Air Quality Monitoring Network for September 2005

Prepared by

FOCUS
AMBIENT AIR MONITORING

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

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

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

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

Included in this report is a summary of the monthly continuous monitoring, detailed hourly average reports and multipoint calibration reports of all instruments. Operational summaries can be found on the "Monthly Summary" and "Continuous Monitoring" pages of the report. The measured ambient air quality was within the Provincial and Federal guidelines with no exceedences recorded.

In general, the PASZA Air Monitoring Network ran well for the month of September 2005. Only three operational difficulties were encountered at two of the monitoring stations.

At the Henry Pirker station the daily THC spans were not operational from September 8-30 as a new cylinder of span gas installed on September 7 ran empty immediately after its installation due to a faulty connection. The Ozone analyzer lamp power supply failed on September 29 and the O3 Analyzer was down through October 5 when a new lamp and power supply were installed. These two incidents have been reported previously to Alberta Environment and assigned reference number 165429 (letter attached).

At the Beaverlodge Station the daily NOX-NO-NO2 spans were not operational from September 18-30 after the cylinder of span gas ran empty. A new cylinder was installed but the dilution system associated with it was not performing properly and it was sent back to the manufacturer for repair. This incident has been reported previously to Alberta Environment and assigned reference number 165149 (letter attached).

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

No problems were observed with any of the sampling sites for the month of September 2005.
A summary of the passive data collected are reported as follows.

- Monthly average concentrations for SO_2 passives ranged from 0.0 ppb to 0.6 ppb.
- Monthly average concentrations for NO_2 passives ranged from 0.4 ppb to 6.2 ppb.
- Monthly average concentrations for O_3 passives ranged from 14.4 ppb to 25.7 ppb.

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

On Behalf of the,
Peace Airshed Zone Association

Kevin Warren
PASZA Technical Program Manager

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

November 15, 2005

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

ATTENTION: Director

RE: PASZA Air Monitoring Directive Non-compliance Report Ref # 165429

A non-compliance of the Alberta Air Monitoring Directive was recently reported by Focus to Alberta Environment (AENV) on behalf of the Peace Airshed Zone Association (PASZA). There were two reportable incidents which were included under the same reference number as they were at the same site and occurred near the same time. Both incidents occurred at the Henry Pirker ambient air monitoring station located in Muskosepi Park in Grande Prairie, Alberta. The station is owned by PASZA and operated on their behalf by Focus. The incidents were called in to Carsten Olesen, with AEN,V and have been assigned AENV reference number 165429.

The first incident was no THC daily span from September 7 to October 5 2005. This was a result of a cylinder of THC span gas that leaked and the entire cylinder was lost during the two days following installation. A new cylinder was ordered, but not received until October 3. The new cylinder was then installed and tested for leaks.
Preventative measures:

- All cylinders will be properly leak checked after installation.
- Spare span gas cylinders will be ordered and kept on hand at the Henry Pirker station.

The second incident was the failure of the UV lamp power supply in the Ozone analyzer. This analyzer is owned by AENV. The power supply failed on September 29 and parts were requested from AENV to repair the problem. Parts were shipped to the site and replaced on October 5, 2005. A full calibration was completed immediately following the repair. As the analyzer was down until October 5, the uptime for the Ozone parameter will be less than 90% for the month of October 2005.

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

THE FOCUS CORPORATION

Gary Cross
AQM Technical Manager

November 15, 2005

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

ATTENTION: Director

RE: PASZA Air Monitoring Directive Non-compliance Report Ref # 165149

A non-compliance of the Alberta Air Monitoring Directive was recently reported by Focus to Alberta Environment (AENV) on behalf of the Peace Airshed Zone Association (PASZA). The incident occurred at the Beaverlodge ambient air monitoring station located at the Agriculture Canada Research station located SE of the town of Beaverlodge, Alberta. The station is owned by AENV and operated on behalf of PASZA by Focus. The incident was called in to AENV and was assigned AENV reference number 165149.

The incident was the NO span gas ran empty as of September 18, 2005. This resulted in no NO_2 analyzer spans after that point. No low concentration NO gas cylinders were available to replace the one that ran empty. Arrangements were made to ship a dilution system and a higher concentration of NO gas to the site to resume NO_2 analyzer spans. The replacement system was received at the end of September and was installed on October 3, 2005. Replacement low concentration cylinders were ordered and will be received on December 15, 2005.

Preventative measures:

- Spare low concentration span gas cylinders will be ordered and kept on hand at the Beaverlodge station.

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

THE FOCUS CORPORATION

Gary Cross
AQM Technical Manager

300, 2891 – Sunridge Way NE
Calgary Alberta T1Y 7K7
Ph – 403-269-2252
Fx – 403-269-8353

PASZA Monthly Continuous Data Summary

Sep-2005	Peace Airshed Zone Assocation						Maximum Recorded Values						
							1-hr				24-hr / 8-hr		
Pollutant	Objectives		Station	Monthly	Exceedence		Conc	Day	WSPD	WDIR	Conc	Day	Operational
(units)	1-hr	24-hr		Average	1-hr	24-hr			(km/hr)	(Sector)			Time (%)
SO_2 (**ppb**)	172	57	Henry Pirker	0.3	0	0	6.8	Sep-26 23:00	8.0	W	1.1	Sep-28	100.0%
SO_2 (**ppb**)	172	57	Evergreen Park	0.8	0	0	10.9	Sep-29 14:00	34.5	WSW	3.0	Sep-29	99.2%
SO_2 (**ppb**)	172	57	Smoky Heights	0.1	0	0	4.4	Sep-05 10:00	23.7	WSW	0.6	Sep-05	99.4%
SO_2 (**ppb**)	172	57	Beaverlodge	0.2	0	0	8.7	Sep-27 00:00	4.6	SE	2.4	Sep-28	100.0%
NO (**ppb**)			Henry Pirker	3.8	-	-	64.9	Sep-27 07:00	4.2	SSW	14.8	Sep-13	100.0%
NO_2 (**ppb**)	212	106	Henry Pirker	7.4	0	0	29.8	Sep-26 07:00	7.6	SW	14.0	Sep-27	100.0%
NO_X (**ppb**)			Henry Pirker	11.3	-	-	85.7	Sep-27 07:00	4.2	SSW	25.6	Sep-13	100.0%
NO (**ppb**)			Beaverlodge	0.4	-	-	39.7	Sep-14 03:00	15.2	WNW	1.7	Sep-14	100.0%
NO_2 (**ppb**)	212	106	Beaverlodge	3.1	0	0	18.0	Sep-28 06:00	3.1	SSE	6.9	Sep-03	100.0%
NO_X (**ppb**)			Beaverlodge	3.3	-	-	41.7	Sep-14 03:00	15.2	WNW	7.2	Sep-28	100.0%
O_3 (**ppb**)	82		Henry Pirker	16.5	0	-	41.7	Sep-01 16:00	7.8	SSE	27.1	Sep-25	95.1%
O_3 (**ppb**) - **8-hr**	65		Henry Pirker		0						36.8	Sep-01	
O_3 (**ppb**)	82		Beaverlodge	22.0	0	-	44.0	Sep-26 03:00	10.5	WNW	32.7	Sep-25	100.0%
O_3 (**ppb**) - **8-hr**	65		Beaverlodge		0						37.4	Sep-26	
CO (**ppm**)	13		Henry Pirker	0.13	0	-	0.7	Sep-10 23:00	3.6	SE	0.3	Sep-13	100.0%
CO (**ppm**) - **8-hr**	5		Henry Pirker		0						0.4	Sep-11	
THC (**ppm**)			Henry Pirker	1.98	-	-	2.6	Sep-12 22:00	3.3	SE	2.1	Sep-27	100.0%
TRS (**ppb**)			Henry Pirker	0.2	-	-	1.4	Sep-11 06:00	3.9	SE	0.4	Sep-13	100.0%
TRS (**ppb**)			Evergreen Park	0.5	-	-	1.2	Sep-29 09:00	38.7	WSW	0.7	Sep-29	100.0%
TRS (**ppb**)			Smoky Heights	0.5	-	-	1.3	Sep-02 04:00	3.5	WNW	0.6	Sep-21	99.4%
$PM_{2.5}$ ($\mu g/m^3$)		30 [a]	Henry Pirker	2.2	0	0	19.2	Sep-18 08:00	4.6	ESE	4.1	Sep-13	99.9%
$PM_{2.5}$ ($\mu g/m^3$)		30 [a]	Evergreen Park	2.7	0	0	36.6	Sep-07 12:00	43.7	W	8.5	Sep-07	98.5%
$PM_{2.5}$ ($\mu g/m^3$)		30 [a]	Smoky Heights	1.1	0	0	59.5	Sep-06 05:00	5.9	WSW	4.3	Sep-06	95.8%
$PM_{2.5}$ ($\mu g/m^3$)		30 [a]	Beaverlodge	1.5	0	0	20.0	Sep-29 18:00	10.0	W	3.3	Sep-07	98.2%
RH (**%**)			Henry Pirker	67.4	-	-	-	-	-	-	-	-	100.0%
RH (**%**)			Beaverlodge	67.2	-	-	-	-	-	-	-	-	100.0%
SR (W/m^2)			Henry Pirker	136.7	-	-	-	-	-	-	-	-	100.0%
Temp (^oC)			Henry Pirker	9.9	-	-	-	-	-	-	-	-	100.0%
Temp (^oC)			Evergreen Park	9.3	-	-	-	-	-	-	-	-	100.0%
Temp (^oC)			Smoky Heights	7.7	-	-	-	-	-	-	-	-	99.4%
Temp (^oC)			Beaverlodge	9.3	-	-	-	-	-	-	-	-	100.0%
WSPD v (**km/hr**)			Henry Pirker	11.0	-	-	-	Sep-25 10:00	38.4	W	21.4	25-Sep	100.0%
WSPD v (**km/hr**)			Evergreen Park	17.2	-	-	-	Sep-28 16:00	62.1	WSW	36.0	20-Sep	99.3%
WSPD v (**km/hr**)			Smoky Heights	13.4	-	-	-	Sep-25 10:00	47.0	W	26.8	25-Sep	99.4%
WSPD v (**km/hr**)			Beaverlodge	10.1	-	-	-	38623.6	32.8	WSW	20.3	38620.0	99.2%
WSPD s (**km/hr**)			Henry Pirker	11.5	-	-	-	Sep-25 10:00	38.6	W	21.7	25-Sep	100.0%
WSPD s (**km/hr**)			Evergreen Park	17.6	-	-	-	Sep-28 16:00	62.8	WSW	36.5	20-Sep	99.3%
WSPD s (**km/hr**)			Smoky Heights	13.7	-	-	-	Sep-25 10:00	47.2	W	27.2	25-Sep	99.4%
WSPD s (**km/hr**)			Beaverlodge	10.1	-	-	-	Sep-28 15:00	32.8	WSW	20.5	25-Sep	99.2%
WDIR (**Deg**)			Henry Pirker	N	-	-	-	-	-	-	-	-	100.0%
WDIR (**Deg**)			Evergreen Park	N	-	-	-	-	-	-	-	-	100.0%
WDIR (**Deg**)			Smoky Heights	N	-	-	-	-	-	-	-	-	99.4%
WDIR (**Deg**)			Beaverlodge	N	-	-	-	-	-	-	-	-	100.0%

Note: [a] the draft 1-hr Alberta Ambient Air Quality Objective

* Wind Direction is the predominate direction for the Month

Continuous Network Equipment Summary

PASZA – Henry Pirker Station

General Station Issues

There were no general operational issues noted during the month.

Parameter	Make	Model	Notes
SO_2	TECO	43	No operational problems ovserved.
NOx/NO/NO_2	TECO	42C	No operational problems observed
O_3	API	400	The UV lamp power supply failed on September 29 at 13:00 Parts were received from AENV and installed on October 5.
CO	TECO	48C	No operational problems observed
THC	TEI	51-CLT	Daily spans were not completed from September 7 to October 3 due to a leak in the span gas cylinder connection. A new cylinder was installed on October 3.
TRS	TEI	42C	No operational problems observed
$PM_{2.5}$	R&P	1400AB	1 hour was removed due to excessive baseline drift.
RH	Met One	083D	No operational problems observed
AT	Met One	083D	No operational problems observed
SR	Met One	096-1	No operational problems observed
WS	Met One	010C	Calibration was performed on September 7.
WD	Met One	020C	Calibration was performed on September 7.

PASZA – Evergreen Park Station

General Station Issues

No general station issues were identified.

Parameter	Make	Model	Notes
SO_2	API	100	6 hours of data removed due to excessive excessive baseline drift.
TRS	TEI	42C	No operational problems observed
$PM_{2.5}$	R&P	1400AB	11 hours were removed due to excessive baseline drift.
AT	Met One	083D	No operational problems observed
WS	Met One	010C	5 hours of data were removed due to frozen wind cups
WD	Met One	020C	No operational problems observed

PASZA – Smoky Heights School Station

General Station Issues

4 hours of data were not available from September 8 to 9 due to power failures.

Parameter	Make	Model	Notes
SO_2	API	100A	No operational problems observed
TRS	TEI	42C	No operational problems observed
$PM_{2.5}$	R&P	1400AB	26 hours of data were removed due to excessive baseline drift.
AT	Met One	083D	No operational problems observed
WS	Met One	010C	No operational problems observed
WD	Met One	020C	No operational problems observed

PASZA – Beaverlodge Station

General Station Issues

Problems with the station air conditioner resulted in various drift issues with most analyzers.

Parameter	Make	Model	Notes
SO_2	TECO	43CTL	No operational problems observed
NOx/NO/NO_2	TECO	42C	Daily spans were not operational from September 18 to October 3 as the span gas cylinder ran empty. A dilution system was installed until replacement low concentration cylinders are received.
O_3	API	400	No operational problems observed
$PM_{2.5}$	R&P	1400AB	13 hours were removed due to excessive baseline drift
AT	n/a	n/a	No operational problems observed
RH	n/a	n/a	No operational problems observed
WS	Blue Sky	857	6 hours of data were removed due to frozen wind cups
WD	Blue Sky	857	No operational problems observed

PASZA - Henry Pirker Station

Monthly Summary Tables, Graphs, and Roses

PASZA - Henry Pirker AQI Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

Air Quality Index (AQI)

Monitoring Dates: September 1, 2005 to October 1, 2005

Alberta's Air Quality Index

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

Summary

Number of 1-hr Good Readings:	686
Number of 1-hr Fair Readings:	0
Number of 1-hr Poor Readings:	0
Number of 1-hr Very Poor Readings:	0

Status Flag Characters

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

Day **Mountain Standard Time**

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

PASZA - Henry Pirker Sulphur Dioxide Monthly Summary

HOURLY AVERAGE TABLE

Sulphur Dioxide (SO_2)

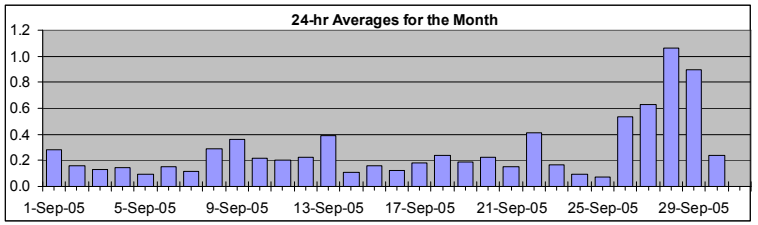
Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005

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

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	6.8	ppb	26-Sep	23:00 0:00
Maximum 24-hr Average:	1.1	ppb	28-Sep	



AIC Time:	31 hrs	Operational Time:	686 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	2.4	0.8	0.3	0.2	0.1	0.0	0.0	0.3 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Sep-05	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.8
2-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.4
3-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.3
4-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.3
5-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2
6-Sep-05	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
7-Sep-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
8-Sep-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0.3	1.0
9-Sep-05	0	0	1	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.0
10-Sep-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
11-Sep-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.2	0.8
12-Sep-05	0	0	0	A	0	0	0	0	0	0	0	C	C	C	A	1	0	0	1	1	0	0	0	0	0.2	0.9
13-Sep-05	0	0	0	0	0	A	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.0
14-Sep-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
15-Sep-05	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
16-Sep-05	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
17-Sep-05	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
18-Sep-05	A	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.7
19-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.4
20-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	A	0	0	0.2	0.8
21-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.5
22-Sep-05	0	0	0	0	0	0	1	1	1	0	0	1	1	1	1	0	0	0	0	A	0	0	0	0	0.4	1.3
23-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.4
24-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.4
25-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.3
26-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	7	0.5	6.8
27-Sep-05	2	0	0	0	0	0	0	1	2	2	1	1	0	0	A	0	0	0	1	0	0	0	0	0	0.6	2.2
28-Sep-05	0	0	0	0	0	1	2	3	3	2	1	1	2	A	1	1	0	0	3	0	2	0	0	0	1.1	2.8
29-Sep-05	0	2	2	1	4	2	1	1	4	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.9	4.1
30-Sep-05	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
																									N	0.0
Hourly Avg	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.6	0.4	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.4		
Hourly Max	2.1	2.4	1.7	0.9	4.1	2.4	1.9	2.8	3.6	2.2	1.4	0.9	2.3	1.3	0.9	0.9	0.5	0.8	2.7	1.0	2.4	1.4	1.0	6.8		

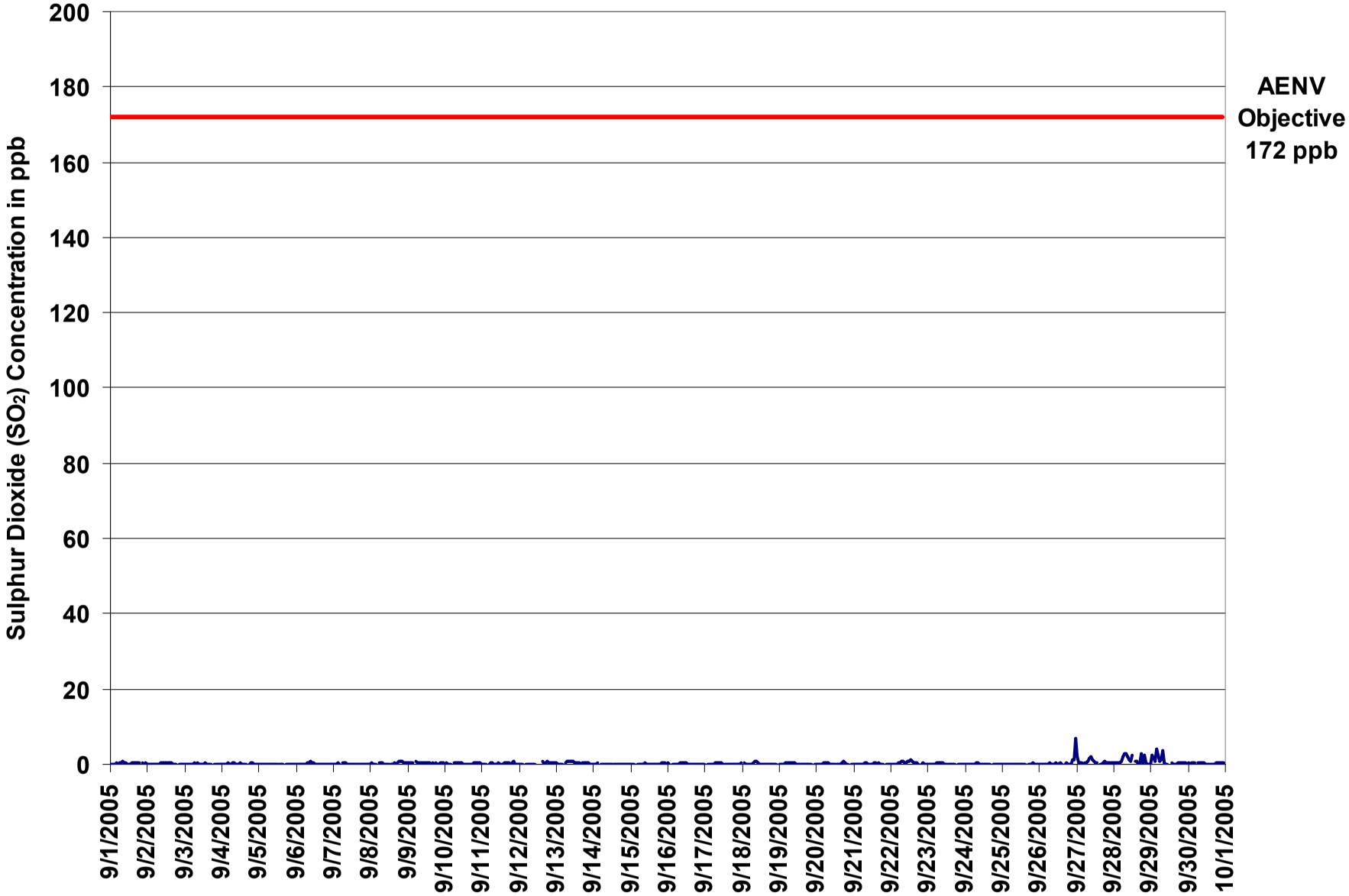


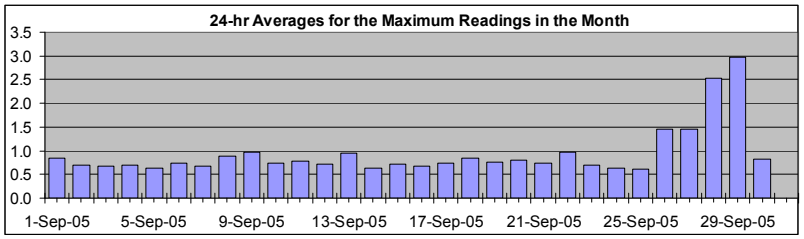
Figure 1. PASZA - Henry Pirker Sulphur Dioxide 1-hr Average Monthly Trend

HOURLY MAXIMUM TABLE

Sulphur Dioxide (SO_2)

Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Value:	14.4	ppb	29-Sep	4:00 5:00
Maximum 24-hr Value:	3.0	ppb	29-Sep	

AIC Time:	31 hrs	Operational Time:	686 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	6.3	1.7	0.9	0.7	0.6	0.5	0.4	0.9 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

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-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.3
2-Sep-05	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	1.1
3-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	0.8
4-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	0	0.7	0.9
5-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	1	1	1	1	1	1	0.6	0.8
6-Sep-05	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.7	1.2
7-Sep-05	1	1	1	1	1	A	1	1	1	1	0	1	1	0	0	1	1	1	1	1	1	1	1	1	0.7	1.0
8-Sep-05	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	0.9	2.0
9-Sep-05	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.9
10-Sep-05	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
11-Sep-05	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	2	1	1	1	0.8	1.6
12-Sep-05	1	1	1	A	1	0	0	0	0	0	0	C	C	C	A	3	1	1	1	1	1	1	1	1	0.7	2.8
13-Sep-05	1	1	1	1	1	A	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6
14-Sep-05	1	1	1	1	A	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
15-Sep-05	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
16-Sep-05	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0.7	0.9
17-Sep-05	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
18-Sep-05	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.5
19-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.2
20-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	A	1	1	0.8	1.7
21-Sep-05	0	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	0	1	A	1	1	1	0.7	1.6
22-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	A	1	1	1	1	1.0	1.9
23-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	0.9
24-Sep-05	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0	1	1	0.6	1.0
25-Sep-05	1	1	0	1	1	0	1	1	1	1	0	1	0	1	0	0	A	1	1	1	1	1	1	1	0.6	0.8
26-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	5	2	13	1.5	12.7
27-Sep-05	7	1	1	1	1	1	1	2	3	3	2	1	1	1	A	1	0	1	2	2	1	1	1	1	1.5	6.8
28-Sep-05	1	1	1	1	1	1	3	3	5	3	2	2	9	A	3	2	3	5	5	1	4	2	1	1	2.5	8.8
29-Sep-05	1	7	6	3	14	12	2	3	8	2	1	1	A	1	1	1	0	1	1	1	1	1	1	1	3.0	14.4
30-Sep-05	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.7
																									N	0.0
Hourly Avg	0.9	0.9	0.9	0.8	1.2	1.2	0.9	1.0	1.3	1.0	0.8	0.8	1.1	0.8	0.8	0.8	0.8	0.9	1.0	0.9	0.9	0.9	0.8	1.1		
Hourly Max	6.8	6.9	6.2	3.3	14.4	12.2	3.4	3.4	8.0	3.2	2.0	1.8	8.8	1.9	3.0	2.8	2.6	4.5	5.2	1.6	4.1	5.0	2.2	12.7		

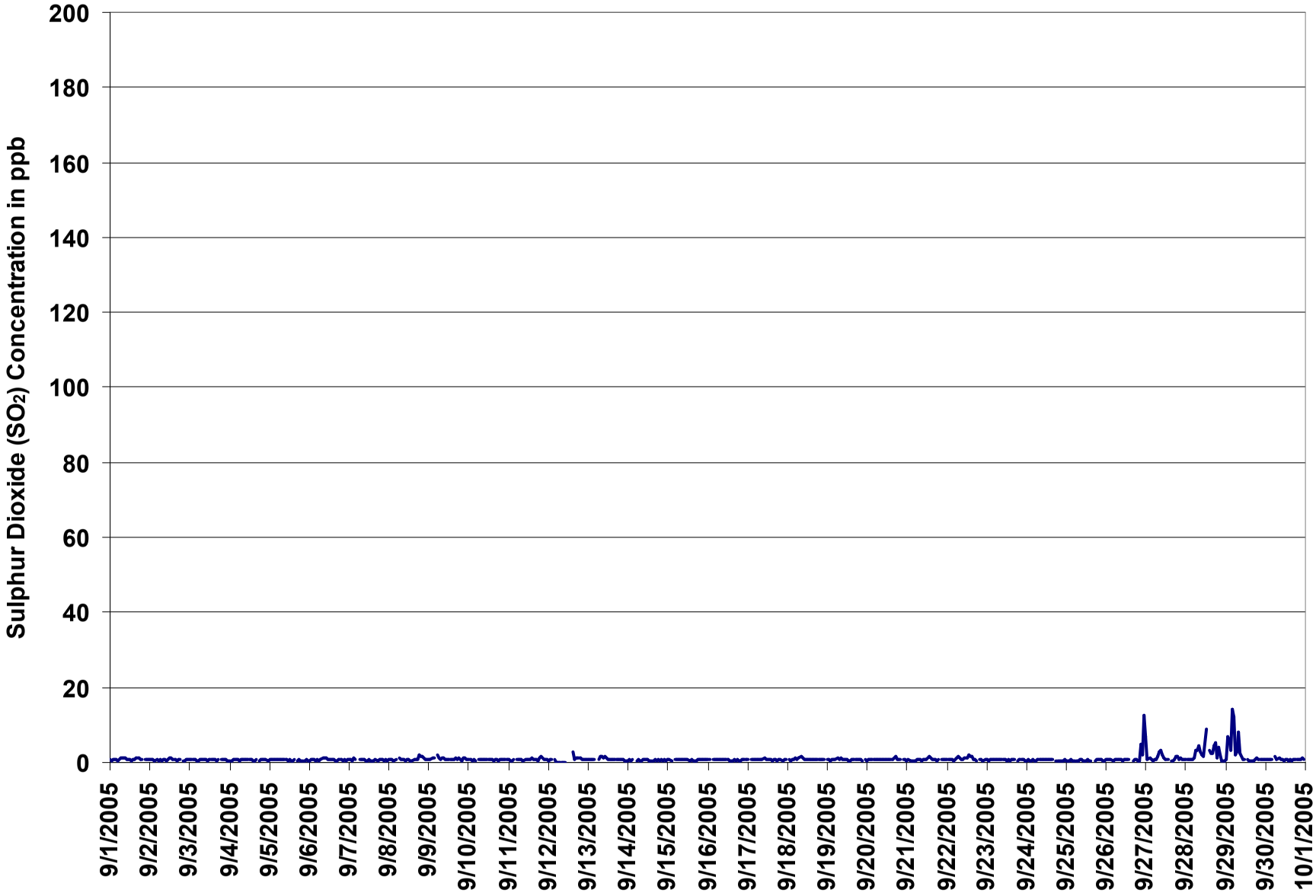
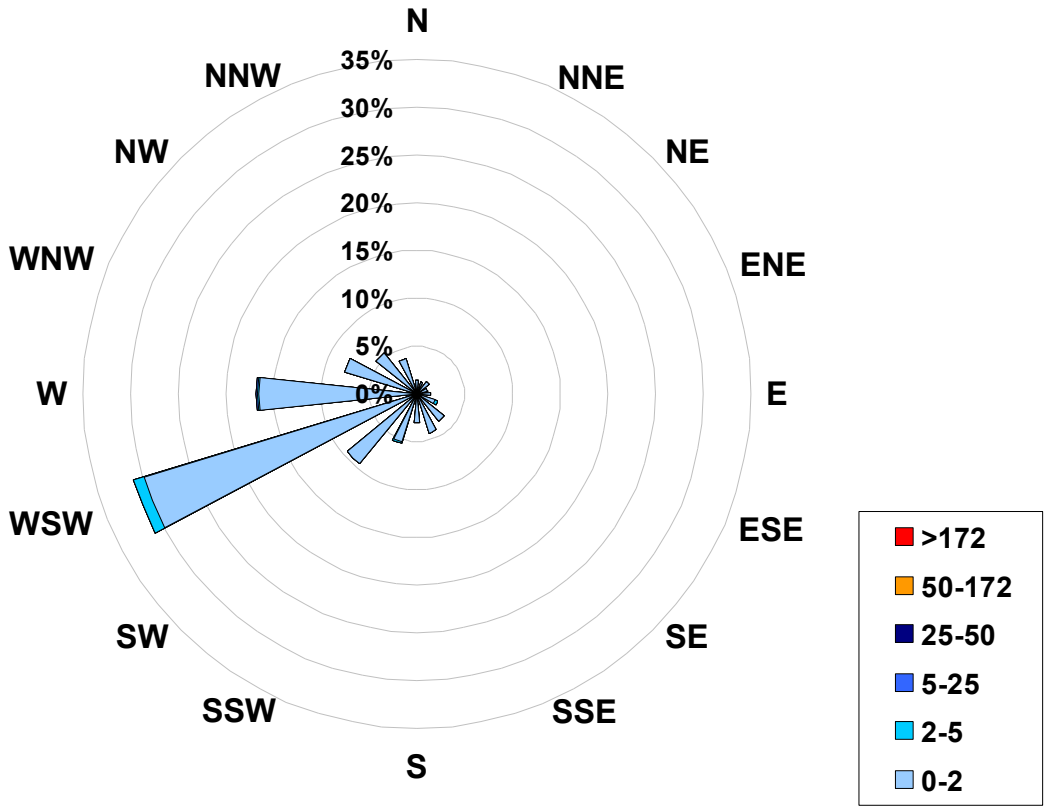


Figure 2. PASZA - Henry Pirker Sulphur Dioxide 1-hr Maximum Value Monthly Trend

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



Calms:	0%

Frequency Distribution of SO_2 in ppb

Range			Frequency (hrs)
0.0	<	2	674
2	to	5	11
5	to	25	1
25	to	50	0
50	to	172	0
	>	172	0
Total Non-Zero Values			686

PASZA - Henry Pirker Nitrogen Dioxide Monthly Summary

HOURLY AVERAGE TABLE

Nitrogen Dioxide (NO_2)

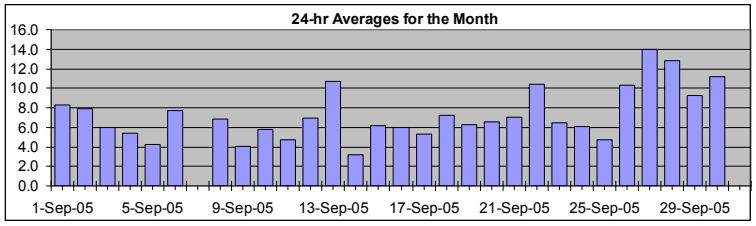
Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005

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

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	29.8	ppb	26-Sep	7:00 8:00
Maximum 24-hr Average:	14.0	ppb	27-Sep	



AIC Time:	31 hrs	Operational Time:	684 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	25.3	19.2	9.8	5.6	3.3	1.8	1.3	7.4 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Sep-05	5	10	7	7	13	19	18	15	11	9	4	2	1	1	2	2	2	3	7	10	A	14	15	15	8.3	18.6
2-Sep-05	10	9	9	9	10	10	10	8	8	7	4	5	3	3	2	7	6	6	4	A	11	18	15	9	7.9	17.7
3-Sep-05	7	4	4	5	6	10	15	10	8	5	4	4	2	2	2	2	2	3	A	11	11	8	9	4	5.9	14.9
4-Sep-05	5	5	7	6	6	10	12	6	4	2	2	2	1	1	1	1	2	A	5	13	16	9	3	4	5.4	16.2
5-Sep-05	4	5	5	3	9	5	6	5	3	2	2	2	1	1	2	1	A	4	4	7	8	8	7	6	4.2	8.5
6-Sep-05	5	7	8	12	10	11	9	7	7	8	6	3	2	3	3	3	4	4	10	12	13	11	15	13	7.7	14.9
7-Sep-05	17	15	12	11	10	A	13	15	10	C	C	C	C	C	A	4	4	5	7	15	18	14	10	6	N	17.6
8-Sep-05	5	4	4	4	6	A	23	11	8	4	4	4	2	3	2	3	3	2	5	15	24	8	8	4	6.9	24.1
9-Sep-05	4	4	3	3	A	8	7	8	6	4	3	3	4	3	7	4	3	3	3	4	3	3	2	2	4.1	8.1
10-Sep-05	2	2	2	2	2	A	5	4	4	5	5	4	4	3	3	2	2	3	4	12	19	18	15	13	5.8	18.5
11-Sep-05	12	9	9	7	A	8	6	6	5	3	6	5	4	2	3	1	2	2	3	5	4	2	1	1	4.7	12.3
12-Sep-05	2	1	1	A	3	4	7	8	2	2	1	2	2	2	2	3	3	4	9	21	20	20	20	20	6.9	21.1
13-Sep-05	18	15	10	11	9	A	12	12	10	10	13	11	9	9	10	6	5	7	9	14	15	16	9	6	10.7	17.5
14-Sep-05	3	2	1	3	A	3	3	3	2	2	2	2	2	2	3	3	4	3	5	5	5	6	5	4	3.1	5.7
15-Sep-05	3	3	3	A	5	5	8	9	6	6	6	6	5	5	8	6	5	6	7	9	7	8	9	8	6.2	9.4
16-Sep-05	5	3	A	10	9	10	11	9	7	4	4	4	3	3	3	5	4	4	6	5	6	8	8	7	5.9	11.4
17-Sep-05	5	A	6	5	5	9	7	10	11	7	4	3	2	2	3	3	3	3	5	5	5	5	8	4	5.3	11.1
18-Sep-05	A	10	8	5	5	11	11	22	22	13	9	4	3	3	6	4	4	8	2	2	3	3	3	A	7.3	22.1
19-Sep-05	4	3	3	3	10	18	24	12	13	5	4	3	3	3	3	3	4	3	4	5	6	4	A	5	6.3	24.3
20-Sep-05	2	3	4	6	8	14	19	16	7	4	3	3	3	4	4	4	5	5	10	7	7	A	8	5	6.6	19.2
21-Sep-05	3	3	3	3	5	8	13	13	10	4	3	2	2	3	5	6	14	11	9	7	A	15	13	6	7.0	15.1
22-Sep-05	11	7	9	9	10	19	21	21	12	7	5	4	2	1	4	4	8	6	11	A	19	23	13	15	10.5	22.8
23-Sep-05	12	7	9	10	10	8	12	12	6	5	4	2	3	3	4	4	5	6	A	6	6	6	6	5	6.5	12.3
24-Sep-05	5	4	6	4	7	10	15	15	9	4	4	5	4	5	5	5	6	A	8	3	4	4	3	3	6.0	15.4
25-Sep-05	4	3	3	5	6	4	3	4	3	2	2	2	2	2	2	2	A	5	6	12	15	7	8	5	4.7	14.7
26-Sep-05	6	6	2	2	3	4	26	30	18	11	6	11	8	10	13	A	12	9	10	13	13	8	10	7	10.4	29.8
27-Sep-05	6	10	7	7	12	16	20	21	18	10	11	7	4	4	A	6	6	15	26	21	27	24	18	26	14.0	26.8
28-Sep-05	19	17	15	13	11	17	21	23	22	19	22	18	12	A	8	14	6	7	5	6	6	7	4	4	12.8	23.4
29-Sep-05	4	3	3	3	4	10	18	17	11	6	5	5	A	8	6	7	7	11	19	17	18	8	9	13	9.2	19.3
30-Sep-05	8	5	4	5	6	A	24	18	10	5	4	3	2	2	3	3	5	9	12	26	28	25	25	25	11.1	27.9
																									N	0.0
Hourly Avg	6.6	6.1	5.7	6.2	7.5	10.0	13.4	12.4	9.1	6.0	5.3	4.4	3.5	3.3	4.2	4.2	4.8	5.6	7.6	10.4	12.0	10.7	9.6	8.4		
Hourly Max	18.7	16.5	15.5	12.9	13.5	18.6	25.6	29.8	21.8	19.4	22.3	18.0	12.1	9.7	12.9	13.7	14.0	14.8	25.7	26.2	27.9	24.9	24.8	25.7		

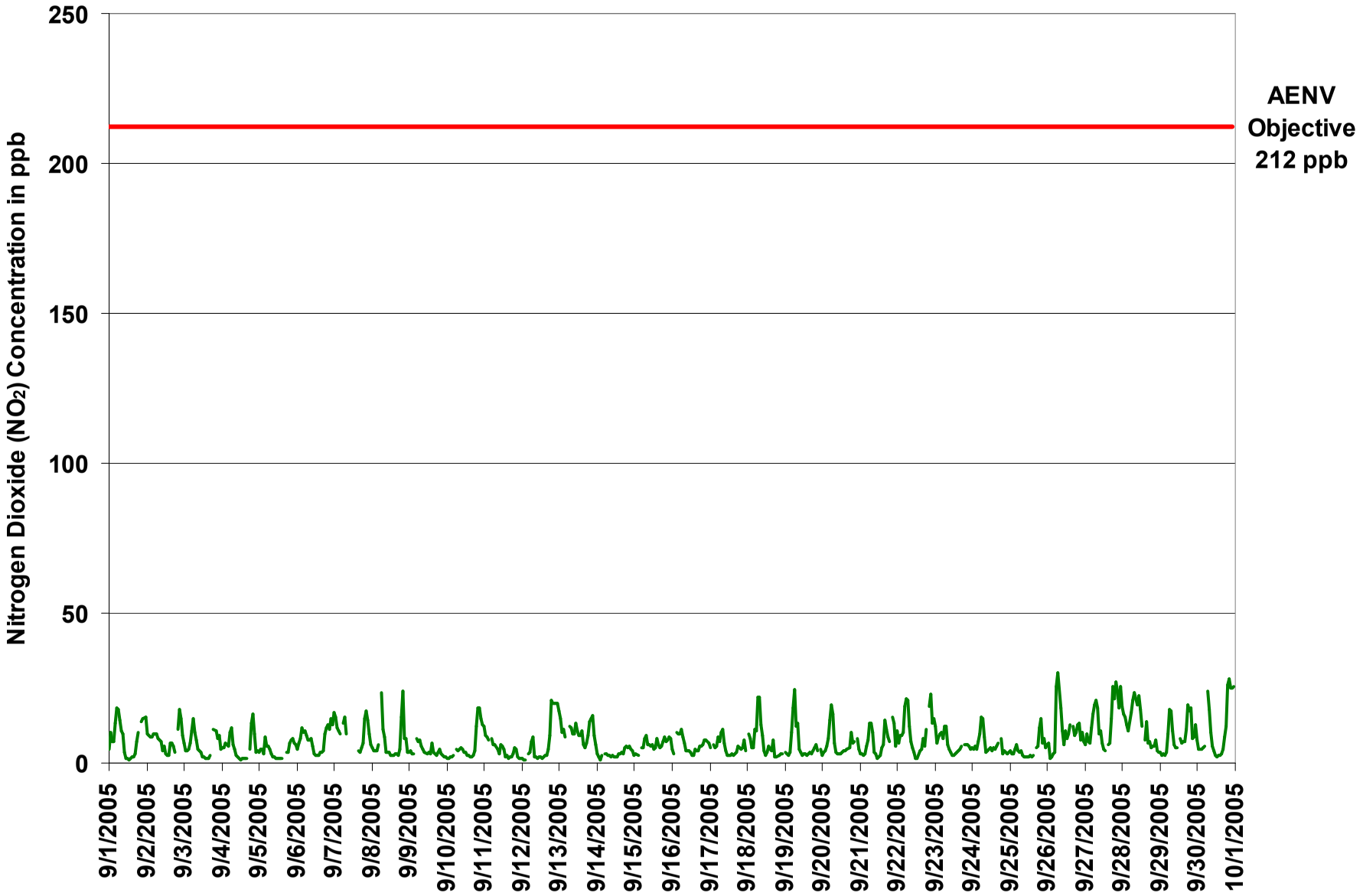


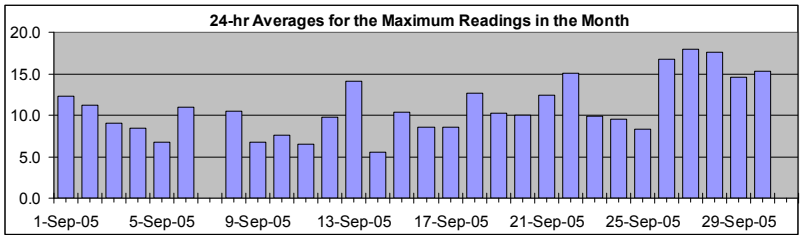
Figure 3. PASZA - Henry Pirker Nitrogen Dioxide 1-hr Average Monthly Trend

HOURLY MAXIMUM TABLE

Nitrogen Dioxide (NO_2)

Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Value:	38.5	ppb	26-Sep	6:00 7:00
Maximum 24-hr Value:	17.9	ppb	27-Sep	

AIC Time:	31 hrs	Operational Time:	684 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	32.5	24.9	14.7	9.2	5.8	3.3	2.3	11.1 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-05	7	15	9	9	20	21	20	16	13	12	6	5	4	3	4	4	5	7	12	15	A	21	22	34	12.3	34.1
2-Sep-05	12	12	12	12	11	11	12	10	11	9	6	7	6	4	6	14	13	10	9	A	18	20	20	13	11.2	19.9
3-Sep-05	10	6	6	6	8	17	18	13	11	7	7	6	4	3	4	4	3	6	A	15	19	16	14	7	9.1	18.5
4-Sep-05	7	7	9	8	10	14	15	8	7	4	3	3	3	3	2	3	5	A	8	25	24	13	8	5	8.5	24.9
5-Sep-05	7	7	6	6	18	8	7	6	5	4	3	3	2	3	4	3	A	6	6	11	12	11	10	9	6.8	18.0
6-Sep-05	8	8	11	15	13	12	11	9	9	13	10	5	5	4	6	7	7	7	15	17	17	19	20	17	11.0	19.9
7-Sep-05	21	22	13	13	14	A	18	18	38	C	C	C	C	C	A	8	8	9	11	21	21	21	13	7	N	38.0
8-Sep-05	6	5	6	7	11	A	29	18	12	5	6	6	6	6	8	5	7	5	9	25	30	12	14	5	10.5	29.6
9-Sep-05	5	7	4	6	A	11	10	12	8	7	7	8	7	6	15	7	6	5	5	7	5	3	3	2	6.8	15.3
10-Sep-05	2	2	3	2	3	A	7	5	5	7	7	6	5	5	5	4	4	5	6	17	21	20	17	16	7.6	20.8
11-Sep-05	16	11	10	9	A	11	8	7	6	4	8	7	9	3	3	3	3	3	6	8	7	4	2	2	6.5	15.6
12-Sep-05	3	2	2	A	5	6	12	12	4	4	3	5	4	5	4	5	7	10	23	24	22	21	22	21	9.7	24.1
13-Sep-05	19	17	13	13	9	A	15	14	13	12	16	18	11	10	14	11	12	14	16	16	18	19	16	10	14.1	19.4
14-Sep-05	7	3	2	6	A	4	4	4	3	4	4	3	3	4	7	5	6	6	7	8	10	13	7	7	5.5	12.7
15-Sep-05	8	7	4	A	8	7	10	12	9	12	9	10	9	9	18	11	12	9	12	13	12	13	15	13	10.4	17.5
16-Sep-05	7	5	A	13	12	12	14	10	9	5	6	6	5	4	10	10	7	8	8	9	9	10	11	9	8.5	13.6
17-Sep-05	9	A	10	7	7	14	12	12	15	11	6	4	4	5	8	4	8	7	10	9	8	10	13	6	8.6	14.7
18-Sep-05	A	13	13	7	10	21	16	35	34	23	16	7	7	6	11	11	9	12	4	6	5	8	6	A	12.7	34.7
19-Sep-05	6	4	4	6	22	32	31	23	22	10	5	5	5	4	4	5	6	5	7	7	9	7	A	7	10.2	32.2
20-Sep-05	3	5	6	12	17	17	24	21	11	6	5	6	5	6	7	9	8	8	16	10	10	A	12	7	10.1	24.2
21-Sep-05	6	5	3	5	10	16	17	18	15	6	6	4	5	9	10	10	25	23	20	15	A	24	23	8	12.4	25.3
22-Sep-05	16	11	13	13	15	22	27	27	17	11	8	8	3	4	10	11	12	10	17	A	25	25	24	21	15.1	26.8
23-Sep-05	21	10	10	15	16	12	17	18	11	8	6	5	6	5	7	8	7	9	A	9	8	8	7	6	9.9	20.6
24-Sep-05	7	16	10	9	12	13	18	17	15	5	10	8	7	10	8	8	9	A	13	5	6	5	4	4	9.5	17.8
25-Sep-05	5	5	4	7	14	9	6	6	5	3	3	4	4	5	3	4	A	8	10	18	25	13	17	10	8.3	25.4
26-Sep-05	10	10	5	4	7	10	39	38	30	19	12	16	14	17	35	A	16	15	14	16	17	12	17	12	16.7	38.5
27-Sep-05	10	16	13	10	17	18	22	27	21	15	14	11	7	5	A	9	11	23	28	27	29	27	25	28	17.9	29.2
28-Sep-05	22	23	24	18	15	21	24	26	24	25	29	24	23	A	12	20	18	11	8	9	9	12	6	6	17.6	28.6
29-Sep-05	7	5	5	4	9	22	23	21	19	9	10	9	A	14	14	11	11	18	25	24	27	17	14	17	14.6	27.4
30-Sep-05	13	7	7	11	9	A	30	28	16	8	6	5	7	5	6	8	11	16	17	30	31	28	27	27	15.3	30.8
																									N	0.0
Hourly Avg	9.6	9.1	8.1	9.0	11.9	14.3	17.1	16.4	13.9	9.2	8.1	7.3	6.4	6.1	8.7	7.6	9.1	9.8	12.2	14.9	16.2	14.9	14.1	11.6		
Hourly Max	21.7	23.1	23.5	17.6	21.9	32.2	38.5	38.2	38.0	24.6	28.6	23.8	23.4	17.5	35.0	20.1	25.3	23.3	28.2	30.1	30.8	28.1	26.7	34.1		

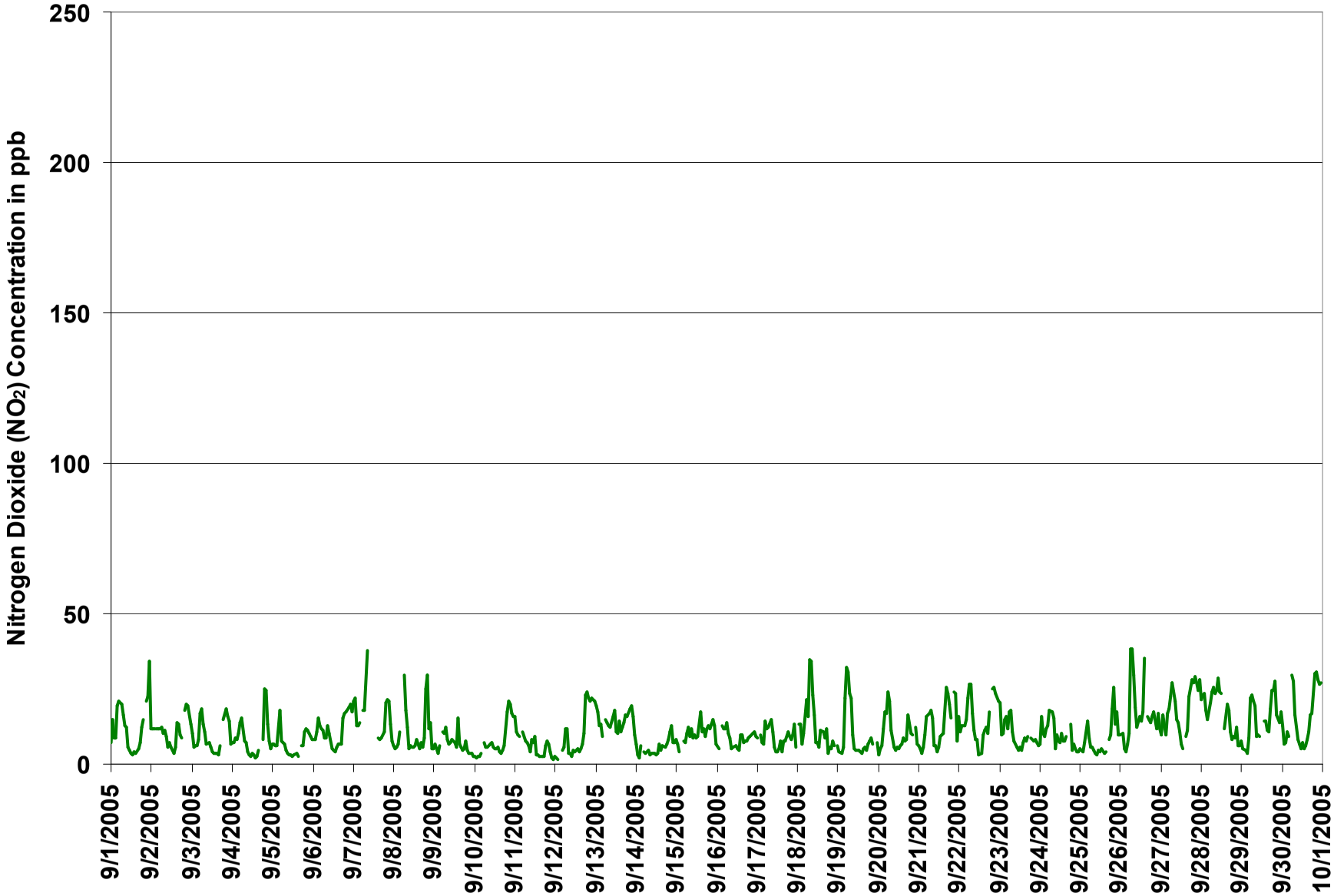
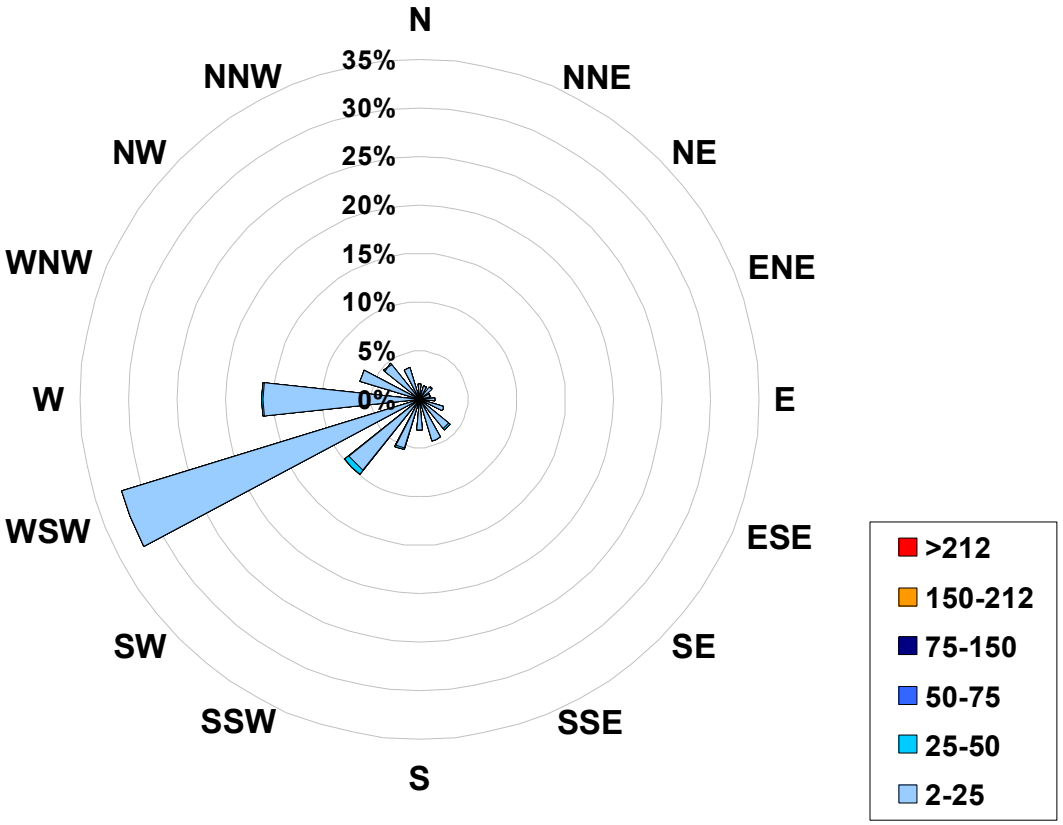


Figure 4. PASZA - Henry Pirker Nitrogen Dioxide 1-hr Maximum Value Monthly Trend

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



Calms:	0%

Frequency Distribution of NO_2 in ppb			
Range			Frequency (hrs)
2.0	<	25	665
25	to	50	16
50	to	75	3
75	to	150	0
150	to	212	0
	>	212	0
Total Non-Zero Values			684

PASZA - Henry Pirker Nitric Oxide Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

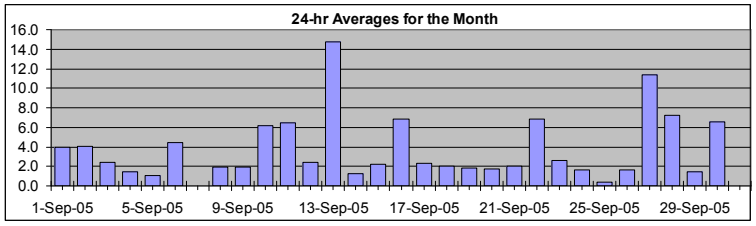
Nitric Oxide (NO)

Monitoring Dates: September 1, 2005 to October 1, 2005

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

Summary

Maximum 1-hr Average:	64.9	ppb	27-Sep	7:00 8:00
Maximum 24-hr Average:	14.8	ppb	13-Sep	



AIC Time:	31 hrs	Operational Time:	684 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	38.0	18.2	3.1	1.4	0.5	0.0	0.0	3.8 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

