



PEACE AIRSHED ZONE ASSOCIATION

Air Quality Monitoring Network

September 2004

Prepared by



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

Re: Peace Airshed Zone Association – September PASZA Ambient Air Report

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

Passive Monitoring – 43 Stations throughout the PASZA zone:

There were no damaged or missing passive samples; in addition there were no exceedences of the Provincial Air Quality guidelines.

- Monthly average concentrations for SO₂ passives ranged from <0.1 ppb to 0.3 ppb.
- Monthly average concentrations for NO₂ passives ranged from 0.2 ppb to 4.1 ppb.
- Monthly average concentrations for O₃ passives ranged from 12.1 ppb to 25.8 ppb.

If you have any questions, please contact the Focus office at 1-888-869-2252 or 1-888-466-6555.

On Behalf of the,
Peace Airshed Zone Association

Kevin Warren
PASZA Technical Program Manager

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

PASZA Monthly Continuous Data Summary

September 2004 Monthly Overall Summary Report

Ambient Air Quality Data

Sep-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 ₂ (ppb)	172	57	Henry Pirker	0.2	0	0	2.1	Sep-12	23.4	WSW	0.5	Sep-13	99.9%
NO (ppb)			Henry Pirker	3.6	0	0	84.7	Sep-27	2.3	WSW	11.3	Sep-27	99.9%
NO ₂ (ppb)	212	106	Henry Pirker	5.7	0	0	31.2	Sep-30	3.5	SE	12.1	Sep-13	99.9%
NO _x (ppb)			Henry Pirker	9.4	0	0	106.5	Sep-27	2.3	WSW	22.1	Sep-27	99.9%
O ₃ (ppb)	82		Henry Pirker	16.0	0	0	42.5	Sep-26	4.1	SSE	25.2	Sep-12	99.9%
CO (ppm)	13		Henry Pirker	0.25	0	0	1.11	Sep-27	3.2	SSW	0.36	Sep-03	99.9%
THC (ppm)			Henry Pirker	1.97	0	0	3.21	Sep-13	4.9	SSE	2.27	Sep-13	99.9%
TRS (ppb)			Henry Pirker	0.5	0	0	1.0	Sep-15	4.2	NE	0.6	Sep-22	99.7%
PM _{2.5} (µg/m ³)		30 ^a	Henry Pirker	2.7	0	0	29.9	Sep-27	3.9	SE	7.9	Sep-28	99.9%
RH (%)			Henry Pirker	73.5									99.9%
SR (W/m ²)			Henry Pirker	114.4									99.9%
Temp (°C)			Henry Pirker	8.7									99.9%
WSPD v (km/hr)			Henry Pirker	4.5									99.9%
WSPD s (km/hr)			Henry Pirker	10.8									99.9%
WDIR (Deg)			Henry Pirker	W*									99.9%

Note: ^a 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

Henry Pirker Station

General Station Issues

Overall station was operating well. One hour of data was missing on Sept 1 from 9:00 to 10:00 for all parameters due to a corrupted data file for that hour.

Parameter	Make	Model	Notes
SO ₂	TECO	43	No operational problems observed
NO _x /NO/NO ₂	TECO	42	No operational problems observed
O ₃	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 _{2.5}	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 (SO₂)

Station Owner: PASZA

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

Summary

Number of 1-hr Exceedances:	0		
Number of 24-hr Exceedances:	0		
Maximum 1-hr Average:	2.1	ppb	12-Sep 3:00 4:00
Maximum 24-hr Average:	0.5	ppb	13-Sep

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

AIC Time:	33 hrs	Operational Time:	683 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	99.9%
Percentile	99	95	75
	1.1	0.7	0.2
	0.2	0.2	0.1
	0.0	0.0	0.0
	Average		
	0.2 ppb		

Status Flag Characters

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

Day Mountain Standard Time

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-Sep-04	0	0	0	0	0	0	0	0	0	N	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0.2	0.4
2-Sep-04	0	0	0	A	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
3-Sep-04	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
4-Sep-04	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
5-Sep-04	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
6-Sep-04	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.3	
7-Sep-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	A	0	0.2	0.7	
8-Sep-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.2	
9-Sep-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.2	
10-Sep-04	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	1	1	0	0.3	0.8
11-Sep-04	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.9
12-Sep-04	0	0	0	2	2	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	2	1	1	0.5	2.1
13-Sep-04	1	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	A	0	1	1	0	0	0	0	0	0.5	1.4
14-Sep-04	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0.3	1.3
15-Sep-04	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0.2	0.8
16-Sep-04	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
17-Sep-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	0.1	0.3
18-Sep-04	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
19-Sep-04	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
20-Sep-04	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
21-Sep-04	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
22-Sep-04	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
23-Sep-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	0.2	0.5
24-Sep-04	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
25-Sep-04	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
26-Sep-04	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	0.3	1.0
27-Sep-04	1	0	A	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
28-Sep-04	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0	0	0.3	0.8
29-Sep-04	A	0	0	0	0	0	1	0	0	1	1	1	1	0	0	0	0	0	0	1	1	1	1	0	A	0.5	1.0
30-Sep-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	1	0.2	0.7
																										N	0.0
Hourly Avg	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2		
Hourly Max	0.9	0.4	0.4	2.1	1.5	0.3	0.8	1.0	1.0	1.3	1.0	1.4	1.3	1.0	0.5	0.4	0.4	0.5	1.0	0.8	0.7	1.8	1.3	1.0			

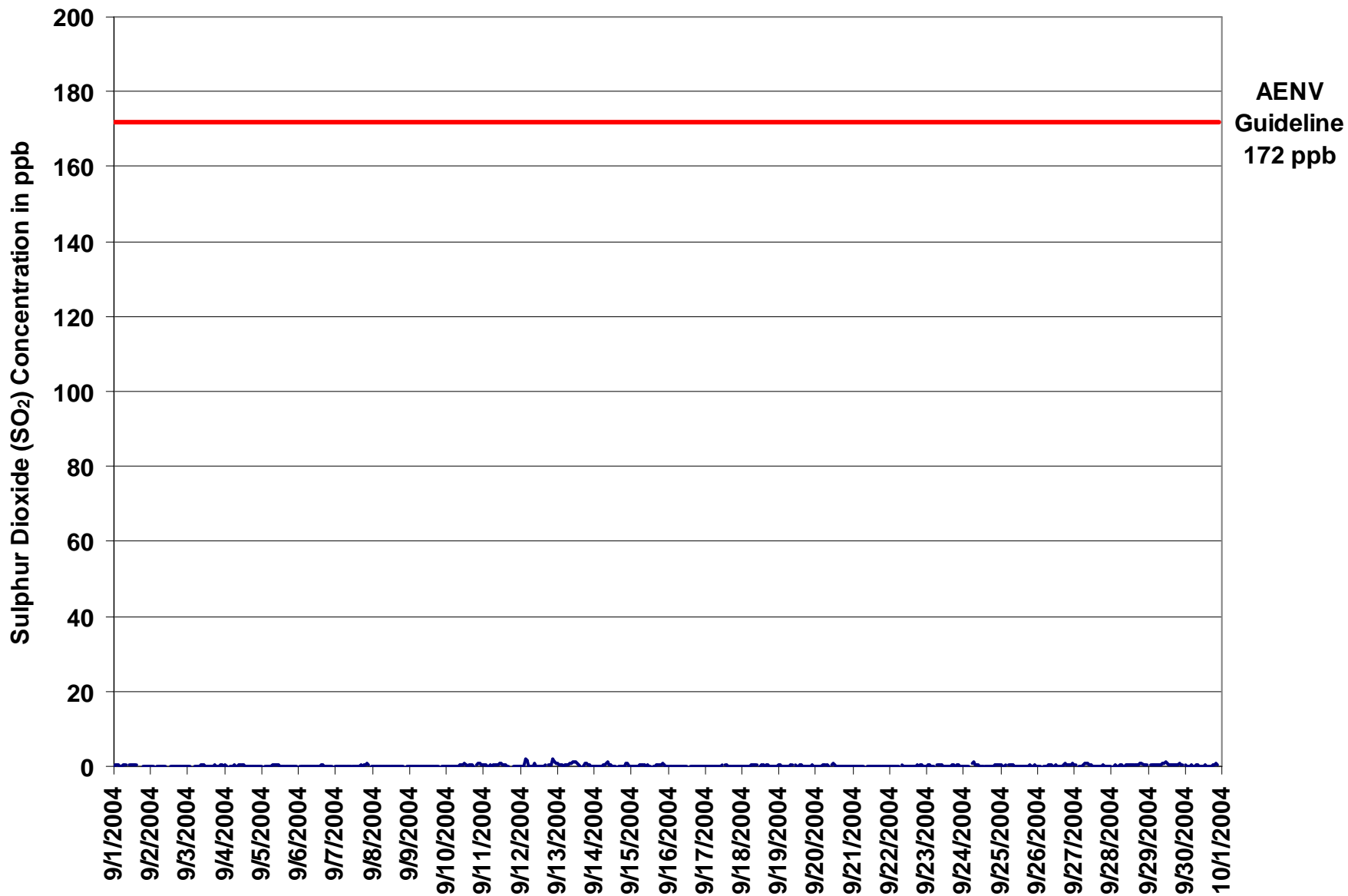


Figure 1. PASZA - Henry Pirker Sulphur Dioxide 1-hr Average Monthly Trend

HOURLY MAXIMUM TABLE

Sulphur Dioxide (SO₂)

Station: Henry Pirker

Station Owner: PASZA

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

Summary

Maximum 1-hr Value:	6.2	ppb	12-Sep	21:00 22:00
Maximum 24-hr Value:	1.7	ppb	12-Sep	

AIC Time:	33 hrs	Operational Time:	683 hrs					
Calibration Time:	3 hrs	AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	Average
	2.2	1.5	0.9	0.7	0.6	0.5	0.4	0.8 ppb

Status Flag Characters

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

Day Mountain Standard Time

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-Sep-04	1	1	1	1	1	1	1	1	1	N	1	1	1	1	1	1	C	C	C	1	1	1	1	0	0.7	1.1
2-Sep-04	0	0	0	A	0	0	1	1	0	0	0	A	A	0	0	0	0	0	0	1	0	1	0	0	0.4	0.6
3-Sep-04	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
4-Sep-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	0.7	1.3
5-Sep-04	1	A	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0.7	1.0
6-Sep-04	A	0	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	A	0.6	0.9
7-Sep-04	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	A	1	0.8	2.4
8-Sep-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	A	1	1	0.7	1.0
9-Sep-04	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	0	1	0	1	1	A	1	0	1	0.6	0.8
10-Sep-04	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	A	1	2	1	1	0.9	1.7
11-Sep-04	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	A	1	1	1	0	1	0.8	1.5
12-Sep-04	0	1	1	5	5	1	1	1	1	2	1	1	1	1	1	1	A	1	1	1	1	6	5	2	1.7	6.2
13-Sep-04	2	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	A	1	1	1	1	1	1	1	1.1	2.0
14-Sep-04	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	A	1	1	1	1	1	2	1	1	0.9	2.2
15-Sep-04	1	1	1	1	0	1	1	1	1	1	1	1	1	1	A	0	1	1	1	1	1	2	1	1	0.8	2.3
16-Sep-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	0.7	0.8
17-Sep-04	0	1	1	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	0.6	0.9
18-Sep-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	0.8	1.4
19-Sep-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	0.8	1.1
20-Sep-04	1	1	1	1	1	1	1	1	1	1	A	1	2	2	1	1	1	1	1	1	1	1	1	1	0.8	2.2
21-Sep-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	0.7	0.8
22-Sep-04	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
23-Sep-04	1	1	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.5
24-Sep-04	1	1	1	1	1	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.1
25-Sep-04	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.7	1.2
26-Sep-04	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	0.9	2.0
27-Sep-04	1	1	A	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.9
28-Sep-04	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1.0	1.8
29-Sep-04	A	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	A	1.2	1.7
30-Sep-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	0.8	1.3
Hourly Avg	0.7	0.7	0.7	0.9	0.8	0.7	0.8	0.9	0.9	0.9	0.8	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.8	0.8	0.9	1.1	0.9	0.8	N	0.0
Hourly Max	1.8	1.1	1.5	5.2	5.2	1.0	1.9	2.1	1.9	2.2	1.7	2.1	2.2	1.7	1.4	1.0	1.1	2.0	2.4	1.8	1.7	6.2	5.3	1.9		

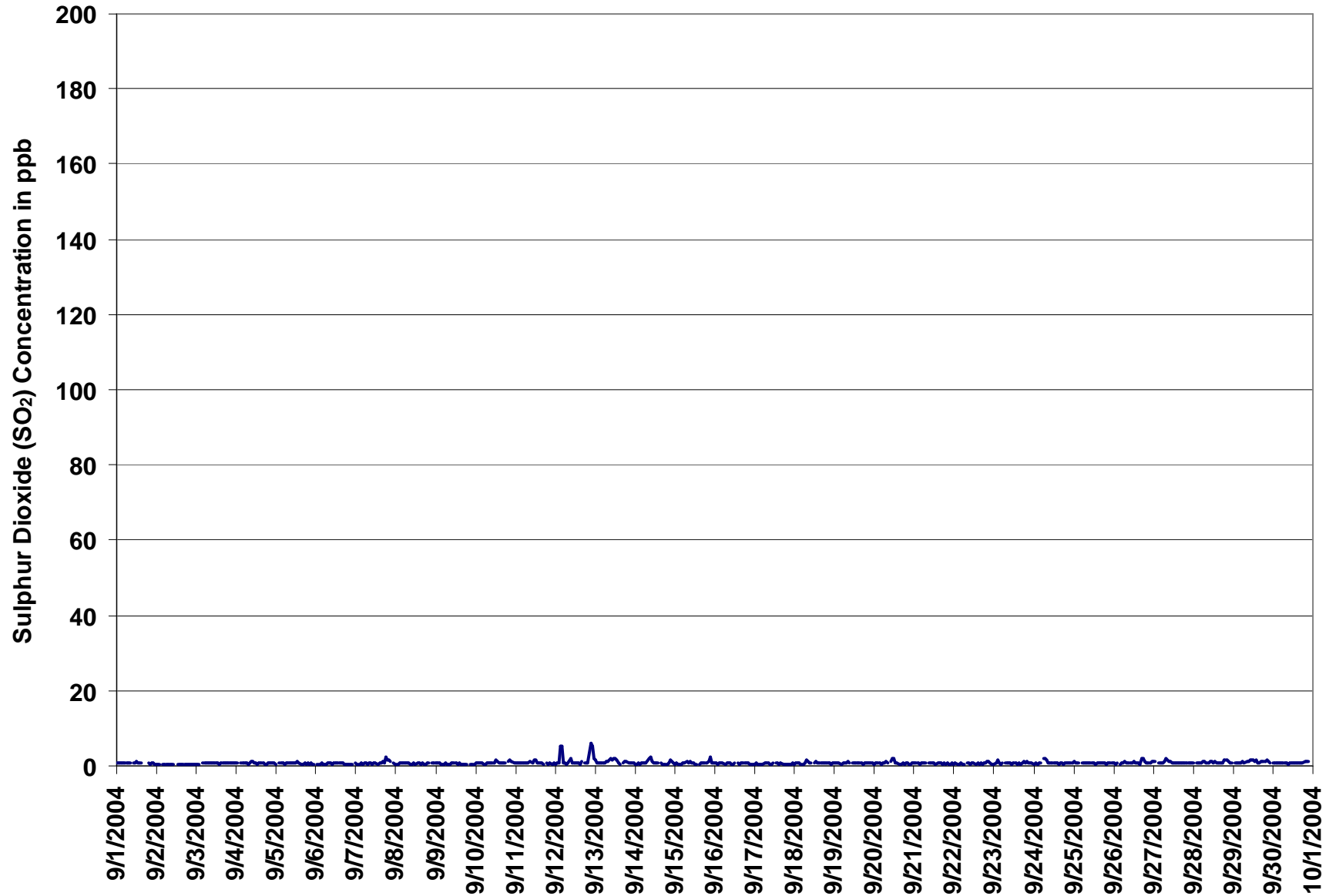
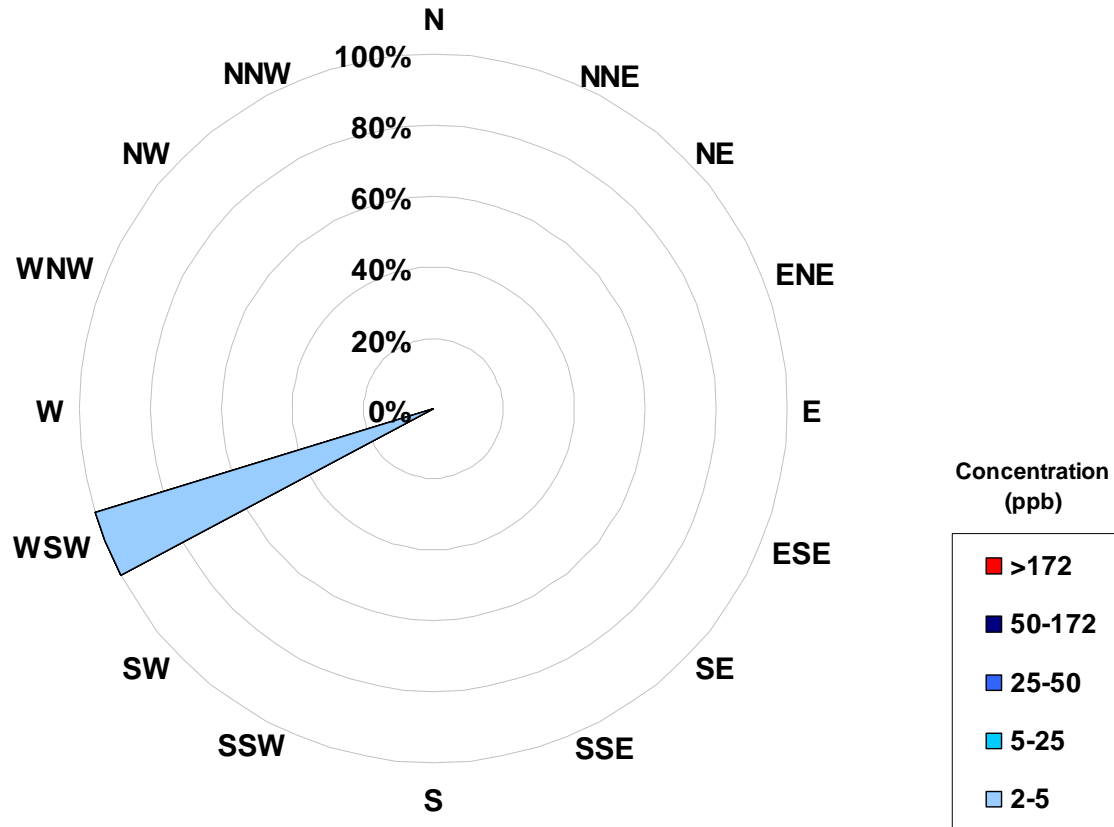


Figure 2. PASZA - Henry Pirker Sulphur Dioxide 1-hr Maximum Value Monthly Trend

Concentration Rose for the 1-hr SO₂ Average Concentration Occurrences at the Henry Pirker Site for September 2004



Frequency Distribution of SO ₂ in ppb			
Range	Frequency (hrs)		
0 < 2	682		
2 to 5	1		
5 to 25	0		
25 to 50	0		
50 to 172	0		
> 172	0		
Total Non-Zero Values	683		

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 (NO₂)

Station Owner: PASZA

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

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	31.2 ppb 30-Sep 20:00 21:00
Maximum 24-hr Average:	12.1 ppb 13-Sep

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

AIC Time:	33 hrs	Operational Time:	680 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	99.9%
Percentile	99	95	75
	29	19	7
	50	25	5
	1	0	0
Average	5.7 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

Day	Hour																								24-hour Average	Daily Maximum	
	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-Sep-04	3	2	4	3	3	5	5	6	5	N	C	C	C	C	C	C	4	4	3	2	3	2	1	1	N	6.3	
2-Sep-04	1	1	1	A	1	1	2	5	2	1	1	A	A	2	3	2	4	4	5	4	7	10	4	5	3.2	9.6	
3-Sep-04	5	4	4	A	7	7	8	9	10	8	5	5	4	2	3	2	2	2	4	7	6	4	4	4	5.1	10.0	
4-Sep-04	6	6	A	10	5	5	12	12	12	11	6	5	2	2	2	3	1	1	0	0	3	2	1	1	4.6	12.2	
5-Sep-04	1	A	1	0	0	0	0	1	0	0	1	1	0	1	3	3	2	1	2	8	11	14	12	12	3.2	14.3	
6-Sep-04	A	8	6	5	5	4	5	6	3	2	1	1	1	1	1	3	2	3	5	5	3	2	A	3.2	7.7		
7-Sep-04	2	1	1	2	2	2	4	5	4	3	3	3	3	3	4	2	1	2	2	2	1	1	A	2	2.5	5.2	
8-Sep-04	2	2	2	2	2	4	5	8	6	5	5	4	5	4	4	4	6	4	4	5	5	A	3	2	4.1	8.5	
9-Sep-04	1	1	1	1	2	4	6	6	4	3	2	2	2	2	3	3	3	3	4	3	A	4	3	1	2.8	6.2	
10-Sep-04	1	2	2	2	3	3	3	4	4	3	2	2	3	2	3	3	4	4	5	A	4	3	2	2	2.9	5.3	
11-Sep-04	2	2	2	2	3	4	4	4	3	1	1	1	2	3	3	4	4	5	7	A	6	4	5	4	1	3.3	7.0
12-Sep-04	0	0	0	0	1	1	1	1	3	1	1	0	1	1	1	1	1	A	4	6	5	4	5	4	1.9	6.2	
13-Sep-04	8	8	9	10	10	12	11	12	11	13	15	12	9	5	1	1	A	4	17	30	29	19	16	18	12.1	29.8	
14-Sep-04	9	5	6	4	4	12	18	18	17	5	3	2	3	2	1	A	3	3	3	4	6	4	6	5	6.2	18.2	
15-Sep-04	5	4	4	5	6	17	19	16	10	4	3	3	3	1	A	2	5	5	7	15	16	11	12	11	8.0	18.6	
16-Sep-04	5	2	1	1	1	3	4	5	4	4	3	2	2	A	3	3	4	4	4	4	4	3	1	1	3.0	5.4	
17-Sep-04	1	1	1	1	1	3	4	7	5	4	4	5	A	5	5	5	4	5	4	3	2	2	1	3.3	6.6		
18-Sep-04	1	1	2	2	2	3	4	3	4	4	3	A	4	4	3	3	3	2	3	1	1	1	1	1	2.5	4.4	
19-Sep-04	0	0	0	0	0	1	1	1	0	0	A	1	0	0	0	1	1	1	1	2	3	9	9	8	1.7	8.7	
20-Sep-04	6	3	2	2	4	5	5	5	3	A	3	2	1	2	2	2	3	4	6	6	7	8	9	8	4.3	8.8	
21-Sep-04	4	9	9	2	6	10	7	A	5	3	2	2	2	2	3	5	3	2	3	3	2	2	2	2	3.9	10.3	
22-Sep-04	1	0	0	0	1	2	8	A	4	2	2	2	3	3	2	3	4	10	19	20	27	26	17	11	7.2	27.2	
23-Sep-04	14	11	8	9	7	15	A	22	9	5	2	3	2	2	2	2	3	5	10	15	25	23	11	6	9.1	25.1	
24-Sep-04	4	3	8	5	7	A	29	29	17	14	4	4	3	3	2	2	3	4	4	10	18	16	12	8	9.1	29.5	
25-Sep-04	12	9	4	3	A	4	12	8	11	8	5	2	2	2	3	2	3	5	13	19	7	15	16	13	7.7	18.9	
26-Sep-04	13	15	16	A	10	17	18	16	12	6	4	4	1	1	1	2	2	4	16	19	16	9	7	11	9.6	19.1	
27-Sep-04	17	17	A	11	17	19	23	22	16	8	7	3	3	3	1	2	4	4	5	8	12	14	3	6	6	10.9	23.0
28-Sep-04	2	A	6	4	6	10	29	23	21	5	4	1	1	1	1	2	5	14	29	30	25	20	19	15	10.9	29.9	
29-Sep-04	A	14	9	5	10	19	28	21	15	15	10	5	4	2	2	2	3	3	12	19	27	18	13	A	11.6	27.6	
30-Sep-04	7	5	6	3	1	5	3	4	4	3	3	2	2	2	1	2	2	2	19	29	31	25	A	18	7.8	31.2	
Hourly Avg	4.7	4.9	4.1	3.6	4.2	6.7	9.8	9.9	7.2	5.4	3.7	3.1	2.6	2.2	2.3	2.4	3.1	4.1	7.4	10.1	10.9	9.0	7.1	6.4	N	0.0	
Hourly Max	16.8	17.4	16.2	11.3	16.6	19.5	29.5	29.5	21.8	15.8	15.2	11.7	8.6	4.8	4.6	5.4	5.8	13.9	28.7	29.9	31.2	25.8	18.6	18.3			

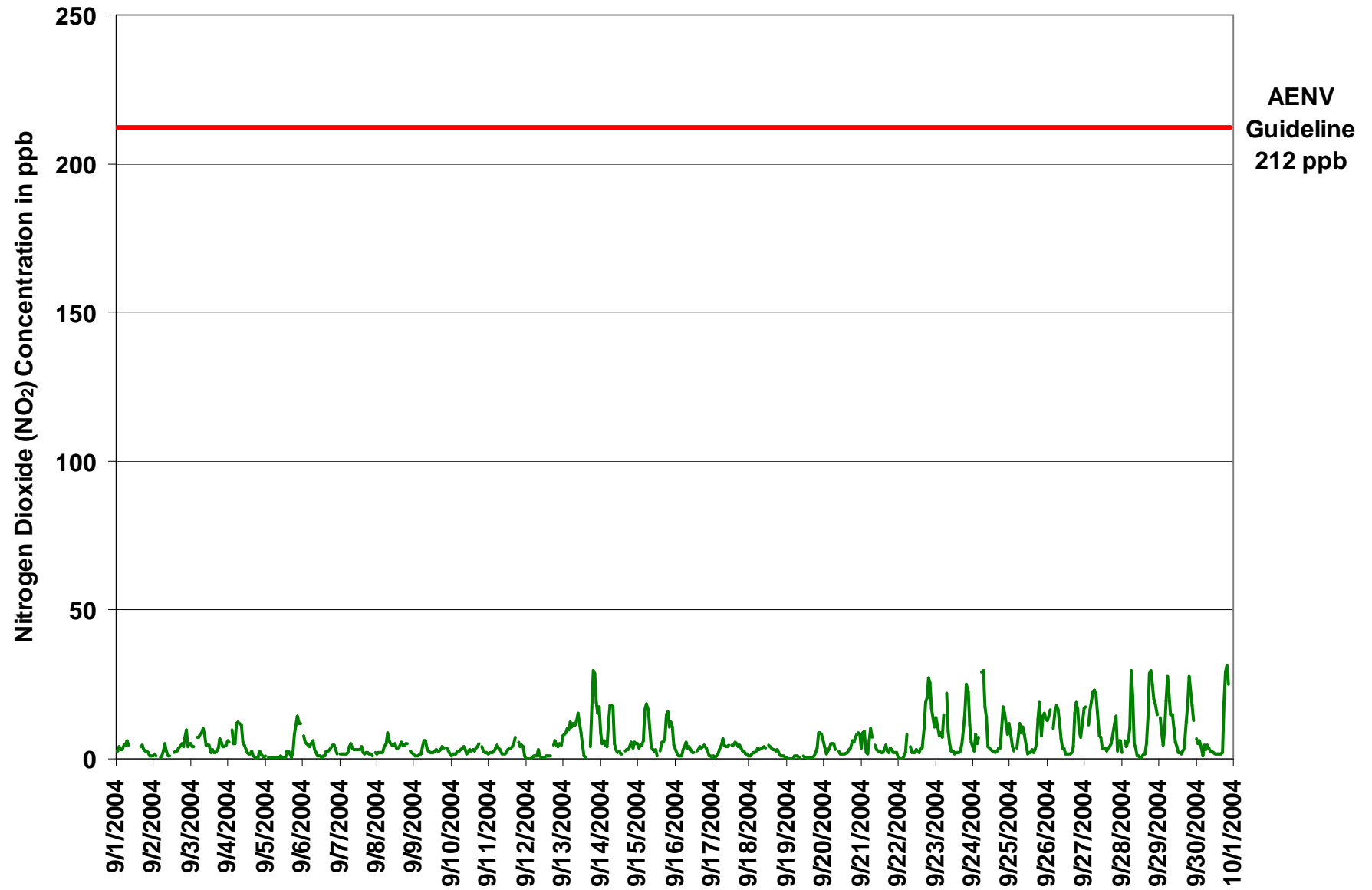


Figure 3. PASZA - Henry Pirker Nitrogen Dioxide 1-hr Average Monthly Trend

Station: Henry Pirker

HOURLY MAXIMUM TABLE

Nitrogen Dioxide (NO₂)

Station Owner: PASZA

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

Summary

Maximum 1-hr Value:	40.2	ppb	30-Sep	20:00 21:00
Maximum 24-hr Value:	17.0	ppb	29-Sep	

AIC Time:	33 hrs	Operational Time:	680 hrs					
Calibration Time:	6 hrs	AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	Average
	34	25	11	6	4	2	1	9.0 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-Sep-04	5	8	8	6	5	7	7	14	8	N	C	C	C	C	C	8	6	6	3	4	3	2	3	N	13.6	
2-Sep-04	2	3	2	A	2	3	7	11	8	3	4	A	A	4	6	4	8	8	9	6	12	13	6	6	5.9	13.1
3-Sep-04	8	6	6	A	9	9	10	10	14	12	8	6	7	5	5	4	4	5	8	10	8	8	8	7	7.5	13.6
4-Sep-04	7	8	A	13	7	11	13	15	14	15	10	9	4	4	4	5	3	2	1	1	6	4	3	1	7.2	15.4
5-Sep-04	2	A	1	1	1	1	1	1	3	1	2	2	2	3	5	5	5	1	6	15	15	16	14	21	5.4	20.5
6-Sep-04	A	10	9	8	6	5	8	8	5	3	2	3	2	2	2	2	5	5	6	7	7	5	4	A	5.3	9.7
7-Sep-04	3	5	2	3	3	4	7	11	7	5	4	4	5	4	13	4	6	7	4	3	2	2	A	3	5.0	13.0
8-Sep-04	3	3	3	3	3	6	8	15	10	7	8	8	8	6	7	8	9	8	9	13	9	A	8	6	7.3	15.2
9-Sep-04	13	6	3	6	4	11	14	9	6	4	4	4	4	5	6	5	5	7	8	6	A	7	4	3	6.2	13.9
10-Sep-04	2	2	3	4	5	4	5	5	8	6	3	6	5	5	6	5	6	6	7	A	5	4	3	3	4.6	7.7
11-Sep-04	2	3	4	5	5	8	9	6	5	3	3	3	5	8	5	5	7	11	A	8	7	8	7	2	5.6	10.5
12-Sep-04	0	0	0	0	2	3	4	3	6	2	3	2	3	4	4	3	4	A	8	8	8	7	9	6	4.1	8.8
13-Sep-04	12	10	13	13	11	15	13	14	30	16	17	15	12	7	2	1	A	8	29	37	34	29	21	21	16.5	37.0
14-Sep-04	14	7	13	6	6	20	21	20	22	10	5	4	5	4	3	A	4	6	5	6	8	6	10	7	9.2	21.8
15-Sep-04	8	5	7	6	10	21	22	20	18	8	5	5	6	4	A	5	12	12	12	19	20	16	15	15	11.8	21.8
16-Sep-04	9	3	3	3	5	6	6	8	7	6	6	4	4	A	5	5	6	7	6	7	7	5	5	3	5.5	9.2
17-Sep-04	3	4	2	4	5	8	8	10	6	6	6	7	A	7	7	8	7	7	7	6	5	8	2	3	5.9	10.2
18-Sep-04	3	3	4	4	3	4	6	5	5	6	5	A	8	6	8	6	5	5	10	2	3	2	2	1	4.7	9.9
19-Sep-04	2	1	0	0	0	4	2	2	3	1	A	3	1	1	1	2	3	2	3	4	5	11	11	9	3.2	11.2
20-Sep-04	8	4	4	4	6	7	9	7	4	A	6	3	3	4	5	5	5	5	10	10	12	13	14	11	7.0	14.1
21-Sep-04	7	17	14	8	4	17	18	11	A	9	7	5	5	4	3	6	8	6	4	6	9	4	3	4	7.8	17.7
22-Sep-04	2	1	1	1	2	6	11	A	7	4	5	5	6	5	4	7	6	20	24	24	31	29	25	17	10.6	30.6
23-Sep-04	20	16	12	12	13	21	A	25	16	10	5	4	3	5	4	4	6	9	15	27	31	28	22	8	13.7	30.6
24-Sep-04	7	4	10	9	11	A	35	32	28	20	7	6	5	5	6	5	6	7	6	22	27	22	18	14	13.7	35.0
25-Sep-04	21	13	7	6	A	7	20	25	16	12	9	4	6	4	6	4	7	10	25	30	18	27	23	23	14.1	30.0
26-Sep-04	19	20	20	A	19	21	22	20	15	9	5	5	3	2	3	3	5	11	24	25	25	13	10	20	13.9	24.6
27-Sep-04	21	22	A	18	33	24	28	27	29	21	14	14	6	6	5	8	9	9	12	18	23	5	12	8	16.3	33.4
28-Sep-04	6	A	9	10	14	25	32	33	12	6	3	4	2	3	4	4	12	25	33	37	36	24	21	16	16.1	37.4
29-Sep-04	A	20	17	8	25	25	31	28	25	20	17	8	6	3	5	5	5	7	17	29	29	26	19	A	17.0	31.1
30-Sep-04	10	7	10	10	2	8	7	9	10	8	7	7	3	4	4	7	6	7	35	34	40	32	A	22	12.6	40.2
																									N	0.0
Hourly Avg	7.9	7.5	6.8	6.4	7.7	10.7	13.3	14.0	11.9	8.3	6.5	5.6	4.8	4.3	5.0	4.8	6.2	7.9	12.1	14.6	15.3	13.0	10.8	9.5		
Hourly Max	21.4	21.9	20.3	18.4	33.4	25.3	35.0	33.2	29.7	20.8	16.7	15.2	11.7	7.9	13.0	7.9	12.3	24.7	35.5	37.4	40.2	31.8	24.9	23.3		

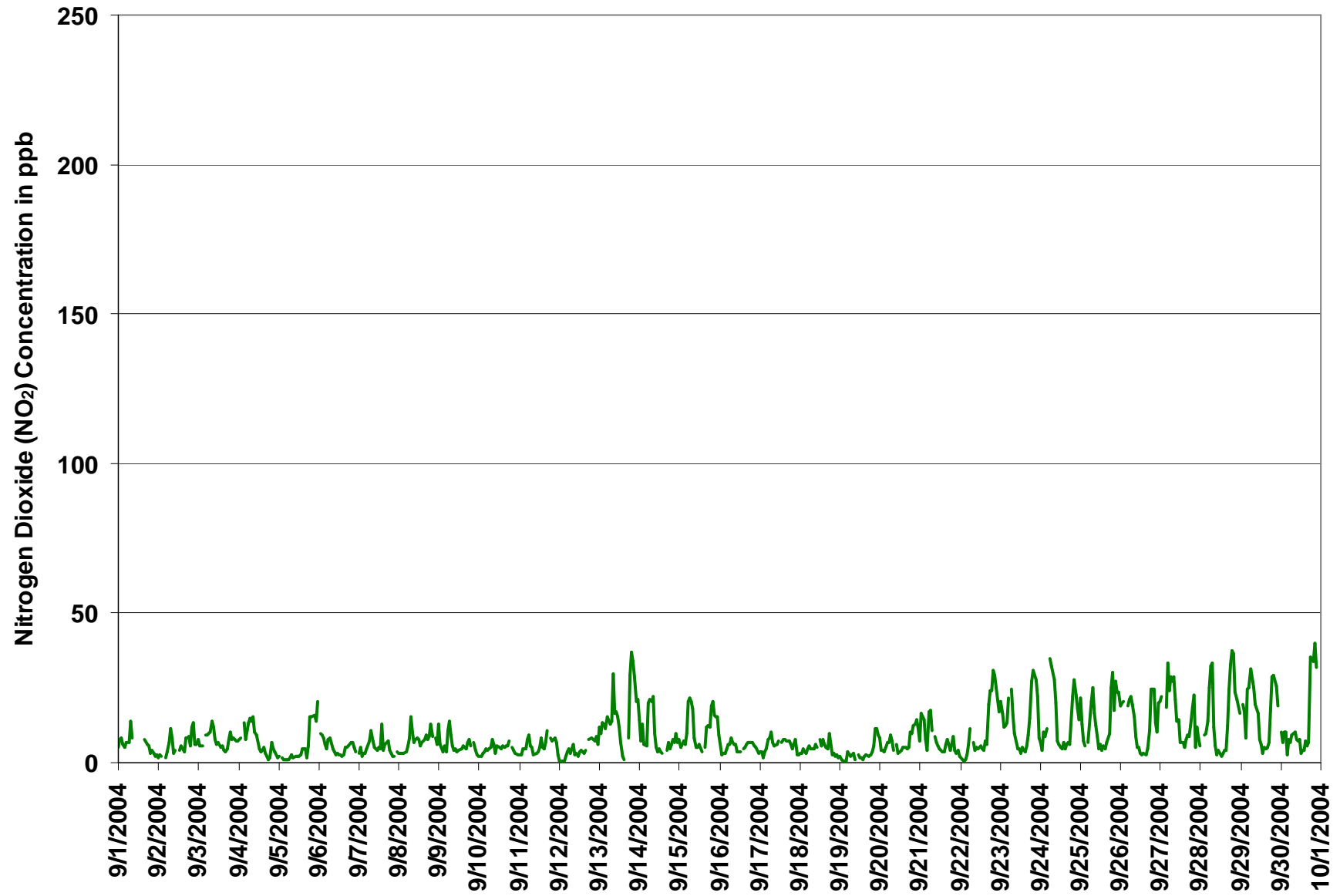
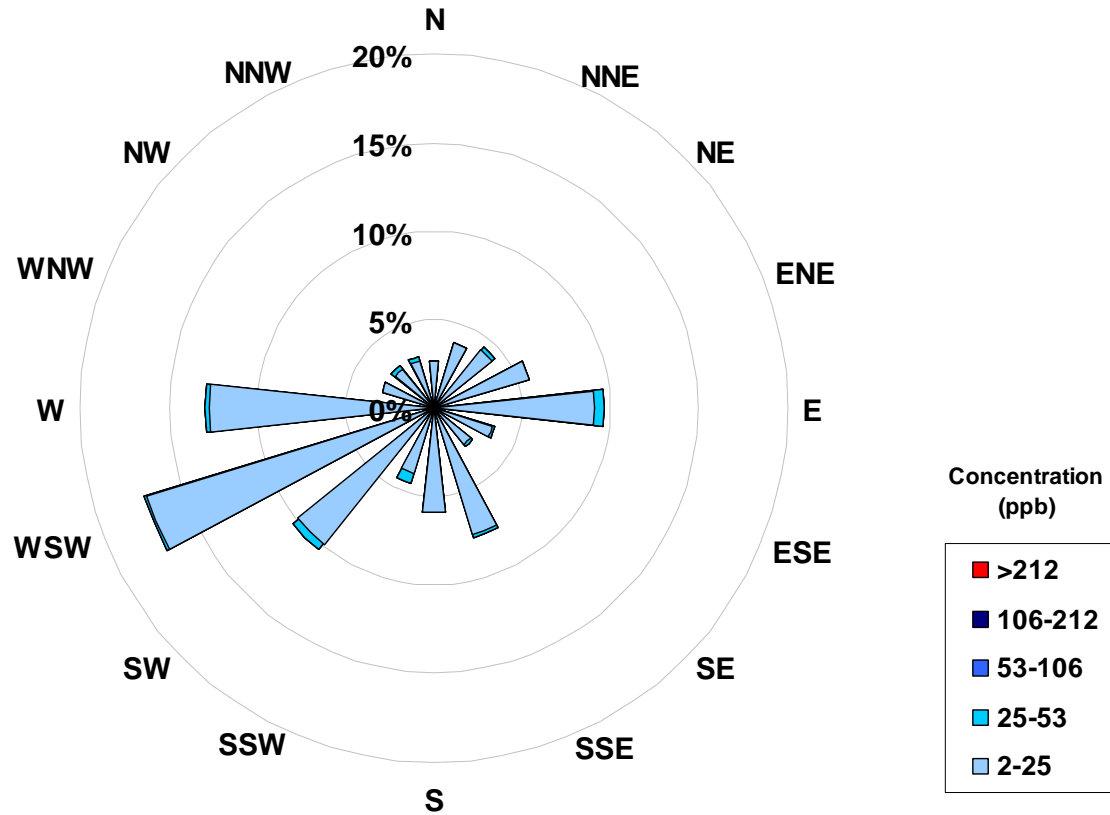


