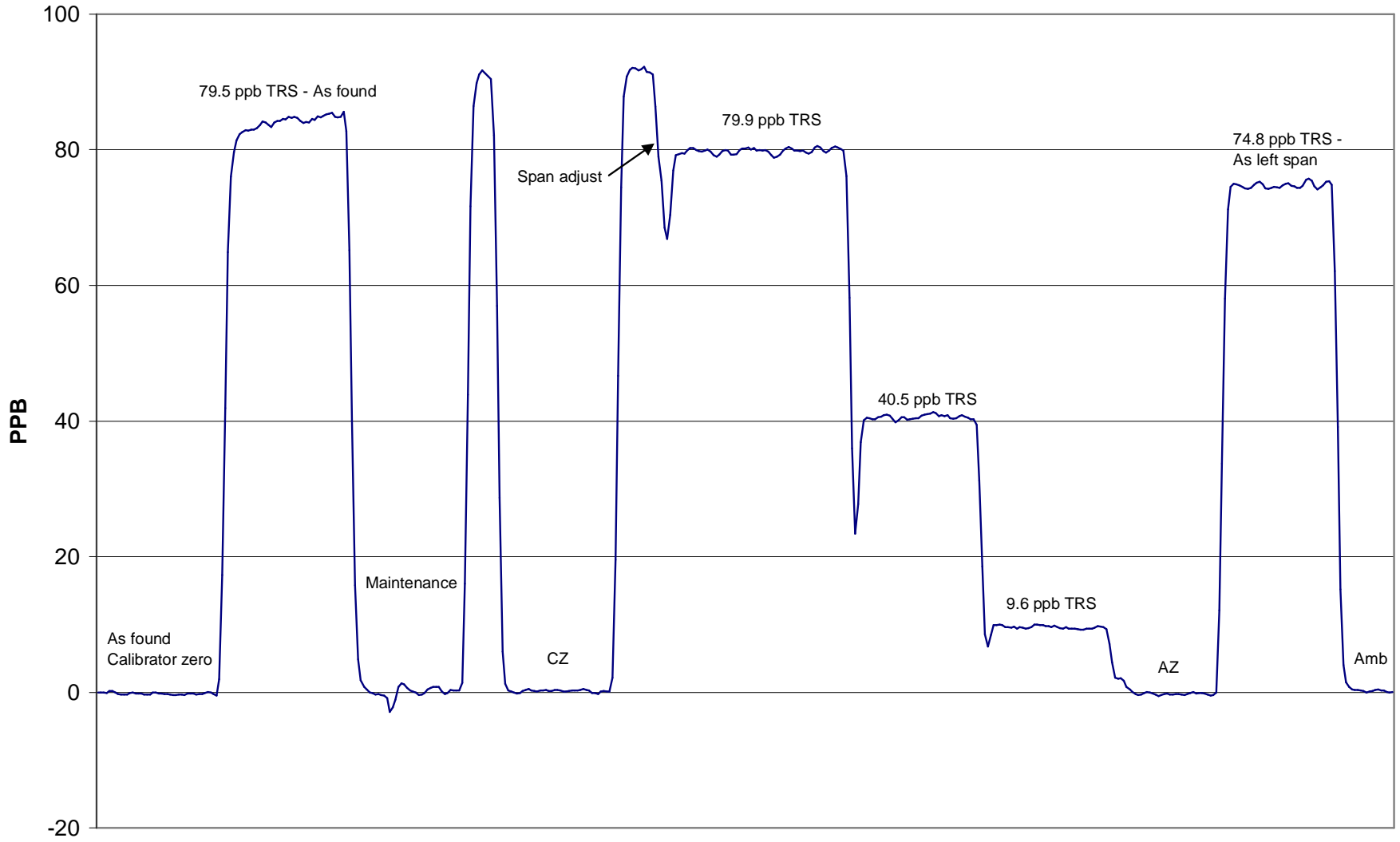
October 19, 2004







### TRS Calibration



October 19, 2004

# Calibration Report



Parameter PM2.5  
Air Monitoring Network PASZA

## Station Information

Calibration Date	October 20, 2004	Previous Calibration	August 4th & 5th, 2004
Station Number	1	Station Location	Muskoseepi Park
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	9:00	End Time (MST)	11:30
Barometric Pressure	0.916 atm	Station Temperature	21.0 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
	<u>Before</u>		<u>After</u>
DACS slope	0.050000	DACS slope	0.050000
DACS intercept	-50.000000	DACS intercept	-50.000000

## Analyzer Information

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

	before		after	
Main Flow Set Point	3.000	SLPM	3.000	SLPM
Aux Flow Set Point	16.67	SLPM	16.67	SLPM
Filter Load	42	%	19	%
Ko Factor	12122		12122	
Temperature	-6.5	Deg C	-6.5	Deg C
Pressure	0.916	ATM	0.916	ATM

## Calibration Data

Parameter	Set Point	Indicated Reading	Tolerance	New Reading
zero flow - main	0.0	0.08		0.08
zero flow - auxillary	0.0	-0.06		-0.06
flow recovery - main	45 - 60 Seconds	>45	45 - 60 Seconds	>45
flow recovery - aux	46 - 60 Seconds	>45	46 - 60 Seconds	>45
Temperature	measured	-5.8	+/- 1.0 Deg C	-6.6
Pressure	measured	0.914	+/- 1.5% ΔATM	0.9160
Total Flow	16.67 SLPM	17.55		16.70
Main Flow	13.67 SLPM	14.30	+/- 1.0 SLPM	13.77
Auxillary Flow	3.0 SLPM	3.220	+/- 0.2 SLPM	3.020
Leak Check - main	0.0	0.08	<0.15 SLPM	0.08
Leak Check - aux	0.0	-0.09	<0.15 SLPM	-0.09
Ko Factor (w/o filter)	measured	324.833	filter weight (g)	0.11112
Ko Factor (w/ filter)	measured	231.929	% Ko difference	-0.6%

Notes: All leak testing, flow audit, and K0 verification performed.  
All TEOM parameters are within normal operating specifications. New sample filter installed.  
Utilized reference weight filter S/N 1965.

Calibration Performed By: Kelly Baragar