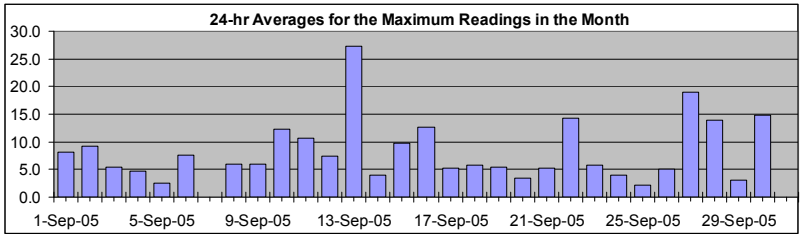
Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Sep-05	0	0	0	0	2	9	23	22	12	11	2	1	1	1	1	1	1	1	1	1	A	1	1	2	4.0	22.9
2-Sep-05	1	0	0	1	4	6	9	10	9	18	12	7	3	2	1	1	1	1	1	A	1	4	3	1	4.1	17.8
3-Sep-05	0	0	0	0	0	2	18	6	7	5	4	2	1	1	1	1	1	1	A	1	1	1	0	0	2.4	17.8
4-Sep-05	0	0	1	0	1	1	4	6	6	2	2	1	1	1	1	1	1	A	0	2	2	1	0	0	1.4	6.3
5-Sep-05	0	0	0	0	3	1	1	2	3	2	2	1	1	1	1	1	A	1	1	1	1	0	0	0	1.0	2.8
6-Sep-05	0	0	0	1	2	6	11	21	21	19	7	2	2	2	1	2	2	1	2	1	1	1	0	0	4.4	21.5
7-Sep-05	4	3	0	0	1	A	25	29	15	C	C	C	C	C	A	0	0	0	0	0	0	0	0	0	N	29.3
8-Sep-05	0	0	0	0	0	A	17	5	3	1	1	2	2	1	1	1	1	1	1	0	6	0	1	0	1.9	17.1
9-Sep-05	0	0	0	0	A	1	2	4	3	2	2	3	3	2	5	3	2	2	2	3	2	1	1	1	1.9	5.2
10-Sep-05	0	1	1	1	1	A	3	4	6	4	4	3	3	2	1	1	1	1	1	1	6	24	31	43	6.2	43.2
11-Sep-05	18	6	10	15	A	6	12	19	9	7	16	16	8	2	1	1	1	1	1	1	0	0	0	0	6.4	18.7
12-Sep-05	0	0	0	A	0	0	2	5	1	1	1	1	1	1	1	1	1	1	2	9	3	5	10	9	2.4	9.5
13-Sep-05	11	6	1	3	1	A	21	41	24	26	51	28	14	14	13	4	3	4	3	6	23	38	4	2	14.8	50.9
14-Sep-05	0	0	0	0	A	0	0	0	1	1	1	1	1	1	3	3	3	2	2	2	2	1	1	1	1.2	3.3
15-Sep-05	1	1	1	A	1	2	5	7	3	3	4	4	3	2	5	4	2	1	1	1	1	0	0	0	2.2	7.5
16-Sep-05	0	0	A	5	5	11	19	27	29	15	16	10	4	2	2	2	2	2	1	1	1	1	1	1	6.9	29.3
17-Sep-05	0	A	0	0	0	2	2	8	17	9	4	2	1	1	2	1	1	1	1	0	0	0	0	0	2.3	16.8
18-Sep-05	A	0	0	0	0	1	0	12	13	5	4	1	1	1	1	1	1	1	0	0	0	0	0	A	2.0	13.2
19-Sep-05	0	0	0	0	0	2	9	5	9	2	2	1	2	2	1	2	2	1	1	0	1	0	A	0	1.8	9.3
20-Sep-05	0	0	0	0	1	2	6	8	3	2	2	2	2	2	2	2	2	1	1	1	1	A	1	0	1.7	7.8
21-Sep-05	0	0	0	0	0	0	3	6	7	2	2	1	1	1	3	3	7	3	1	1	A	2	1	0	2.0	7.5
22-Sep-05	0	0	0	1	1	13	38	44	14	8	5	3	1	1	2	2	3	2	2	A	2	6	4	3	6.8	44.0
23-Sep-05	2	0	1	2	3	2	8	12	5	4	3	2	2	2	2	2	2	2	A	1	1	1	0	0	2.6	11.8
24-Sep-05	0	0	0	0	1	1	4	7	7	2	2	3	2	2	2	1	1	A	1	0	0	0	0	0	1.6	7.3
25-Sep-05	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	A	1	0	0	0	0	0	0	0.4	1.2
26-Sep-05	0	0	0	0	0	0	3	5	2	1	1	3	2	3	6	A	2	2	1	2	2	1	1	0	1.7	6.4
27-Sep-05	0	2	1	1	6	18	31	65	52	15	14	7	3	2	A	2	2	3	6	4	8	5	1	13	11.3	64.9
28-Sep-05	2	1	1	1	1	6	17	34	17	18	32	17	8	A	1	3	2	1	1	1	0	0	0	0	7.2	34.3
29-Sep-05	0	0	0	0	0	1	2	3	3	2	2	2	A	2	2	2	2	2	2	1	3	1	0	0	1.4	2.9
30-Sep-05	0	0	0	0	0	A	6	9	6	3	2	1	1	1	1	1	2	2	2	11	28	21	24	28	6.5	28.2
																									N	0.0
Hourly Avg	1.4	0.8	0.7	1.2	1.4	3.7	10.0	14.3	10.2	6.6	7.0	4.4	2.6	2.0	2.2	1.6	1.8	1.5	1.4	1.9	3.3	4.0	3.0	3.7		
Hourly Max	17.8	6.2	10.2	14.6	6.2	18.4	38.2	64.9	52.1	26.1	50.9	27.8	14.4	13.8	12.5	4.0	6.8	3.9	6.5	10.9	27.9	37.9	30.8	43.2		

Station: Henry Pirker
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Nitric Oxide (NO)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Value:	93.7	ppb	27-Sep	7:00 8:00
Maximum 24-hr Value:	27.2	ppb	13-Sep	

AIC Time:	31 hrs	Operational Time:	684 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	60.3	34.3	9.3	3.5	1.5	0.2	0.0	8.3 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Sep-05	1	1	1	1	6	16	39	36	18	16	4	3	2	1	4	1	1	2	2	5	A	7	4	17	8.2	38.7
2-Sep-05	4	1	2	8	10	13	23	19	16	25	18	11	5	3	2	2	3	4	2	A	2	19	18	1	9.2	25.2
3-Sep-05	1	1	0	0	1	12	36	10	12	9	10	3	3	3	2	2	2	3	A	2	4	3	2	1	5.4	36.3
4-Sep-05	0	1	2	0	25	5	7	11	12	5	2	2	3	1	1	1	2	A	1	11	6	7	1	0	4.7	24.5
5-Sep-05	1	0	0	0	15	2	3	4	4	3	3	3	2	3	2	2	A	2	2	2	1	1	0	1	2.5	14.6
6-Sep-05	0	1	4	4	6	8	17	24	30	27	17	4	4	3	3	4	3	3	5	3	3	4	2	2	7.5	30.1
7-Sep-05	14	7	1	1	10	A	43	43	37	C	C	C	C	C	A	0	0	0	0	0	0	0	0	0	N	43.0
8-Sep-05	0	0	0	0	1	A	33	11	6	2	3	3	34	3	3	2	3	2	2	1	20	1	8	1	6.0	34.5
9-Sep-05	0	0	0	0	A	2	5	12	4	4	10	10	10	7	14	20	6	6	5	7	7	4	3	2	6.0	19.7
10-Sep-05	2	1	2	2	3	A	5	8	9	8	9	10	6	5	5	5	4	5	4	3	10	74	48	56	12.3	73.6
11-Sep-05	47	8	15	24	A	11	18	22	12	10	21	24	18	2	2	2	2	1	2	3	1	1	0	0	10.7	47.2
12-Sep-05	0	1	0	A	1	2	7	10	2	3	2	3	2	3	2	2	3	9	27	19	10	27	22	17	7.5	26.8
13-Sep-05	15	24	3	7	2	A	37	51	48	46	71	55	23	18	24	8	9	16	13	23	48	59	18	8	27.2	71.2
14-Sep-05	1	1	0	1	A	2	1	1	1	2	2	3	3	3	9	7	10	6	5	9	6	8	2	10	4.0	10.2
15-Sep-05	5	15	12	A	5	10	10	20	7	18	14	16	9	9	20	28	6	7	8	3	1	0	1	1	9.8	27.8
16-Sep-05	1	0	A	25	8	32	32	35	41	22	27	19	7	4	7	7	4	4	3	2	2	2	3	1	12.6	40.9
17-Sep-05	6	A	1	1	2	8	8	14	27	19	6	3	3	4	5	2	3	2	2	2	1	1	0	0	5.3	26.9
18-Sep-05	A	2	1	0	1	6	1	37	36	14	8	3	4	3	3	3	1	1	1	1	1	1	1	A	5.8	36.7
19-Sep-05	0	0	0	0	2	13	33	26	19	6	3	3	3	3	2	3	3	1	1	1	1	1	A	1	5.5	33.1
20-Sep-05	0	1	1	2	2	4	12	10	7	5	3	4	3	4	3	3	3	4	3	2	2	A	1	1	3.5	12.4
21-Sep-05	1	0	0	1	3	4	8	12	11	4	5	3	3	5	6	4	21	10	3	4	A	8	4	1	5.3	21.3
22-Sep-05	1	1	1	1	3	27	62	80	24	13	10	10	1	2	6	6	5	4	12	A	6	22	17	12	14.3	80.3
23-Sep-05	8	1	2	6	8	6	19	24	10	8	6	4	4	3	5	5	4	4	A	1	1	1	1	0	5.7	23.9
24-Sep-05	0	12	3	1	2	2	7	12	16	4	6	5	4	5	3	2	2	A	1	1	1	1	1	1	4.0	15.7
25-Sep-05	0	0	0	0	8	1	1	1	1	1	1	2	2	2	2	2	A	22	1	1	3	1	1	1	2.2	21.7
26-Sep-05	0	0	0	0	0	1	12	12	5	4	3	9	5	8	32	A	3	4	2	3	2	4	3	1	5.1	32.0
27-Sep-05	2	7	1	2	21	30	41	94	67	32	21	13	6	3	A	3	6	6	13	8	19	11	4	26	19.0	93.7
28-Sep-05	7	4	6	3	3	12	48	49	24	31	60	28	23	A	3	6	4	2	1	1	1	1	1	1	13.9	59.9
29-Sep-05	0	0	0	1	1	3	4	4	6	4	4	3	A	4	4	4	4	4	4	5	7	1	1	1	3.1	7.2
30-Sep-05	1	0	0	0	1	A	12	27	13	5	4	3	4	3	3	3	4	4	6	31	55	66	52	43	14.8	65.9
																									N	0.0
Hourly Avg	4.1	3.2	2.0	3.3	5.5	9.3	19.4	24.0	17.5	12.1	12.2	9.0	7.0	4.3	6.4	4.9	4.5	4.9	4.7	5.5	7.9	11.6	7.5	7.1		
Hourly Max	47.2	23.7	15.1	25.0	24.5	32.4	62.2	93.7	67.1	45.6	71.2	54.9	34.5	17.9	32.0	27.8	21.3	21.7	26.6	30.8	54.6	73.6	51.6	56.1		

PASZA - Henry Pirker Oxides of Nitrogen Monthly Summary

HOURLY AVERAGE TABLE

Oxides of Nitrogen (NO_x)

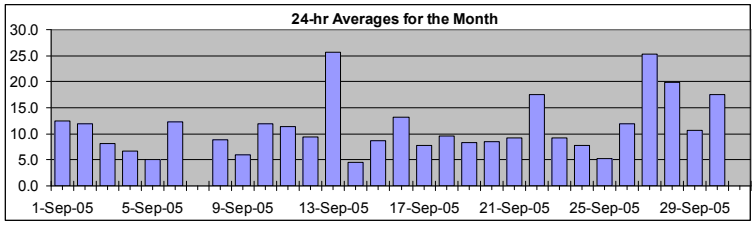
Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005

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

Summary

Maximum 1-hr Average:	85.7	ppb	27-Sep	7:00 8:00
Maximum 24-hr Average:	25.6	ppb	13-Sep	



AIC Time:	31 hrs	Operational Time:	684 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	55.6	34.8	13.8	7.4	4.5	2.5	1.7	11.3 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

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-05	5	10	7	8	15	28	41	37	23	20	6	3	2	2	2	3	3	4	8	11	A	15	16	17	12.4	41.2
2-Sep-05	10	10	9	10	14	15	19	18	16	25	16	12	6	4	3	8	8	7	4	A	12	22	17	10	11.9	25.0
3-Sep-05	7	4	4	5	7	12	33	16	14	10	8	6	3	3	2	2	2	4	A	12	11	9	9	5	8.2	32.8
4-Sep-05	5	5	7	6	7	11	15	12	10	4	3	2	2	2	2	2	2	A	5	15	18	10	4	4	6.7	17.8
5-Sep-05	4	5	5	3	11	6	7	7	6	4	3	3	2	2	2	2	A	4	5	7	8	8	7	6	5.1	11.3
6-Sep-05	5	7	8	13	12	16	20	29	28	27	13	5	4	4	4	5	5	5	12	14	14	12	16	14	12.2	29.1
7-Sep-05	21	18	12	11	11	A	39	45	26	C	C	C	C	C	A	6	5	6	8	16	18	15	10	6	N	44.9
8-Sep-05	5	4	4	4	7	A	40	17	12	5	5	5	5	4	3	4	4	3	6	16	30	8	9	4	8.9	40.0
9-Sep-05	4	4	3	3	A	9	9	12	8	7	6	7	6	5	12	6	5	4	6	7	5	4	3	3	6.0	12.2
10-Sep-05	2	2	3	2	3	A	7	8	10	9	8	7	7	5	4	3	3	4	5	13	24	42	46	56	11.9	56.1
11-Sep-05	30	16	19	22	A	14	18	25	14	10	22	22	12	4	4	2	3	3	4	6	5	2	1	2	11.4	30.2
12-Sep-05	2	1	1	A	4	4	10	14	3	3	2	3	3	2	3	4	3	6	12	31	23	25	29	29	9.5	30.5
13-Sep-05	29	21	11	15	10	A	34	53	34	36	64	39	24	23	23	11	8	11	12	20	37	54	14	8	25.6	64.1
14-Sep-05	3	2	1	3	A	3	3	3	3	3	4	3	3	4	6	7	7	5	7	8	7	7	5	5	4.6	7.8
15-Sep-05	4	4	4	A	6	7	13	17	9	9	10	10	8	8	13	10	7	7	8	10	8	8	9	9	8.7	17.1
16-Sep-05	5	3	A	16	15	22	30	35	36	19	21	14	8	5	5	7	6	6	7	7	8	9	9	8	13.2	36.4
17-Sep-05	6	A	7	6	6	10	9	19	28	16	8	5	4	4	5	4	5	5	6	6	5	5	8	4	7.8	28.1
18-Sep-05	A	10	8	5	5	12	11	35	35	18	14	6	4	5	7	6	5	8	2	2	3	3	3	A	9.5	35.1
19-Sep-05	4	3	3	4	11	21	34	17	22	7	6	4	5	5	4	5	5	4	5	6	7	5	A	5	8.3	33.6
20-Sep-05	3	4	4	6	9	16	25	24	10	6	5	5	5	6	6	6	7	7	12	8	8	A	9	5	8.4	25.1
21-Sep-05	3	3	3	3	6	8	17	20	18	6	6	3	3	4	8	10	21	14	10	8	A	17	15	6	9.2	21.0
22-Sep-05	11	7	10	10	12	32	59	65	27	15	11	7	3	3	6	7	12	8	13	A	21	29	17	18	17.5	64.8
23-Sep-05	14	7	10	12	14	11	20	24	11	9	7	4	5	5	6	7	7	8	A	7	7	7	6	5	9.3	24.3
24-Sep-05	5	5	6	5	8	11	19	22	15	6	7	8	6	7	6	7	8	A	9	4	4	4	3	4	7.8	21.9
25-Sep-05	4	3	3	5	6	4	4	5	3	3	3	3	3	3	3	3	A	6	6	12	15	7	9	5	5.2	15.2
26-Sep-05	6	6	2	2	3	4	29	35	21	12	7	14	10	12	19	A	14	11	11	14	15	9	11	8	12.0	34.7
27-Sep-05	7	11	8	8	18	35	51	86	70	24	25	13	8	7	A	8	8	18	32	25	35	29	19	38	25.3	85.7
28-Sep-05	20	18	17	14	11	22	38	58	39	37	54	35	20	A	9	16	8	9	6	6	6	8	4	4	19.9	57.5
29-Sep-05	4	3	3	3	4	10	20	20	13	8	7	7	A	10	8	9	9	14	21	19	21	9	9	13	10.6	21.4
30-Sep-05	8	5	4	5	6	A	29	26	16	8	6	4	3	4	4	4	6	10	14	37	56	46	49	52	17.5	55.5
																									N	0.0
Hourly Avg	8.2	7.0	6.5	7.4	8.9	13.8	23.4	26.8	19.4	12.8	12.3	9.0	6.2	5.4	6.5	6.0	6.8	7.2	9.1	12.4	15.4	14.7	12.6	12.1		
Hourly Max	30.2	20.9	19.2	22.2	18.0	34.6	59.5	85.7	70.3	37.5	64.1	38.9	24.0	23.1	23.2	16.2	21.0	17.8	32.0	36.8	55.5	54.0	48.7	56.1		

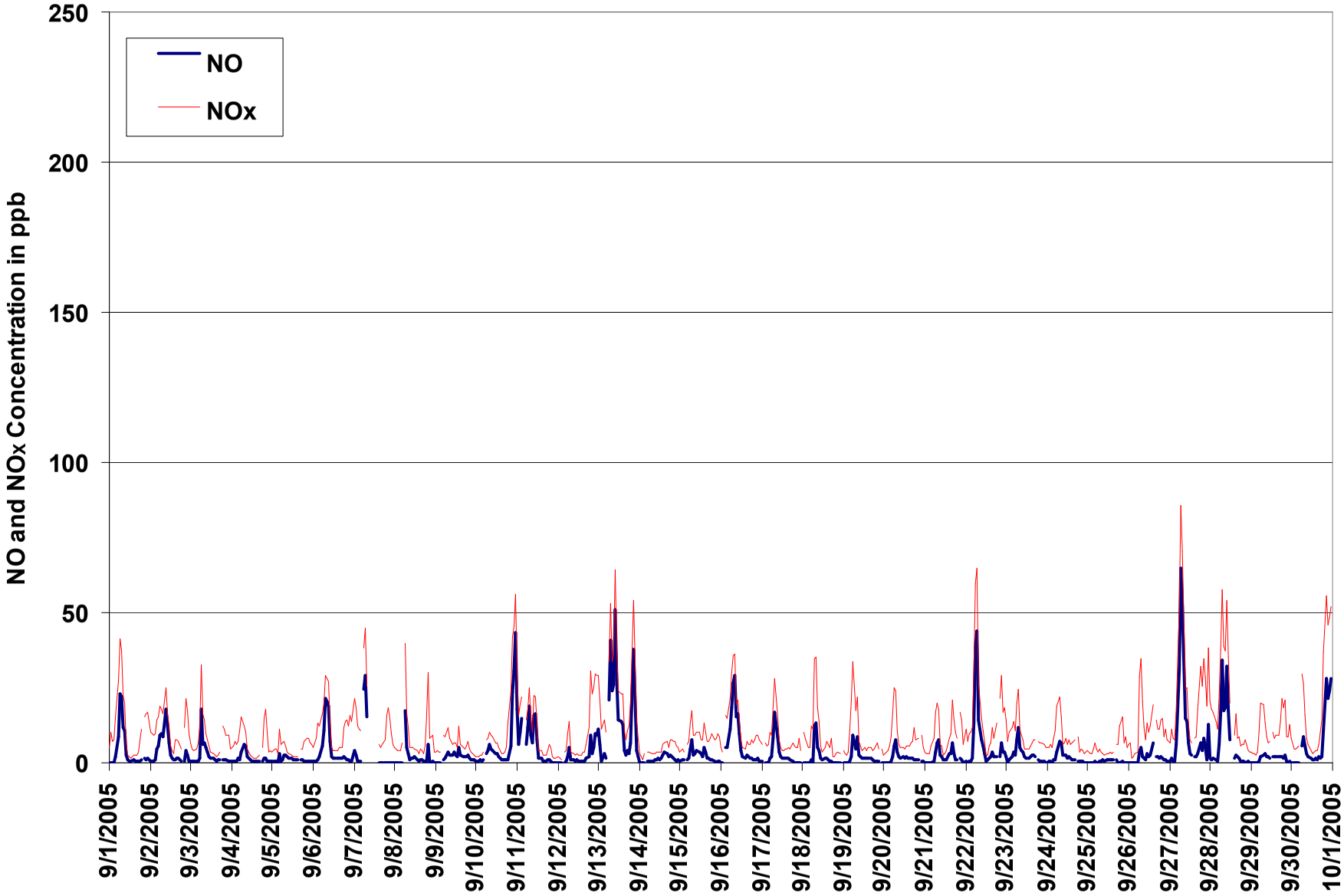


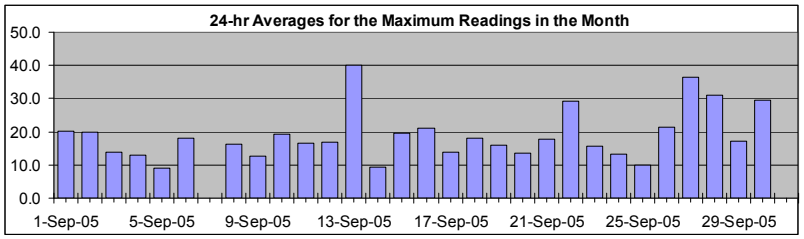
Figure 5. PASZA - Henry Pirker Oxides of Nitrogen 1-hr Average Monthly Trend

HOURLY MAXIMUM TABLE

Oxides of Nitrogen (NO_x)

Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Value:	120.6	ppb	27-Sep	7:00 8:00
Maximum 24-hr Value:	40.1	ppb	13-Sep	

AIC Time:	31 hrs	Operational Time:	684 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	85.7	53.1	24.2	13.4	8.1	4.7	3.4	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-05	7	15	10	9	25	37	58	52	31	28	9	7	5	5	7	5	6	9	13	17	A	28	26	51	20.2	57.8
2-Sep-05	15	13	13	18	19	24	35	28	27	34	23	17	11	6	7	15	17	14	11	A	20	37	37	14	19.9	37.3
3-Sep-05	11	6	6	6	8	28	52	23	22	15	16	9	7	6	6	6	5	8	A	16	22	18	15	8	14.0	52.0
4-Sep-05	7	7	10	8	35	18	22	18	19	9	5	4	6	4	3	4	7	A	9	36	30	19	8	5	12.9	36.1
5-Sep-05	7	7	6	6	33	8	9	9	9	7	5	5	4	6	6	4	A	8	7	11	12	11	11	10	8.9	32.6
6-Sep-05	8	8	14	20	18	19	26	31	38	40	25	9	8	7	9	11	10	9	18	21	20	23	22	19	18.1	39.9
7-Sep-05	34	28	14	14	24	A	57	61	75	C	C	C	C	C	A	13	11	11	11	22	22	23	14	8	N	75.5
8-Sep-05	6	5	6	7	12	A	61	29	17	8	8	9	39	8	11	7	8	7	10	26	48	12	19	6	16.1	61.5
9-Sep-05	5	7	4	6	A	12	14	25	13	10	17	18	18	12	29	24	10	10	9	14	11	7	6	4	12.5	29.0
10-Sep-05	3	3	5	3	6	A	11	13	14	14	14	15	10	10	10	10	7	10	9	20	29	92	65	70	19.3	91.9
11-Sep-05	60	17	24	31	A	19	24	30	18	14	30	32	27	5	5	4	4	4	8	10	8	4	2	2	16.6	60.3
12-Sep-05	2	3	2	A	5	8	18	21	6	7	5	8	7	8	6	7	10	17	50	42	31	47	42	37	16.9	49.7
13-Sep-05	33	35	16	21	11	A	49	64	60	57	85	63	33	26	38	19	21	30	29	38	64	78	34	18	40.1	85.4
14-Sep-05	7	4	2	7	A	6	4	6	4	5	6	7	5	6	15	12	13	11	13	16	16	21	9	16	9.2	21.2
15-Sep-05	13	19	14	A	11	17	20	32	14	29	22	26	16	18	38	37	19	16	19	15	13	13	16	14	19.5	37.7
16-Sep-05	7	5	A	38	19	43	46	45	50	28	32	25	12	9	17	17	11	12	11	12	12	12	14	11	21.1	50.1
17-Sep-05	14	A	10	8	8	23	20	26	42	30	12	8	7	10	13	7	11	10	12	11	9	10	14	6	14.0	41.5
18-Sep-05	A	14	13	7	10	28	16	71	70	37	21	10	11	9	15	14	9	13	4	7	5	8	6	A	18.2	70.8
19-Sep-05	6	4	4	6	24	45	63	49	41	16	9	8	8	7	6	8	9	7	8	8	10	8	A	8	15.8	63.4
20-Sep-05	3	6	6	14	19	21	37	30	18	11	8	9	9	10	10	12	11	11	19	12	11	A	13	8	13.4	36.7
21-Sep-05	7	5	4	6	12	20	25	30	27	10	12	7	8	14	15	15	47	33	23	18	A	32	28	8	17.7	46.5
22-Sep-05	16	11	14	14	18	47	88	107	41	24	18	19	5	6	15	16	18	13	28	A	30	47	41	32	29.1	106.8
23-Sep-05	28	11	12	21	25	17	36	42	21	16	12	9	10	8	13	13	12	13	A	10	9	9	8	7	15.7	41.6
24-Sep-05	7	28	11	10	14	15	25	28	31	9	16	13	11	15	11	9	11	A	14	5	7	6	5	5	13.3	30.9
25-Sep-05	5	5	4	7	21	9	6	6	6	5	5	6	6	8	5	6	A	19	10	19	28	14	19	10	10.0	28.2
26-Sep-05	10	10	5	4	7	10	50	50	35	23	15	24	19	25	66	A	18	19	16	18	19	14	20	13	21.4	65.7
27-Sep-05	11	24	14	11	37	46	61	121	87	47	35	24	13	9	A	13	17	27	41	35	46	37	29	51	36.3	120.6
28-Sep-05	28	27	30	20	18	32	72	73	47	54	87	51	45	A	14	26	22	12	9	10	9	13	7	7	31.0	86.9
29-Sep-05	8	5	5	4	9	25	26	25	25	12	13	12	A	18	18	15	15	21	27	29	34	18	14	18	17.3	34.3
30-Sep-05	13	7	7	11	10	A	42	53	29	13	11	8	11	8	8	11	15	21	22	61	81	91	77	67	29.4	91.1
																									N	0.0
Hourly Avg	13.4	11.8	9.9	12.1	17.0	23.2	35.8	39.9	31.2	21.1	20.0	16.0	13.2	10.1	14.9	12.5	13.4	14.1	16.5	20.0	23.5	26.0	21.4	18.4		
Hourly Max	60.3	35.1	29.6	37.9	37.4	47.2	88.5	120.6	86.7	56.6	86.9	63.2	45.1	26.3	65.7	36.6	46.5	33.2	49.7	60.6	81.1	91.9	77.4	69.9		

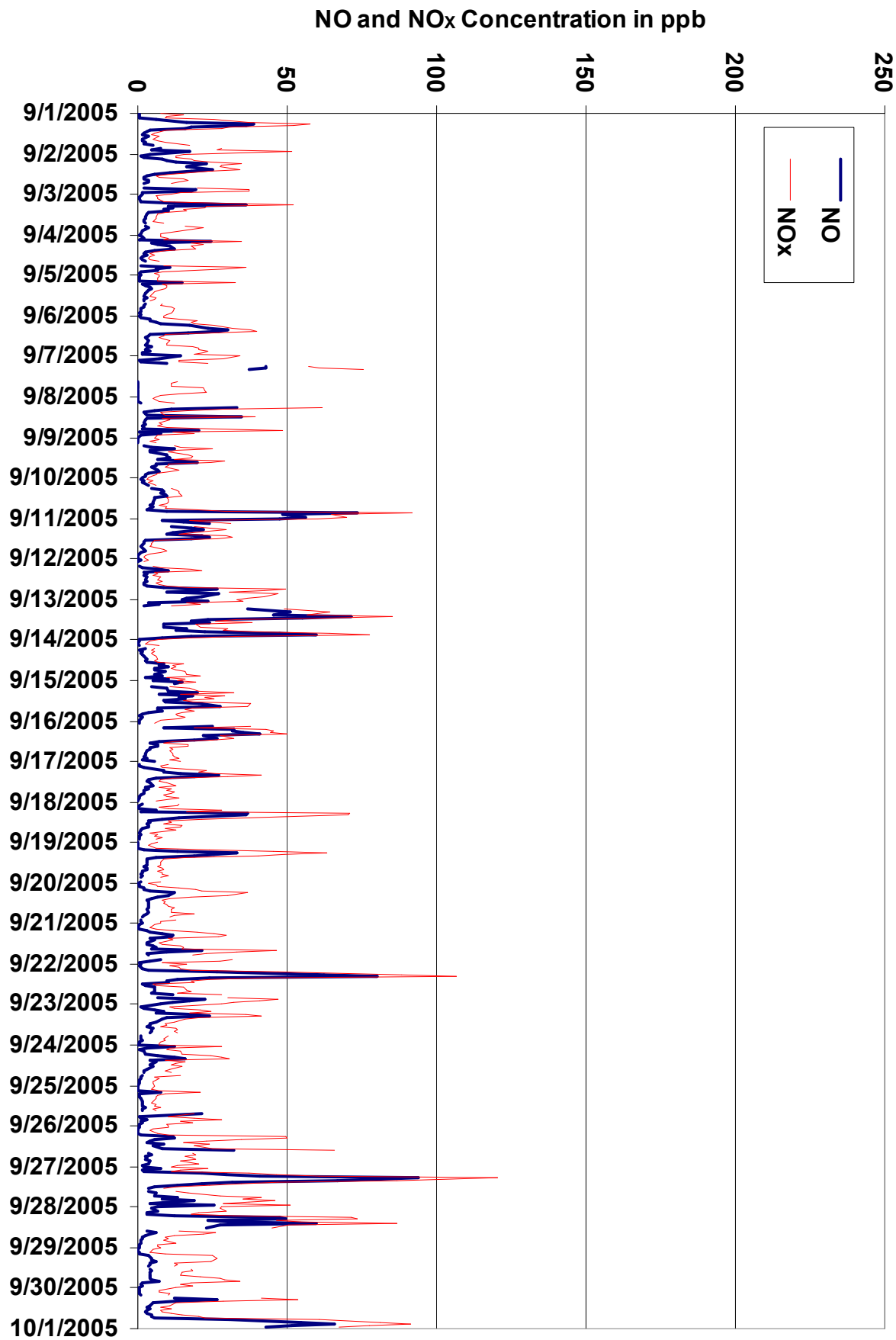


Figure 6. PASZA - Henry Pirker Oxides of Nitrogen 1-hr Maximum Value Monthly Trend

PASZA - Henry Pirker Ozone Monthly Summary

HOURLY AVERAGE TABLE

Ozone (O_3)

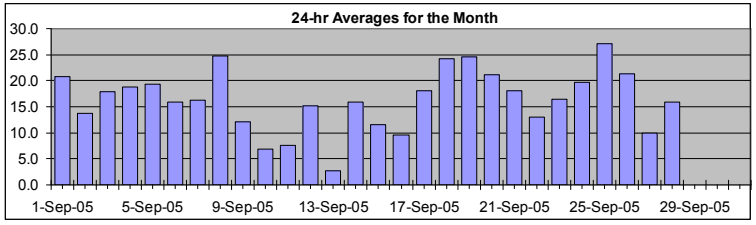
Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005

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

Summary

Number of 1-hr Exceedances:	0			
Maximum 1-hr Average:	41.7	ppb	1-Sep	16:00 17:00
Maximum 24-hr Average:	27.1	ppb	25-Sep	



AIC Time:	30 hrs	Operational Time:	652 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	95.1%

Percentile	99	95	75	50	25	5	1	Average
	36.9	31.8	24.5	16.4	8.9	0.9	0.1	16.5 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-05	19	11	13	11	4	0	0	4	11	17	27	33	35	36	39	40	42	40	30	24	A	19	14	10	20.8	41.7
2-Sep-05	10	8	6	4	2	2	2	4	8	7	8	16	24	27	30	26	32	32	31	A	15	4	6	11	13.7	32.0
3-Sep-05	13	16	20	15	12	7	3	8	10	12	17	22	27	29	29	29	30	29	A	18	17	16	14	18	17.8	29.6
4-Sep-05	16	16	12	12	12	7	3	7	12	20	23	26	28	29	30	31	31	A	29	15	11	15	27	20	18.7	31.0
5-Sep-05	18	15	15	16	10	13	11	13	17	20	23	24	27	29	29	29	A	27	25	20	18	16	17	14	19.4	29.0
6-Sep-05	15	11	9	4	3	1	1	3	6	8	18	26	29	30	32	32	31	31	22	17	15	15	9	10	15.8	31.9
7-Sep-05	4	4	7	6	5	A	0	2	8	20	25	28	30	31	30	28	28	25	25	15	10	11	16	18	16.3	30.9
8-Sep-05	17	18	19	21	19	A	4	12	21	34	37	36	36	35	36	36	35	34	31	17	5	20	18	23	24.7	37.1
9-Sep-05	20	20	20	18	A	11	13	11	12	C	C	C	A	13	11	16	14	14	10	7	7	6	5	4	12.2	20.2
10-Sep-05	4	4	3	3	2	A	2	2	2	5	7	8	9	12	15	17	18	19	16	8	2	1	1	1	6.9	18.5
11-Sep-05	1	0	0	0	A	0	0	1	3	4	4	5	11	15	14	15	12	11	12	13	14	15	14	13	7.7	15.3
12-Sep-05	11	17	17	A	17	15	10	8	16	20	23	23	24	26	26	25	24	22	17	3	4	1	0	0	15.2	26.1
13-Sep-05	0	1	3	1	1	A	0	0	1	0	0	1	2	3	4	9	11	8	6	2	1	0	3	4	2.7	11.2
14-Sep-05	18	27	32	27	A	25	24	24	22	18	15	14	14	13	12	8	9	10	9	9	11	10	10	10	16.0	31.7
15-Sep-05	11	10	9	A	8	7	4	4	8	11	12	13	16	17	16	17	19	17	17	11	13	11	8	7	11.5	18.6
16-Sep-05	10	9	A	1	0	0	0	1	2	4	4	8	13	19	20	20	21	18	14	14	13	11	10	10	9.6	20.7
17-Sep-05	12	A	12	11	11	7	8	5	6	11	16	20	23	26	27	26	27	28	25	23	24	24	19	23	18.0	27.7
18-Sep-05	A	14	14	19	22	18	20	10	11	20	27	31	33	32	29	30	32	26	31	31	30	27	26	A	24.3	32.8
19-Sep-05	24	26	29	28	22	13	6	14	16	27	29	30	29	30	30	29	29	29	27	25	22	22	A	25	24.5	30.4
20-Sep-05	27	25	24	22	20	14	9	11	19	23	25	26	27	26	26	26	24	23	17	20	19	A	16	18	21.2	27.0
21-Sep-05	19	20	19	19	16	15	10	10	13	20	22	25	25	25	24	23	16	18	19	19	A	10	12	16	18.1	25.5
22-Sep-05	9	16	12	11	10	1	0	2	8	12	15	19	24	25	23	24	22	22	16	A	8	2	9	6	13.0	25.0
23-Sep-05	8	13	10	8	6	8	5	5	12	15	18	22	25	27	27	24	23	22	A	22	21	20	19	19	16.4	26.6
24-Sep-05	19	17	15	16	14	11	5	6	13	18	20	20	23	23	26	26	24	A	24	28	26	26	27	27	19.7	27.6
25-Sep-05	26	25	24	23	22	26	29	28	30	31	32	32	32	33	33	32	A	31	29	21	16	24	21	24	27.1	33.1
26-Sep-05	21	21	36	37	38	37	16	11	19	24	27	22	25	24	22	A	20	19	17	11	10	13	9	12	21.3	37.9
27-Sep-05	11	6	9	9	2	1	1	1	3	9	12	17	22	24	A	28	27	17	6	8	2	4	9	2	9.9	28.2
28-Sep-05	5	6	6	6	7	4	1	0	2	5	7	12	23	A	32	24	33	30	31	29	27	23	27	27	16.0	32.8
29-Sep-05	25	27	31	32	29	24	19	19	10	26	26	32	A	S	S	S	S	S	S	S	S	S	S	S	N	31.9
30-Sep-05	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	N	0.0
																									N	0.0
Hourly Avg	14.0	14.4	15.3	14.0	12.1	10.7	7.2	7.7	11.0	15.7	18.6	21.2	23.6	24.4	24.9	24.8	24.3	23.2	20.5	16.5	13.8	13.5	13.6	13.8		
Hourly Max	27.0	27.1	35.7	36.8	37.9	37.1	28.6	27.8	29.8	34.0	37.1	36.4	36.2	36.5	38.5	39.9	41.7	40.3	31.2	31.4	30.0	27.4	27.4	27.2		

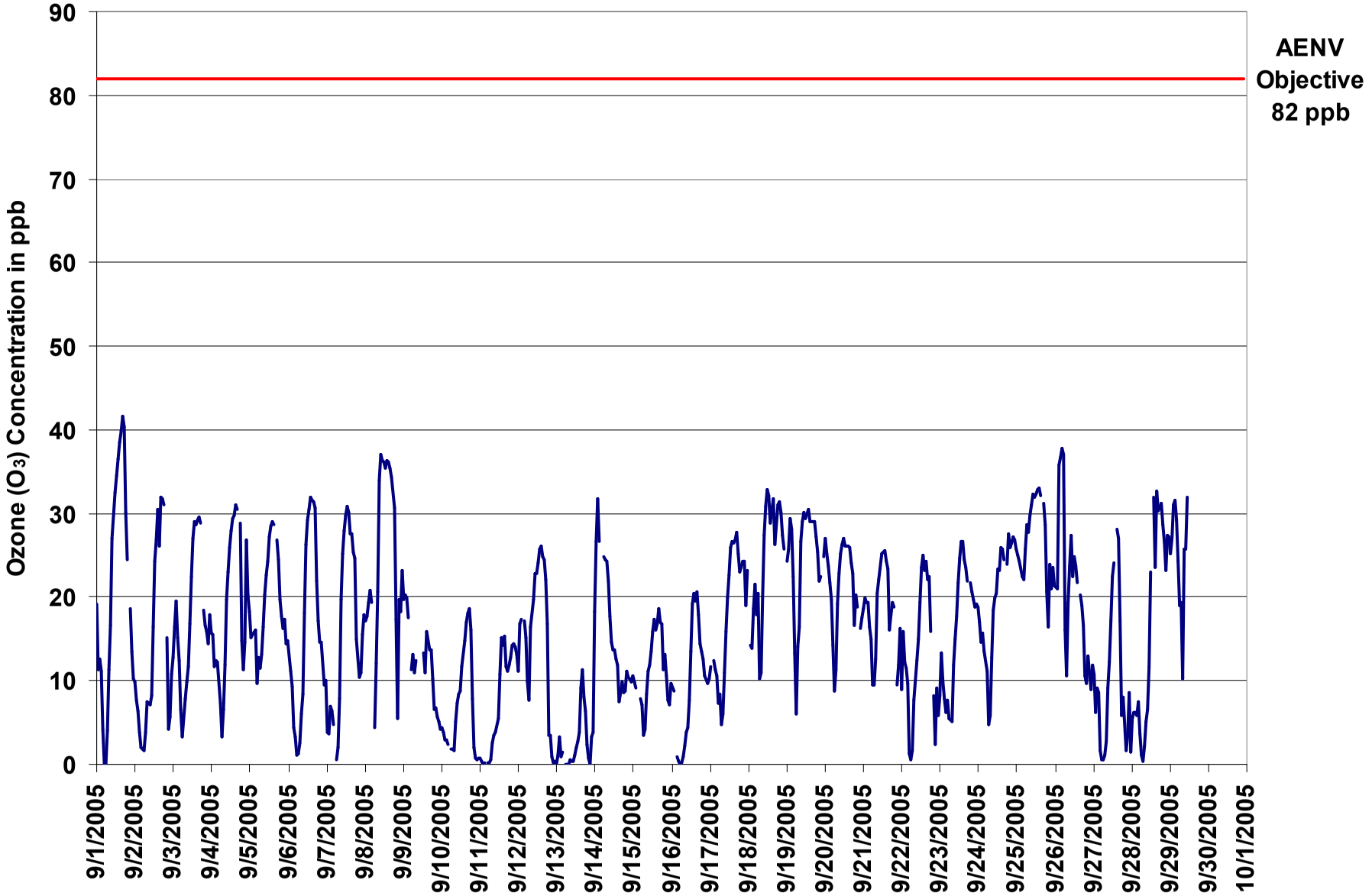


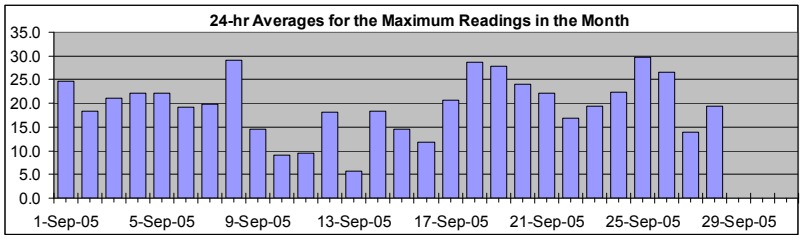
Figure 7. PASZA - Henry Pirker Ozone 1-hr Average Monthly Trend

HOURLY MAXIMUM TABLE

Ozone (O_3)

Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Value:	43.8	ppb	1-Sep	17:00 18:00
Maximum 24-hr Value:	29.6	ppb	25-Sep	

AIC Time:	30 hrs	Operational Time:	652 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	95.1%

Percentile	99	95	75	50	25	5	1	Average
	40.2	34.6	27.8	19.8	12.5	3.0	1.1	19.9 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Sep-05	23	16	16	14	11	3	0	8	15	26	30	35	37	39	40	42	44	44	36	28	A	25	26	13	24.7	43.8
2-Sep-05	12	12	9	7	7	6	4	8	11	9	13	24	28	31	32	37	39	36	34	A	20	10	14	14	18.3	39.1
3-Sep-05	15	21	21	18	15	12	11	11	14	15	20	26	30	31	31	31	31	31	A	23	24	20	17	21	21.2	31.4
4-Sep-05	19	19	16	17	16	12	5	9	15	22	25	27	30	31	32	32	33	A	32	24	16	18	32	25	22.1	32.7
5-Sep-05	21	18	19	19	14	15	14	16	19	23	25	26	29	30	31	30	A	29	28	24	20	19	21	19	22.1	30.7
6-Sep-05	16	14	12	8	7	3	2	5	8	12	25	30	31	33	34	34	33	34	31	21	19	21	13	13	19.1	33.9
7-Sep-05	9	8	9	9	13	A	2	6	11	26	27	30	31	33	32	31	31	29	28	22	16	16	19	20	19.8	33.0
8-Sep-05	19	20	23	24	23	A	14	18	29	38	39	39	39	38	39	38	38	37	35	26	20	22	22	26	29.0	39.3
9-Sep-05	23	23	23	19	A	17	16	14	15	C	C	C	A	15	14	18	15	16	12	9	9	7	6	6	14.6	23.4
10-Sep-05	5	5	4	4	3	A	3	3	3	8	9	11	10	14	18	19	19	21	18	17	4	2	2	4	9.0	21.0
11-Sep-05	2	2	1	1	A	1	1	2	4	5	6	8	15	18	16	18	13	12	15	15	16	16	15	15	9.4	18.4
12-Sep-05	17	18	19	A	18	17	14	13	19	24	24	25	26	27	27	27	26	25	24	8	8	4	3	2	18.1	27.4
13-Sep-05	2	4	6	3	4	A	1	1	2	1	1	2	3	4	10	19	18	13	9	7	5	1	7	7	5.7	19.2
14-Sep-05	25	32	33	31	A	27	26	26	24	21	16	15	15	14	14	9	10	12	10	12	13	12	13	12	18.3	32.6
15-Sep-05	12	11	11	A	10	8	6	7	11	14	15	16	19	20	19	20	22	21	22	15	16	17	12	11	14.6	21.6
16-Sep-05	11	11	A	5	1	1	1	2	3	5	6	11	18	21	23	22	22	22	16	16	14	12	12	12	11.7	22.6
17-Sep-05	15	A	14	13	13	11	11	8	9	16	18	22	26	30	29	29	30	30	28	27	28	26	22	25	20.8	30.4
18-Sep-05	A	18	20	20	25	28	29	18	16	25	31	34	35	34	33	35	35	30	34	40	35	30	28	A	28.7	39.5
19-Sep-05	26	29	32	31	29	20	14	21	23	31	31	32	31	31	31	31	31	31	31	28	24	25	A	27	27.9	32.0
20-Sep-05	28	27	25	24	23	17	15	17	23	24	27	28	29	29	28	29	27	27	22	26	21	A	18	20	24.1	29.3
21-Sep-05	20	22	21	21	19	18	12	15	18	22	26	27	27	28	27	27	25	25	29	26	A	17	18	19	22.2	29.3
22-Sep-05	15	18	16	15	15	5	2	5	12	15	18	22	25	26	27	28	25	25	21	A	17	5	18	14	16.9	28.4
23-Sep-05	16	16	13	13	10	10	10	10	14	18	20	25	27	28	29	27	26	25	A	23	22	21	20	21	19.3	28.8
24-Sep-05	21	19	17	18	18	14	8	8	19	20	22	23	27	26	29	28	28	A	28	29	28	28	29	28	22.3	29.1
25-Sep-05	27	26	26	25	25	30	30	30	32	33	33	34	34	35	35	34	A	33	31	26	22	26	27	27	29.6	35.2
26-Sep-05	24	25	43	40	40	41	34	18	28	31	33	27	29	28	29	A	24	22	20	14	16	17	13	14	26.5	42.8
27-Sep-05	14	11	13	13	5	4	4	2	5	13	16	21	24	26	A	30	30	28	9	18	5	8	14	6	13.9	30.5
28-Sep-05	8	9	9	9	10	8	3	2	4	7	9	16	34	A	37	30	36	34	33	32	31	27	29	29	19.5	36.7
29-Sep-05	28	31	33	33	32	29	27	25	32	33	36	35	A	S	S	S	S	S	S	S	S	S	S	S	N	35.6
30-Sep-05	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	N	0.0
																									N	0.0
Hourly Avg	16.8	17.3	17.9	16.8	15.6	14.3	11.1	11.3	15.1	19.1	21.5	24.0	26.3	26.8	27.6	28.0	27.3	26.6	24.5	21.3	18.1	16.8	17.4	16.6		
Hourly Max	28.5	31.9	42.8	40.4	40.3	41.2	34.4	30.1	32.5	37.8	39.0	39.3	38.8	38.6	40.2	41.6	43.8	43.8	35.8	39.5	34.6	29.8	31.6	29.2		

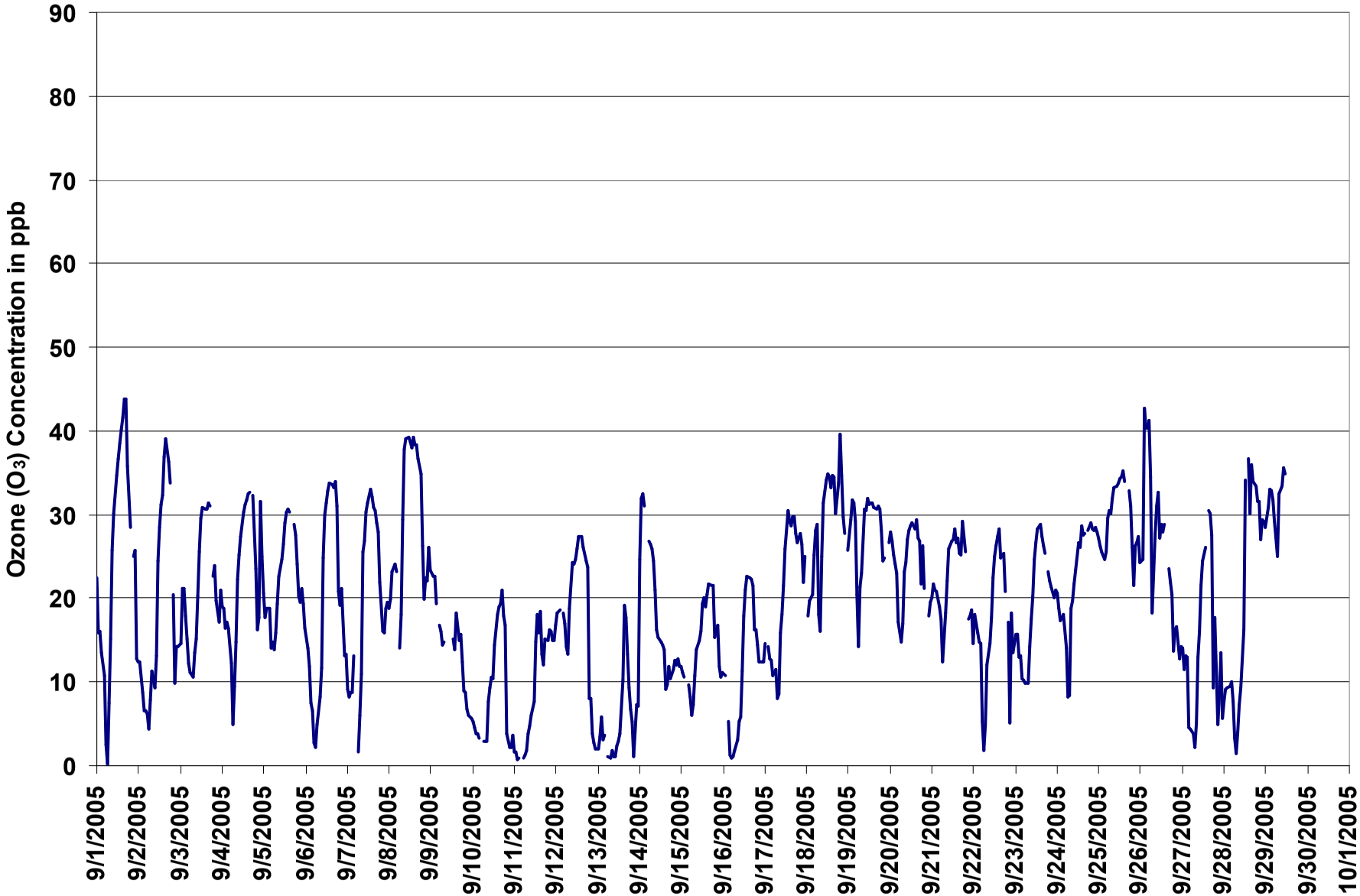
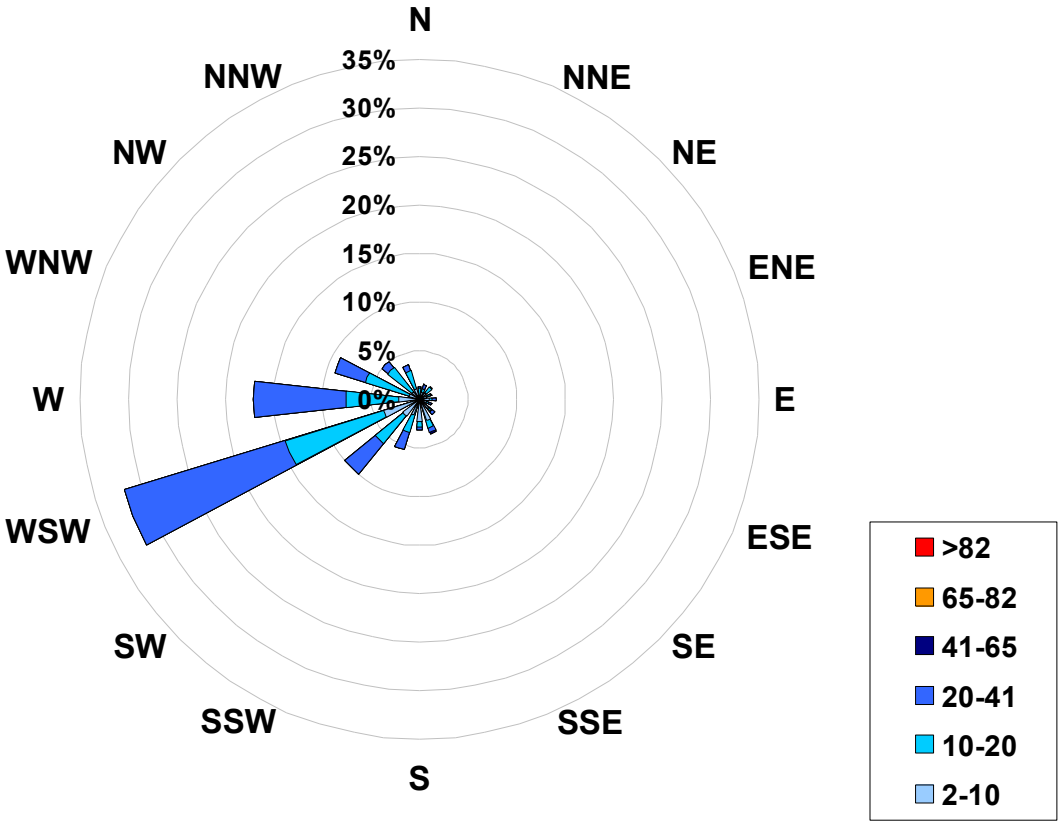


Figure 8. PASZA - Henry Pirker Ozone 1-hr Maximum Value Monthly Trend

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



Calms: 0%

Frequency Distribution of O_3 in ppb			
Range			Frequency (hrs)
2.0	<	10	189
10	to	20	219
20	to	41	243
41	to	65	1
65	to	82	0
	>	82	0
Total Non-Zero Values			652

PASZA - Henry Pirker Ozone Monthly Summary

EIGHT HOUR RUNNING AVERAGE TABLE

Ozone (O_3)

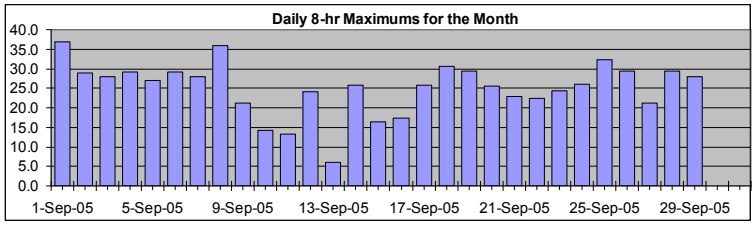
Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005

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

Summary

Number of 8-hr Exceedances:	0			
Maximum 8-hr Average:	36.8	ppb	1-Sep	18:00 19:00



Percentile	99	95	75	50	25	5	1
	34.3	29.2	23.3	16.4	10.0	3.3	0.6

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	Daily Maximum
1-Sep-05	12	11	11	11	10	9	9	8	7	7	9	12	16	20	25	30	33	36	37	36	36	33	30	26	36.8
2-Sep-05	21	16	13	10	9	7	5	5	4	4	5	6	9	12	16	18	21	25	27	29	28	24	21	19	28.9
3-Sep-05	16	14	12	12	12	12	12	12	11	11	10	11	13	16	19	22	24	26	28	27	26	24	22	20	27.8
4-Sep-05	18	16	16	15	14	13	12	11	10	11	12	14	16	18	22	25	27	28	29	27	25	23	23	21	29.1
5-Sep-05	19	19	17	17	17	17	15	14	14	14	15	16	19	20	23	25	26	27	27	26	25	23	22	20	27.0
6-Sep-05	19	17	15	13	11	9	7	6	5	5	6	8	12	15	19	23	26	29	29	28	26	24	21	19	29.2
7-Sep-05	15	12	10	9	7	6	5	4	5	7	9	13	16	18	22	25	27	28	28	26	24	21	20	18	28.1
8-Sep-05	17	16	16	16	17	18	17	16	16	19	21	23	26	27	31	34	36	36	35	33	29	27	25	23	35.9
9-Sep-05	21	19	18	18	20	19	18	16	15	N	N	N	N	N	N	N	N	N	N	12	11	10	10	8	21.1
10-Sep-05	7	6	5	4	4	4	3	3	2	3	3	4	5	6	7	9	11	13	14	14	13	12	10	8	14.2
11-Sep-05	6	4	2	1	0	0	0	0	1	1	2	2	3	5	7	9	10	11	12	13	13	13	13	13	13.3
12-Sep-05	13	14	14	14	15	15	14	14	14	15	15	16	17	19	21	23	24	24	23	21	18	15	12	9	24.1
13-Sep-05	6	3	2	1	1	1	1	1	1	1	1	1	1	1	1	3	4	5	6	6	6	5	5	4	5.9
14-Sep-05	5	8	11	14	16	19	22	25	26	24	22	20	19	18	16	14	13	12	11	10	10	10	9	10	25.8
15-Sep-05	10	10	10	10	10	9	8	7	7	7	8	8	9	11	12	14	15	16	16	16	16	15	14	13	16.5
16-Sep-05	12	11	10	8	6	5	4	3	2	1	2	2	4	6	9	11	14	15	17	17	17	16	15	14	17.4
17-Sep-05	13	12	12	11	11	10	10	9	9	9	9	10	12	14	17	19	22	24	25	26	26	26	25	24	25.8
18-Sep-05	24	22	20	20	19	18	19	17	16	17	18	20	21	23	24	27	29	30	31	31	30	30	29	29	30.6
19-Sep-05	28	28	28	27	26	24	21	20	19	20	20	20	21	23	26	28	29	30	29	29	28	27	26	26	29.5
20-Sep-05	25	25	24	24	24	22	21	19	18	18	18	18	19	21	23	25	25	25	24	24	23	22	21	19	25.5
21-Sep-05	19	18	19	19	18	18	17	16	15	15	16	16	18	19	21	22	23	22	22	21	21	18	17	16	22.8
22-Sep-05	15	14	13	12	12	11	10	8	8	7	7	8	10	13	16	19	21	22	22	22	20	17	15	12	22.3
23-Sep-05	10	9	8	8	8	9	8	8	8	9	10	11	14	16	19	21	23	23	24	24	24	23	22	21	24.2
24-Sep-05	20	19	19	18	17	16	14	13	12	12	13	13	15	16	19	21	23	23	24	25	25	26	26	26	26.1
25-Sep-05	26	26	26	26	25	25	25	25	26	26	27	29	30	31	31	32	32	32	32	30	28	27	25	24	32.3
26-Sep-05	23	22	23	25	28	29	29	27	27	27	26	24	23	21	22	23	23	23	21	20	17	16	14	14	29.3
27-Sep-05	13	11	10	10	9	7	6	5	4	4	5	6	8	11	13	17	20	21	20	19	16	13	12	9	21.2
28-Sep-05	6	5	5	5	6	6	5	5	4	4	4	5	7	7	12	15	19	23	26	29	29	29	28	28	29.3
29-Sep-05	27	27	27	27	28	28	27	26	24	24	23	23	22	N	N	N	N	N	N	N	N	N	N	N	27.9
30-Sep-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
																									0.0
Hourly Max	28.0	28.0	27.7	27.4	27.7	29.3	28.7	27.0	26.8	27.2	27.5	28.7	30.0	30.8	31.4	34.0	35.8	36.4	36.8	35.8	35.9	33.4	29.8	29.1	