Figure 4. PASZA - Henry Pirker Nitrogen Dioxide 1-hr Maximum Value Monthly Trend

Concentration Rose for the 1-hr NO₂ Average Concentration Occurrences at the Henry Pirker Site for September 2004



Frequency Distribution of NO ₂ in ppb			
Range		Frequency (hrs)	
0	< 2	183	
2	to 25	481	
25	to 53	16	
53	to 106	0	
106	to 212	0	
	> 212	0	
Total Non-Zero Values		680	

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: September 1, 2004 to October 1, 2004

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	85	ppb	27-Sep	8:00 9:00
Maximum 24-hr Average:	11	ppb	27-Sep	

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

AIC Time:	33 hrs		Operational Time:	680 hrs				
Calibration Time:	6 hrs		AMD Operational Uptime:	99.9%				
Percentile	99	95	75	50	25	5	1	Average
	44	16	3	1	1	0	0	3.6 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

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
1-Sep-04	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	N	6.0
2-Sep-04	1	1	2	2	A	2	2	3	6	3	2	1	A	A	2	3	2	3	3	3	3	5	7	3	2	2.8	6.9
3-Sep-04	3	2	3	A	6	5	18	17	26	16	6	5	5	4	3	3	3	3	3	3	3	3	2	2	6.3	26.2	
4-Sep-04	2	2	A	0	0	0	2	6	8	10	3	4	2	2	2	2	1	0	0	0	0	0	0	0	0	2.0	10.2
5-Sep-04	0	A	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	3	10	3	14	1.6	14.4	
6-Sep-04	A	4	1	1	1	1	1	7	7	3	2	1	0	0	0	0	0	1	1	1	1	1	1	1	A	1.5	6.9
7-Sep-04	0	0	0	1	1	1	1	1	1	1	2	3	3	3	4	2	3	2	2	2	2	1	1	A	1	1.7	4.2
8-Sep-04	1	1	1	1	1	3	4	7	4	4	5	5	4	2	3	2	3	2	2	2	2	A	2	1	2.6	6.7	
9-Sep-04	1	1	1	1	1	2	3	3	3	2	2	2	2	2	2	2	2	1	1	1	A	1	1	1	1.6	3.3	
10-Sep-04	1	1	1	1	0	0	0	1	2	2	1	1	2	2	4	4	4	4	3	4	A	1	1	1	1	1.7	4.5
11-Sep-04	1	1	1	1	2	2	4	5	5	4	4	4	4	4	6	7	4	4	A	0	0	0	0	0	0	2.7	6.6
12-Sep-04	1	0	0	1	0	0	0	0	1	2	1	0	0	0	0	1	1	1	A	0	0	0	0	0	0	0.4	2.0
13-Sep-04	0	0	0	1	2	8	30	36	25	21	22	15	8	3	1	0	A	1	4	20	12	1	2	7	9.5	35.8	
14-Sep-04	1	0	0	0	0	5	12	16	22	4	3	2	2	1	1	A	1	1	1	0	0	0	0	0	3.3	21.9	
15-Sep-04	0	0	0	0	0	8	26	49	14	4	3	2	2	1	A	1	1	2	2	2	2	1	2	7	5.6	48.6	
16-Sep-04	1	0	1	1	1	2	3	4	2	3	3	3	3	A	2	2	2	2	2	2	2	2	1	1	2.0	3.9	
17-Sep-04	1	1	1	1	1	2	2	3	2	2	2	2	A	2	2	3	3	3	3	3	3	2	1	0	0	1.9	3.3
18-Sep-04	0	0	0	1	1	1	3	3	4	7	6	A	5	4	4	3	2	2	3	1	1	1	0	0	2.2	6.6	
19-Sep-04	0	0	0	0	0	0	0	0	1	1	A	1	1	1	0	1	0	0	0	0	1	0	5	10	1.3	10.0	
20-Sep-04	5	1	0	2	3	18	23	34	14	A	4	2	2	2	1	2	2	1	1	0	0	0	0	0	5.0	33.6	
21-Sep-04	0	1	0	0	0	1	2	4	A	3	2	1	2	2	1	2	2	1	0	1	0	0	0	0	1.1	3.8	
22-Sep-04	0	0	0	0	0	0	1	A	2	1	1	1	2	1	1	1	1	1	2	2	1	16	7	1	0	1.8	16.2
23-Sep-04	0	1	1	0	1	5	A	30	6	3	2	2	1	2	1	1	1	1	1	1	2	8	8	1	0	3.5	30.0
24-Sep-04	0	0	0	0	0	A	44	50	13	10	2	2	2	2	1	1	1	1	1	1	0	1	0	0	5.8	49.8	
25-Sep-04	0	0	0	0	A	0	0	1	1	1	1	1	1	0	1	1	1	0	1	6	0	1	3	0	0.9	6.0	
26-Sep-04	0	0	1	A	0	4	19	26	14	6	3	3	1	1	1	1	1	1	1	1	1	0	0	0	3.6	25.6	
27-Sep-04	0	1	A	1	5	15	26	66	85	36	8	5	2	2	2	2	2	1	1	1	0	0	0	0	11.3	84.7	
28-Sep-04	0	A	0	0	0	1	12	12	2	2	1	1	0	1	1	1	1	3	16	51	56	25	23	13	9.6	55.8	
29-Sep-04	A	5	1	1	1	18	41	6	7	12	14	5	4	2	2	1	2	1	3	6	21	2	1	A	7.0	41.1	
30-Sep-04	0	0	0	0	0	1	1	2	2	3	2	1	1	1	1	1	1	1	1	5	31	44	18	A	1	5.1	43.5
																										N	0.0
Hourly Avg	0.7	0.9	0.6	0.5	1.0	3.7	10.0	13.8	9.5	5.8	3.8	2.8	2.2	1.7	1.9	1.7	1.8	1.6	2.2	4.9	6.4	3.4	2.2	2.3			
Hourly Max	4.6	4.6	2.6	1.6	6.3	17.9	44.0	66.5	84.7	35.7	22.0	14.8	7.8	3.8	6.2	6.6	4.5	4.1	15.9	50.7	55.8	25.4	23.3	14.4			

Station: Henry Pirker

HOURLY MAXIMUM TABLE

Nitric Oxide (NO)

Station Owner: PASZA

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

Maximum 1-hr Value:	148.5	ppb	27-Sep	8:00 9:00
Maximum 24-hr Value:	24.2	ppb	28-Sep	

AIC Time:	33 hrs	Operational Time:	680 hrs					
Calibration Time:	6 hrs	AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	Average
	69	38	9	4	2	0	0	8.6 ppb

Status Flag Characters

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

Day Mountain Standard Time

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Sep-04	4	7	6	2	12	4	9	18	16	N	C	C	C	C	C	4	3	3	2	6	2	3	3	N	17.7	
2-Sep-04	2	3	3	A	3	6	12	17	11	7	3	A	A	4	7	6	6	7	5	4	13	14	5	4	6.6	16.6
3-Sep-04	4	4	4	A	10	9	26	24	39	28	11	7	7	7	4	5	4	4	4	4	4	4	4	3	9.6	38.7
4-Sep-04	3	3	A	2	1	2	3	10	12	17	8	6	3	3	3	3	2	1	1	1	1	1	2	1	3.7	17.5
5-Sep-04	1	A	1	0	0	1	0	1	1	1	2	2	1	3	3	2	2	1	1	14	8	17	11	46	5.2	46.0
6-Sep-04	A	13	3	2	2	1	23	22	5	3	2	2	2	1	1	1	2	2	3	3	3	5	4	A	4.9	23.1
7-Sep-04	4	6	8	2	2	4	3	4	3	4	6	5	4	4	24	5	9	8	4	4	2	1	A	2	5.1	24.3
8-Sep-04	2	2	2	2	3	5	7	18	7	6	10	11	6	5	6	6	6	6	12	11	5	A	10	9	6.8	17.5
9-Sep-04	13	10	8	11	4	5	15	7	4	4	4	5	4	5	4	3	4	3	3	2	A	2	2	2	5.5	14.9
10-Sep-04	2	2	2	2	3	0	1	1	6	5	2	4	4	5	9	8	9	6	7	A	3	3	2	3	3.9	9.0
11-Sep-04	2	2	4	4	15	14	13	10	10	7	5	9	9	20	12	10	7	12	A	1	0	0	1	1	7.3	19.7
12-Sep-04	1	1	1	1	1	1	1	1	3	2	2	2	2	2	2	2	2	A	1	1	1	0	1	1	1.3	3.4
13-Sep-04	2	0	1	2	6	20	43	51	76	31	29	20	13	4	1	1	A	3	17	43	38	5	9	19	18.8	75.9
14-Sep-04	5	1	3	1	1	17	19	26	32	10	5	3	4	3	3	A	2	3	2	2	1	1	2	0	6.2	32.0
15-Sep-04	0	0	0	1	1	25	48	62	48	8	5	3	4	2	A	2	2	15	8	9	5	7	11	19	12.5	62.1
16-Sep-04	2	1	9	8	13	6	10	8	4	6	12	8	7	A	8	8	7	10	6	10	12	9	6	4	7.6	13.2
17-Sep-04	9	7	10	6	6	10	15	9	8	4	4	5	A	3	5	9	6	15	10	12	10	6	8	5	8.0	15.2
18-Sep-04	3	3	2	2	2	4	9	5	7	12	11	A	12	11	11	7	6	10	14	3	3	3	3	1	6.3	14.4
19-Sep-04	1	1	0	0	0	2	1	1	4	1	A	2	2	2	1	2	2	2	2	2	3	14	24	14	3.6	24.0
20-Sep-04	12	2	2	3	13	26	41	46	20	A	13	3	3	4	5	5	3	3	2	1	2	2	3	1	9.2	45.7
21-Sep-04	0	5	1	0	0	6	7	9	A	9	5	4	3	3	3	3	3	3	1	2	2	0	0	0	3.0	9.4
22-Sep-04	0	0	0	0	0	1	2	A	3	3	4	3	3	3	3	2	2	3	3	3	32	44	4	1	5.2	43.8
23-Sep-04	3	3	2	1	3	14	A	40	14	7	3	3	3	4	3	2	2	3	2	13	43	25	10	0	8.9	42.6
24-Sep-04	0	0	1	0	0	A	94	67	33	20	4	4	3	3	3	3	3	2	1	3	6	2	0	0	11.1	94.2
25-Sep-04	2	0	0	0	A	1	2	5	11	2	2	2	3	1	2	2	3	1	5	23	2	11	26	7	4.9	25.5
26-Sep-04	4	3	3	A	2	22	39	53	20	9	4	4	3	1	1	1	1	2	2	3	4	2	1	4	8.3	53.5
27-Sep-04	1	4	A	3	44	33	49	106	149	54	22	14	4	3	3	4	3	5	1	1	1	0	1	0	22.0	148.5
28-Sep-04	1	A	1	0	0	6	32	49	3	4	2	3	2	2	3	1	3	6	53	134	146	45	35	23	24.2	145.6
29-Sep-04	A	14	1	3	3	48	67	12	23	17	34	10	6	3	4	3	5	3	10	32	36	6	3	A	15.6	67.4
30-Sep-04	1	1	0	3	4	3	2	5	9	30	17	6	2	2	2	3	3	2	52	56	79	48	A	4	14.5	78.6
																									N	0.0
Hourly Avg	3.1	3.6	2.8	2.3	5.4	10.1	20.5	23.7	20.0	11.2	8.3	5.5	4.5	4.0	4.8	4.0	3.9	5.0	8.2	13.6	16.2	9.7	6.7	6.3		
Hourly Max	13.4	14.3	9.6	11.3	43.6	48.2	94.2	106.2	148.5	53.9	33.8	19.7	13.3	19.7	24.3	10.2	9.2	15.1	53.5	134.1	145.6	48.0	34.8	46.0		

Station: Henry Pirker

HOURLY AVERAGE TABLE

Oxides of Nitrogen (NO_x)

Station Owner: PASZA

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

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	106	ppb	27-Sep	8:00 9:00
Maximum 24-hr Average:	22	ppb	27-Sep	

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

AIC Time:	33 hrs						Operational Time:	680 hrs					
Calibration Time:	6 hrs						AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	Average					
	70	34	10	6	3	1	0	9.4 ppb					

Status Flag Characters

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

Day Mountain Standard Time

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-Sep-04	3	3	5	3	4	6	7	12	9	N	C	C	C	C	C	7	7	5	4	5	4	4	4	4	N	12.2	
2-Sep-04	3	4	4	A	3	4	7	12	6	4	3	A	A	A	5	7	6	7	8	10	8	13	18	8	9	7.1	17.7
3-Sep-04	9	7	8	A	15	13	27	27	37	25	12	12	11	7	7	6	6	6	8	11	9	8	8	8	12.4	37.3	
4-Sep-04	9	8	A	10	5	5	14	18	19	21	9	8	4	4	4	4	2	1	0	0	3	2	1	1	6.7	21.4	
5-Sep-04	1	A	1	0	0	1	1	1	1	1	1	1	1	1	1	3	4	2	1	2	9	14	24	15	26	4.8	26.3
6-Sep-04	A	11	6	6	5	5	12	13	6	3	2	1	1	1	1	1	3	3	5	6	6	4	2	A	4.8	13.2	
7-Sep-04	2	2	2	2	2	3	6	6	5	5	6	7	6	6	9	4	4	4	4	4	4	3	2	A	3	4.2	8.6
8-Sep-04	3	3	3	3	3	7	9	16	10	10	11	10	10	6	7	6	9	6	7	7	7	7	A	5	3	6.9	15.5
9-Sep-04	3	3	2	3	3	6	10	10	7	5	5	5	4	4	5	5	4	5	6	4	A	4	3	2	4.6	9.9	
10-Sep-04	2	2	2	2	3	3	3	5	7	5	3	3	6	5	7	6	8	8	9	A	5	4	3	3	4.5	9.0	
11-Sep-04	2	3	3	3	4	6	8	9	8	5	5	7	8	7	10	11	9	11	A	6	4	5	4	1	6.1	11.3	
12-Sep-04	1	0	1	1	1	1	2	2	5	1	1	0	1	1	1	2	2	2	A	5	6	5	4	5	4	2.2	6.2
13-Sep-04	8	8	8	11	12	21	41	48	36	34	37	27	17	8	2	1	A	5	21	50	41	20	18	25	21.6	50.0	
14-Sep-04	10	5	7	4	4	17	30	34	39	10	6	4	5	3	3	A	4	4	3	5	6	4	6	5	9.4	39.2	
15-Sep-04	5	4	4	5	6	25	45	65	24	9	6	5	5	2	A	3	7	7	9	17	18	12	15	18	13.8	65.3	
16-Sep-04	5	2	2	2	3	5	7	9	6	7	6	5	5	A	5	5	7	6	6	6	6	4	2	2	5.0	9.5	
17-Sep-04	1	2	1	2	2	5	7	9	7	7	6	8	A	7	7	9	8	7	8	6	5	4	2	2	5.3	9.4	
18-Sep-04	1	1	2	3	3	4	7	6	7	11	10	A	9	8	7	6	5	5	5	2	2	1	1	1	4.7	11.0	
19-Sep-04	0	0	0	0	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	3	4	13	19	19	3.0	18.9	
20-Sep-04	11	4	2	4	7	23	28	39	17	A	7	4	3	3	3	4	5	5	7	6	8	9	9	8	9.4	39.0	
21-Sep-04	3	10	9	2	2	8	13	11	A	8	5	4	4	4	3	5	7	4	2	4	3	2	2	2	5.1	12.9	
22-Sep-04	1	0	0	0	1	2	9	A	6	3	3	3	5	4	3	5	5	12	21	22	44	33	17	11	9.2	43.7	
23-Sep-04	14	12	8	9	8	20	A	53	16	9	4	5	3	3	4	3	4	4	7	11	17	33	31	12	6	12.7	52.5
24-Sep-04	4	3	8	5	7	A	73	79	31	24	7	6	4	4	4	4	4	4	4	11	19	16	11	8	14.8	79.2	
25-Sep-04	12	9	4	3	A	4	12	9	12	9	5	2	3	3	4	3	4	5	14	25	7	16	18	13	8.5	24.9	
26-Sep-04	13	15	17	A	10	21	37	42	25	12	7	6	2	2	2	2	2	5	17	20	17	9	8	11	13.1	41.9	
27-Sep-04	17	18	A	12	21	34	48	89	106	51	16	12	5	5	4	6	6	6	8	13	14	3	6	6	22.1	106.5	
28-Sep-04	2	A	6	4	6	11	41	33	7	6	2	2	1	1	2	2	6	17	45	81	81	45	42	28	20.6	80.9	
29-Sep-04	A	18	10	6	11	37	69	28	22	27	24	11	8	3	4	3	4	5	15	24	48	20	14	A	18.8	68.9	
30-Sep-04	7	6	7	4	2	6	4	6	6	6	5	4	3	2	2	2	3	3	24	60	75	43	A	19	13.0	74.8	
																										N	0.0
Hourly Avg		5.4	5.8	4.7	4.1	5.3	10.5	19.9	23.9	16.9	11.4	7.7	6.0	5.0	4.0	4.3	4.2	5.1	5.8	9.7	15.1	17.4	12.5	9.4	8.8		
Hourly Max		16.9	18.4	17.3	11.8	21.0	37.4	73.3	89.4	106.5	51.5	37.2	26.5	16.6	7.9	9.9	10.8	9.3	16.7	44.7	80.7	80.9	45.3	42.0	28.5		

Station: Henry Pirker

HOURLY MAXIMUM TABLE

Oxides of Nitrogen (NO_x)

Station Owner: PASZA

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

Summary

Maximum 1-hr Value:	178.2	ppb	28-Sep	20:00 21:00
Maximum 24-hr Value:	39.4	ppb	28-Sep	

AIC Time:	33 hrs	Operational Time:	680 hrs					
Calibration Time:	6 hrs	AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	Average
	96	59	19	11	7	3	1	17.1 ppb

Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00		
1-Sep-04	9	14	14	7	16	11	14	28	22	N	C	C	C	C	C	13	9	10	6	9	6	5	6	N	27.7	
2-Sep-04	4	7	5	A	6	11	16	26	20	10	7	A	A	9	14	9	15	15	14	10	25	28	12	10	12.9	28.0
3-Sep-04	13	11	11	A	20	19	36	35	53	40	20	14	15	13	11	10	8	9	12	15	13	13	12	10	17.9	53.3
4-Sep-04	10	11	A	15	8	12	17	25	25	32	19	14	7	6	7	8	5	2	1	1	8	5	5	2	10.7	32.1
5-Sep-04	2	A	2	1	1	2	1	2	3	2	3	4	3	6	8	7	7	2	7	29	23	31	24	52	9.7	52.3
6-Sep-04	A	21	11	10	8	6	30	29	10	6	5	5	5	4	3	4	7	7	8	9	10	8	7	A	9.6	30.2
7-Sep-04	6	10	7	5	5	8	10	14	10	9	10	9	9	8	28	8	15	15	8	7	4	3	A	5	9.3	27.6
8-Sep-04	5	4	5	5	6	11	15	30	15	12	17	19	14	11	12	11	14	15	19	24	12	A	18	15	13.4	30.2
9-Sep-04	26	12	12	18	8	16	29	15	10	8	8	8	8	9	11	9	9	11	11	7	A	9	6	4	11.5	28.9
10-Sep-04	4	5	5	5	8	5	6	7	13	11	5	10	9	10	15	13	12	11	14	A	8	6	5	4	8.3	14.9
11-Sep-04	3	5	8	9	18	21	22	15	14	10	8	12	14	27	18	15	13	23	A	9	7	8	7	3	12.5	26.5
12-Sep-04	1	1	1	1	3	5	5	4	10	4	6	3	5	6	5	5	5	A	8	8	8	7	9	6	5.1	9.9
13-Sep-04	14	9	14	14	15	31	55	63	99	45	45	34	25	11	4	2	A	11	46	80	66	32	28	35	33.8	98.6
14-Sep-04	18	8	16	7	6	36	40	46	53	19	10	7	8	6	6	A	7	8	6	7	8	6	11	7	15.1	52.8
15-Sep-04	7	5	7	6	9	42	69	82	64	16	10	9	11	6	A	8	14	28	19	27	24	21	23	30	23.5	82.2
16-Sep-04	11	3	10	11	18	10	17	16	11	12	17	9	11	A	12	12	12	14	12	17	19	12	12	7	12.3	18.9
17-Sep-04	12	11	11	10	11	14	23	16	12	9	10	13	A	10	13	15	13	18	16	18	15	14	9	6	13.0	23.5
18-Sep-04	6	6	7	5	5	8	15	9	12	18	16	A	20	16	18	12	11	15	21	5	6	3	5	2	10.6	21.2
19-Sep-04	3	1	0	0	0	5	3	4	7	2	A	4	3	3	3	4	4	3	4	5	6	24	35	23	6.4	35.0
20-Sep-04	21	6	5	7	20	33	50	53	24	A	19	7	6	8	10	10	8	7	12	10	14	14	17	11	16.2	52.7
21-Sep-04	7	20	15	8	4	23	24	20	A	18	12	9	8	7	6	10	11	9	5	7	10	4	3	4	10.7	23.8
22-Sep-04	2	1	1	1	3	7	12	A	10	7	10	8	9	8	6	10	9	23	26	26	62	63	27	18	15.2	62.5
23-Sep-04	23	19	14	13	17	35	A	64	30	17	8	8	7	10	7	7	8	11	17	40	72	51	31	8	22.5	72.3
24-Sep-04	7	4	11	9	11	A	128	96	59	40	11	10	9	8	10	8	10	9	7	25	33	24	18	15	24.4	128.1
25-Sep-04	23	13	7	6	A	7	22	30	19	14	11	6	8	6	7	6	9	11	29	52	19	39	46	30	18.2	51.9
26-Sep-04	21	23	23	A	21	40	59	71	34	17	10	9	5	3	4	4	6	13	26	28	29	14	11	24	21.5	70.8
27-Sep-04	21	23	A	21	77	54	75	130	173	73	36	28	10	10	8	12	13	12	13	19	24	5	12	8	37.3	172.6
28-Sep-04	5	A	10	10	14	32	65	78	15	11	4	7	3	5	7	6	15	31	85	165	178	68	56	39	39.4	178.2
29-Sep-04	A	30	17	9	28	72	93	39	48	37	50	18	12	6	10	7	8	10	25	60	65	31	22	A	31.7	93.2
30-Sep-04	11	8	11	13	4	10	9	13	18	29	22	13	5	6	6	11	9	9	86	89	114	77	A	26	26.0	114.2
																									N	0.0
Hourly Avg	10.6	10.5	9.3	8.3	12.7	20.1	33.1	36.5	30.7	18.9	14.6	11.0	9.3	8.5	9.5	8.6	9.9	12.5	19.7	27.7	30.8	21.7	17.0	14.7		
Hourly Max	26.1	30.3	23.4	20.6	76.9	71.7	128.1	129.9	172.6	73.5	50.3	34.1	25.1	26.5	27.6	15.3	15.4	31.2	85.5	164.9	178.2	76.9	55.8	52.3		

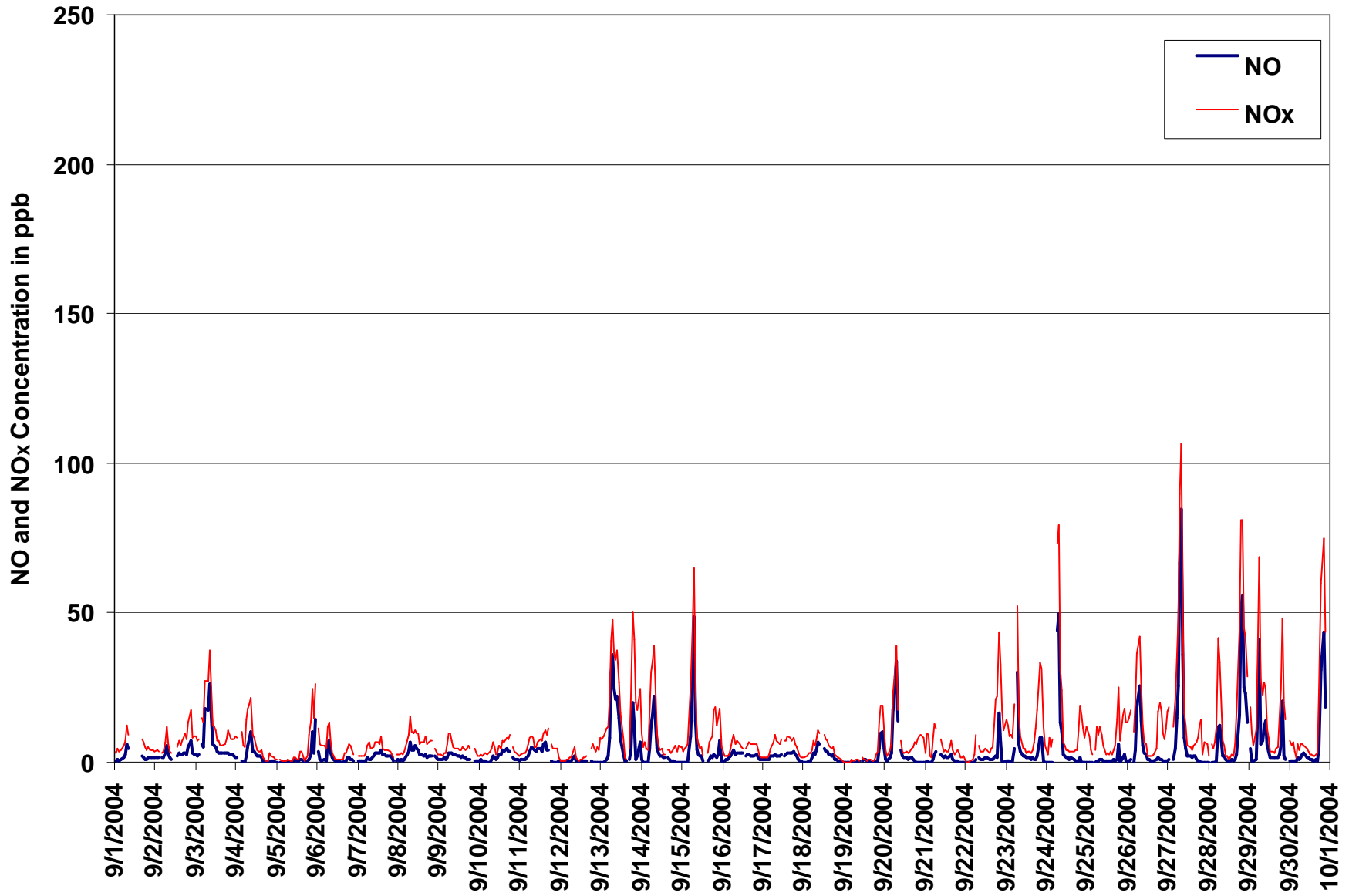


Figure 5. PASZA - Henry Pirker Oxides of Nitrogen 1-hr Average Monthly Trends

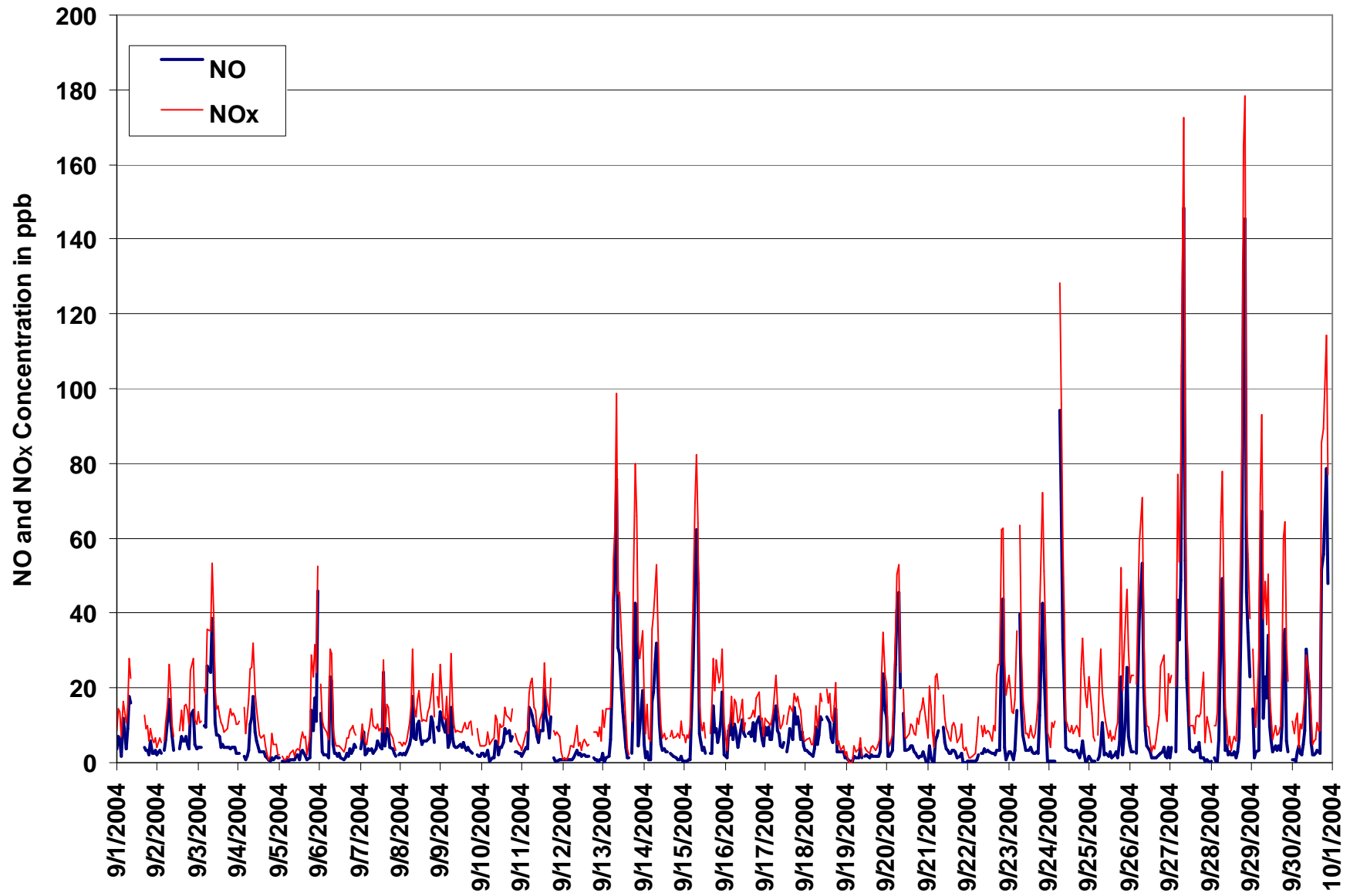


Figure 6. PASZA - Henry Pirker Oxides of Nitrogen 1-hr Maximum Value Monthly Trends

PASZA - Henry Pirker Ozone Monthly Summary

Station: Henry Pirker

HOURLY AVERAGE TABLE

Ozone (O₃)

Station Owner: PASZA

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

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	42.5 ppb 26-Sep 16:00 17:00
Maximum 24-hr Average:	25.2 ppb 12-Sep

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

AIC Time:	33 hrs	Operational Time:	683 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	99.9%
Percentile	99 95 75 50 25 5 1	Average	
	37 33 23 15 9 1 0	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-Sep-04	2	10	10	13	11	8	6	6	7	N	12	10	9	12	13	14	C	C	C	21	19	18	18	17	11.9	20.9
2-Sep-04	17	16	17	A	16	16	14	15	20	22	22	A	A	19	17	18	17	14	9	8	4	2	7	4	14.0	22.3
3-Sep-04	4	4	3	A	0	0	0	1	1	4	10	12	15	22	25	26	25	25	23	16	15	15	17	17	12.2	26.0
4-Sep-04	16	15	A	9	11	11	3	4	4	7	13	17	37	39	38	35	34	33	31	30	26	27	27	26	21.4	38.5
5-Sep-04	23	A	19	18	18	19	18	18	19	17	19	22	25	24	23	25	27	24	13	6	1	3	1	17.4	26.7	
6-Sep-04	A	2	4	3	3	2	1	5	9	17	22	23	23	24	24	25	20	28	16	11	11	11	13	A	13.6	28.2
7-Sep-04	12	11	9	8	9	8	7	11	13	13	15	16	18	22	22	15	11	11	10	7	7	8	A	9	11.8	21.9
8-Sep-04	10	10	11	11	9	8	9	10	13	14	14	15	16	26	27	27	25	25	24	21	18	A	20	19	16.6	26.5
9-Sep-04	23	21	22	23	24	20	16	15	16	17	17	18	18	18	17	17	16	15	15	A	14	13	13	13	17.5	23.8
10-Sep-04	12	11	10	10	8	7	6	7	6	9	11	12	10	10	8	8	7	7	6	A	11	12	12	11	9.4	12.4
11-Sep-04	11	9	8	7	6	5	4	5	6	8	10	10	10	8	8	10	8	10	A	22	25	25	24	30	11.7	29.6
12-Sep-04	30	29	28	27	26	24	22	21	19	24	27	29	29	28	28	29	29	A	26	22	22	22	18	17	25.2	30.3
13-Sep-04	12	9	7	3	1	0	1	2	5	8	11	13	19	26	34	37	A	36	19	3	4	11	9	1	11.7	36.8
14-Sep-04	5	7	8	12	13	7	2	3	6	17	23	25	24	26	28	A	27	26	24	22	20	22	18	19	16.7	27.5
15-Sep-04	19	18	16	14	13	2	0	1	10	17	20	22	25	30	A	30	26	22	19	9	7	11	7	1	14.7	30.1
16-Sep-04	7	9	10	11	12	11	8	7	9	8	9	11	13	A	17	15	15	15	12	9	9	11	14	14	11.1	16.7
17-Sep-04	14	14	16	17	16	14	12	10	11	11	11	11	A	14	13	12	10	8	7	7	8	8	8	8	11.3	17.0
18-Sep-04	9	9	6	3	3	3	2	3	2	2	3	A	8	8	9	10	10	11	10	9	8	9	10	11	6.9	10.7
19-Sep-04	11	11	11	10	9	8	7	6	8	8	A	13	13	14	14	13	13	13	12	9	9	3	1	0	9.4	13.9
20-Sep-04	3	5	5	3	1	0	0	0	2	A	12	20	22	24	24	23	22	22	19	17	14	12	11	12	11.9	24.3
21-Sep-04	15	9	9	20	20	15	10	13	A	16	19	19	20	21	20	19	17	21	23	17	22	26	26	26	18.4	26.4
22-Sep-04	29	32	32	32	30	28	22	A	28	29	30	29	30	32	33	30	30	22	11	10	3	3	9	14	23.7	32.9
23-Sep-04	9	9	12	8	9	7	A	2	13	21	27	29	32	32	31	32	32	28	22	15	4	5	17	22	18.3	32.4
24-Sep-04	23	25	18	21	17	A	1	2	11	16	28	32	35	35	35	36	36	33	32	22	14	16	19	23	23.1	36.0
25-Sep-04	16	20	24	26	A	30	22	23	20	21	28	32	34	34	34	37	36	32	19	11	23	14	10	12	24.4	36.8
26-Sep-04	11	7	6	A	10	3	1	2	6	15	20	24	32	35	38	41	42	39	25	21	23	28	29	20	20.7	42.5
27-Sep-04	10	6	A	10	5	1	1	1	2	5	16	26	33	36	37	33	32	35	33	26	20	33	27	26	19.7	37.2
28-Sep-04	32	A	22	26	26	22	2	9	24	23	33	34	36	37	37	37	31	20	3	1	0	0	0	0	19.8	37.2
29-Sep-04	A	10	21	26	19	4	1	7	11	12	12	18	22	30	31	31	30	28	16	8	1	9	11	A	16.3	31.4
30-Sep-04	17	16	13	14	22	18	23	24	22	20	22	25	27	27	29	30	31	30	14	1	1	4	A	9	19.1	30.8
																									N	0.0
Hourly Avg	14.4	12.7	13.5	14.3	12.6	10.4	7.6	8.1	11.1	14.4	17.6	20.1	22.6	24.6	24.6	24.6	23.5	22.7	18.1	14.0	12.3	13.1	14.2	13.7		
Hourly Max	32.1	31.7	31.7	31.9	30.0	30.2	22.6	23.7	27.8	28.5	32.5	34.4	36.8	38.5	38.0	41.4	42.5	38.8	32.6	29.9	26.1	33.3	28.7	29.6		