PASZA - Henry Pirker Carbon Monoxide Monthly Summary

HOURLY AVERAGE TABLE

Carbon Monoxide (CO)

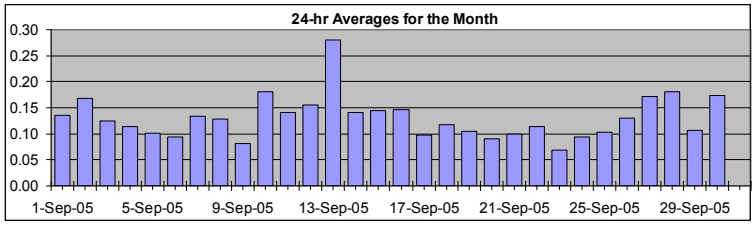
Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005

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

Summary

Number of 1-hr Exceedances:	0			
Maximum 1-hr Average:	0.7	ppm	10-Sep	23:00 0:00
Maximum 24-hr Value:	0.3	ppm	13-Sep	



AIC Time:	32 hrs	Operational Time:	685 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	0.4	0.3	0.1	0.1	0.1	0.1	0.0	0.1 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-05	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	A	0.2	0.3	0.2	0.14	0.28
2-Sep-05	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	A	0.2	0.4	0.3	0.1	0.17	0.35
3-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.2	0.2	0.1	0.13	0.25
4-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.2	0.3	0.2	0.1	0.1	0.11	0.26
5-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.10	0.12
6-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.09	0.21
7-Sep-05	0.2	0.2	0.1	0.1	0.2	A	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.13	0.21
8-Sep-05	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.13	0.28
9-Sep-05	0.1	0.1	0.1	0.1	A	0.1	0.1	0.2	0.1	0.1	0.1	C	C	C	A	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.08	0.16
10-Sep-05	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.5	0.5	0.7	0.18	0.73
11-Sep-05	0.4	0.2	0.2	0.3	A	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.38
12-Sep-05	0.1	0.1	0.1	A	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.4	0.3	0.3	0.4	0.4	0.16	0.44
13-Sep-05	0.4	0.3	0.2	0.1	0.1	A	0.3	0.4	0.3	0.2	0.4	0.3	0.2	0.2	0.3	0.2	0.1	0.2	0.2	0.3	0.5	0.7	0.3	0.2	0.28	0.68
14-Sep-05	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.14	0.19
15-Sep-05	0.1	0.1	0.1	A	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.14	0.20
16-Sep-05	0.1	0.1	A	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.15	0.22
17-Sep-05	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.10	0.17
18-Sep-05	A	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.12	0.32
19-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.10	0.20
20-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.09	0.16
21-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	A	0.2	0.1	0.1	0.10	0.19
22-Sep-05	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.2	0.1	0.1	0.11	0.30
23-Sep-05	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.07	0.12
24-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.09	0.12
25-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.10	0.17
26-Sep-05	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.3	0.2	0.1	0.2	A	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.13	0.25
27-Sep-05	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.3	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.17	0.43
28-Sep-05	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.5	0.4	0.3	0.3	0.2	0.2	A	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.18	0.46
29-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.11	0.18
30-Sep-05	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.3	0.4	0.5	0.17	0.52
																									N	0.00
Hourly Avg	0.13	0.11	0.10	0.09	0.10	0.12	0.17	0.19	0.15	0.12	0.13	0.12	0.10	0.10	0.10	0.10	0.11	0.11	0.13	0.15	0.18	0.18	0.17	0.16		
Hourly Max	0.38	0.31	0.22	0.26	0.20	0.20	0.33	0.46	0.37	0.26	0.39	0.31	0.23	0.23	0.26	0.19	0.19	0.20	0.23	0.35	0.55	0.68	0.47	0.73		

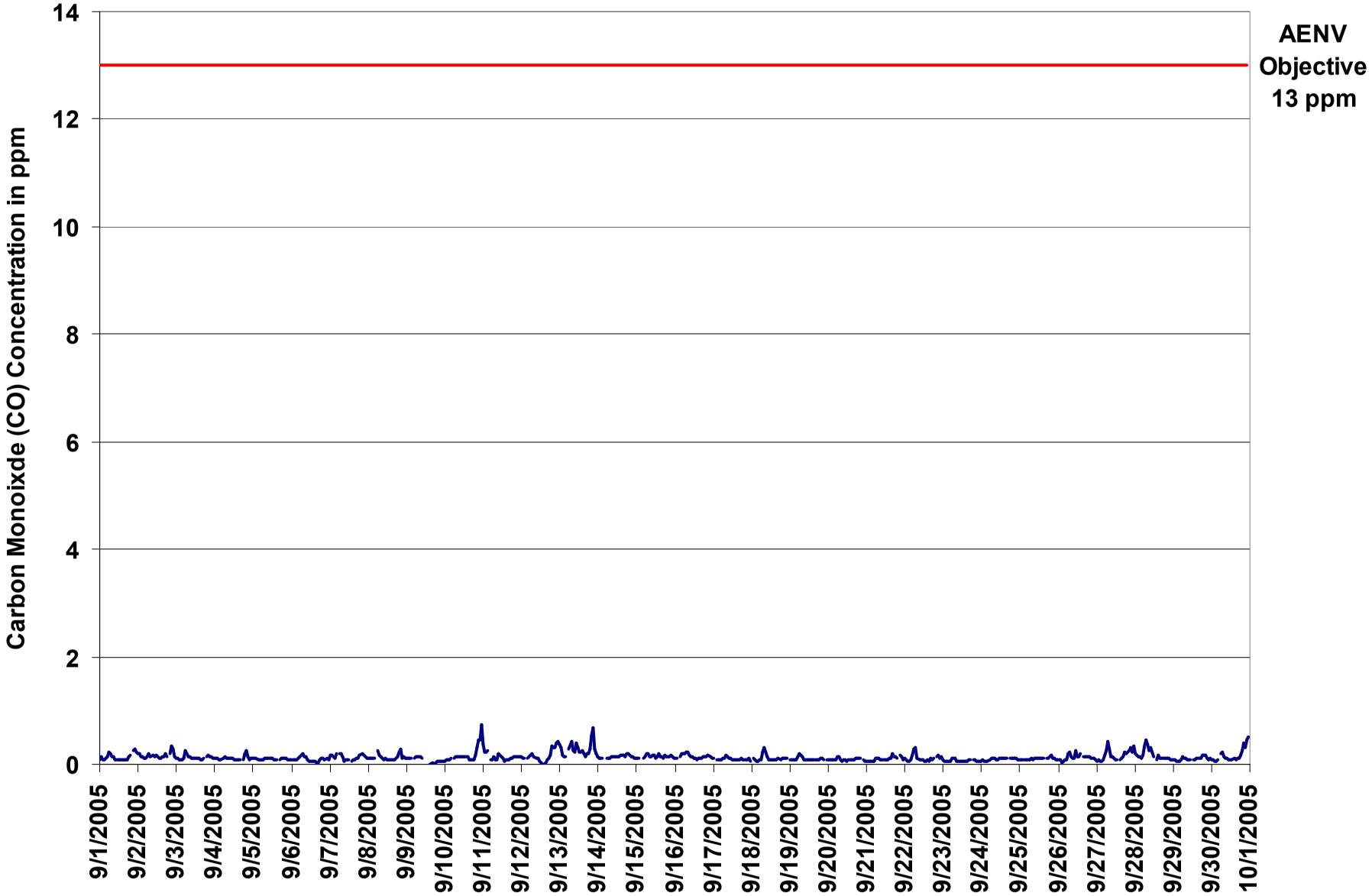


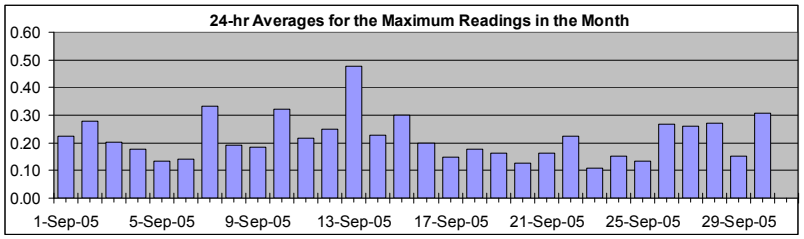
Figure 9. PASZA - Henry Pirker Carbon Monoxide 1-hr Average Monthly Trend

HOURLY MAXIMUM TABLE

Carbon Monoxide (CO)

Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Value:	3.4	ppm	7-Sep	4:00 5:00
Maximum 24-hr Value:	0.5	ppm	13-Sep	

AIC Time:	32 hrs	Operational Time:	685 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	0.9	0.5	0.2	0.2	0.1	0.1	0.1	0.2 ppm

Status Flag Characters

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

Day **Mountain Standard Time**

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-05	0.1	0.2	0.1	0.1	0.5	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	A	0.5	0.6	0.3	0.22	0.64
2-Sep-05	0.2	0.3	0.2	0.1	0.1	0.1	0.3	0.3	0.6	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.4	0.2	A	0.3	0.7	0.7	0.2	0.28	0.71
3-Sep-05	0.2	0.1	0.1	0.1	0.1	0.2	0.5	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.1	0.1	A	0.2	0.2	0.3	0.3	0.2	0.20	0.55
4-Sep-05	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.2	0.4	0.4	0.3	0.2	0.2	0.18	0.44
5-Sep-05	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.13	0.21
6-Sep-05	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.14	0.27
7-Sep-05	0.3	0.3	0.2	0.2	3.4	A	0.3	0.4	0.2	0.2	0.1	0.1	0.1	A	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.33	3.38
8-Sep-05	0.1	0.1	0.1	0.1	0.1	A	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.5	0.2	0.5	0.1	0.19	0.52
9-Sep-05	0.2	0.2	0.1	0.1	A	0.5	0.2	0.2	0.4	0.2	0.2	C	C	C	A	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.18	0.50
10-Sep-05	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.5	0.6	0.2	0.1	0.1	0.2	0.3	0.4	0.8	0.9	1.1	0.32	1.10
11-Sep-05	0.7	0.3	0.4	0.4	A	0.1	0.2	0.2	0.1	0.1	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.22	0.74
12-Sep-05	0.1	0.2	0.1	A	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.4	0.8	0.5	0.5	0.6	0.5	0.25	0.78
13-Sep-05	0.4	0.9	0.2	0.2	0.2	A	0.4	0.5	0.4	0.5	0.8	0.4	0.3	0.3	0.6	0.3	0.2	0.4	0.3	0.8	0.9	0.9	0.5	0.3	0.48	0.94
14-Sep-05	0.2	0.2	0.1	0.1	A	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.7	0.3	0.3	0.2	0.4	0.5	0.3	0.2	0.2	0.2	0.23	0.72
15-Sep-05	0.1	0.1	0.1	A	0.4	0.3	0.4	0.3	0.2	0.3	0.4	0.3	0.3	0.4	0.8	0.3	0.3	0.2	0.4	0.5	0.2	0.2	0.2	0.2	0.30	0.80
16-Sep-05	0.2	0.1	A	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.20	0.35
17-Sep-05	0.2	A	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.15	0.24
18-Sep-05	A	0.2	0.2	0.1	0.1	0.2	0.2	0.5	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1	A	0.18	0.53
19-Sep-05	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.8	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.16	0.79
20-Sep-05	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	A	0.1	0.1	0.13	0.22
21-Sep-05	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	A	0.3	0.2	0.1	0.16	0.29
22-Sep-05	0.1	0.1	0.1	0.1	0.1	0.7	0.5	0.6	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.4	A	0.3	0.3	0.4	0.3	0.22	0.67
23-Sep-05	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.2	0.1	0.1	0.11	0.25
24-Sep-05	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.6	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.1	0.1	0.1	0.1	0.1	0.15	0.57
25-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.3	0.1	0.2	0.3	0.2	0.1	0.1	0.14	0.29
26-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.4	0.2	0.2	0.3	1.1	0.3	0.3	0.9	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27	1.08
27-Sep-05	0.1	0.2	0.1	0.2	0.2	0.5	0.5	0.5	0.4	0.3	0.2	0.2	0.1	0.1	A	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.2	0.5	0.26	0.54
28-Sep-05	0.2	0.2	0.2	0.1	0.2	0.2	0.6	0.7	0.7	0.3	0.4	0.3	0.3	A	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.27	0.74
29-Sep-05	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	A	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.15	0.27
30-Sep-05	0.1	0.2	0.1	0.1	0.4	A	0.3	0.8	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.4	0.6	0.8	0.5	0.7	0.7	0.31	0.76
																									N	0.00
Hourly Avg	0.18	0.18	0.13	0.13	0.29	0.22	0.28	0.32	0.26	0.18	0.20	0.19	0.16	0.16	0.24	0.16	0.17	0.17	0.21	0.28	0.28	0.30	0.29	0.23		
Hourly Max	0.74	0.93	0.39	0.38	3.38	0.67	0.62	0.79	0.74	0.48	0.80	1.08	0.34	0.55	0.94	0.35	0.34	0.42	0.44	0.82	0.94	0.90	0.94	1.10		

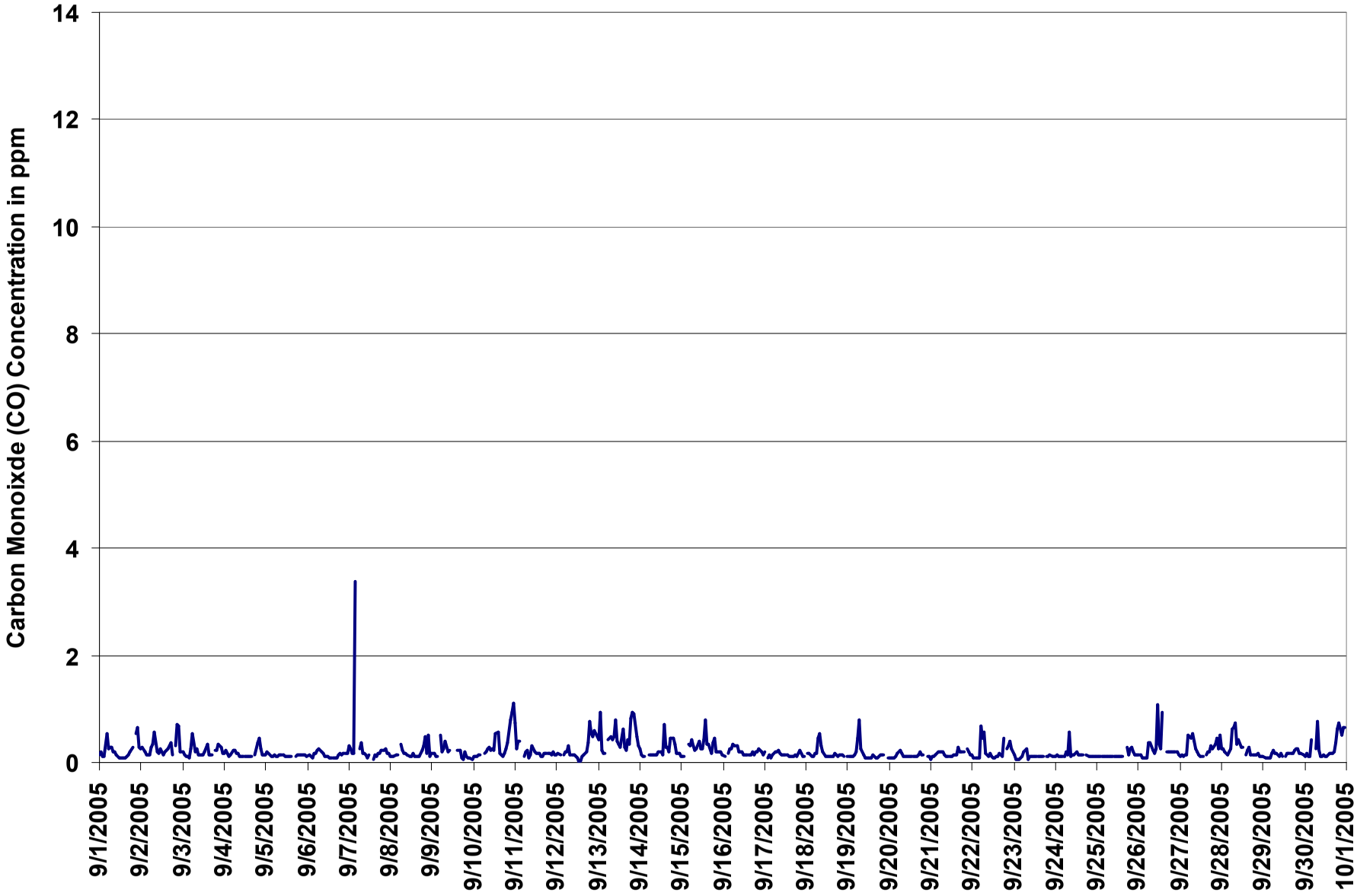
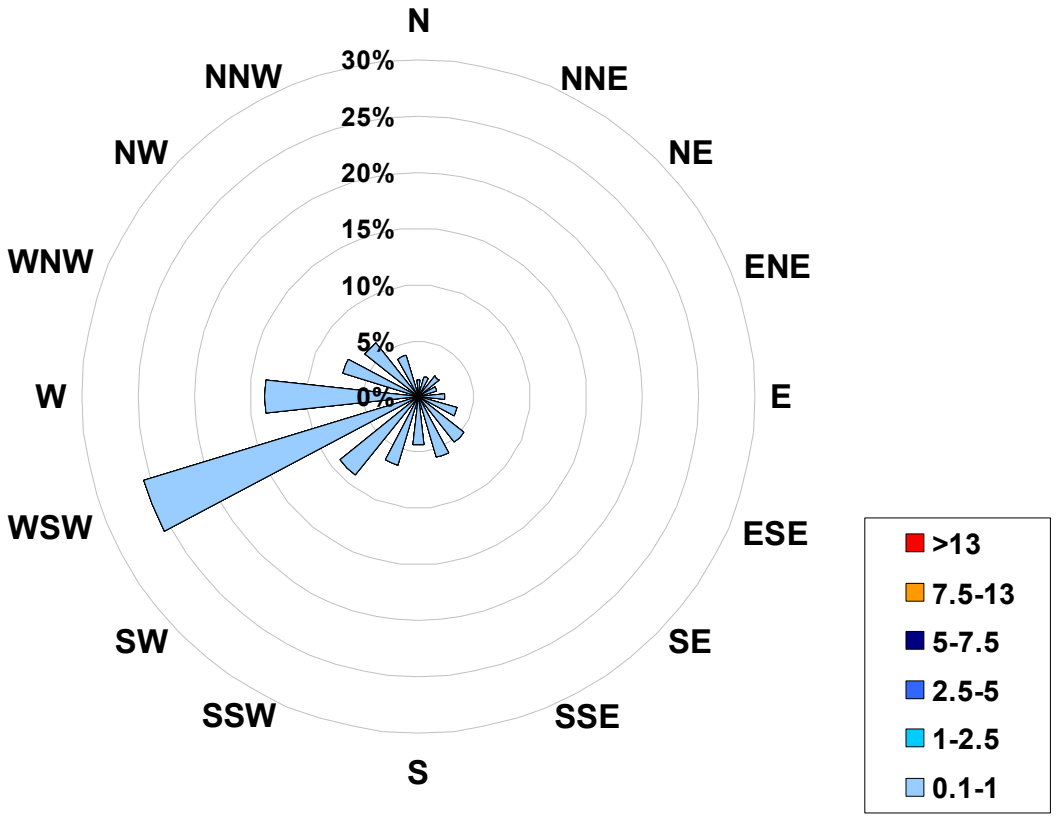


Figure 10. PASZA - Henry Pirker Carbon Monoxide 1-hr Maximum Value Monthly Trend

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



Calms:	0%

Frequency Distribution of CO in ppm			
Range			Frequency (hrs)
0.1	<	1	685
1	to	2.5	0
2.5	to	5	0
5	to	7.5	0
7.5	to	13	0
	>	13	0
Total Non-Zero Values			685

PASZA - Henry Pirker Carbon Monoxide Monthly Summary

EIGHT HOUR RUNNING AVERAGE TABLE

Carbon Monoxide (CO)

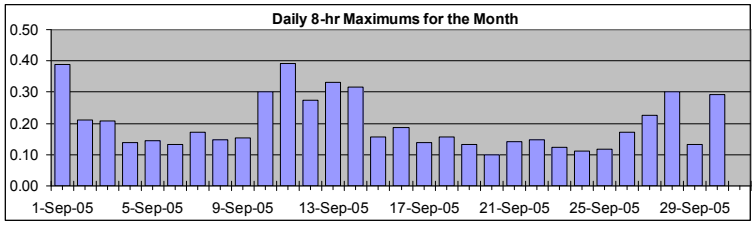
Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005

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

Summary

Number of 8-hr Exceedances:	0			
Maximum 8-hr Average:	0.4	ppm	11-Sep	4:00 5:00



Percentile	99	95	75	50	25	5	1
	0.3	0.3	0.1	0.1	0.1	0.1	0.1

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	Daily Maximum
1-Sep-05	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.39
2-Sep-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.21
3-Sep-05	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.21
4-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14
5-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14
6-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13
7-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.17
8-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
9-Sep-05	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	N	N	N	N	N	N	N	N	N	N	0.0	0.0	0.0	0.15
10-Sep-05	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.30
11-Sep-05	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.39
12-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.27
13-Sep-05	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.33
14-Sep-05	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.32
15-Sep-05	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.16
16-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.19
17-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14
18-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16
19-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13
20-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.10
21-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14
22-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
23-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12
24-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.11
25-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12
26-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.17
27-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.23
28-Sep-05	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	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.30
29-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13
30-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.29
																									0.00
Hourly Max	0.39	0.36	0.37	0.38	0.39	0.34	0.28	0.26	0.25	0.25	0.27	0.29	0.30	0.30	0.29	0.26	0.25	0.24	0.22	0.22	0.26	0.31	0.32	0.32	

PASZA - Henry Pirker Total Hydrocarbons Monthly Summary

HOURLY AVERAGE TABLE

Total Hydrocarbons (THC)

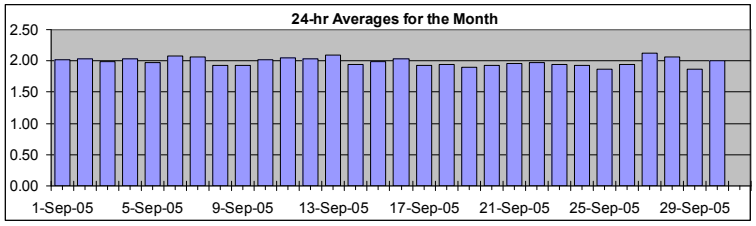
Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005

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

Summary

Maximum 1-hr Average:	2.6	ppm	12-Sep	22:00 23:00
Maximum 24-hr Value:	2.1	ppm	27-Sep	



AIC Time:	32 hrs	Operational Time:	685 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	2.5	2.2	2.0	2.0	1.9	1.8	1.8	2.0 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-05	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.02	2.22
2-Sep-05	2.0	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.1	2.1	2.0	2.0	1.9	1.8	1.8	1.9	1.9	1.9	1.9	A	2.0	2.2	2.2	2.0	2.04	2.24
3-Sep-05	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.1	2.0	1.99	2.20
4-Sep-05	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.3	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.1	2.1	2.0	2.0	2.03	2.27
5-Sep-05	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	2.0	2.0	2.0	2.1	1.98	2.05
6-Sep-05	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.2	2.08	2.28
7-Sep-05	2.4	2.2	2.2	2.3	2.5	A	2.4	2.2	2.2	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.0	2.0	2.06	2.50
8-Sep-05	2.0	2.0	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	2.1	2.0	2.0	2.0	1.92	2.13
9-Sep-05	2.0	2.0	2.0	2.0	A	2.0	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.92	2.02
10-Sep-05	1.9	2.0	2.0	1.9	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.1	2.3	2.4	2.6	2.02	2.57
11-Sep-05	2.4	2.3	2.3	2.4	A	2.2	2.3	2.3	2.2	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	2.05	2.43
12-Sep-05	1.9	1.9	1.9	A	1.9	1.9	2.0	2.0	1.9	1.9	1.9	C	C	C	A	1.9	2.0	2.0	2.0	2.1	2.1	2.2	2.6	2.5	2.04	2.65
13-Sep-05	2.5	2.4	2.2	2.2	2.1	A	2.2	2.2	2.2	2.4	2.3	2.1	2.1	2.2	2.0	1.8	1.8	1.8	1.9	1.9	2.1	2.2	1.9	1.9	2.10	2.50
14-Sep-05	1.9	1.8	1.8	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.94	2.01
15-Sep-05	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	1.98	2.07
16-Sep-05	2.0	2.1	A	2.3	2.2	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.04	2.25
17-Sep-05	2.0	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	2.02
18-Sep-05	A	2.0	2.1	2.0	1.9	2.0	1.9	2.0	2.1	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.8	1.9	1.9	A	1.94	2.13
19-Sep-05	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.89	1.93
20-Sep-05	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	1.9	A	2.0	1.9	1.92	1.97
21-Sep-05	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	A	2.0	2.0	2.0	1.96	2.00
22-Sep-05	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.1	2.0	2.0	1.98	2.13
23-Sep-05	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.94	2.09
24-Sep-05	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.8	1.8	1.8	1.9	1.93	2.01
25-Sep-05	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.87	1.98
26-Sep-05	2.0	2.0	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.1	2.0	2.0	2.0	2.0	2.0	1.94	2.06
27-Sep-05	2.1	2.1	2.0	2.1	2.2	2.2	2.1	2.3	2.2	2.1	2.1	2.1	2.0	2.0	A	1.9	1.9	2.0	2.1	2.1	2.1	2.2	2.6	2.5	2.13	2.58
28-Sep-05	2.2	2.2	2.2	2.2	2.6	2.1	2.2	2.2	2.1	2.1	2.3	2.2	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.06	2.58
29-Sep-05	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	A	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.8	1.9	2.0	1.87	1.96
30-Sep-05	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.2	2.2	2.3	2.5	2.00	2.46
																									N	0.00
Hourly Avg	2.02	2.02	2.01	2.03	2.04	2.03	2.06	2.06	2.04	2.00	1.98	1.96	1.93	1.92	1.90	1.90	1.90	1.91	1.92	1.95	1.98	2.00	2.04	2.04		
Hourly Max	2.50	2.39	2.28	2.43	2.58	2.25	2.43	2.31	2.25	2.38	2.28	2.16	2.09	2.17	2.03	2.00	2.04	2.02	2.07	2.12	2.20	2.29	2.65	2.57		

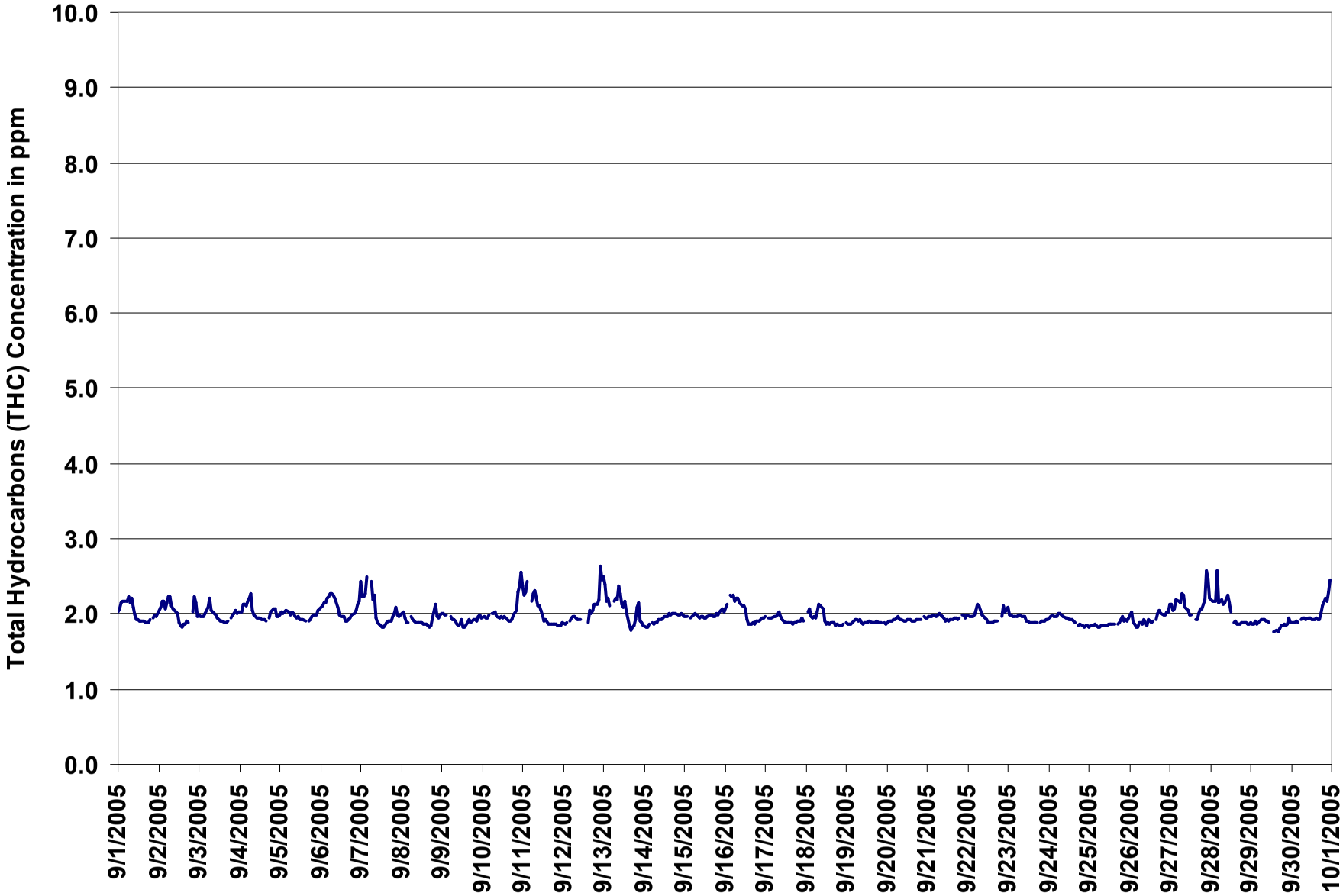


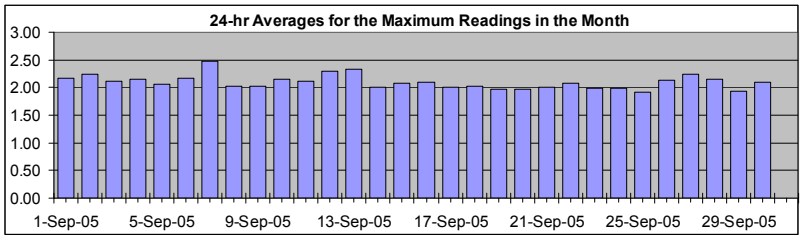
Figure 11. PASZA - Henry Pirker Total Hydrocarbons 1-hr Average Monthly Trend

HOURLY MAXIMUM TABLE

Total Hydrocarbons (THC)

Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Value:	9.2	ppm	7-Sep	4:00 5:00
Maximum 24-hr Value:	2.5	ppm	7-Sep	

AIC Time:	32 hrs	Operational Time:	685 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	3.0	2.5	2.2	2.0	1.9	1.9	1.9	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-05	2.1	2.3	2.4	2.3	2.7	2.3	2.5	2.3	2.5	2.2	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.2	A	2.1	2.2	2.2	2.17	2.71
2-Sep-05	2.1	2.3	2.6	2.4	2.2	2.2	2.3	2.3	2.2	2.1	2.1	2.1	2.0	1.9	1.9	2.0	2.0	2.1	2.0	A	2.1	3.9	3.0	2.0	2.25	3.86
3-Sep-05	2.1	2.0	2.0	2.0	2.1	2.4	2.4	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.1	1.9	1.9	2.0	A	2.1	2.0	2.4	2.3	2.1	2.11	2.44
4-Sep-05	2.1	2.1	2.6	2.5	2.2	2.3	2.4	2.4	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.2	2.2	2.0	2.0	2.15	2.59
5-Sep-05	2.0	2.2	2.3	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.5	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.07	2.50
6-Sep-05	2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.4	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.4	2.17	2.40
7-Sep-05	2.6	2.4	2.3	2.4	9.2	A	2.6	2.3	2.7	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.5	2.2	2.0	2.48	9.17
8-Sep-05	2.1	2.2	2.0	2.0	1.9	A	2.0	2.0	1.9	1.9	1.9	1.9	2.1	1.9	1.9	1.9	1.9	1.9	1.9	2.3	2.6	2.0	2.0	2.1	2.02	2.64
9-Sep-05	2.1	2.1	2.0	2.1	A	2.1	2.0	2.0	2.0	1.9	1.9	2.2	2.4	2.3	1.9	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.1	2.1	2.03	2.36
10-Sep-05	2.0	2.0	2.0	2.0	2.1	A	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.2	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.6	2.7	3.4	2.16	3.40
11-Sep-05	2.5	2.3	2.3	2.5	A	2.2	2.3	2.4	2.3	2.2	2.2	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.11	2.52
12-Sep-05	1.9	1.9	1.9	A	1.9	2.0	2.0	2.1	2.0	2.0	2.0	C	C	C	A	1.9	2.1	2.1	2.1	2.2	2.3	2.4	5.8	3.0	2.29	5.80
13-Sep-05	2.7	2.9	2.4	2.4	2.2	A	2.4	2.7	2.8	2.6	2.5	2.3	2.2	2.3	2.2	1.9	1.9	1.9	1.9	2.2	2.5	2.6	2.1	2.1	2.33	2.86
14-Sep-05	2.0	1.8	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.2	2.2	2.01	2.24
15-Sep-05	2.0	2.0	2.0	A	2.3	2.1	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.3	2.0	2.1	2.2	2.1	2.07	2.28
16-Sep-05	2.1	2.2	A	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.10	2.41
17-Sep-05	2.7	A	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.00	2.68
18-Sep-05	A	2.1	2.3	2.0	2.0	2.1	2.0	2.2	2.2	2.2	2.4	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.02	2.37
19-Sep-05	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.4	2.0	1.9	1.9	1.9	1.9	1.9	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.97	2.41
20-Sep-05	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	A	2.0	2.0	1.96	2.02
21-Sep-05	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.1	2.0	2.0	A	2.1	2.1	2.1	2.01	2.12
22-Sep-05	2.1	2.1	2.0	2.0	2.0	2.1	2.2	2.3	2.3	2.2	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.1	2.0	A	2.1	2.3	2.3	2.2	2.08	2.33
23-Sep-05	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	2.0	1.9	1.99	2.26
24-Sep-05	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.4	2.0	2.0	2.0	2.0	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.99	2.37
25-Sep-05	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	1.9	2.0	2.1	2.0	2.0	1.9	1.92	2.07
26-Sep-05	2.0	2.5	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.5	1.9	2.1	2.0	2.1	2.1	A	2.0	3.0	2.6	2.4	2.2	2.1	2.1	2.1	2.13	2.97
27-Sep-05	2.2	2.2	2.1	2.2	2.3	2.3	2.2	2.4	2.4	2.2	2.1	2.1	2.0	2.0	A	2.0	2.0	2.1	2.2	2.2	2.3	2.3	3.0	2.9	2.25	3.01
28-Sep-05	2.3	2.2	2.2	2.4	3.1	2.2	2.3	2.3	2.2	2.2	2.4	2.3	2.2	A	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.16	3.11
29-Sep-05	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	A	A	1.8	2.1	1.8	1.9	1.9	1.9	1.9	1.9	2.0	2.1	1.94	2.11
30-Sep-05	1.9	2.0	1.9	1.9	2.0	A	2.0	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.3	2.3	2.5	2.7	2.09	2.74
																									N	0.00
Hourly Avg	2.13	2.13	2.11	2.13	2.39	2.11	2.15	2.17	2.14	2.10	2.07	2.05	2.01	2.00	1.98	1.96	1.95	2.00	2.00	2.06	2.09	2.18	2.30	2.20		
Hourly Max	2.69	2.86	2.59	2.53	9.17	2.40	2.64	2.69	2.85	2.55	2.53	2.50	2.36	2.33	2.19	2.09	2.07	2.97	2.64	2.40	2.64	3.86	5.80	3.40		

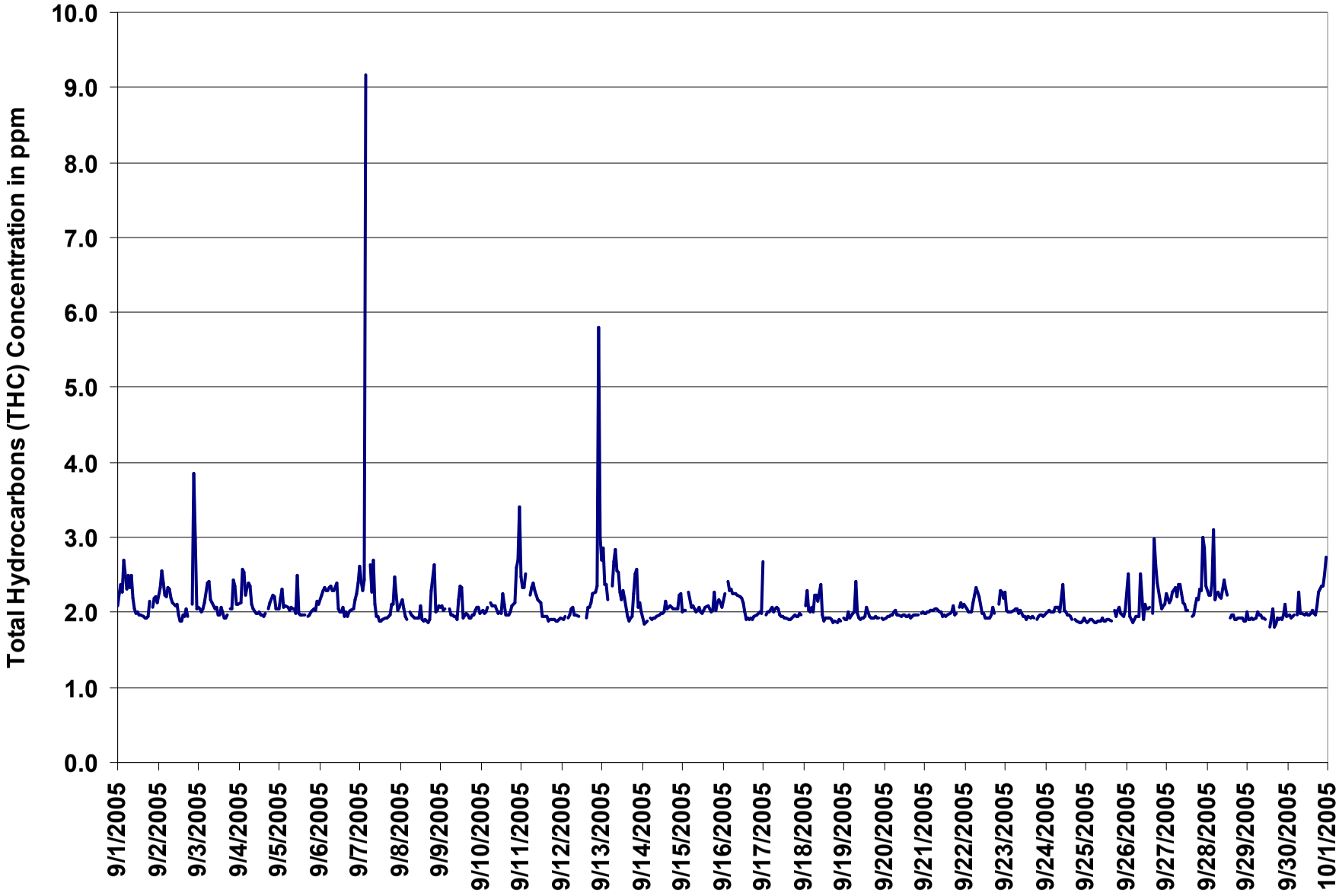
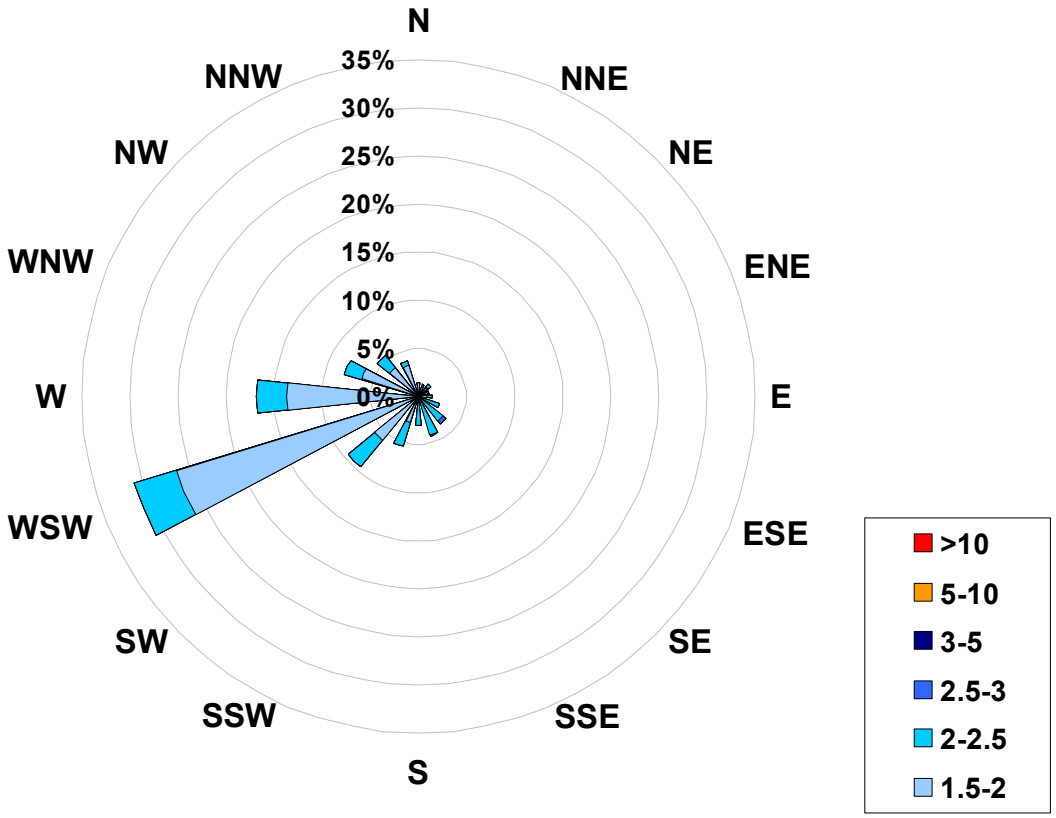


Figure 12. PASZA - Henry Pirker Total Hydrocarbons 1-hr Maximum Value Monthly Trend

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



Calms:	0%

Frequency Distribution of THC in ppm			
Range			Frequency (hrs)
1.5	<	2	476
2	to	2.5	205
2.5	to	3	4
3	to	5	0
5	to	10	0
	>	10	0
Total Non-Zero Values			685

PASZA - Henry Pirker Total Reduced Sulphur Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

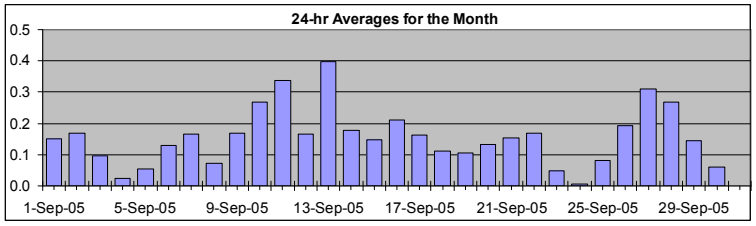
Total Reduced Sulphur (TRS)

Monitoring Dates: September 1, 2005 to October 1, 2005

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

Summary

Maximum 1-hr Average:	1.4	ppb	11-Sep	6:00 7:00
Maximum 24-hr Value:	0.4	ppb	13-Sep	



AIC Time:	31 hrs	Operational Time:	686 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	0.6	0.4	0.2	0.1	0.1	0.0	0.0	0.2 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	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-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.4
2-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.3
3-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.3
4-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.0	0.2
5-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2
6-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
7-Sep-05	0	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
8-Sep-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
9-Sep-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
10-Sep-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
11-Sep-05	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	1.4
12-Sep-05	0	0	0	A	0	0	0	0	0	0	0	C	C	C	A	0	0	0	0	0	0	0	0	0	0.2	0.4
13-Sep-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0.4	0.6
14-Sep-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
15-Sep-05	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
16-Sep-05	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
17-Sep-05	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
18-Sep-05	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
19-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.2
20-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.2
21-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.2
22-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.3
23-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.0	0.1
24-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.0
25-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2
26-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.3
27-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	1	0.3	1.0
28-Sep-05	0	0	0	0	0	0	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.7
29-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
30-Sep-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
																									N	0.0
Hourly Avg	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2		
Hourly Max	0.5	0.5	0.5	0.5	0.5	1.1	1.4	0.9	0.5	0.4	0.4	0.3	0.4	0.4	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.6	0.6	1.0		

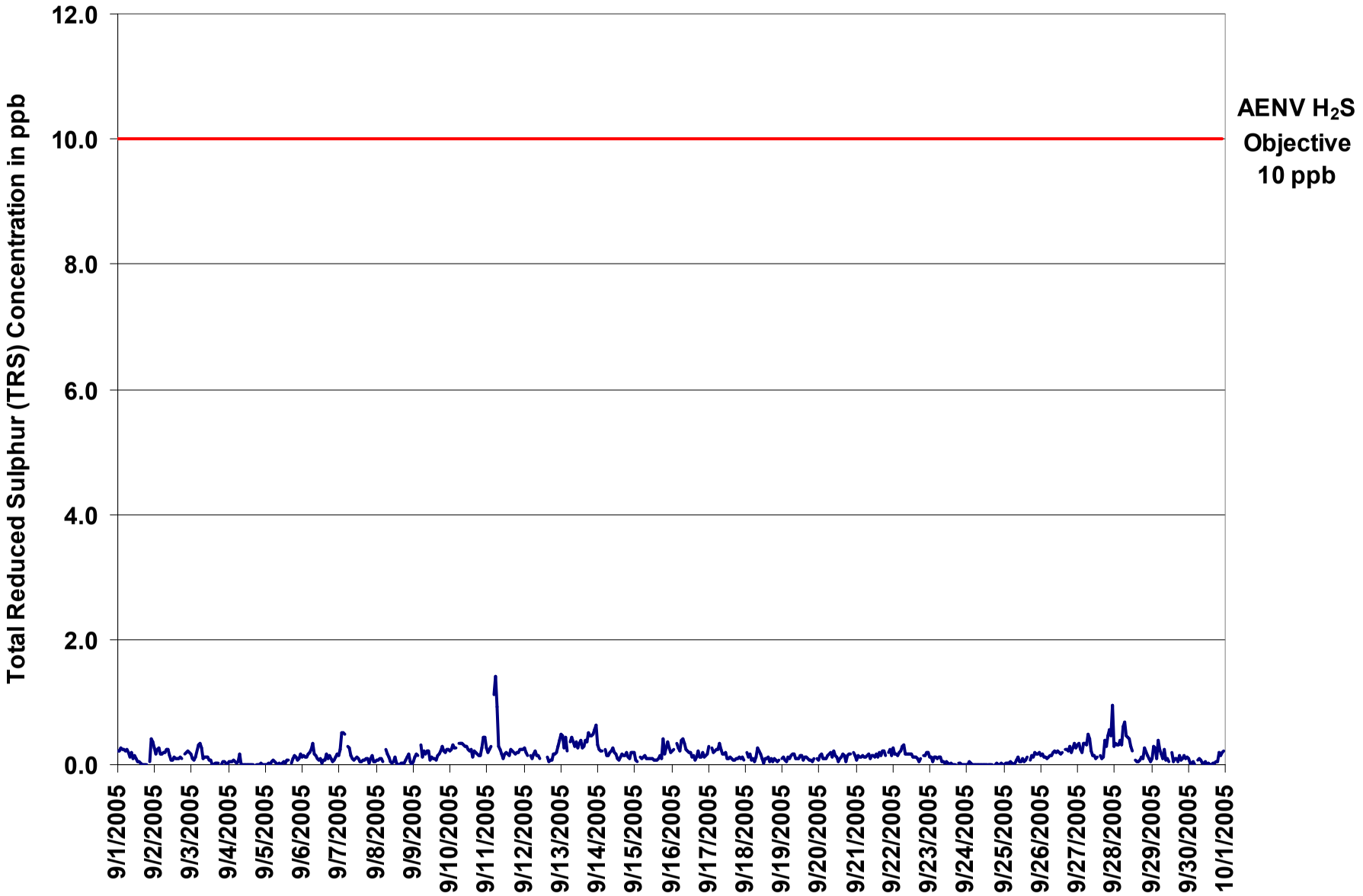


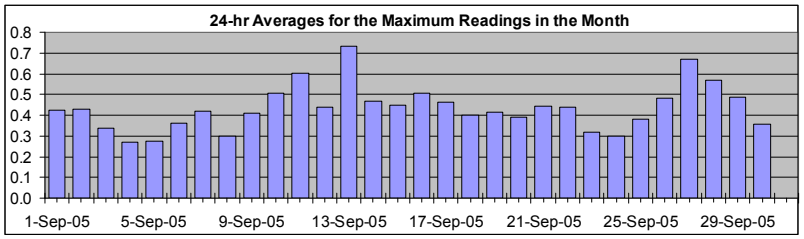
Figure 13. PASZA - Henry Pirker Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Henry Pirker
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Total Reduced Sulphur (TRS)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Value:	2.5	ppb	27-Sep	23:00 0:00
Maximum 24-hr Value:	0.7	ppb	13-Sep	

AIC Time:	31 hrs	Operational Time:	686 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	1.0	0.7	0.5	0.4	0.3	0.2	0.2	0.4 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Sep-05	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0.4	1.0
2-Sep-05	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	1	1	0.4	0.6
3-Sep-05	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.7
4-Sep-05	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.6
5-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.5
6-Sep-05	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	0.6
7-Sep-05	0	1	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
8-Sep-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
9-Sep-05	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.4	0.7
10-Sep-05	0	0	1	1	1	A	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	1	1	1	0.5	0.7
11-Sep-05	1	0	0	1	A	2	2	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0.6	1.7
12-Sep-05	0	0	0	A	0	0	0	0	0	0	0	C	C	C	A	0	0	0	0	0	1	0	1	1	0.4	0.8
13-Sep-05	1	1	1	1	1	A	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	0.7	1.1
14-Sep-05	1	1	0	0	A	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5	0.6
15-Sep-05	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1	1	0.4	1.1
16-Sep-05	1	1	A	1	1	1	1	1	1	1	1	1	0	1	0	0	0	1	0	0	1	0	0	1	0.5	0.7
17-Sep-05	1	A	1	0	1	1	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.5	0.6
18-Sep-05	A	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.4	0.6
19-Sep-05	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.4	0.6
20-Sep-05	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4	0.5
21-Sep-05	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0	0.4	0.6
22-Sep-05	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0	0.4	0.7
23-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.4
24-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.4
25-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	1	0	0	0	0.4	0.6
26-Sep-05	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	A	0	1	1	1	0	0	1	1	0.5	0.6
27-Sep-05	1	1	1	0	1	1	1	1	1	1	0	0	0	0	A	0	0	0	1	1	1	1	1	3	0.7	2.5
28-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	0	0	0	0	0	1	0	0	0	0.6	1.0
29-Sep-05	0	1	1	0	1	1	0	0	1	0	0	0	A	1	0	0	0	0	0	0	0	1	0	0	0.5	1.1
30-Sep-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0.4	0.6
																									N	0.0
Hourly Avg	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5		
Hourly Max	0.8	0.9	0.8	0.9	1.1	1.6	1.7	1.4	0.7	0.8	0.7	0.6	0.6	0.7	0.6	0.6	0.9	0.9	0.9	1.1	0.8	0.8	1.0	2.5		

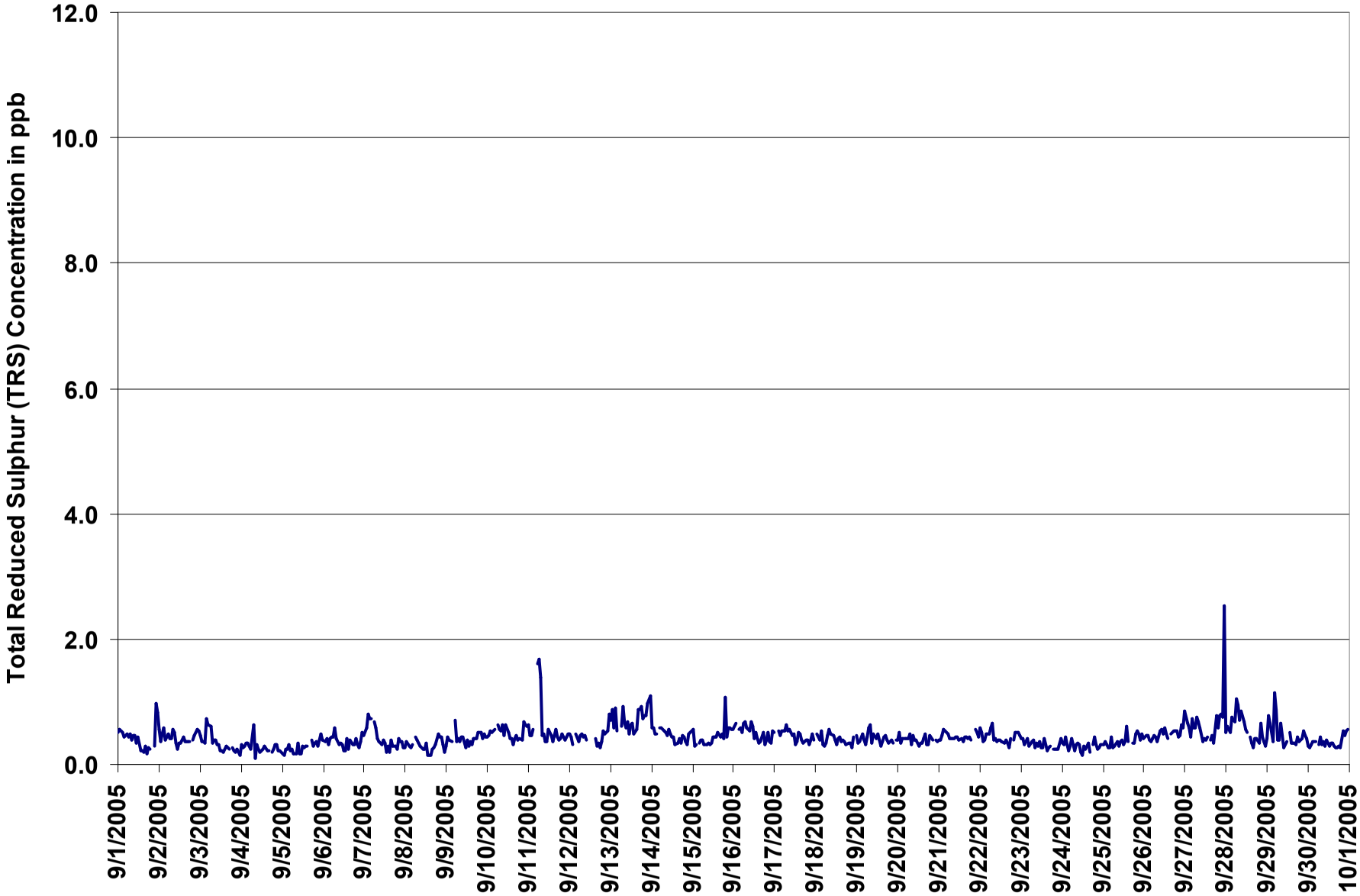
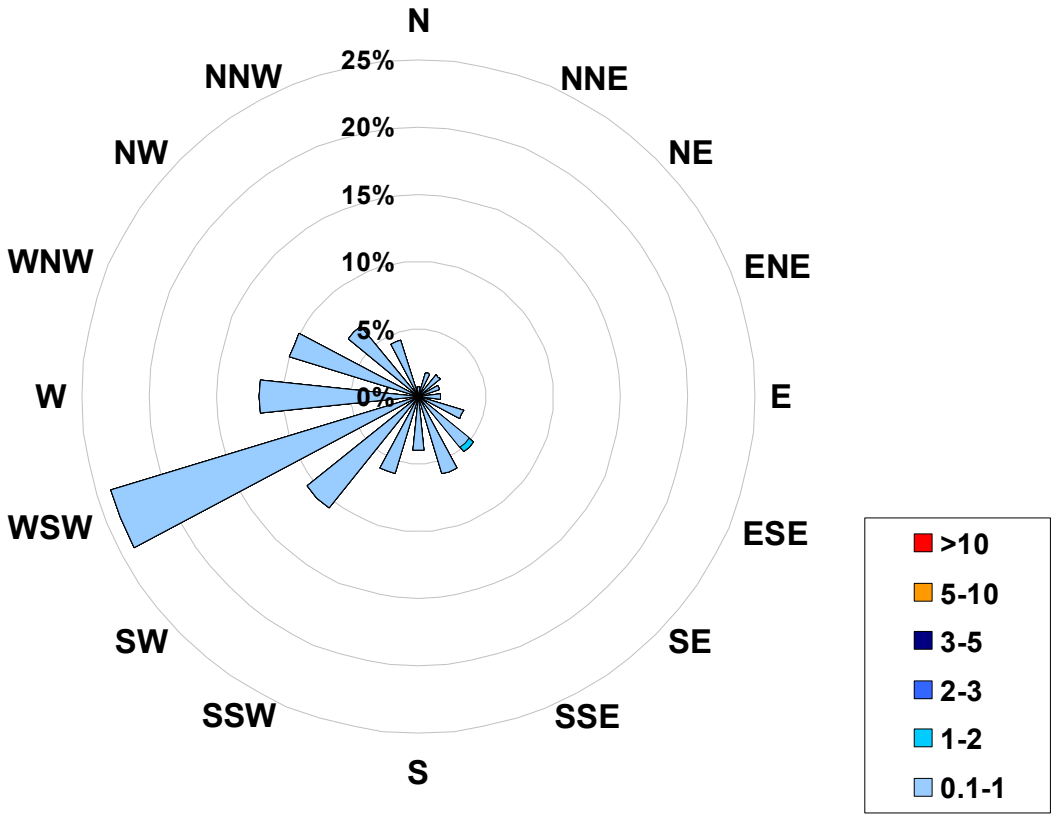


Figure 14. PASZA - Henry Pirker Total Reduced Sulphur 1-hr Maximum Value Monthly Trend

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



Calms:	0%

Frequency Distribution of TRS in ppb			
Range			Frequency (hrs)
0.1	<	1	684
1	to	2	2
2	to	3	0
3	to	5	0
5	to	10	0
	>	10	0
Total Non-Zero Values			686

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

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

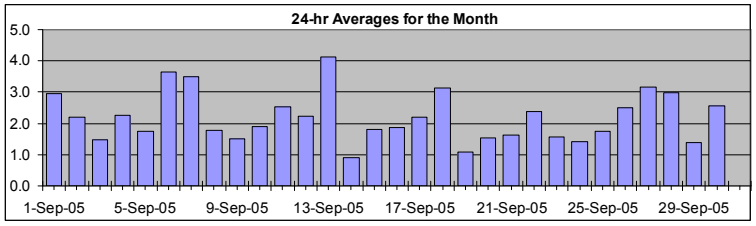
Particulate Matter ($PM_{2.5}$)

Monitoring Dates: September 1, 2005 to October 1, 2005

Draft Objective Limit: **Alberta Environment:** 1-hr - $\mu g/m^3$ | 24-hr 30 $\mu g/m^3$

Summary

Number of 24-hr Exceedances (draft):	0			
Maximum 1-hr Average:	19.2	$\mu g/m^3$	18-Sep	8:00 9:00
Maximum 24-hr Value:	4.1	$\mu g/m^3$	13-Sep	



AIC Time:	0 hrs	Operational Time:	716 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	99.9%

Percentile	99	95	75	50	25	5	1	Average	Geomean
	9.4	6.5	2.9	1.7	0.6	0.0	0.0	2.2 $\mu g/m^3$	2.1 $\mu g/m^3$

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 / 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-05	3	2	2	2	3	3	6	7	6	5	1	0	0	0	0	1	2	3	2	3	6	6	6	3	3.0	6.8
2-Sep-05	4	2	1	0	0	0	0	3	3	5	5	1	0	1	2	5	1	1	4	2	3	4	5	0	2.2	5.3
3-Sep-05	1	0	0	1	0	2	3	2	2	3	2	0	0	0	0	0	0	1	1	3	4	4	3	2	1.5	4.2
4-Sep-05	2	2	2	2	1	2	3	4	3	2	1	1	1	0	0	0	0	1	2	11	6	6	1	3	2.3	10.9
5-Sep-05	2	1	1	2	2	2	3	3	2	2	1	0	0	0	0	1	1	2	2	3	4	3	3	3	1.8	4.0
6-Sep-05	3	3	3	3	3	3	4	5	8	10	5	2	0	1	1	1	1	2	3	5	5	4	5	6	3.7	10.4
7-Sep-05	8	7	5	7	7	5	8	7	6	2	1	0	0	0	1	2	1	1	0	3	4	3	1	2	3.5	8.5
8-Sep-05	2	1	1	0	0	0	3	2	0	0	0	0	1	1	1	0	2	1	2	6	11	3	3	2	1.8	11.3
9-Sep-05	1	1	2	2	2	4	3	3	3	2	0	0	0	0	4	1	1	1	3	1	0	0	1	0	1.5	4.1
10-Sep-05	0	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	4	6	8	9	13	1.9	12.8
11-Sep-05	8	1	1	1	3	0	1	3	1	1	7	4	2	1	1	2	3	4	3	3	3	3	2	3	2.5	8.2
12-Sep-05	3	0	0	0	0	1	1	2	1	0	0	0	0	0	C	C	C	0	3	7	4	6	9	9	2.2	9.5
13-Sep-05	6	4	1	3	1	2	2	5	5	6	8	8	5	6	6	3	2	2	1	4	6	7	4	1	4.1	8.5
14-Sep-05	2	0	0	0	1	0	0	1	2	1	1	0	1	1	1	2	0	0	1	1	1	2	1	2	0.9	2.2
15-Sep-05	1	1	1	1	1	1	2	2	1	1	2	1	1	0	2	3	2	3	4	4	3	2	3	3	1.8	4.3
16-Sep-05	2	2	1	2	4	2	0	2	5	2	4	5	1	0	0	0	0	2	2	2	2	2	2	1	1.9	4.7
17-Sep-05	1	2	1	2	2	3	3	3	6	4	3	2	1	0	1	1	2	2	2	2	3	2	4	2	2.2	6.5
18-Sep-05	3	5	3	2	1	2	2	9	19	8	3	1	0	1	1	1	1	2	3	5	2	1	1	D	3.1	19.2
19-Sep-05	0	0	0	0	0	2	2	2	3	1	0	0	1	1	1	1	2	2	2	2	2	1	1	0	1.1	2.5
20-Sep-05	0	0	0	1	1	1	3	3	2	1	0	0	0	1	1	1	3	2	3	3	2	2	2	1	1.5	3.4
21-Sep-05	1	1	0	1	1	2	2	3	3	2	1	0	0	0	2	2	4	3	2	3	3	2	1	2	1.6	3.7
22-Sep-05	2	0	0	1	2	2	6	7	5	5	4	2	0	1	0	1	3	3	3	2	2	3	2	2	2.4	7.0
23-Sep-05	2	1	0	0	1	1	1	2	2	1	1	0	0	0	0	2	2	2	2	2	3	3	3	3	1.6	3.5
24-Sep-05	3	3	2	2	1	2	1	3	4	2	1	1	0	0	1	2	2	0	0	2	1	1	1	1	1.4	3.7
25-Sep-05	1	1	0	1	0	1	1	1	2	2	3	2	1	1	2	2	1	2	2	4	4	2	2	2	1.8	4.3
26-Sep-05	2	2	0	0	1	2	5	5	4	2	1	5	4	4	4	2	4	2	2	2	2	2	2	2	2.5	5.2
27-Sep-05	1	0	1	0	1	4	3	8	9	3	4	3	1	0	0	0	1	4	5	5	5	6	4	6	3.2	9.4
28-Sep-05	6	5	4	3	0	3	5	7	3	6	8	7	5	3	2	1	0	0	1	1	0	0	0	0	3.0	8.4
29-Sep-05	0	1	0	0	0	1	0	1	2	0	1	0	0	0	0	0	1	4	4	4	5	3	2	3	1.4	5.2
30-Sep-05	3	2	2	2	3	2	3	2	1	0	0	0	0	0	0	0	0	1	4	5	8	7	7	8	2.5	8.4
																									N	0.0
Hourly Avg	2.4	1.6	1.2	1.4	1.4	1.8	2.6	3.7	3.8	2.6	2.3	1.5	0.8	0.8	1.2	1.3	1.5	1.8	2.4	3.5	3.7	3.3	3.1	3.0		
Hourly Max	8.3	6.5	5.3	7.3	7.4	5.3	8.5	8.9	19.2	10.4	8.4	8.5	5.2	6.0	6.0	4.7	4.0	4.2	5.4	10.9	11.3	7.6	9.4	12.8		

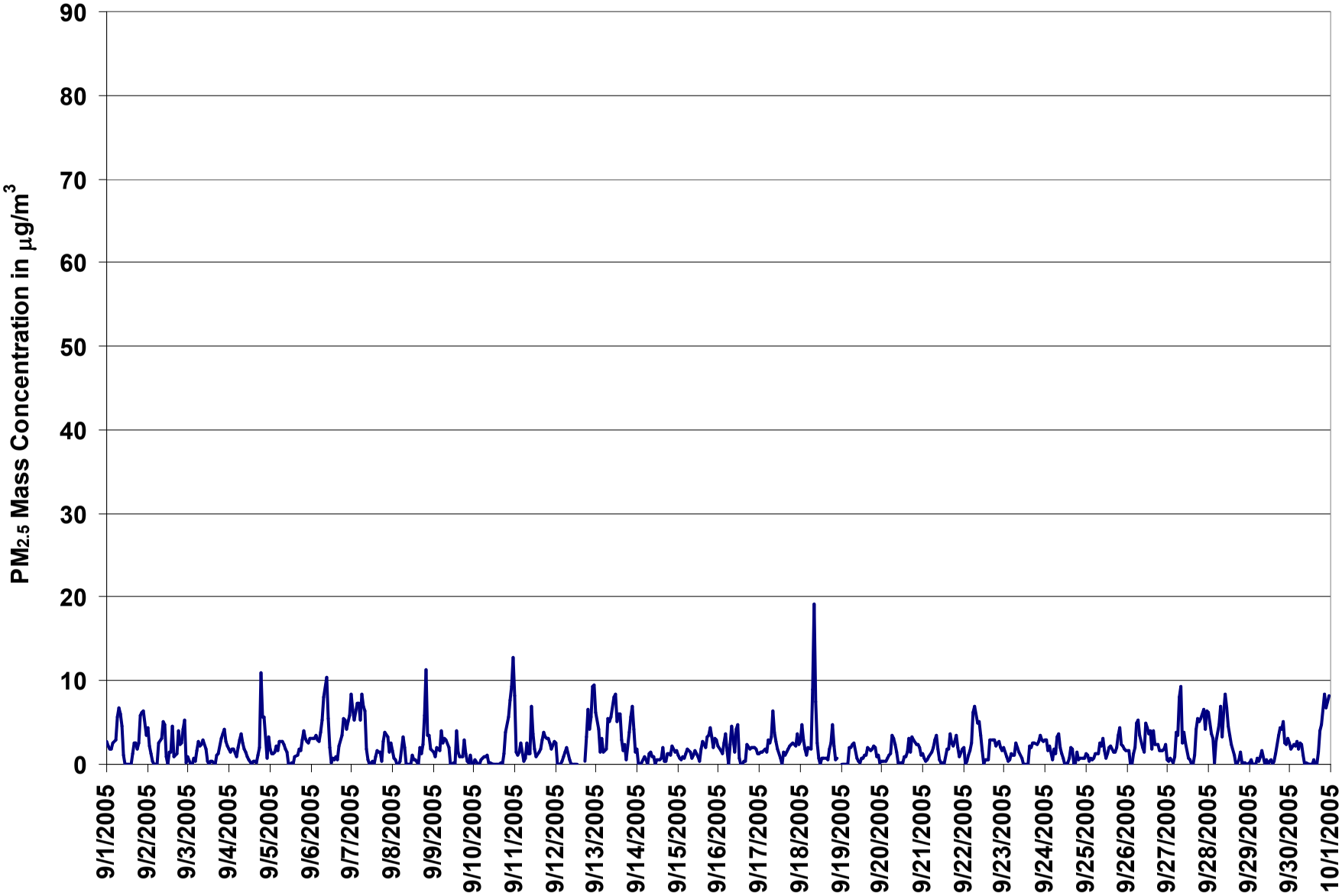


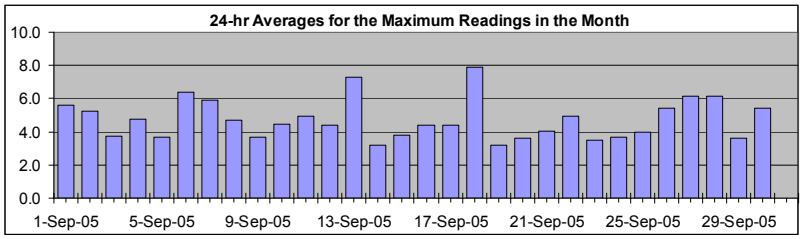
Figure 15. PASZA - Henry Pirker Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Henry Pirker
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Particulate Matter ($PM_{2.5}$)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Average:	38.9	µg/m³	18-Sep	8:00 9:00
Maximum 24-hr Value:	7.9	µg/m³	18-Sep	

AIC Time:	0 hrs	Operational Time:	716 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	99.9%

Percentile	99	95	75	50	25	5	1	Average	Geomean
	14.7	10.5	5.6	4.0	2.8	1.6	1.0	4.7 µg/m³	4.6 µg/m³

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-05	5	4	4	3	5	5	8	9	8	7	5	1	1	1	1	3	5	5	4	5	10	8	15	11	5.6	14.8
2-Sep-05	8	5	4	2	2	0	3	5	5	12	7	6	4	4	4	11	7	6	6	4	5	6	9	2	5.3	11.9
3-Sep-05	3	2	1	3	2	3	5	5	4	5	5	3	2	2	3	2	4	4	3	5	5	6	7	4	3.7	6.6
4-Sep-05	3	3	4	3	3	4	5	6	5	5	3	3	3	3	4	3	2	4	6	17	8	9	4	5	4.8	16.7
5-Sep-05	5	2	4	3	4	3	5	4	5	3	2	3	3	3	2	3	3	3	3	5	6	4	4	4	3.7	5.6
6-Sep-05	4	5	5	5	5	4	7	8	11	14	12	10	4	2	4	3	3	4	6	7	8	7	8	8	6.4	13.7
7-Sep-05	10	9	7	10	10	9	13	9	10	6	2	2	3	1	3	4	4	2	2	5	6	7	3	4	5.9	12.7
8-Sep-05	4	3	2	2	3	2	6	4	3	0	1	2	3	2	3	3	11	9	5	15	17	6	5	3	4.7	16.8
9-Sep-05	3	2	5	4	3	6	4	5	4	4	2	2	2	2	7	4	5	6	7	4	2	2	3	2	3.7	7.0
10-Sep-05	1	2	1	2	2	2	3	2	3	3	3	2	2	2	2	1	3	3	3	7	9	13	15	19	4.4	18.9
11-Sep-05	14	3	3	4	4	3	3	5	3	4	10	9	5	3	4	4	5	6	5	5	5	5	3	5	5.0	14.2
12-Sep-05	5	2	1	1	2	3	4	3	2	1	3	1	1	2	C	C	C	3	5	11	7	9	12	12	4.4	12.5
13-Sep-05	9	8	4	5	3	3	4	9	9	8	10	11	7	7	8	11	4	6	5	6	11	10	12	6	7.3	12.0
14-Sep-05	8	1	0	2	5	5	2	3	3	3	4	3	2	3	4	7	2	2	4	2	2	4	3	3	3.2	8.4
15-Sep-05	3	2	2	3	2	2	3	3	2	5	3	3	3	2	4	4	5	6	6	7	6	4	6	5	3.8	6.7
16-Sep-05	4	3	3	4	5	4	4	6	8	4	7	11	3	3	2	4	4	4	3	5	4	4	4	3	4.4	11.1
17-Sep-05	3	3	3	3	3	4	5	5	9	6	4	4	3	5	5	3	4	5	4	4	5	5	6	5	4.4	8.6
18-Sep-05	5	10	8	3	3	4	4	28	39	12	6	4	2	3	5	3	3	6	6	8	5	6	8	D	7.9	38.9
19-Sep-05	3	1	1	2	1	4	5	6	6	3	2	3	2	3	3	3	4	3	4	4	4	2	3	3	3.2	6.5
20-Sep-05	2	2	2	3	3	3	6	5	4	3	2	2	3	4	4	4	6	3	5	7	4	4	3	3	3.6	7.5
21-Sep-05	3	2	2	2	3	3	4	4	5	3	3	2	2	2	6	5	7	7	5	7	8	4	4	4	4.1	8.1
22-Sep-05	3	2	2	2	3	5	10	9	7	13	5	5	2	3	3	4	7	6	5	4	4	5	7	4	4.9	13.4
23-Sep-05	4	4	2	2	3	2	4	5	5	3	3	3	3	2	1	5	4	4	5	4	4	5	5	4	3.5	5.4
24-Sep-05	5	5	4	4	3	5	4	6	7	4	3	3	2	2	4	6	5	2	3	3	3	2	3	2	3.6	6.6
25-Sep-05	4	3	3	3	2	3	3	2	5	4	6	4	3	4	7	4	4	3	4	6	7	5	4	3	4.0	6.7
26-Sep-05	3	7	0	3	4	4	9	8	6	5	5	13	8	8	7	6	7	4	4	4	4	3	4	4	5.4	13.2
27-Sep-05	2	2	3	3	4	6	5	14	14	6	7	6	4	3	2	3	4	8	8	10	7	9	7	10	6.1	14.1
28-Sep-05	9	7	7	7	3	6	6	10	7	11	13	10	9	7	5	5	4	3	3	5	2	3	2	2	6.1	13.4
29-Sep-05	2	4	2	2	4	3	2	3	4	1	4	1	4	3	3	3	3	5	6	6	7	4	4	6	3.6	7.2
30-Sep-05	5	4	4	4	5	4	5	4	4	2	3	2	2	1	3	2	2	4	14	9	12	13	11	11	5.4	14.4
																									N	0.0
Hourly Avg	4.8	3.8	3.1	3.3	3.5	3.8	4.9	6.5	6.9	5.3	4.9	4.5	3.2	3.1	3.9	4.3	4.5	4.5	5.0	6.4	6.3	5.8	6.0	5.3		
Hourly Max	14.2	10.4	7.6	9.9	10.5	8.9	12.7	27.7	38.9	13.7	13.4	13.2	8.8	7.9	8.5	11.0	10.9	8.8	14.4	16.7	16.8	13.3	14.9	18.9		

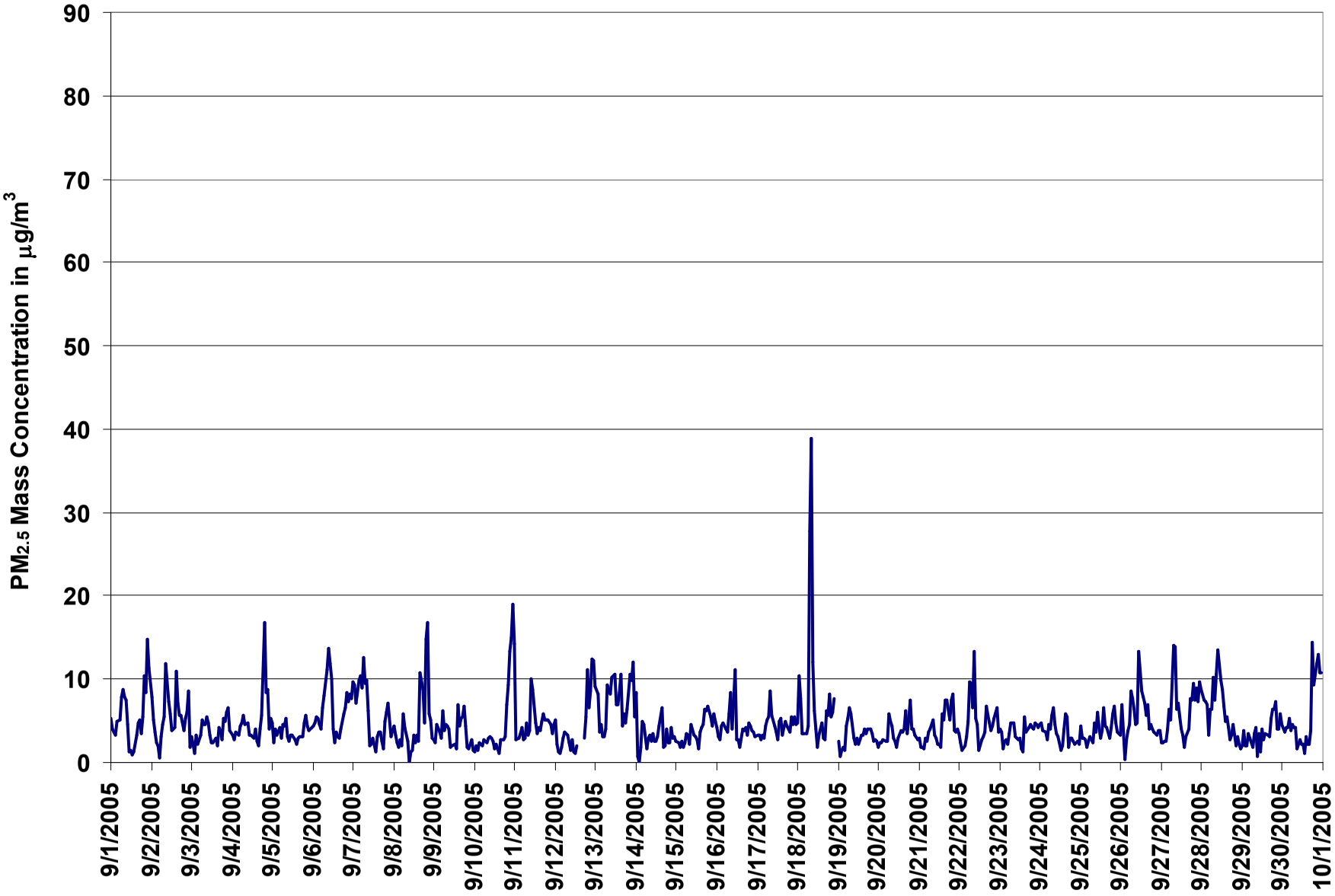
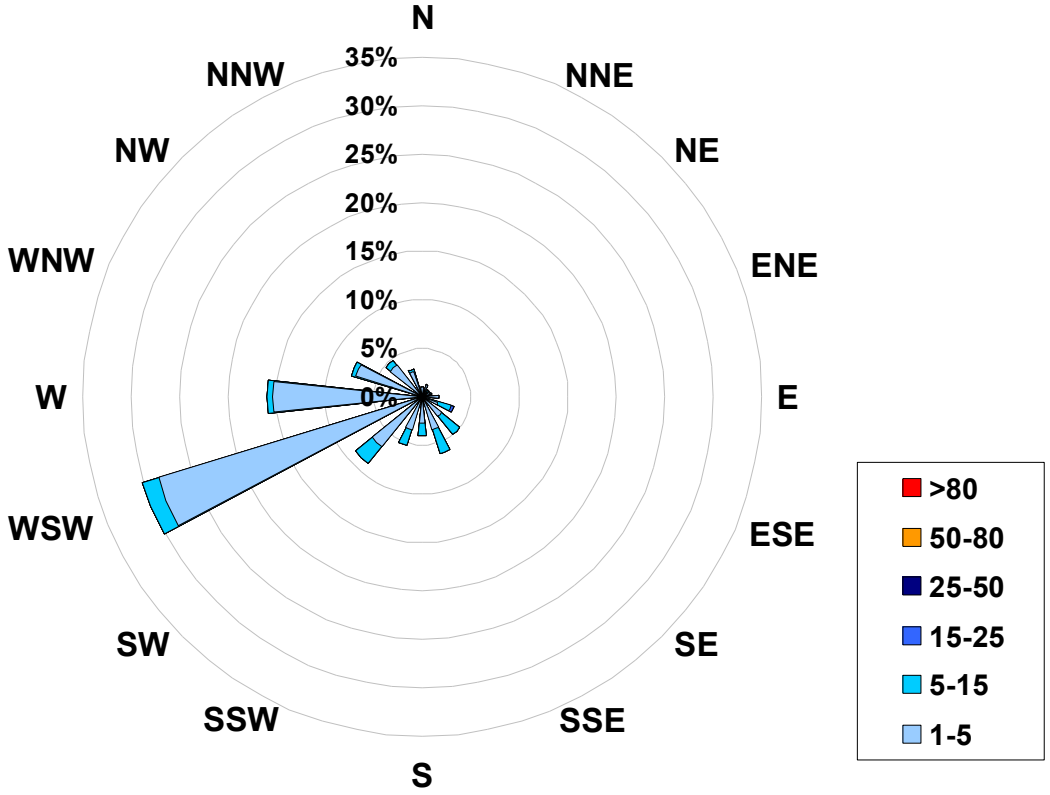


Figure 16. PASZA - Henry Pirker Particulate Matter (less than 2.5 microns) 1-hr Maximum Value Monthly Trend

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



Calms:	0%

Frequency Distribution of $PM_{2.5}$ in $\mu g/m^3$			
Range			Frequency (hrs)
1.0	<	5	640
5	to	15	75
15	to	25	1
25	to	50	0
50	to	80	0
	>	80	0
Total Non-Zero Values			716

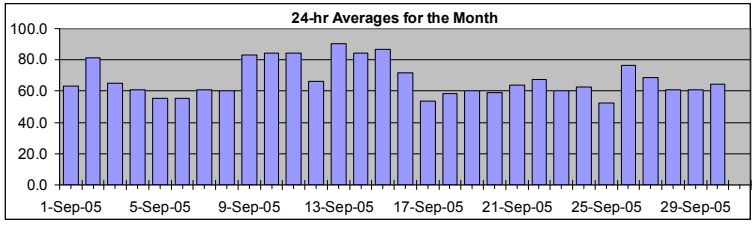
PASZA - Henry Pirker Relative Humidity Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Relative Humidity (RH)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Average:	96.6	%	2-Sep	7:00 8:00
Maximum 24-hr Value:	90.4	%	13-Sep	

AIC Time:	0 hrs	Operational Time:	720 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	95.9	93.8	82.1	69.6	51.6	37.6	32.3	67.4 %

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / 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-05	72	78	81	82	84	83	86	74	68	58	52	44	43	39	36	38	40	43	48	51	60	79	88	90	63.2	89.8
2-Sep-05	93	95	96	96	96	96	96	97	97	94	77	64	57	55	56	63	63	64	68	76	83	88	90	86	81.0	96.6
3-Sep-05	84	81	76	82	84	88	87	81	77	76	65	59	53	47	45	46	39	37	40	48	54	65	72	75	65.0	87.7
4-Sep-05	79	78	84	86	82	86	87	81	67	60	53	48	44	42	42	39	36	37	36	52	55	66	54	65	60.7	86.6
5-Sep-05	70	74	74	76	80	78	78	71	64	58	51	44	36	34	32	32	33	35	38	44	50	54	57	67	55.3	79.8
6-Sep-05	71	77	82	84	86	91	91	82	69	61	49	38	33	30	27	25	24	27	32	39	46	52	58	61	55.7	90.9
7-Sep-05	67	71	72	75	78	79	81	73	65	54	50	47	44	41	41	46	47	49	50	55	64	70	69	75	61.0	81.5
8-Sep-05	78	78	75	73	74	79	80	76	67	50	41	37	38	40	37	36	36	45	50	60	69	72	75	77	60.2	79.9
9-Sep-05	84	88	89	91	92	92	89	91	93	91	86	77	71	65	71	66	67	69	81	86	87	89	92	94	83.4	93.8
10-Sep-05	94	95	94	94	94	95	95	95	94	92	92	87	81	75	71	65	62	63	67	72	78	86	90	93	84.2	95.2
11-Sep-05	94	94	95	95	95	95	95	96	96	96	96	86	62	57	61	60	67	73	78	82	84	86	87	87	84.1	96.0
12-Sep-05	87	80	79	79	79	80	82	82	73	64	56	54	50	46	47	49	49	51	54	63	66	72	77	77	66.4	86.9
13-Sep-05	84	88	89	91	90	91	90	89	87	87	87	90	92	93	91	89	90	90	89	92	95	95	95	96	90.4	95.6
14-Sep-05	88	83	80	80	84	88	88	89	91	89	86	78	77	74	71	80	82	81	84	87	88	89	91	92	84.2	92.2
15-Sep-05	93	93	93	92	92	93	94	94	93	90	88	87	84	82	81	79	76	77	77	81	82	85	87	89	86.7	93.8
16-Sep-05	89	92	94	95	95	95	95	95	91	81	79	69	59	49	45	44	41	46	52	56	57	62	66	67	71.4	95.3
17-Sep-05	70	70	70	74	75	78	75	72	61	56	49	45	41	34	32	32	32	34	39	45	47	48	54	53	53.6	78.0
18-Sep-05	59	69	73	70	71	72	70	69	65	60	48	42	35	32	37	35	33	38	46	59	80	80	82	84	58.7	83.8
19-Sep-05	81	77	73	75	75	78	80	74	64	57	49	45	43	41	39	39	40	43	51	59	65	65	64	67	60.3	81.1
20-Sep-05	66	68	70	73	73	73	74	70	64	58	51	45	41	41	41	41	43	44	48	56	61	66	71	73	58.8	74.2
21-Sep-05	76	75	77	77	79	77	78	74	67	63	54	47	45	42	42	47	50	52	53	56	70	83	73	74	63.8	82.6
22-Sep-05	82	73	75	77	78	82	88	80	68	65	58	51	51	44	46	43	51	55	65	70	75	76	80	84	67.3	87.5
23-Sep-05	84	82	82	84	85	83	82	80	69	64	57	50	43	38	35	36	39	42	47	49	51	53	56	57	60.2	84.9
24-Sep-05	59	68	74	76	75	76	80	75	66	61	56	52	48	47	46	51	63	61	59	60	62	63	63	65	62.9	80.4
25-Sep-05	65	67	69	70	69	61	55	56	52	48	45	43	41	40	38	38	39	40	43	50	56	54	56	55	52.1	69.8
26-Sep-05	57	57	41	44	52	60	75	87	89	90	87	83	80	75	75	74	76	84	87	91	93	93	94	93	76.5	93.7
27-Sep-05	91	92	92	91	93	94	93	90	80	75	67	64	56	51	43	37	39	45	50	54	60	65	63	66	68.8	94.3
28-Sep-05	68	71	72	75	73	69	68	65	61	60	54	48	40	38	46	53	48	50	54	61	67	73	71	73	60.8	74.8
29-Sep-05	76	73	69	69	69	68	70	67	61	54	52	50	49	46	44	45	44	48	57	63	66	68	71	78	60.7	78.3
30-Sep-05	78	80	77	78	81	82	84	87	74	67	58	49	44	41	41	42	39	44	52	59	62	72	77	75	64.3	87.0
																									N	0.0
Hourly Avg	77.9	78.8	78.8	80.1	81.1	82.1	82.9	80.4	74.5	69.3	63.1	57.5	52.7	49.3	48.6	49.0	49.5	52.2	56.5	62.6	67.8	72.3	74.1	76.2		
Hourly Max	94.1	94.7	95.6	96.0	95.9	96.2	96.5	96.6	96.6	95.9	95.6	89.8	92.1	92.9	91.1	89.2	90.1	89.7	89.2	92.3	95.1	95.2	94.6	95.6		

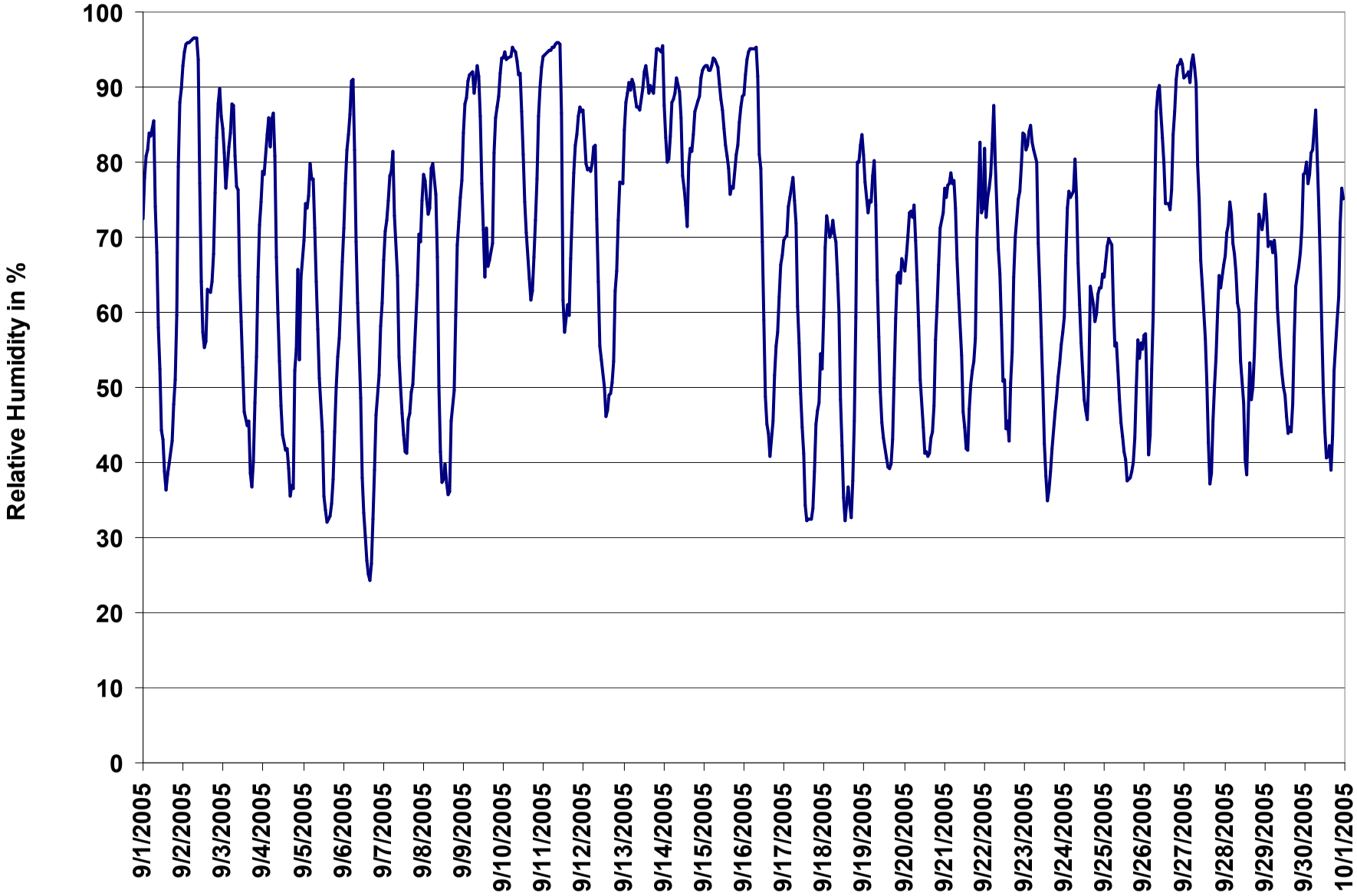


Figure 17. PASZA - Henry Pirker Relative Humidity 1-hr Average Monthly Trend

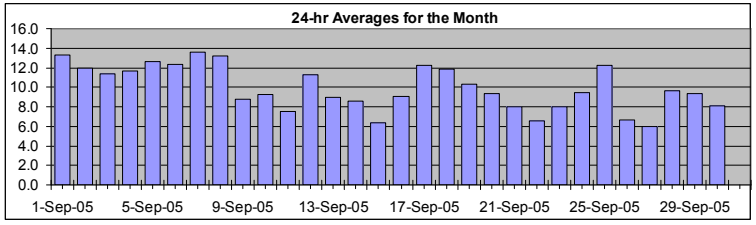
PASZA - Henry Pirker Temperature Monthly Summary

HOURLY AVERAGE TABLE

Ambient Temperature (T)

Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Average:	22.3	°C	6-Sep	15:00 16:00
Maximum 24-hr Value:	13.6	°C	7-Sep	

AIC Time:	0 hrs	Operational Time:	720 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	19.7	17.8	13.0	9.6	6.6	3.2	0.7	9.9 °C

Status Flag Characters

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

Day **Mountain Standard Time**

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-05	9	8	7	7	7	6	6	9	11	14	16	18	18	19	20	20	19	18	17	16	15	13	12	12	13.3	20.0
2-Sep-05	11	10	9	8	7	7	6	6	8	11	14	16	17	18	18	16	15	16	15	14	12	11	10	10	11.9	18.5
3-Sep-05	10	9	9	8	7	6	6	7	9	9	13	13	15	16	17	16	18	17	16	14	13	10	8	8	11.3	17.8
4-Sep-05	7	6	5	5	5	4	4	5	9	12	15	17	18	17	17	18	18	18	18	14	13	12	13	11	11.7	18.4
5-Sep-05	10	9	8	7	6	7	7	9	11	13	15	17	18	18	18	18	18	18	17	15	13	12	11	8	12.6	18.4
6-Sep-05	7	6	5	4	3	2	2	5	8	11	15	18	19	20	22	22	22	21	19	17	15	13	10	9	12.4	22.3
7-Sep-05	8	8	8	7	8	8	8	10	13	17	18	18	19	20	20	18	18	17	17	15	14	13	13	13	13.6	19.7
8-Sep-05	12	11	12	12	12	11	10	11	13	15	15	17	17	17	17	17	18	16	15	12	11	9	8	8	13.2	17.7
9-Sep-05	7	6	6	5	5	6	8	8	8	9	9	10	11	12	12	12	12	12	10	9	9	8	8	8	8.8	12.2
10-Sep-05	8	8	8	7	7	8	8	8	9	9	9	10	11	12	12	13	14	13	12	11	9	7	6	4	9.3	14.1
11-Sep-05	4	4	3	2	1	1	0	1	2	4	6	9	14	15	14	14	12	11	11	10	10	10	10	10	7.5	15.3
12-Sep-05	10	10	9	9	9	9	9	9	11	12	13	14	15	16	15	14	15	14	14	11	11	9	8	8	11.3	15.6
13-Sep-05	7	6	5	5	6	6	6	6	7	8	9	9	10	11	12	13	12	13	12	12	11	11	10	10	9.0	12.7
14-Sep-05	11	10	10	9	9	8	8	8	8	9	9	10	10	10	11	10	9	9	9	7	7	6	6	6	8.6	10.9
15-Sep-05	5	5	5	5	5	5	5	6	6	6	6	7	7	8	8	8	8	8	7	7	7	6	6	6	6.4	7.7
16-Sep-05	6	5	4	4	4	3	1	1	4	6	8	10	13	15	16	16	16	16	14	13	12	11	9	9	9.0	16.4
17-Sep-05	8	8	8	7	6	6	7	7	11	13	15	16	17	18	18	18	18	17	15	13	13	13	11	11	12.2	18.3
18-Sep-05	9	7	6	7	7	6	7	8	9	11	15	18	18	19	17	18	18	17	15	13	10	10	10	9	11.9	18.6
19-Sep-05	9	9	9	8	8	7	6	7	10	11	13	13	14	15	14	15	14	13	11	10	9	8	9	8	10.3	14.6
20-Sep-05	8	7	6	6	6	6	5	7	8	10	12	13	13	14	14	13	13	12	12	10	9	7	6	6	9.3	13.7
21-Sep-05	4	5	4	4	3	4	4	5	7	9	11	13	13	13	13	12	11	11	11	10	7	5	6	6	8.0	13.4
22-Sep-05	4	5	3	3	2	1	0	2	5	7	10	13	11	14	13	12	11	10	8	6	5	5	4	3	6.6	13.7
23-Sep-05	3	4	4	3	2	3	2	2	5	7	9	11	12	13	13	13	13	12	10	10	10	10	9	9	8.0	13.4
24-Sep-05	9	7	5	5	5	5	3	5	8	10	11	12	13	14	14	13	12	12	12	12	11	11	11	10	9.4	13.6
25-Sep-05	10	9	9	8	8	11	12	12	13	14	15	15	15	15	16	16	15	15	14	12	10	10	10	10	12.2	16.0
26-Sep-05	9	9	11	11	10	9	7	6	6	6	6	7	7	7	7	7	7	6	6	4	3	3	2	2	6.6	11.4
27-Sep-05	2	1	1	0	-1	-1	0	0	3	5	8	9	10	12	13	14	14	12	10	9	7	6	5	5	6.0	13.7
28-Sep-05	5	4	4	4	4	5	5	6	7	7	10	12	16	18	16	14	15	15	13	12	11	9	10	9	9.6	17.6
29-Sep-05	8	9	9	9	9	9	8	8	9	10	11	11	11	12	12	12	13	12	10	8	8	7	6	4	9.4	12.8
30-Sep-05	4	4	5	5	5	6	6	5	7	9	11	11	13	13	13	14	14	12	10	8	7	5	4	4	8.1	13.7
																									N	0.0
Hourly Avg	7.5	6.9	6.6	6.1	5.8	5.7	5.5	6.2	8.2	9.9	11.5	12.9	13.9	14.7	14.8	14.6	14.4	13.8	12.7	11.2	10.0	9.0	8.4	7.8		
Hourly Max	11.9	11.4	11.9	12.4	12.3	10.7	11.8	11.5	13.2	16.6	17.7	18.1	19.1	20.4	21.5	22.3	22.1	21.3	19.4	17.5	15.1	13.4	13.3	12.8		

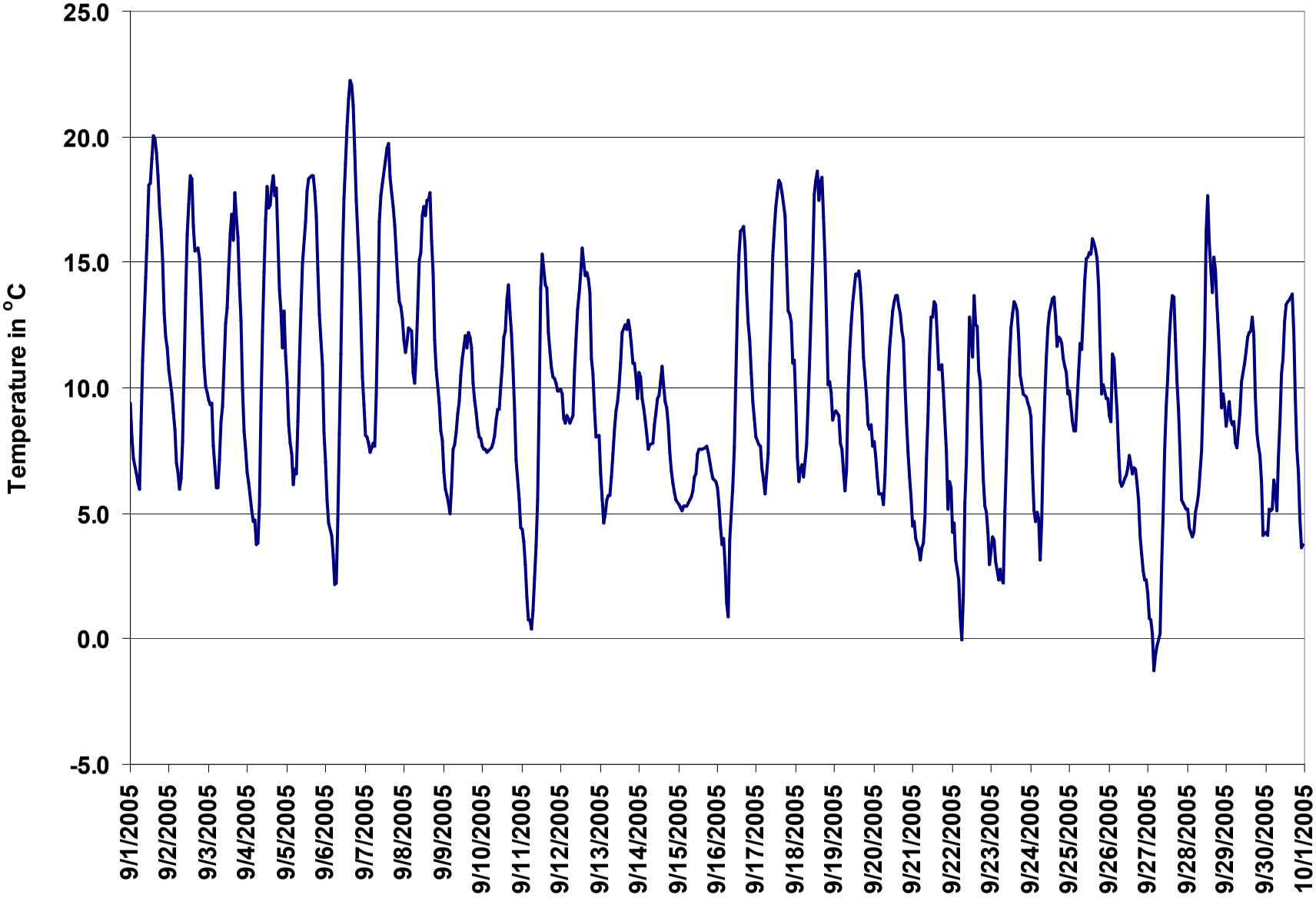


Figure 18. PASZA - Henry Pirker Temperature 1-hr Average Monthly Trend

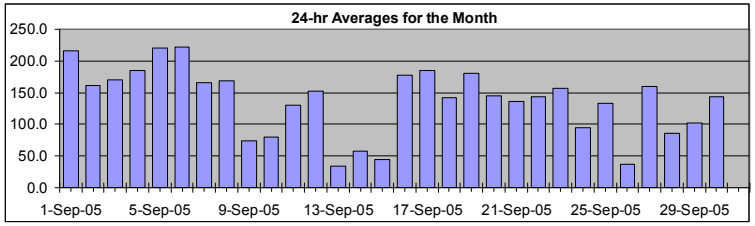
PASZA - Henry Pirker Solar Radiation Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Solar Radiation (SR)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Average:	722.6	W/m^2	5-Sep	12:00 13:00
Maximum 24-hr Value:	221.4	W/m^2	6-Sep	

AIC Time:	0 hrs	Operational Time:	720 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	664.5	558.4	247.5	12.5	0.0	0.0	0.0	136.7 W/m^2

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / 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-05	0	0	0	0	0	0	39	156	310	455	558	694	576	618	608	548	379	175	48	5	1	0	0	0	215.4	694.5
2-Sep-05	0	0	0	0	0	0	12	64	150	368	533	583	598	573	378	33	180	190	164	39	0	0	0	0	161.1	598.1
3-Sep-05	0	0	0	0	0	0	17	92	152	269	338	314	543	689	476	306	475	280	126	9	0	0	0	0	170.2	688.7
4-Sep-05	0	0	0	0	0	0	29	154	307	448	532	584	694	372	330	378	317	169	126	9	0	0	0	0	185.3	694.2
5-Sep-05	0	0	0	0	0	0	32	141	302	443	558	623	723	678	508	473	405	272	125	13	0	0	0	0	220.6	722.6
6-Sep-05	0	0	0	0	0	0	23	154	296	436	554	633	673	667	616	524	404	258	67	8	0	0	0	0	221.4	672.6
7-Sep-05	0	0	0	0	0	1	22	57	276	431	477	443	596	615	526	235	200	82	29	4	0	0	0	0	166.4	615.2
8-Sep-05	0	0	0	0	0	1	14	152	216	342	361	654	578	342	375	375	350	197	71	4	0	0	0	0	167.9	653.8
9-Sep-05	0	0	0	0	1	0	7	23	83	109	104	235	218	272	240	148	158	127	43	4	0	0	0	0	73.8	271.6
10-Sep-05	0	0	0	0	0	1	3	22	41	61	96	153	154	263	233	341	312	156	63	2	0	0	0	0	79.2	340.8
11-Sep-05	0	0	0	0	1	0	8	53	124	211	257	575	672	486	258	279	101	74	18	1	0	0	0	0	129.9	672.1
12-Sep-05	0	0	0	1	0	0	7	70	244	354	488	473	521	624	295	183	171	147	76	2	0	0	0	0	152.4	624.2
13-Sep-05	0	0	0	0	0	1	5	33	59	57	68	74	97	124	100	70	88	32	14	0	0	0	0	0	34.3	123.6
14-Sep-05	0	0	0	0	1	0	2	18	61	119	111	193	148	194	155	153	116	78	19	0	0	0	0	0	57.0	194.1
15-Sep-05	0	0	0	1	0	0	2	22	38	73	141	136	221	127	101	93	73	35	14	0	0	0	0	0	44.9	221.1
16-Sep-05	0	0	1	0	0	0	5	67	263	382	498	581	618	611	452	287	312	157	28	0	0	0	0	0	177.6	618.4
17-Sep-05	0	1	0	0	0	0	8	108	253	396	509	583	580	505	520	461	333	169	12	0	0	0	0	0	184.9	583.3
18-Sep-05	1	0	0	0	0	0	11	85	174	246	472	535	573	499	178	358	192	50	17	0	0	0	0	1	141.3	572.5
19-Sep-05	0	0	0	0	0	0	3	93	249	385	495	541	562	573	501	456	309	140	21	0	0	0	1	0	180.4	572.6
20-Sep-05	0	0	0	0	0	0	6	100	244	386	416	549	527	456	352	213	137	60	19	0	0	1	0	0	144.4	548.7
21-Sep-05	0	0	0	0	0	0	4	88	232	372	482	519	371	353	461	258	43	51	42	0	1	0	0	0	136.5	519.1
22-Sep-05	0	0	0	0	0	0	5	75	239	377	488	559	325	575	230	247	177	125	21	1	0	0	0	0	143.5	575.1
23-Sep-05	0	0	0	0	0	0	3	68	229	362	473	529	522	423	380	330	295	136	11	0	0	0	0	0	156.6	528.7
24-Sep-05	0	0	0	0	0	0	3	82	218	320	369	299	252	243	203	95	90	72	12	0	0	0	0	0	94.1	369.1
25-Sep-05	0	0	0	0	0	0	2	42	197	357	431	399	331	255	448	321	250	138	23	0	0	0	0	0	133.1	448.2
26-Sep-05	0	0	0	0	0	0	0	11	41	75	102	98	133	98	78	91	87	65	25	0	0	0	0	0	37.7	133.4
27-Sep-05	0	0	0	0	0	0	2	77	200	346	452	523	560	538	456	367	250	58	7	0	0	0	0	0	159.8	560.2
28-Sep-05	0	0	0	0	0	0	0	6	45	93	210	264	385	395	181	88	249	123	4	0	0	0	0	0	85.2	394.9
29-Sep-05	0	0	0	0	0	0	1	20	168	289	286	265	279	301	248	245	222	104	6	0	0	0	0	0	101.4	301.3
30-Sep-05	0	0	0	0	0	1	1	35	197	303	431	314	519	525	430	328	278	82	10	0	0	0	0	0	143.8	525.3
																									N	0.0
Hourly Avg	0.0	0.0	0.0	0.0	0.1	0.1	9.2	72.3	186.9	295.5	376.4	430.9	451.7	433.1	343.8	276.2	231.8	126.7	42.0	3.4	0.0	0.0	0.0	0.0		
Hourly Max	0.6	0.6	0.5	0.6	0.6	0.7	38.6	156.0	309.5	455.2	558.4	694.5	722.6	688.7	616.2	547.6	474.8	279.7	163.9	39.0	0.6	0.6	0.6	0.6		

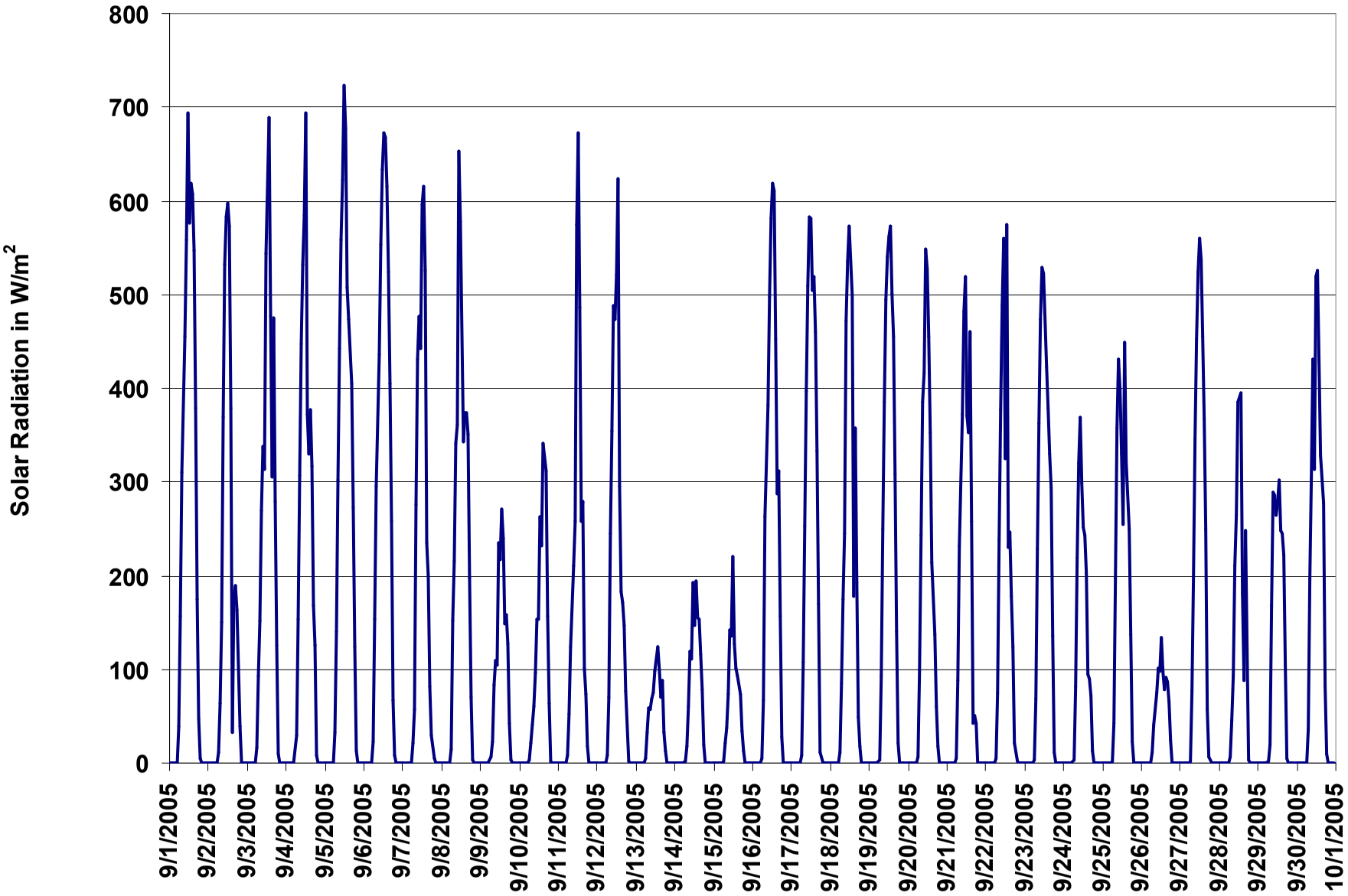


Figure 19. PASZA - Henry Pirker Solar Radiation 1-hr Average Monthly Trend

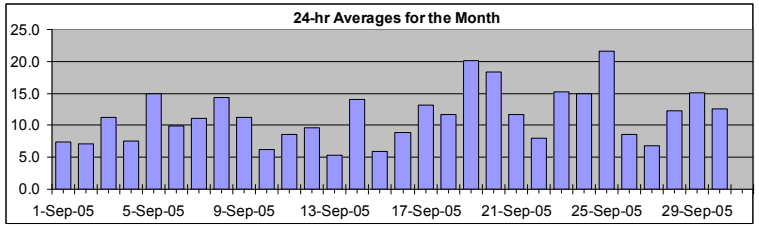
PASZA - Henry Pirker Scalar Wind Speed Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Speed (WSs)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Average:	38.6	km/hr	25-Sep	10:00 11:00
Maximum 24-hr Value:	21.7	km/hr	25-Sep	

Calm Time:	0 hrs	**0%** calms	Operational Time: 716 hrs
Calibration Time:	4 hrs		AMD Operational Uptime: 100.0%

Percentile	99	95	75	50	25	5	1	AverageS
	33.2	25.0	15.2	9.3	6.2	3.8	2.8	11.5 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**