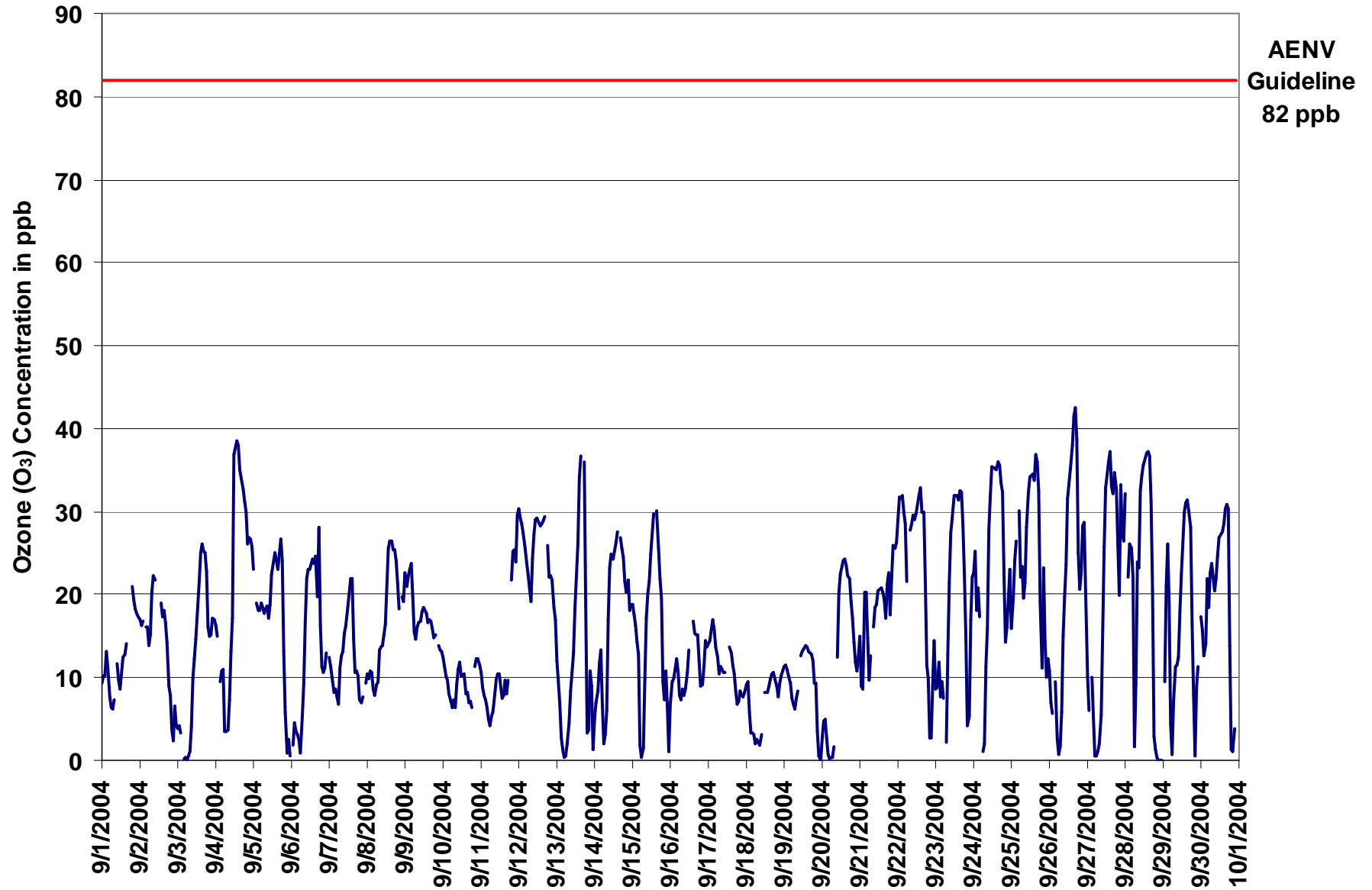


Figure 7. PASZA - Henry Pirker Ozone 1-hr Average Monthly Trend

HOURLY MAXIMUM TABLE

Ozone (O₃)

Station: Henry Pirker

Station Owner: PASZA

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

Summary

Maximum 1-hr Value:	44.1	ppb	26-Sep	16:00 17:00
Maximum 24-hr Value:	30.6	ppb	25-Sep	

AIC Time:	33 hrs	Operational Time:	683 hrs					
Calibration Time:	3 hrs	AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	Average
	40	36	27	18	11	4	1	19.1 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-Sep-04	10	13	13	16	14	11	8	9	11	N	14	12	12	15	14	16	C	C	C	22	22	19	19	18	14.4	22.3	
2-Sep-04	18	18	18	A	17	17	16	20	21	24	24	A	A	21	19	20	19	16	13	11	7	6	9	5	16.2	24.2	
3-Sep-04	7	6	4	A	2	1	1	1	2	10	12	16	17	27	27	28	27	28	27	19	18	17	20	21	14.8	28.0	
4-Sep-04	19	17	A	16	13	13	5	5	6	13	17	28	41	41	40	38	36	36	33	31	29	29	29	27	24.4	41.4	
5-Sep-04	26	A	21	19	19	20	20	19	19	20	19	22	25	27	26	26	29	28	28	20	12	3	5	12	20.3	28.6	
6-Sep-04	A	3	8	7	6	5	2	8	16	19	27	24	25	26	25	27	25	38	23	15	13	13	15	A	16.8	37.9	
7-Sep-04	13	13	11	9	10	9	11	16	16	16	17	18	20	25	25	24	12	12	12	9	8	9	A	11	14.1	25.1	
8-Sep-04	12	11	13	13	10	9	11	12	16	16	18	18	20	29	29	28	28	28	26	21	A	22	22	18.8	29.1		
9-Sep-04	24	23	23	25	25	23	18	17	18	18	19	20	20	20	20	19	19	18	17	17	A	15	15	14	19.5	25.3	
10-Sep-04	14	12	12	11	9	9	8	10	9	11	13	14	12	13	10	10	9	8	8	A	13	14	13	13	11.1	14.0	
11-Sep-04	12	10	9	8	7	7	5	7	7	10	11	11	13	9	11	12	10	26	A	24	29	29	28	32	14.2	31.9	
12-Sep-04	32	30	29	28	28	25	25	23	22	26	29	31	31	30	30	30	31	A	29	25	25	23	21	21	27.3	31.5	
13-Sep-04	17	12	10	6	4	1	1	4	6	12	14	15	25	32	36	39	A	39	33	7	7	20	20	6	15.9	39.4	
14-Sep-04	8	9	11	15	15	13	4	5	14	21	27	26	26	28	29	A	29	28	26	25	24	24	21	21	19.6	29.4	
15-Sep-04	22	20	18	17	16	9	2	2	17	19	22	24	28	32	A	32	31	26	24	17	11	14	14	4	18.3	32.2	
16-Sep-04	12	10	11	13	14	13	10	9	9	10	11	13	17	A	19	17	17	17	14	11	11	14	16	15	13.1	18.9	
17-Sep-04	15	16	18	18	17	15	14	14	13	13	12	13	A	16	15	15	13	11	8	8	10	9	9	9	13.1	18.0	
18-Sep-04	10	11	10	5	4	4	4	4	3	4	7	A	10	10	11	11	12	12	12	11	9	11	12	12	8.6	12.3	
19-Sep-04	13	12	13	11	10	9	8	8	9	10	A	14	15	15	15	15	14	14	14	12	11	8	2	1	11.1	15.4	
20-Sep-04	7	6	7	5	2	1	1	1	3	A	16	23	24	26	26	27	24	24	23	19	17	16	16	15	14.3	26.8	
21-Sep-04	17	14	20	23	23	20	16	17	A	19	21	21	22	23	22	22	20	28	25	21	29	28	27	29	22.0	28.8	
22-Sep-04	32	33	32	33	31	31	24	A	29	31	32	31	32	34	35	32	33	31	21	16	11	7	16	18	27.2	34.9	
23-Sep-04	12	13	15	9	13	11	A	7	19	27	30	32	34	34	33	35	35	31	26	22	9	20	24	25	22.4	35.2	
24-Sep-04	26	27	23	23	22	A	3	5	18	25	32	36	38	37	37	38	38	36	35	31	27	25	27	29	27.7	38.1	
25-Sep-04	29	27	26	30	A	34	30	31	24	28	32	34	36	36	36	40	39	38	31	29	30	25	17	21	30.6	39.7	
26-Sep-04	15	15	10	A	14	6	2	3	12	18	23	27	35	37	41	43	44	43	33	25	27	32	31	29	24.6	44.1	
27-Sep-04	15	13	A	13	11	3	3	2	4	8	19	31	38	39	40	37	36	39	35	32	29	36	33	29	23.6	39.6	
28-Sep-04	35	A	27	31	34	30	6	18	30	29	35	36	37	39	39	40	37	29	9	4	2	1	1	1	23.9	39.8	
29-Sep-04	A	20	26	28	26	15	3	12	17	15	17	21	28	33	34	34	33	32	24	14	3	16	17	A	21.2	33.6	
30-Sep-04	18	18	16	19	26	23	25	27	26	23	24	27	29	30	32	32	33	33	26	3	3	8	A	15	22.5	33.4	
																									N	0.0	
Hourly Avg	17.5	15.4	16.2	16.7	15.3	13.5	9.9	10.9	14.4	17.7	20.4	22.8	25.3	27.0	26.7	27.1	26.2	26.9	22.7	18.2	16.1	17.0	17.7	16.9			
Hourly Max	35.4	32.8	32.5	32.9	34.2	34.2	30.0	30.7	29.9	30.6	35.4	36.4	41.4	40.8	40.8	42.9	44.1	42.7	35.4	32.2	30.0	36.2	32.7	31.9			

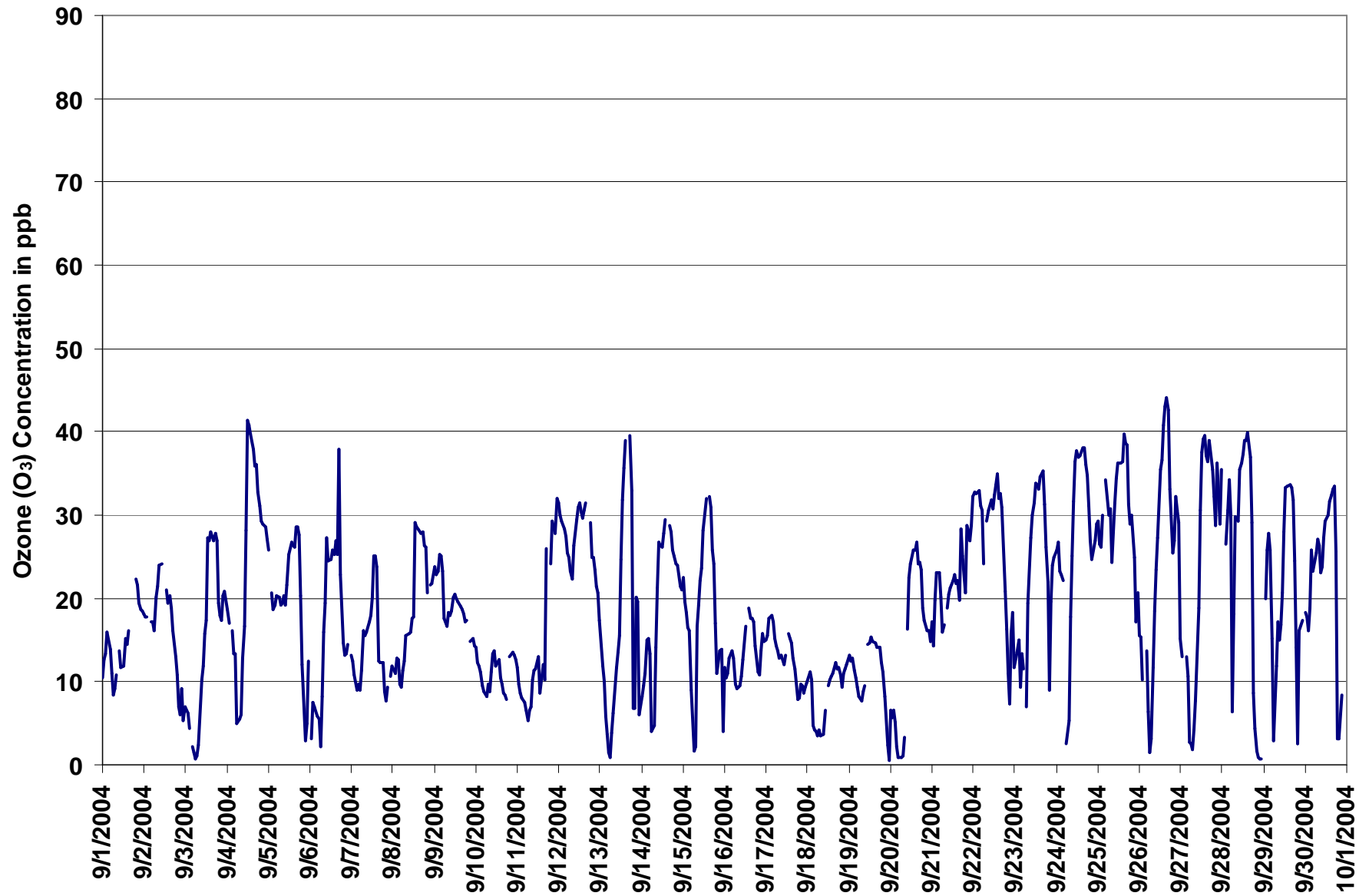
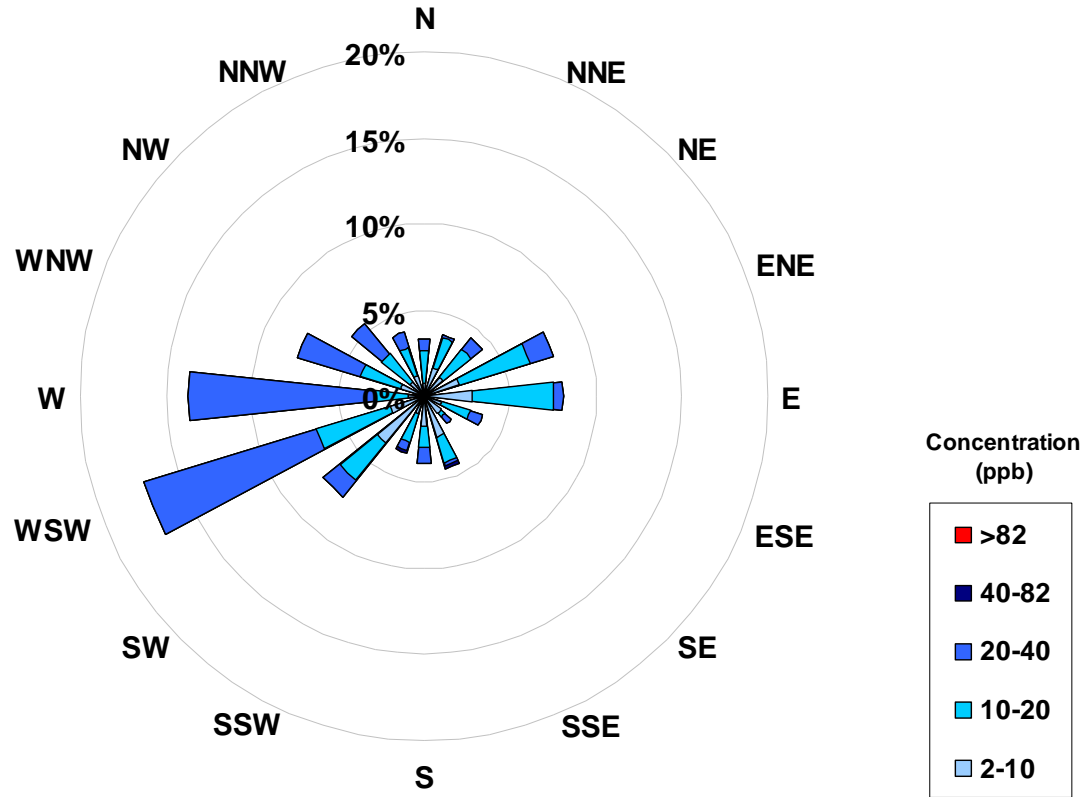


Figure 8. PASZA - Henry Pirker Ozone 1-hr Maximum Value Monthly Trend

Concentration Rose for the 1-hr O₃ Average Concentration Occurrences at the Henry Pirker Site for September 2004



Frequency Distribution of O ₃ in ppb			
Range	Frequency (hrs)		
0 < 2	43		
2 to 10	172		
10 to 20	234		
20 to 40	232		
40 to 82	2		
> 82	0		
Total Non-Zero Values	683		

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: September 1, 2004 to October 1, 2004

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	1.11	ppm	27-Sep	7:00 8:00
Maximum 24-hr Average:	0.36	ppm	3-Sep	

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

AIC Time:	33 hrs		Operational Time:	683 hrs				
Calibration Time:	3 hrs		AMD Operational Uptime:	99.9%				
Percentile	99	95	75	50	25	5	1	Average
	0.7	0.4	0.3	0.2	0.2	0.2	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

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		
1-Sep-04	Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	0.30	0.39	
2-Sep-04		0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	N	0.3	0.4	0.4	0.3	C	C	C	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.32	0.43
3-Sep-04		0.3	0.3	0.3	A	0.3	0.3	0.3	0.3	0.3	0.3	0.3	A	A	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.36	0.52	
4-Sep-04		0.4	0.3	A	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.28	0.44	
5-Sep-04		0.2	A	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.4	0.6	0.4	0.6	0.30	0.61		
6-Sep-04		A	0.3	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	A	0.24	0.33		
7-Sep-04		0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	A	0.2	0.24	0.27		
8-Sep-04		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	A	0.2	0.2	0.21	0.26		
9-Sep-04		0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	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	0.22	0.38		
10-Sep-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	0.2	0.3	0.3	0.3	A	0.2	0.2	0.2	0.2	0.22	0.28		
11-Sep-04		0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.25	0.31		
12-Sep-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	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.24		
13-Sep-04		0.2	0.2	0.3	0.3	0.3	0.3	0.6	0.7	0.3	0.3	0.4	0.4	0.3	0.2	0.2	0.2	A	0.2	0.3	0.6	0.6	0.4	0.3	0.4	0.35	0.66		
14-Sep-04		0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24	0.41		
15-Sep-04		0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.6	0.3	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.3	0.3	0.27	0.64		
16-Sep-04		0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.3	0.2	0.2	A	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.25	0.35		
17-Sep-04		0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.3	0.3	A	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.25	0.39		
18-Sep-04		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	0.2	0.2	0.2	0.2	0.2	0.19	0.23		
19-Sep-04		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	0.2	0.2	0.2	0.3	0.4	0.19	0.39		
20-Sep-04		0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23	0.43		
21-Sep-04		0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.26		
22-Sep-04		0.2	0.1	0.1	0.1	0.1	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	0.3	0.3	0.4	0.4	0.3	0.2	0.20	0.43		
23-Sep-04		0.3	0.3	0.2	0.2	0.2	0.3	A	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.3	0.2	0.24	0.47		
24-Sep-04		0.2	0.2	0.2	0.2	0.2	A	0.6	0.7	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.26	0.69		
25-Sep-04		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	0.3	0.4	0.2	0.3	0.4	0.3	0.22	0.40		
26-Sep-04		0.3	0.3	0.3	A	0.2	0.3	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.3	0.3	0.2	0.3	0.27	0.49		
27-Sep-04		0.4	0.4	A	0.2	0.4	0.5	0.8	1.1	0.8	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.34	1.11		
28-Sep-04		0.2	A	0.2	0.2	0.2	0.2	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.5	0.8	0.6	0.4	0.4	0.3	0.28	0.76		
29-Sep-04		A	0.2	0.2	0.2	0.2	0.3	0.8	0.5	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.2	0.2	A	0.26	0.83		
30-Sep-04		0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.8	0.8	0.5	A	0.3	0.23	0.79		
																										N	0.00		
Hourly Avg		0.23	0.23	0.21	0.20	0.22	0.25	0.35	0.38	0.29	0.25	0.23	0.23	0.22	0.21	0.21	0.21	0.22	0.23	0.26	0.31	0.32	0.29	0.26	0.26				
Hourly Max		0.43	0.36	0.33	0.29	0.41	0.48	0.83	1.11	0.85	0.44	0.37	0.37	0.37	0.34	0.34	0.32	0.34	0.33	0.45	0.77	0.79	0.60	0.43	0.61				

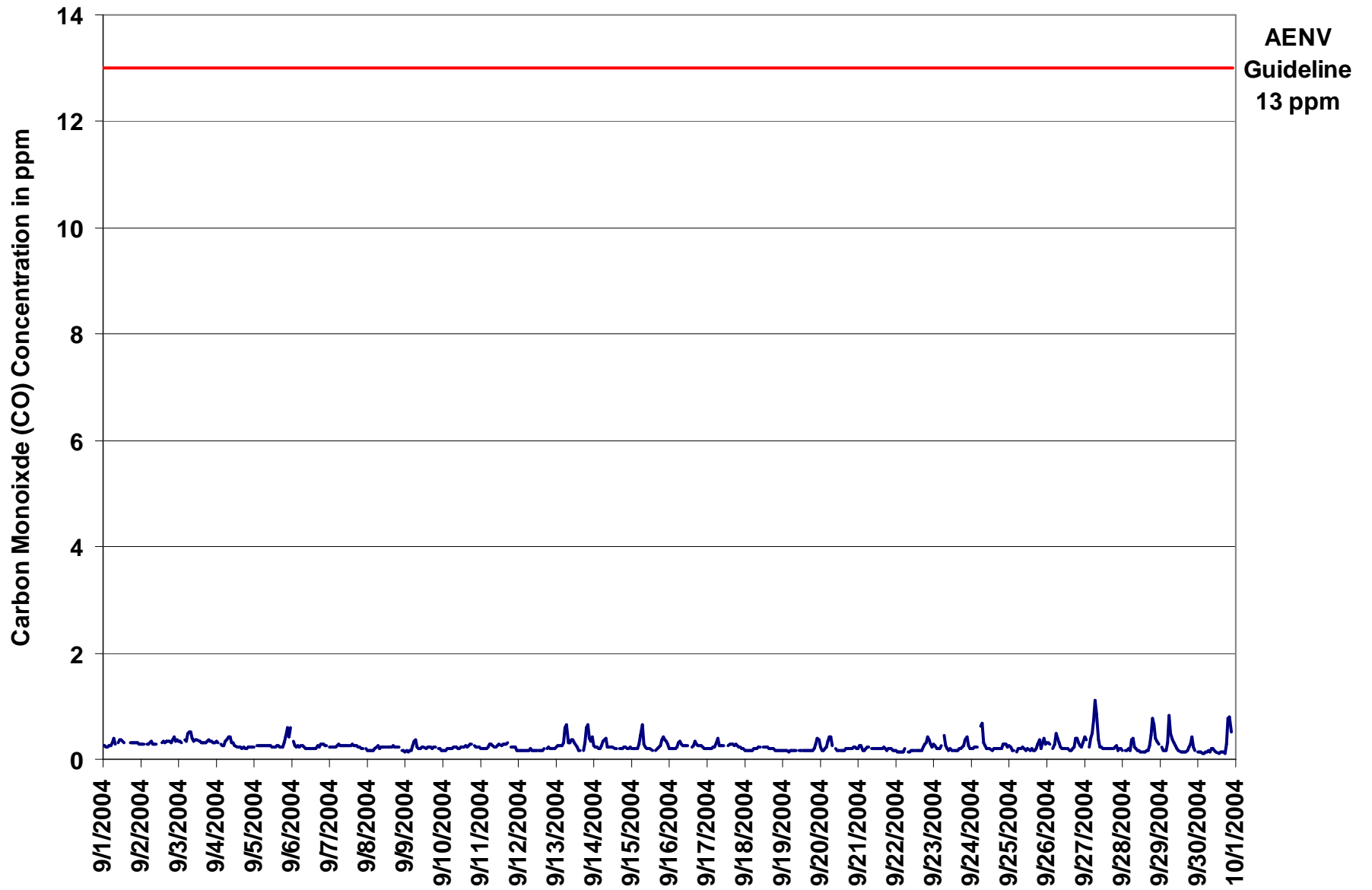


Figure 9. PASZA - Henry Pirker Carbon Monoxide 1-hr Average Monthly Trend

HOURLY MAXIMUM TABLE

Carbon Monoxide (CO)

Station: Henry Pirker

Station Owner: PASZA

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

Summary

Maximum 1-hr Value:	9.3	ppm	27-Sep	6:00 7:00
Maximum 24-hr Value:	1.0	ppm	27-Sep	

AIC Time:	33 hrs	Operational Time:	683 hrs					
Calibration Time:	3 hrs	AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	Average
	1.7	0.9	0.4	0.3	0.3	0.2	0.2	0.4 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	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-Sep-04	0.3	0.3	0.3	0.3	0.3	0.4	0.5	1.1	0.5	N	0.4	0.5	1.2	0.4	C	C	C	0.4	0.7	0.4	0.4	0.4	0.4	0.4	0.46	1.16	
2-Sep-04	0.3	0.4	0.3	A	0.3	0.3	0.5	0.7	0.8	0.5	0.4	A	A	0.4	0.6	0.4	0.5	0.5	0.4	0.4	0.5	0.5	0.4	0.5	0.46	0.76	
3-Sep-04	0.4	0.4	0.4	A	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.45	0.64	
4-Sep-04	0.5	0.4	A	0.4	0.3	0.3	0.4	0.5	0.5	0.6	0.4	0.4	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.36	0.58	
5-Sep-04	0.3	A	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.8	0.8	0.6	3.7	0.52	3.70	
6-Sep-04	A	0.6	0.3	0.3	0.4	0.3	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.3	A	0.34	0.61	
7-Sep-04	0.3	0.3	0.3	0.3	0.4	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.9	0.4	0.3	0.3	0.3	0.3	0.3	0.3	A	0.2	0.35	0.86	
8-Sep-04	0.2	0.3	0.2	0.2	0.3	0.3	0.7	0.4	0.3	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.5	0.3	0.4	0.3	0.5	A	0.2	0.2	0.34	0.70	
9-Sep-04	0.2	0.2	0.2	0.2	0.2	0.6	1.2	1.0	0.4	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.3	0.3	0.4	0.3	A	0.2	0.3	0.2	0.38	1.21	
10-Sep-04	0.3	0.2	0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	A	0.3	0.3	0.3	0.3	0.30	0.40	
11-Sep-04	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.5	0.4	0.3	0.3	0.3	0.4	0.5	0.4	0.4	0.4	0.4	A	0.3	0.3	0.3	0.3	0.2	0.35	0.50	
12-Sep-04	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	A	0.3	0.4	0.3	0.3	0.3	0.3	0.26	0.39	
13-Sep-04	0.3	0.3	0.3	0.3	0.3	1.0	0.8	0.8	0.4	0.4	0.5	0.5	0.4	0.3	0.3	0.2	A	0.3	0.5	1.0	1.3	0.6	0.5	1.5	0.57	1.50	
14-Sep-04	0.4	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.3	0.3	0.3	0.3	0.3	0.3	A	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.33	0.61	
15-Sep-04	0.3	0.3	0.3	0.3	0.3	0.5	1.0	0.8	0.6	0.3	0.3	0.3	0.3	0.3	A	0.3	0.3	0.4	0.4	0.5	0.7	1.2	0.5	0.4	0.44	1.18	
16-Sep-04	0.3	0.3	0.3	0.3	0.4	0.4	0.8	1.2	0.7	0.5	0.4	0.3	0.4	A	0.3	0.3	0.8	0.5	0.3	0.4	0.4	0.3	0.3	0.3	0.44	1.22	
17-Sep-04	0.3	0.4	0.3	0.3	0.4	0.4	0.7	1.6	0.3	0.5	0.3	0.5	A	0.3	0.5	0.4	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.44	1.60	
18-Sep-04	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	A	A	0.3	0.4	0.3	0.3	0.5	0.5	0.4	0.3	0.2	0.3	0.2	0.31	0.50	
19-Sep-04	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	A	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.4	0.6	0.5	0.28	0.63	
20-Sep-04	0.4	0.3	0.3	0.3	0.3	0.5	1.2	0.6	0.3	A	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.35	1.17	
21-Sep-04	0.3	0.4	0.4	0.2	0.3	0.3	0.4	0.3	A	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.29	0.40	
22-Sep-04	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.4	0.4	0.6	1.3	0.6	0.3	0.34	1.35	
23-Sep-04	0.4	0.4	0.3	0.3	0.3	0.4	A	0.6	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.7	0.6	0.5	0.3	0.36	0.70	
24-Sep-04	0.3	0.3	0.3	0.3	0.4	A	1.0	0.9	0.5	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.2	0.4	0.5	0.4	0.5	0.3	0.38	1.00	
25-Sep-04	0.3	0.3	0.3	0.2	A	0.2	0.3	0.4	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.7	0.9	0.4	1.4	1.5	0.7	0.45	1.48	
26-Sep-04	0.6	0.4	0.4	A	0.4	0.5	1.5	1.0	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.7	0.7	0.7	0.4	0.4	0.3	0.6	0.48	1.52	
27-Sep-04	0.7	0.5	A	0.3	0.6	2.3	9.3	2.5	1.2	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.2	0.3	0.3	0.96	9.30	
28-Sep-04	0.3	A	0.2	0.2	0.3	0.3	0.9	1.2	1.1	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.4	1.9	1.3	1.5	0.9	0.7	0.4	0.59	1.92	
29-Sep-04	A	0.3	0.2	0.3	0.3	1.2	3.1	0.7	0.9	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.5	0.6	0.6	0.4	0.3	A	0.54	3.09	
30-Sep-04	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	1.1	1.9	1.2	0.9	A	0.3	0.42	1.90	
																									N	0.00	
Hourly Avg	0.32	0.32	0.28	0.28	0.32	0.47	0.98	0.70	0.47	0.36	0.33	0.32	0.33	0.30	0.33	0.30	0.33	0.35	0.47	0.51	0.51	0.51	0.42	0.50			
Hourly Max	0.66	0.61	0.41	0.39	0.65	2.30	9.30	2.50	1.15	0.58	0.45	0.51	1.16	0.47	0.86	0.43	0.82	0.69	1.92	1.90	1.46	1.42	1.48	3.70			

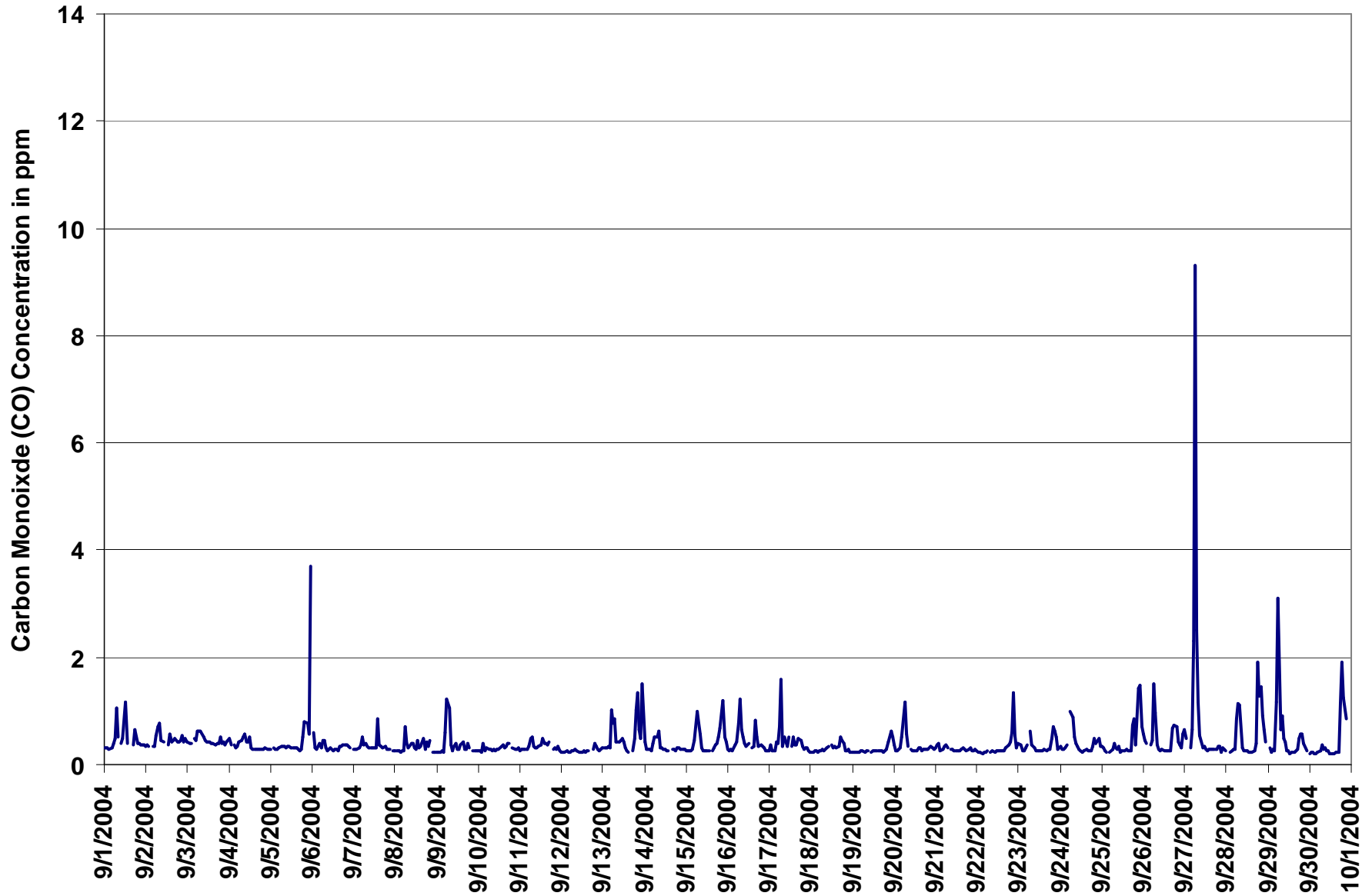


Figure 10. PASZA - Henry Pirker Carbon Monoxide 1-hr Maximum Value Monthly Trend

Station: Henry Pirker

EIGHT HOUR RUNNING AVERAGE TABLE

Carbon Monoxide (CO)

Station Owner: PASZA

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

Summary

Number of 8-hr Exceedances:	0						
Maximum 8-hr Average:	0.60	ppm	27-Sep	9:00	10:00		

Guideline Limit: Alberta Environment: 8-hr 5 ppm

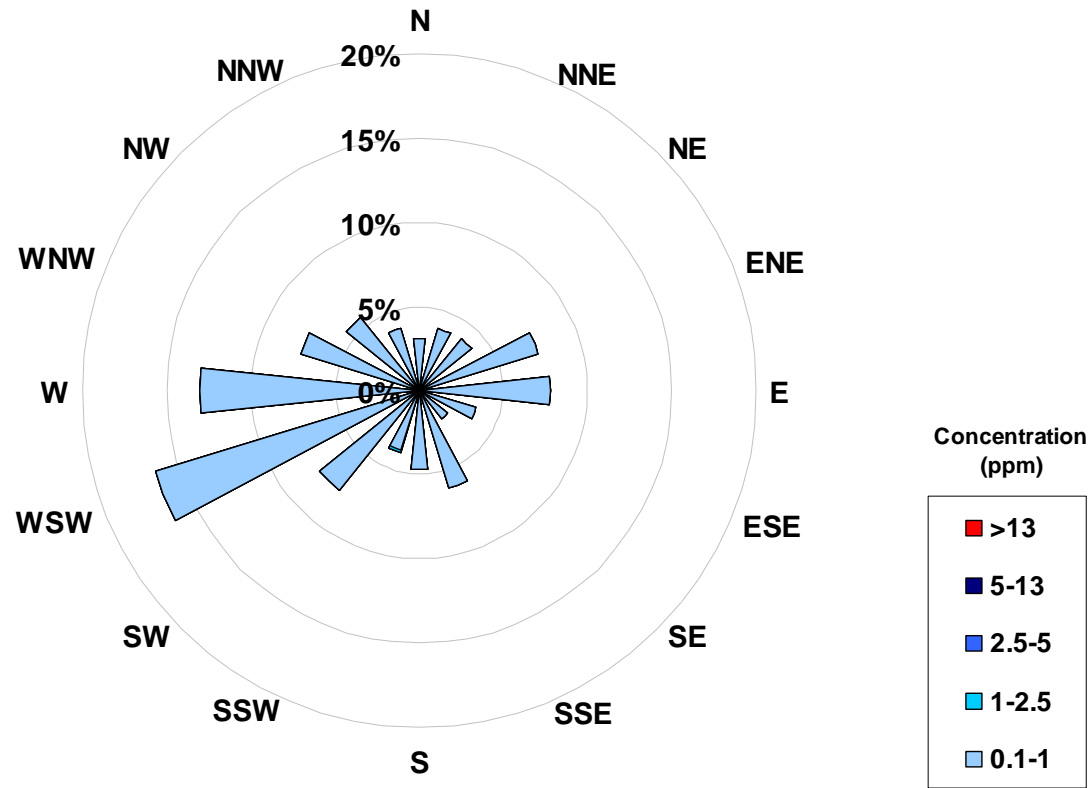
Percentile	99	95	75	50	25	5	1
	0.45	0.38	0.28	0.24	0.20	0.16	0.00

Status Flag Characters

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

Day	Mountain Standard Time																								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-Sep-04	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	N	N	N	N	N	N	N	N	N	N	0.3	N	0.34
2-Sep-04	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	N	N	N	N	N	N	N	0.3	0.3	0.3	0.3	0.4	N	0.35	
3-Sep-04	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.37	0.43
4-Sep-04	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29	0.34
5-Sep-04	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.26	0.38	
6-Sep-04	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.28	0.42	
7-Sep-04	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.25	0.26	
8-Sep-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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.23	
9-Sep-04	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.26	
10-Sep-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	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.21	0.25	
11-Sep-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	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.25	0.28	
12-Sep-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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.22	
13-Sep-04	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.31	0.42	
14-Sep-04	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27	0.40	
15-Sep-04	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.25	0.31	
16-Sep-04	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.26	0.31	
17-Sep-04	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.25	0.28	
18-Sep-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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.23	
19-Sep-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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.24	
20-Sep-04	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24	0.30	
21-Sep-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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.23	
22-Sep-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	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.18	0.29	
23-Sep-04	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.25	0.31	
24-Sep-04	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27	0.37	
25-Sep-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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.21	0.28	
26-Sep-04	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.27	0.32	
27-Sep-04	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.36	0.60	
28-Sep-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	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.24	0.42	
29-Sep-04	0.4	0.4	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29	0.45	
30-Sep-04	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.20	0.41	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
Hourly Avg	0.26	0.26	0.25	0.24	0.23	0.22	0.24	0.25	0.26	0.26	0.26	0.26	0.26	0.26	0.24	0.22	0.21	0.21	0.21	0.22	0.24	0.25	0.25	0.26			
Hourly Max	0.45	0.45	0.42	0.41	0.39	0.35	0.42	0.54	0.60	0.60	0.55	0.55	0.53	0.49	0.42	0.37	0.35	0.33	0.33	0.33	0.34	0.38	0.40	0.42			

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



Frequency Distribution of CO in ppm			
Range	Frequency (hrs)		
0 < 0.1	0		
0.1 to 1	682		
1 to 2.5	1		
2.5 to 5	0		
5 to 13	0		
> 13	0		
Total Non-Zero Values		683	

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: September 1, 2004 to October 1, 2004

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	3.2	ppm	13-Sep	6:00 7:00
Maximum 24-hr Average:	2.3	ppm	13-Sep	

Guideline Limit: Alberta Environment:

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

24-hr	na	ppm
-------	----	-----

AIC Time:	33 hrs		Operational Time:	682 hrs				
Calibration Time:	4 hrs		AMD Operational Uptime:	99.9%				
Percentile	99	95	75	50	25	5	1	Average
	2.6	2.3	2.0	1.9	1.9	1.8	1.8	2.0 ppb