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-hr Scalar Average	Daily Max
1-Sep-05	7	6	6	5	5	7	5	8	8	7	10	10	9	9	7	8	8	9	10	9	10	8	4	4	7.5	10.4
2-Sep-05	4	4	4	5	6	6	4	5	5	4	6	6	8	9	8	10	11	12	13	13	6	6	7	7	7.1	13.1
3-Sep-05	8	11	12	7	6	4	6	7	8	9	12	15	17	19	16	10	19	21	16	13	11	10	6	8	11.3	21.2
4-Sep-05	8	6	5	6	7	4	4	7	8	12	12	8	9	9	8	7	10	7	5	6	7	7	12	7	7.6	12.1
5-Sep-05	10	6	8	8	7	10	9	10	12	20	23	21	21	22	23	23	22	23	20	15	14	13	12	7	14.9	23.1
6-Sep-05	7	4	4	5	5	6	7	6	6	7	10	13	17	17	15	15	17	18	14	14	10	9	6	4	9.9	18.3
7-Sep-05	4	6	6	4	5	4	6	9	11	19	22	C	C	C	C	31	26	20	13	7	5	6	8	9	11.1	30.9
8-Sep-05	6	8	9	11	10	8	11	11	16	28	31	28	25	22	21	20	20	18	11	4	6	8	7	8	14.4	31.0
9-Sep-05	5	7	9	7	7	7	11	11	12	12	15	19	16	15	11	13	15	15	13	10	11	10	10	10	11.3	18.7
10-Sep-05	11	9	8	7	6	7	7	7	6	8	8	7	6	7	6	6	5	4	7	5	4	3	3	4	6.2	11.4
11-Sep-05	5	5	3	2	4	6	4	4	4	4	3	4	6	10	15	20	19	17	13	12	11	13	11	12	8.6	19.6
12-Sep-05	11	13	11	10	11	10	9	10	15	14	14	14	13	14	13	11	8	9	5	4	4	3	3	2	9.7	15.3
13-Sep-05	3	3	4	4	5	4	5	5	7	4	4	5	6	6	4	12	10	8	6	3	4	4	6	6	5.3	12.3
14-Sep-05	15	18	19	18	21	23	20	22	20	18	18	17	15	14	9	7	9	9	10	9	8	5	6	7	14.0	23.0
15-Sep-05	6	5	6	6	6	4	6	6	6	6	7	7	7	7	8	9	8	6	5	5	4	3	3	4	5.9	9.4
16-Sep-05	5	5	2	2	4	4	5	6	6	7	7	8	8	11	11	12	18	18	18	17	15	10	8	6	8.8	18.2
17-Sep-05	6	8	8	7	7	8	10	6	4	9	13	19	18	21	24	24	23	23	19	15	15	12	7	11	13.2	23.8
18-Sep-05	8	4	7	8	8	6	5	5	5	5	5	10	22	24	15	16	18	12	17	20	21	16	15	11	11.7	24.1
19-Sep-05	12	14	10	6	8	9	6	6	11	24	31	32	31	34	33	33	35	33	26	21	15	18	19	15	20.1	34.7
20-Sep-05	20	15	15	11	10	12	11	15	21	25	27	29	28	25	25	25	24	19	12	19	16	15	11	10	18.3	28.6
21-Sep-05	6	11	8	6	7	9	9	10	10	17	17	18	17	16	20	19	15	12	13	11	10	5	7	8	11.7	19.5
22-Sep-05	3	9	7	9	9	5	4	5	7	9	7	7	10	8	8	15	16	19	8	5	5	4	6	5	7.9	18.7
23-Sep-05	6	7	10	10	9	12	11	7	11	14	16	16	17	18	21	24	24	24	26	24	19	18	12	11	15.3	26.0
24-Sep-05	11	8	6	8	9	9	4	5	10	14	16	15	18	18	25	26	19	15	20	30	23	20	16	13	14.9	29.7
25-Sep-05	14	16	13	7	6	22	25	27	33	36	39	35	30	33	35	31	30	23	18	10	7	12	9	9	21.7	38.6
26-Sep-05	6	3	14	14	13	7	7	8	9	9	9	9	6	7	11	6	9	13	12	8	6	6	6	8	8.6	14.1
27-Sep-05	8	5	8	6	2	5	5	4	5	6	6	7	8	10	12	12	14	9	6	7	4	5	5	5	6.9	13.8
28-Sep-05	5	5	5	5	6	7	7	6	5	4	4	6	13	29	26	15	24	20	28	21	15	10	16	15	12.3	29.1
29-Sep-05	8	9	14	15	13	12	15	13	17	24	26	25	22	22	22	19	18	14	10	9	11	14	9	4	15.2	25.6
30-Sep-05	7	10	13	10	10	15	9	9	15	17	19	23	22	23	20	14	20	15	9	6	5	4	4	4	12.6	23.4
																									N	0.0
1-hr Average	7.9	8.0	8.3	7.7	7.8	8.3	8.2	8.6	10.4	13.1	14.5	14.9	15.4	16.6	16.2	16.4	17.1	15.4	13.4	11.7	10.1	9.2	8.5	7.8		
Hourly Max	20.2	18.0	19.0	18.1	20.9	23.0	24.6	26.7	32.5	36.3	38.6	35.4	31.3	34.4	35.5	33.2	34.7	33.0	27.6	29.7	22.7	20.3	18.8	15.3		

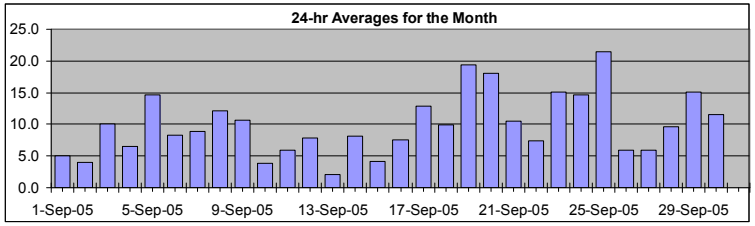
PASZA - Henry Pirker Vector Wind Speed Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Speed (WSv)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Average:	38.4	km/hr	25-Sep	10:00 11:00
Maximum 24-hr Value:	21.4	km/hr	25-Sep	

Calm Time:	4 hrs	**1%** calms			Operational Time:					712 hrs
Calibration Time:	4 hrs				AMD Operational Uptime:					100.0%
Percentile	99	95	75	50	25	5	1			AverageV
	33.0	24.8	14.9	9.0	5.6	3.0	1.6			72.6 km/hr

Status Flag Characters

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

Day — **Mountain Standard Time**

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-hr Vector Average	Daily Max
1-Sep-05	7	5	6	4	4	6	4	8	7	7	9	8	8	8	3	7	6	8	9	9	8	8	3	calm	5.0	9.4
2-Sep-05	3	3	3	4	5	5	4	5	5	3	5	4	7	8	6	7	8	11	13	13	6	6	6	7	4.0	12.8
3-Sep-05	8	11	11	6	5	3	5	3	8	9	11	15	16	19	15	9	16	21	16	13	11	8	5	7	10.1	20.8
4-Sep-05	7	5	4	5	6	2	2	6	8	12	11	8	5	8	7	4	9	5	4	5	7	4	11	7	6.5	11.8
5-Sep-05	9	6	7	7	7	10	8	10	12	20	22	20	21	22	22	22	22	22	20	15	14	13	12	6	14.7	22.4
6-Sep-05	7	3	3	5	5	6	7	6	6	7	9	12	17	16	14	14	17	18	14	13	10	9	5	2	8.3	18.0
7-Sep-05	3	6	5	4	4	2	5	9	11	18	22	C	C	C	C	31	26	20	12	7	5	5	8	9	8.8	30.5
8-Sep-05	5	8	8	11	10	7	10	10	16	28	31	28	24	22	20	20	18	18	11	3	5	8	7	8	12.1	30.7
9-Sep-05	5	7	9	6	7	7	10	11	12	11	15	19	16	15	11	12	15	15	13	10	11	10	10	10	10.7	18.6
10-Sep-05	11	9	8	7	6	7	7	6	6	7	7	6	5	7	5	5	4	2	6	5	4	calm	2	3	3.8	11.3
11-Sep-05	5	5	1	2	3	6	4	3	2	1	2	3	5	10	15	19	19	17	13	12	11	13	10	12	6.0	19.5
12-Sep-05	11	13	11	10	11	10	9	10	15	14	13	14	13	13	13	11	8	9	5	4	3	3	3	1	7.8	15.2
13-Sep-05	3	3	4	4	5	3	5	4	7	1	4	5	6	5	2	11	10	7	6	2	3	4	5	5	2.1	11.3
14-Sep-05	14	18	19	18	21	23	20	22	20	17	17	16	15	13	8	7	8	9	9	9	8	5	6	7	8.1	22.8
15-Sep-05	6	5	6	6	6	4	6	6	6	6	7	7	6	7	7	9	8	6	5	5	4	calm	3	4	4.1	9.2
16-Sep-05	4	4	2	1	4	3	5	6	6	7	7	7	6	11	10	11	17	18	18	17	15	10	8	6	7.5	18.0
17-Sep-05	5	7	8	7	7	8	10	5	4	9	13	19	17	21	23	23	23	23	19	15	15	11	7	11	12.9	23.5
18-Sep-05	7	3	7	8	8	6	4	3	4	4	4	9	21	24	15	15	17	12	17	20	20	15	13	10	10.0	23.5
19-Sep-05	12	13	10	5	8	8	6	5	11	24	31	32	31	34	33	33	34	33	26	21	15	18	19	15	19.3	34.3
20-Sep-05	20	15	15	10	10	12	11	15	21	25	27	28	28	25	25	24	23	19	12	19	16	15	11	9	18.0	28.1
21-Sep-05	6	10	7	6	6	8	9	10	10	17	17	17	17	15	19	19	15	12	13	10	10	5	7	8	10.5	18.8
22-Sep-05	3	9	7	9	9	5	4	5	7	9	6	5	10	7	7	14	16	18	6	4	5	2	6	4	7.4	18.3
23-Sep-05	6	7	10	10	9	12	11	6	11	14	16	16	17	18	21	23	24	24	26	24	19	18	12	11	15.2	25.9
24-Sep-05	11	7	6	8	9	9	3	4	9	14	15	14	17	18	24	26	19	14	20	30	23	20	16	13	14.6	29.5
25-Sep-05	14	16	13	7	5	22	25	27	32	36	38	35	30	33	35	31	30	23	18	9	7	12	9	8	21.4	38.4
26-Sep-05	5	calm	13	14	12	3	7	7	8	8	9	9	5	6	11	3	9	13	12	8	6	5	6	8	5.9	13.6
27-Sep-05	8	4	7	4	1	5	5	3	5	6	6	6	7	10	11	11	13	9	6	7	4	5	5	5	5.9	13.1
28-Sep-05	5	5	5	5	5	7	7	6	4	3	3	5	12	29	26	15	24	19	27	21	15	9	16	15	9.6	28.8
29-Sep-05	7	8	14	15	13	12	15	13	16	24	25	25	22	21	21	19	18	14	9	9	11	14	9	3	15.1	25.4
30-Sep-05	6	9	13	10	8	15	9	7	15	17	18	23	21	22	19	13	20	15	9	6	5	3	3	2	11.6	23.1
																									N	0.0
1-hr Vector	5.0	5.1	5.7	5.1	5.3	5.6	5.7	6.1	8.2	10.7	11.7	11.6	12.1	13.0	13.3	13.6	14.2	12.2	10.0	8.8	7.3	7.1	6.2	4.9		
Hourly Max	20.2	17.9	18.8	18.0	20.9	22.8	24.6	26.5	32.4	36.1	38.4	35.0	31.1	34.1	35.0	33.0	34.3	32.9	27.5	29.5	22.6	20.3	18.6	15.2		

PASZA - Henry Pirker Wind Direction Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: September 1, 2005 to October 1, 2005

Summary

Calm Time:	0 hrs	**0%** calms					Operational Time:																			716 hrs	
Calibration Time:	4 hrs						AMD Operational Uptime:																			100.0%	
Percentile	99	95	75	50	25	5	1	Average																			
	346.3	323.1	271.9	250.2	215.4	87.6	20.3	257 deg																			

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	WD Sector
1-Sep-05	207	155	155	147	226	202	198	214	207	228	214	230	205	207	258	160	149	126	97	95	142	219	294	57	186	S
2-Sep-05	107	184	211	197	264	280	315	291	279	248	178	138	105	111	125	260	198	196	173	176	141	151	197	270	190	S
3-Sep-05	238	242	250	284	284	184	256	213	230	181	209	238	258	259	273	304	278	263	272	264	251	277	287	273	256	WSW
4-Sep-05	271	323	301	245	299	280	167	182	243	246	254	258	251	251	223	209	262	285	250	265	227	271	236	206	250	WSW
5-Sep-05	258	240	269	271	278	279	291	268	255	254	258	270	267	278	274	268	275	263	273	265	256	256	255	248	266	W
6-Sep-05	234	276	223	184	171	158	162	156	189	185	203	227	248	232	234	237	259	270	267	254	237	258	208	164	231	SW
7-Sep-05	111	133	134	172	164	177	185	228	245	252	249	C	C	C	C	267	267	251	241	243	237	197	209	192	237	WSW
8-Sep-05	193	186	196	215	226	246	234	271	249	252	250	251	267	279	283	274	276	312	333	316	296	308	333	328	265	W
9-Sep-05	301	284	307	296	300	307	315	316	322	331	347	352	355	355	1	343	343	339	337	333	336	330	325	324	333	NNW
10-Sep-05	334	321	329	325	317	323	317	326	339	22	28	37	44	40	49	65	51	20	102	143	147	273	334	128	5	N
11-Sep-05	121	158	323	104	144	126	129	321	299	246	178	181	256	298	299	301	296	296	281	274	278	291	292	307	286	WNW
12-Sep-05	320	340	328	317	311	306	284	283	291	288	290	281	283	282	292	309	308	341	15	67	103	129	145	114	303	WNW
13-Sep-05	105	118	152	134	159	117	136	130	168	126	129	153	154	159	209	281	290	334	277	342	140	118	95	146	157	SSE
14-Sep-05	240	267	269	277	289	302	292	287	290	298	297	303	308	306	331	50	76	90	92	79	74	88	100	80	299	WNW
15-Sep-05	62	53	65	86	79	58	28	30	39	35	20	10	358	355	10	357	347	328	326	307	319	248	262	208	14	NNE
16-Sep-05	177	160	140	219	167	194	230	218	224	214	177	176	185	204	237	248	261	263	257	259	251	241	236	253	232	SW
17-Sep-05	281	278	270	275	283	265	267	273	229	236	249	257	259	257	267	263	256	265	269	288	284	272	236	250	264	W
18-Sep-05	243	268	223	219	244	271	240	150	114	150	223	256	260	238	236	219	240	265	295	294	277	216	249	227	248	WSW
19-Sep-05	208	204	205	184	221	205	232	272	232	249	252	260	253	251	254	255	255	253	254	248	233	246	241	235	245	WSW
20-Sep-05	246	237	241	232	227	234	237	242	252	257	265	259	258	262	255	259	266	270	251	249	248	248	240	266	253	WSW
21-Sep-05	316	263	306	329	313	288	266	259	254	261	267	284	284	283	249	237	236	223	250	293	307	214	231	252	266	W
22-Sep-05	245	254	255	254	254	281	243	246	236	233	233	249	293	277	284	272	228	238	254	319	268	250	289	254	256	WSW
23-Sep-05	227	241	248	248	253	252	253	276	250	252	259	269	258	259	266	254	245	248	250	250	250	250	247	251	253	WSW
24-Sep-05	253	286	287	281	267	260	308	255	253	256	256	246	257	248	258	255	250	240	246	254	250	247	244	244	254	WSW
25-Sep-05	254	255	258	240	220	250	251	248	256	256	261	266	267	272	259	257	269	266	261	253	255	250	245	255	258	WSW
26-Sep-05	290	246	264	232	218	246	216	221	245	278	311	13	40	22	0	274	238	230	246	243	247	298	249	263	260	W
27-Sep-05	276	254	248	294	237	256	231	196	216	203	219	216	199	204	224	227	236	239	228	233	211	155	158	137	224	SW
28-Sep-05	133	137	142	156	143	132	126	117	117	164	242	225	250	243	253	244	220	228	246	241	248	235	231	233	227	SW
29-Sep-05	237	253	253	251	251	244	240	242	248	249	251	249	252	250	254	252	249	243	242	251	240	250	256	239	249	WSW
30-Sep-05	244	264	257	256	262	252	236	284	245	257	261	280	273	277	273	281	260	261	287	276	312	306	104	55	267	W
																									N	-
Hourly Avg	249	251	256	250	253	255	251	255	253	253	257	263	264	262	265	263	259	261	261	261	255	250	246	246		

PASZA - Henry Pirker Standard Deviation of Wind Direction Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: September 1, 2005 to October 1, 2005

Summary

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	**0%** calms	Operational Time: 716 hrs
Calibration Time:	4 hrs		AMD Operational Uptime: 100.0%

Percentile	99	95	75	50	25	5	1
	50.9	38.9	17.4	10.7	7.1	4.9	4.2

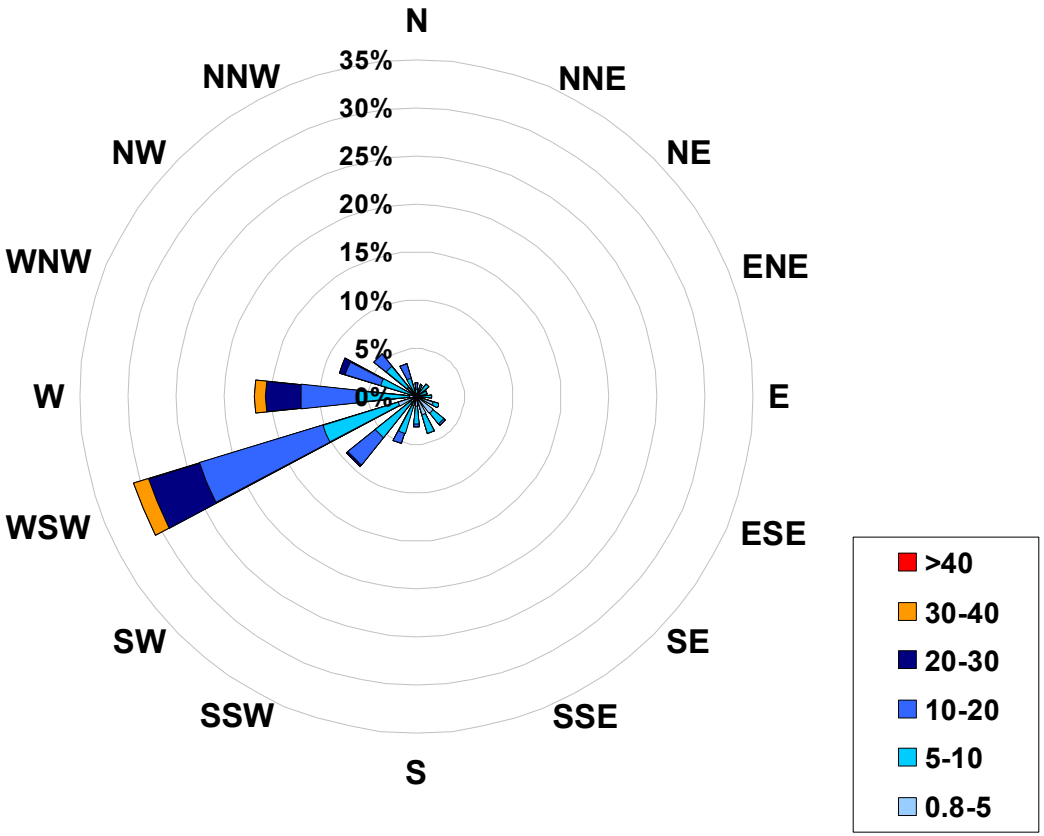
Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	Daily Maximum
1-Sep-05	13	15	8	30	32	45	21	9	14	16	18	31	39	28	47	44	39	23	9	6	14	12	36	25	47.1
2-Sep-05	30	37	28	19	22	14	27	21	22	39	36	39	27	24	50	29	16	12	9	7	13	11	12	14	50.4
3-Sep-05	9	8	6	19	27	43	33	39	12	12	15	13	13	13	14	21	17	9	9	6	9	26	27	15	43.0
4-Sep-05	11	26	25	31	22	53	41	11	14	12	17	29	50	28	27	35	15	25	32	17	7	31	21	20	53.1
5-Sep-05	13	15	16	13	10	6	10	10	8	7	9	12	13	11	13	11	12	10	5	5	4	5	6	19	18.5
6-Sep-05	9	29	24	8	15	6	6	8	19	25	17	19	16	14	18	16	11	13	5	5	8	7	18	56	56.3
7-Sep-05	40	11	8	37	36	30	29	14	11	12	9	C	C	C	C	6	7	6	7	9	13	17	9	11	39.9
8-Sep-05	15	6	10	7	8	15	8	14	11	8	6	9	11	13	9	11	12	8	8	18	14	11	9	7	18.3
9-Sep-05	10	8	5	10	6	6	6	6	5	7	6	6	8	9	9	10	8	8	9	6	5	5	6	7	10.4
10-Sep-05	5	6	6	7	10	10	7	9	11	15	14	23	18	25	30	34	46	54	14	14	12	27	58	16	58.1
11-Sep-05	7	8	41	23	19	11	21	38	46	43	52	48	27	28	10	7	6	5	5	7	6	5	5	5	51.6
12-Sep-05	8	7	6	5	5	6	6	7	7	11	14	14	17	14	14	10	21	11	17	10	18	20	16	46	45.9
13-Sep-05	24	15	16	11	15	46	10	13	10	64	15	20	10	12	42	22	8	16	18	40	23	14	23	13	63.8
14-Sep-05	9	5	4	4	4	5	4	4	5	5	6	7	7	11	19	20	15	13	11	10	10	17	11	9	20.5
15-Sep-05	17	16	11	11	12	16	11	20	15	14	17	12	16	13	13	10	10	15	9	9	13	34	23	18	33.7
16-Sep-05	17	15	33	38	15	18	12	10	14	17	20	22	23	17	22	25	10	6	5	4	4	6	6	20	38.0
17-Sep-05	12	9	8	11	8	7	6	24	45	13	12	12	16	10	11	7	7	6	5	4	5	8	9	5	44.9
18-Sep-05	14	23	5	7	12	36	25	39	16	18	36	28	9	11	13	11	12	7	4	6	7	11	13	10	39.2
19-Sep-05	9	8	11	16	10	7	14	22	11	7	7	7	7	7	8	6	7	4	5	5	6	5	6	6	22.3
20-Sep-05	5	5	5	7	7	7	11	5	5	6	7	10	7	11	8	8	7	6	8	6	4	5	6	11	11.5
21-Sep-05	10	14	11	14	11	11	9	8	10	8	13	9	13	12	12	9	9	13	14	18	10	14	10	9	17.5
22-Sep-05	23	5	9	9	9	10	19	16	11	12	17	30	14	24	18	19	8	9	23	33	14	32	12	29	32.7
23-Sep-05	8	8	5	5	6	4	4	15	7	11	9	12	11	12	10	8	8	6	5	5	4	4	10	6	15.1
24-Sep-05	6	18	14	10	7	6	23	41	17	9	10	12	11	8	7	5	8	10	6	5	5	4	6	6	41.1
25-Sep-05	5	5	6	10	26	5	4	5	5	6	6	7	7	7	7	6	7	10	5	5	6	4	10	11	26.0
26-Sep-05	26	55	11	15	17	42	17	9	8	8	8	15	24	24	8	31	10	9	11	9	14	28	11	9	55.4
27-Sep-05	13	18	8	24	39	27	19	20	12	23	22	21	19	18	18	17	15	8	6	9	21	8	7	12	39.2
28-Sep-05	15	8	11	19	20	13	8	11	21	44	47	18	19	7	6	9	9	9	5	5	7	21	6	7	47.0
29-Sep-05	18	24	7	6	5	10	5	5	6	6	6	6	8	8	7	7	7	7	6	6	6	5	19	39	38.6
30-Sep-05	15	10	8	12	17	7	8	20	8	9	10	8	8	10	11	13	10	7	5	6	14	17	41	51	51.0
																									0.0
Hourly Max	40	55	41	38	39	53	41	41	46	64	52	48	50	28	50	44	46	54	32	40	23	34	58	56	

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



Calms:	0%

Frequency Distribution of Wind in km/hr			
Range			Frequency (hrs)
0.8	<	5	100
5	to	10	292
10	to	20	232
20	to	30	73
30	to	40	19
	>	40	0
Total Non-Zero Values			716

PASZA – Evergreen Park Station

Monthly Summary Tables, Graphs, and Roses

PASZA - Evergreen Park Sulphur Dioxide Monthly Summary

Station: Evergreen Park
Station Owner: PASZA

HOURLY AVERAGE TABLE

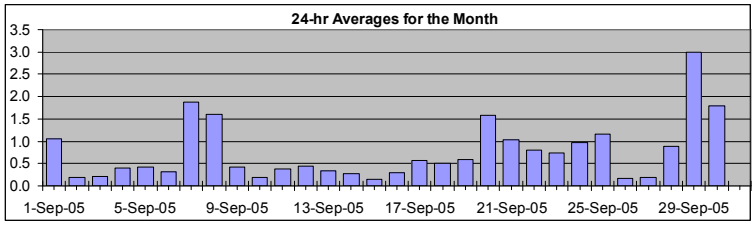
Sulphur Dioxide (SO_2)

Monitoring Dates: September 1, 2005 to October 1, 2005

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

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	10.9	ppb	29-Sep	14:00 15:00
Maximum 24-hr Average:	3.0	ppb	29-Sep	



AIC Time:	33 hrs	Operational Time:	679 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	99.2%

Percentile	99	95	75	50	25	5	1	Average
	8.1	3.6	0.6	0.3	0.1	0.0	0.0	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-05	2	2	2	2	1	1	A	1	2	2	2	2	1	1	1	0	1	0	0	0	0	1	1	1	1.0	2.1
2-Sep-05	1	0	1	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
3-Sep-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0.2	0.9
4-Sep-05	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.4	1.4
5-Sep-05	0	0	A	0	0	0	D	D	0	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	0.4	0.9
6-Sep-05	1	A	0	0	D	0	D	D	0	0	0	0	0	0	1	1	1	1	0	0	0	0	1	0	0.3	1.2
7-Sep-05	A	0	0	0	0	0	0	0	0	2	4	1	8	3	6	1	8	2	2	2	1	1	0	A	1.9	8.1
8-Sep-05	0	0	0	0	0	0	0	0	0	3	3	3	6	6	3	7	2	1	1	1	0	1	0	0	1.6	6.9
9-Sep-05	0	0	1	1	1	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.3
10-Sep-05	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
11-Sep-05	0	0	0	A	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	1	0	0	0	0	0.4	2.2
12-Sep-05	0	0	A	0	0	0	1	1	0	0	1	0	1	2	1	1	0	0	1	0	0	0	1	0	0.4	2.0
13-Sep-05	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0.3	0.8
14-Sep-05	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0.3	0.5
15-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.5
16-Sep-05	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	0	0	1	0	A	0	0	0.3	1.4
17-Sep-05	0	0	0	0	0	0	0	0	1	0	0	2	2	0	2	3	2	1	0	0	A	0	0	0	0.6	3.1
18-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	3	5	0	0	2	1	0	A	0	0	0	0	0.5	4.7
19-Sep-05	0	0	0	0	0	0	0	0	0	4	0	C	C	A	A	4	2	0	0	0	0	0	0	0	0.6	3.8
20-Sep-05	0	0	0	0	0	A	0	1	1	3	1	9	1	8	3	5	2	1	1	1	1	0	0	0	1.6	9.2
21-Sep-05	0	0	0	0	A	0	1	1	0	7	5	0	1	1	1	1	3	1	1	1	1	1	0	0	1.0	7.0
22-Sep-05	0	0	0	A	1	0	0	0	0	0	2	2	1	1	1	2	4	1	1	1	0	0	0	0	0.8	4.3
23-Sep-05	0	0	A	0	0	0	0	0	0	1	1	1	5	0	0	0	5	0	0	0	0	0	0	0	0.7	5.0
24-Sep-05	0	A	0	0	0	0	0	0	0	0	0	0	0	2	2	1	3	6	2	1	1	1	0	0	1.0	5.8
25-Sep-05	A	0	0	0	0	0	0	0	8	1	5	5	1	1	0	0	0	0	0	0	0	0	0	A	1.2	8.1
26-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.5
27-Sep-05	0	0	0	0	0	0	0	0	D	0	0	0	0	0	0	1	1	0	1	0	0	A	0	0	0.2	1.1
28-Sep-05	0	0	0	0	0	1	1	1	0	0	1	2	1	4	6	2	1	0	0	0	A	0	0	0	0.9	5.7
29-Sep-05	0	1	1	1	0	0	0	0	1	9	9	5	7	8	11	2	9	2	1	A	1	1	1	1	3.0	10.9
30-Sep-05	2	2	1	1	0	1	1	1	2	7	1	2	4	3	4	1	0	4	A	1	1	1	1	0	1.8	7.2
																									N	0.0
Hourly Avg	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.7	1.5	1.3	1.4	1.6	1.7	1.6	1.1	1.6	0.8	0.5	0.4	0.4	0.4	0.4	0.3		
Hourly Max	2.0	2.1	1.7	1.5	1.2	0.6	0.8	0.8	8.1	8.6	8.6	9.2	8.1	8.3	10.9	6.9	9.2	5.8	2.5	1.5	1.1	1.0	0.9	0.9		

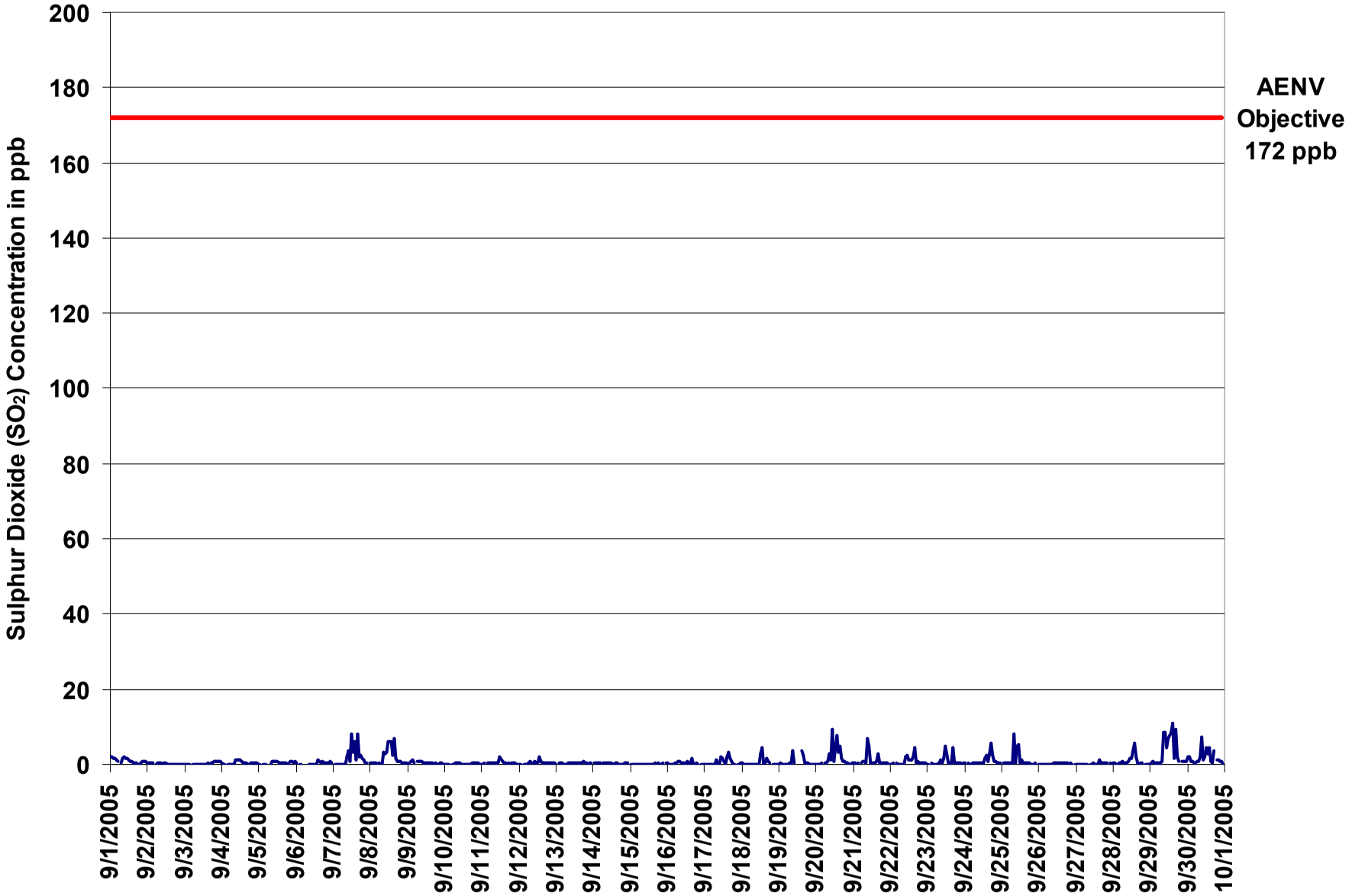


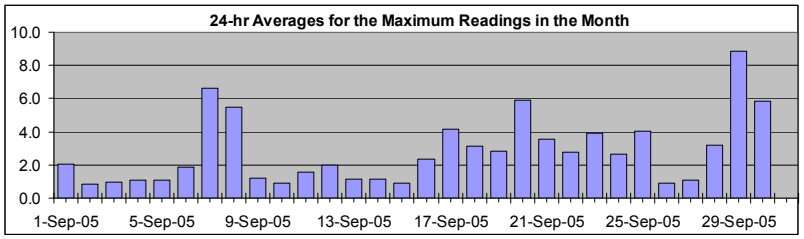
Figure 20. PASZA - Evergreen Park Sulphur Dioxide 1-hr Average Monthly Trend

HOURLY MAXIMUM TABLE

Sulphur Dioxide (SO_2)

Station: Evergreen Park
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Value:	37.5	ppb	29-Sep	13:00 14:00
Maximum 24-hr Value:	8.9	ppb	29-Sep	

AIC Time:	33 hrs	Operational Time:	679 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	99.2%

Percentile	99	95	75	50	25	5	1	Average
	22.3	14.2	1.6	1.1	0.8	0.3	0.0	2.8 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-05	3	3	3	2	2	2	A	1	3	3	2	5	2	3	2	1	1	1	1	1	1	2	2	2	2.1	4.9
2-Sep-05	1	2	1	1	1	A	1	2	1	1	1	1	3	0	1	1	1	0	0	0	0	0	1	1	0.9	2.7
3-Sep-05	1	1	1	1	A	1	0	0	1	1	2	1	1	2	0	1	1	1	1	1	2	1	2	2	1.0	1.9
4-Sep-05	1	1	0	A	0	1	1	0	1	2	2	2	2	2	1	2	1	1	1	1	1	1	1	1	1.1	2.4
5-Sep-05	1	1	A	0	0	0	D	D	1	2	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1.1	1.9
6-Sep-05	1	A	0	0	D	0	D	D	0	0	0	5	6	0	8	3	3	4	1	1	1	1	1	1	1.9	8.0
7-Sep-05	A	0	0	0	0	0	0	1	2	10	13	10	21	15	17	8	19	12	9	4	2	1	1	A	6.6	20.6
8-Sep-05	1	1	1	1	1	1	3	1	1	14	14	12	14	15	14	18	6	2	2	2	2	3	1	1	5.5	18.4
9-Sep-05	1	1	2	3	2	A	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.5
10-Sep-05	0	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.5
11-Sep-05	1	1	1	A	1	1	1	1	2	1	1	2	11	2	1	1	2	1	1	2	1	1	1	1	1.6	10.7
12-Sep-05	1	0	A	1	0	1	2	2	1	1	6	1	3	9	5	3	1	1	1	1	1	1	1	1	2.0	8.8
13-Sep-05	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	2	1	1	1	1.2	3.2
14-Sep-05	A	1	1	1	1	1	2	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	A	1.2	4.0
15-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	1.2
16-Sep-05	1	1	1	1	1	1	1	1	2	1	1	1	1	6	3	1	11	1	1	15	1	A	1	1	2.3	14.9
17-Sep-05	0	0	0	1	0	1	1	1	3	1	1	9	13	0	17	14	16	14	0	1	A	1	1	1	4.2	16.8
18-Sep-05	1	0	1	0	1	0	1	1	0	1	1	2	11	19	1	1	13	13	1	A	1	1	1	1	3.1	19.2
19-Sep-05	1	1	1	1	1	1	1	1	1	10	3	C	C	A	A	13	17	1	1	1	1	0	0	1	2.8	16.7
20-Sep-05	1	1	1	1	1	A	1	2	4	11	14	20	6	22	16	12	11	1	5	1	1	1	1	1	5.9	22.3
21-Sep-05	1	1	1	1	A	1	4	2	1	24	14	1	2	2	1	2	14	1	2	1	1	1	1	1	3.6	23.6
22-Sep-05	1	1	1	A	1	1	1	0	1	1	7	5	2	2	2	10	20	1	3	1	1	1	1	1	2.8	19.6
23-Sep-05	1	1	A	1	1	0	0	2	5	7	1	12	15	1	2	1	27	1	1	6	1	1	1	1	3.9	27.3
24-Sep-05	1	A	1	1	1	1	1	1	1	1	1	1	1	5	5	2	12	12	6	2	1	1	1	1	2.6	11.9
25-Sep-05	A	1	1	1	1	1	1	2	20	1	17	21	1	9	1	1	1	4	1	1	1	1	1	A	4.1	20.5
26-Sep-05	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	1.3
27-Sep-05	0	0	0	0	0	0	0	0	D	0	0	1	1	1	1	11	3	1	1	1	1	A	1	1	1.1	10.8
28-Sep-05	1	1	1	1	1	1	2	1	1	1	2	6	9	8	14	15	1	1	1	2	A	1	1	1	3.2	14.9
29-Sep-05	1	2	2	1	1	1	1	1	3	19	18	12	22	38	26	9	27	13	1	A	2	1	2	2	8.9	37.5
30-Sep-05	6	4	2	1	1	1	1	1	9	23	3	10	19	11	17	1	1	13	A	2	2	2	1	0	5.8	23.0
																									N	0.0
Hourly Avg	1.1	1.0	0.9	0.9	0.8	0.8	1.2	1.1	2.5	4.7	4.4	5.1	6.0	6.2	5.6	4.6	7.2	3.6	1.8	1.9	1.2	1.2	1.1	1.0		
Hourly Max	6.4	4.5	2.6	2.5	2.2	1.5	3.7	2.5	20.3	23.6	18.0	20.5	22.4	37.5	25.7	18.4	27.3	13.6	9.2	14.9	1.9	3.2	1.7	1.6		

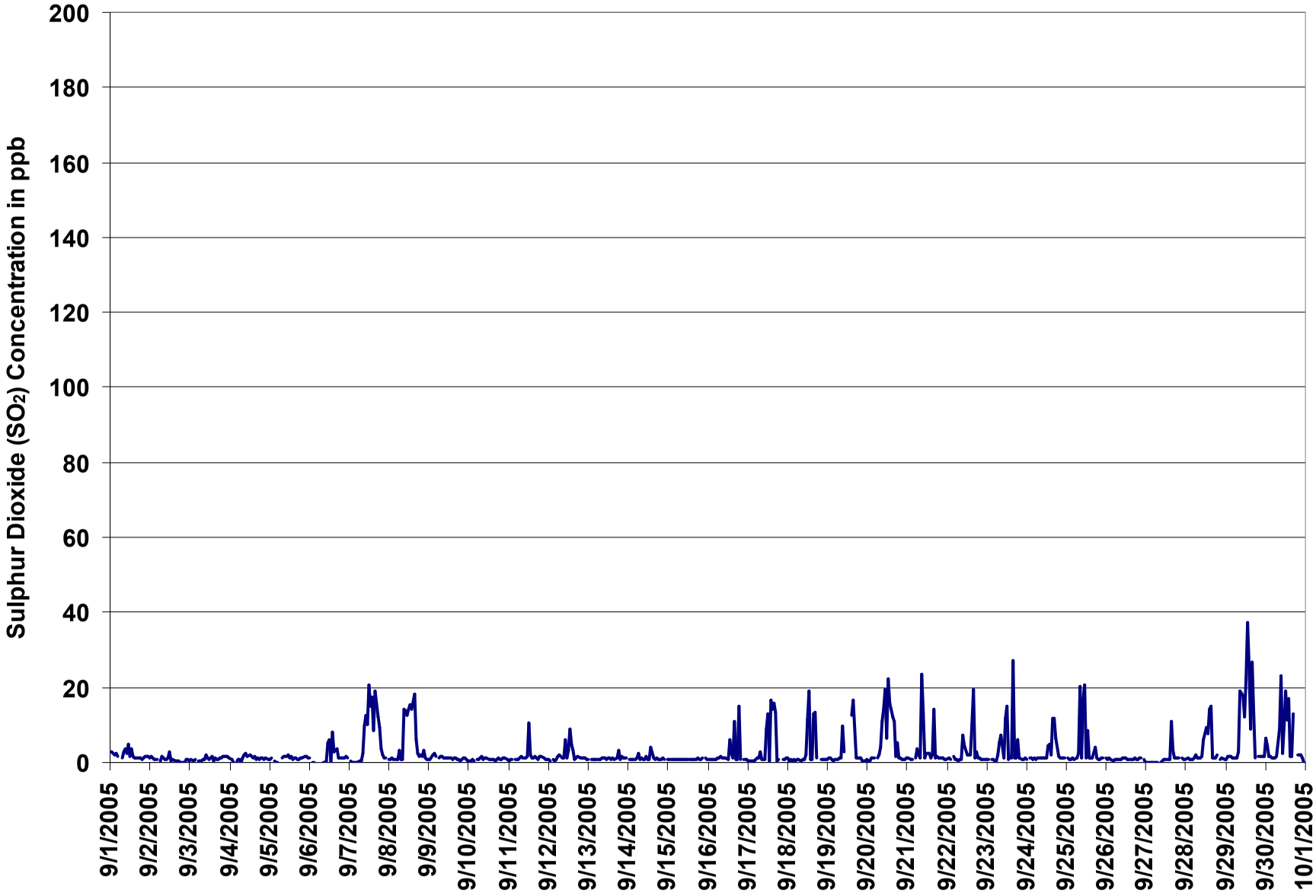
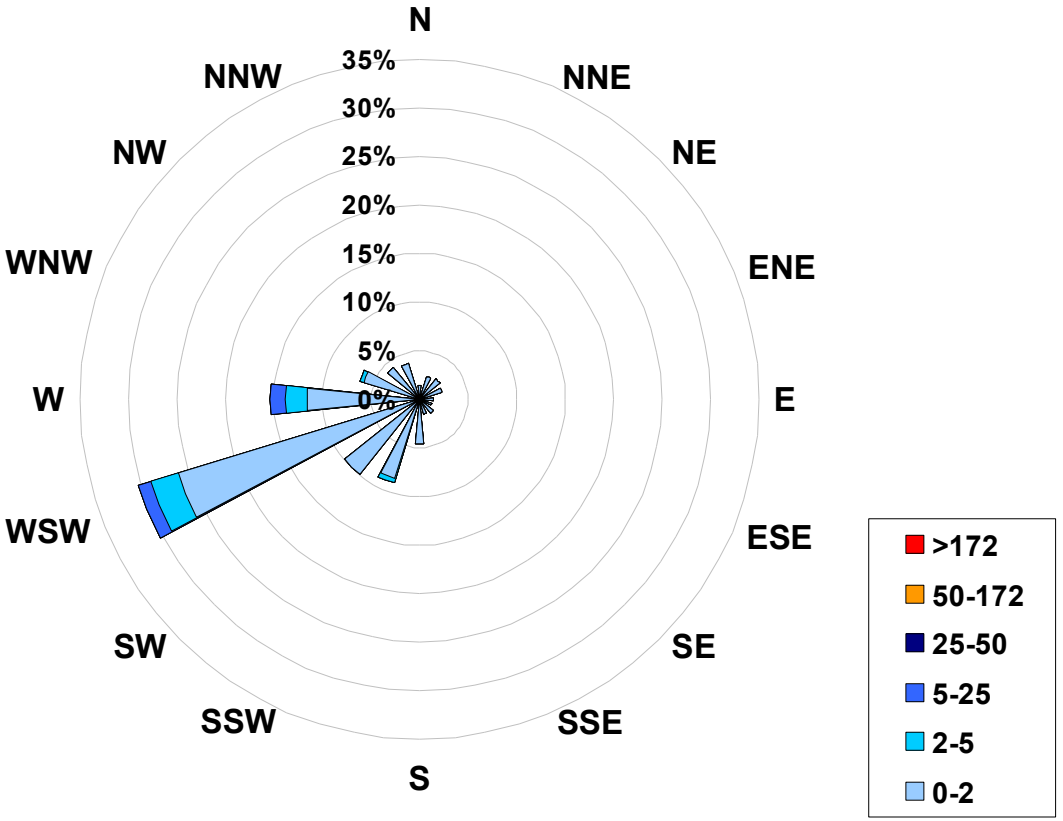


Figure 21. PASZA - Evergreen Park Sulphur Dioxide 1-hr Maximum Value Monthly Trend

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



Calms:	1%

Frequency Distribution of SO_2 in ppb			
Range			Frequency (hrs)
0.0	<	2	618
2	to	5	41
5	to	25	20
25	to	50	0
50	to	172	0
	>	172	0
Total Non-Zero Values			679

PASZA - Evergreen Park Total Reduced Sulphur Monthly Summary

Station: Evergreen Park
Station Owner: PASZA

HOURLY AVERAGE TABLE

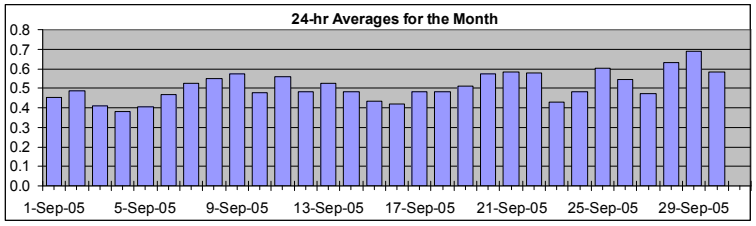
Total Reduced Sulphur (TRS)

Monitoring Dates: September 1, 2005 to October 1, 2005

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

Summary

Maximum 1-hr Average:	1.2	ppb	29-Sep	9:00 10:00
Maximum 24-hr Value:	0.7	ppb	29-Sep	



AIC Time:	33 hrs	Operational Time:	685 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	0.8	0.7	0.6	0.5	0.4	0.3	0.3	0.5 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	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-05	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.5	0.6
2-Sep-05	1	0	0	0	0	A	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.5	0.9
3-Sep-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
4-Sep-05	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
5-Sep-05	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.4	0.5
6-Sep-05	1	A	0	0	0	0	0	0	1	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0.5	0.5
7-Sep-05	A	0	1	1	1	1	1	0	1	0	1	1	1	1	1	0	1	1	0	0	0	0	0	A	0.5	0.7
8-Sep-05	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.8
9-Sep-05	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0.6	0.8
10-Sep-05	0	0	1	1	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.6
11-Sep-05	0	0	0	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	0.6	0.8
12-Sep-05	1	0	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.5	0.7
13-Sep-05	0	A	0	0	0	0	0	0	1	0	0	1	1	0	1	0	0	1	1	1	1	1	1	1	0.5	0.9
14-Sep-05	A	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0.5	0.7
15-Sep-05	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	A	0	0.4	0.7
16-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0.4	0.5
17-Sep-05	0	0	0	0	0	1	0	1	0	0	0	0	1	1	1	1	1	1	0	1	A	1	0	0	0.5	0.6
18-Sep-05	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0	A	0	1	0	0	0.5	0.6
19-Sep-05	0	0	0	0	0	0	0	0	1	1	0	C	C	A	A	0	1	1	1	1	1	1	1	1	0.5	0.6
20-Sep-05	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0.6	0.8
21-Sep-05	0	0	0	1	A	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.6	0.8
22-Sep-05	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0.6	0.7
23-Sep-05	0	0	A	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
24-Sep-05	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	0	1	1	1	1	1	0.5	0.6
25-Sep-05	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.6	0.7
26-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	A	0	0.5	0.7
27-Sep-05	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	1	1	1	1	A	1	0	0.5	0.6
28-Sep-05	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.6	1.0
29-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	1.2
30-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0	0.6	0.8
																									N	0.0
Hourly Avg	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		
Hourly Max	0.8	0.7	0.7	0.8	0.7	0.8	0.9	0.8	1.0	1.2	1.0	0.8	0.7	0.9	0.8	0.7	0.7	0.6	0.7	0.7	0.7	0.8	0.9	0.6		

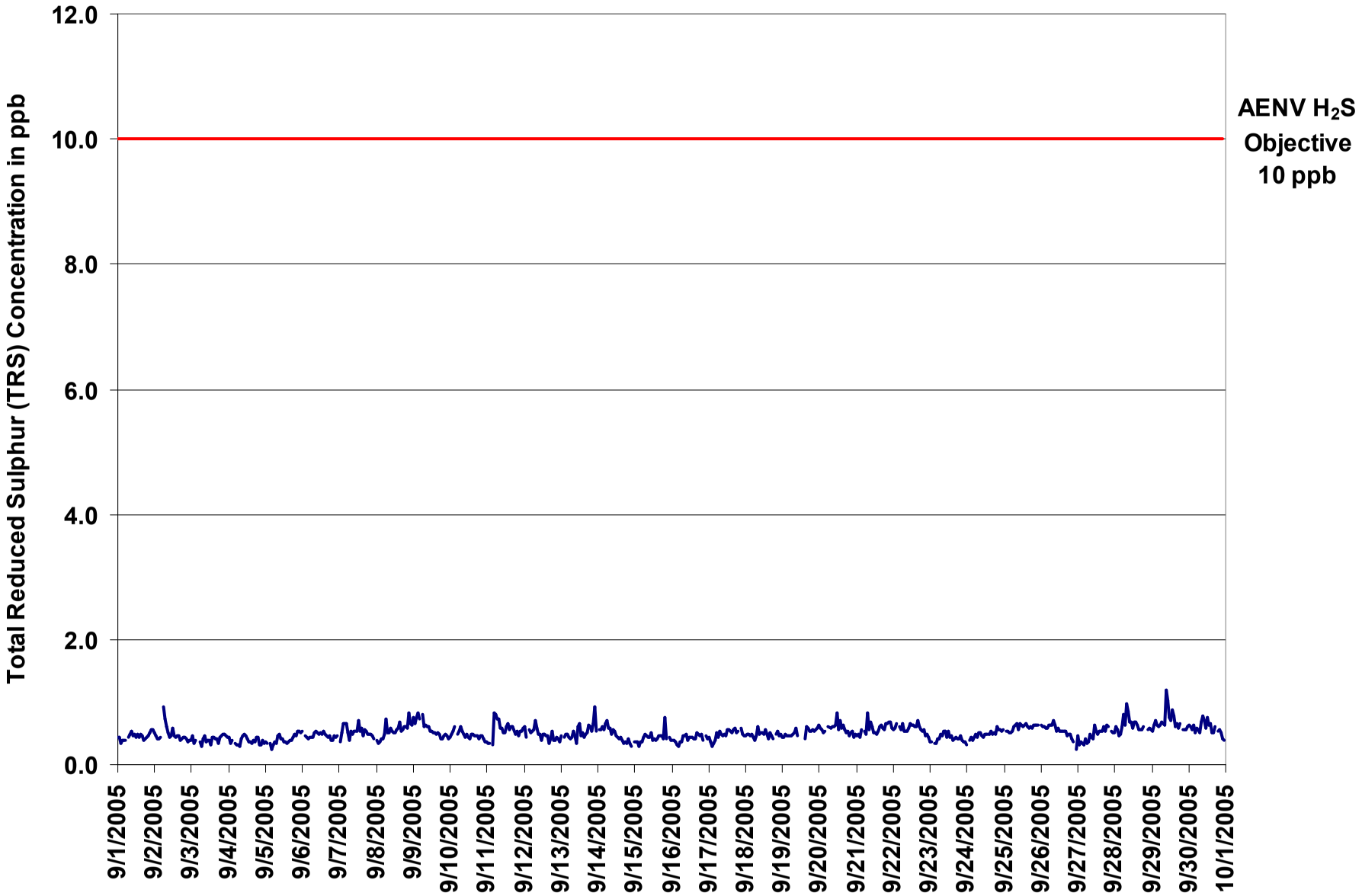


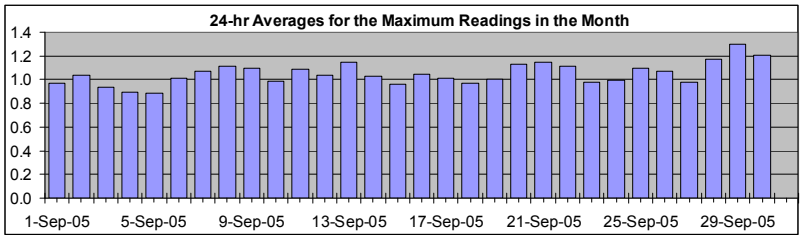
Figure 22. PASZA - Evergreen Park Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Evergreen Park
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Total Reduced Sulphur (TRS)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Value:	3.7	ppb	16-Sep	19:00 20:00
Maximum 24-hr Value:	1.3	ppb	29-Sep	

AIC Time:	33 hrs	Operational Time:	685 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	1.8	1.4	1.1	1.0	0.9	0.8	0.7	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-05	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.2
2-Sep-05	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.8
3-Sep-05	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1
4-Sep-05	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1
5-Sep-05	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1
6-Sep-05	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.2
7-Sep-05	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.1	1.4
8-Sep-05	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1.1	1.9
9-Sep-05	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.4
10-Sep-05	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4
11-Sep-05	1	1	1	A	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.7
12-Sep-05	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1.0	1.7
13-Sep-05	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	2	2	1	1.1	1.7
14-Sep-05	A	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.0	1.6
15-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	A	1	1.0	1.9
16-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	A	1	1	1.0	3.7
17-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.0	1.4
18-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.0	1.1
19-Sep-05	1	1	1	1	1	1	1	1	1	1	1	C	C	A	A	1	1	1	1	1	1	1	1	1	1.0	1.2
20-Sep-05	1	1	1	1	1	A	1	1	1	1	1	1	1	2	1	1	1	1	2	1	1	1	1	1	1.1	1.6
21-Sep-05	1	1	1	1	A	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.1
22-Sep-05	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1.1	2.1
23-Sep-05	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1.0	1.6
24-Sep-05	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3
25-Sep-05	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	A	1.1	1.7
26-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.1	1.4
27-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.0	1.2
28-Sep-05	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.2	1.6
29-Sep-05	1	1	1	1	1	1	1	1	1	3	2	1	1	2	1	1	1	1	1	A	1	1	1	1	1.3	3.2
30-Sep-05	1	1	1	1	1	1	1	1	1	1	2	1	3	1	2	1	1	1	A	1	1	1	1	1	1.2	2.9
																									N	0.0
Hourly Avg	1.0	1.0	1.0	1.0	0.9	1.0	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	1.1	1.0	1.1	1.0	1.0		
Hourly Max	1.3	1.3	1.3	1.4	1.3	1.7	1.9	2.1	1.6	3.2	1.7	1.4	2.9	1.7	1.7	1.7	2.1	1.7	1.6	3.7	1.9	1.8	1.7	1.3		

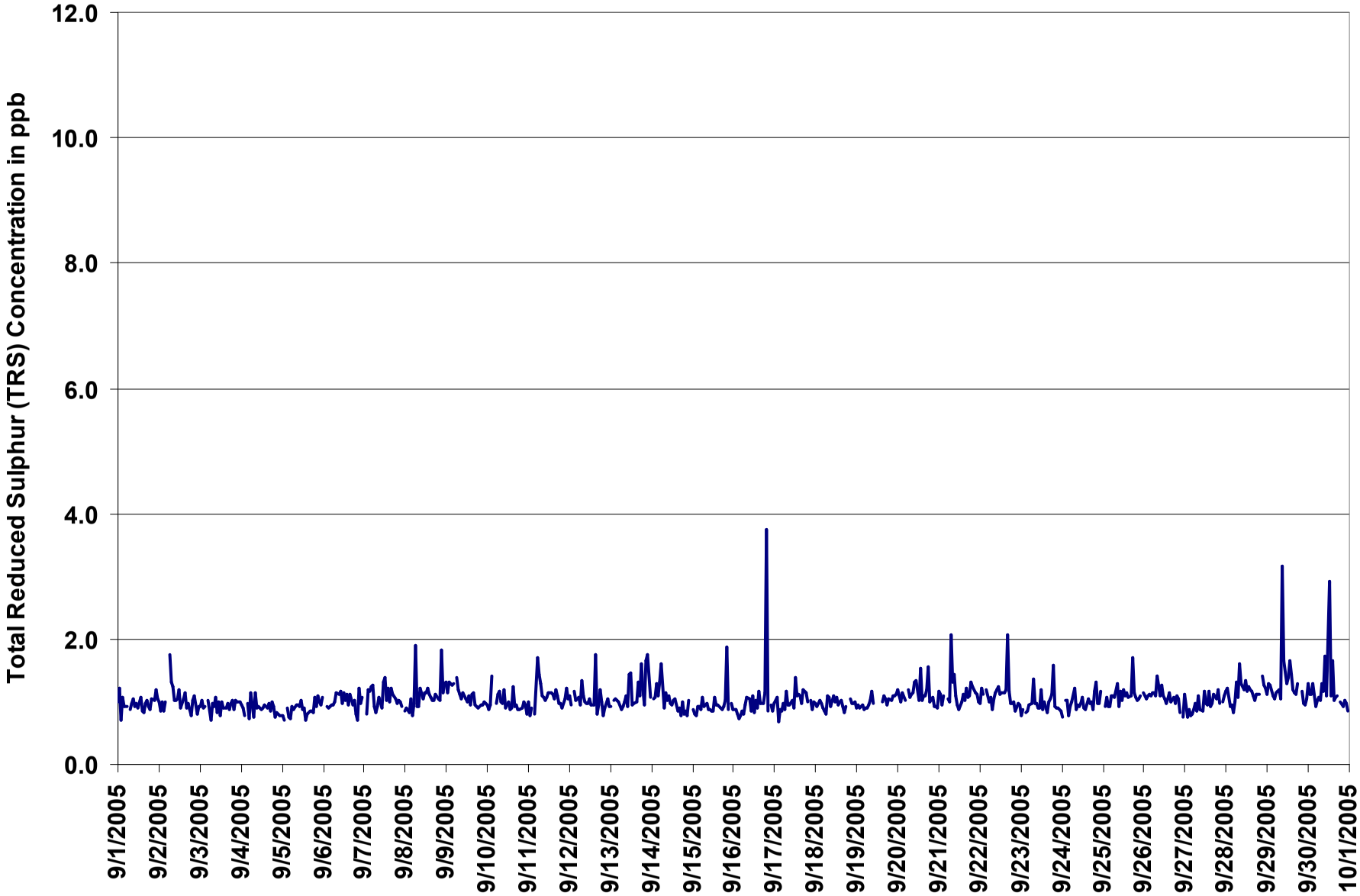
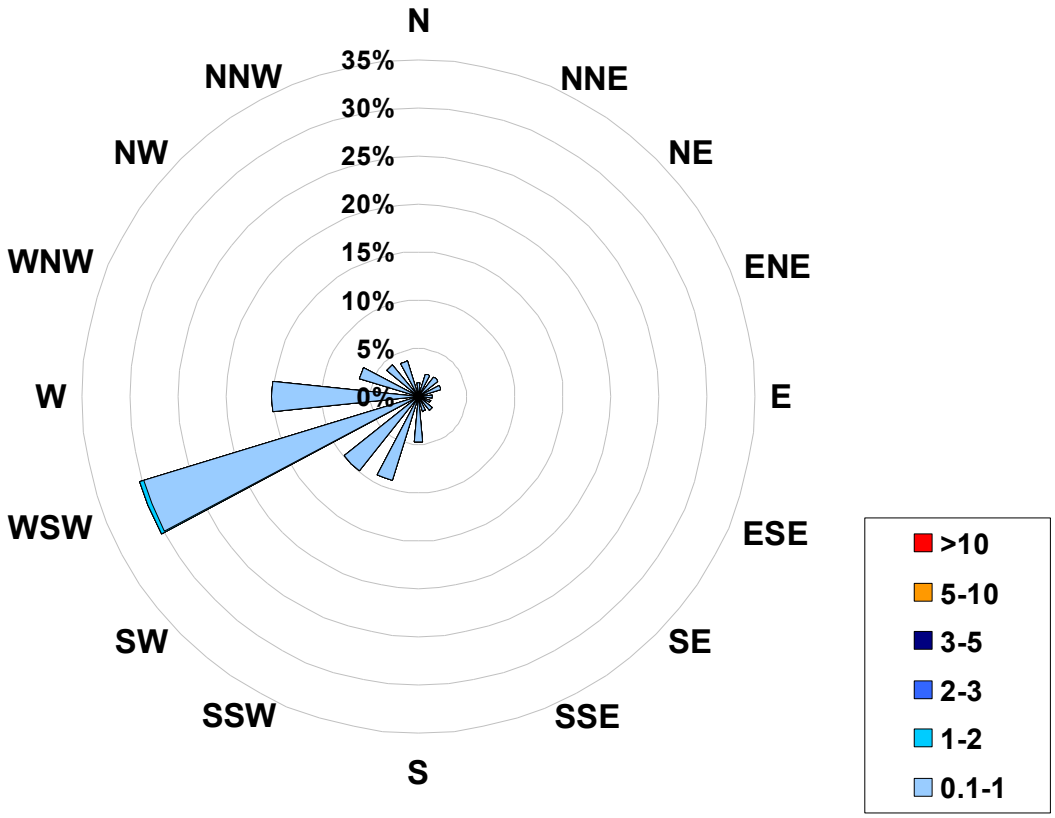


Figure 23. PASZA - Evergreen Park Total Reduced Sulphur 1-hr Maximum Value Monthly Trend

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



Calms:	1%

Frequency Distribution of TRS in ppb			
Range			Frequency (hrs)
0.1	<	1	683
1	to	2	2
2	to	3	0
3	to	5	0
5	to	10	0
	>	10	0
Total Non-Zero Values			685

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

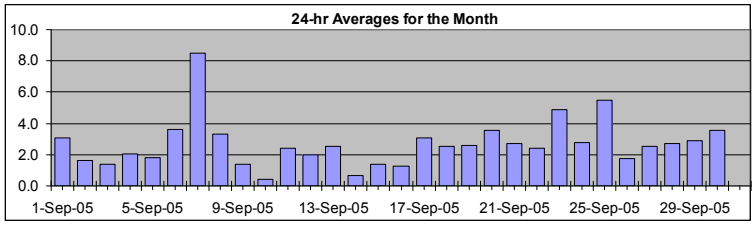
Station: Evergreen Park
Station Owner: PASZA

HOURLY AVERAGE TABLE

Particulate Matter ($PM_{2.5}$)

Monitoring Dates: September 1, 2005 to October 1, 2005

Draft Objective Limit: **Alberta Environment:** 1-hr - $\mu g/m^3$ | 24-hr 30 $\mu g/m^3$



Summary

Number of 24-hr Exceedances (draft):	0			
Maximum 1-hr Average:	36.6	$\mu g/m^3$	7-Sep	12:00 13:00
Maximum 24-hr Value:	8.5	$\mu g/m^3$	7-Sep	

AIC Time:	0 hrs	Operational Time:	707 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	98.5%

Percentile	99	95	75	50	25	5	1	Average	Geomean
	21.4	10.1	3.4	1.5	0.0	0.0	0.0	2.7 $\mu g/m^3$	2.3 $\mu g/m^3$

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 / 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-05	0	0	1	2	3	4	13	15	8	5	0	0	0	0	0	2	2	1	1	2	6	6	2	0	3.1	14.7
2-Sep-05	0	0	0	0	2	4	1	5	5	1	0	0	0	4	1	4	6	1	1	1	0	0	2	1	1.6	6.2
3-Sep-05	1	0	0	3	0	0	0	5	0	2	0	1	0	0	0	0	0	1	3	5	5	3	2	1	1.4	5.3
4-Sep-05	2	0	2	1	0	1	1	11	0	1	1	0	0	0	2	0	0	1	4	10	4	5	0	4	2.1	10.9
5-Sep-05	3	0	0	0	0	0	3	13	D	0	0	0	0	0	2	2	1	1	2	3	3	2	3	3	1.8	13.3
6-Sep-05	2	2	1	1	1	1	3	11	1	3	3	3	2	2	8	5	4	6	9	7	4	3	4	3	3.6	10.9
7-Sep-05	1	1	1	4	5	5	6	6	9	13	14	8	37	12	24	13	30	0	3	0	5	5	0	1	8.5	36.6
8-Sep-05	0	0	0	0	0	0	2	1	0	3	12	10	15	8	0	10	0	2	2	3	5	2	1	3	3.3	15.0
9-Sep-05	1	0	1	2	1	2	3	4	3	2	0	0	0	0	2	3	0	0	2	2	1	0	2	1	1.4	3.5
10-Sep-05	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	3	1	0	0	1	0.4	3.4
11-Sep-05	1	0	1	2	3	2	1	1	3	5	5	0	5	0	3	1	4	4	5	5	2	2	2	2	2.4	5.4
12-Sep-05	3	0	0	0	0	1	4	5	1	D	0	0	0	4	2	5	0	0	3	5	5	3	3	1	2.0	4.8
13-Sep-05	0	0	1	2	3	2	1	2	3	2	5	5	6	6	6	4	0	3	2	3	0	0	0	3	2.5	6.1
14-Sep-05	2	D	D	0	0	2	0	1	3	1	0	0	0	0	0	3	0	0	0	0	0	1	0	1	0.7	3.3
15-Sep-05	1	1	0	0	0	1	1	1	0	0	0	2	0	0	1	0	1	3	5	4	5	4	2	1	1.4	4.6
16-Sep-05	1	0	0	0	1	1	1	2	5	2	0	1	0	0	0	1	3	2	3	6	1	1	0	0	1.2	6.0
17-Sep-05	1	2	0	0	0	2	2	14	9	4	2	7	2	0	4	5	5	3	1	3	3	3	3	1	3.1	14.0
18-Sep-05	2	3	2	1	0	1	1	3	2	2	1	0	5	7	1	2	4	7	2	8	6	0	0	0	2.5	7.6
19-Sep-05	0	D	0	0	0	0	0	0	0	9	0	4	20	C	C	11	5	1	0	0	0	D	0	0	2.6	20.0
20-Sep-05	0	0	0	0	0	0	0	2	1	9	1	25	1	18	6	11	3	2	3	2	1	1	0	0	3.6	24.6
21-Sep-05	0	0	0	0	0	2	3	4	2	19	7	D	0	0	6	2	11	2	0	1	4	1	0	0	2.7	18.9
22-Sep-05	1	0	1	1	0	1	5	7	3	3	6	1	0	0	0	4	13	2	2	3	2	2	1	0	2.4	13.0
23-Sep-05	1	2	0	0	0	3	7	15	6	5	3	6	14	1	1	7	22	4	7	7	2	2	2	2	4.9	21.5
24-Sep-05	2	3	2	2	1	3	8	6	4	4	2	2	4	4	3	7	6	0	D	1	1	0	0	0	2.8	8.2
25-Sep-05	0	0	0	0	0	0	2	2	22	11	23	29	4	8	5	6	2	3	2	4	1	2	5	2	5.5	29.0
26-Sep-05	1	D	0	1	2	5	7	3	3	3	0	2	2	2	1	2	3	1	1	0	0	0	0	0	1.7	7.1
27-Sep-05	3	0	1	0	0	4	0	5	14	2	0	3	0	0	D	1	2	5	3	5	3	3	2	1	2.5	13.8
28-Sep-05	3	3	3	2	2	0	0	1	5	4	3	8	4	10	15	0	1	0	0	2	0	0	0	0	2.7	15.5
29-Sep-05	0	0	0	0	0	0	0	0	2	8	3	2	6	2	11	1	17	3	1	5	3	2	2	2	2.9	16.8
30-Sep-05	2	1	1	3	2	2	3	0	4	13	D	0	8	0	7	0	1	9	1	8	7	5	3	4	3.6	12.5
																									N	0.0
Hourly Avg	1.2	0.6	0.6	0.9	1.0	1.6	2.6	4.9	4.1	4.6	3.2	4.1	4.5	3.1	4.0	3.7	4.9	2.3	2.4	3.5	2.6	1.9	1.3	1.3		
Hourly Max	3.3	3.0	3.2	4.0	4.7	4.6	13.2	14.7	21.6	18.9	23.3	29.0	36.6	18.1	24.3	13.0	29.5	8.5	9.0	9.6	6.7	6.4	4.6	4.4		

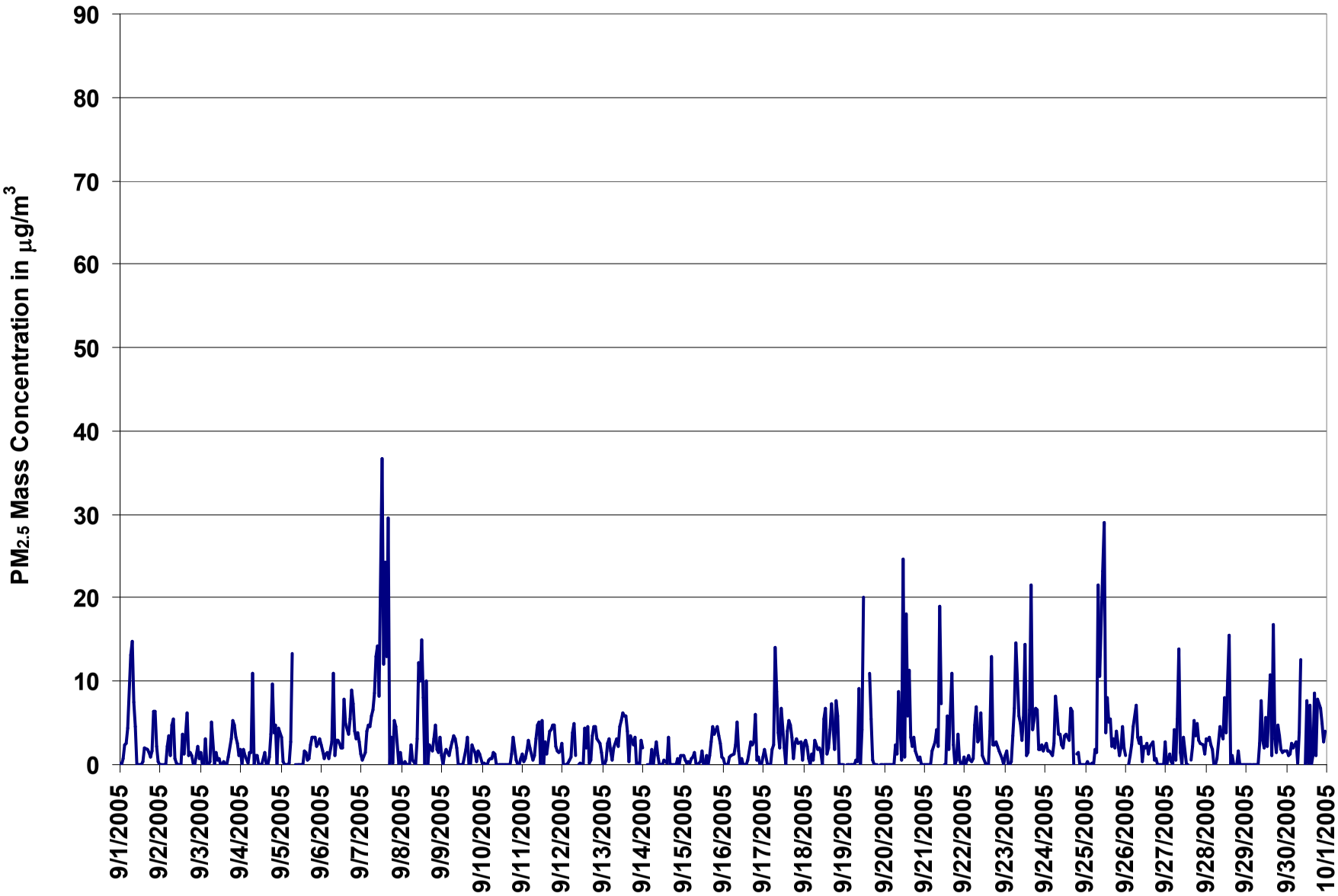


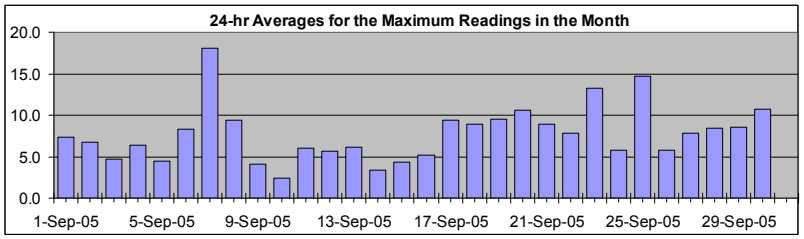
Figure 24. PASZA - Evergreen Park Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

HOURLY MAXIMUM TABLE

Particulate Matter ($PM_{2.5}$)

Station: Evergreen Park
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Average:	81.0	µg/m³	25-Sep	11:00 12:00
Maximum 24-hr Value:	18.1	µg/m³	7-Sep	

AIC Time:	0 hrs	Operational Time:	707 hrs	
Calibration Time:	2 hrs	AMD Operational Uptime:	98.5%	

Percentile	99	95	75	50	25	5	1	Average	Geomean
	45.3	24.9	9.0	5.0	2.8	0.7	0.0	7.8 µg/m³	7.1 µg/m³

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-05	2	4	4	4	5	7	17	25	12	9	3	6	3	4	4	7	6	4	6	9	13	14	5	2	7.3	25.1
2-Sep-05	2	4	2	3	9	7	2	12	11	13	3	3	6	8	10	9	17	8	11	5	2	2	8	6	6.8	17.2
3-Sep-05	4	2	1	7	2	0	4	10	5	9	4	3	5	3	5	5	5	3	6	9	6	5	5	3	4.7	9.8
4-Sep-05	5	5	5	2	1	4	4	16	8	3	4	2	2	3	5	4	3	3	10	19	7	10	12	13	6.3	18.7
5-Sep-05	9	5	1	1	1	2	5	20	D	3	2	2	3	4	4	4	4	5	4	5	5	4	4	4	4.5	20.4
6-Sep-05	4	3	2	2	3	2	7	17	6	5	5	11	12	7	19	14	7	16	16	11	7	8	8	6	8.3	19.5
7-Sep-05	3	3	3	7	7	7	11	11	17	24	28	25	56	23	41	27	50	34	12	8	11	14	8	6	18.1	56.2
8-Sep-05	1	3	11	1	0	1	5	3	1	14	29	21	25	19	9	24	12	15	4	6	9	6	3	5	9.5	29.0
9-Sep-05	5	1	3	3	3	3	5	5	5	4	3	1	1	1	6	8	7	2	8	6	3	2	6	6	4.0	8.0
10-Sep-05	1	1	1	1	2	3	2	3	3	2	1	2	3	2	2	3	3	4	4	7	3	0	0	5	2.4	6.6
11-Sep-05	2	2	3	6	5	4	2	4	11	11	13	4	15	10	7	4	7	7	7	7	4	2	3	3	6.0	14.9
12-Sep-05	4	3	1	2	3	3	8	9	4	D	5	2	2	10	8	21	2	5	6	7	11	6	5	4	5.6	20.8
13-Sep-05	1	1	2	4	5	5	2	4	5	7	8	8	9	8	9	11	6	9	22	8	0	3	3	6	6.2	21.5
14-Sep-05	4	D	D	1	6	7	2	3	4	4	2	5	4	4	3	13	2	1	1	0	1	2	2	3	3.4	13.2
15-Sep-05	2	2	1	2	1	2	2	3	2	1	3	7	2	4	6	6	6	8	11	7	11	7	4	3	4.3	11.5
16-Sep-05	2	0	1	1	3	2	2	6	9	9	3	5	3	8	6	6	13	5	6	28	3	2	1	1	5.1	28.2
17-Sep-05	4	5	3	0	0	6	5	25	25	7	5	22	14	4	21	15	19	17	3	5	5	6	8	3	9.4	25.2
18-Sep-05	6	6	4	3	1	3	2	9	7	8	5	5	18	19	5	9	17	27	5	23	13	4	7	8	8.9	27.2
19-Sep-05	2	D	0	2	2	2	2	2	2	25	9	10	45	C	C	45	34	4	2	2	0	D	0	0	9.5	45.5
20-Sep-05	0	0	1	0	0	0	1	6	7	21	15	41	14	39	36	35	18	5	5	4	2	3	3	1	10.6	41.3
21-Sep-05	1	1	0	0	2	4	13	13	4	36	25	D	1	3	10	9	36	19	7	7	10	3	1	0	8.9	36.0
22-Sep-05	6	2	4	2	3	6	7	11	11	5	17	9	4	2	5	15	42	5	10	9	5	5	3	2	7.9	41.7
23-Sep-05	4	3	3	4	3	8	11	20	20	21	8	25	32	10	10	9	71	7	12	17	5	4	8	2	13.3	71.2
24-Sep-05	3	4	4	3	4	7	11	11	5	7	7	5	7	9	6	11	15	4	D	3	4	1	1	1	5.8	15.1
25-Sep-05	1	2	1	1	1	1	4	5	65	32	58	81	10	24	11	12	4	7	6	6	3	3	8	5	14.7	81.0
26-Sep-05	4	D	3	4	6	15	15	6	6	5	7	7	8	7	7	9	7	5	2	1	2	3	3	2	5.8	15.2
27-Sep-05	5	2	4	5	3	9	3	14	23	12	5	11	3	2	D	11	8	10	6	12	12	10	6	3	7.8	22.9
28-Sep-05	6	6	6	6	6	2	3	6	15	14	11	23	16	17	23	18	4	4	3	5	2	1	3	1	8.4	23.1
29-Sep-05	1	1	1	1	0	3	0	2	7	15	14	9	18	15	30	10	37	12	6	8	6	3	3	3	8.6	36.5
30-Sep-05	3	3	4	5	4	4	7	3	19	45	D	5	33	16	17	4	4	25	4	15	11	8	4	7	10.7	44.9
																									N	0.0
Hourly Avg	3.3	2.7	2.7	2.8	3.0	4.3	5.4	9.4	11.0	12.7	10.5	12.5	12.6	9.7	11.6	12.6	15.5	9.2	7.1	8.6	5.8	4.8	4.5	3.9		
Hourly Max	9.1	6.3	11.0	7.3	8.9	15.2	16.7	25.1	64.9	44.9	58.0	81.0	56.2	38.8	40.6	45.3	71.2	33.8	21.5	28.2	12.5	14.0	12.1	12.8		

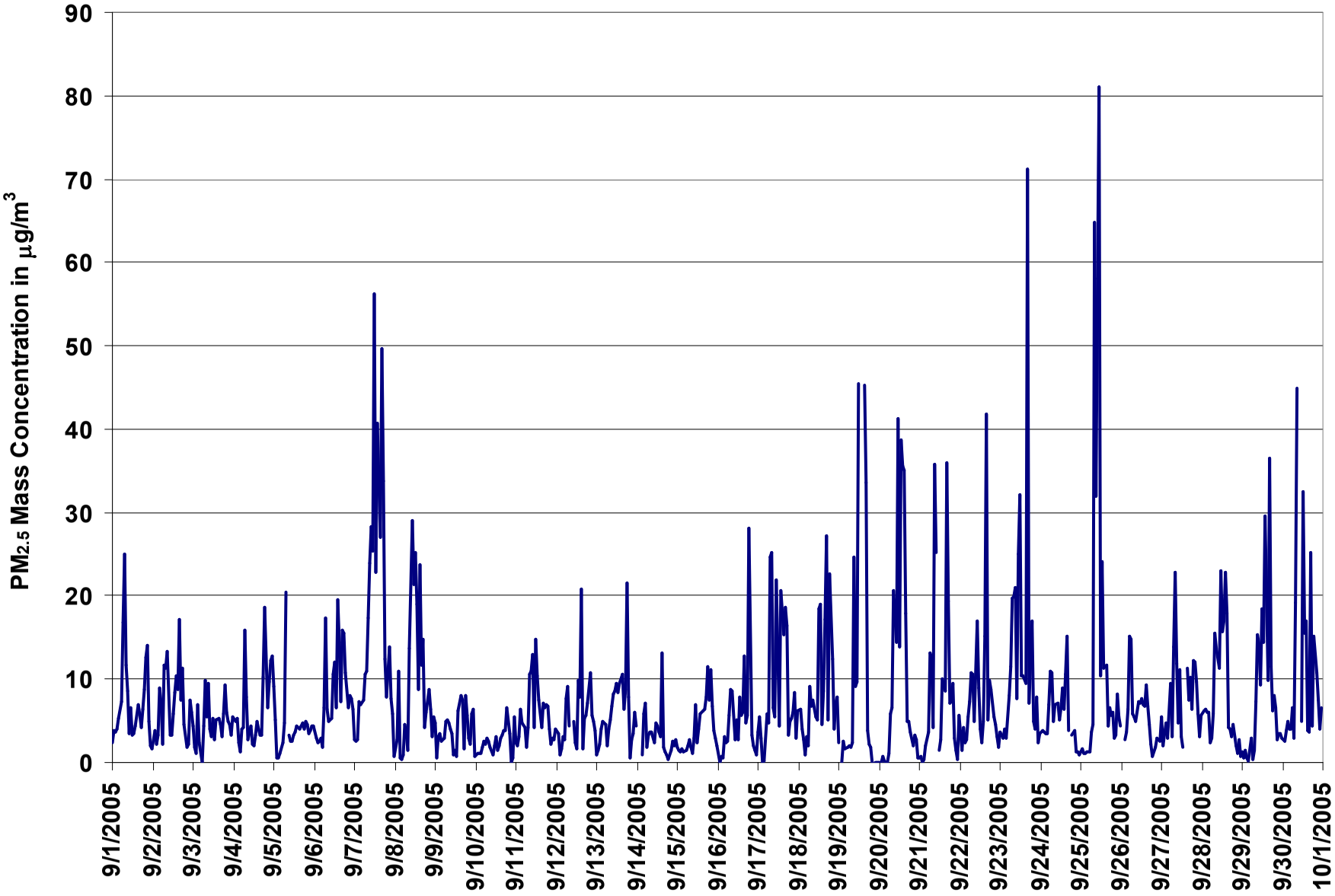
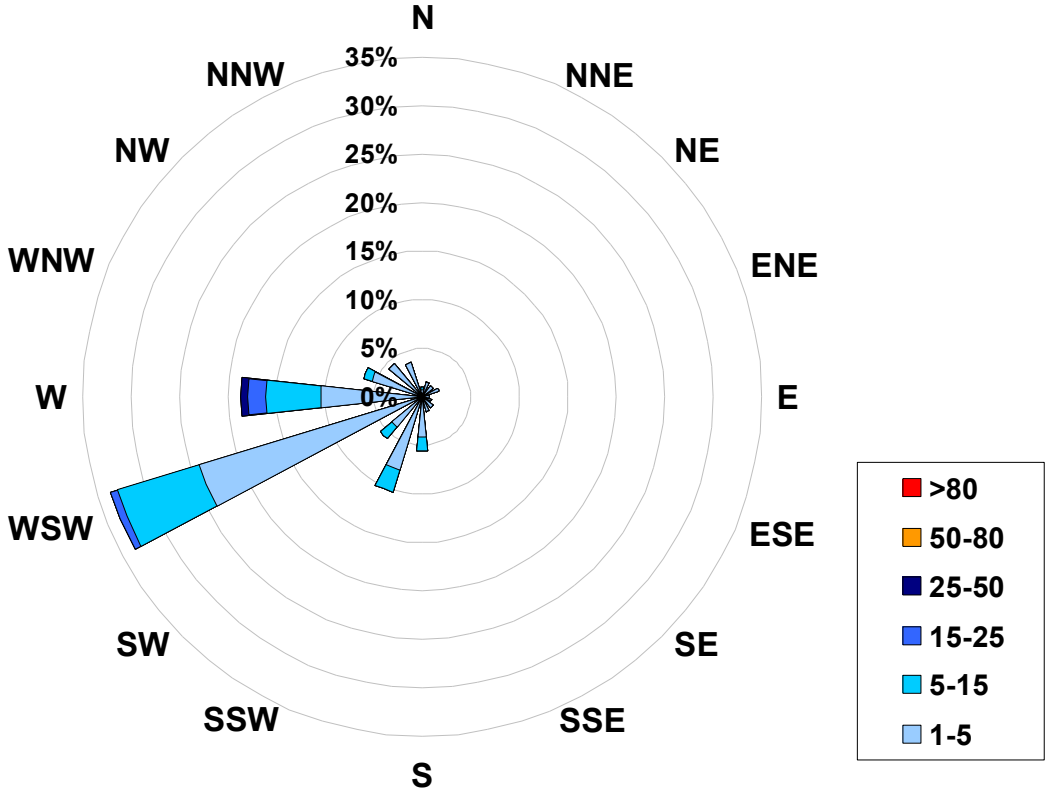


Figure 25. PASZA - Evergreen Park Particulate Matter (less than 2.5 microns) 1-hr Maximum Value Monthly Trend

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



Calms:	1%

Frequency Distribution of $PM_{2.5}$ in $\mu g/m^3$			
Range			Frequency (hrs)
1.0	<	5	603
5	to	15	90
15	to	25	11
25	to	50	3
50	to	80	0
	>	80	0
Total Non-Zero Values			707

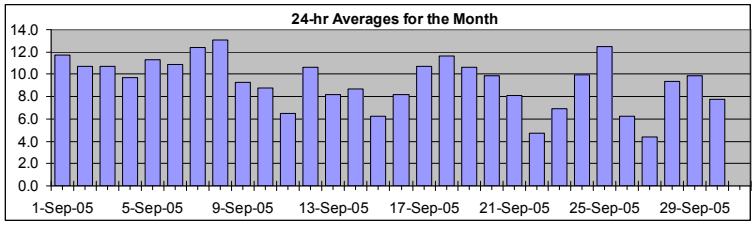
PASZA - Evergreen Park Temperature Monthly Summary

Station: Evergreen Park
Station Owner: PASZA

HOURLY AVERAGE TABLE

Ambient Temperature (T)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Average:	22.0	°C	6-Sep	16:00 17:00
Maximum 24-hr Value:	13.1	°C	8-Sep	

AIC Time:	0 hrs	Operational Time:	720 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	19.8	17.7	12.6	9.6	6.0	0.3	-1.4	9.3 °C

Status Flag Characters

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

Day — **Mountain Standard Time**

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-05	7	5	4	4	3	2	2	6	10	13	15	16	17	18	19	19	20	18	17	15	14	12	11	11	11.7	19.7
2-Sep-05	10	8	7	6	5	5	6	6	7	8	11	15	17	17	18	16	14	15	15	14	11	10	8	8	10.7	18.0
3-Sep-05	8	9	7	7	8	5	4	6	8	10	11	12	14	16	16	17	17	17	16	14	12	10	8	5	10.7	17.4
4-Sep-05	4	3	2	1	0	-1	-1	2	7	10	13	15	16	17	17	18	18	18	18	13	10	9	12	11	9.7	18.4
5-Sep-05	10	7	5	3	2	1	1	4	10	13	15	16	17	18	19	18	19	18	17	15	12	12	10	8	11.3	18.6
6-Sep-05	5	3	2	0	0	-1	-1	2	7	10	14	17	18	20	21	22	22	22	20	17	15	13	10	6	10.9	22.0
7-Sep-05	5	4	4	4	5	6	6	7	11	15	17	19	19	20	20	19	18	18	17	15	13	12	12	11	12.4	20.1
8-Sep-05	11	9	9	13	12	12	11	12	13	15	16	16	17	17	17	17	17	16	15	11	8	11	9	8	13.1	17.4
9-Sep-05	9	8	7	7	6	7	8	8	9	9	9	10	11	12	12	12	12	12	11	10	10	9	9	8	9.3	12.1
10-Sep-05	8	8	8	8	8	8	8	8	9	9	10	10	11	11	12	12	13	14	13	9	7	5	3	2	8.8	13.6
11-Sep-05	1	0	0	-1	-1	0	0	1	2	3	5	8	12	14	14	14	12	12	11	10	10	10	10	10	6.5	14.4
12-Sep-05	10	10	9	9	9	9	8	9	10	11	12	13	13	14	15	15	15	15	14	9	8	7	6	5	10.6	14.6
13-Sep-05	4	2	1	2	3	5	5	6	7	8	9	9	10	11	12	13	12	13	13	12	11	11	10	9	8.2	13.0
14-Sep-05	11	11	10	9	9	9	8	8	8	8	9	9	10	10	11	10	10	9	9	8	7	6	5	5	8.7	10.9
15-Sep-05	5	5	5	5	5	5	5	6	6	6	6	7	7	7	7	8	8	8	7	7	7	6	6	6	6.2	7.7
16-Sep-05	5	4	2	1	0	1	1	1	1	3	6	10	13	15	16	16	16	16	14	13	12	11	10	10	8.2	16.2
17-Sep-05	9	7	5	3	1	1	0	2	7	11	14	16	17	18	18	18	18	17	15	14	12	12	10	10	10.7	18.3
18-Sep-05	9	6	5	9	9	6	3	5	9	10	14	16	18	19	18	18	19	17	16	14	11	10	10	9	11.7	18.9
19-Sep-05	9	10	9	8	7	6	6	7	9	11	13	14	14	15	15	15	14	13	12	10	10	10	9	9	10.6	14.9
20-Sep-05	8	8	8	7	7	6	6	7	8	10	12	13	14	14	14	13	13	13	12	11	10	9	8	7	9.9	13.9
21-Sep-05	6	6	5	5	4	4	2	5	7	9	11	12	13	13	12	11	12	11	11	10	9	6	5	5	8.1	13.1
22-Sep-05	3	1	0	-1	0	-2	-2	-2	2	5	8	10	12	12	12	12	10	10	8	6	3	2	1	0	4.7	12.4
23-Sep-05	-1	0	0	0	-1	-1	0	1	4	7	9	11	12	13	13	13	13	12	11	11	10	10	10	10	6.9	13.5
24-Sep-05	9	9	8	7	6	5	4	4	7	10	11	12	13	14	14	14	11	12	12	12	12	12	11	11	10.0	14.1
25-Sep-05	10	10	9	9	9	10	11	12	13	14	15	15	16	16	15	16	16	16	14	12	11	10	9	10	12.5	15.9
26-Sep-05	10	12	12	11	10	9	7	6	6	6	6	6	6	6	6	6	6	6	5	4	3	2	0	-1	6.3	12.4
27-Sep-05	0	-1	-1	-1	-2	-2	-2	-2	0	3	5	7	9	11	13	14	14	12	10	7	4	2	1	1	4.4	13.7
28-Sep-05	2	2	2	2	3	4	5	6	5	7	9	13	17	18	17	15	15	15	14	13	11	10	11	10	9.4	18.0
29-Sep-05	10	10	10	10	10	10	9	8	9	10	11	11	12	12	12	12	13	12	10	8	7	8	7	6	9.9	12.6
30-Sep-05	6	6	5	5	7	7	6	6	7	9	10	12	12	13	13	13	13	13	11	7	5	3	1	1	7.8	13.2
																									N	0.0
Hourly Avg	6.8	6.0	5.3	5.0	4.8	4.5	4.2	5.2	7.3	9.2	10.9	12.4	13.5	14.4	14.6	14.6	14.3	14.0	12.9	11.0	9.5	8.6	7.7	7.0		
Hourly Max	10.7	11.5	12.4	12.5	12.4	11.7	11.0	12.1	13.2	15.2	17.2	18.5	19.2	19.8	20.9	21.6	22.0	21.8	20.0	16.8	15.3	13.2	12.4	11.4		

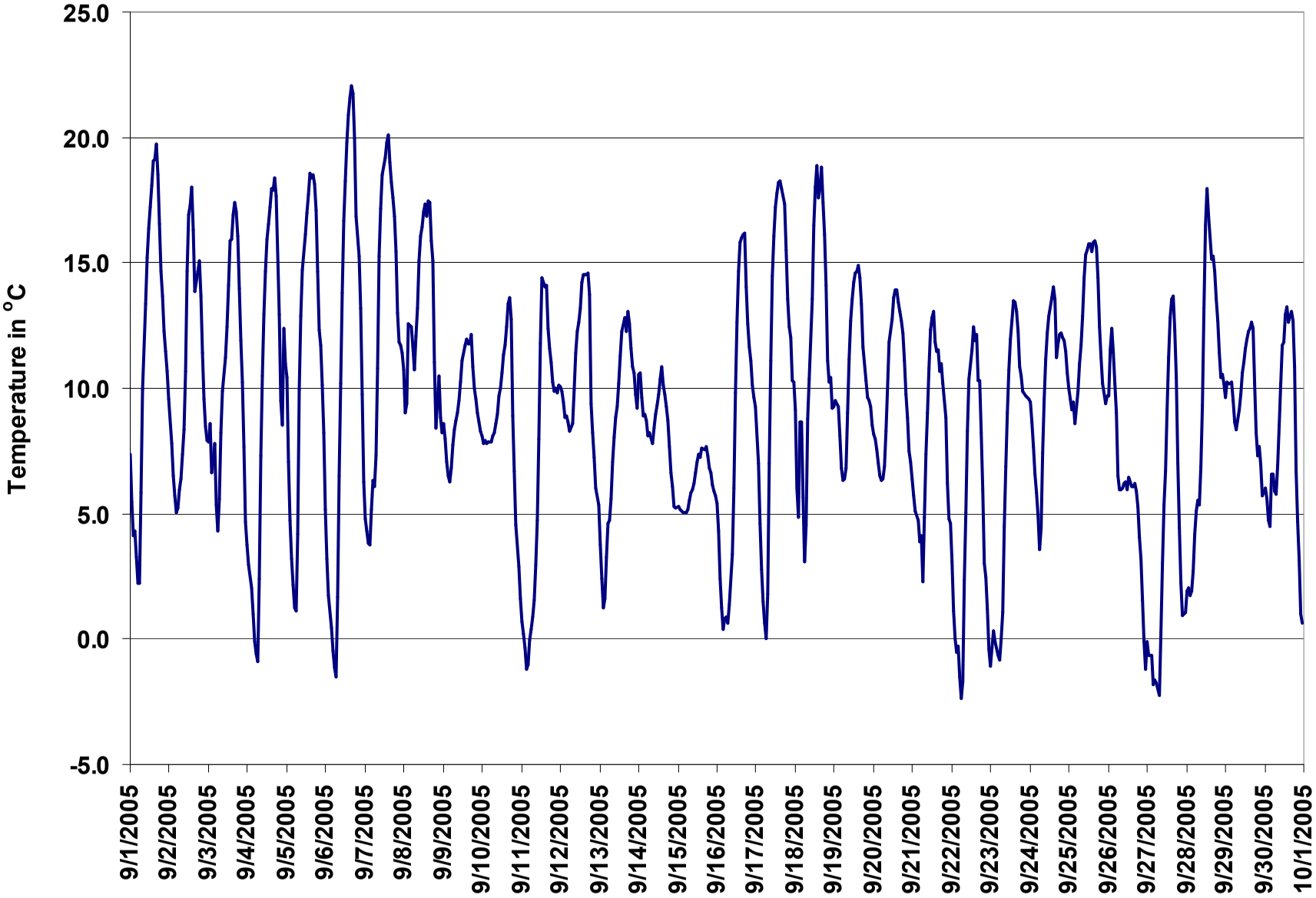


Figure 26. PASZA - Evergreen Park Temperature 1-hr Average Monthly Trend

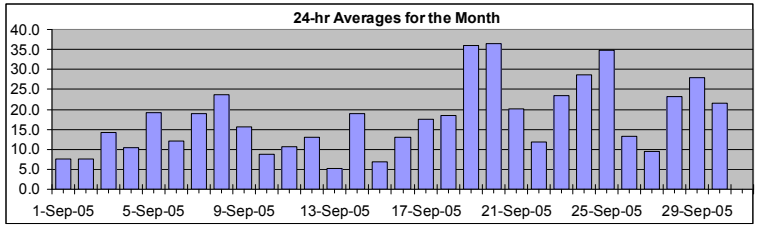
PASZA - Evergreen Park Scalar Wind Speed Monthly Summary

Station: Evergreen Park
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Speed (WSs)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Average:	62.8	km/hr	28-Sep	16:00 17:00
Maximum 24-hr Value:	36.5	km/hr	20-Sep	

Calm Time:	6 hrs	**1%** calms	Operational Time: 709 hrs
Calibration Time:	0 hrs		AMD Operational Uptime: 99.3%

Percentile	99	95	75	50	25	5	1	AverageS
	55.5	45.4	25.8	14.0	6.7	2.4	1.3	17.6 km/hr

Status Flag Characters

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

Day — **Mountain Standard Time**

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-hr Scalar Average	Daily Max
1-Sep-05	9	6	3	2	4	2	10	6	7	7	11	13	14	11	7	10	10	11	7	7	11	6	3	4	7.5	14.0
2-Sep-05	2	2	3	4	3	6	5	8	8	7	7	6	9	10	9	11	11	15	13	15	10	5	6	6	7.5	14.8
3-Sep-05	7	7	6	10	10	5	4	8	11	14	18	18	21	30	26	23	27	33	19	13	12	11	7	2	14.3	32.7
4-Sep-05	6	4	4	4	3	5	2	1	10	20	16	15	15	21	17	15	15	15	12	5	1	7	20	13	10.3	21.2
5-Sep-05	15	6	2	calm	calm	3	2	2	13	27	35	33	36	35	33	32	29	27	24	16	14	17	12	7	19.1	36.3
6-Sep-05	3	4	1	1	calm	1	2	4	7	7	11	18	28	28	25	24	24	27	15	13	14	10	4	4	12.0	28.4
7-Sep-05	3	1	3	3	5	5	3	4	11	21	32	40	44	50	48	46	38	32	26	11	1	6	13	12	19.0	49.5
8-Sep-05	10	4	11	24	23	17	16	23	32	46	55	54	48	39	27	35	24	29	12	5	5	11	8	7	23.6	55.0
9-Sep-05	11	12	10	10	10	13	14	15	22	17	18	19	19	19	16	14	12	16	22	21	15	17	15	16	15.5	22.2
10-Sep-05	17	12	12	9	11	10	9	10	7	10	12	14	12	12	11	10	7	8	6	3	4	1	1	3	8.8	16.9
11-Sep-05	2	2	2	2	1	3	2	5	5	4	6	8	10	17	21	25	24	19	16	18	16	16	13	16	10.6	24.9
12-Sep-05	15	16	15	12	10	11	13	14	16	21	22	21	19	21	17	18	15	11	10	2	3	4	1	2	13.0	22.0
13-Sep-05	2	3	3	1	4	3	4	3	6	6	3	5	7	8	7	7	12	7	8	5	5	5	6	4	5.2	12.3
14-Sep-05	32	25	27	20	21	36	23	23	23	22	23	26	22	24	20	15	12	11	8	10	10	6	5	8	18.8	36.4
15-Sep-05	7	9	8	7	7	6	6	6	7	8	10	9	10	10	8	10	10	5	2	3	5	4	4	5	6.9	10.3
16-Sep-05	5	4	2	calm	3	6	8	6	4	5	10	14	14	15	21	22	26	25	22	21	17	18	16	15	13.0	25.7
17-Sep-05	12	5	calm	1	1	2	3	5	9	14	24	33	36	32	33	38	36	32	24	14	11	15	9	15	17.6	38.3
18-Sep-05	10	6	7	23	17	10	4	5	6	6	8	21	40	37	30	23	31	17	17	23	29	30	21	21	18.4	40.0
19-Sep-05	22	30	28	12	11	18	19	25	29	35	46	49	57	53	53	52	56	52	39	33	35	37	35	35	35.9	56.5
20-Sep-05	39	39	34	28	29	26	30	33	41	46	44	51	54	47	50	44	42	31	25	33	33	29	22	26	36.5	54.1
21-Sep-05	26	19	13	12	7	10	6	15	22	38	33	28	27	23	31	32	30	22	17	19	23	8	13	8	20.0	37.7
22-Sep-05	6	4	5	5	8	3	8	7	12	18	14	14	17	16	13	18	30	36	22	7	7	7	4	2	11.8	35.7
23-Sep-05	4	3	5	9	6	6	7	12	20	21	30	28	33	33	38	39	45	43	46	37	21	26	26	25	23.5	46.2
24-Sep-05	26	23	21	17	13	11	8	14	26	29	32	30	28	29	32	36	32	22	38	51	53	46	36	33	28.5	52.8
25-Sep-05	29	27	26	26	16	31	30	40	39	56	60	57	57	50	53	56	43	38	31	18	15	13	10	12	34.7	60.1
26-Sep-05	9	19	23	31	24	14	11	11	9	10	12	13	11	4	8	7	15	21	19	14	13	5	2	calm	13.3	30.8
27-Sep-05	9	8	1	N	N	N	N	N	5	8	7	11	11	15	20	23	20	17	12	3	2	2	3	3	9.4	22.8
28-Sep-05	6	4	3	4	3	9	7	6	4	4	6	9	27	48	43	48	63	46	42	46	34	26	35	33	23.1	62.8
29-Sep-05	25	33	15	32	37	27	36	30	35	39	39	38	38	36	34	31	33	24	19	8	12	18	17	12	27.8	38.9
30-Sep-05	20	17	12	15	36	25	15	19	30	38	38	36	34	31	35	28	29	23	11	5	4	6	5	4	21.4	38.3
																									N	0.0
1-hr Average	12.9	11.8	10.5	12.1	12.1	11.2	10.6	12.4	15.8	20.2	22.7	24.3	26.6	26.7	26.2	26.4	26.8	23.8	19.5	16.0	14.5	13.7	12.4	12.2		
Hourly Max	39.5	38.7	34.0	31.8	37.2	36.4	35.7	39.5	41.3	56.0	60.1	57.3	57.0	53.3	53.0	56.0	62.8	52.0	46.2	51.4	52.8	45.7	35.6	35.0		

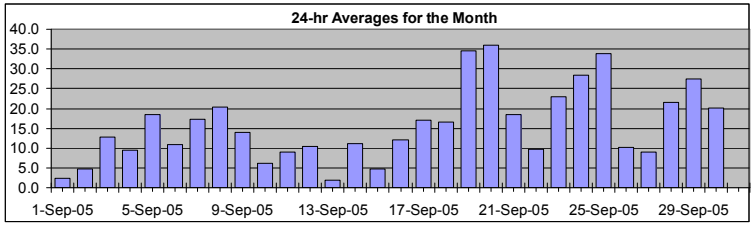
PASZA - Evergreen Park Vector Wind Speed Monthly Summary

Station: Evergreen Park
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005

HOURLY AVERAGE TABLE

Wind Speed (WSv)



Summary

Maximum 1-hr Average:	62.1	km/hr	28-Sep	16:00 17:00
Maximum 24-hr Value:	36.0	km/hr	20-Sep	

Calm Time:	21 hrs	**3%** calms			Operational Time:			694 hrs		
Calibration Time:	0 hrs				AMD Operational Uptime:			99.3%		
Percentile	99	95	75	50	25	5	1			AverageV
	54.9	45.3	25.6	13.2	6.3	1.8	0.9			195.1 km/hr

Status Flag Characters

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

Day — **Mountain Standard Time**

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-hr Vector Average	Daily Max
1-Sep-05	9	4	2	1	calm	calm	10	6	6	6	8	11	12	8	3	7	9	11	7	7	9	5	1	3	2.4	12.2
2-Sep-05	1	2	2	3	3	5	5	7	6	6	6	2	6	9	8	7	9	13	12	15	10	2	6	4	4.8	14.7
3-Sep-05	7	7	6	10	10	2	4	4	10	13	17	18	20	29	24	19	26	32	18	13	12	10	5	calm	12.9	32.1
4-Sep-05	5	2	3	4	2	5	2	calm	9	19	15	13	14	20	15	13	13	14	11	4	1	6	13	13	9.5	20.1
5-Sep-05	13	5	1	calm	calm	3	2	2	13	26	34	32	35	33	32	31	27	27	24	16	13	17	12	7	18.5	34.6
6-Sep-05	3	2	1	calm	calm	1	2	4	6	7	11	17	27	27	24	23	23	26	14	13	14	10	3	3	10.8	26.7
7-Sep-05	2	1	2	2	5	5	2	4	10	20	31	38	43	48	47	45	37	32	25	10	calm	6	13	11	17.3	48.4
8-Sep-05	10	2	6	24	22	17	16	22	32	46	54	54	47	38	26	34	22	28	12	1	1	10	8	6	20.4	54.3
9-Sep-05	10	12	10	10	9	13	13	15	21	17	17	19	17	18	15	10	11	15	21	20	15	17	15	16	14.0	21.3
10-Sep-05	17	12	12	9	11	10	9	10	6	10	12	13	11	11	11	8	5	5	5	3	2	1	calm	3	6.1	16.6
11-Sep-05	2	2	2	1	calm	2	calm	3	3	1	4	7	8	14	20	24	23	19	16	18	16	15	13	15	8.9	23.9
12-Sep-05	15	16	15	12	10	11	13	13	15	20	20	19	17	19	15	15	14	10	10	1	1	1	calm	2	10.3	20.4
13-Sep-05	2	1	calm	1	4	3	4	2	4	6	2	5	7	7	4	2	10	2	7	calm	3	5	5	3	1.9	10.0
14-Sep-05	31	25	27	20	21	35	23	23	23	21	22	25	21	23	19	14	12	10	8	9	10	4	5	8	11.1	35.4
15-Sep-05	7	9	8	6	6	6	5	6	7	8	10	8	9	9	7	9	10	5	2	3	5	3	3	5	4.8	10.0
16-Sep-05	5	4	calm	1	3	6	8	6	4	3	10	12	13	12	20	20	25	24	22	21	17	17	16	15	12.1	25.1
17-Sep-05	11	5	calm	1	1	2	2	5	9	14	24	32	34	30	31	37	36	32	24	14	10	15	9	15	17.0	37.3
18-Sep-05	9	6	7	23	17	4	3	4	5	5	7	19	39	36	30	23	29	16	17	22	28	29	20	18	16.5	39.3
19-Sep-05	22	30	28	9	9	18	19	24	28	34	45	49	56	52	52	52	55	51	39	33	34	37	35	35	34.5	55.9
20-Sep-05	39	39	34	28	29	26	30	33	41	46	43	50	53	46	49	43	41	31	25	32	33	29	21	26	36.0	53.3
21-Sep-05	26	19	13	12	7	10	5	15	21	37	32	25	25	22	29	32	29	19	16	17	20	7	13	8	18.4	37.1
22-Sep-05	3	3	4	4	7	3	8	7	12	17	13	11	14	12	11	17	29	35	22	2	3	6	3	calm	9.7	35.4
23-Sep-05	4	2	5	8	6	5	7	12	20	21	30	27	31	32	37	37	45	43	46	37	20	26	26	25	22.9	45.9
24-Sep-05	26	23	21	17	13	11	8	14	26	29	31	29	27	28	32	35	31	22	37	51	53	45	35	33	28.3	52.5
25-Sep-05	29	26	25	26	16	30	30	39	38	55	59	57	56	49	52	55	43	37	31	18	15	12	10	12	34.0	59.0
26-Sep-05	8	18	22	30	24	11	11	11	9	10	11	11	10	3	6	calm	14	21	19	14	13	4	1	calm	10.2	30.3
27-Sep-05	6	7	1	N	N	N	N	N	5	8	6	10	9	14	18	21	19	17	12	3	1	2	3	3	8.9	21.4
28-Sep-05	6	4	3	4	2	8	7	4	2	3	5	8	25	47	42	48	62	45	42	46	34	26	34	33	21.6	62.1
29-Sep-05	24	32	14	32	37	27	36	30	35	38	38	38	37	35	34	30	33	24	18	8	12	18	17	12	27.5	38.5
30-Sep-05	20	17	9	13	36	24	14	18	30	37	38	35	33	30	34	27	28	23	11	4	1	3	4	calm	20.0	37.5
																									N	0.0
1-hr Vector	10.1	8.7	7.7	10.0	9.6	7.8	7.8	9.9	13.6	17.3	18.9	20.0	21.9	22.5	22.3	22.4	22.5	18.6	15.4	12.9	11.6	11.6	9.8	8.8		
Hourly Max	39.3	38.6	33.9	31.6	37.0	35.4	35.5	39.3	41.1	55.5	59.0	56.7	56.0	52.5	52.2	55.4	62.1	51.4	45.9	51.0	52.5	45.5	35.4	34.8		

PASZA - Evergreen Park Wind Direction Monthly Summary

Station: Evergreen Park
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: September 1, 2005 to October 1, 2005

Summary

Calm Time:	0 hrs	**0%** calms					Operational Time:																		720 hrs	
Calibration Time:	0 hrs						AMD Operational Uptime:																		100.0%	
Percentile	99	95	75	50	25	5	1	Average																		
	344.8	321.4	263.1	245.9	202.7	51.6	11.9	258 deg																		

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	WD Sector
1-Sep-05	206	192	190	194	3	156	197	203	209	198	223	280	257	295	197	14	32	74	83	79	183	237	250	92	216	SW
2-Sep-05	209	219	193	199	209	319	315	269	251	215	221	198	131	113	122	307	203	200	181	192	192	144	209	206	200	SSW
3-Sep-05	231	262	212	250	248	7	216	200	222	217	215	232	243	261	263	274	282	265	264	252	248	252	305	314	253	WSW
4-Sep-05	278	200	284	206	175	199	188	216	250	244	236	267	235	238	248	260	266	246	220	209	170	215	221	202	238	WSW
5-Sep-05	243	202	164	37	272	246	206	228	254	255	261	262	265	267	255	275	281	282	276	261	250	256	249	262	263	W
6-Sep-05	231	202	82	123	216	196	201	189	199	185	195	241	250	255	251	255	251	247	258	240	247	264	236	79	243	WSW
7-Sep-05	67	113	70	237	197	203	201	204	259	248	256	262	268	263	268	274	265	252	244	232	182	191	205	201	255	WSW
8-Sep-05	194	145	222	225	229	247	252	234	245	251	257	256	253	265	283	263	285	327	342	295	305	309	335	340	261	W
9-Sep-05	299	297	290	285	303	314	321	328	337	338	360	16	14	23	359	301	2	356	345	344	346	340	338	339	340	NNW
10-Sep-05	342	340	338	341	331	342	323	335	335	31	39	36	38	36	44	55	60	74	137	161	187	221	123	192	13	NNE
11-Sep-05	176	184	11	82	129	151	140	275	301	319	225	236	260	301	316	308	296	303	273	267	261	277	275	302	286	WNW
12-Sep-05	321	4	342	322	293	282	275	276	284	289	283	300	281	268	290	308	335	345	36	93	148	165	144	56	302	WNW
13-Sep-05	63	87	136	189	199	169	168	121	181	201	131	173	186	187	232	321	290	336	269	69	137	153	84	161	189	S
14-Sep-05	237	259	259	275	293	318	306	283	282	303	307	317	319	324	331	52	71	82	99	80	74	106	68	66	305	NW
15-Sep-05	65	64	70	83	73	52	37	51	54	52	52	45	18	2	33	26	25	345	308	299	278	211	241	212	39	NE
16-Sep-05	185	183	48	20	188	208	242	263	230	244	209	205	213	245	241	238	259	270	257	252	240	239	240	230	240	WSW
17-Sep-05	248	278	56	29	71	217	213	245	241	252	249	263	250	248	267	276	271	273	270	256	241	251	230	245	259	W
18-Sep-05	231	264	251	247	231	202	120	144	190	186	197	245	248	254	256	241	242	261	291	295	285	237	241	253	249	WSW
19-Sep-05	226	221	222	213	219	216	220	228	246	252	254	265	263	267	268	263	263	264	260	253	247	247	245	242	251	WSW
20-Sep-05	243	243	244	241	231	232	231	246	245	251	257	263	255	263	257	262	259	263	256	257	251	255	249	251	251	WSW
21-Sep-05	248	254	258	258	272	272	296	256	260	259	261	279	284	284	259	247	247	317	317	276	313	245	218	210	267	W
22-Sep-05	338	307	253	265	221	234	212	192	239	244	254	287	306	303	309	288	250	240	235	282	240	197	197	113	257	WSW
23-Sep-05	201	207	219	223	216	230	233	243	245	258	264	276	261	262	260	253	254	259	257	259	243	247	243	240	253	WSW
24-Sep-05	247	249	256	261	266	253	246	251	252	256	250	254	247	249	252	269	248	237	251	262	253	251	244	240	252	WSW
25-Sep-05	244	242	241	241	228	245	248	253	261	258	262	264	276	282	264	261	270	267	258	251	250	249	252	248	259	W
26-Sep-05	249	263	260	244	238	252	213	231	247	263	316	11	44	185	3	202	228	235	242	238	235	257	272	240	249	WSW
27-Sep-05	257	225	227	67	23	20	15	354	242	237	184	213	222	213	230	236	242	245	241	228	191	203	194	164	229	SW
28-Sep-05	178	179	183	181	174	168	162	145	131	185	225	233	237	249	253	235	238	230	236	239	242	242	240	245	235	SW
29-Sep-05	248	245	276	254	251	238	240	238	247	251	248	248	250	252	253	277	262	252	240	251	248	252	257	258	251	WSW
30-Sep-05	250	245	277	261	252	258	226	236	249	256	266	279	271	282	263	241	265	263	282	248	287	197	74	18	260	W
																									N	-
Hourly Avg	246	248	255	249	247	253	244	247	253	255	257	266	262	266	266	266	263	265	260	257	252	247	244	245		