Status Flag Characters

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

Day Mountain Standard Time

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	
1-Sep-04	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	1.85	1.97	
2-Sep-04		2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	N	1.8	1.8	1.9	1.8	1.8	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	N	2.10
3-Sep-04		1.8	1.8	1.8	A	1.8	1.8	1.8	C	C	C	C	A	A	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.00	2.56	
4-Sep-04		2.1	2.1	2.0	A	2.2	2.4	2.5	2.6	2.4	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.85	2.02	
5-Sep-04		2.0	1.9	A	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.85	2.02	
6-Sep-04		1.8	A	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.1	2.3	1.94	2.32	
7-Sep-04		A	2.2	2.0	2.0	2.1	2.1	2.3	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.97	2.29	
8-Sep-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	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.91	1.94	
9-Sep-04		1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	A	1.9	1.9	1.94	2.01	
10-Sep-04		1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.92	1.95	
11-Sep-04		1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.99	2.04	
12-Sep-04		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	2.0	2.0	2.0	2.1	A	1.9	1.9	1.9	1.9	1.9	1.93	2.06	
13-Sep-04		1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.90	1.99	
14-Sep-04		2.1	2.1	2.1	2.8	3.2	2.7	3.2	2.7	2.3	2.2	2.2	2.1	2.0	1.9	1.9	1.9	A	1.9	2.0	2.2	2.2	2.1	2.1	2.2	2.27	3.21	
15-Sep-04		2.2	2.2	2.2	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.97	2.24	
16-Sep-04		2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.1	2.1	2.0	2.1	2.00	2.21	
17-Sep-04		2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	2.00	
18-Sep-04		1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.93	
19-Sep-04		1.9	1.9	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.01	
20-Sep-04		1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	1.94	2.19	
21-Sep-04		2.1	2.0	2.0	2.0	2.1	2.3	2.6	2.5	2.2	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.03	2.57	
22-Sep-04		2.0	2.1	2.1	1.9	1.9	1.9	1.9	1.9	A	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.86	2.13	
23-Sep-04		1.9	1.8	1.8	1.8	1.8	1.8	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.0	2.1	2.3	2.3	1.96	2.46	
24-Sep-04		2.3	2.2	2.1	2.2	2.1	2.0	A	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.2	2.1	2.02	2.28	
25-Sep-04		2.2	2.1	2.2	2.2	2.3	A	2.5	2.3	2.1	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	2.0	1.9	1.9	2.00	2.45	
26-Sep-04		2.1	2.0	1.9	1.9	A	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.1	1.94	2.17	
27-Sep-04		2.2	2.2	2.2	A	2.2	2.3	2.3	2.4	2.2	2.1	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.08	2.38	
28-Sep-04		2.3	2.5	A	2.3	2.4	2.6	2.5	2.8	2.6	2.3	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	2.0	2.0	1.9	1.9	2.12	2.83	
29-Sep-04		1.9	A	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.5	2.4	2.2	2.2	2.2	2.00	2.45	
30-Sep-04		A	2.2	2.0	1.9	2.0	2.3	2.3	2.0	2.0	2.0	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.3	2.1	2.0	A	2.04	2.29	
Hourly Avg		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.3	2.3	2.2	A	2.1	2.08	2.30	
Hourly Max		1.99	2.01	1.98	2.00	2.03	2.03	2.10	2.10	2.03	1.97	1.94	1.92	1.90	1.89	1.89	1.89	1.89	1.90	1.92	1.97	2.00	1.99	1.98	2.01	N	0.00	
Hourly Max		2.28	2.46	2.24	2.85	3.16	2.67	3.21	2.83	2.63	2.25	2.23	2.10	2.10	2.08	2.07	2.06	2.04	2.06	2.16	2.45	2.37	2.27	2.29	2.46			

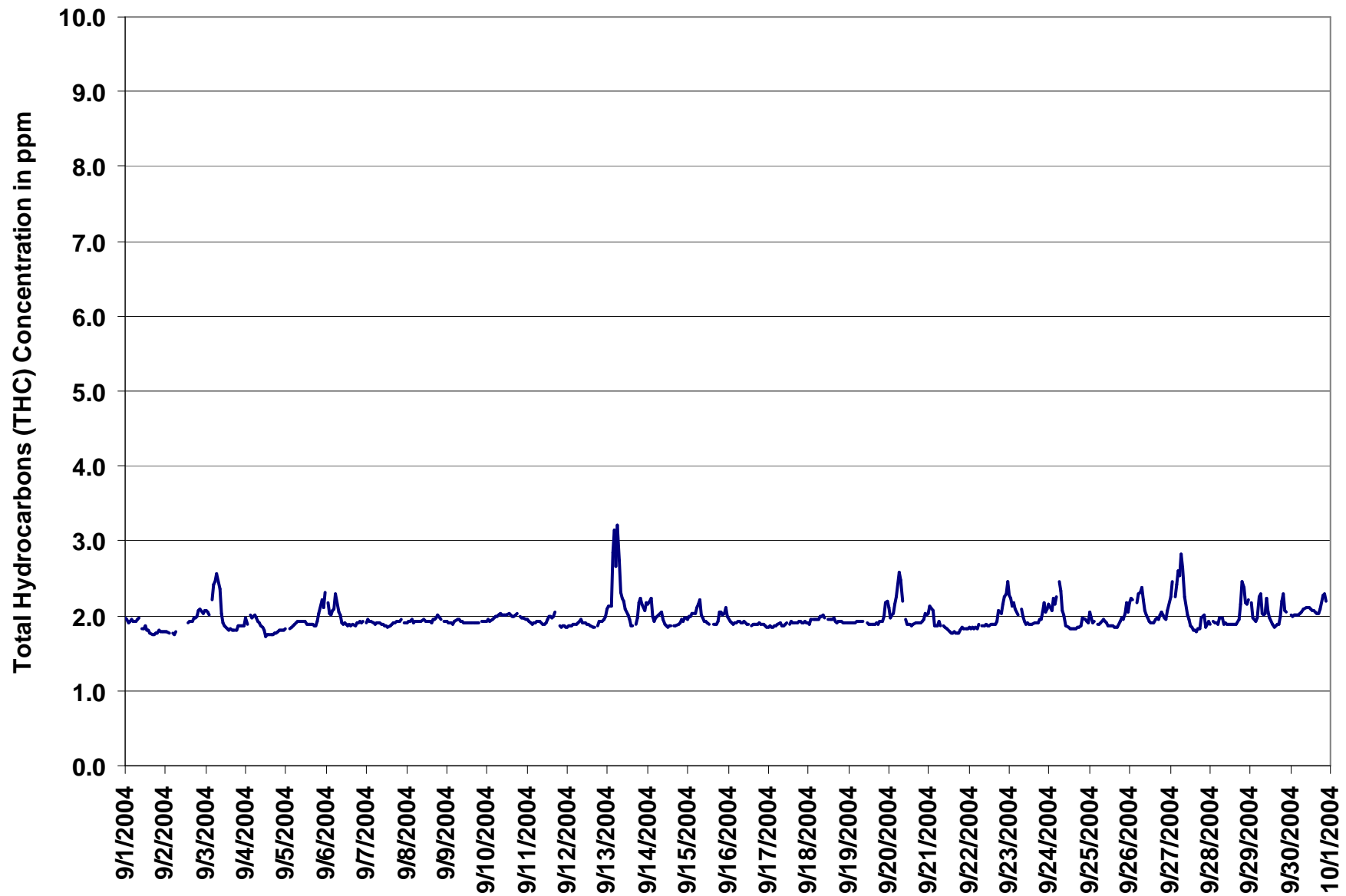


Figure 11. PASZA - Henry Pirker Total Hydrocarbons 1-hr Average Monthly Trend

HOURLY MAXIMUM TABLE

Total HydroCarbons (THC)

Station: Henry Pirker

Station Owner: PASZA

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

Summary

Maximum 1-hr Value:	7.8	ppm	5-Sep	23:00 0:00
Maximum 24-hr Value:	2.5	ppm	13-Sep	

AIC Time:	33 hrs	Operational Time:	682 hrs					
Calibration Time:	4 hrs	AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	Average
	3.3	2.5	2.1	2.0	1.9	1.8	1.8	2.1 ppm

Status Flag Characters

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

Day Mountain Standard Time

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-Sep-04	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.1	2.5	N	1.9	1.9	2.1	1.9	1.9	1.8	1.8	1.8	1.8	1.8	2.0	1.8	1.8	1.8	1.93	2.45	
2-Sep-04	1.8	1.8	1.8	A	1.8	1.8	1.8	C	C	C	C	A	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.1	2.2	N	2.22	
3-Sep-04	2.2	2.2	2.2	A	2.3	2.6	2.6	2.8	2.5	2.1	1.9	1.9	1.9	1.9	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.09	2.79	
4-Sep-04	2.2	2.1	A	2.3	2.0	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.92	2.32	
5-Sep-04	1.8	A	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.3	2.3	2.2	7.8	2.23	7.81	
6-Sep-04	A	2.4	2.2	2.1	2.2	2.2	2.4	2.3	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	A	2.05	2.39	
7-Sep-04	1.9	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.0	A	2.0	1.95	2.02	
8-Sep-04	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.3	2.0	A	2.0	2.0	2.00	2.30	
9-Sep-04	2.0	1.9	1.9	2.0	1.9	2.0	2.0	2.1	2.0	2.0	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.97	2.09	
10-Sep-04	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.2	2.1	2.0	2.0	2.1	2.1	A	2.1	2.0	2.0	2.0	2.05	2.19	
11-Sep-04	2.0	2.0	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.4	2.0	2.0	2.2	2.7	A	1.9	1.9	1.9	2.0	1.9	2.02	2.66	
12-Sep-04	1.9	1.9	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	1.9	1.9	A	1.9	1.9	2.0	2.0	2.0	2.1	1.94	2.05	
13-Sep-04	2.2	2.3	2.2	3.7	3.4	3.0	4.1	3.3	2.5	2.4	2.3	2.2	2.1	2.0	1.9	1.9	A	1.9	1.9	2.1	2.4	2.5	2.3	2.2	2.5	2.48	4.06
14-Sep-04	2.2	2.3	2.4	2.1	2.0	2.1	2.1	2.0	2.2	2.1	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.04	2.42	
15-Sep-04	2.0	2.0	2.0	2.1	2.3	2.3	2.3	2.3	2.2	2.1	2.0	2.0	1.9	1.9	A	1.9	1.9	2.0	2.0	2.2	2.2	2.2	2.2	2.2	2.09	2.32	
16-Sep-04	2.1	2.0	2.0	1.9	1.9	2.0	2.0	2.1	2.0	2.1	2.0	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.96	2.14	
17-Sep-04	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.7	1.9	1.9	1.9	1.9	A	1.9	2.2	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.97	2.66	
18-Sep-04	1.9	1.9	2.1	2.0	2.0	2.0	2.0	2.3	2.4	2.2	2.0	A	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.03	2.38	
19-Sep-04	2.0	1.9	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.5	2.5	2.00	2.55	
20-Sep-04	2.3	2.0	2.1	2.1	2.3	2.3	3.1	2.9	2.2	A	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.2	2.1	2.13	3.06	
21-Sep-04	2.2	2.3	2.3	1.9	1.9	2.0	2.1	1.9	A	2.0	1.9	1.9	1.8	1.8	1.8	2.0	1.8	1.8	1.8	1.8	2.1	1.9	1.8	1.9	1.94	2.28	
22-Sep-04	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.2	2.5	2.1	2.3	2.5	2.5	2.6	2.05	2.57	
23-Sep-04	2.4	2.5	2.3	2.2	2.2	2.0	A	2.3	2.0	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.2	2.6	2.4	2.2	2.13	2.59	
24-Sep-04	2.4	2.3	2.4	2.3	2.4	A	2.8	2.4	2.2	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.1	2.0	2.0	2.10	2.75	
25-Sep-04	2.3	2.1	2.0	2.0	A	1.9	2.0	2.1	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.1	2.4	3.4	2.4	2.09	3.41	
26-Sep-04	2.8	2.5	2.4	A	2.5	2.5	2.5	2.5	2.4	2.2	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.1	2.3	2.1	2.1	2.0	2.2	2.22	2.85	
27-Sep-04	2.4	3.1	A	2.4	2.6	3.1	3.5	3.3	3.0	2.4	2.2	2.0	1.9	1.9	1.8	1.9	1.8	1.9	1.9	2.2	2.1	1.9	1.9	2.0	2.31	3.51	
28-Sep-04	1.9	A	2.0	2.0	2.1	1.9	2.0	2.1	1.9	2.0	1.9	1.9	2.0	2.0	1.9	1.9	1.9	2.1	2.9	2.9	3.1	2.4	2.3	2.4	2.17	3.14	
29-Sep-04	A	2.4	2.1	2.0	2.1	2.4	2.7	2.1	2.1	2.2	2.7	2.2	2.0	2.0	1.9	1.9	1.9	1.9	2.2	2.6	2.9	2.1	2.1	A	2.20	2.87	
30-Sep-04	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.4	2.4	2.3	A	2.2	2.15	2.41
																									N	0.00	
Hourly Avg	2.11	2.13	2.06	2.09	2.12	2.13	2.27	2.27	2.15	2.06	2.01	1.97	1.95	1.95	1.94	1.93	1.93	1.98	2.02	2.09	2.13	2.08	2.11	2.30			
Hourly Max	2.85	3.14	2.42	3.69	3.39	3.09	4.06	3.26	3.03	2.45	2.68	2.21	2.13	2.42	2.16	2.09	2.16	2.66	2.87	2.90	3.14	2.59	3.41	7.81			

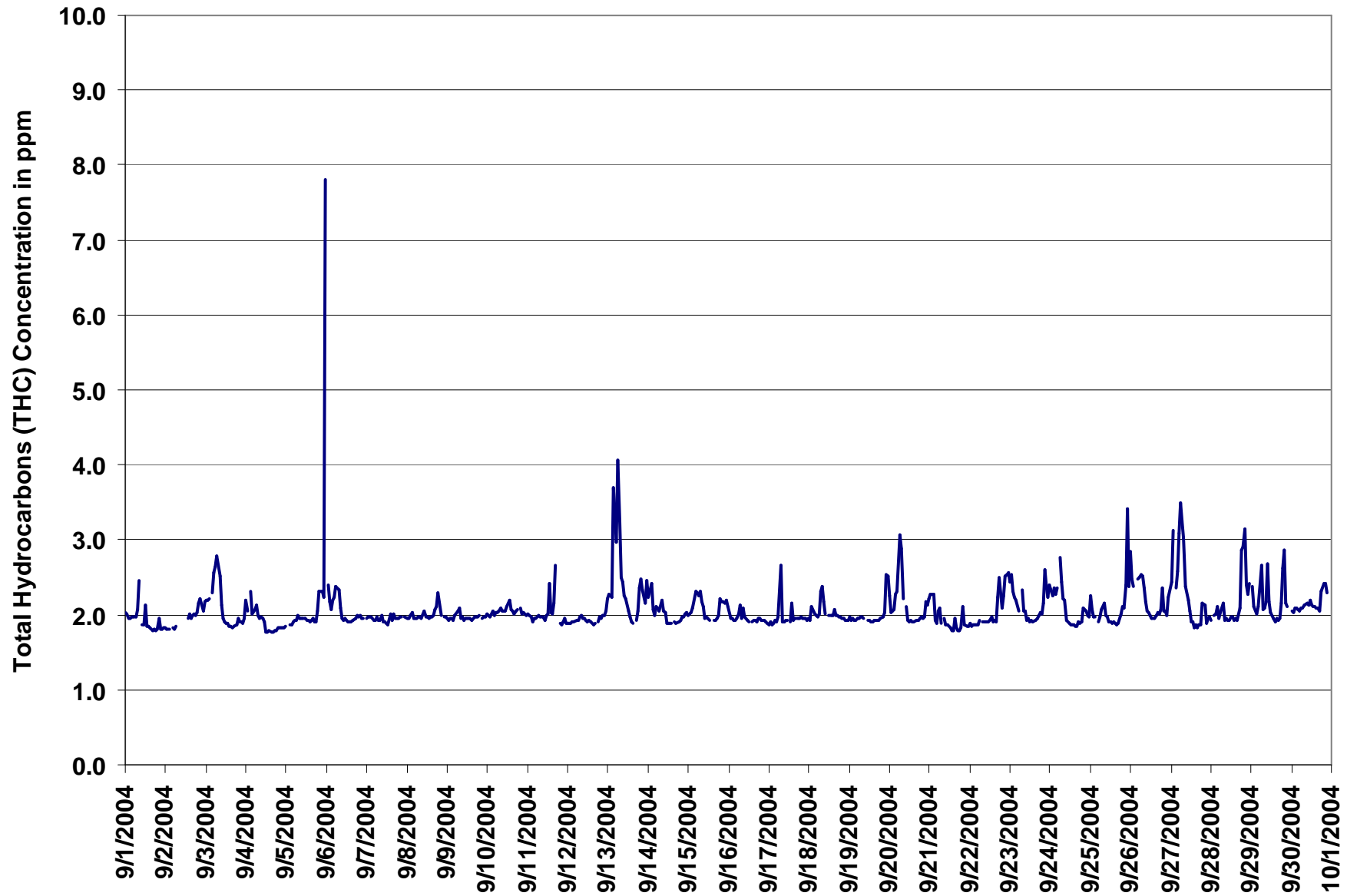


Figure 12. PASZA - Henry Pirker Total Hydrocarbons 1-hr Maximum Value Monthly Trend

PASZA - Henry Pirker Total Reduced Sulphur Monthly Summary

Station: Henry Pirker

HOURLY AVERAGE TABLE

Total Reduced Sulphur (TRS)

Station Owner: PASZA

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

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	1.0 ppb 15-Sep 21:00 22:00
Maximum 24-hr Average:	0.6 ppb 22-Sep

H₂S Guideline Limit: Alberta Environment: 1-hr 10 ppb 24-hr 3 ppb

AIC Time:	33 hrs	Operational Time:	681 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	99.7%
Percentile	99	95	75
	0.8	0.7	0.5
	50	25	5
	0.5	0.4	0.2
	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-Sep-04	1	1	1	1	1	1	1	1	1	N	0	0	0	0	0	0	1	1	1	0	1	1	1	1	0.6	0.8	
2-Sep-04	0	1	0	A	0	1	0	C	C	C	C	A	A	0	0	0	0	0	0	0	0	0	0	0	N	0.5	
3-Sep-04	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	1	1	1	1	1	0.4	0.8	
4-Sep-04	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	0	0.6	0.8	
5-Sep-04	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	1	1	1	0.5	0.6	
6-Sep-04	A	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	A	0.5	0.6	
7-Sep-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0	A	0.5	0.6	
8-Sep-04	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	A	1	0	0.4	0.6	
9-Sep-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0.4	0.6	
10-Sep-04	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	A	1	1	1	1	0.5	0.6	
11-Sep-04	0	0	1	1	1	1	0	1	1	1	1	0	0	0	1	0	0	0	A	1	0	0	0	0	0.5	0.7	
12-Sep-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.4	0.5	
13-Sep-04	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	0.6	
14-Sep-04	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0.4	0.6	
15-Sep-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	1	0	0.4	1.0	
16-Sep-04	1	1	0	0	1	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0.5	0.9	
17-Sep-04	0	0	1	1	0	1	1	1	0	1	0	1	A	1	1	1	1	1	1	0	1	1	1	0	0.5	0.6	
18-Sep-04	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5	
19-Sep-04	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	1	0.3	0.6	
20-Sep-04	1	1	1	1	1	1	1	1	1	0	A	1	1	0	0	1	1	1	1	1	1	0	0	1	0.6	0.9	
21-Sep-04	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.3	0.7	
22-Sep-04	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0.6	0.8	
23-Sep-04	1	1	1	1	1	1	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0.6	0.9	
24-Sep-04	1	1	1	0	0	A	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0.5	0.7	
25-Sep-04	1	0	1	1	A	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0.5	0.8	
26-Sep-04	1	1	1	A	1	1	1	1	1	1	0	D	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8	
27-Sep-04	0	1	A	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0.5	0.8	
28-Sep-04	0	A	1	0	0	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	0.5	1.0	
29-Sep-04	A	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.6	
30-Sep-04	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	1	A	0.4	0.6	
Hourly Avg	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	N	0.0	
Hourly Max	0.7	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.8	0.6	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.0	1.0	0.8		

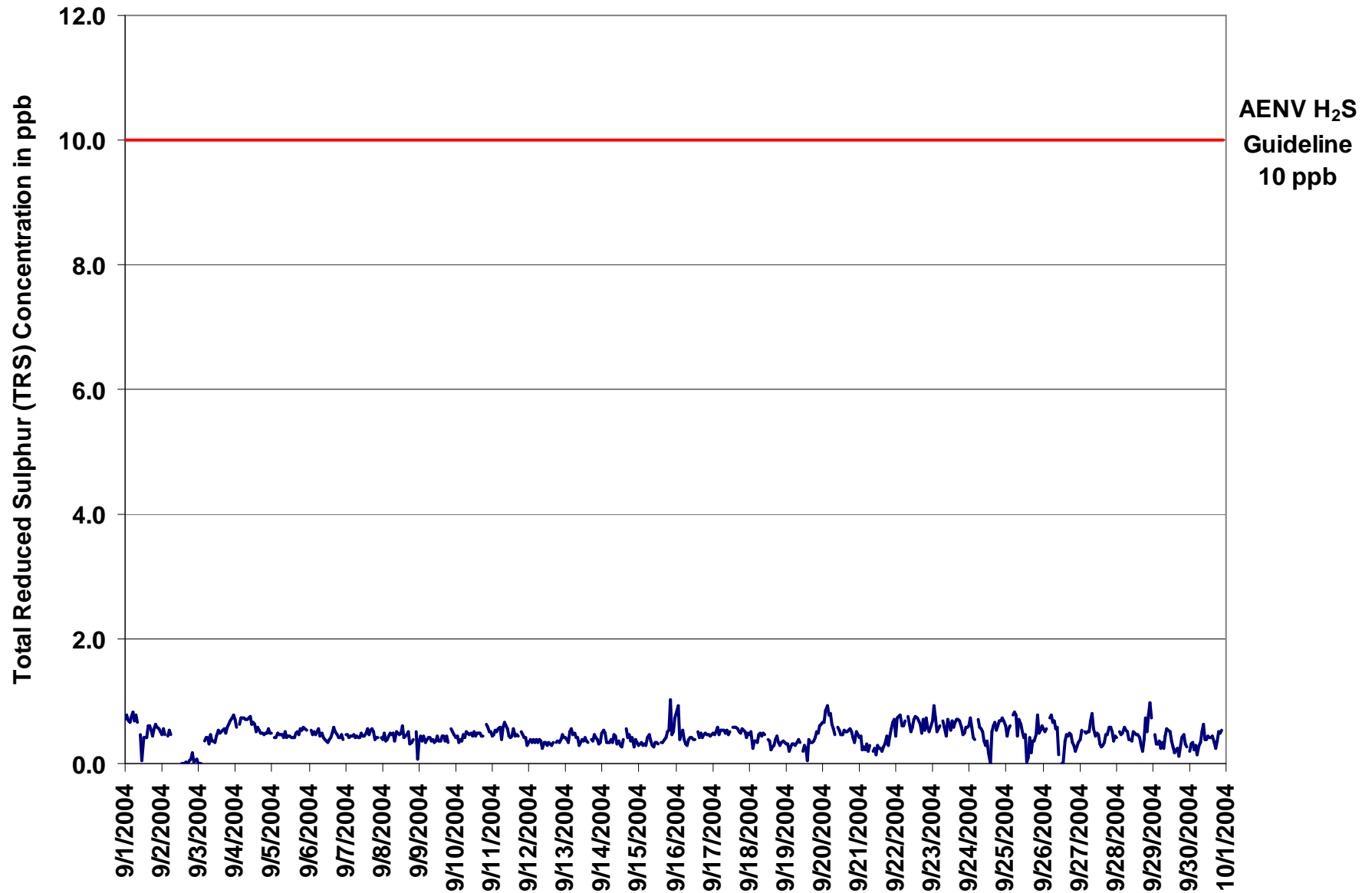


Figure 13. PASZA - Henry Pirker Total Reduced Sulphur 1-hr Average Monthly Trend

HOURLY MAXIMUM TABLE

Total Reduced Sulphur (TRS)

Station: Henry Pirker

Station Owner: PASZA

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

Summary

Maximum 1-hr Value:	2.7	ppb	15-Sep	21:00 22:00
Maximum 24-hr Value:	1.2	ppb	23-Sep	

AIC Time:	33 hrs	Operational Time:	682 hrs					
Calibration Time:	4 hrs	AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	Average
	1.5	1.3	1.1	1.0	0.9	0.7	0.5	1.0 ppb

Status Flag Characters

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

Day Mountain Standard Time

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-Sep-04	1	1	1	1	1	1	1	1	1	N	1	2	1	1	1	2	2	1	1	1	1	1	1	1	1.1	2.2	
2-Sep-04	1	1	1	A	1	1	1	C	C	C	C	A	A	1	1	1	1	1	1	1	1	1	0	1	N	1.1	
3-Sep-04	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2	
4-Sep-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	1.1	1.3	
5-Sep-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	1.0	1.1	
6-Sep-04	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.0	1.1	
7-Sep-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	1.2	
8-Sep-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	0.9	1.4	
9-Sep-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	0.9	1.0	
10-Sep-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	1.0	1.1	
11-Sep-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.0	1.3	
12-Sep-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	
13-Sep-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	0.9	1.3	
14-Sep-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	0.9	1.1	
15-Sep-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	2	3	1	1	1.0	2.7
16-Sep-04	1	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.0	1.9	
17-Sep-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	1.3	
18-Sep-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	0.9	1.3	
19-Sep-04	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3	
20-Sep-04	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5	
21-Sep-04	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2	
22-Sep-04	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.4	
23-Sep-04	1	2	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.6	
24-Sep-04	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.5	
25-Sep-04	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5	
26-Sep-04	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3	
27-Sep-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	1.4	
28-Sep-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	1.1	1.4	
29-Sep-04	A	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.0	1.6	
30-Sep-04	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.0	1.5	
																									N	0.0	
Hourly Avg	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0	0.9	1.0	0.9	1.0	1.0	1.0	1.0	0.9	1.0	1.1	1.0	1.0			
Hourly Max	1.4	1.9	1.3	1.5	1.3	1.3	1.5	1.4	1.5	1.6	1.3	1.5	1.2	1.4	1.3	2.2	2.1	1.3	1.4	1.2	1.6	2.7	1.4	1.4			

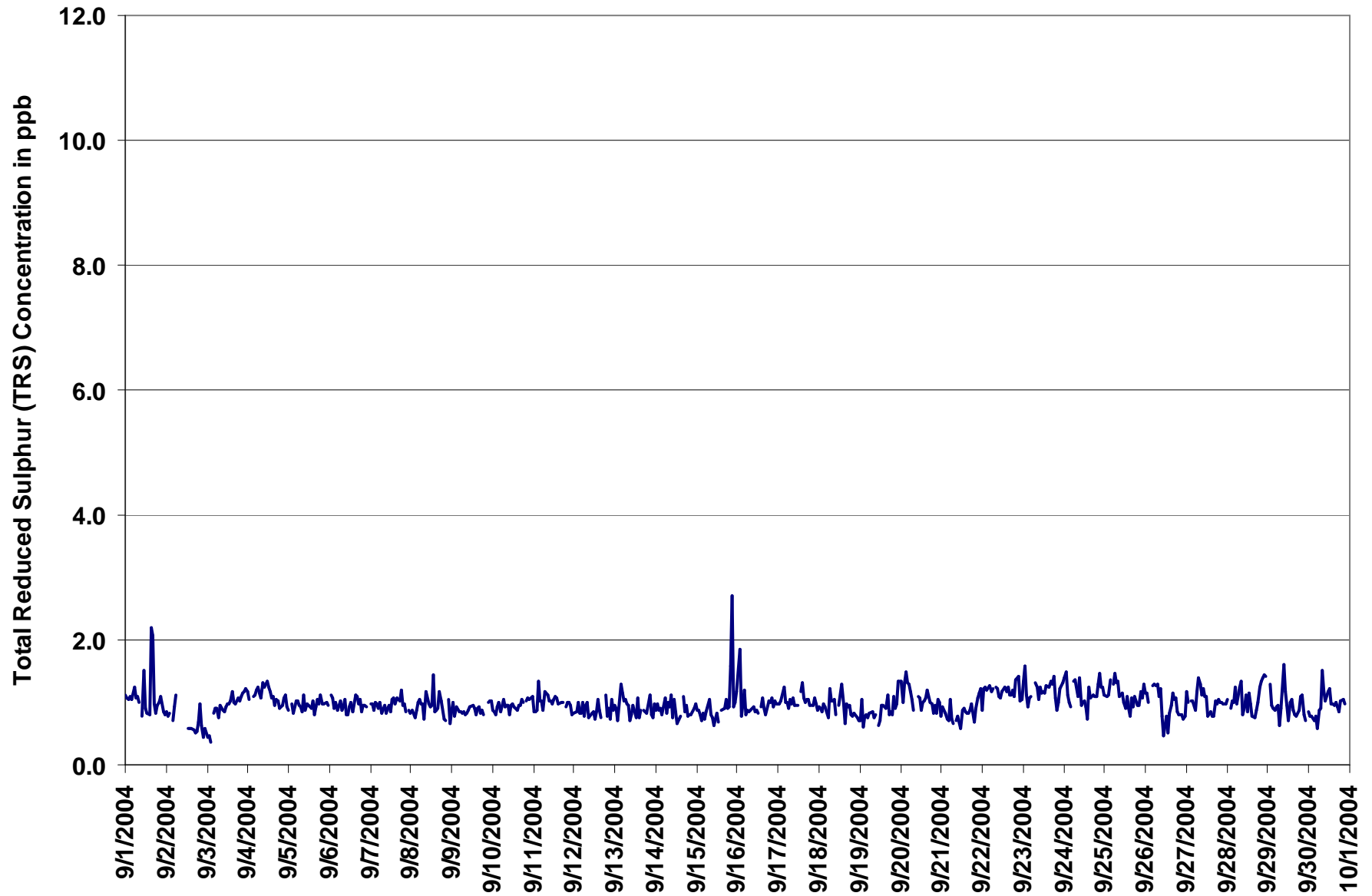


Figure 14. PASZA - Henry Pirker Total Reduced Sulphur 1-hr Maximum Value Monthly Trend

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

Station: Henry Pirker

HOURLY AVERAGE TABLE

Particulate Matter (PM_{2.5})

Station Owner: PASZA

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

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	29.9 $\mu\text{g}/\text{m}^3$ 27-Sep 4:00 5:00
Maximum 24-hr Average:	7.9 $\mu\text{g}/\text{m}^3$ 28-Sep

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:	716 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	99.9%
Percentile	99	95	75
	16.2	7.6	3.7
	50	25	5
	1.8	0.7	0.0
	1	0.0	0.0
Average	2.7 $\mu\text{g}/\text{m}^3$		
Geomean	2.0 $\mu\text{g}/\text{m}^3$		

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

Day	Hour Start																							24-hour Average	Daily Maximum		
	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00			23:00	
1-Sep-04	0	0	0	0	D	0	0	0	0	1	C	C	C	0	0	0	0	0	0	0	1	2	1	1	1	0.3	1.8
2-Sep-04	0	0	0	0	1	1	1	2	2	1	1	2	2	2	3	2	3	3	3	3	3	4	5	2	3	2.0	4.7
3-Sep-04	3	2	2	0	0	2	3	3	6	5	3	4	4	3	2	2	2	3	3	4	4	4	3	3	2.9	6.1	
4-Sep-04	3	3	3	2	2	3	4	6	7	8	4	1	0	0	0	1	3	1	0	0	1	1	1	1	2.3	7.9	
5-Sep-04	2	2	2	3	3	5	7	7	7	6	6	4	2	2	2	1	1	0	1	3	3	7	4	4	3.5	7.2	
6-Sep-04	2	3	1	0	1	0	1	3	2	1	1	2	2	2	2	2	5	1	4	3	3	3	1	1	1.9	5.2	
7-Sep-04	0	0	0	1	2	2	2	1	2	2	4	4	5	3	3	5	3	2	1	0	0	0	0	0	1.8	4.8	
8-Sep-04	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	0	0	0.5	1.4	
9-Sep-04	0	0	0	0	1	1	2	2	1	1	1	0	0	0	1	1	1	1	1	1	1	0	0	0	0.7	1.9	
10-Sep-04	0	0	1	0	1	2	2	2	1	0	2	2	3	1	1	1	2	2	1	1	2	1	0	0	1.3	3.3	
11-Sep-04	0	0	0	1	1	1	2	1	2	2	3	5	8	5	7	4	6	5	0	1	2	1	0	0	2.4	8.2	
12-Sep-04	0	0	0	1	2	2	2	1	1	0	0	0	0	0	0	0	1	1	2	3	2	2	2	2	1.0	2.7	
13-Sep-04	2	2	2	2	2	3	5	8	6	10	12	9	6	4	0	1	1	2	6	9	10	4	5	10	5.1	11.5	
14-Sep-04	4	3	3	3	2	2	5	6	7	3	1	1	1	0	0	2	2	2	2	2	2	2	2	1	2.4	7.0	
15-Sep-04	1	2	2	2	2	4	6	9	7	4	4	3	2	1	2	2	4	5	4	6	9	4	7	2	3.9	9.2	
16-Sep-04	3	0	0	0	1	0	1	1	1	1	0	0	0	1	1	2	2	2	3	3	1	1	0	0	1.0	2.7	
17-Sep-04	1	1	2	1	2	2	2	2	4	5	5	5	5	5	5	3	2	1	1	0	1	0	0	0	2.2	5.5	
18-Sep-04	0	0	0	0	0	0	0	0	0	0	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0.3	1.8	
19-Sep-04	0	0	0	0	0	0	1	0	0	1	1	0	0	1	1	1	1	1	1	2	1	3	3	4	0.8	3.7	
20-Sep-04	2	1	1	1	1	3	3	4	3	3	1	0	0	1	1	1	2	2	3	1	2	2	3	4	1.9	4.1	
21-Sep-04	3	2	3	0	0	1	2	1	2	1	1	0	0	2	2	2	2	0	3	2	0	0	0	0	1.3	3.2	
22-Sep-04	1	0	1	0	1	1	2	2	3	2	1	0	1	1	1	3	1	3	6	5	8	9	5	4	2.6	9.4	
23-Sep-04	5	9	3	4	2	1	3	6	3	1	1	1	1	1	1	1	0	1	2	4	6	6	4	1	2.8	8.7	
24-Sep-04	2	3	5	4	4	7	11	13	8	8	2	1	1	2	2	2	2	2	3	5	4	5	5	4	4.4	13.1	
25-Sep-04	5	5	4	2	1	0	1	2	3	3	2	1	1	1	2	1	2	3	6	11	4	6	6	5	3.3	10.9	
26-Sep-04	5	6	3	4	4	4	5	7	7	5	3	5	2	3	1	2	2	3	7	7	5	3	2	4	4.1	7.1	
27-Sep-04	6	10	4	4	30	4	5	9	19	14	6	3	3	1	1	2	1	0	2	5	5	2	2	3	5.9	29.9	
28-Sep-04	4	4	4	2	1	2	7	7	7	5	5	0	1	0	0	1	1	4	7	17	29	26	25	21	18	7.9	29.3
29-Sep-04	13	4	1	1	2	6	7	3	4	6	11	7	5	0	1	1	2	5	11	14	10	7	7	6	5.7	14.3	
30-Sep-04	4	4	4	4	5	4	4	2	4	5	4	5	1	0	1	0	1	0	3	10	13	11	5	4	4.1	12.8	
Hourly Avg	2.3	2.2	1.7	1.5	2.6	2.2	3.3	3.8	3.9	3.6	2.8	2.4	2.0	1.4	1.5	1.7	2.0	2.0	3.2	4.6	4.3	3.7	3.1	2.8	N	0.0	
Hourly Max	13.1	9.6	5.4	4.4	29.9	7.5	10.5	13.1	18.5	13.9	11.5	9.4	8.2	5.5	7.3	4.8	5.8	6.7	16.5	29.3	26.4	24.5	20.7	18.4			

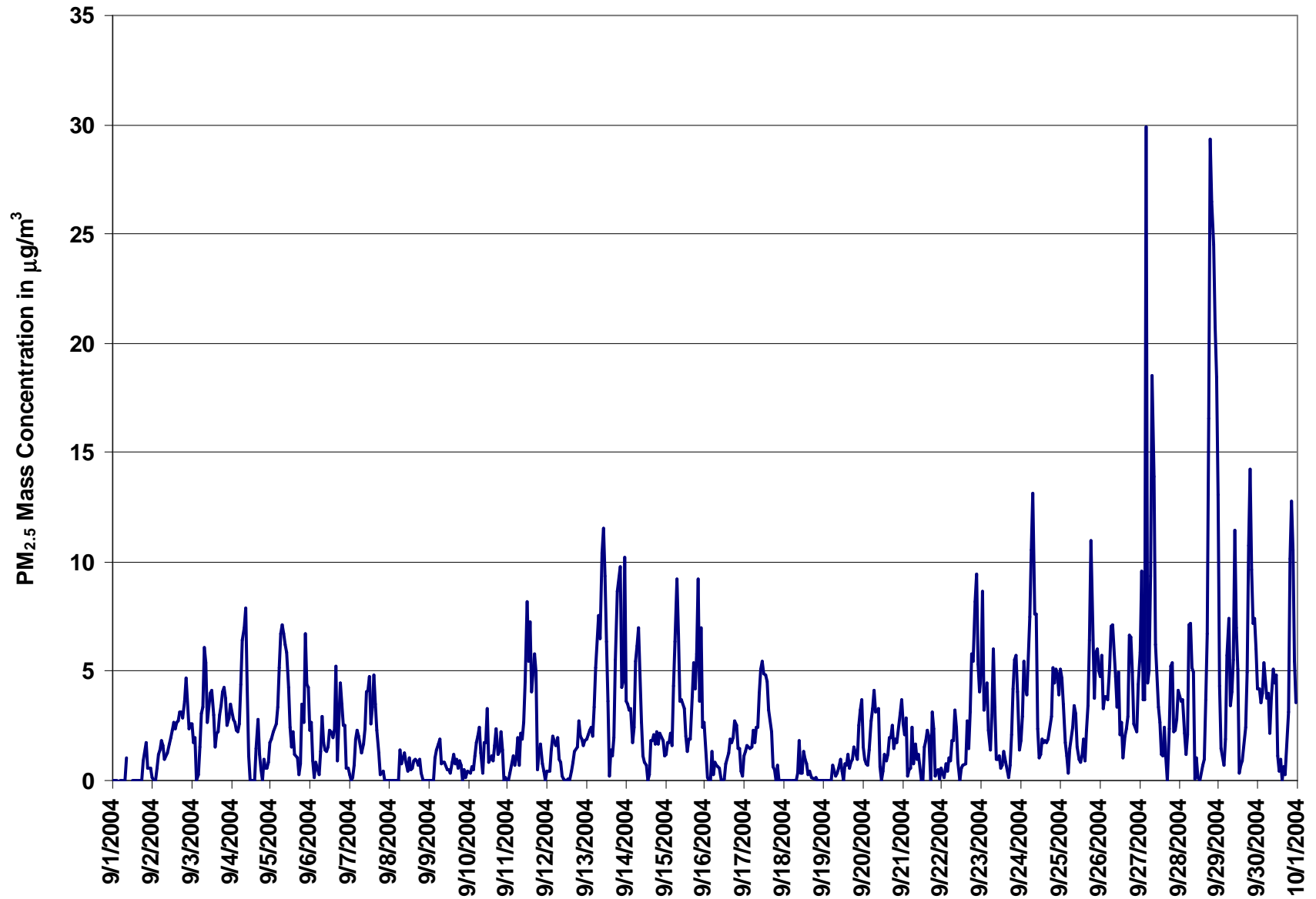


Figure 15. PASZA - Henry Pirker Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Henry Pirker

HOURLY MAXIMUM TABLE

Particulate Matter (PM_{2.5})

Station Owner: PASZA

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

Maximum 1-hr Value:	71.3	µg/m ³	27-Sep	4:00 5:00
Maximum 24-hr Value:	12.1	µg/m ³	28-Sep	