PASZA - Evergreen Park Standard Deviation of Wind Direction Monthly Summary

Station: Evergreen Park
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: September 1, 2005 to October 1, 2005

Summary

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	**0%** calms		Operational Time:		720 hrs	
Calibration Time:	0 hrs			AMD Operational Uptime:		100.0%	
Percentile	99	95	75	50	25	5	1
	61.6	48.6	24.2	13.7	8.9	5.3	4.5

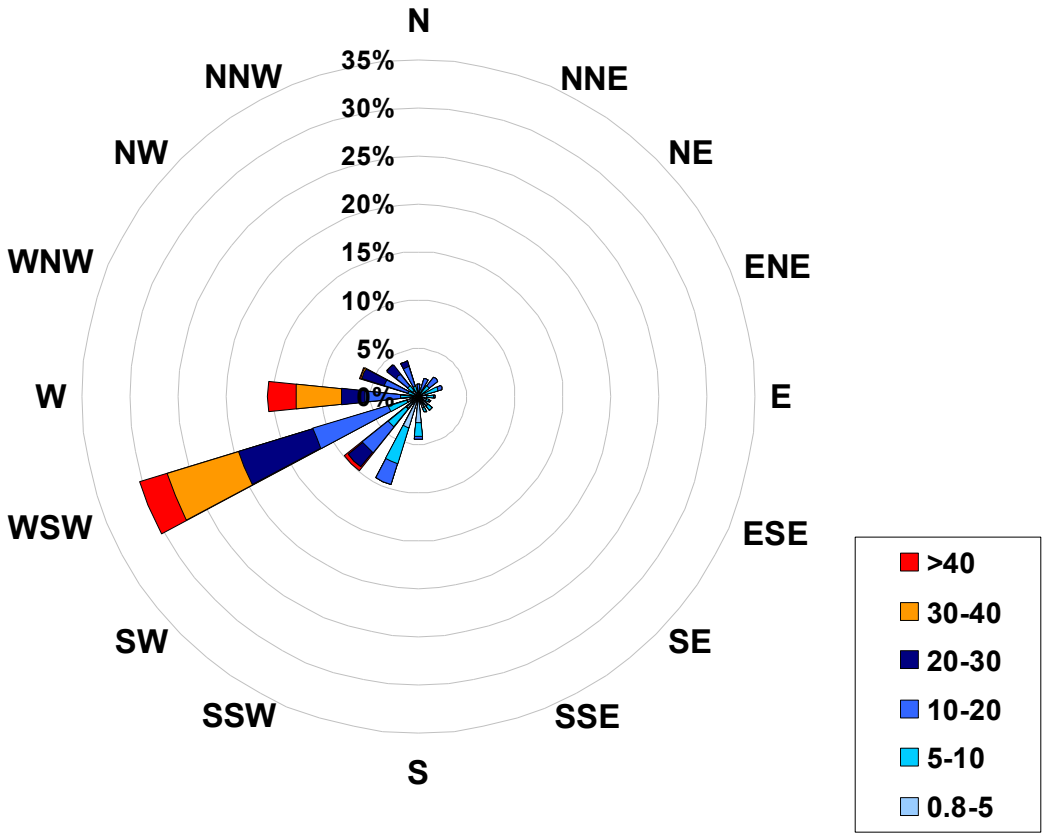
Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	Daily Maximum
1-Sep-05	44	45	40	52	55	54	31	35	18	33	32	42	26	49	72	49	36	22	11	7	17	17	24	27	71.9
2-Sep-05	36	12	46	35	10	18	19	19	22	25	37	60	53	30	31	27	33	18	15	9	35	27	39	45	60.3
3-Sep-05	9	18	11	11	14	54	16	41	13	14	16	12	19	16	22	26	18	10	11	8	6	7	36	50	54.0
4-Sep-05	14	37	47	28	40	10	33	45	49	10	15	35	27	19	28	34	27	13	10	47	22	23	45	11	49.0
5-Sep-05	27	9	24	41	28	18	35	10	10	9	10	13	15	15	15	17	17	13	10	7	8	9	6	6	40.6
6-Sep-05	23	20	38	28	36	15	19	22	19	18	18	19	15	15	14	15	19	10	12	5	7	9	27	50	49.5
7-Sep-05	68	20	39	24	18	26	31	19	18	12	13	14	13	12	11	13	13	8	8	13	28	18	5	6	67.9
8-Sep-05	8	42	27	11	7	13	16	8	7	9	9	8	10	18	16	11	17	14	18	39	38	14	11	39	42.5
9-Sep-05	14	13	16	14	13	12	10	9	10	11	17	14	19	17	21	28	32	17	14	12	16	12	9	12	32.3
10-Sep-05	12	16	12	13	10	14	12	10	16	18	15	18	22	26	25	35	52	57	19	50	36	19	46	14	57.5
11-Sep-05	11	16	56	34	49	28	68	21	33	53	45	29	36	36	19	15	13	13	12	10	8	11	11	14	68.5
12-Sep-05	12	18	13	11	16	12	13	13	18	20	20	22	22	24	26	23	17	20	12	47	50	36	43	49	50.1
13-Sep-05	41	55	52	20	37	27	14	42	38	33	46	21	14	16	34	39	17	42	25	67	31	24	30	67	66.9
14-Sep-05	8	6	8	10	12	11	12	11	10	13	13	13	12	16	13	20	21	20	19	17	14	23	18	11	23.2
15-Sep-05	15	12	14	18	20	16	17	23	19	18	15	21	25	24	22	20	16	27	35	26	14	17	58	15	57.6
16-Sep-05	13	11	24	35	10	12	13	19	21	34	24	23	27	37	17	18	13	11	8	5	6	5	6	6	37.4
17-Sep-05	15	13	26	53	40	28	16	19	13	11	9	13	12	16	17	13	10	10	9	11	13	13	15	6	52.5
18-Sep-05	15	10	7	4	6	44	41	29	46	41	31	45	11	13	8	10	12	8	16	14	13	11	14	11	45.9
19-Sep-05	8	6	6	27	45	5	5	6	13	9	10	10	9	9	10	10	9	8	7	6	5	6	7	5	44.8
20-Sep-05	5	5	4	5	4	5	5	5	6	6	9	11	8	10	12	10	8	9	7	9	5	5	5	5	12.0
21-Sep-05	5	7	8	11	17	14	22	9	9	8	11	22	19	16	12	8	11	26	13	22	15	17	7	8	26.3
22-Sep-05	50	30	13	21	14	14	10	6	10	10	20	39	27	30	25	15	9	8	8	39	60	15	29	62	61.9
23-Sep-05	28	34	33	5	9	8	9	9	6	13	11	16	17	15	10	13	8	9	6	7	8	6	6	5	33.9
24-Sep-05	5	4	6	6	9	8	8	6	5	8	8	11	11	10	10	10	8	8	7	7	5	5	26	5	25.6
25-Sep-05	5	6	4	5	8	6	6	5	8	8	9	8	11	11	8	7	10	8	6	5	5	7	7	5	11.5
26-Sep-05	11	20	20	10	8	54	9	8	8	16	12	16	19	43	27	27	8	8	7	7	6	35	45	55	55.1
27-Sep-05	17	18	8	29	40	6	9	29	23	14	30	24	39	19	16	13	13	8	5	17	20	14	18	32	40.1
28-Sep-05	15	25	35	29	47	14	17	27	68	49	25	28	11	7	8	8	9	7	6	5	6	8	6	6	68.3
29-Sep-05	7	7	18	6	6	10	5	7	7	6	9	9	9	9	8	13	11	10	6	33	11	5	7	7	33.5
30-Sep-05	4	4	12	20	5	7	7	8	6	7	10	16	14	16	12	10	11	8	11	33	52	22	36	69	69.1
																									0.0
Hourly Max	68	55	56	53	55	54	68	45	68	53	46	60	53	49	72	49	52	57	35	67	60	36	58	69	

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



Calms:	1%

Frequency Distribution of Wind in km/hr			
Range			Frequency (hrs)
0.8	<	5	115
5	to	10	137
10	to	20	201
20	to	30	118
30	to	40	91
	>	40	47
Total Non-Zero Values			709

PASZA – Smoky Heights Station

Monthly Summary Tables, Graphs, and Roses

PASZA - Smoky Heights Sulphur Dioxide Monthly Summary

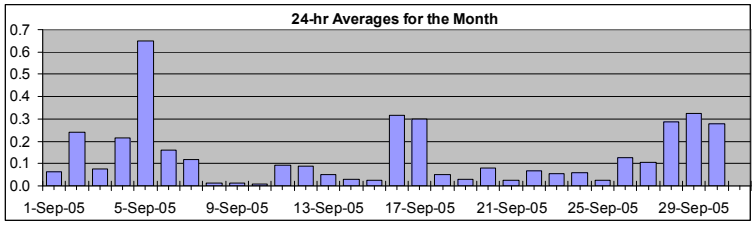
Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

Sulphur Dioxide (SO_2)

Monitoring Dates: September 1, 2005 to October 1, 2005

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



Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	4.4	ppb	5-Sep	10:00 11:00
Maximum 24-hr Average:	0.6	ppb	5-Sep	

AIC Time:	33 hrs	Operational Time:	680 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	99.4%

Percentile	99	95	75	50	25	5	1	Average
	2.1	0.6	0.1	0.0	0.0	0.0	0.0	0.1 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

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-05	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
2-Sep-05	0	0	0	0	0	A	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
3-Sep-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.1	0.9
4-Sep-05	0	0	0	A	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0.2	1.7
5-Sep-05	0	0	A	0	0	2	2	1	1	1	4	2	0	0	0	0	0	0	0	1	0	0	0	0	0.6	4.4
6-Sep-05	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
7-Sep-05	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	0.5
8-Sep-05	0	0	0	0	0	0	0	N	0	N	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.2
9-Sep-05	0	0	0	0	0	0	0	N	0	0	0	0	N	0	0	0	0	0	0	0	0	A	0	0	0.0	0.1
10-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.0	0.1
11-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0.1	0.7
12-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.3
13-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.2
14-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.3
15-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.0	0.3
16-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	2	1	1	4	0.3	3.7
17-Sep-05	4	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0	1	1	0.3	3.6
18-Sep-05	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	0.3
19-Sep-05	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
20-Sep-05	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
21-Sep-05	0	0	0	0	1	0	0	0	0	A	C	C	C	A	0	0	0	0	0	0	0	0	0	0	0.0	0.5
22-Sep-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
23-Sep-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
24-Sep-05	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
25-Sep-05	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
26-Sep-05	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
27-Sep-05	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
28-Sep-05	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	A	1	0.3	2.3
29-Sep-05	1	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	2.8
30-Sep-05	0	0	0	0	2	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	2.0
																									N	0.0
Hourly Avg	0.2	0.2	0.2	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2		
Hourly Max	3.6	2.5	2.8	0.3	1.5	2.1	2.1	1.2	2.0	0.9	4.4	1.7	0.7	2.3	0.3	0.7	0.6	0.4	0.4	0.9	1.7	0.7	1.1	3.7		

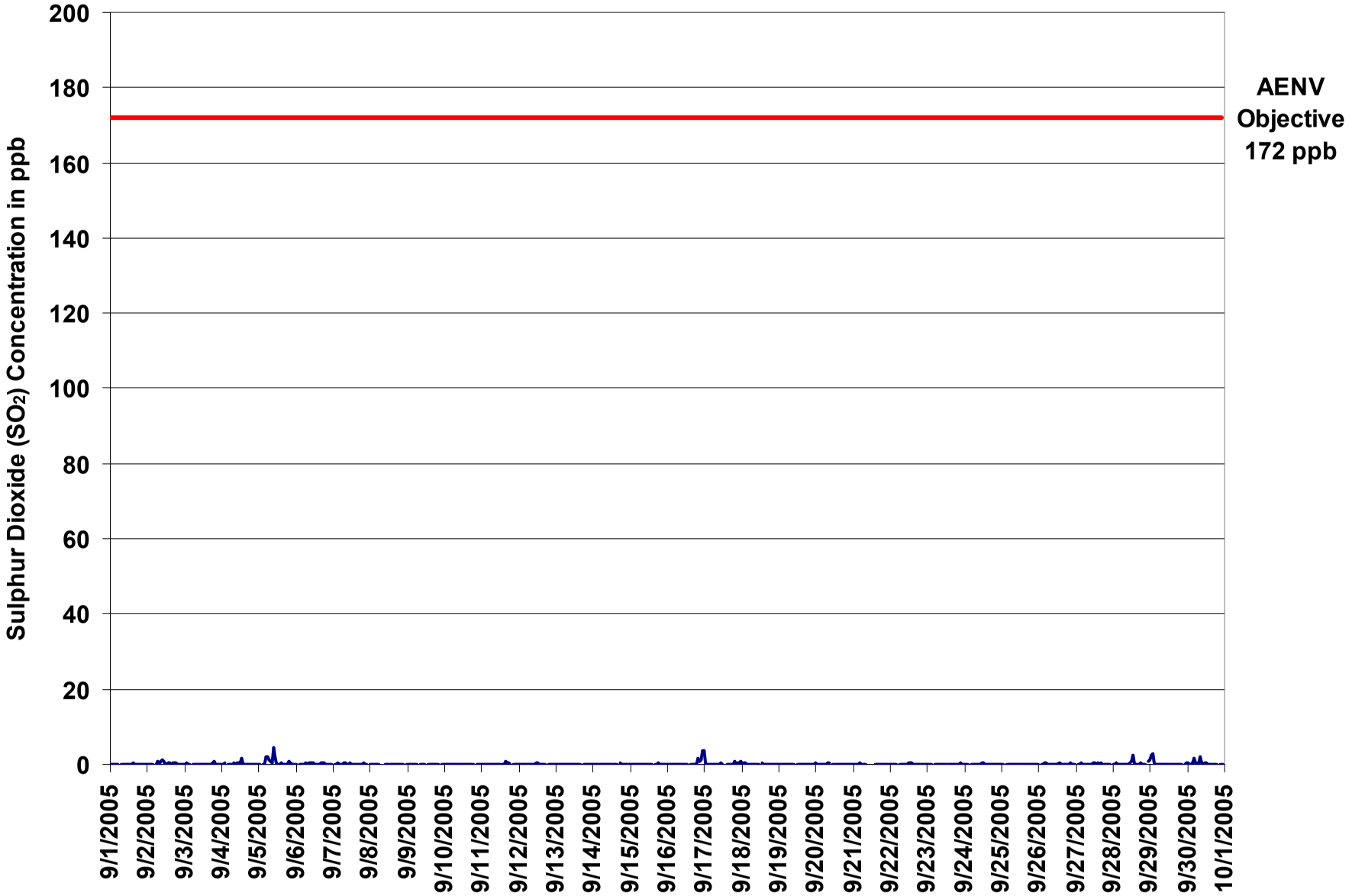


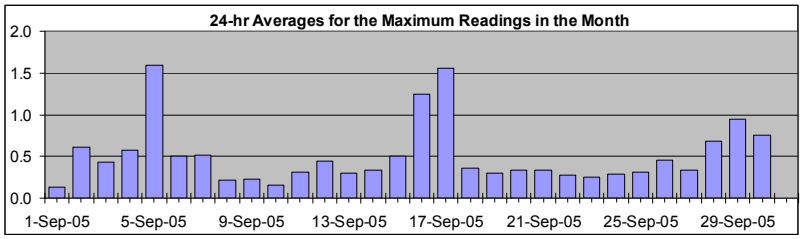
Figure 27. PASZA - Smoky Heights Sulphur Dioxide 1-hr Average Monthly Trend

Station: Smoky Heights
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Sulphur Dioxide (SO_2)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Value:	18.9	ppb	17-Sep	0:00 1:00
Maximum 24-hr Value:	1.6	ppb	5-Sep	

AIC Time:	33 hrs	Operational Time:	680 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	99.4%

Percentile	99	95	75	50	25	5	1	Average
	5.7	1.5	0.5	0.3	0.2	0.0	0.0	0.5 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	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-05	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
2-Sep-05	0	0	0	0	0	A	0	3	1	1	2	1	0	1	1	0	1	0	0	0	0	0	0	0	0.6	2.6
3-Sep-05	0	1	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	1	1	3	0	0	0	0	0.4	2.6
4-Sep-05	0	0	0	A	0	1	1	1	1	1	1	1	2	3	0	0	0	0	0	0	0	0	0	0	0.6	2.9
5-Sep-05	0	1	A	0	1	4	4	3	2	3	6	5	0	1	1	0	1	0	0	2	1	0	1	0	1.6	6.1
6-Sep-05	0	A	0	0	0	1	0	1	1	1	1	1	0	0	0	0	1	1	1	0	0	1	1	0	0.5	1.2
7-Sep-05	A	0	0	1	1	1	0	1	1	1	1	2	0	0	0	0	0	0	0	0	1	0	0	A	0.5	2.2
8-Sep-05	0	0	0	0	0	0	1	N	0	N	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	1.0
9-Sep-05	0	0	0	0	0	0	0	N	0	0	0	0	N	0	0	0	0	0	0	0	0	A	0	0	0.2	0.4
10-Sep-05	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.6
11-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	A	0	0	0	1	0.3	1.1
12-Sep-05	0	1	0	0	0	0	0	1	0	1	1	2	0	1	0	0	1	0	A	0	0	0	0	0	0.4	1.6
13-Sep-05	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0.3	0.6
14-Sep-05	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0.3	0.8
15-Sep-05	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	A	0	0	1	0	0	0	0	0	0.5	5.8
16-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	8	4	6	9	1.2	8.7
17-Sep-05	19	0	0	0	0	1	1	0	0	0	0	1	0	A	0	0	0	0	0	4	0	3	2	3	1.6	18.9
18-Sep-05	2	1	1	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	1	0	0	0	0	0	0.4	1.6
19-Sep-05	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0.3	1.2
20-Sep-05	1	1	0	0	1	0	0	0	1	1	A	1	0	0	0	0	0	0	0	0	0	2	0	0	0.3	1.6
21-Sep-05	0	0	0	3	2	0	0	0	1	A	C	C	C	A	0	0	0	0	0	0	0	0	0	0	0.3	2.7
22-Sep-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
23-Sep-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.3	0.6
24-Sep-05	0	0	0	A	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
25-Sep-05	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
26-Sep-05	1	A	1	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0.5	0.9
27-Sep-05	A	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	A	0.3	0.6
28-Sep-05	0	0	1	0	0	0	0	0	0	0	0	1	1	3	1	0	0	1	1	0	0	1	A	1	0.7	3.3
29-Sep-05	2	7	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0.9	7.5
30-Sep-05	1	0	0	1	3	1	0	1	4	1	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0.8	4.3
																									N	0.0
Hourly Avg	1.0	0.6	0.5	0.4	0.5	0.5	0.4	0.5	0.5	0.5	0.6	0.9	0.4	0.5	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.5	0.5	0.7		
Hourly Max	18.9	7.5	6.6	2.7	2.6	3.9	3.9	3.1	4.3	2.7	6.1	5.8	1.7	3.3	0.9	1.1	0.9	1.2	1.2	3.8	8.1	4.0	5.7	8.7		

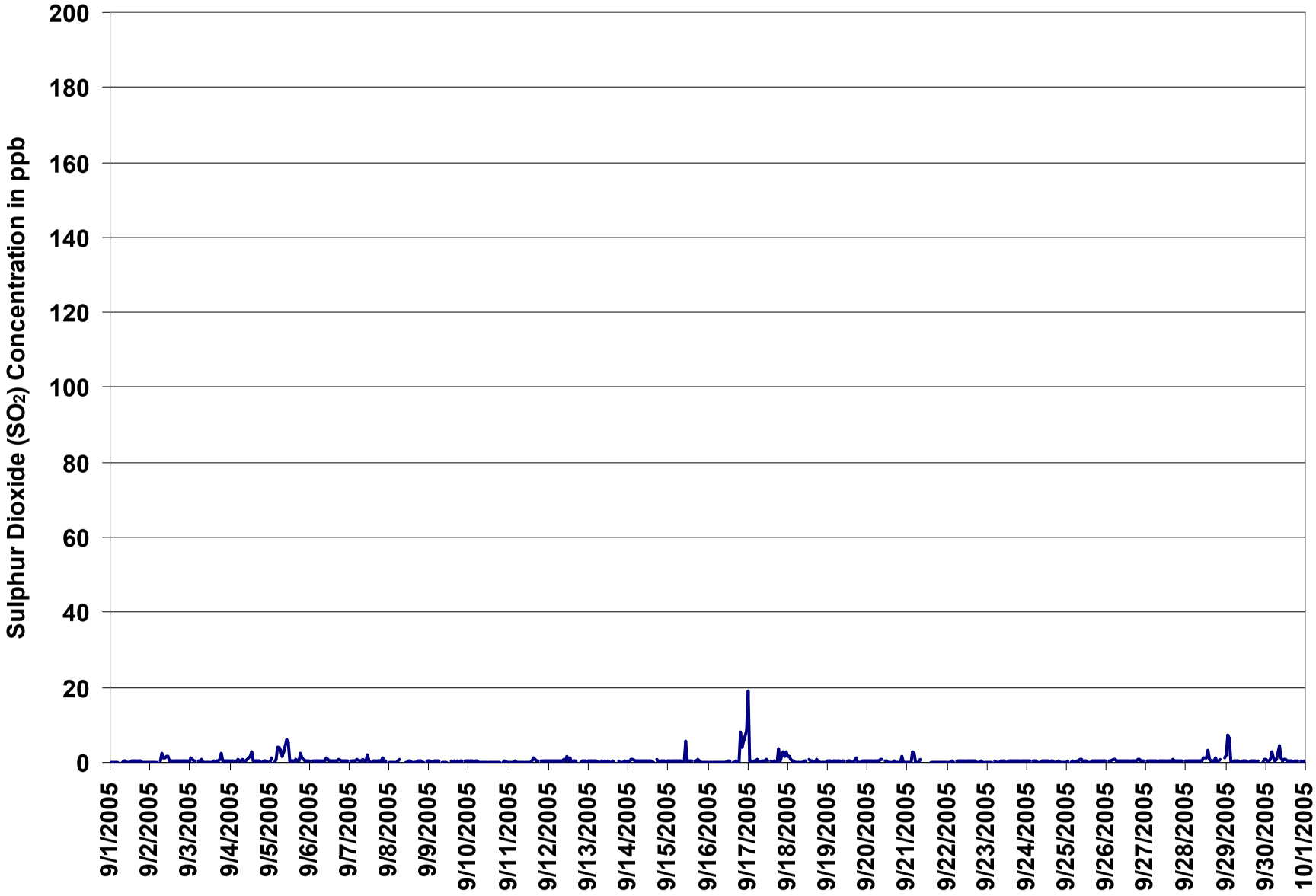
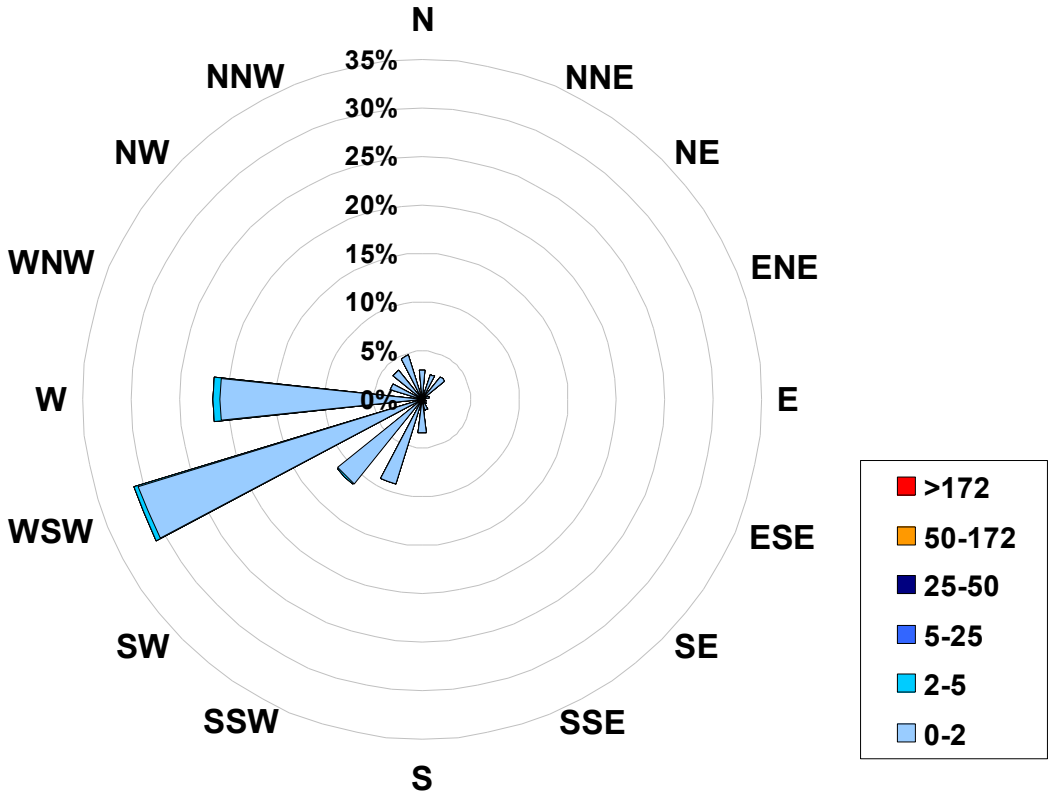


Figure 28. PASZA - Smoky Heights Sulphur Dioxide 1-hr Maximum Value Monthly Trend

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



Calms:	0%

Frequency Distribution of SO_2 in ppb			
Range			Frequency (hrs)
0.0	<	2	671
2	to	5	9
5	to	25	0
25	to	50	0
50	to	172	0
	>	172	0
Total Non-Zero Values			680

PASZA - Smoky Heights Total Reduced Sulphur Monthly Summary

Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

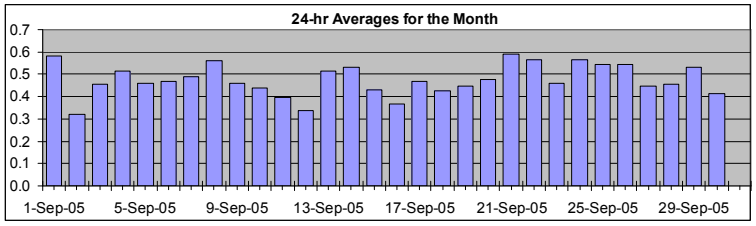
Total Reduced Sulphur (TRS)

Monitoring Dates: September 1, 2005 to October 1, 2005

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

Summary

Maximum 1-hr Average:	1.3	ppb	2-Sep	4:00 5:00
Maximum 24-hr Value:	0.6	ppb	21-Sep	



AIC Time:	33 hrs	Operational Time:	680 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	99.4%

Percentile	99	95	75	50	25	5	1	Average
	1.0	0.7	0.5	0.5	0.4	0.3	0.0	0.5 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	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-05	0	0	0	0	0	0	A	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.1
2-Sep-05	1	1	1	1	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3
3-Sep-05	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0.5	0.6
4-Sep-05	0	1	1	A	1	1	1	1	0	0	0	1	1	1	0	0	0	0	0	0	1	1	0	0	0.5	0.8
5-Sep-05	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5	0.7
6-Sep-05	1	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.5	0.8
7-Sep-05	A	0	0	0	0	1	0	0	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	A	0.5	0.6
8-Sep-05	1	1	1	1	1	1	1	N	1	N	1	1	1	0	1	1	0	1	1	0	0	1	A	1	0.6	0.8
9-Sep-05	1	1	1	1	1	0	0	N	0	0	0	0	N	0	0	0	0	0	0	0	0	A	1	0	0.5	0.6
10-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0	0.4	0.8
11-Sep-05	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0.4	0.5
12-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.5
13-Sep-05	0	1	0	1	1	1	0	0	0	0	0	0	0	0	1	0	1	A	1	1	1	1	1	1	0.5	1.0
14-Sep-05	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	A	1	0	0	0	1	0	0	0.5	0.8
15-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	1	1	0	0	0	0.4	1.0
16-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0.4	0.6
17-Sep-05	0	1	1	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0.5	0.6
18-Sep-05	1	1	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
19-Sep-05	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	1	1	0	0	0	0.4	0.6
20-Sep-05	1	0	0	1	1	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	1	0.5	0.6
21-Sep-05	1	0	0	0	0	0	0	1	0	A	C	C	C	A	1	0	1	1	1	1	1	1	1	1	0.6	1.1
22-Sep-05	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0.6	1.0
23-Sep-05	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.5	0.7
24-Sep-05	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	0	1	0	0	1	1	1	1	1	0.6	0.7
25-Sep-05	1	1	A	1	1	1	1	1	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0.5	0.6
26-Sep-05	1	A	1	1	1	1	1	0	1	1	1	1	1	1	0	0	0	0	0	1	1	0	0	0	0.5	0.8
27-Sep-05	A	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	A	0.4	0.7
28-Sep-05	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	A	1	0.5	0.7
29-Sep-05	1	1	1	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0.5	0.9
30-Sep-05	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.4	0.6
																									N	0.0
Hourly Avg	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5		
Hourly Max	0.8	0.8	0.9	0.8	1.3	0.8	0.8	0.9	0.7	0.6	0.6	0.7	0.7	0.8	1.1	1.0	1.1	0.9	0.8	0.7	1.0	1.0	0.8	1.0		

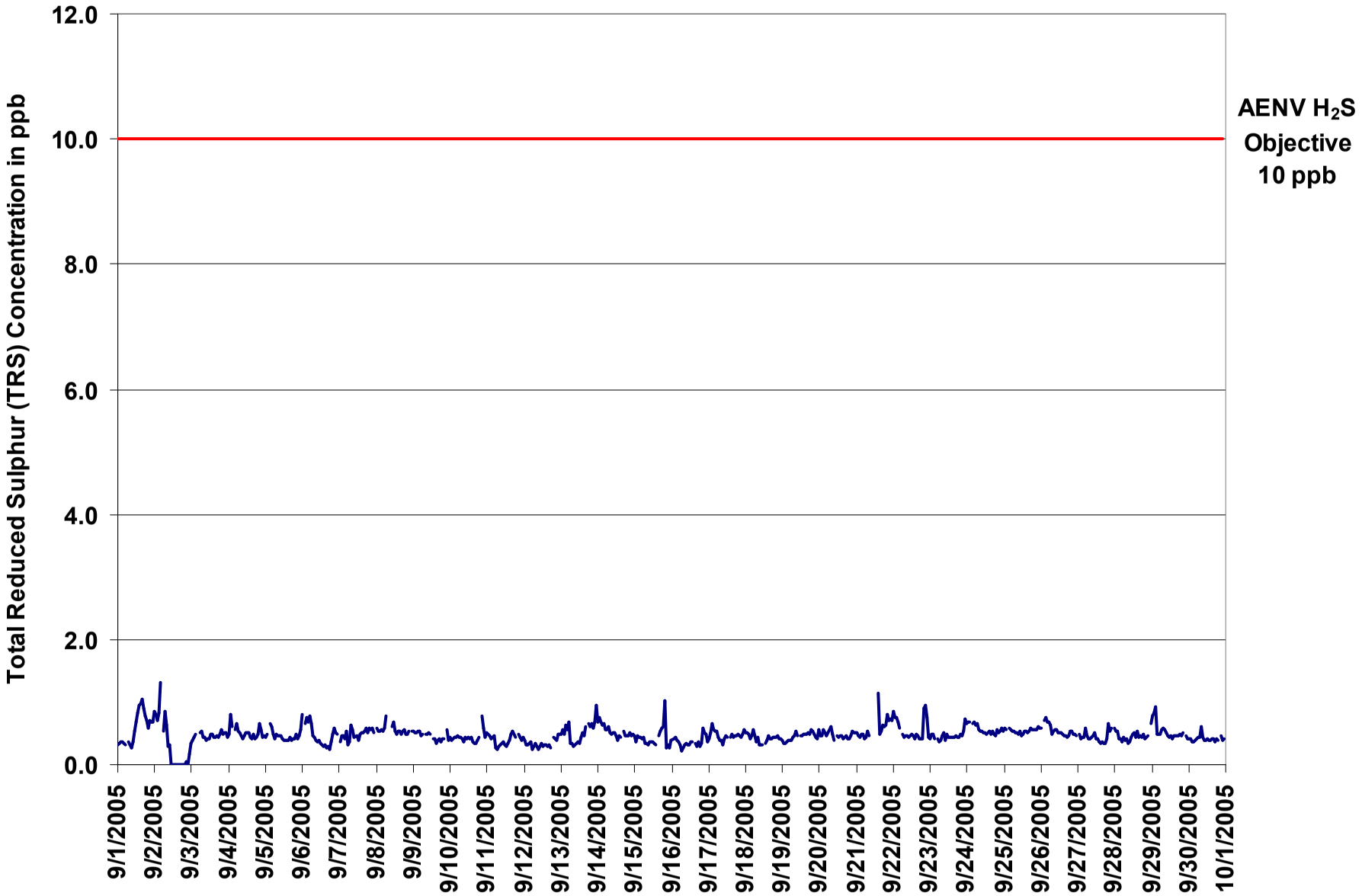


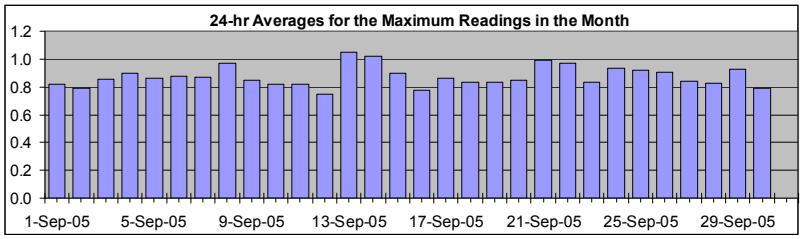
Figure 29. PASZA - Smoky Heights Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Smoky Heights
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Total Reduced Sulphur (TRS)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Value:	2.9	ppb	15-Sep	20:00 21:00
Maximum 24-hr Value:	1.0	ppb	13-Sep	

AIC Time:	33 hrs	Operational Time:	680 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	99.4%

Percentile	99	95	75	50	25	5	1	Average
	1.6	1.2	0.9	0.8	0.8	0.7	0.4	0.9 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

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-05	0	1	1	1	1	1	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
2-Sep-05	1	1	2	1	2	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	0.8	2.5
3-Sep-05	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2
4-Sep-05	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2
5-Sep-05	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2
6-Sep-05	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3
7-Sep-05	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.1
8-Sep-05	1	1	1	1	1	1	1	N	1	N	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.0	1.2
9-Sep-05	1	1	1	1	1	1	1	N	1	1	1	1	N	1	1	1	1	1	1	1	1	A	1	1	0.9	1.0
10-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.1
11-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.1
12-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.2
13-Sep-05	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	2	1.0	2.4
14-Sep-05	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.0	2.2
15-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	3	1	1	1	0.9	2.9
16-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.8	1.0
17-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.9	1.1
18-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
19-Sep-05	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
20-Sep-05	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.0
21-Sep-05	1	1	1	1	1	1	1	1	1	A	C	C	C	A	1	1	1	1	1	1	1	1	1	1	1.0	1.5
22-Sep-05	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1.0	1.5
23-Sep-05	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
24-Sep-05	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1
25-Sep-05	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1
26-Sep-05	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2
27-Sep-05	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.1
28-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.0
29-Sep-05	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.7
30-Sep-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.1
																									N	0.0
Hourly Avg	0.9	1.0	0.9	0.9	1.0	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	1.0	0.9	0.9	0.9		
Hourly Max	1.7	2.2	1.7	1.4	2.5	1.5	1.4	1.4	1.3	1.4	1.0	1.1	1.0	1.1	1.5	1.2	1.3	1.3	1.1	1.1	2.9	1.5	1.9	2.4		

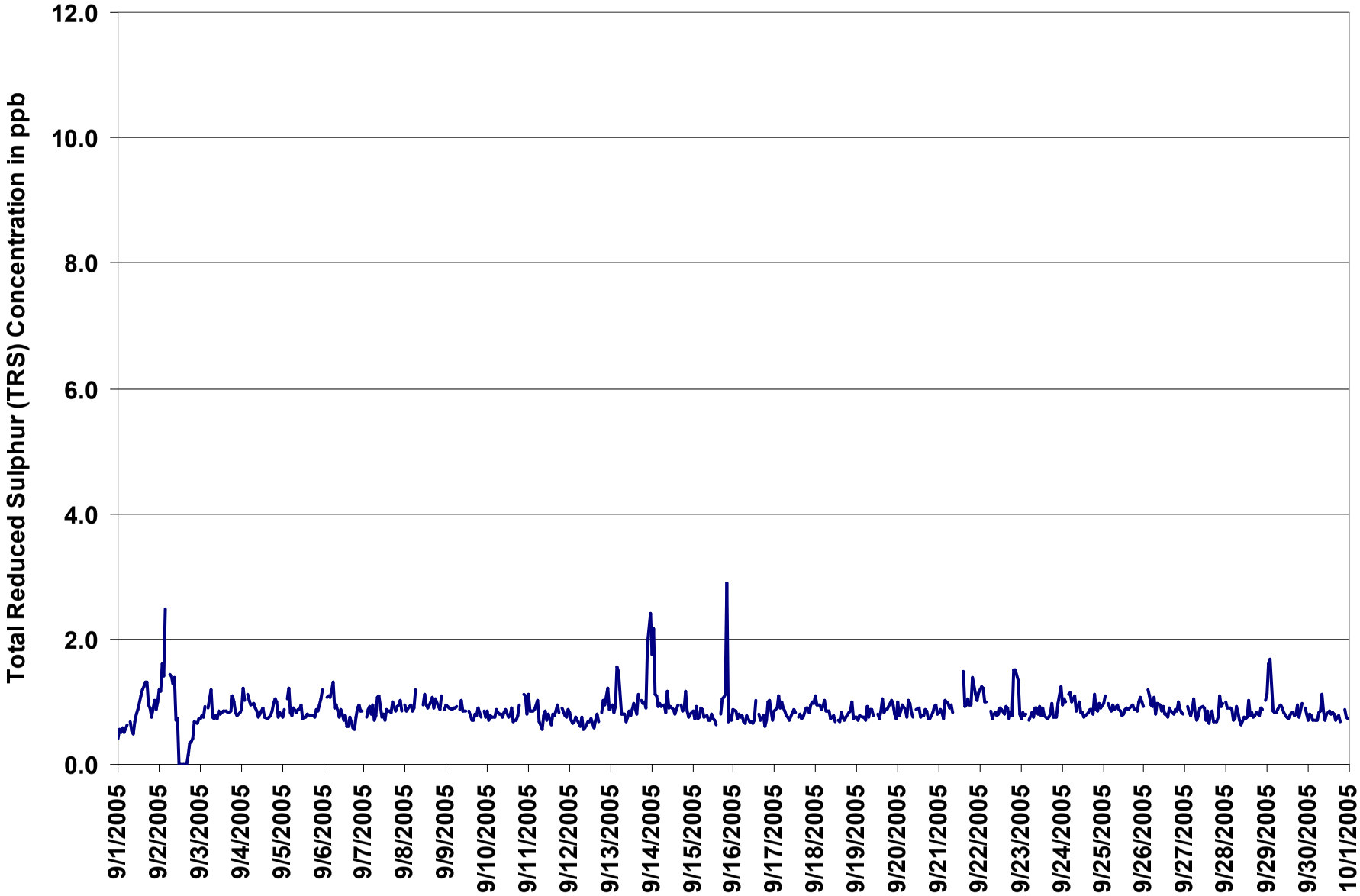
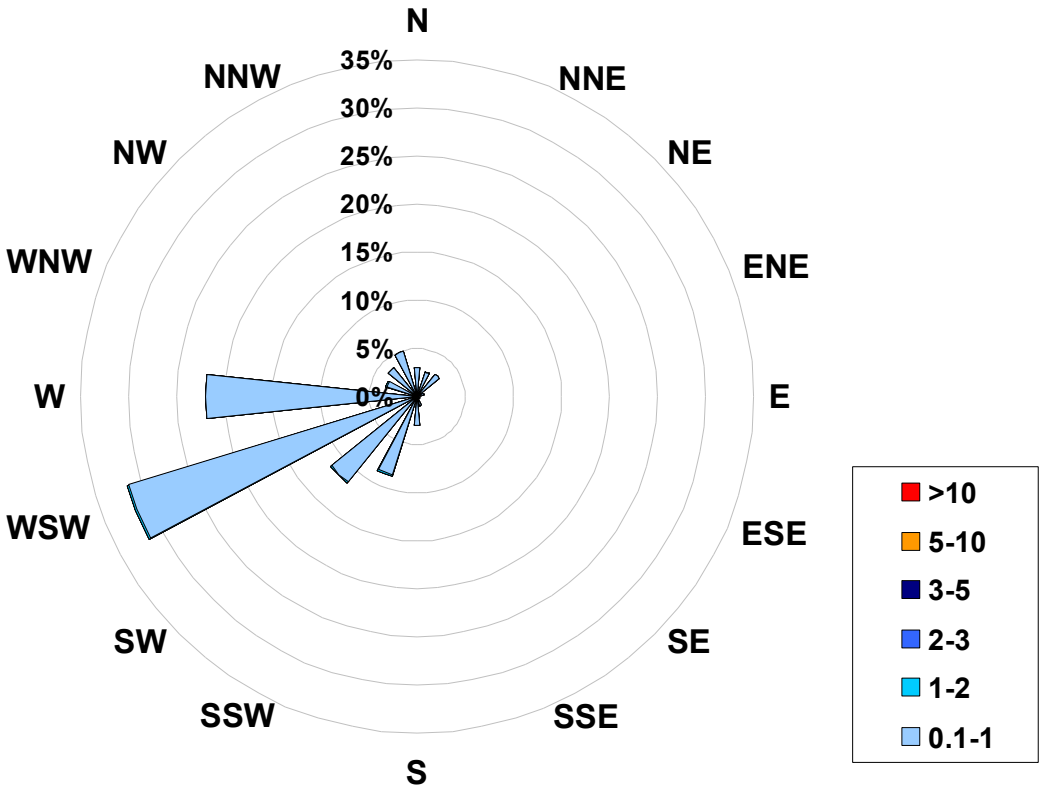


Figure 30. PASZA - Smoky Heights Total Reduced Sulphur 1-hr Maximum Value Monthly Trend

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



Calms:	0%

Frequency Distribution of TRS in ppb			
Range			Frequency (hrs)
0.1	<	1	676
1	to	2	4
2	to	3	0
3	to	5	0
5	to	10	0
	>	10	0
Total Non-Zero Values			680

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

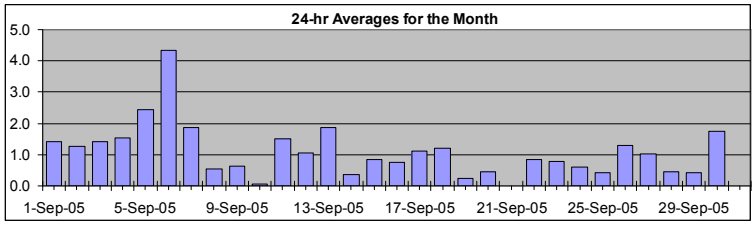
Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

Particulate Matter ($PM_{2.5}$)

Monitoring Dates: September 1, 2005 to October 1, 2005

Draft Objective Limit: **Alberta Environment:** 1-hr - $\mu g/m^3$ | 24-hr 30 $\mu g/m^3$



Summary

Number of 24-hr Exceedances (draft):	0			
Maximum 1-hr Average:	59.5	$\mu g/m^3$	6-Sep	5:00 6:00
Maximum 24-hr Value:	4.3	$\mu g/m^3$	6-Sep	

AIC Time:	0 hrs	Operational Time:	687 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	95.8%

Percentile	99	95	75	50	25	5	1	Average	Geomean
	6.8	4.3	1.5	0.4	0.0	0.0	0.0	1.1 $\mu g/m^3$	0.9 $\mu g/m^3$

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 / 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-05	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	D	D	D	0	7	9	7	3	1	1.4	8.6
2-Sep-05	1	1	0	1	D	0	5	1	4	4	2	N	N	0	0	0	0	4	2	0	0	D	0	0	1.3	5.1
3-Sep-05	1	0	1	D	1	0	2	5	5	6	1	0	D	0	0	0	0	0	0	7	2	1	0	0	1.4	6.8
4-Sep-05	1	0	0	0	1	0	5	4	4	2	1	0	0	0	0	0	2	0	5	2	4	2	0	2	1.5	5.3
5-Sep-05	2	1	2	0	1	1	3	4	3	2	0	2	2	0	1	7	7	2	1	2	10	2	1	4	2.4	9.7
6-Sep-05	1	1	1	1	1	59	6	6	5	3	3	1	0	1	1	0	0	1	2	1	5	2	3	0	4.3	59.5
7-Sep-05	1	1	1	3	4	6	4	4	6	6	0	0	0	0	1	1	0	0	1	1	2	3	0	1	1.9	6.1
8-Sep-05	1	0	1	0	0	0	0	N	0	N	0	0	0	0	0	1	2	4	2	0	0	0	0	0	0.5	3.7
9-Sep-05	0	1	0	2	1	1	2	N	1	1	1	0	N	1	0	0	0	0	1	2	0	0	0	0	0.6	2.4
10-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	D	0	0	0	0	0	1	0	D	D	0	0	0.1	0.8
11-Sep-05	0	0	D	0	0	0	0	1	2	1	6	5	0	0	0	5	0	2	1	1	2	3	3	1	1.5	5.6
12-Sep-05	0	0	D	0	0	0	0	0	0	0	0	2	0	0	2	1	1	0	1	13	0	3	0	0	1.1	13.1
13-Sep-05	0	0	0	0	1	2	1	1	2	2	3	3	4	5	5	5	2	3	1	2	2	0	0	1	1.9	5.2
14-Sep-05	2	1	1	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	0.4	2.0
15-Sep-05	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	3	3	2	3	2	2	1	0.8	3.1
16-Sep-05	2	1	1	1	1	1	1	2	2	0	2	0	0	0	1	0	1	0	0	0	1	0	0	0	0.7	2.0
17-Sep-05	0	1	0	0	1	0	2	4	3	2	3	2	0	0	0	0	0	1	2	1	1	1	1	2	1.1	3.8
18-Sep-05	1	1	2	1	1	0	3	4	4	1	0	1	0	0	0	1	1	0	1	2	4	1	1	0	1.2	4.2
19-Sep-05	0	0	0	D	0	0	0	1	0	0	D	0	0	1	0	0	0	0	1	1	1	0	0	0	0.3	1.2
20-Sep-05	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	1	0	0	0	4	1	0	0	0.4	3.6
21-Sep-05	1	0	0	0	1	0	0	1	3	1	C	C	C	D	D	D	1	D	0	0	0	0	D	0	N	2.6
22-Sep-05	0	0	0	0	0	0	0	1	3	6	4	0	1	D	0	0	D	1	2	0	0	D	0	0	0.8	5.8
23-Sep-05	0	0	0	0	0	2	1	1	2	2	0	0	0	0	0	0	0	0	1	2	1	2	2	2	0.8	2.4
24-Sep-05	3	0	1	1	0	0	0	3	2	1	0	0	0	0	0	1	2	0	0	0	1	0	0	0	0.6	3.0
25-Sep-05	0	0	0	0	0	0	0	0	1	1	0	0	D	0	1	0	0	1	0	0	0	1	2	1	0.4	1.8
26-Sep-05	2	1	2	1	0	2	5	5	3	2	0	0	0	1	2	0	3	2	0	1	0	0	0	0	1.3	5.3
27-Sep-05	0	0	0	0	0	0	3	2	1	4	7	0	0	0	0	0	0	0	0	1	4	0	2	1	1.0	6.6
28-Sep-05	0	0	0	0	0	1	0	0	0	0	1	0	2	4	0	2	0	0	0	0	0	0	0	0	0.5	3.7
29-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	2	3	1	1	0.4	2.9
30-Sep-05	3	1	2	2	3	3	4	2	2	0	0	0	0	1	0	0	1	1	2	5	4	2	0	2	1.7	5.0
																									N	0.0
Hourly Avg	0.7	0.4	0.5	0.5	0.5	2.7	1.6	1.9	2.1	1.7	1.2	0.6	0.4	0.5	0.5	1.0	0.9	0.9	1.0	2.0	2.1	1.4	0.7	0.8		
Hourly Max	2.9	1.5	2.1	3.0	3.8	59.5	5.8	6.3	5.7	5.9	6.6	4.5	4.2	4.5	4.9	6.5	6.9	3.7	4.7	13.1	9.7	7.2	3.0	3.5		

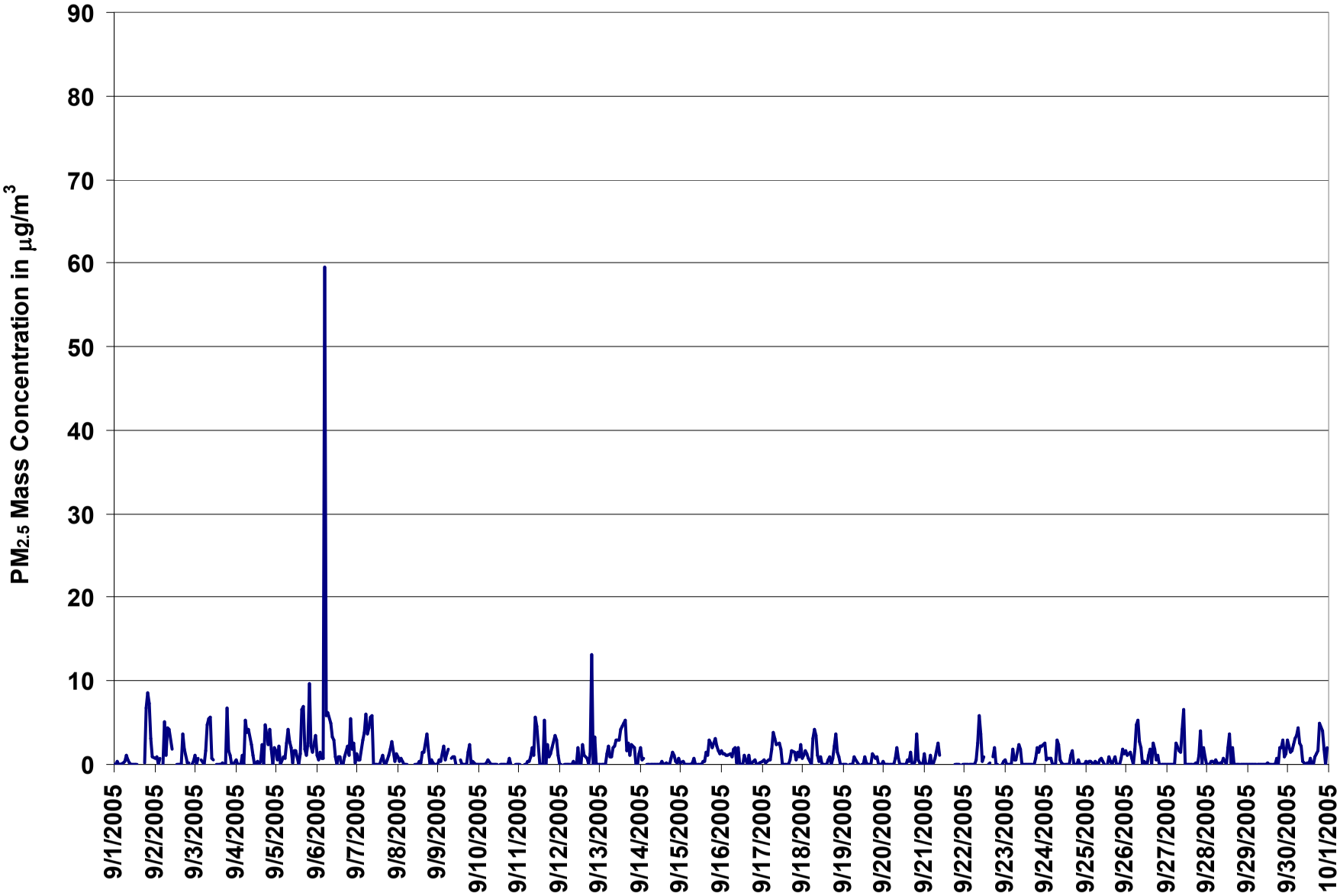


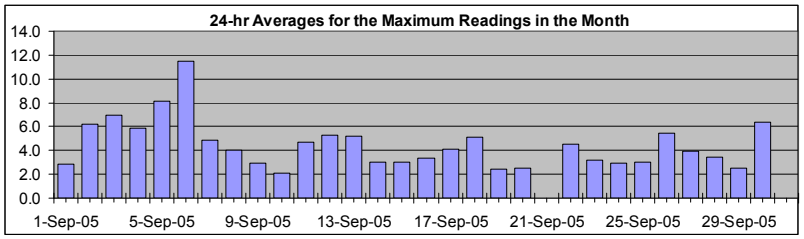
Figure 31. PASZA - Smoky Heights Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

HOURLY MAXIMUM TABLE

Particulate Matter ($PM_{2.5}$)

Station: Smoky Heights
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Average:	159.3	µg/m³	6-Sep	5:00 6:00
Maximum 24-hr Value:	11.5	µg/m³	6-Sep	

AIC Time:	0 hrs	Operational Time:	687 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	95.8%

Percentile	99	95	75	50	25	5	1	Average	Geomean
	19.8	10.4	5.4	3.4	2.1	0.5	0.0	4.5 µg/m³	4.1 µg/m³

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-05	1	0	1	0	0	1	1	2	1	1	1	0	0	1	0	D	D	D	6	9	10	15	9	1	2.9	15.0
2-Sep-05	1	1	3	4	D	3	9	4	7	10	15	N	N	10	6	5	12	10	7	4	3	D	4	7	6.2	14.7
3-Sep-05	4	3	5	D	6	1	6	13	11	23	7	6	D	3	4	5	7	5	3	24	5	4	2	7	6.9	23.6
4-Sep-05	5	5	3	1	5	2	9	6	8	5	4	2	5	5	3	6	8	8	13	9	10	8	2	5	5.8	13.1
5-Sep-05	4	4	10	1	2	2	7	7	5	6	3	6	5	6	6	19	22	7	4	6	42	6	5	13	8.2	42.4
6-Sep-05	3	2	4	3	3	159	9	9	7	6	6	5	4	5	4	5	2	5	4	3	14	6	5	2	11.5	159.3
7-Sep-05	4	3	2	6	9	13	6	6	8	9	3	2	4	2	4	7	4	2	2	3	6	6	2	3	4.9	12.9
8-Sep-05	3	2	3	2	2	1	2	N	2	N	2	3	4	9	5	9	6	8	7	3	6	5	2	2	4.1	9.4
9-Sep-05	1	2	2	4	2	3	4	N	2	2	5	3	N	5	3	5	2	1	8	6	1	3	1	0	3.0	8.1
10-Sep-05	1	0	1	0	2	1	2	1	1	1	2	5	D	3	2	2	2	2	6	0	D	D	6	2	2.1	6.4
11-Sep-05	3	2	D	2	3	4	2	3	5	3	12	12	5	2	2	12	4	6	4	4	4	5	6	4	4.7	11.9
12-Sep-05	3	0	D	0	1	1	0	2	5	3	2	7	1	4	6	6	3	3	14	36	5	12	2	3	5.3	36.1
13-Sep-05	4	3	4	4	4	4	2	3	5	5	5	5	7	7	7	7	9	10	10	6	7	1	1	4	5.2	10.2
14-Sep-05	3	3	3	D	0	0	2	2	1	3	4	9	8	3	4	5	4	2	3	3	3	2	2	3	3.1	8.8
15-Sep-05	1	2	1	1	1	1	1	2	3	3	2	2	3	3	4	4	4	7	5	5	7	6	3	3	3.0	7.1
16-Sep-05	3	3	3	2	2	4	7	3	4	6	5	4	2	4	5	5	4	3	2	2	2	1	2	2	3.3	6.9
17-Sep-05	2	2	2	2	1	2	5	9	6	8	6	6	4	7	3	5	5	4	5	3	2	3	3	4	4.1	8.9
18-Sep-05	3	4	4	4	5	4	12	9	8	6	5	5	3	4	4	3	4	3	5	4	12	8	3	2	5.1	11.7
19-Sep-05	0	0	0	D	0	0	1	4	4	5	D	3	6	5	3	2	2	6	4	3	2	1	1	2	2.4	6.1
20-Sep-05	2	2	0	3	2	0	2	3	3	3	1	1	1	3	4	4	5	3	2	2	7	3	2	1	2.5	7.2
21-Sep-05	3	2	2	1	2	1	2	4	5	3	C	C	C	D	D	D	22	D	5	4	3	2	D	2	N	22.1
22-Sep-05	1	2	1	0	0	2	0	3	5	11	8	6	8	D	13	8	D	9	6	3	0	D	6	3	4.5	13.2
23-Sep-05	2	2	1	1	2	4	4	4	5	5	4	3	2	4	2	3	5	3	3	4	3	3	4	4	3.2	5.5
24-Sep-05	4	3	3	3	2	3	3	5	5	4	3	3	2	1	3	8	8	1	0	1	3	1	1	1	3.0	8.0
25-Sep-05	2	2	3	4	3	3	2	2	3	4	4	4	D	3	6	4	2	6	2	1	2	2	4	2	3.0	5.9
26-Sep-05	3	4	4	2	5	8	12	10	5	4	10	7	6	7	8	10	10	6	2	2	2	1	0	0	5.4	11.5
27-Sep-05	1	1	2	3	5	3	4	3	3	7	11	3	5	5	2	5	4	3	2	3	7	2	5	3	3.9	10.7
28-Sep-05	2	1	4	2	3	3	5	3	3	4	5	4	7	6	4	11	2	0	2	2	2	1	1	3	3.4	10.7
29-Sep-05	3	1	1	0	0	0	0	3	1	2	1	2	2	3	1	4	2	3	7	5	7	5	3	3	2.5	6.9
30-Sep-05	6	4	4	4	5	6	6	5	4	3	2	3	6	7	3	4	8	5	11	20	14	8	7	9	6.4	19.5
																									N	0.0
Hourly Avg	2.7	2.2	2.7	2.2	2.7	8.0	4.3	4.6	4.6	5.3	4.9	4.3	4.2	4.5	4.2	6.2	6.1	4.7	5.2	5.9	6.6	4.4	3.3	3.4		
Hourly Max	6.3	5.3	9.7	6.3	8.6	159.3	11.6	13.1	11.1	22.7	14.7	11.9	8.4	10.2	13.2	19.3	22.1	10.4	13.8	36.1	42.4	15.0	8.6	12.8		