AIC Time:	0 hrs	Operational Time:	717 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Geomean
	21.6	12.9	6.4	4.1	2.6	1.0	0.1	5.2 µg/m ³	4.6 µg/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
1-Sep-04	0	2	1	0	0	0	1	2	7	C	C	C	3	0	1	0	0	1	1	3	4	2	2	2	1.5	7.1
2-Sep-04	1	2	1	3	2	2	4	3	4	4	3	4	5	5	4	5	5	4	5	5	6	6	5	4	3.7	6.5
3-Sep-04	4	4	5	1	2	3	4	5	8	8	5	5	6	6	3	4	4	5	5	6	6	5	4	5	4.8	8.3
4-Sep-04	5	4	5	4	4	5	6	9	8	10	6	7	0	1	1	5	8	7	4	2	2	3	2	2	4.6	9.8
5-Sep-04	3	4	4	5	5	8	8	9	9	8	7	6	4	4	5	4	3	2	3	12	6	10	10	6	6.0	11.8
6-Sep-04	4	5	2	2	3	1	4	9	4	4	5	4	5	5	4	8	10	8	7	6	5	4	2	3	4.7	10.2
7-Sep-04	1	1	2	2	3	4	4	3	4	4	7	7	8	6	6	8	7	4	3	3	3	1	1	1	3.9	8.3
8-Sep-04	0	3	0	0	0	1	3	3	3	3	3	2	3	2	3	2	3	2	2	2	2	1	1	2	1.9	3.4
9-Sep-04	1	1	1	1	2	2	3	3	2	2	2	2	2	2	3	3	3	3	2	2	2	2	3	3	2.2	3.0
10-Sep-04	2	2	2	2	4	3	5	5	3	2	3	4	5	4	3	2	5	5	4	4	4	3	2	4	3.5	5.2
11-Sep-04	2	5	2	5	3	4	8	5	6	3	5	11	12	13	12	7	10	12	6	4	5	3	3	1	6.1	12.9
12-Sep-04	2	2	2	3	4	3	4	4	2	2	3	2	1	1	2	4	4	4	3	4	4	3	4	4	2.9	4.5
13-Sep-04	4	4	4	4	5	5	8	10	12	14	13	12	9	6	2	5	4	4	11	11	13	7	9	19	8.1	19.4
14-Sep-04	10	6	6	5	3	6	9	9	10	5	3	3	4	1	3	8	7	5	4	4	4	4	4	3	5.2	10.5
15-Sep-04	3	3	3	4	4	7	9	13	12	5	5	5	4	4	4	5	10	9	6	11	14	14	13	4	7.2	14.5
16-Sep-04	5	2	1	2	3	2	3	2	2	2	1	2	2	3	3	5	4	4	5	4	4	3	2	2	2.8	5.1
17-Sep-04	2	3	3	3	4	4	3	5	4	5	7	8	6	6	6	5	4	3	2	1	2	1	1	0	3.8	8.2
18-Sep-04	0	1	2	0	1	1	1	1	2	5	2	2	3	2	3	2	3	2	1	2	2	0	1	0	1.7	4.7
19-Sep-04	1	1	1	2	2	1	3	2	2	2	3	2	2	3	2	3	2	2	3	4	5	4	8	8	2.7	8.0
20-Sep-04	4	3	2	2	4	5	5	6	6	6	5	2	2	4	3	3	4	5	5	4	4	4	6	6	4.0	6.2
21-Sep-04	5	4	5	3	4	3	6	6	5	4	3	2	2	4	6	8	4	3	5	5	2	3	3	2	4.1	7.9
22-Sep-04	3	3	2	2	3	3	5	4	5	5	3	2	2	3	6	8	4	6	10	10	13	14	9	6	5.5	13.5
23-Sep-04	7	13	6	6	5	3	7	8	6	4	4	4	3	3	4	3	2	4	4	8	9	9	7	3	5.5	13.5
24-Sep-04	4	5	9	7	6	12	14	16	12	11	5	3	3	5	4	4	4	3	5	10	8	8	8	6	7.2	15.9
25-Sep-04	8	7	5	4	3	4	6	6	6	6	3	3	3	3	4	4	5	6	11	21	7	8	10	7	6.1	21.2
26-Sep-04	7	8	7	6	7	6	7	10	9	6	6	9	5	5	5	5	5	6	8	9	9	4	4	12	6.9	12.1
27-Sep-04	9	13	7	6	71	14	7	13	28	19	13	7	7	5	3	5	3	2	5	8	8	7	5	5	11.3	71.3
28-Sep-04	7	5	7	5	5	6	10	12	7	9	2	3	3	3	4	4	8	14	22	45	32	30	25	22	12.1	44.6
29-Sep-04	18	14	3	3	5	9	11	5	7	8	17	10	8	4	3	3	5	8	16	21	13	9	9	9	9.1	20.9
30-Sep-04	7	6	5	8	9	8	8	4	10	8	7	9	4	3	4	2	4	1	16	16	17	18	7	6	7.8	18.1
																									N	0.0
Hourly Avg	4.4	4.6	3.5	3.4	5.9	4.5	5.8	6.4	6.9	6.0	5.2	4.9	4.2	3.9	3.8	4.4	4.8	4.9	6.1	8.1	7.1	6.4	5.5	5.2		
Hourly Max	17.6	14.5	8.5	8.4	71.3	13.8	14.3	15.9	28.2	18.8	16.8	12.3	11.6	12.9	12.4	8.3	10.2	14.5	21.7	44.6	32.4	29.9	24.9	21.7		

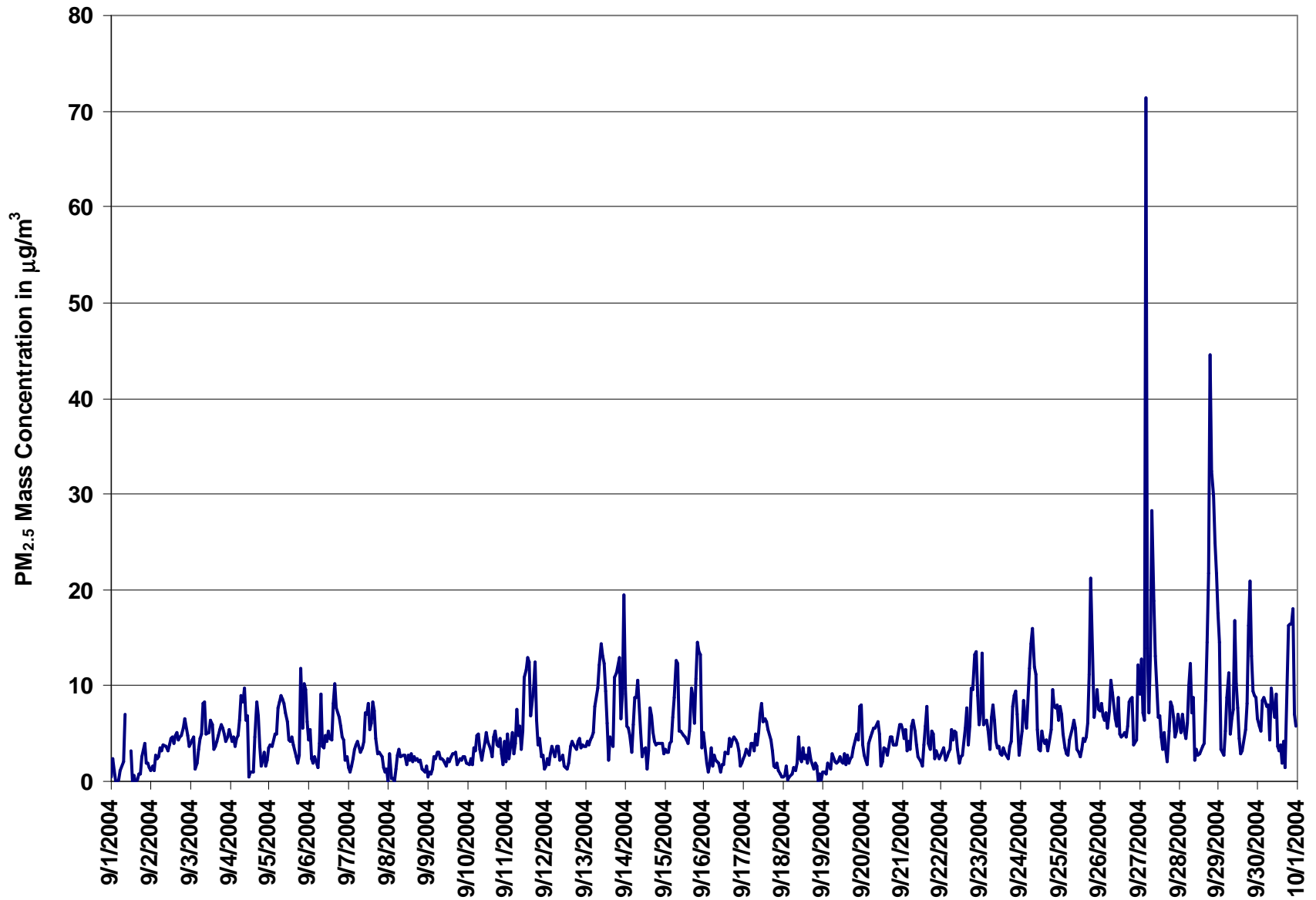
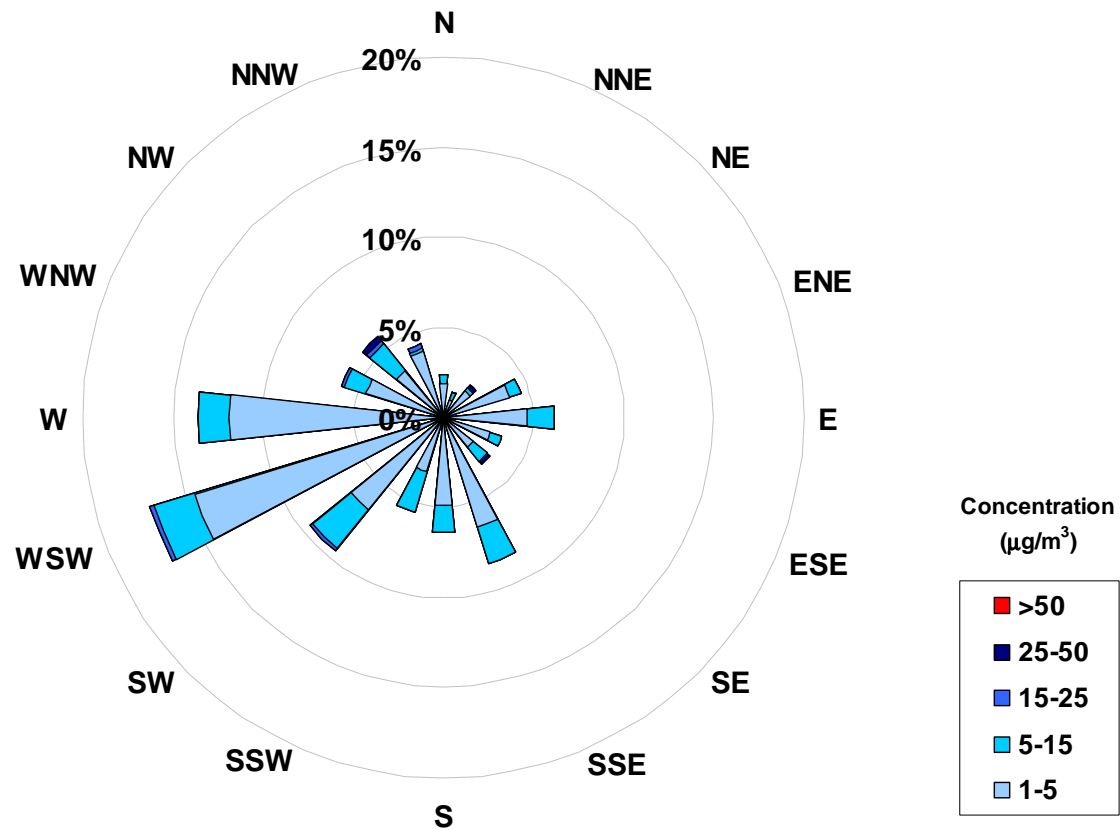


Figure 16. PASZA - Henry Pirker Particulate Matter (less than 2.5 microns) 1-hr Maximum Value Monthly

Concentration Rose for the 1-hr PM_{2.5} Average Concentration Occurrences at the Henry Pirker Site for September 2004



Frequency Distribution of PM _{2.5} in µg/m ³			
Range	Frequency (hrs)		
0 < 1	244		
1 to 5	365		
5 to 15	99		
15 to 25	5		
25 to 50	3		
> 50	0		
Total Non-Zero Values			
			716

Calms	
Range	
µg/m ³	
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: September 1, 2004 to October 1, 2004

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	98.1 % 1-Sep 3:00 4:00
Maximum 24-hr Average:	95.6 % 1-Sep

AIC Time:	0 hrs	Operational Time:	719 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	99.9%
Percentile	99	95	75
	50	25	5
	1	Average	
	97.4	95.7	91.2
	78.2	58.8	40.8
	32.2	73.5 ppb	

Status Flag Characters

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

Day Mountain Standard Time

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum	
1-Sep-04	97	98	98	98	98	98	98	98	97	N	92	94	95	93	93	93	93	94	94	94	95	96	96	96	96	96	98
2-Sep-04	96	96	96	96	94	94	93	91	89	89	88	85	86	87	86	83	82	83	87	91	92	92	93	96	90	96	
3-Sep-04	97	97	97	97	97	97	97	97	95	86	81	78	76	64	59	56	55	57	59	69	75	78	77	77	80	97	
4-Sep-04	78	80	85	85	87	85	86	89	91	90	87	79	56	49	47	53	69	81	88	86	86	86	86	86	79	91	
5-Sep-04	89	91	92	91	91	90	89	87	83	82	82	77	70	66	72	76	70	67	69	83	90	94	94	96	83	96	
6-Sep-04	96	97	97	95	95	95	96	85	79	69	63	64	64	62	63	60	72	82	86	89	89	90	90	90	82	97	
7-Sep-04	91	92	93	93	94	94	94	92	91	86	75	67	63	58	61	73	74	78	79	89	91	92	93	91	84	94	
8-Sep-04	92	94	93	94	95	95	95	95	94	93	91	91	90	89	90	91	92	92	92	94	94	95	95	94	93	95	
9-Sep-04	93	92	92	91	93	94	94	94	93	92	90	86	84	83	84	86	87	88	90	92	93	93	93	93	90	94	
10-Sep-04	93	93	93	93	93	94	93	93	91	86	83	80	83	80	81	81	81	82	83	84	84	84	85	86	87	94	
11-Sep-04	88	89	91	92	92	92	92	87	87	78	71	69	71	83	81	73	77	74	69	75	73	73	75	67	80	92	
12-Sep-04	64	62	62	65	66	68	69	69	59	56	50	45	43	45	43	42	42	45	50	58	63	67	74	80	58	80	
13-Sep-04	83	88	91	93	94	94	94	87	77	63	56	54	50	42	37	34	35	37	45	55	58	60	71	81	66	94	
14-Sep-04	83	88	85	84	84	85	85	80	75	65	53	50	48	44	42	43	50	47	51	57	63	68	73	73	66	88	
15-Sep-04	74	75	77	79	80	84	88	80	65	60	55	56	51	43	46	44	49	58	64	75	82	83	87	91	69	91	
16-Sep-04	96	97	97	97	97	97	97	97	97	96	93	89	85	83	82	82	83	85	87	87	88	88	89	89	90	97	
17-Sep-04	92	92	92	93	94	94	94	93	93	93	93	92	93	93	92	91	93	93	95	95	95	95	95	95	93	95	
18-Sep-04	94	94	94	95	95	95	95	95	95	95	95	94	94	93	92	90	90	89	90	92	92	92	91	91	93	95	
19-Sep-04	92	89	92	92	91	90	89	88	87	84	81	75	70	68	68	70	71	71	74	80	81	86	92	92	82	92	
20-Sep-04	90	88	89	92	94	95	95	95	91	78	64	51	46	42	42	42	44	48	53	56	60	65	70	70	69	95	
21-Sep-04	75	78	81	69	70	72	74	69	64	63	58	58	53	51	48	47	51	49	53	65	67	70	68	63	63	81	
22-Sep-04	57	50	51	51	55	56	59	56	50	49	47	47	44	39	36	42	42	47	52	53	59	64	68	69	52	69	
23-Sep-04	72	74	80	87	88	83	83	80	73	63	53	48	44	42	42	43	43	44	47	56	60	66	65	65	62	88	
24-Sep-04	66	64	68	68	73	76	75	70	59	52	49	45	42	43	43	41	42	45	47	56	57	59	60	59	57	76	
25-Sep-04	65	65	66	63	59	54	54	58	59	59	52	47	42	41	40	35	34	38	49	60	58	63	71	73	54	73	
26-Sep-04	75	83	81	81	82	84	87	84	77	63	57	52	47	42	37	34	32	34	40	44	47	48	50	61	59	87	
27-Sep-04	72	79	80	84	82	86	85	85	74	60	55	41	39	36	33	34	34	31	34	40	50	47	51	55	57	86	
28-Sep-04	51	60	68	65	63	63	70	66	61	62	46	40	35	32	31	32	35	37	45	58	70	76	79	85	55	85	
29-Sep-04	81	69	54	51	60	73	72	64	61	61	62	55	46	36	31	29	29	34	44	60	60	54	58	61	54	81	
30-Sep-04	60	66	72	74	70	74	74	70	72	76	69	61	54	51	51	47	44	45	51	62	68	68	68	72	63	76	
																									N	0	
Hourly Avg	82	83	83	84	84	85	86	83	79	74	70	66	62	59	58	58	60	62	66	72	75	76	78	80			
Hourly Max	97	98	98	98	98	98	98	98	97	96	95	94	95	93	93	93	93	94	95	95	95	96	96	96			

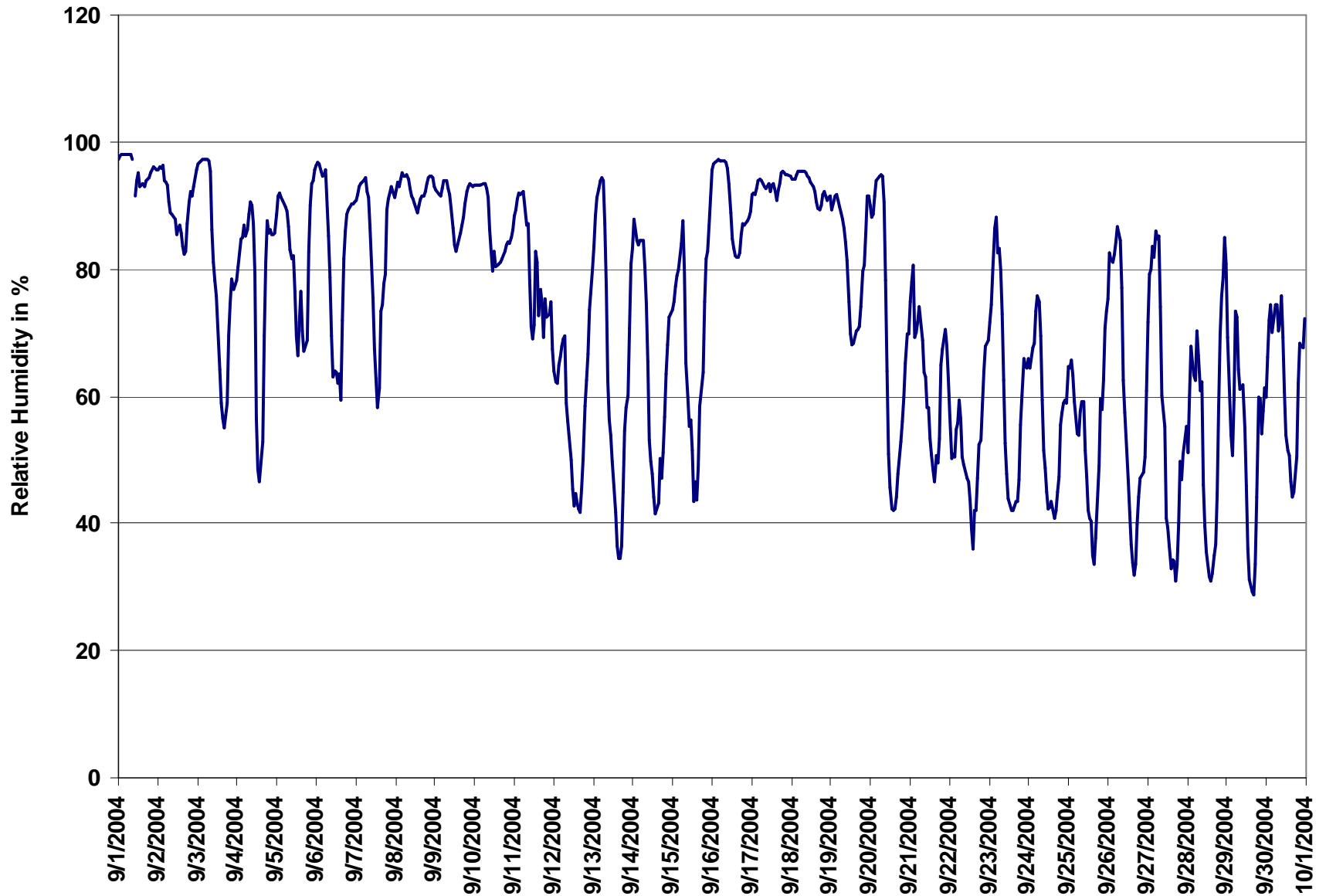


Figure 17. PASZA - Henry Pirker Relative Humidity 1-hr Average Monthly Trend

Station: Henry Pirker

HOURLY AVERAGE TABLE

Ambient Temperature (AT - °C)

Station Owner: PASZA

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

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	21.9	°C	27-Sep	15:00 16:00
Maximum 24-hr Average:	13.3	°C	24-Sep	

AIC Time:	0 hrs		Operational Time:	719 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	99.9%				
Percentile	99	95	75	50	25	5	1	Average
	19.2	17.0	11.9	8.6	4.8	1.2	0.4	8.7 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

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-Sep-04	11	10	11	10	10	10	9	10	10	10	N	11	11	11	11	11	11	10	10	10	10	10	10	10	10	10.4	11.4	
2-Sep-04	11	10	10	10	10	10	10	10	10	10	9	9	9	10	10	10	11	11	11	12	11	11	11	11	10	9	10.4	11.7
3-Sep-04	8	8	7	7	6	6	6	6	6	8	10	12	13	14	17	17	18	18	18	17	15	13	12	12	11	11.6	18.3	
4-Sep-04	11	10	9	9	8	9	9	9	9	9	11	12	14	16	17	17	16	13	11	9	8	8	9	9	9	10.9	17.2	
5-Sep-04	9	9	9	9	9	8	8	8	9	10	10	10	12	14	14	13	12	13	14	13	11	10	9	9	8	10.4	14.2	
6-Sep-04	7	7	8	7	7	7	6	9	11	12	14	14	15	15	14	15	13	10	11	9	8	7	7	6	6	9.9	14.8	
7-Sep-04	6	6	6	6	6	6	6	6	7	7	8	11	14	15	16	15	13	12	10	8	6	5	5	4	4	8.4	16.1	
8-Sep-04	2	2	1	1	0	1	0	0	1	1	1	2	2	2	1	1	1	1	1	1	1	0	0	0	0	1.0	2.3	
9-Sep-04	1	1	1	1	0	0	0	0	1	1	2	2	3	4	4	4	4	4	4	4	3	3	3	3	3	2.3	4.1	
10-Sep-04	3	3	3	3	3	3	3	3	3	3	4	5	5	5	6	6	6	6	6	7	6	6	6	5	5	4.5	6.5	
11-Sep-04	5	5	4	4	4	4	4	4	6	6	9	11	13	12	9	10	13	13	13	13	11	10	9	8	9	8.6	13.1	
12-Sep-04	9	9	9	8	8	8	8	7	7	10	11	13	13	14	14	14	15	15	14	13	11	10	9	7	6	10.6	15.1	
13-Sep-04	5	3	3	2	1	1	1	1	3	6	10	13	14	15	17	17	18	18	17	15	12	11	10	8	6	9.5	18.0	
14-Sep-04	6	6	7	8	8	8	8	7	8	9	12	15	15	16	16	17	16	16	15	14	12	10	9	7	7	11.0	16.6	
15-Sep-04	6	6	6	5	5	4	3	5	9	11	13	13	14	16	15	15	14	13	12	10	8	7	6	4	4	9.1	15.8	
16-Sep-04	4	4	4	5	5	5	5	5	5	6	6	8	8	9	9	9	9	9	8	8	8	8	8	8	7	6.7	8.8	
17-Sep-04	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	7	7	7	6	6	7.3	8.9	
18-Sep-04	6	6	5	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3.7	5.7	
19-Sep-04	2	3	2	2	2	2	2	2	2	2	3	4	5	6	6	6	6	6	6	5	4	3	1	1	1	3.4	6.0	
20-Sep-04	2	2	2	0	0	0	0	1	2	5	9	10	11	12	12	12	12	12	11	9	8	7	6	5	6	6.0	12.0	
21-Sep-04	5	4	4	8	8	8	8	9	11	12	14	15	16	17	18	19	18	17	16	13	12	11	10	10	10	11.8	18.9	
22-Sep-04	11	12	12	11	10	10	10	10	10	12	13	14	14	14	15	16	14	14	13	12	11	9	8	7	7	11.6	15.6	
23-Sep-04	6	7	7	6	6	6	6	6	7	9	11	13	15	16	17	17	16	16	15	12	11	9	10	9	9	10.9	16.9	
24-Sep-04	9	9	9	8	7	7	7	8	12	16	18	19	19	19	18	19	18	17	16	14	13	13	12	12	12	13.3	19.0	
25-Sep-04	11	11	11	11	11	12	12	11	11	11	12	14	15	15	16	17	17	16	13	10	9	8	7	6	6	12.0	17.1	
26-Sep-04	5	4	4	4	4	4	3	4	6	10	13	15	16	18	19	19	19	18	16	13	12	11	10	8	8	10.7	19.4	
27-Sep-04	6	5	4	3	3	2	2	3	6	11	13	18	20	21	22	22	21	20	18	16	13	15	13	12	12	12.1	21.9	
28-Sep-04	13	11	10	11	10	10	8	9	11	12	14	15	16	16	16	16	15	14	12	9	6	4	2	1	1	10.8	16.2	
29-Sep-04	1	2	4	5	3	0	1	2	4	5	7	10	13	15	16	16	15	13	10	7	7	8	7	6	6	7.4	15.7	
30-Sep-04	6	5	4	3	4	3	4	3	3	2	2	4	5	6	6	7	7	7	7	4	2	1	0	1	0	3.7	7.4	
																											N	0.0
Hourly Avg	6.4	6.2	5.9	5.9	5.7	5.4	5.3	5.9	7.2	8.5	10.1	11.3	12.2	12.7	12.8	12.9	12.6	11.9	10.8	9.1	8.2	7.6	6.9	6.3	6.3			
Hourly Max	12.8	11.9	11.5	11.5	11.4	12.0	11.7	10.8	12.1	15.9	17.6	18.7	19.9	21.0	21.6	21.9	21.4	20.5	18.2	15.9	13.0	14.7	13.2	12.5	12.5			

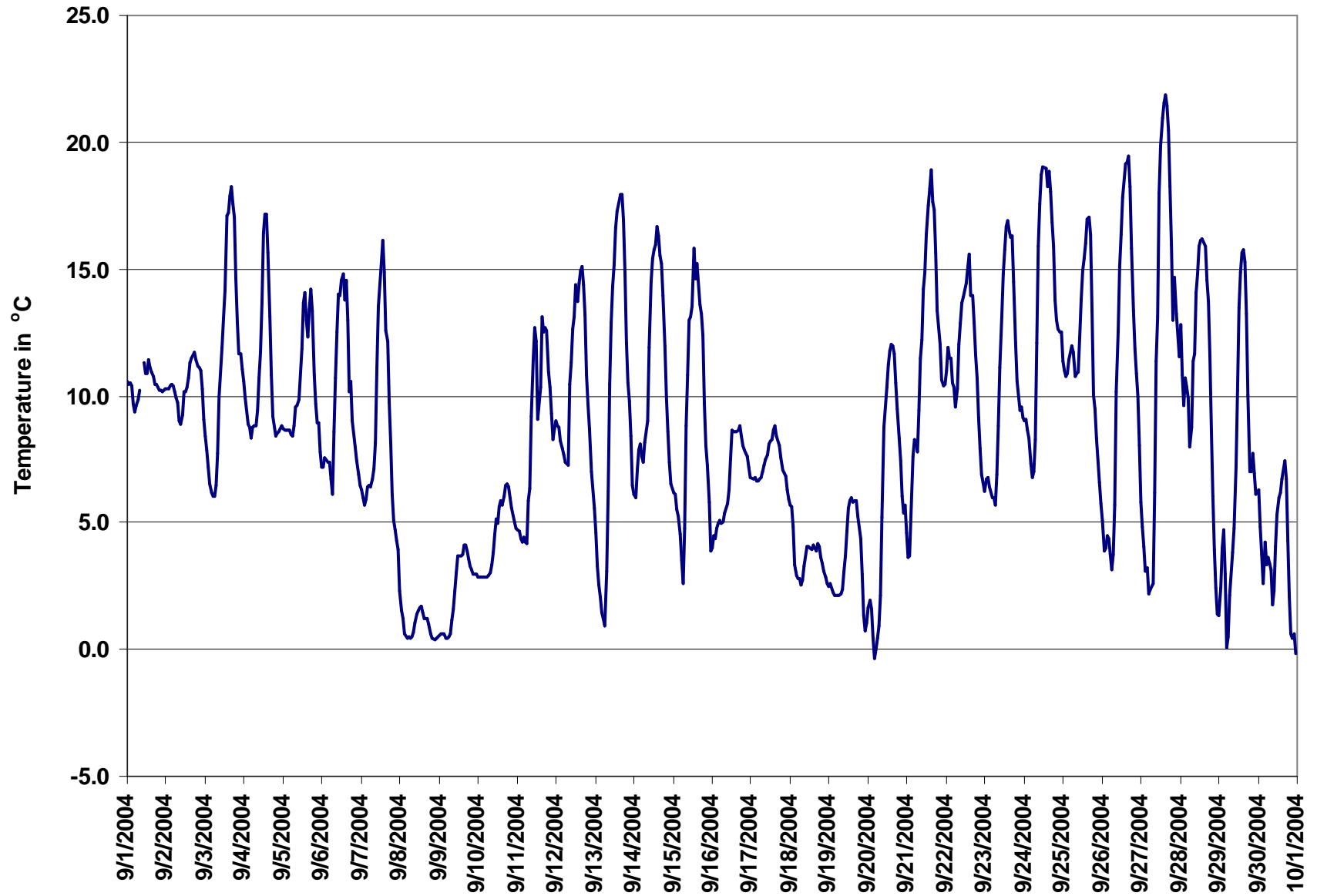


Figure 18. PASZA - Henry Pirker Temperature 1-hr Average Monthly Trend

Station: Henry Pirker

HOURLY AVERAGE TABLE

Solar Radiation (SR - W/m²)

Station Owner: PASZA

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

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	662.8	W/m ²	4-Sep	13:00 14:00
Maximum 24-hr Average:	187.8	W/m ²	13-Sep	

AIC Time:	0 hrs		Operational Time:	719 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	99.9%				
Percentile	99	95	75	50	25	5	1	Average
	579.4	508.2	167.3	8.1	0.0	0.0	0.0	114.4 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

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-Sep-04	0	0	0	0	0	0	0	6	30	122	N	68	21	75	149	42	69	38	20	10	3	0	0	0	0	28	149	
2-Sep-04	0	0	0	0	0	0	0	1	12	22	36	81	131	117	87	63	62	36	24	15	1	0	0	0	0	29	131	
3-Sep-04	0	0	0	0	0	0	0	11	36	91	127	204	207	275	575	273	331	340	218	125	11	0	0	0	0	118	575	
4-Sep-04	0	0	0	0	0	0	0	3	24	52	175	167	358	571	663	551	180	192	54	18	2	0	0	0	0	125	663	
5-Sep-04	0	0	0	0	0	0	0	29	113	216	153	134	322	375	391	231	209	336	283	78	5	0	0	0	0	120	391	
6-Sep-04	0	0	0	0	0	0	0	16	132	232	320	458	417	484	439	227	259	47	175	118	5	0	0	0	0	139	484	
7-Sep-04	0	0	0	0	0	0	0	2	34	49	182	411	483	535	611	277	221	237	62	14	0	0	0	0	0	130	611	
8-Sep-04	0	0	0	0	0	0	0	0	9	43	87	159	159	144	160	139	104	86	44	8	0	0	0	0	0	48	160	
9-Sep-04	0	0	0	0	0	0	0	1	14	130	160	222	237	223	121	136	149	122	36	15	1	0	0	0	0	65	237	
10-Sep-04	0	0	0	0	0	0	0	1	18	45	79	128	154	139	143	117	114	82	50	11	0	0	0	0	0	45	154	
11-Sep-04	0	0	0	0	0	0	0	5	122	129	417	568	565	349	127	359	387	147	53	24	2	0	0	0	0	136	568	
12-Sep-04	0	0	0	0	0	0	0	4	76	266	408	521	492	609	329	386	390	333	230	62	0	0	0	0	0	171	609	
13-Sep-04	0	0	0	0	0	0	0	12	143	238	387	473	553	550	556	494	472	374	212	42	0	0	0	0	0	188	556	
14-Sep-04	0	0	0	0	0	0	0	4	42	97	384	508	603	375	499	588	410	340	152	79	2	0	0	0	0	170	603	
15-Sep-04	0	0	0	0	0	0	0	7	134	247	389	471	424	461	632	311	358	115	158	65	0	0	0	0	0	157	632	
16-Sep-04	0	0	0	0	0	0	0	0	8	26	51	123	249	314	263	266	143	107	71	28	0	0	0	0	0	69	314	
17-Sep-04	0	0	0	0	0	0	0	0	6	23	41	52	64	97	72	86	64	26	10	2	0	0	0	0	0	23	97	
18-Sep-04	0	0	0	0	0	0	0	0	9	27	45	76	63	72	81	101	66	47	60	6	0	0	0	0	0	27	101	
19-Sep-04	0	0	0	0	0	0	0	0	20	58	132	166	311	406	265	231	139	99	90	17	0	0	0	0	0	81	406	
20-Sep-04	0	0	0	0	0	0	0	1	30	141	288	491	553	583	564	389	349	244	119	14	0	0	0	0	0	157	583	
21-Sep-04	0	0	0	0	0	0	0	3	62	185	201	313	248	353	283	297	311	125	141	42	0	0	0	0	0	107	353	
22-Sep-04	0	0	0	0	0	0	0	3	73	219	344	465	408	370	404	395	161	217	68	16	0	0	0	0	0	131	465	
23-Sep-04	0	0	0	0	0	0	0	1	73	201	305	457	538	566	567	522	423	301	167	29	0	0	0	0	0	173	567	
24-Sep-04	0	0	0	0	0	0	0	0	45	196	327	446	529	580	503	267	536	280	69	27	0	0	0	0	0	159	580	
25-Sep-04	0	0	0	0	0	0	0	0	22	50	74	150	340	412	377	397	421	292	154	24	0	0	0	0	0	113	421	
26-Sep-04	0	0	0	0	0	0	0	1	51	154	330	443	522	561	553	506	409	284	147	19	0	0	0	0	0	166	561	
27-Sep-04	0	0	0	0	0	0	0	0	25	165	331	444	520	466	538	488	392	272	137	17	0	0	0	0	0	158	538	
28-Sep-04	0	0	0	0	0	0	0	0	23	184	221	453	510	558	518	467	315	132	78	18	0	0	0	0	0	145	558	
29-Sep-04	0	0	0	0	0	0	0	0	22	119	207	424	503	554	537	486	393	268	86	7	0	0	0	0	0	150	554	
30-Sep-04	0	0	0	0	0	0	0	0	30	78	160	163	328	319	396	292	303	271	127	12	0	0	0	0	0	103	396	
																											N	0
Hourly Avg	0	0	0	0	0	0	0	4	48	127	219	308	360	383	380	313	271	193	110	32	1	0	0	0	0			
Hourly Max	0	0	0	0	0	0	0	29	143	266	417	568	603	609	663	588	536	374	283	125	11	0	0	0	0			

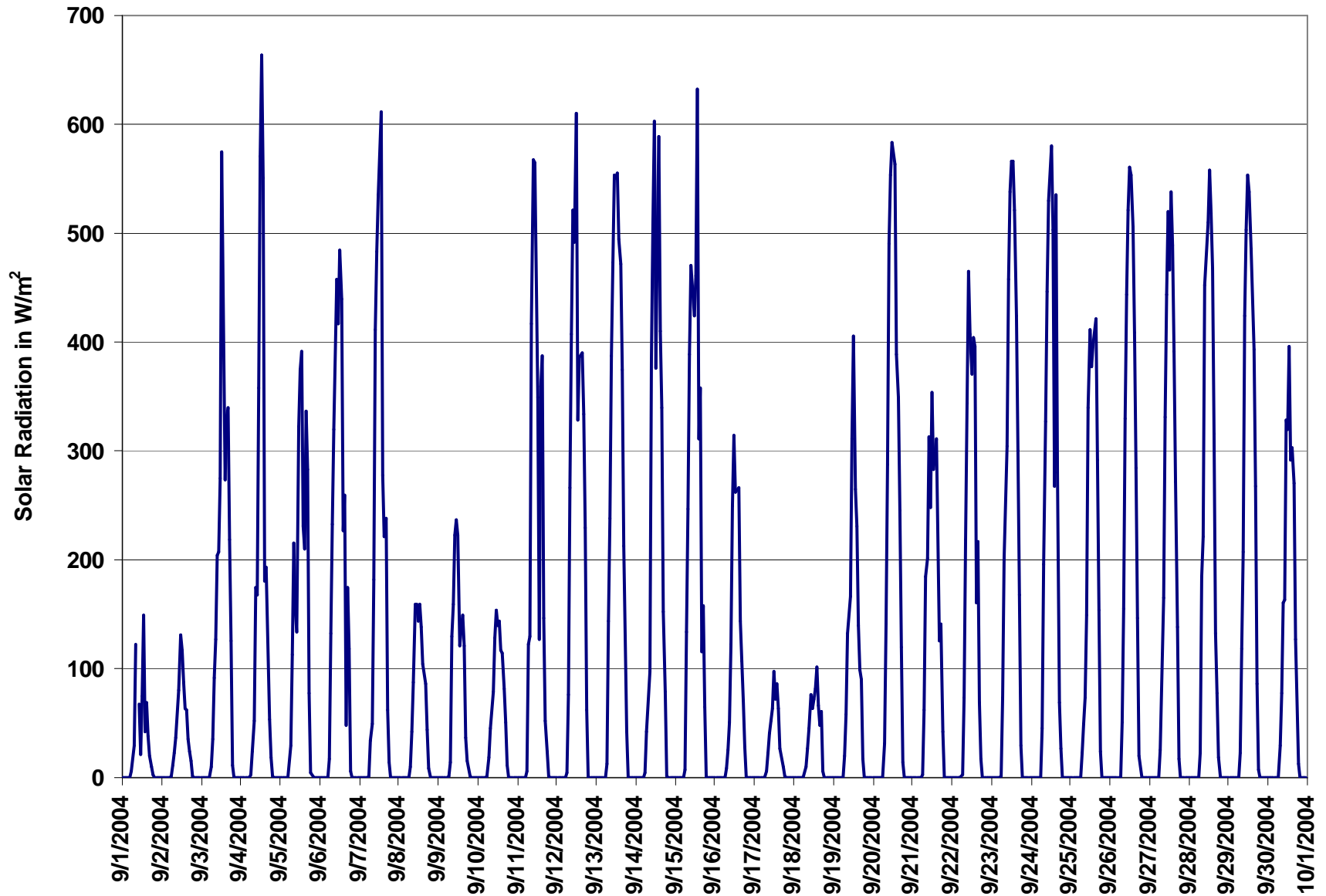


Figure 19. PASZA - Henry Pirker Solar Radiation 1-hr Average Monthly Trend

Station: Henry Pirker

HOURLY AVERAGE TABLE

Wind Speed (WSv - Km/hr)

Station Owner: PASZA

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

Summary

Maximum 1-hr Average:	37.7	km/hr	4-Sep	14:00 15:00
Maximum 24-hr Average:	19.7	km/hr	22-Sep	

Calm Time:	2 hrs	0% calms	Operational Time:	717 hrs					
Calibration Time:	0 hrs		AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	AverageS	AverageV
	32.1	24.8	13.7	9.3	5.3	2.9	1.6	10.8 km/hr	4.5 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	0:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Sep-04	3	3	6	6	3	4	5	5	7	N	11	9	11	15	11	13	13	13	12	14	14	12	13	14	9.4	14.5	
2-Sep-04	13	13	13	13	17	18	20	19	22	24	23	24	21	19	16	14	10	8	5	6	5	4	7	4	12.7	24.3	
3-Sep-04	4	4	4	4	4	2	4	4	3	7	12	13	14	16	17	21	23	22	18	11	11	10	10	8	9.1	23.0	
4-Sep-04	6	7	4	5	6	4	5	5	5	6	6	12	30	32	38	33	22	24	29	25	21	24	24	25	12.9	37.7	
5-Sep-04	25	24	22	18	16	13	14	16	19	18	13	10	9	11	12	11	11	9	7	5	1	2	4	calm	11.1	25.4	
6-Sep-04	3	2	4	2	3	3	4	6	6	10	12	13	14	15	12	7	5	7	9	9	8	7	8	8	1.4	15.2	
7-Sep-04	7	6	5	5	4	4	5	4	4	7	5	3	2	3	11	17	16	16	13	14	12	11	10	8	3.7	17.1	
8-Sep-04	11	9	10	7	7	8	10	8	10	10	11	11	11	12	11	11	10	9	9	7	5	8	8	8	8.9	11.7	
9-Sep-04	10	10	10	10	9	8	9	10	11	13	13	14	14	14	12	11	12	11	10	11	10	10	10	10	10.8	14.0	
10-Sep-04	9	7	6	6	4	3	3	7	7	6	3	6	8	8	11	11	9	8	9	12	12	13	14	14	7.7	14.2	
11-Sep-04	13	14	11	10	9	8	9	9	9	7	5	4	8	9	5	4	9	19	11	12	11	12	24	24	3.8	23.5	
12-Sep-04	25	25	24	23	21	17	11	9	5	17	21	20	19	16	16	15	19	21	14	11	13	11	7	3	15.8	25.5	
13-Sep-04	2	3	3	4	4	3	5	5	4	3	3	3	4	4	4	4	6	5	4	4	4	5	2	2	3.2	6.0	
14-Sep-04	3	5	4	5	7	6	7	6	8	11	18	19	17	24	25	22	14	21	20	16	13	14	10	8	12.3	25.0	
15-Sep-04	6	5	3	2	3	5	3	4	8	8	7	9	11	10	10	8	8	5	5	4	4	4	3	4	3.4	11.2	
16-Sep-04	5	5	6	7	7	8	8	9	10	10	8	9	10	13	12	11	10	9	8	8	9	9	11	10	8.6	13.2	
17-Sep-04	9	10	10	10	8	8	9	8	9	10	8	9	10	9	10	9	10	10	8	9	10	10	10	9	9.2	10.4	
18-Sep-04	10	10	6	7	8	7	6	6	5	4	2	9	9	10	12	13	11	12	13	11	12	12	10	10	3.9	12.7	
19-Sep-04	11	13	12	14	15	15	14	15	17	16	16	18	17	15	15	12	11	12	10	7	6	4	2	4	11.6	17.7	
20-Sep-04	5	5	7	4	2	1	3	5	6	5	13	25	25	24	24	25	23	21	15	11	9	6	6	6	10.5	25.5	
21-Sep-04	7	4	6	12	12	9	11	17	20	17	17	11	26	33	34	27	22	28	31	19	19	15	12	17	17.5	33.8	
22-Sep-04	23	30	30	34	24	25	17	22	30	28	27	22	20	25	29	30	23	13	6	7	7	4	4	5	19.7	34.4	
23-Sep-04	5	3	8	4	7	11	8	6	11	17	22	24	30	30	30	31	27	15	12	8	4	4	6	7	12.2	31.4	
24-Sep-04	7	5	6	5	5	4	6	5	6	4	13	20	30	31	31	33	34	29	25	12	8	8	8	7	12.6	34.2	
25-Sep-04	5	7	9	11	14	18	14	10	10	11	15	20	21	19	15	21	20	15	7	7	9	5	2	4	12.1	21.3	
26-Sep-04	2	2	1	3	2	calm	3	1	4	5	5	4	5	5	4	3	3	5	6	7	6	7	7	3	2.8	7.3	
27-Sep-04	4	3	2	4	4	3	4	2	1	3	8	9	11	17	23	23	24	18	20	13	5	15	11	8	8.5	23.5	
28-Sep-04	12	8	3	9	12	11	6	7	11	10	19	19	17	16	16	13	9	7	4	2	3	3	3	1	8.9	19.2	
29-Sep-04	2	4	6	8	6	2	3	4	3	5	7	9	9	18	18	17	17	15	6	3	3	5	4	5	3.2	18.5	
30-Sep-04	10	7	5	8	19	16	17	18	12	12	8	3	2	7	6	10	9	7	2	4	3	7	5	4	3.8	19.4	
																									N	0.0	
1-hr Vector	1.6	2.0	2.2	2.6	2.7	2.8	1.8	2.3	2.7	4.0	6.1	7.1	8.8	9.9	10.6	10.6	8.5	6.9	5.5	3.3	2.5	2.0	1.4	1.7			
Hourly Max	25.5	29.9	29.9	34.4	23.8	25.0	20.0	21.6	30.1	28.0	26.5	25.5	30.3	32.7	37.7	33.4	34.2	28.6	31.1	25.2	21.2	23.6	24.2	24.7			

Station: Henry Pirker

HOURLY AVERAGE TABLE

Wind Direction (WD - Degrees)

Station Owner: PASZA

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

Summary

Calm Time:	0 hrs	0% calms	Operational Time:	719 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	99.9%				
Percentile	99	95	75	50	25	5	1	Average
	352.5	327.8	267.5	229.6	101.0	32.3	7.3	276 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-Sep-04	70	45	16	15	72	96	85	43	32	N	53	36	26	34	42	38	45	25	24	39	36	36	33	28	38
2-Sep-04	23	13	8	7	4	0	358	3	359	350	344	346	341	336	334	334	343	345	316	305	278	228	241	184	349
3-Sep-04	225	179	159	144	160	175	167	165	201	246	254	262	257	260	269	263	259	255	253	239	239	237	232	220	244
4-Sep-04	204	223	156	147	159	161	150	138	151	130	177	228	256	255	255	256	299	301	296	294	279	277	278	277	263
5-Sep-04	284	293	296	292	297	311	305	302	311	310	321	319	294	297	260	248	241	256	289	270	194	169	150	245	290
6-Sep-04	214	185	246	217	195	179	195	246	274	259	273	298	320	322	320	325	84	83	91	89	88	82	67	84	323
7-Sep-04	73	72	70	81	79	108	158	223	152	198	217	212	153	191	342	323	339	347	336	328	318	322	324	24	341
8-Sep-04	7	6	8	357	353	16	25	26	23	25	28	26	29	42	43	41	45	47	59	57	51	59	62	62	32
9-Sep-04	72	73	66	66	74	73	76	80	84	89	90	91	93	97	99	96	98	99	91	96	91	90	94	102	88
10-Sep-04	108	112	112	115	135	171	158	172	171	136	169	155	132	120	108	107	100	97	90	96	104	100	98	102	115
11-Sep-04	100	95	84	81	79	71	80	84	104	133	147	172	211	227	233	248	234	216	251	237	231	239	222	247	185
12-Sep-04	249	252	255	257	272	279	296	292	265	265	272	279	278	286	277	279	262	256	251	241	250	251	259	244	265
13-Sep-04	153	167	154	153	172	156	159	162	173	253	253	210	154	141	171	192	140	112	110	96	88	109	134	325	152
14-Sep-04	319	295	277	244	258	242	230	229	200	206	237	248	249	262	263	271	284	260	261	267	248	249	241	230	254
15-Sep-04	238	229	205	169	236	214	168	165	248	239	242	214	250	269	273	267	279	7	79	72	49	56	12	332	251
16-Sep-04	9	28	53	68	79	67	73	74	84	91	75	71	74	90	67	49	46	52	61	47	53	60	64	57	64
17-Sep-04	60	62	68	63	56	59	61	77	76	89	94	100	94	96	92	77	75	64	53	45	61	71	72	78	73
18-Sep-04	79	73	153	231	220	228	216	216	221	236	248	59	46	32	19	10	12	360	355	336	332	346	339	320	355
19-Sep-04	317	318	308	304	296	289	287	289	288	287	292	296	288	300	291	289	293	295	294	304	333	316	150	159	296
20-Sep-04	230	267	331	329	225	169	183	165	168	196	258	255	257	257	261	266	253	254	252	230	239	236	210	216	249
21-Sep-04	176	154	214	253	256	259	251	261	259	254	255	272	253	254	251	246	252	249	254	251	258	234	231	254	250
22-Sep-04	255	258	256	253	255	253	249	252	253	257	269	279	266	255	262	253	256	252	216	238	219	205	183	158	255
23-Sep-04	137	185	356	190	185	227	233	245	257	252	255	254	267	275	274	265	272	253	231	254	229	216	198	172	254
24-Sep-04	169	168	203	183	167	218	202	201	179	268	276	265	267	265	268	273	277	273	276	279	245	243	235	256	259
25-Sep-04	237	251	251	263	261	266	260	274	280	285	282	287	266	264	256	276	274	280	302	293	290	283	294	269	272
26-Sep-04	339	212	217	268	298	103	149	191	168	218	205	218	194	202	237	198	154	134	100	105	109	109	112	134	167
27-Sep-04	145	272	266	174	130	145	153	193	247	197	180	245	262	264	266	269	277	266	270	272	228	272	243	230	255
28-Sep-04	244	309	286	266	259	280	265	307	304	306	307	307	303	305	308	301	308	323	344	34	314	321	283	230	297
29-Sep-04	72	93	92	97	123	15	83	108	114	160	222	250	284	301	314	322	328	346	357	262	257	233	277	239	310
30-Sep-04	243	262	275	321	341	338	321	328	1	74	78	32	178	242	256	277	285	286	1	116	143	158	140	128	318
Hourly Avg	257	281	290	273	274	279	267	276	277	261	271	278	272	275	277	279	286	286	286	288	272	259	236	239	N

Station: Henry Pirker

STANDARD DEVIATION TABLE

Wind Direction (WD - Degrees)

Station Owner: PASZA

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

Summary

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	719 hrs			
Calibration Time:	0 hrs		AMD Operational Uptime:	99.9%			
Percentile	99	95	75	50	25	5	1
	53.1	37.9	15.2	9.9	7.1	4.6	3.6

Status Flag Characters

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

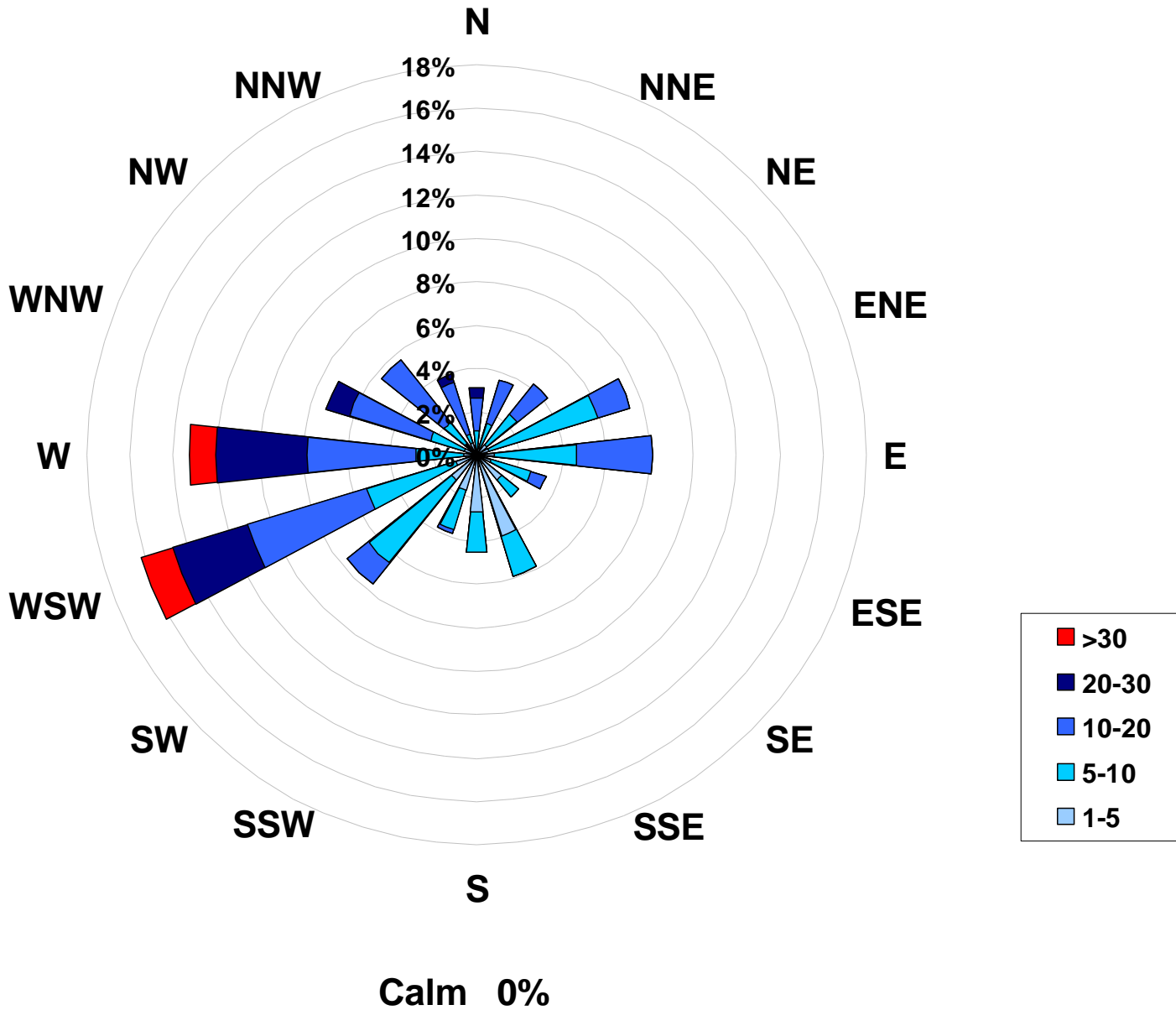
Day Mountain Standard Time

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	23:00	0:00
1-Sep-04	21	31	13	8	29	18	16	13	N	17	15	11	10	12	13	11	10	11	10	10	10	10	9	8		
2-Sep-04	9	6	6	6	5	4	3	4	5	4	5	5	6	6	5	5	7	7	8	6	15	34	8	19		
3-Sep-04	15	16	8	13	9	24	12	13	30	11	9	9	7	10	8	7	6	6	6	6	6	6	5	7		
4-Sep-04	10	8	17	10	5	18	13	13	15	16	15	9	7	6	6	8	9	8	4	5	5	4	4	4		
5-Sep-04	4	4	4	3	4	6	6	6	6	6	8	14	20	17	9	8	11	14	10	16	50	50	17	25		
6-Sep-04	15	38	46	33	25	24	13	12	13	11	12	11	12	10	11	24	58	30	10	8	9	12	10	10		
7-Sep-04	10	11	18	18	23	17	16	26	23	18	34	41	59	46	12	10	7	7	7	7	6	7	9	17		
8-Sep-04	6	7	7	6	6	9	10	12	9	11	11	11	10	11	11	11	13	12	16	14	19	10	9	10		
9-Sep-04	9	9	10	8	9	10	8	8	8	8	8	7	8	8	9	10	8	8	8	8	8	8	7	8		
10-Sep-04	8	10	12	11	11	13	14	8	11	15	37	23	20	15	12	12	13	12	8	7	6	7	6	6		
11-Sep-04	7	8	7	8	11	10	8	9	10	16	38	42	35	47	28	28	19	12	6	8	8	9	6	5		
12-Sep-04	4	4	3	4	5	4	8	6	18	9	8	10	11	9	11	12	10	6	7	5	5	7	24	50		
13-Sep-04	53	19	26	8	12	16	4	6	20	37	28	33	48	34	35	38	43	21	10	5	6	5	33	33		
14-Sep-04	23	20	17	16	9	16	10	9	9	12	10	11	11	7	10	13	11	6	6	5	9	6	7	8		
15-Sep-04	9	21	27	37	48	7	23	19	13	10	21	14	15	18	14	25	11	17	16	14	22	16	28	32		
16-Sep-04	19	20	15	16	14	12	11	11	10	9	12	16	12	10	12	13	13	13	16	13	11	10	9	11		
17-Sep-04	11	10	10	10	12	12	10	11	10	8	9	11	9	10	8	9	10	11	13	12	10	8	10	10		
18-Sep-04	10	10	27	14	11	14	12	16	12	14	44	12	13	13	10	8	9	5	6	6	6	7	6	7		
19-Sep-04	6	5	6	6	5	5	5	5	5	6	8	9	9	13	9	8	9	9	6	9	6	14	21	10		
20-Sep-04	14	13	5	15	38	31	49	14	11	31	15	8	9	11	9	8	6	5	7	8	7	8	9	9		
21-Sep-04	10	19	11	7	7	15	11	4	6	6	8	18	6	4	6	7	6	9	6	6	7	9	8	5		
22-Sep-04	5	5	5	3	4	6	5	6	4	6	8	9	12	9	8	5	5	6	11	8	10	32	16	12		
23-Sep-04	8	53	13	23	13	5	8	13	8	7	7	8	7	8	6	7	6	8	8	15	33	19	13	6		
24-Sep-04	6	12	5	10	8	18	9	9	15	28	10	10	6	7	7	6	5	5	4	7	10	6	6	6		
25-Sep-04	13	8	6	6	4	5	7	8	5	8	7	7	8	9	10	12	8	6	9	12	8	42	50	31		
26-Sep-04	35	53	45	56	27	55	34	45	14	16	25	33	31	41	34	55	43	17	5	4	4	4	4	28		
27-Sep-04	14	29	37	12	16	28	19	30	43	30	13	15	15	10	9	8	5	6	4	6	24	5	8	8		
28-Sep-04	10	13	41	11	14	5	8	15	11	10	8	9	10	9	12	11	7	6	21	16	12	15	19	36		
29-Sep-04	44	21	6	4	12	24	16	18	19	15	19	14	19	11	9	9	9	6	9	23	14	21	42	24		
30-Sep-04	6	10	19	10	7	4	5	5	16	11	22	60	63	21	30	13	17	13	29	11	36	4	12	8		

Daily Maximum
30.7
33.7
29.8
17.9
49.9
57.8
58.7
18.9
9.9
36.7
47.1
50.5
52.5
22.7
48.4
19.8
13.3
43.8
20.7
48.7
19.0
32.3
53.0
28.0
50.4
55.5
43.1
41.0
43.9
62.7

Hourly Max	53	53	46	56	48	55	49	45	43	37	44	60	63	47	35	55	58	30	29	23	50	50	50	50
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Wind Rose for the 1-hr Average Meterological Data at the Henry Pirker Site for September 2004



PEACE AIRSHED ZONE ASSOCIATION

PASZA Monthly Passive Data Summary

Table 1. PASZA Passive Stations for September 2004

PASZA					
Station Number	Station Name	SO ₂ ppb	O ₃ ppb	NO ₂ ppb	Site Legal
Duplicates					
33a	Guy	0.1	16.2	0.6	
33b	Guy	0.1	16.2	0.6	
30a	Puskwaskau	0.1	17.2	0.7	
30b	Puskwaskau	0.1	17.3	0.6	
29a	Crooked Creek	0.4	20.3	0.5	
29b	Crooked Creek	0.2	18.9	0.5	
49a	Grande Prairie HP	0.1	19.0	4.1	
49b	Grande Prairie HP	0.1	16.5	4.2	
1	Silver Valley	0.2	20.8	0.7	08-27-081-11 W6M
2	Bay Tree	0.1	22.5	0.2	13-16-078-13 W6M
3	Forth Creek	0.1	24.3	0.4	04-13-082-07 W6M
4	Gordondale	0.1	25.8	0.6	04-34-078-10 W6M
5	Boone Creek	0.1	18.3	0.4	01-23-076-11 W6M
7	Steepprock Creek	0.2	25.3	0.3	09-35-072-13 W6M
9	Spirit River	0.3	21.9	0.6	08-12-079-07 W6M
10	Woking	0.2	19.8	0.5	01-13-076-07 W6M
11	Webber Creek	0.2	18.2	0.5	09-36-074-09 W6M
12	Hythe	0.2	19.3	0.6	14-36-072-11 W6M
14	Sylvester	0.0	17.7	0.2	08-06-069-12 W6M
16	Beaverlodge	0.1	21.4	0.9	15-36-071-10 W6M
17	Poplar	0.2	14.1	0.5	13-06-073-08 W6M

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

PASZA					
Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
18	Saddle Hills	0.1	22.3	0.5	04-25-074-07 W6M
19	Wanham	0.2	20.3	0.4	16-22-077-03 W6M
20	Shaftesbury	0.1	17.0	0.4	04-03-082-23 W5M
21	Eaglesham	0.1	16.9	0.3	16-21-079-25 W5M
23	Bear Lake	0.1	17.7	0.6	15-31-072-06 W6M
24	Wembley	0.1	19.8	0.7	12-31-070-08 W6M
25	Pinto Creek	0.1	19.1	0.6	04-24-069-11 W6M
26	Flyingshot	0.1	15.4	0.7	15-36-070-07 W6M
27	Grande Prairie I	0.1	15.8	3.1	08-15-071-06 W6M
28	Clairmont Lake	0.2	22.0	0.7	09-06-073-04 W6M
29	Smoky Heights	0.3	19.6	0.5	04-06-075-02 W6M
30	Fitzsimmons	0.1	17.3	0.6	15-36-072-03 W6M
32	Gold Creek	0.1	15.0	0.5	06-33-067-05 W6M
33	Wapiti	0.1	16.2	0.6	02-25-071-03 W6M
34	Puskwaskau	0.1	17.3	0.6	15-35-074-25 W5M
35	Jean Cote	0.2	17.3	0.4	12-35-079-21 W5M
36	Guy	0.0	20.8	0.2	03-04-076-22 W5M
37	Crooked Creek	0.1	17.6	0.5	16-01-071-26 W5M
38	Karr Creek	0.1	12.1	0.2	10-16-065-02 W6M
39	Clouston Creek	0.1	17.5	0.4	12-01-073-22 W5M
40	McLennan	0.1	21.9	0.7	03-29-077-19 W5M
41	Valleyview	0.1	18.1	0.4	09-30-069-22 W5M
42	Sunset House	0.1	18.5	0.3	05-32-070-19 W5M
43	High Prairie	0.0	19.3	0.4	16-13-074-17 W5M
44	Peavine	0.1	16.1	0.3	03-05-079-15 W5M
45	Gift Lake	0.0	22.1	0.5	10-07-079-12 W5M
46	Little Smoky	0.1	13.3	1.2	12-01-065-21 W5M
47	Kinuso	0.0	17.4	0.5	12-10-073-10 W5M
48	Deer Mountain	0.1	14.5	0.2	15-22-068-09 W5M
49	Grande Prairie HP	0.1	17.7	4.1	17-26-071-06 W6M

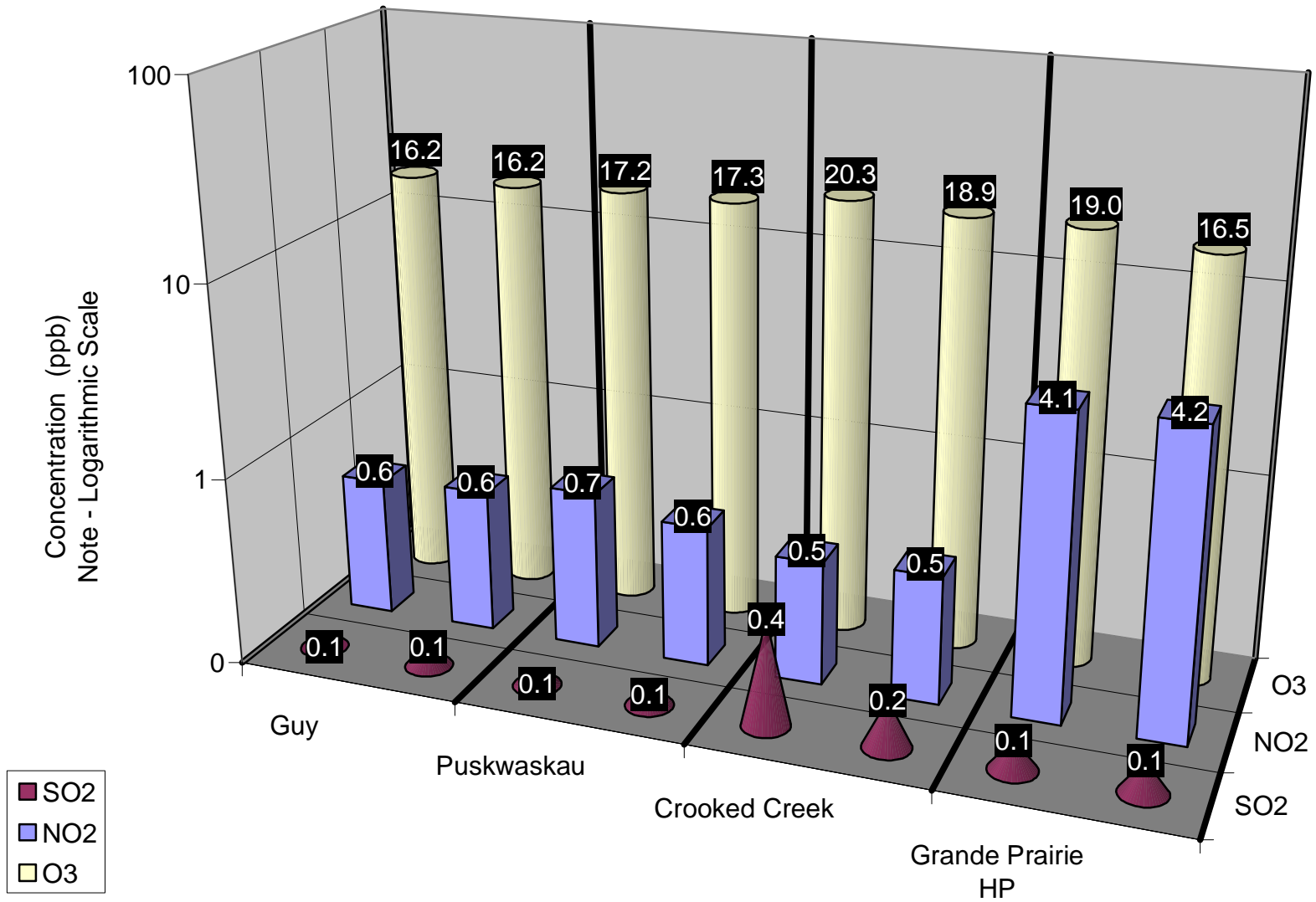


Figure 20. Duplicate Summary Chart

Table 2. Passive Summary Results for September 2004

Stats	Sulphur Dioxide	Ozone	Nitrogen Dioxide
	SO ₂	O ₃	NO ₂
	ppb	ppb	ppb
Passive Summary for Aug 2004 (PASZA Zone)			
Mean	0.1	18.7	0.7
Standard Deviation	0.1	3.1	0.7
Minimum	0.0	12.1	0.2
	Gift Lake (#45)	Karr Creek (#38)	Sylvester (#14)
Maximum	0.3	25.8	4.1
	Spirit River (#9)	Gordondale (#4)	Grande Prairie HP (#49)

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

	SO ₂	O ₃	NO ₂
AENV Beaverlodge station	0.3	25.6	2.8
PASZA Beaverlodge passive	0.1	21.4	0.9

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

	SO ₂	O ₃	NO ₂
PASZA Henry Pirker station	0.2	23.5	2.2
PASZA Grande Prairie passive	0.1	17.7	4.1

PASZA Passive SO₂ Stations - Sept 2004
Average Concentrations in ppb

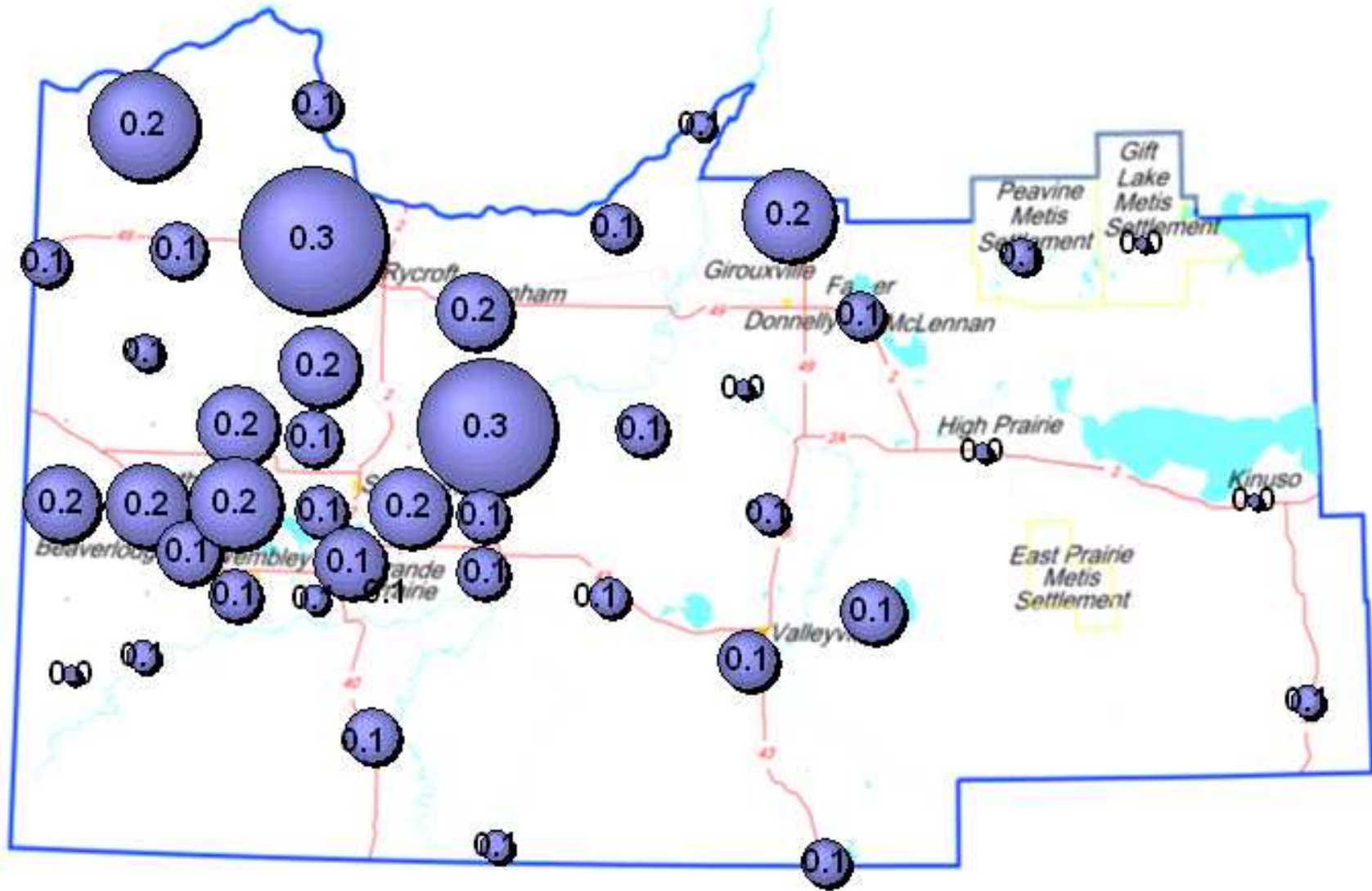


Figure 21. SO₂ Bubble Chart

Alberta Ambient Air Quality Guidelines - Annual SO₂ Guideline is 11 ppb

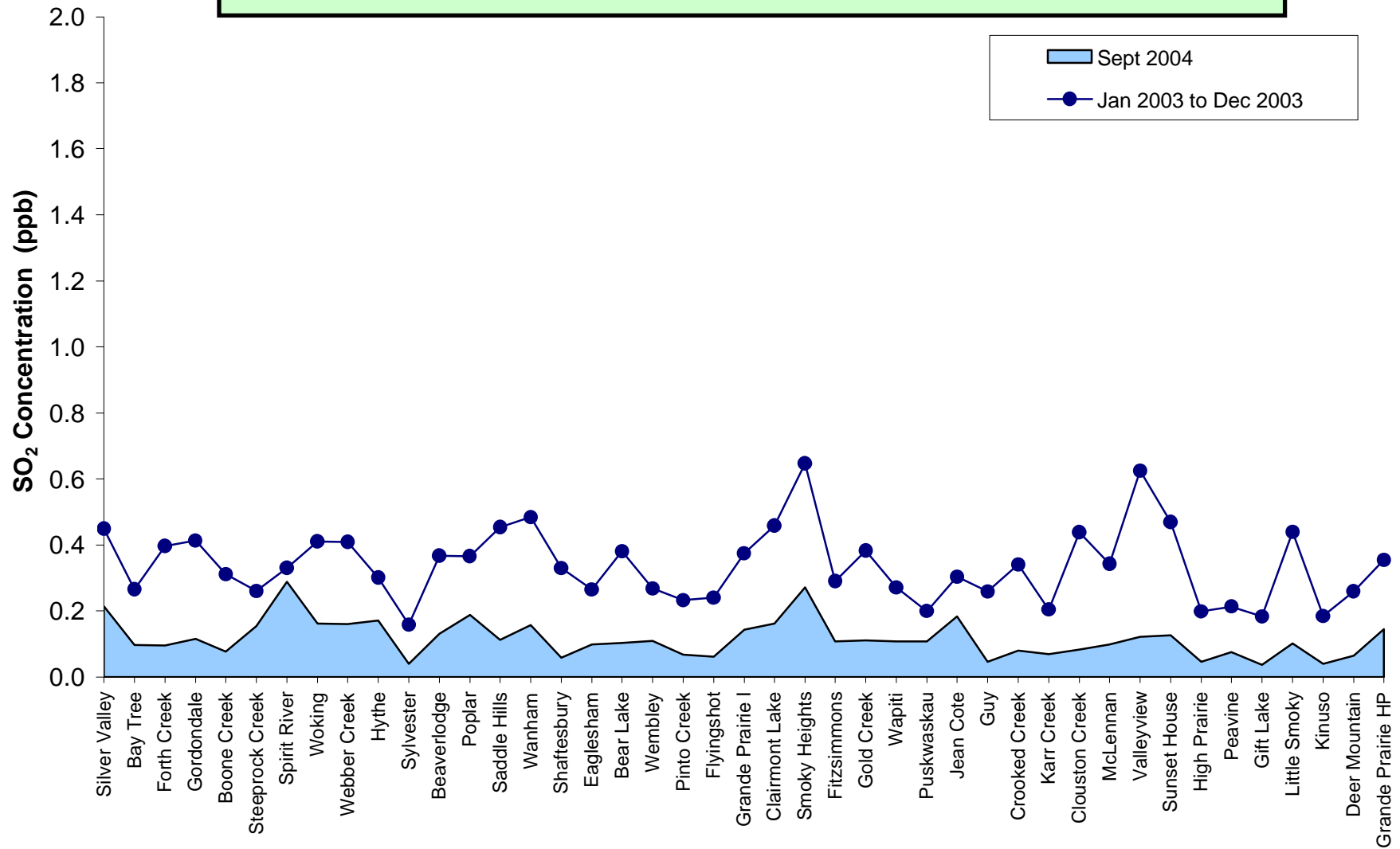


Figure 22. SO₂ Summary Chart

PASZA Passive O₃ Stations - Sept 2004
Average Concentrations in ppb

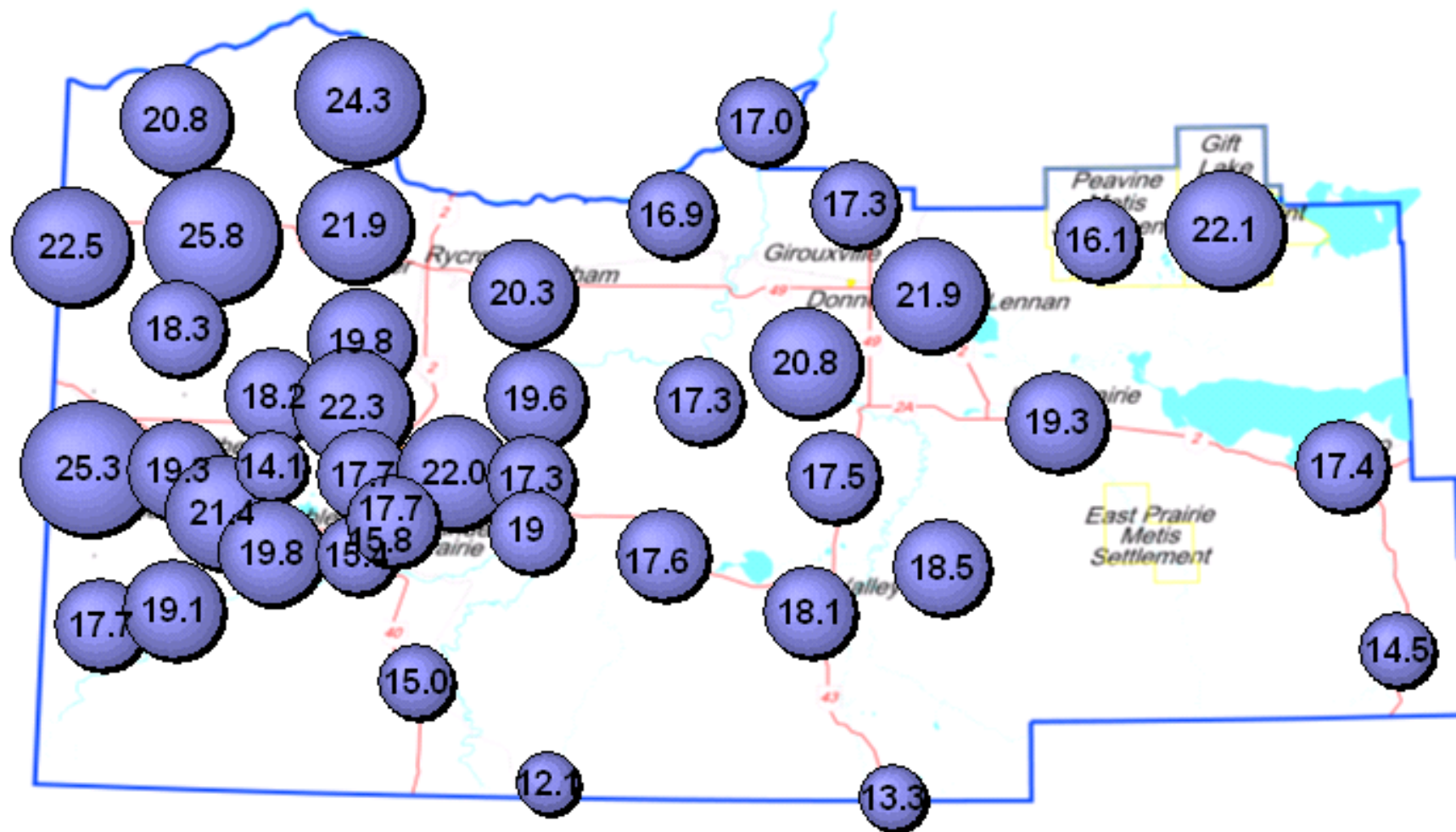


Figure 23. O₃ Bubble Chart

Alberta Ambient Air Quality Guidelines - No Annual O₃ Guideline

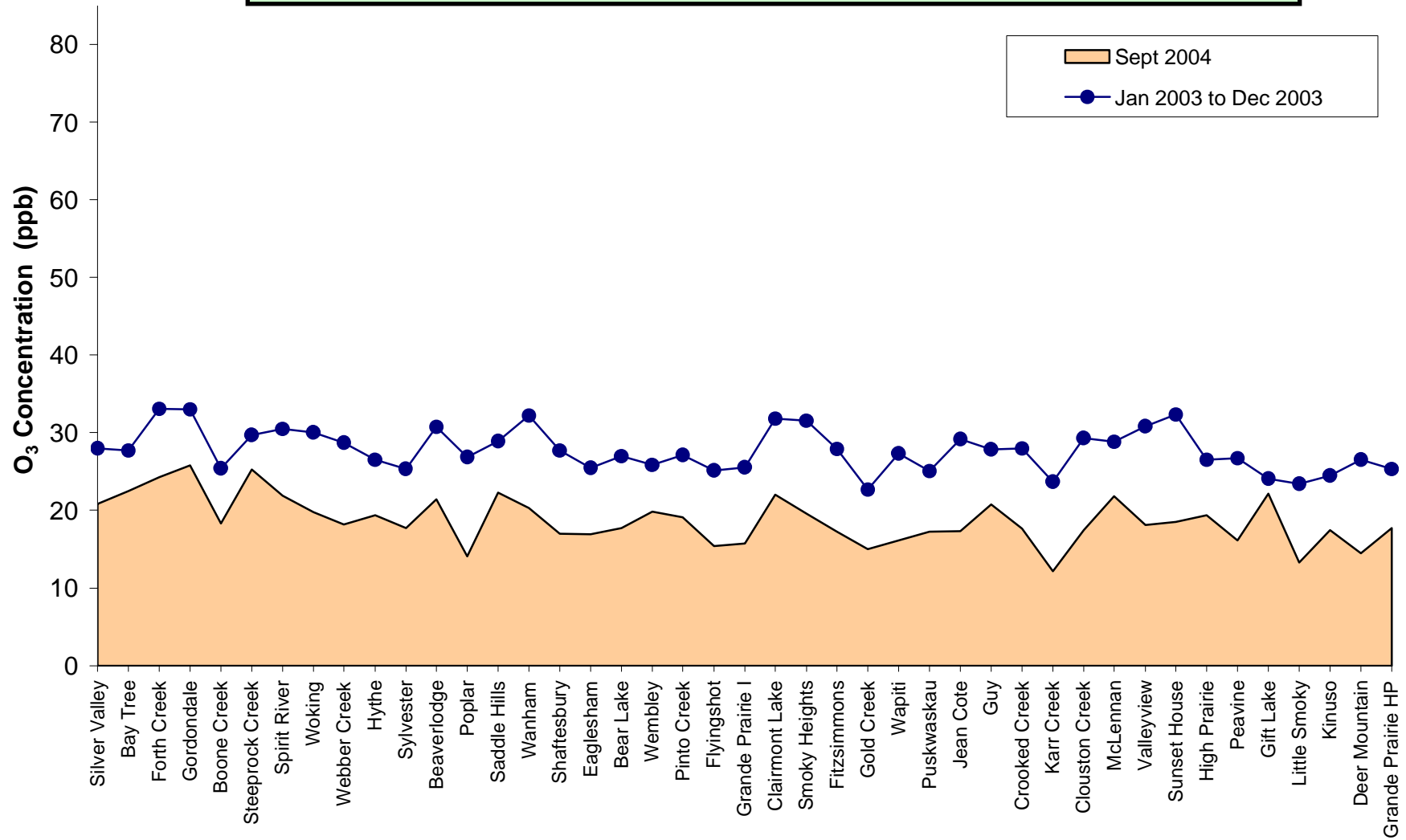


Figure 24. O₃ Summary Chart

PASZA Passive NO₂ Stations - Sept 2004 Average Concentrations in ppb

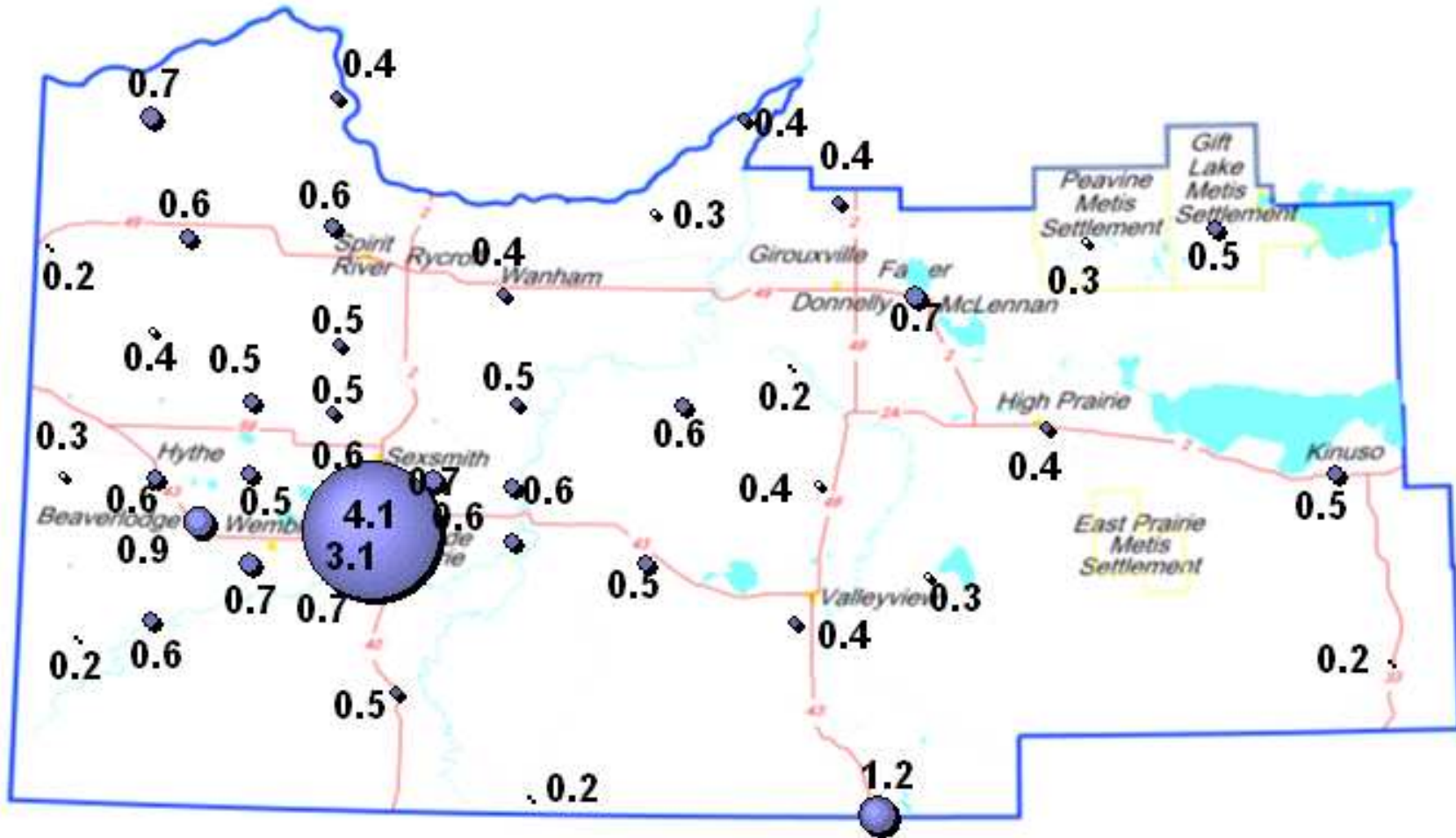


Figure 25. NO₂ Bubble Chart

Alberta Ambient Air Quality Guidelines - Annual NO₂ Guideline is 32 ppb

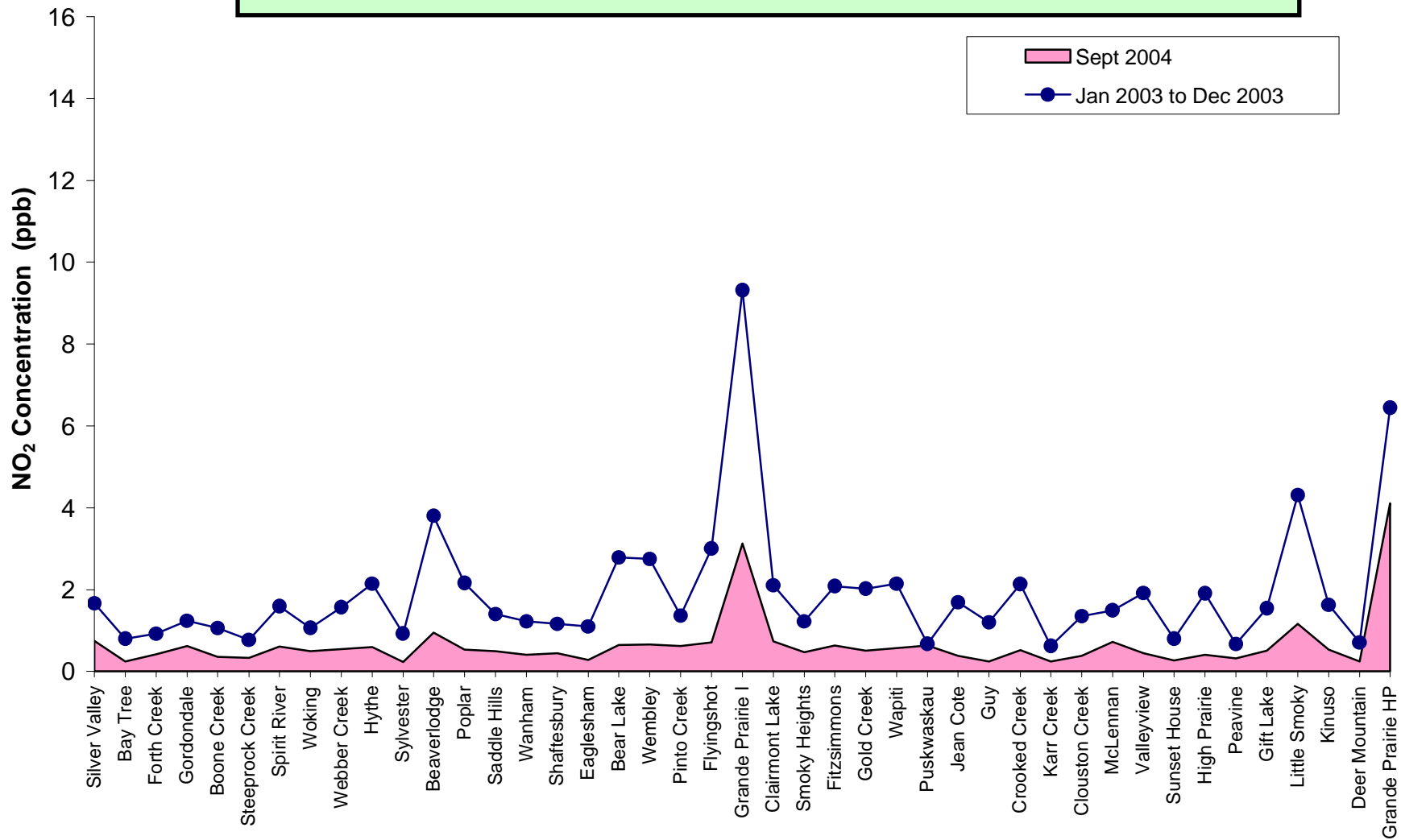


Figure 26. NO₂ Summary Chart

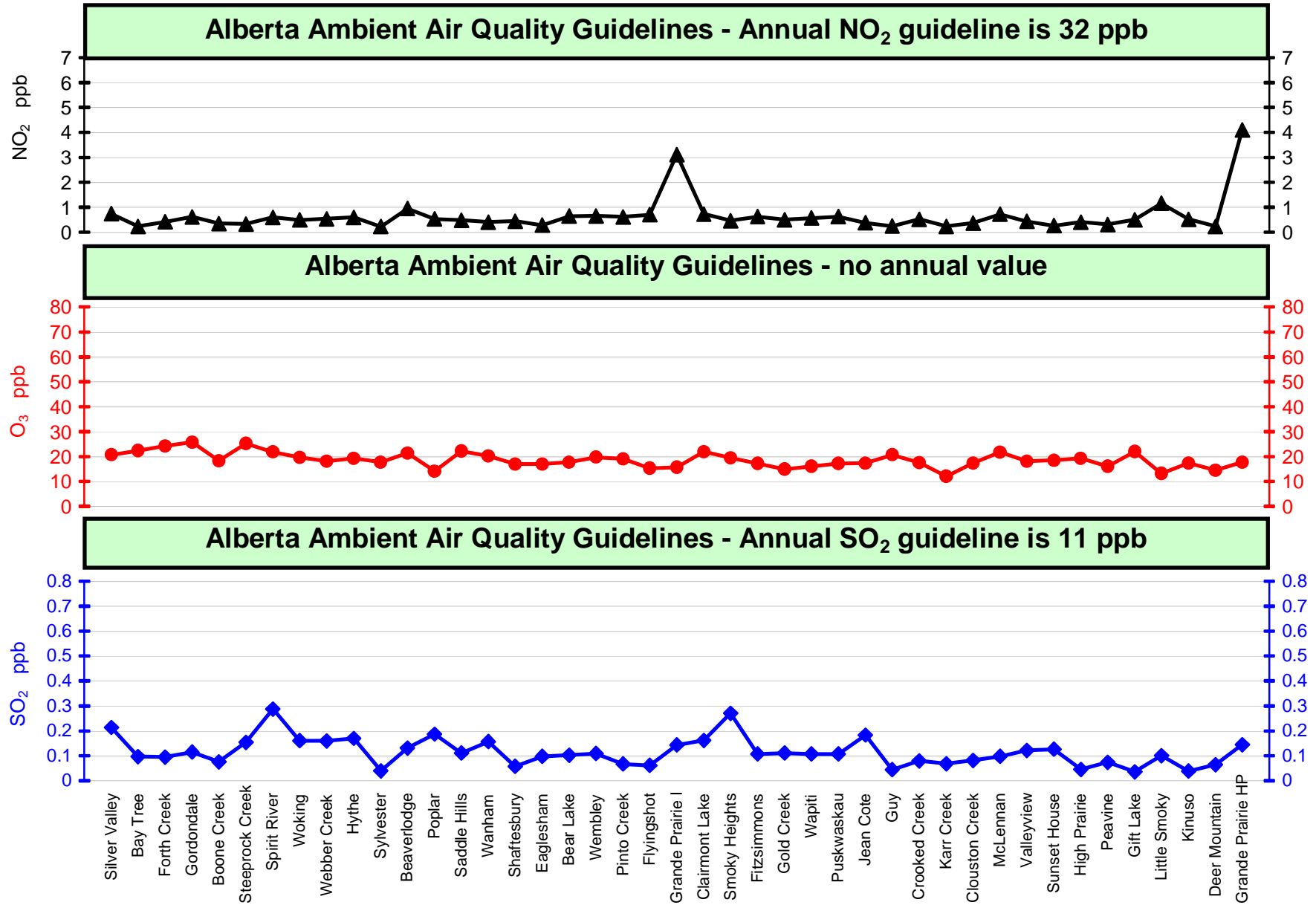


Figure 27. Overview Summary

September 2004 Calibration Reports

PASZA - Henry Pirker Station with the following calibrations:

SO₂, NO, NO₂, NO_x, O₃, CO, THC, TRS, PM_{2.5}

Calibration ReportParameter SO2Air Monitoring Network PASZA**Station Information**

Calibration Date	September 1, 2004	Previous Calibration	August 4, 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)	16:10	End Time (MST)	18:55
Barometric Pressure	27.5 inches Hg	Station Temperature	19.5 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	2,995 ng/min	Perm-tube Expiry Date	12/10/2005
Correction factor	0.937422	Perm-tube Cert #	19-13334
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	0.998233	Calculated slope	0.988280
Calculated intercept	0.731486	Calculated intercept	0.314696
Analyzer make	TEI Model 43A	Analyzer serial #	43A-21120-195

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
SO2 zero pot	177		178	
SO2 span pot	199		199	
UV Lamp voltage	902		905	
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	2863.8	0.0	-0.4	N/A
3055	2863.8	399.2	403.7	0.9888
6062	5682.7	201.2	202.8	0.9918
12320	11549.0	99.0	100.2	0.9875
zero	2863.8	0.0	-0.4	As Found Zero
3055	2863.8	399.2	403.7	As Found Span
Average Correction Factor				0.9894

Calculated value of As Found Response: 404.137 ppm Percent Change of As Found: -1.2%

	before calibration		after calibration	
Auto zero	0.6	ppm	-0.2	ppm
Auto span	338.9	ppm	332.6	ppm

Notes: No maintenance performed. All analyzer functions appear normal.Calibration Performed By: Kelly Baragar

Calibration Summary

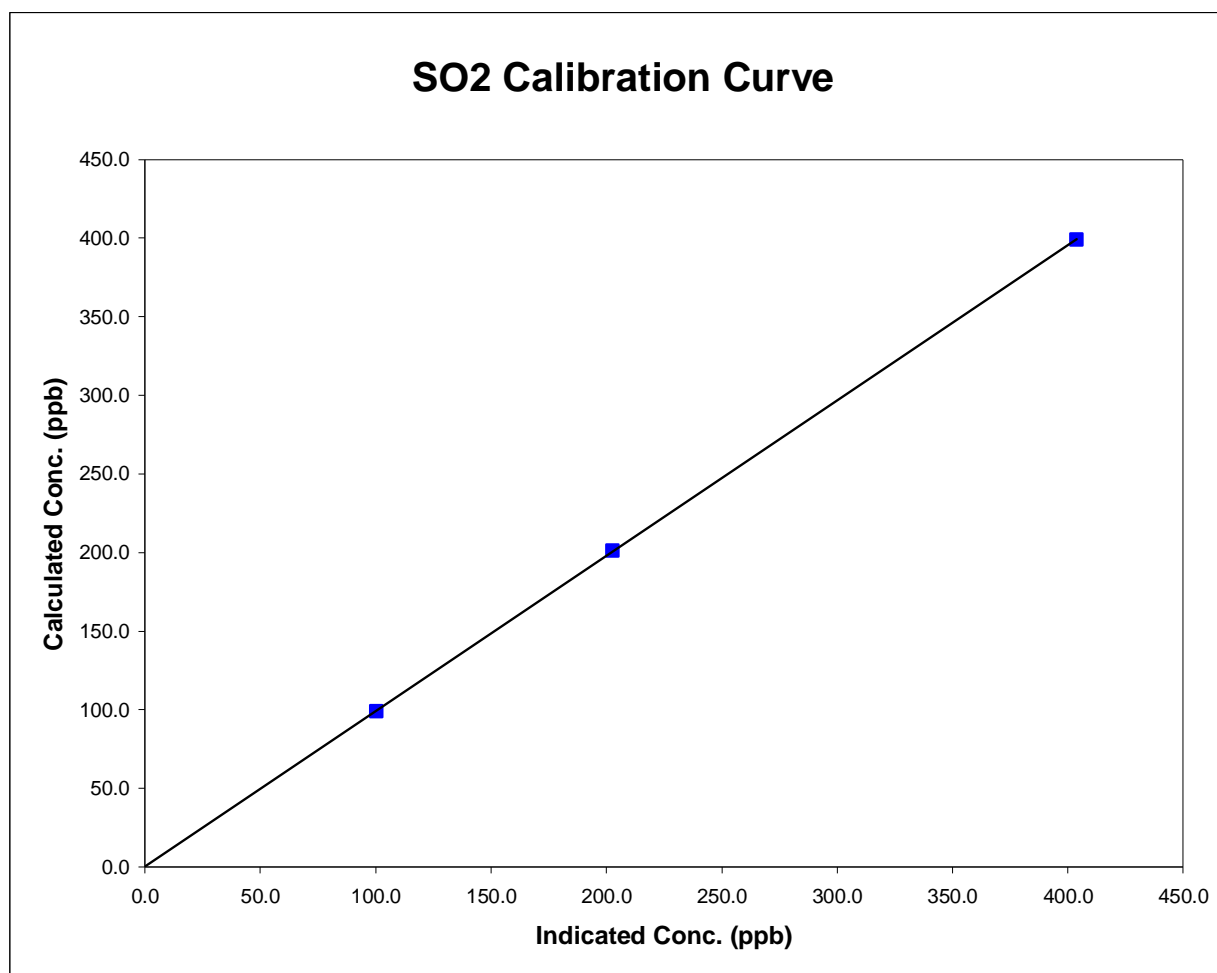
Parameter SO2Air Monitoring Network PASZA

Station Information

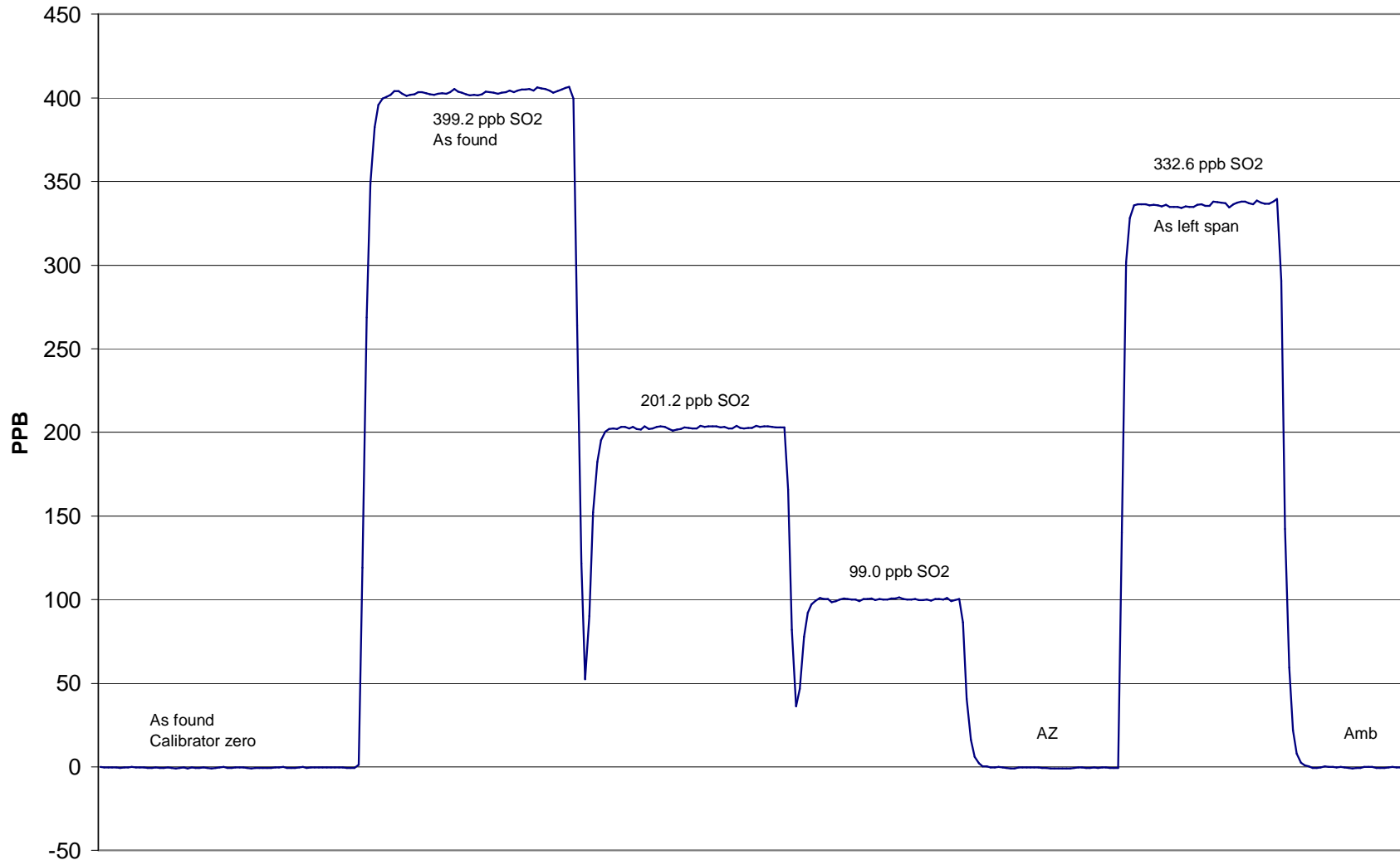
Calibration Date	September 1, 2004	Previous Calibration	August 4, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	16:10	End Time (MST)	18:55
Analyzer make/model	TEI Model 43A	Analyzer serial #	43A-21120-195

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	N/A		
399.2	403.7	0.9888	Correlation Coefficient	0.999996
201.2	202.8	0.9918		
99.0	100.2	0.9875	Slope	0.988280
			Intercept	0.314696



SO2 Calibration



September 01, 2004

Calibration Report

Parameter **NOx-NO-NO₂**
 Air Monitoring Network **PASZA**



Station Information

Calibration Date September 1, 2004 Previous Calibration August 4, 2004
 Station Number 1 Station Location Muskoseepi Park

Reason: Routine Installation Removal Other: _____

Start Time (MST) 10:00 End Time (MST) 15:50
 Barometric Pressure 0.923 Atm Station Temperature 19.5 Deg C
 Calibrator EnviroNics 6100 Serial Number 3016
 NO Cal Gas Conc 50.3 ppm Cal Gas Expiry Date 19-Jan-06
 NOx Cal Gas Conc 50.5 ppm Cal Gas Serial # ALM025793

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	1.000348	1.003328	1.003475
	Data Offset	-0.116947	-0.735798	-0.791541
After	Data Slope	1.005927	0.998361	0.998180
	Data Offset	-0.966547	0.087998	-0.042497
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	5.7	ppb	9.8	mV
NOx background	6.0	ppb	10.2	mV
NO coefficient	1.050		1.148	
NOx coefficient	1.003		1.003	
Chamber Temp	49.9	Deg C	49.9	Deg C
Cooler Temp	-0.4	Deg C	2.0	Deg C
Converter Temp	324.0	Deg C	324.0	Deg C
Vacuum	22.8	inches Hg	22.4	inches Hg
Box temp	29.2	ccm	29.5	ccm

Notes: Vacuum had dropped 0.4", and is sourced as the likely as found response change variable.
Analyzer was zero and span adjusted.
Span box flows balanced to bring span into range.

Calibration Report

Parameter **NO_x-NO-NO₂**
Air Monitoring Network **PASZA**



Station Information

Calibration Date: September 1, 2004

Station Location:

Muskoseepi Park

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NO _x conc (ppb)	Calculated NO conc (ppb)	Calculated NO ₂ conc (ppb)	Indicated NO _x conc (ppb)	Indicated NO conc (ppb)	Indicated NO ₂ conc (ppb)	NO _x 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	401.7	400.2	1.4	0.9983	0.9981
2	4993	19.98	201.3	200.5	0.8	201.4	201.0	0.5	0.9992	0.9977
3	4993	9.99	100.8	100.4	0.4	100.7	100.6	0.0	1.0018	0.9988
AFZ	4993	0.00	0.0	0.0	0.0	3.6	3.7	0.0	0.0000	0.0000
AFS	4993	39.97	401.1	399.5	1.6	369.8	369.0	0.8	1.0846	1.0826
Average Correction Factor									0.9998	0.9982

As Found Concentrations: NO_x= 365.4 NO= 364.4 As Found Percent Change NO_x= -8.9% NO= -8.8%

GPT Calibration Data

Dilution Flow 4993 ccm Source Gas Flow 39.97 ccm

O3 Setpoint (ppb)	Calculated NO _x conc (ppb)	Calculated NO conc (ppb)	Calculated NO ₂ conc (ppb)	Indicated NO _x conc (ppb)	Indicated NO conc (ppb)	Indicated NO ₂ conc (ppb)	NO _x Correction factor	NO Correction factor	NO ₂ 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	399.4	84.0	315.4	398.5	84.2	313.8	1.0024	0.9977	1.0048	99.5%
200	399.4	219.8	179.6	400.3	220.2	180.2	0.9977	0.9980	0.9965	100.4%
100	399.4	310.0	89.4	401.1	310.6	90.5	0.9957	0.9980	0.9874	101.3%
Average Correction Factor							0.9986	0.9979	0.9962	100.4%

AIC Data

Parameter	Previous calibration				Current calibration			
	NO _x	NO ₂	NO		NO _x	NO ₂	NO	
Auto zero	2.3	1.4	1.0	ppb	0.1	-0.7	-0.4	ppb
Auto span	305.6	294.4	9.6	ppb	313.8	309.1	5.3	ppb

Calibration Performed By: Kelly Baragar

Calibration Summary

Parameter NO₂
 Air Monitoring Network PASZA

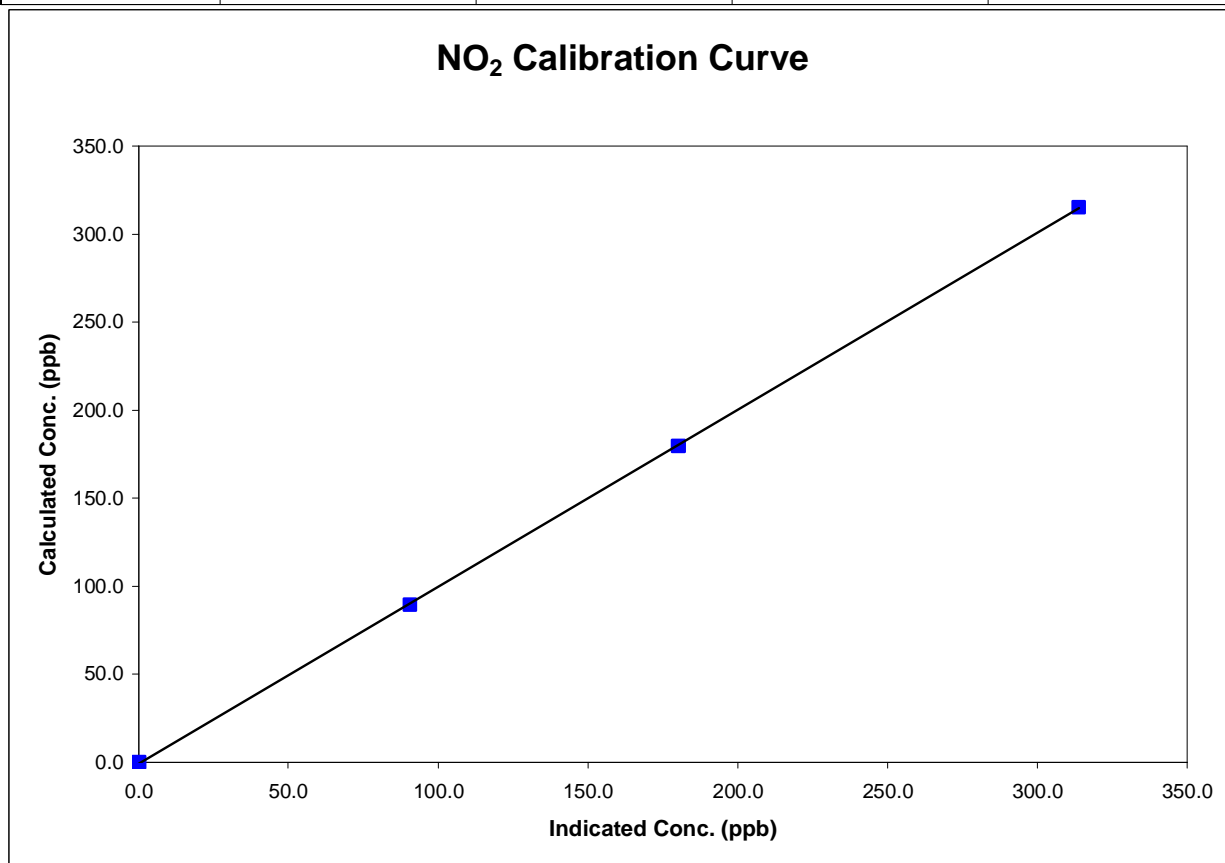


Station Information

Calibration Date	September 1, 2004	Previous Calibration	August 4, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	10:00	End Time (MST)	15:50
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	0.0000	Correlation Coefficient	0.999961
315.4	313.8	1.0048		
179.6	180.2	0.9965		
89.4	90.5	0.9874		
			Slope	1.005927
			Intercept	-0.966547



Calibration Summary

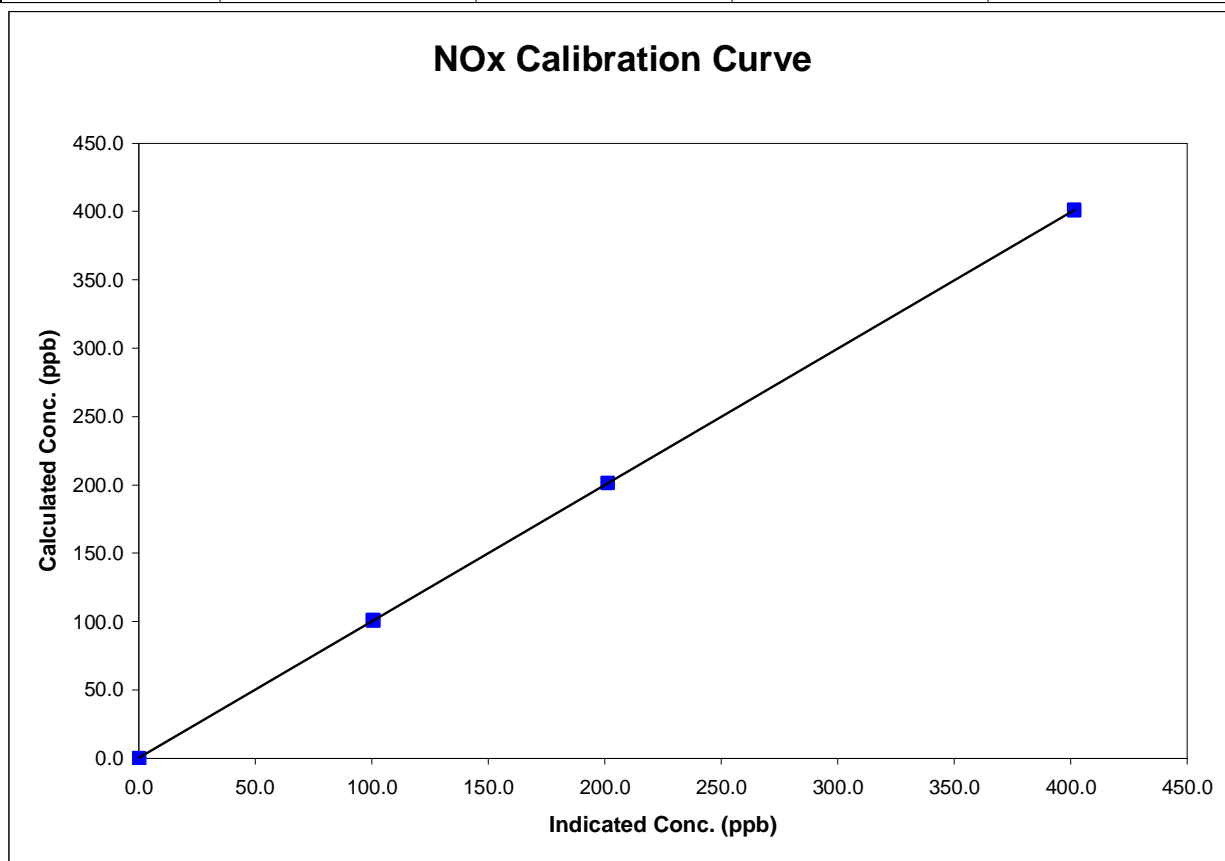
Parameter NO_xAir Monitoring Network PASZA

Station Information

Calibration Date	September 1, 2004	Previous Calibration	August 4, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	10:00	End Time (MST)	15:50
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	0.0000	Correlation Coefficient	0.999998
401.1	401.7	0.9983		
201.3	201.4	0.9992		
100.8	100.7	1.0018		
			Slope	0.998361
			Intercept	0.087998



Calibration Summary

Parameter NO
 Air Monitoring Network PASZA

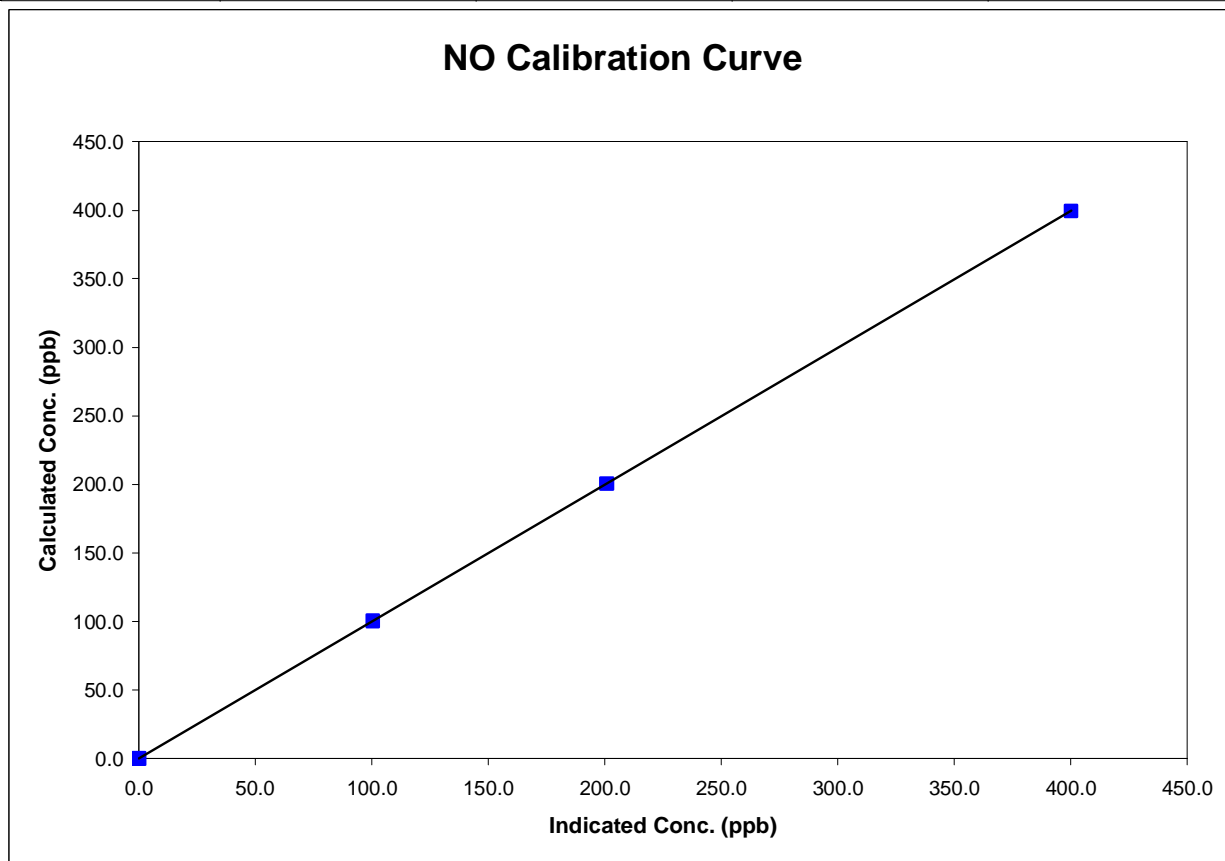


Station Information

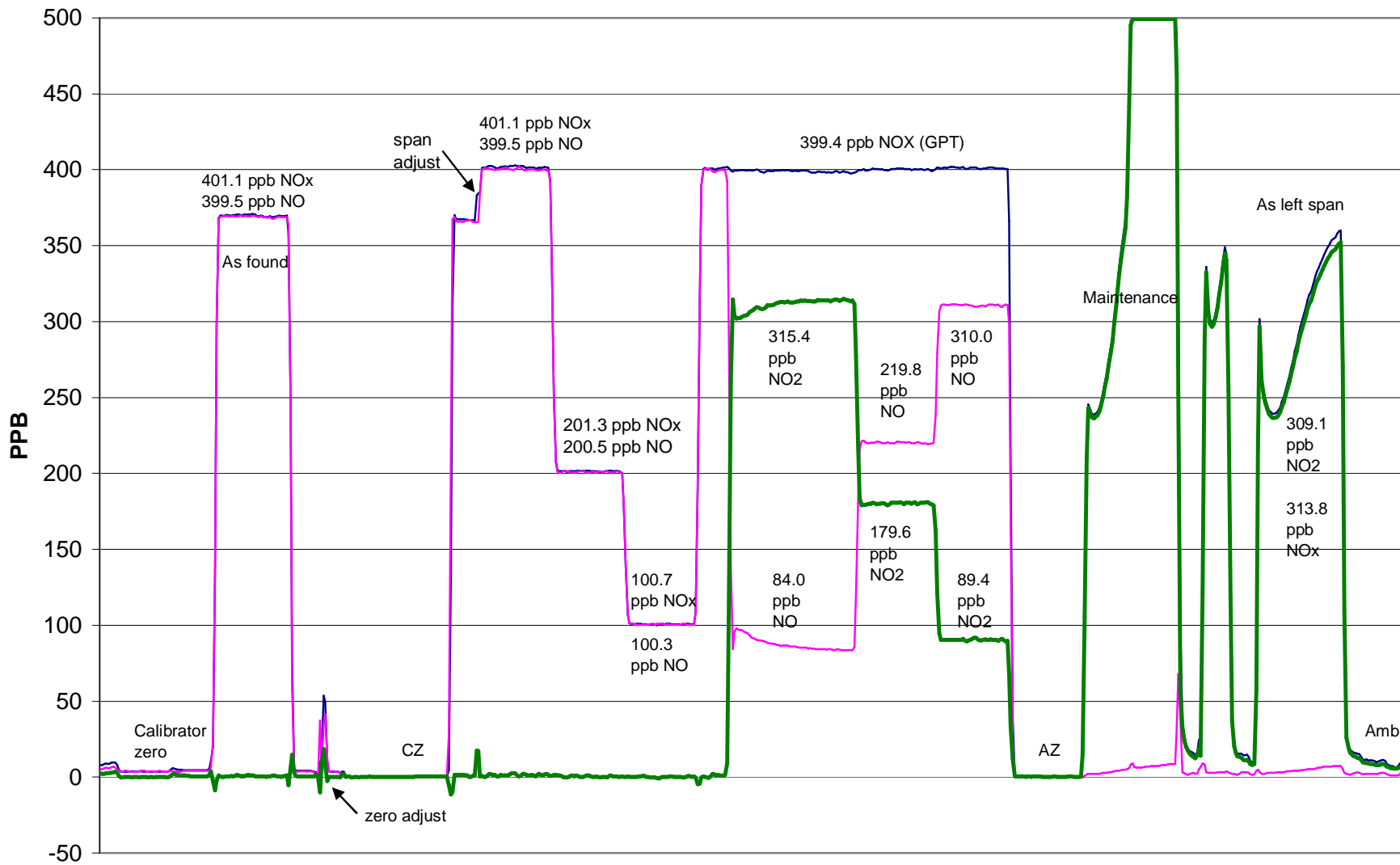
Calibration Date	September 1, 2004	Previous Calibration	August 4, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	10:00	End Time (MST)	15:50
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
399.5	400.2	0.9981	Correlation Coefficient	1.000000
200.5	201.0	0.9977		
100.4	100.6	0.9988		
			Slope	0.998180
			Intercept	-0.042497



NOx Calibration



September 01, 2004

Calibration Summary

Parameter _____ O3
 Air Monitoring Network _____ PASZA



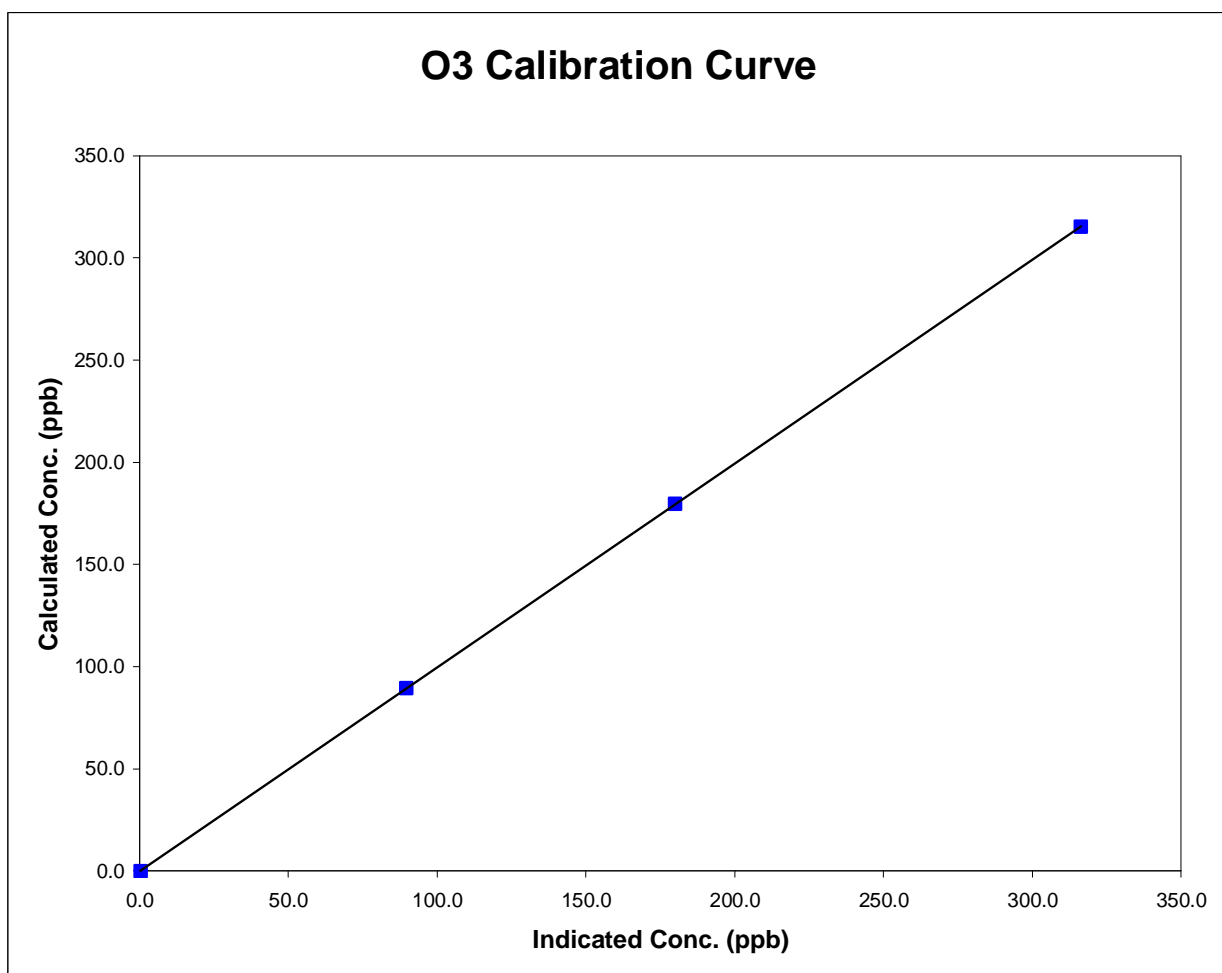
Station Information

Calibration Date	September 1, 2004	Previous Calibration	August 4, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	15:53	End Time (MST)	18:55
Analyzer make/model	API Model 400	Analyzer serial #	383

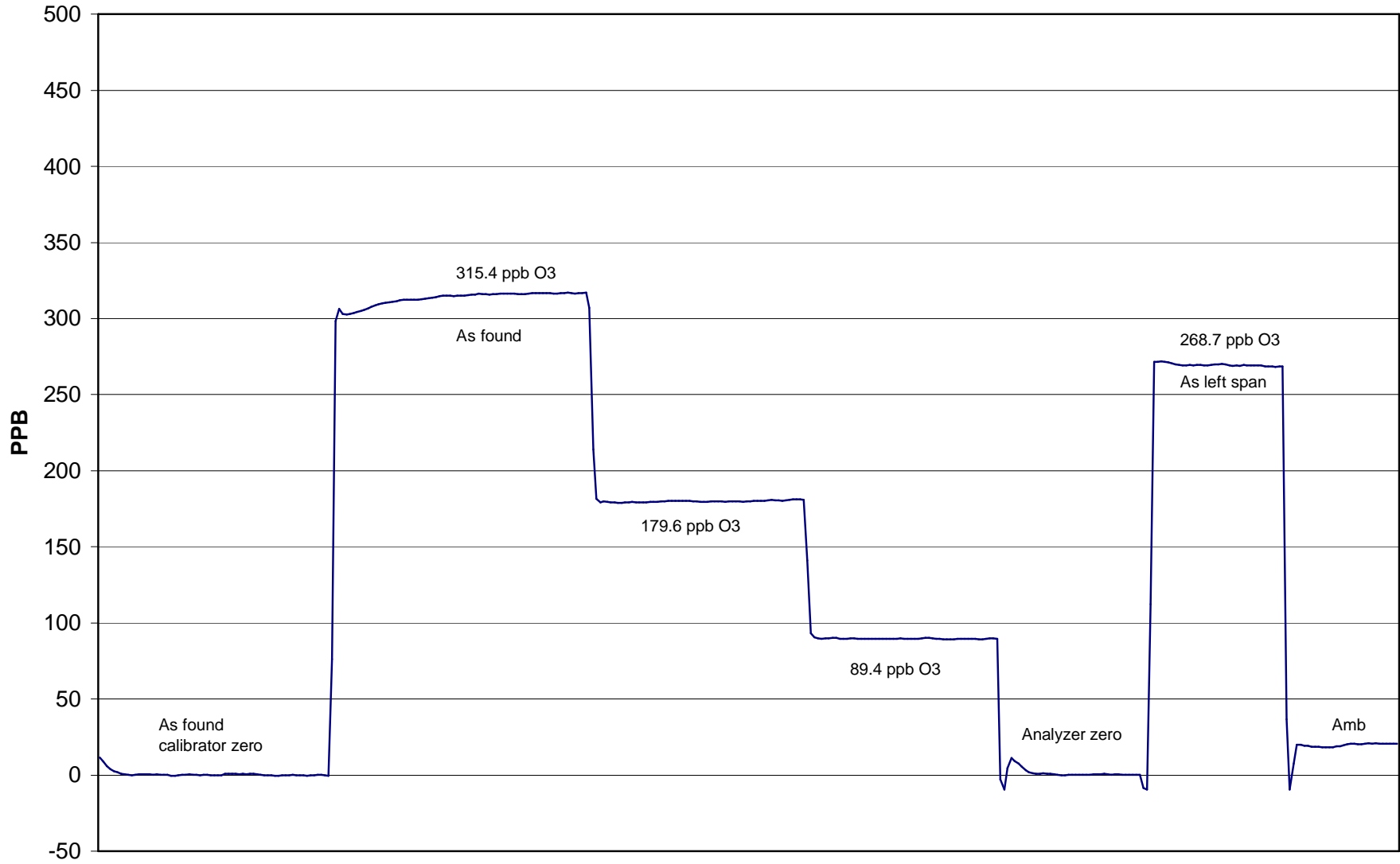
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	NA		
315.4	316.4	0.9969	Correlation Coefficient	0.999998
179.6	180.0	0.9980		
89.4	89.5	0.9984		
			Slope	0.997655
			Intercept	-0.090887

O3 Calibration Curve



O3 Calibration



September 01, 2004

Calibration ReportParameter COAir Monitoring Network PASZA**Station Information**

Calibration Date	September 1, 2004	Previous Calibration	August 4, 2004
Station Number	1	Station Location	Muskoseepi Park
Reason:	<input type="checkbox"/> Routine	<input checked="" type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	14:05	End Time (MST)	16:28
Barometric Pressure	0.921 mb	Station Temperature	19.9 Deg C
Calibrator	EnviroNics 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	1.005698	Calculated slope	1.002354
Calculated intercept	-0.149880	Calculated intercept	-0.137198
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	0.20	N/A
4993	39.97	23.82	23.95	0.9948
4993	19.96	11.95	11.98	0.9967
4993	9.97	5.98	6.06	0.9863
4993	0.00	0.00	0.20	As Found Zero
4993	39.97	23.82	23.95	As Found Span
Average Correction Factor				0.9926

Calculated value of As Found Response: 23.734 ppm Percent Change of As Found: 0.4%

	before calibration		after calibration	
Auto zero	0.01	ppm	0.05	ppm
Auto span	29.43	ppm	29.47	ppm

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

Calibration Summary

Parameter CO
 Air Monitoring Network PASZA

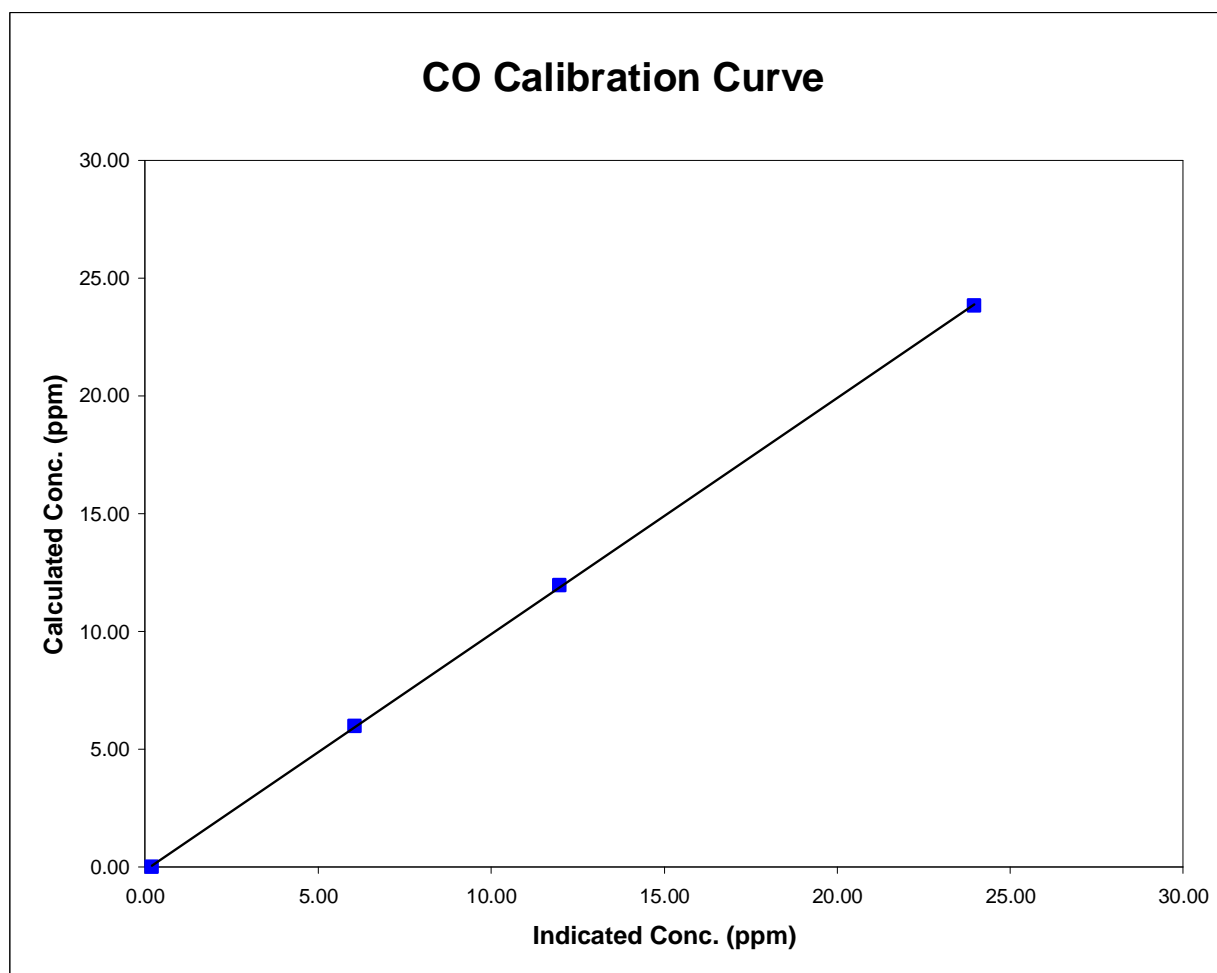


Station Information

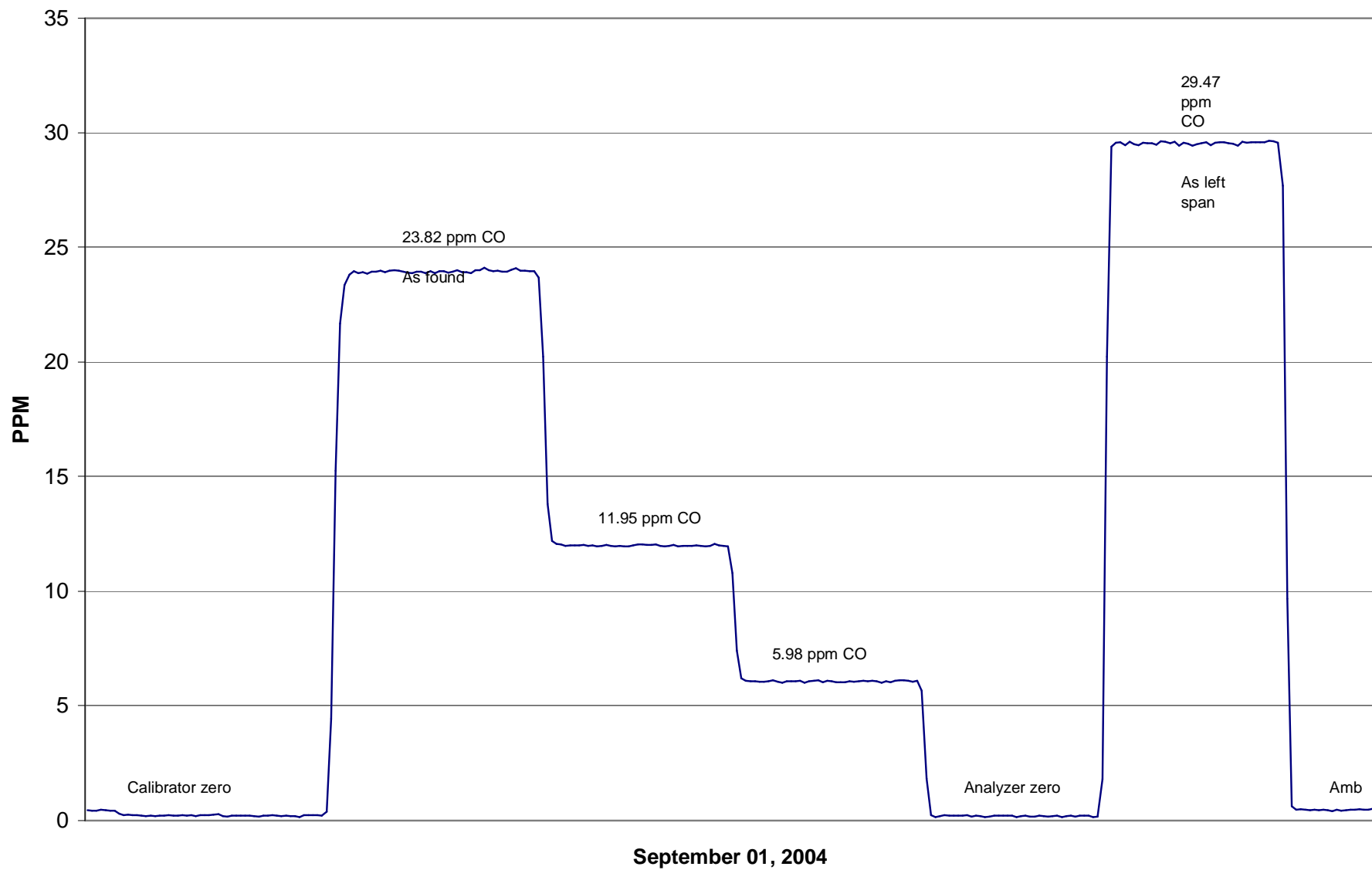
Calibration Date	September 1, 2004	Previous Calibration	August 4, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	14:05	End Time (MST)	16:28
Analyzer make/model	TEI Model 48	Analyzer serial #	ACM-13989-143

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.202	N/A		
23.825	23.950	0.9948	Correlation Coefficient	0.999959
11.945	11.984	0.9967		
5.978	6.062	0.9863	Slope	1.002354
			Intercept	-0.137198



CO Calibration



Calibration Report

Parameter THCAir Monitoring Network PASZA

Station Information

Calibration Date	September 2, 2004	Previous Calibration	August 4, 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)	7:25	End Time (MST)	10:55
Barometric Pressure	27.57 inches Hg	Station Temperature	19.5 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	0.997963	Calculated slope	0.994540
Calculated intercept	0.015623	Calculated intercept	0.073545
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	6.09	psi
THC span counts	6891	capture	6876	capture
THC zero counts	1293	capture	1291	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	-0.05	N/A
4993	64.97	19.55	19.61	0.9970
4993	34.98	10.59	10.53	1.0061
4993	9.97	3.03	2.98	1.0182
4993	0.00	0.00	-0.05	As Found Zero
4993	64.97	19.55	19.61	As Found Span
Average Correction Factor				1.0071

Calculated value of As Found Response: 19.642 ppm Percent Change of As Found: -0.5%

	before calibration		after calibration	
Auto zero	-0.03	ppm	0.05	ppm
Auto span	20.74	ppm	20.84	ppm

Notes: Span adjusted analyzer. All relative analyzer test values are within normal specs.
Span cylinder was replaced.

Calibration Performed By: Kelly Baragar

Calibration Summary

Parameter THC
 Air Monitoring Network PASZA

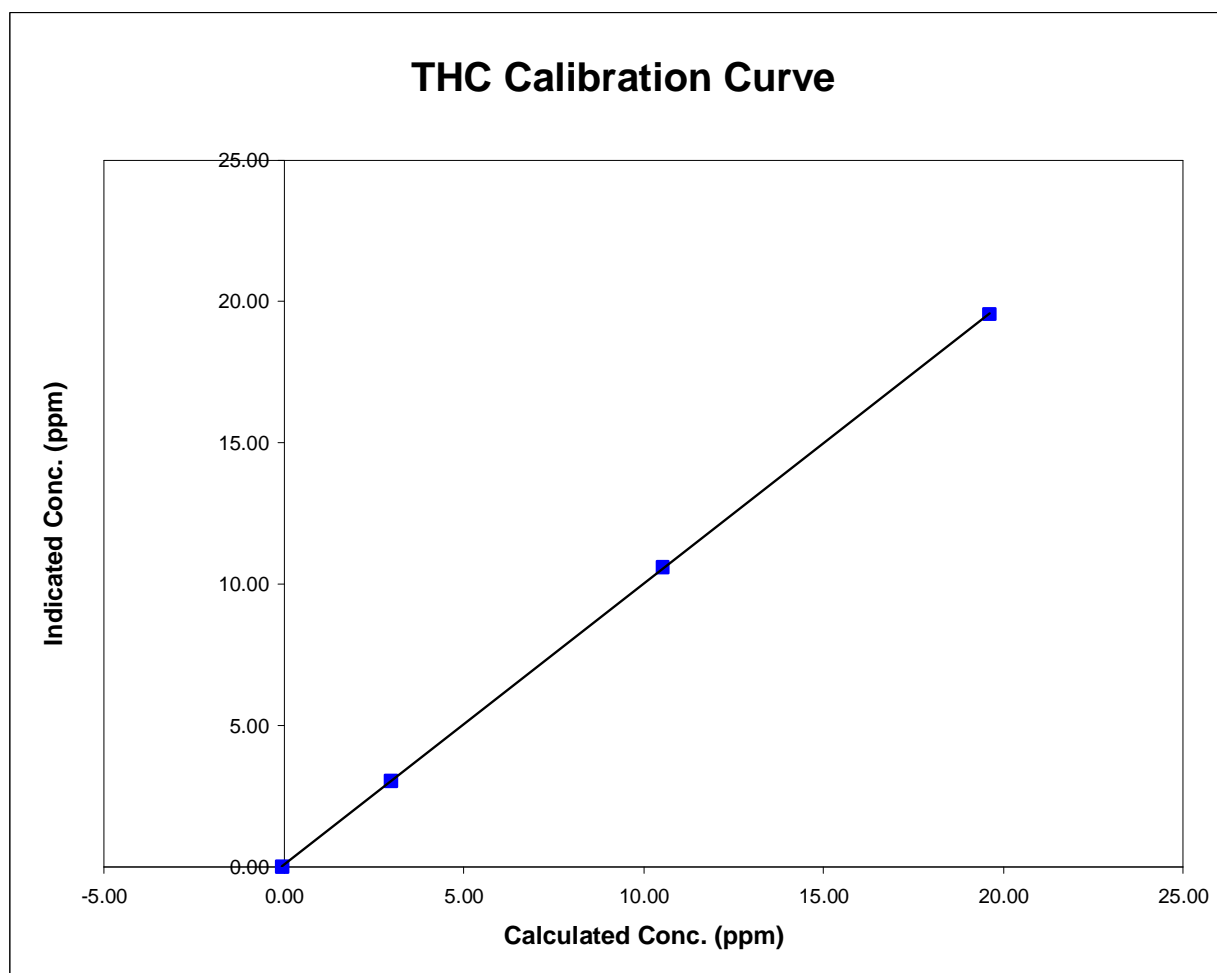


Station Information

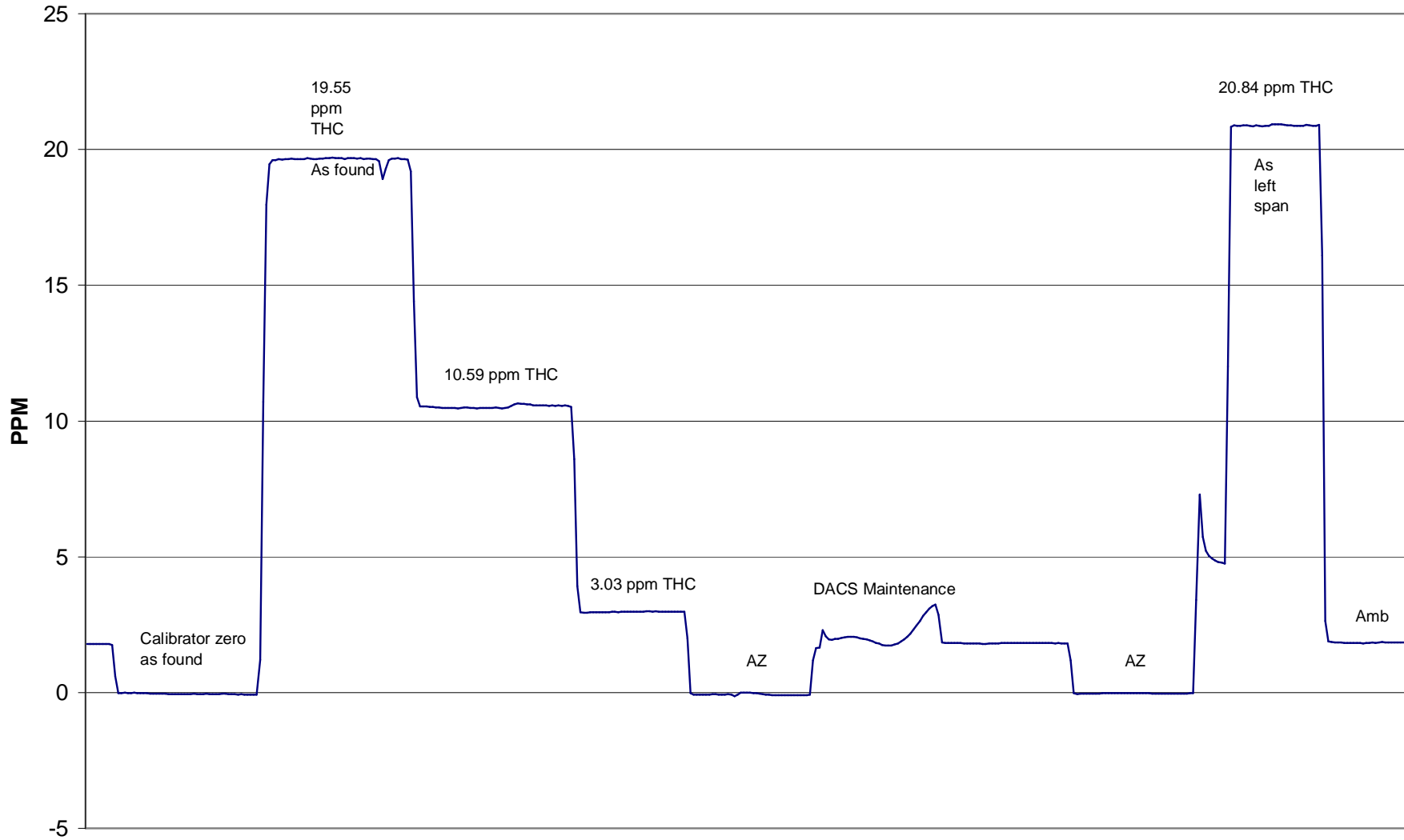
Calibration Date	September 2, 2004	Previous Calibration	August 4, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	7:25	End Time (MST)	10:55
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.054	N/A		
19.553	19.612	0.9970	Correlation Coefficient	0.999986
10.590	10.527	1.0061		
3.034	2.979	1.0182	Slope	0.994540
			Intercept	0.073545



THC Calibration



August 04, 2004

Calibration Report



Parameter
 Air Monitoring Network

Station Information

Calibration Date	September 2, 2004	Previous Calibration	August 4, 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)	7:25	End Time (MST)	12:00
Barometric Pressure	27.6 inches Hg	Station Temperature	18.5 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	225 ng/min	Perm-tube Expiry Date	12/10/2005
Correction factor	0.942004	Perm-tube Cert #	03-13509
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 10 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	1.005426	Calculated slope	0.996746
Calculated intercept	0.659540	Calculated intercept	0.277060
Analyzer make	TEI Model 43C	Analyzer serial #	3199000000491

	before		after	
Concentration range	0-100	ppb	0-100	ppb
TRS bkg	23.1		21.3	
TRS slope	1.685		1.588	
UV Lamp	815	V	811	V

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	2023.4	0.0	-0.4	N/A
2148	2023.4	80.0	79.9	1.0004
4293	4044.0	40.0	39.8	1.0044
16990	16004.7	10.1	10.1	1.0032
zero	2030.0	0.0	-0.5	As Found Zero
2155	2030.0	79.7	83.3	As Found Span
Average Correction Factor				1.0027

Calculated value of As Found Response: 84.95 ppm Percent Change of As Found: -6.6%

	before calibration		after calibration	
Auto zero	0.1	ppm	-0.3	ppm
Auto span	99.7	ppm	98.8	ppm

Notes: After as found swapped out SOX scrubber. Perm oven glassware was replaced. Span adjustment was done. Time constant averaging reverted to 90 seconds.

Calibration Performed By:

Calibration Summary

Parameter
 Air Monitoring Network



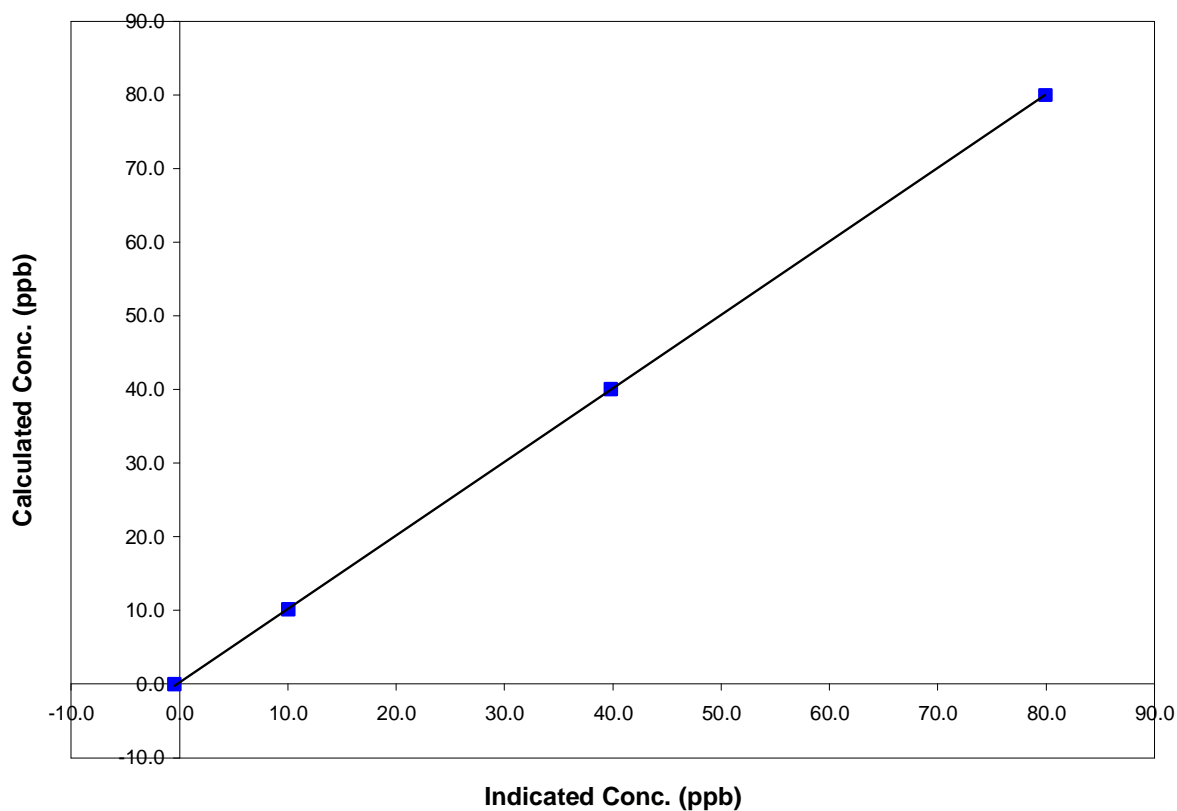
Station Information

Calibration Date	September 2, 2004	Previous Calibration	August 4, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	7:25	End Time (MST)	12:00
Analyzer make/model	TEI Model 43C	Analyzer serial #	31990000000491

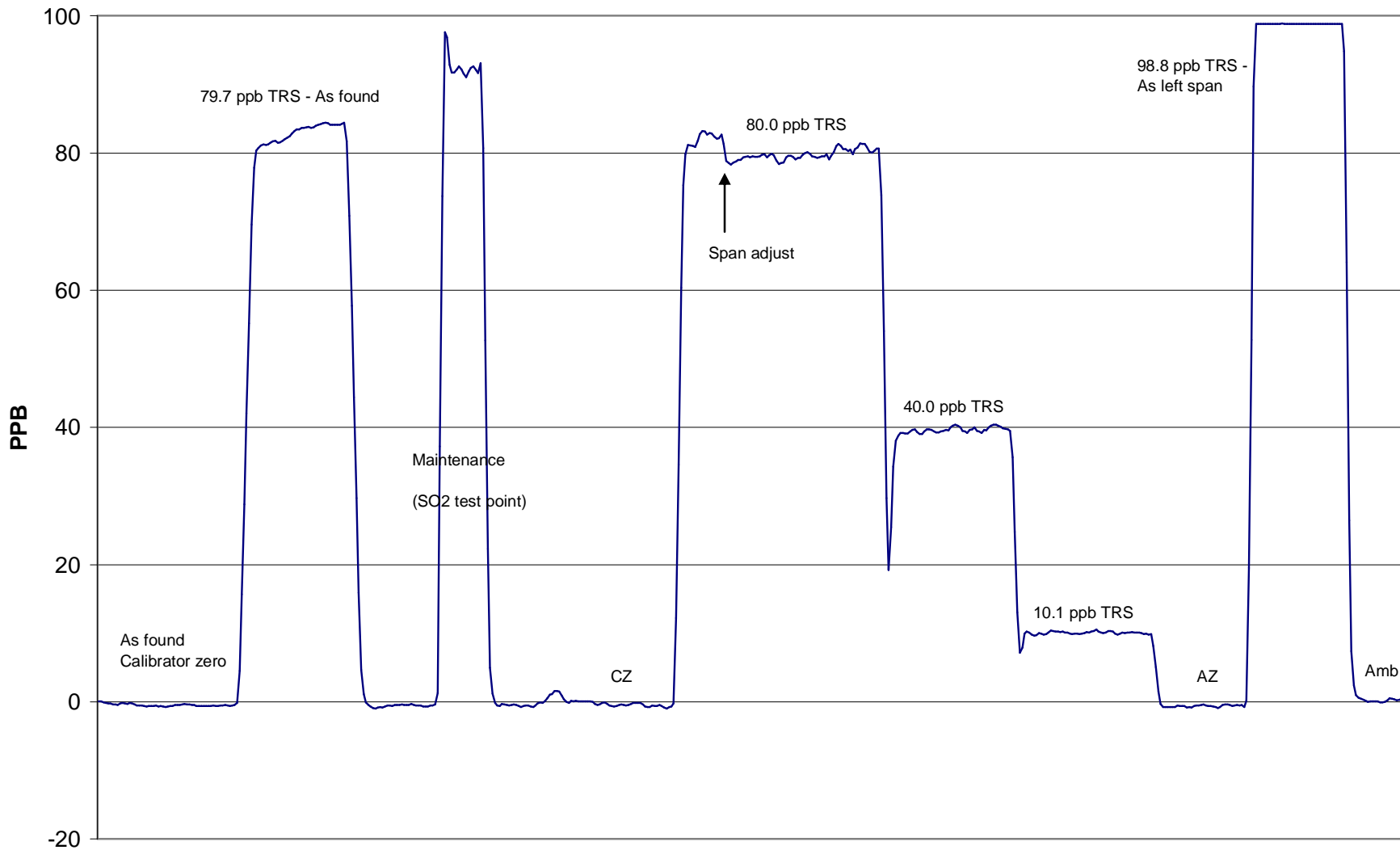
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	N/A		
80.0	79.9	1.0004	Correlation Coefficient	0.999981
40.0	39.8	1.0044		
10.1	10.1	1.0032	Slope	0.996746
			Intercept	0.277060

TRS Calibration Curve



TRS Calibration



September 02, 2004