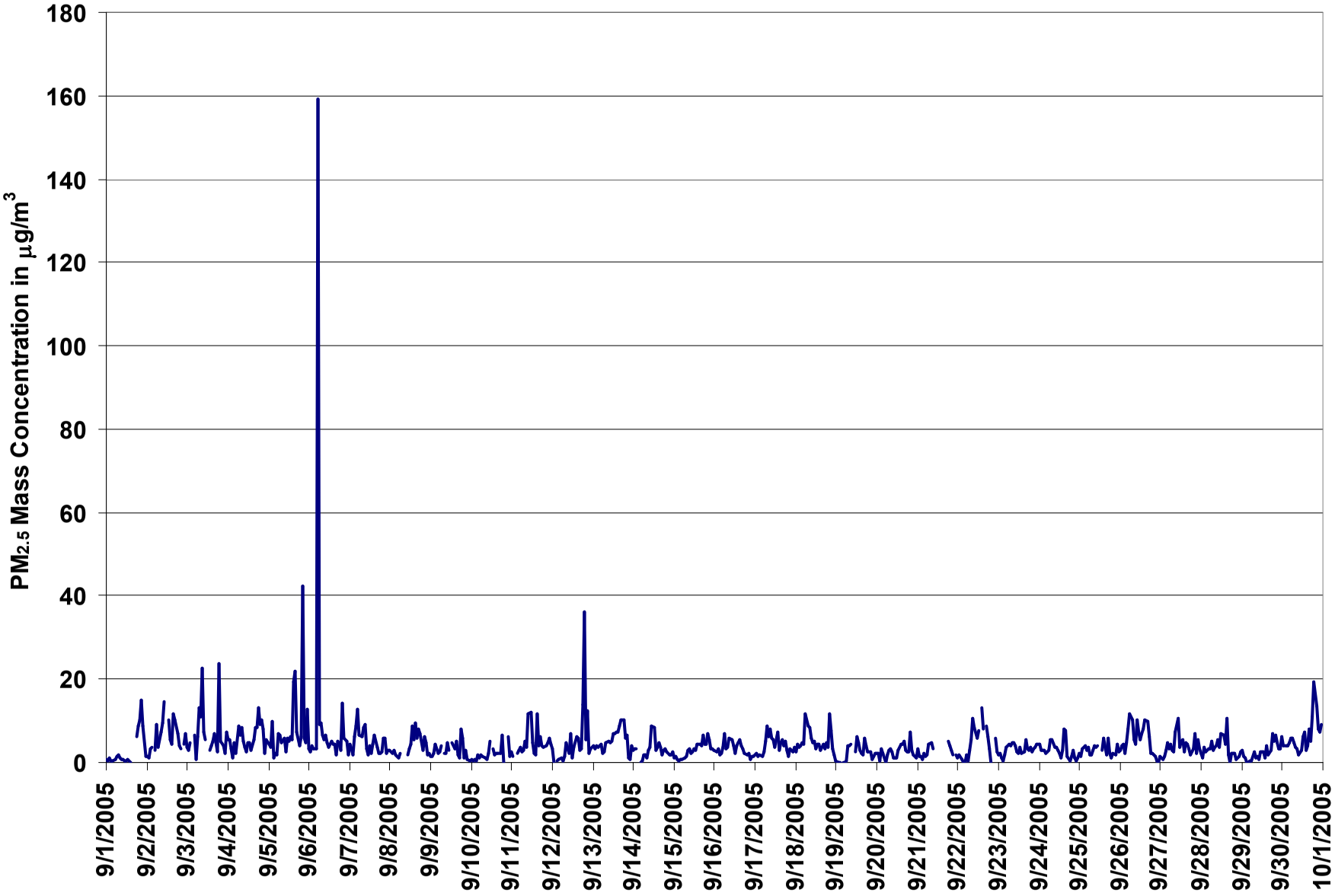
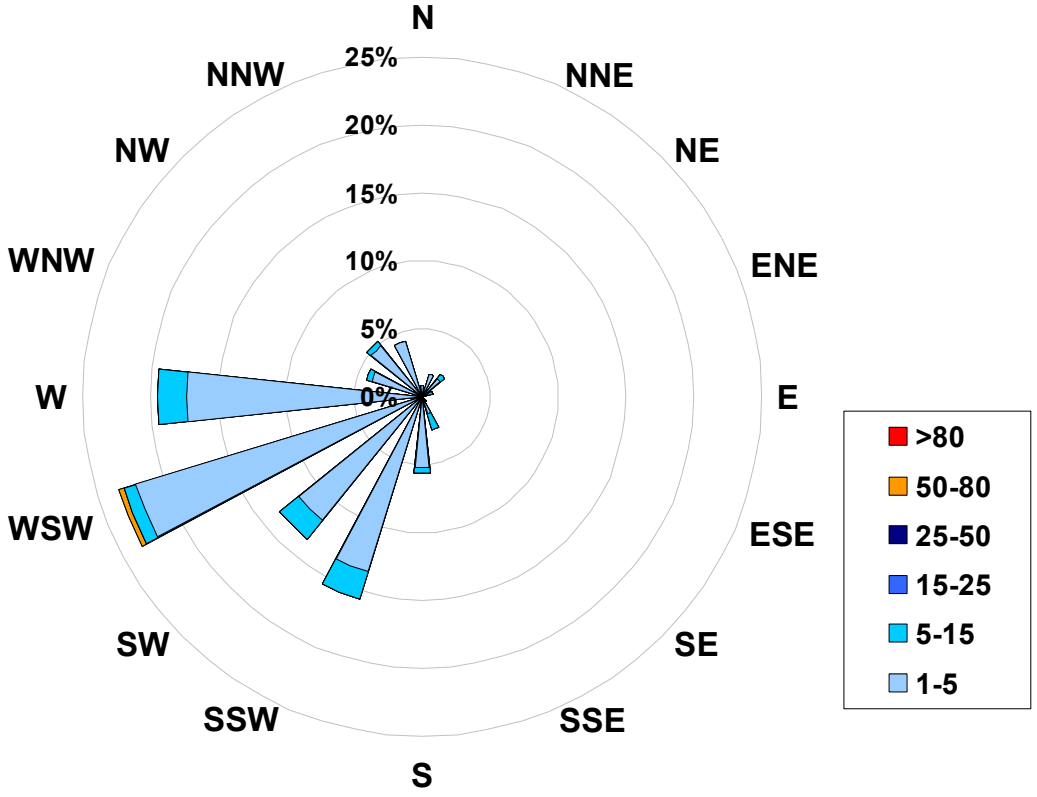


Figure 32. PASZA - Smoky Heights Particulate Matter (less than 2.5 microns) 1-hr Maximum Value Monthly Trend

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



Calms:	0%

Frequency Distribution of $PM_{2.5}$ in $\mu g/m^3$			
Range			Frequency (hrs)
1.0	<	5	662
5	to	15	24
15	to	25	0
25	to	50	0
50	to	80	1
	>	80	0
Total Non-Zero Values			687

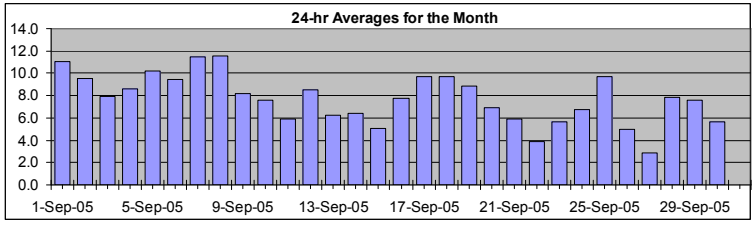
PASZA - Smoky Heights Temperature Monthly Summary

Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

Ambient Temperature (T)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Average:	20.0	°C	6-Sep	16:00 17:00
Maximum 24-hr Value:	11.6	°C	8-Sep	

AIC Time:	0 hrs	Operational Time:	716 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	99.4%

Percentile	99	95	75	50	25	5	1	Average
	18.0	16.0	11.1	7.3	4.3	0.5	-1.9	7.7 °C

Status Flag Characters

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

Day **Mountain Standard Time**

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-05	7	6	6	6	5	5	5	7	9	11	14	15	16	16	16	17	17	16	15	13	12	11	11	10	11.1	17.4
2-Sep-05	9	9	8	6	4	3	4	5	6	7	9	12	15	16	17	17	14	13	13	11	9	7	6	6	9.5	17.3
3-Sep-05	6	5	5	3	3	2	1	2	4	6	8	10	14	14	15	15	16	15	14	11	8	6	3	3	7.9	15.7
4-Sep-05	2	2	2	2	1	1	1	3	6	10	12	14	15	16	16	17	16	16	16	11	7	8	7	6	8.6	16.6
5-Sep-05	7	8	8	4	4	4	3	6	9	11	13	15	15	16	17	17	17	16	15	13	10	8	5	4	10.2	17.4
6-Sep-05	3	2	1	1	0	-1	0	2	5	9	12	15	16	17	19	20	20	20	18	14	10	9	8	7	9.5	20.0
7-Sep-05	6	5	5	4	5	5	5	6	8	11	16	16	18	18	19	19	18	16	15	13	12	11	11	11	11.4	19.0
8-Sep-05	11	11	11	11	11	9	8	N	12	N	15	15	16	16	15	16	15	14	12	10	7	7	6	7	11.6	15.9
9-Sep-05	8	7	6	6	6	7	7	N	7	7	8	9	N	10	11	11	11	11	10	9	7	7	7	7	8.2	11.3
10-Sep-05	7	7	7	7	7	7	7	7	7	8	8	9	9	10	10	11	11	11	11	8	5	3	3	1	7.6	11.3
11-Sep-05	1	0	-1	-2	-2	-1	0	1	2	2	4	6	10	13	14	14	13	11	11	10	10	9	9	9	5.9	13.7
12-Sep-05	8	8	7	7	7	7	6	7	8	9	11	11	11	12	12	12	12	12	11	8	6	5	4	3	8.5	12.2
13-Sep-05	2	1	1	1	2	2	3	4	5	5	6	7	8	9	10	11	11	12	10	9	9	8	7	7	6.2	11.8
14-Sep-05	7	7	8	8	7	7	7	7	6	7	7	7	6	7	8	8	7	6	6	5	5	4	4	4	6.4	7.8
15-Sep-05	4	4	4	4	4	4	4	4	4	5	6	6	6	6	6	7	7	7	6	6	5	5	5	5	5.1	6.8
16-Sep-05	4	4	4	4	4	4	3	3	3	3	6	9	10	12	13	14	14	14	13	11	9	8	7	7	7.7	14.1
17-Sep-05	6	5	5	4	4	3	2	4	6	10	12	14	15	16	17	17	17	16	13	12	10	10	8	7	9.7	16.9
18-Sep-05	6	4	3	2	2	1	1	4	7	11	13	15	16	17	18	16	16	16	15	13	11	10	9	8	9.7	17.7
19-Sep-05	7	7	8	7	7	5	4	5	7	9	11	12	13	14	14	14	13	12	11	9	7	6	5	4	8.8	13.9
20-Sep-05	4	4	3	2	2	2	2	3	5	8	10	11	12	13	13	12	12	11	10	6	7	6	5	4	6.9	12.7
21-Sep-05	3	4	3	3	3	3	2	2	5	7	9	10	12	10	8	9	9	8	8	6	6	5	4	3	5.9	11.5
22-Sep-05	2	2	2	1	0	0	-1	-1	0	3	6	8	10	11	10	7	10	8	6	5	3	1	0	0	3.9	10.8
23-Sep-05	1	1	1	0	-1	-1	-1	-1	2	4	7	8	10	11	11	12	12	11	10	9	8	8	8	7	5.7	11.9
24-Sep-05	6	4	3	2	1	0	0	2	5	7	9	11	11	12	12	11	9	10	9	8	8	8	7	6	6.8	12.1
25-Sep-05	5	5	5	5	6	5	8	10	11	12	14	14	15	15	15	14	15	14	12	10	7	6	6	6	9.7	14.6
26-Sep-05	5	4	5	4	5	5	6	6	5	5	6	7	7	7	7	8	7	6	5	3	2	2	1	0	5.0	7.8
27-Sep-05	-1	-1	-2	-2	-3	-4	-4	-3	-3	-1	2	6	8	10	11	11	11	11	8	6	4	2	0	1	2.9	11.4
28-Sep-05	1	2	2	3	2	3	3	3	4	5	8	12	14	16	16	13	12	13	12	11	10	8	8	7	7.9	16.1
29-Sep-05	7	7	8	8	7	6	4	5	7	9	11	11	11	11	12	12	12	11	8	5	3	3	2	2	7.6	12.1
30-Sep-05	2	3	3	2	2	2	2	4	4	6	8	10	11	12	13	12	12	11	8	4	3	3	1	0	5.7	12.7
																									N	0.0
Hourly Avg	5.0	4.7	4.3	3.8	3.5	3.1	3.1	3.7	5.6	7.2	9.3	10.8	12.1	12.7	13.1	13.1	12.8	12.3	11.0	9.0	7.4	6.5	5.6	5.0		
Hourly Max	11.0	11.1	11.0	11.0	10.6	9.4	8.1	9.7	12.0	12.4	15.6	16.1	17.6	18.2	19.0	19.8	20.0	19.8	18.1	14.1	12.5	11.5	11.5	11.1		

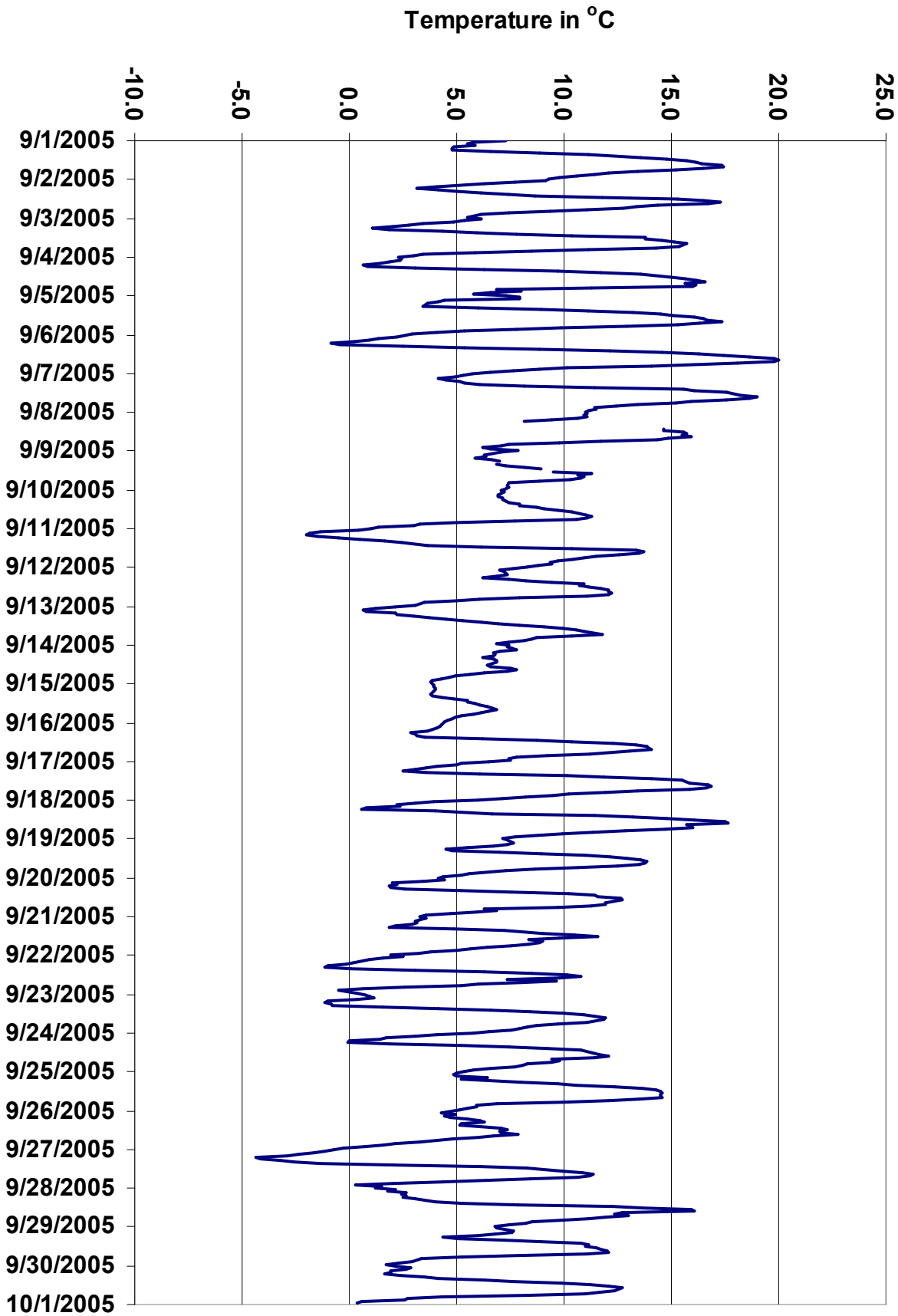


Figure 33. PASZA - Smoky Heights Temperature 1-hr Average Monthly Trend

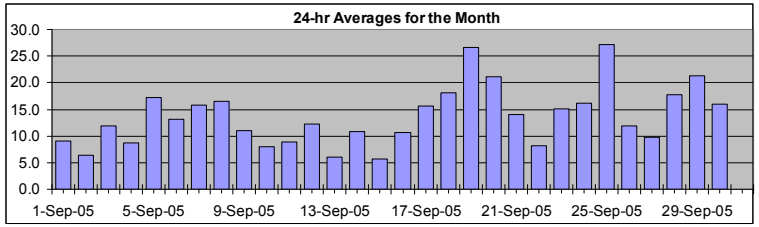
PASZA - Smoky Heights Scalar Wind Speed Monthly Summary

Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Speed (WSs)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Average:	47.2	km/hr	25-Sep	10:00 11:00
Maximum 24-hr Value:	27.2	km/hr	25-Sep	

Calm Time:	0 hrs	**0%** calms	
Calibration Time:	0 hrs		
Operational Time:			716 hrs
AMD Operational Uptime:			99.4%

Percentile	99	95	75	50	25	5	1	AverageS
	42.1	29.6	18.4	11.7	6.9	3.8	2.6	13.7 km/hr

Status Flag Characters

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

Day **Mountain Standard Time**

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-hr Scalar Average	Daily Max
1-Sep-05	11	10	10	11	9	10	7	10	10	12	14	17	13	13	10	6	5	7	5	5	6	3	9	2	9.0	17.3
2-Sep-05	2	4	4	4	3	4	4	7	6	4	5	5	5	7	8	7	11	10	15	16	5	5	4	8	6.4	15.8
3-Sep-05	8	10	12	9	5	4	3	3	6	7	12	16	27	25	22	20	21	23	20	10	5	4	7	10	12.0	27.3
4-Sep-05	10	12	13	11	5	6	7	8	11	13	10	9	13	15	16	13	4	6	3	3	4	5	5	8	8.7	16.0
5-Sep-05	11	17	17	18	19	18	14	11	16	18	24	21	20	21	24	24	24	19	16	13	12	13	12	13	17.3	23.8
6-Sep-05	12	10	9	7	7	6	6	6	9	10	13	18	21	22	22	23	24	20	15	10	11	12	13	11	13.1	23.7
7-Sep-05	9	8	5	4	6	6	6	5	5	9	30	29	29	30	29	32	38	33	23	11	11	8	9	9	15.9	37.7
8-Sep-05	13	10	12	14	16	11	11	N	20	N	37	32	28	27	24	20	17	20	15	7	8	5	6	10	16.5	36.9
9-Sep-05	15	14	14	11	5	10	13	N	13	12	15	15	N	9	11	9	10	10	11	9	10	8	9	10	11.0	14.6
10-Sep-05	9	10	8	12	9	9	9	9	11	10	11	12	11	9	6	5	5	3	4	3	5	7	9	5	8.0	11.6
11-Sep-05	5	6	4	3	3	4	7	6	5	6	5	5	7	8	10	14	14	14	17	15	13	12	14	14	8.9	17.0
12-Sep-05	13	13	10	12	11	9	10	11	14	15	19	17	17	20	19	19	14	13	7	7	7	3	4	8	12.2	20.1
13-Sep-05	5	5	3	4	2	3	5	6	5	5	6	9	8	11	12	10	10	6	6	5	4	5	4	2	5.9	12.3
14-Sep-05	3	4	18	29	17	14	19	16	15	13	11	9	7	9	10	8	9	10	8	7	7	8	5	3	10.8	28.6
15-Sep-05	4	5	4	6	6	6	6	6	7	7	7	6	7	7	8	7	7	9	5	2	2	3	5	5	5.7	8.8
16-Sep-05	4	4	4	4	4	5	6	8	10	11	9	15	16	15	18	13	13	13	14	16	13	13	13	15	10.7	18.4
17-Sep-05	13	13	15	15	16	13	6	7	9	16	17	19	23	20	28	28	27	24	17	15	12	10	9	6	15.7	27.8
18-Sep-05	10	9	9	12	9	8	10	9	12	19	25	26	28	29	26	22	14	19	22	22	34	21	18	23	18.1	34.0
19-Sep-05	13	14	19	23	22	21	17	18	24	22	36	40	39	41	41	40	39	39	29	29	22	15	17	17	26.6	41.5
20-Sep-05	20	21	18	14	17	14	14	16	20	27	29	30	29	30	31	26	27	25	17	9	16	18	19	18	21.1	31.4
21-Sep-05	19	20	21	19	19	16	15	14	14	18	21	16	12	13	17	14	9	6	12	9	5	12	7	5	14.0	20.8
22-Sep-05	3	5	7	7	7	5	6	6	6	6	7	6	6	10	15	11	9	21	15	9	5	4	9	13	8.2	21.4
23-Sep-05	12	8	8	5	6	6	6	7	10	14	16	16	19	17	19	20	25	22	29	27	21	19	18	12	15.1	29.3
24-Sep-05	12	13	14	14	12	10	5	7	11	14	21	20	20	22	23	27	20	20	15	15	18	19	18	17	16.1	27.2
25-Sep-05	18	18	15	16	18	12	20	34	40	45	47	46	42	43	43	43	37	33	26	18	12	11	9	9	27.2	47.2
26-Sep-05	10	12	11	7	5	3	6	11	9	12	6	9	9	14	7	7	19	21	20	19	17	18	17	15	11.8	20.5
27-Sep-05	14	12	6	4	5	5	5	7	7	9	10	12	14	16	18	17	12	11	11	9	9	9	6	6	9.8	18.2
28-Sep-05	5	3	6	4	5	5	4	5	6	5	10	17	22	28	44	37	21	32	29	33	32	23	27	21	17.7	44.4
29-Sep-05	17	22	30	30	27	16	11	20	22	22	27	27	28	25	28	26	22	19	13	14	14	15	17	16	21.2	30.3
30-Sep-05	17	20	20	19	18	17	16	16	16	21	25	20	19	20	22	21	19	14	8	3	6	11	8	3	15.9	24.6
																									N	0.0
1-hr Average	10.7	11.0	11.6	11.6	10.5	9.3	9.1	10.4	12.3	13.9	17.4	18.0	18.6	19.2	20.4	18.9	17.5	17.4	14.9	12.3	11.6	10.6	10.9	10.5		
Hourly Max	19.9	22.3	30.3	29.7	27.2	20.8	20.4	33.6	39.8	45.3	47.2	46.1	42.2	42.7	44.4	42.5	38.6	38.9	29.3	33.4	34.0	22.9	27.0	22.8		

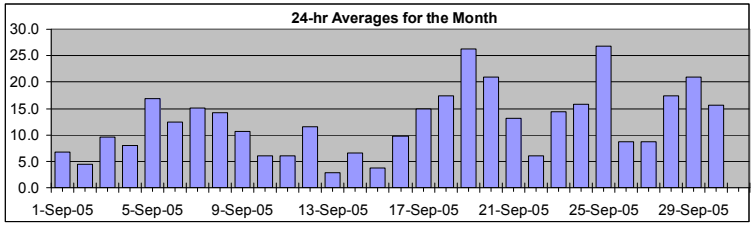
PASZA - Smoky Heights Vector Wind Speed Monthly Summary

Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Speed (WSv)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Average:	47.0	km/hr	25-Sep	10:00 11:00
Maximum 24-hr Value:	26.8	km/hr	25-Sep	

Calm Time:	1 hrs	**0%** calms			Operational Time:		715 hrs			
Calibration Time:	0 hrs				AMD Operational Uptime:		99.4%			
Percentile	99	95	75	50	25	5	1			AverageV
	41.7	29.2	18.2	11.4	6.6	3.2	1.7			118.3 km/hr

Status Flag Characters

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

Day — **Mountain Standard Time**

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-hr Vector Average	Daily Max
1-Sep-05	11	10	10	11	9	10	7	10	9	11	13	17	12	13	8	3	3	6	4	5	6	calm	8	2	6.7	16.6
2-Sep-05	2	3	3	3	3	3	4	7	6	3	4	5	4	6	7	4	10	10	14	16	5	4	3	8	4.5	15.8
3-Sep-05	8	9	12	8	5	3	3	2	6	7	10	16	24	25	21	19	20	22	20	8	3	2	7	10	9.7	24.6
4-Sep-05	10	12	13	11	4	6	7	7	10	13	10	9	12	15	15	12	2	4	2	2	4	4	4	7	7.9	15.2
5-Sep-05	11	17	17	18	19	18	14	10	15	18	23	21	19	20	23	23	23	19	16	13	12	13	12	13	16.9	23.4
6-Sep-05	12	10	8	7	7	6	5	6	8	10	12	17	21	21	21	22	23	20	15	10	11	12	13	11	12.4	23.3
7-Sep-05	9	8	4	4	6	6	6	5	5	9	29	28	29	29	28	31	37	33	23	11	11	8	9	9	15.1	37.4
8-Sep-05	13	9	12	14	16	11	11	N	20	N	37	32	28	26	23	18	17	20	15	6	7	1	6	9	14.2	36.7
9-Sep-05	15	14	14	11	4	10	13	N	13	12	15	14	N	9	11	8	10	9	11	9	10	8	9	9	10.7	14.5
10-Sep-05	9	10	8	12	9	9	9	9	11	10	10	11	11	9	5	4	4	3	4	3	5	7	9	4	6.0	11.5
11-Sep-05	5	6	4	3	3	4	7	6	5	5	5	5	6	6	9	10	14	14	17	15	13	11	13	14	6.0	16.9
12-Sep-05	13	13	10	12	10	9	9	11	14	15	18	16	17	20	19	19	13	13	6	7	7	1	3	8	11.5	19.8
13-Sep-05	3	5	3	3	1	3	4	6	5	4	6	9	8	11	12	10	9	6	6	5	4	5	3	2	2.9	12.2
14-Sep-05	3	3	18	27	17	14	19	15	14	13	11	9	7	9	9	8	9	10	8	7	6	8	5	3	6.6	27.4
15-Sep-05	4	5	4	5	6	6	6	6	7	7	6	6	7	6	8	7	7	9	5	2	1	3	4	5	3.8	8.7
16-Sep-05	4	3	4	4	4	5	6	8	10	10	8	14	15	15	18	13	13	12	14	16	13	13	13	15	9.8	18.1
17-Sep-05	13	13	15	15	16	11	5	6	9	15	17	19	22	20	27	27	27	24	17	15	12	10	9	6	14.9	27.4
18-Sep-05	10	9	9	12	9	8	9	9	12	19	25	26	27	28	26	22	14	19	22	22	33	19	17	23	17.4	33.0
19-Sep-05	13	14	19	23	21	21	17	18	24	22	36	40	39	41	40	39	38	39	29	29	22	15	17	17	26.3	41.2
20-Sep-05	20	21	18	14	17	14	14	16	20	27	29	30	29	29	31	26	27	24	17	9	16	18	19	18	20.9	31.1
21-Sep-05	19	20	21	19	19	16	15	14	14	18	21	16	11	11	16	11	8	5	11	8	2	12	4	3	13.1	20.6
22-Sep-05	3	4	7	6	7	5	6	6	6	6	7	5	4	10	13	11	8	18	13	5	5	4	9	12	6.0	18.0
23-Sep-05	12	7	8	5	6	6	6	7	10	14	16	16	18	17	18	20	24	22	29	27	21	19	18	12	14.4	29.2
24-Sep-05	12	13	14	14	12	10	5	7	11	14	21	19	20	22	23	27	19	20	15	15	18	19	18	17	15.9	27.1
25-Sep-05	18	18	15	15	18	11	20	34	40	45	47	46	42	42	42	42	37	33	26	18	12	11	9	8	26.8	47.0
26-Sep-05	10	11	11	7	4	2	5	10	9	11	4	8	8	14	6	6	19	20	20	19	17	18	17	15	8.7	20.4
27-Sep-05	14	10	6	4	5	5	5	7	7	9	10	11	14	15	18	16	12	11	11	9	9	9	6	6	8.7	17.6
28-Sep-05	5	3	5	4	5	5	4	5	5	5	10	16	21	27	44	37	21	32	29	33	32	23	27	21	17.4	44.2
29-Sep-05	17	22	30	30	27	15	11	20	22	22	26	26	28	25	28	25	22	19	13	14	14	15	17	16	21.0	30.2
30-Sep-05	17	20	20	19	18	17	16	16	16	21	25	20	18	19	22	21	18	14	8	3	6	10	7	1	15.6	24.5
																									N	0.0
1-hr Vector	8.6	9.2	9.9	9.8	8.7	7.4	7.0	8.0	9.0	10.9	13.5	13.3	14.7	15.4	17.1	16.6	14.8	14.4	11.8	9.8	9.6	8.8	8.9	8.9		
Hourly Max	19.9	22.3	30.2	29.6	27.1	20.6	19.8	33.6	39.8	45.2	47.0	45.9	41.8	42.4	44.2	42.3	38.2	38.8	29.2	33.4	33.0	22.8	26.9	22.5		

PASZA - Smoky Heights Wind Direction Monthly Summary

Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: September 1, 2005 to October 1, 2005

Summary

Calm Time:	0 hrs	**0%** calms					Operational Time:																		716 hrs	
Calibration Time:	0 hrs						AMD Operational Uptime:																		99.4%	
Percentile	99	95	75	50	25	5	1	Average																		
	352.0	336.7	265.5	249.8	222.0	44.8	13.1	257 deg																		

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	WD Sector
1-Sep-05	251	232	250	245	234	233	237	206	210	233	248	241	237	248	232	183	194	120	83	64	44	166	163	280	228	SW
2-Sep-05	17	344	310	272	295	249	244	196	206	184	184	143	141	140	121	183	204	182	182	204	213	164	206	244	196	SSW
3-Sep-05	239	250	258	233	199	269	168	204	161	165	171	174	251	266	258	265	258	259	256	299	14	220	247	276	247	WSW
4-Sep-05	261	272	276	269	245	242	200	198	205	228	231	235	231	220	233	253	313	279	291	257	241	222	263	238	242	WSW
5-Sep-05	245	249	253	267	266	265	259	233	221	238	255	264	271	266	266	268	259	258	261	251	264	268	276	277	259	W
6-Sep-05	273	270	264	260	242	247	220	201	186	201	212	245	254	250	245	252	255	253	252	251	261	257	268	262	248	WSW
7-Sep-05	205	224	242	259	221	210	199	198	214	226	252	267	257	257	260	251	250	255	250	235	241	237	212	211	246	WSW
8-Sep-05	209	230	225	235	245	258	270	N	253	N	265	275	274	277	271	281	314	307	345	5	326	277	284	316	274	W
9-Sep-05	325	333	331	311	303	330	325	N	342	342	348	348	N	336	349	341	352	352	349	344	337	348	352	355	339	NNW
10-Sep-05	348	347	347	349	357	355	355	11	33	23	23	37	44	20	3	359	336	14	204	207	270	293	295	217	358	N
11-Sep-05	231	261	211	184	225	253	256	249	234	195	194	183	173	240	238	306	334	325	320	301	289	279	314	338	282	WNW
12-Sep-05	341	339	335	323	306	265	276	285	272	288	311	312	310	310	315	301	310	305	300	278	285	327	265	286	304	NW
13-Sep-05	279	247	274	236	146	190	194	205	208	206	203	197	196	221	224	223	300	337	13	11	62	69	108	45	226	SW
14-Sep-05	47	235	256	284	299	283	281	316	336	337	343	348	14	32	18	26	45	46	56	55	49	51	39	36	336	NNW
15-Sep-05	57	36	43	46	49	49	39	35	30	27	19	8	358	9	351	342	334	315	300	305	248	223	214	211	8	N
16-Sep-05	213	221	216	208	200	188	208	211	222	232	200	196	216	197	231	240	233	232	249	257	267	267	264	260	231	SW
17-Sep-05	266	265	263	264	265	258	186	199	186	227	247	245	262	256	264	259	269	270	256	253	263	253	273	262	256	WSW
18-Sep-05	249	245	250	257	256	275	218	211	208	229	239	244	242	245	251	259	244	259	275	273	266	226	245	254	249	WSW
19-Sep-05	238	237	224	233	248	244	246	245	250	253	256	262	263	259	252	251	253	255	254	251	249	245	239	248	251	WSW
20-Sep-05	243	245	247	254	248	255	248	248	254	253	265	264	265	265	270	268	261	260	268	247	249	264	264	264	259	WSW
21-Sep-05	264	264	257	252	252	253	254	257	242	246	247	238	248	241	224	253	217	252	268	340	232	263	314	220	252	WSW
22-Sep-05	241	243	238	244	230	204	201	202	193	194	163	156	70	262	300	327	271	272	232	252	248	255	256	263	247	WSW
23-Sep-05	268	224	215	189	186	203	190	193	225	246	243	248	249	255	262	256	252	244	247	249	247	249	258	263	245	WSW
24-Sep-05	266	264	260	263	264	259	212	233	251	243	246	254	240	246	254	247	247	242	235	230	238	247	248	247	248	WSW
25-Sep-05	247	247	251	269	250	211	252	263	263	266	270	267	271	267	270	264	264	258	264	264	261	264	273	260	263	W
26-Sep-05	262	272	272	273	300	351	256	240	248	270	8	36	23	16	30	300	239	247	252	250	257	258	267	273	270	W
27-Sep-05	268	265	218	204	201	218	190	199	196	191	191	191	190	204	221	229	233	231	221	250	272	264	237	261	224	SW
28-Sep-05	244	212	229	210	205	206	234	242	244	248	225	215	231	230	250	251	242	233	242	242	244	244	245	249	240	WSW
29-Sep-05	253	249	251	255	255	247	229	239	244	247	253	253	234	241	243	244	261	260	256	253	267	268	269	266	251	WSW
30-Sep-05	265	263	255	252	266	267	265	264	263	262	265	272	260	253	248	250	256	271	267	262	258	283	221	348	261	W
																									N	-
Hourly Avg	261	260	257	260	256	254	248	241	244	249	255	255	255	257	259	261	262	262	260	259	262	257	260	265		

PASZA - Smoky Heights Standard Deviation of Wind Direction Monthly Summary

Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: September 1, 2005 to October 1, 2005

Summary

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	**0%** calms	Operational Time: 716 hrs
Calibration Time:	0 hrs		AMD Operational Uptime: 99.4%

Percentile	99	95	75	50	25	5	1
	49.5	30.2	12.1	7.7	4.8	2.2	1.6

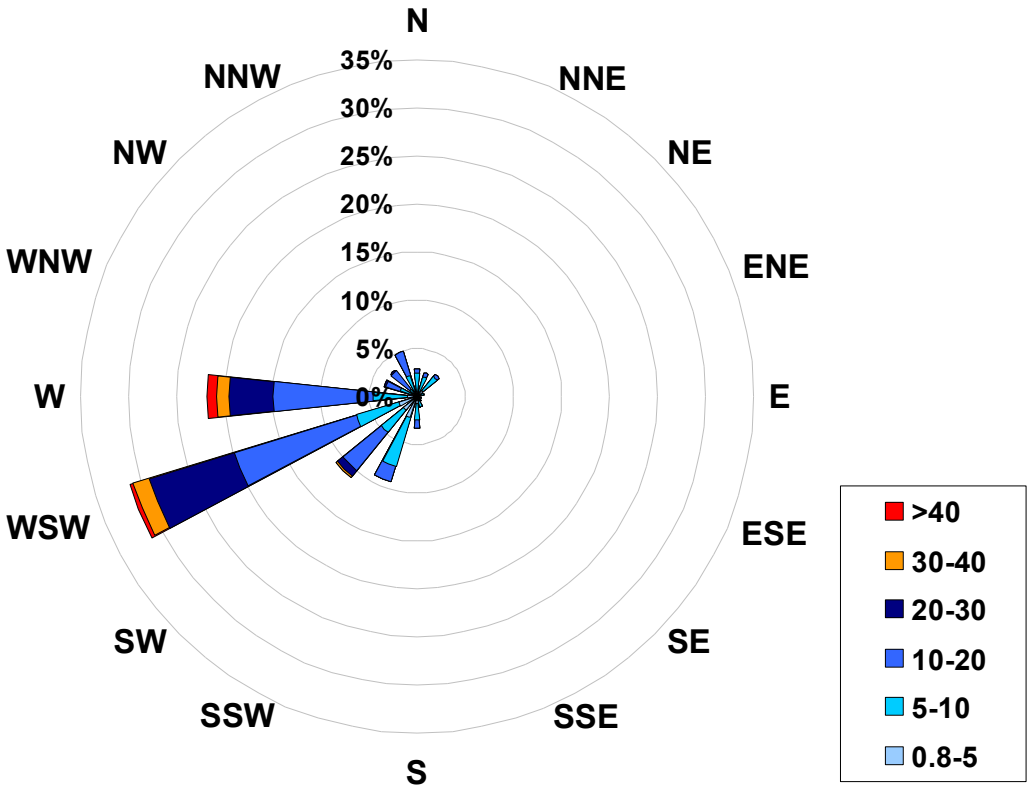
Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	Daily Maximum
1-Sep-05	6	7	4	4	8	6	9	38	10	12	11	15	18	17	23	39	55	14	9	6	7	71	11	35	70.5
2-Sep-05	10	26	17	10	14	21	22	10	12	29	24	28	56	39	35	23	12	8	6	5	8	12	33	9	56.3
3-Sep-05	6	12	9	10	21	17	32	21	11	22	11	6	25	16	12	11	9	6	5	10	28	29	9	4	31.9
4-Sep-05	5	2	2	7	23	8	8	12	7	12	12	15	21	15	14	30	23	35	29	14	13	45	14	14	45.1
5-Sep-05	4	11	4	2	2	1	2	11	5	7	8	11	16	11	11	8	8	6	6	3	2	3	3	2	16.4
6-Sep-05	3	6	5	5	5	5	8	6	8	10	11	13	10	11	13	12	9	7	3	2	4	6	4	7	13.1
7-Sep-05	7	9	7	8	13	9	14	11	14	10	7	8	10	11	10	7	6	5	4	5	4	5	5	5	14.2
8-Sep-05	3	11	6	4	4	6	5	N	5	N	6	5	9	11	7	11	10	7	9	7	16	58	11	12	58.2
9-Sep-05	4	4	5	8	15	7	6	N	6	6	7	8	N	14	14	13	9	8	9	9	6	7	8	9	14.5
10-Sep-05	7	6	8	6	7	7	6	7	7	8	7	8	9	15	32	41	33	23	12	34	7	5	4	15	40.7
11-Sep-05	12	5	12	19	14	9	8	11	22	20	28	27	29	39	13	21	10	8	6	4	4	9	6	7	38.5
12-Sep-05	7	6	8	5	5	4	4	3	6	8	12	11	8	9	10	7	12	9	15	8	8	35	27	6	34.6
13-Sep-05	25	12	15	12	41	21	11	7	10	18	10	7	5	7	7	7	11	12	8	8	19	10	33	50	49.6
14-Sep-05	30	49	3	5	5	5	4	9	7	8	8	13	11	13	11	13	12	7	7	8	14	7	9	12	49.0
15-Sep-05	7	7	7	7	7	8	8	7	9	10	14	17	12	18	12	16	12	6	8	21	36	12	14	14	35.6
16-Sep-05	15	13	26	6	8	6	8	8	11	13	18	12	16	12	11	13	9	7	3	3	2	2	2	3	25.9
17-Sep-05	2	2	2	2	2	27	15	5	5	11	8	11	10	12	9	8	7	5	4	3	3	5	6	10	26.6
18-Sep-05	4	12	5	4	6	8	6	4	4	6	6	8	8	10	8	5	9	9	6	5	13	11	8	5	13.0
19-Sep-05	5	8	5	4	5	4	4	4	4	8	7	6	6	6	8	7	6	5	5	3	3	3	2	4	8.4
20-Sep-05	2	3	2	3	2	3	3	3	4	5	7	7	6	11	7	6	6	4	4	5	2	3	2	1	10.5
21-Sep-05	2	2	2	2	2	2	2	2	6	6	7	14	20	17	16	51	21	38	18	33	62	3	44	25	61.9
22-Sep-05	29	12	8	15	6	12	5	6	9	12	15	37	27	17	19	9	10	19	16	24	10	12	6	4	37.2
23-Sep-05	2	17	8	16	5	17	8	8	7	8	11	11	9	15	14	9	10	5	4	3	3	3	3	3	17.1
24-Sep-05	3	2	2	2	3	4	11	6	7	9	7	8	10	9	6	5	6	4	3	7	4	2	2	3	10.9
25-Sep-05	2	3	4	2	4	7	7	3	3	4	5	6	8	6	7	5	4	5	2	2	3	3	7	3	7.6
26-Sep-05	5	5	5	21	37	64	29	9	6	6	34	9	16	13	24	14	5	4	3	2	2	3	2	2	64.1
27-Sep-05	2	29	30	16	10	8	13	6	9	6	9	15	13	12	12	11	7	7	3	7	5	4	8	11	30.4
28-Sep-05	12	15	13	13	12	12	26	19	14	10	9	7	6	8	4	3	4	4	5	3	3	4	3	5	26.0
29-Sep-05	5	3	3	3	3	6	10	2	4	6	8	8	7	7	9	8	8	3	4	3	2	1	2	2	10.2
30-Sep-05	3	2	2	2	3	2	2	3	4	5	5	8	12	13	12	9	7	5	5	32	11	6	20	28	32.5
																									0.0
Hourly Max	30	49	30	21	41	64	32	38	22	29	34	37	56	39	35	51	55	38	29	34	62	71	44	50	

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



Calms:	0%

Frequency Distribution of Wind in km/hr			
Range			Frequency (hrs)
0.8	<	5	84
5	to	10	210
10	to	20	282
20	to	30	107
30	to	40	22
	>	40	11
Total Non-Zero Values			716

PASZA – Beaverlodge Station

Monthly Summary Tables, Graphs, and Roses

PASZA - Beaverlodge AQI Monthly Summary

Station: Beaverlodge
Station Owner: PASZA

Air Quality Index (AQI)

Monitoring Dates: September 1, 2005 to October 1, 2005

Alberta's Air Quality Index

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

Summary

Number of 1-hr Good Readings:	716
Number of 1-hr Fair Readings:	0
Number of 1-hr Poor Readings:	0
Number of 1-hr Very Poor Readings:	0

Status Flag Characters

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

Day **Mountain Standard Time**

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

PASZA - Beaverlodge Sulphur Dioxide Monthly Summary

Station: Beaverlodge
Station Owner: PASZA

HOURLY AVERAGE TABLE

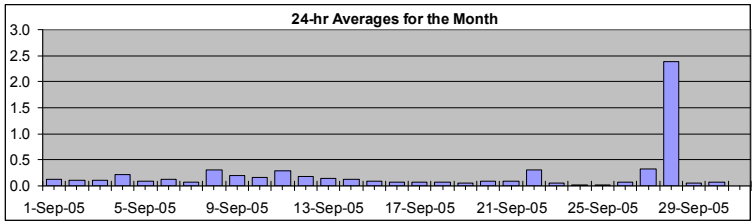
Sulphur Dioxide (SO_2)

Monitoring Dates: September 1, 2005 to October 1, 2005

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

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	8.7	ppb	28-Sep	0:00 1:00
Maximum 24-hr Average:	2.4	ppb	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
	3.7	0.6	0.1	0.1	0.0	0.0	0.0	0.2 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	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-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
2-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
3-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
4-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0.2	1.1
5-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
6-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
7-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
8-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	1	1	1	1	1	1	1	0	0.3	1.2
9-Sep-05	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
10-Sep-05	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
11-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	0	0.3	1.4
12-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	1.0
13-Sep-05	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
14-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.1	0.7
15-Sep-05	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
16-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
17-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
18-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
19-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
20-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.1	0.8
21-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
22-Sep-05	0	0	0	0	0	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0.3	1.7
23-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
24-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
25-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
26-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
27-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0.3	6.2
28-Sep-05	9	7	4	7	2	3	7	6	3	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2.4	8.7
29-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
30-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
																									N	0.0
Hourly Avg	0.4	0.3	0.2	0.3	0.1	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3		
Hourly Max	8.7	6.9	3.8	6.5	2.0	3.4	6.8	5.8	3.2	6.5	2.4	1.7	0.8	1.2	1.4	0.8	1.2	0.8	0.8	1.1	0.7	0.8	0.7	6.2		

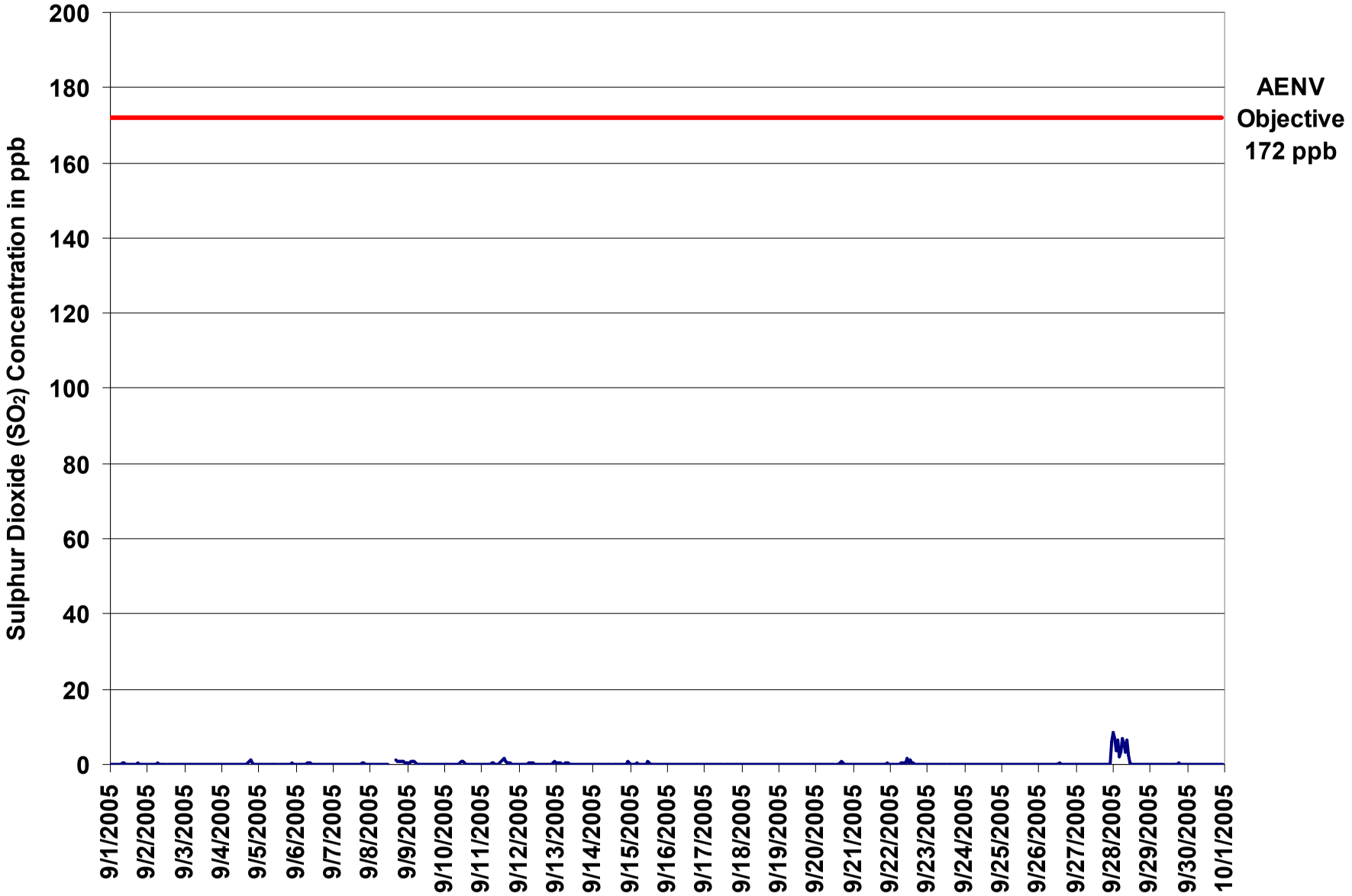


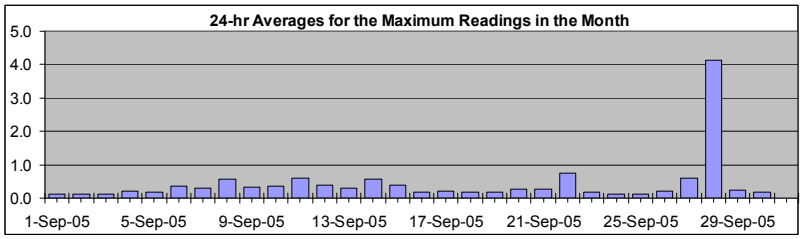
Figure 34. PASZA - Beaverlodge Sulphur Dioxide 1-hr Average Monthly Trend

HOURLY MAXIMUM TABLE

Sulphur Dioxide (SO_2)

Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Value:	14.1	ppb	28-Sep	9:00 10:00
Maximum 24-hr Value:	4.1	ppb	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
	8.2	1.1	0.2	0.2	0.1	0.1	0.0	0.4 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
2-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
3-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
4-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0.2	1.1
5-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.2	0.8
6-Sep-05	0	0	0	3	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.6
7-Sep-05	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.3	2.7
8-Sep-05	0	0	0	2	0	0	0	0	0	0	0	0	0	C	C	C	3	1	1	1	1	1	1	1	0.6	2.5
9-Sep-05	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
10-Sep-05	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	1.5
11-Sep-05	0	0	0	0	0	0	0	1	0	0	0	0	1	2	3	2	1	1	1	0	0	0	0	0	0.6	3.0
12-Sep-05	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0.4	1.2
13-Sep-05	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
14-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	5	3	0.6	4.8
15-Sep-05	0	0	0	0	3	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0.4	2.8
16-Sep-05	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
17-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
18-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
19-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
20-Sep-05	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0.3	1.3
21-Sep-05	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0.3	0.8
22-Sep-05	0	0	0	0	0	0	0	0	1	1	2	3	2	3	2	2	0	0	0	0	0	0	0	0	0.7	3.0
23-Sep-05	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
24-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
25-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
26-Sep-05	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
27-Sep-05	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0.6	9.2
28-Sep-05	12	12	9	8	5	7	9	9	4	14	7	1	0	0	0	0	0	0	0	0	0	0	0	0	4.1	14.1
29-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0.2	1.7
30-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
																									N	0.0
Hourly Avg	0.6	0.6	0.5	0.7	0.4	0.4	0.5	0.5	0.5	0.7	0.5	0.4	0.3	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.4	0.6		
Hourly Max	11.6	12.4	8.9	8.3	4.8	7.4	9.0	8.8	4.2	14.1	6.7	2.7	1.9	3.0	3.0	2.2	2.5	1.0	1.7	1.1	1.5	1.1	4.8	9.2		

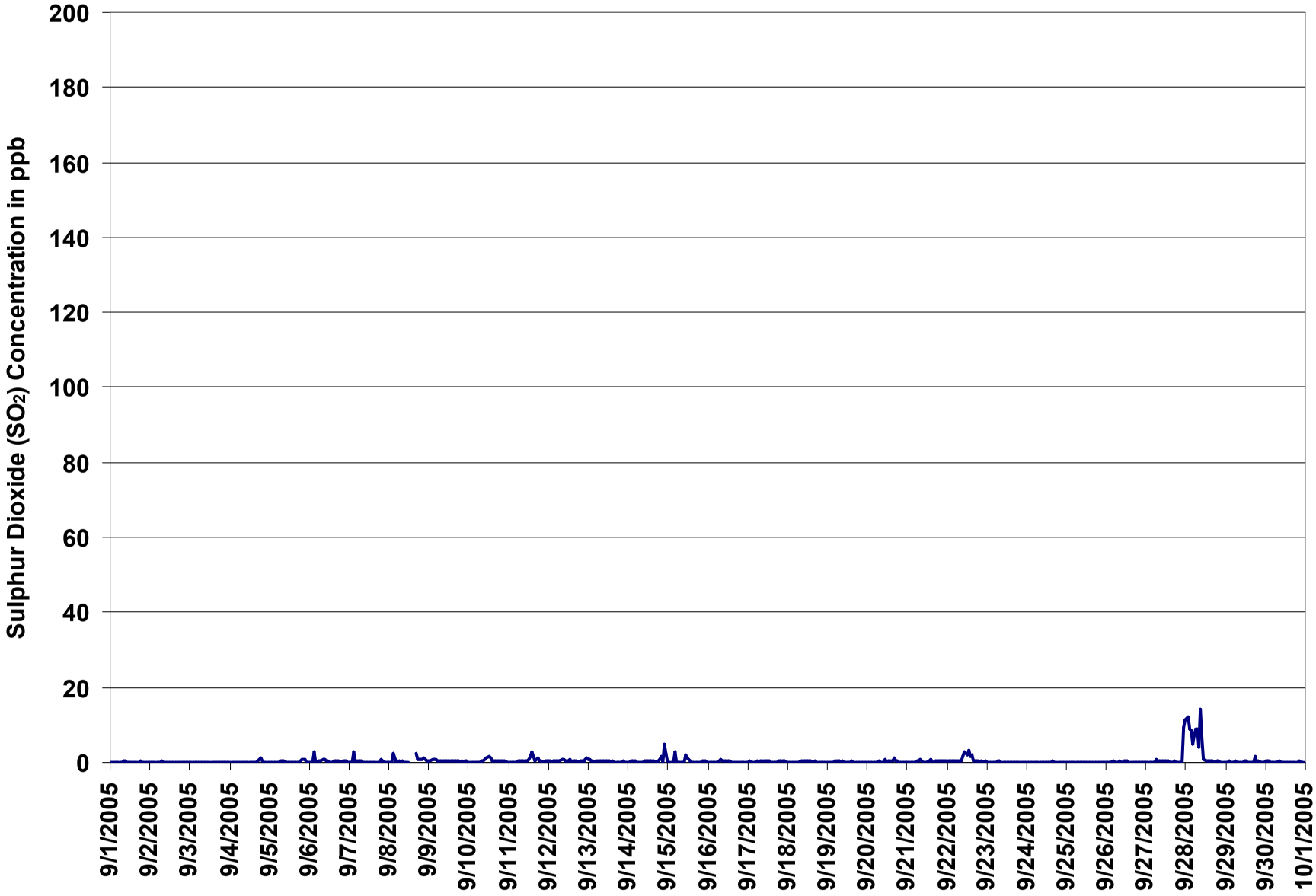
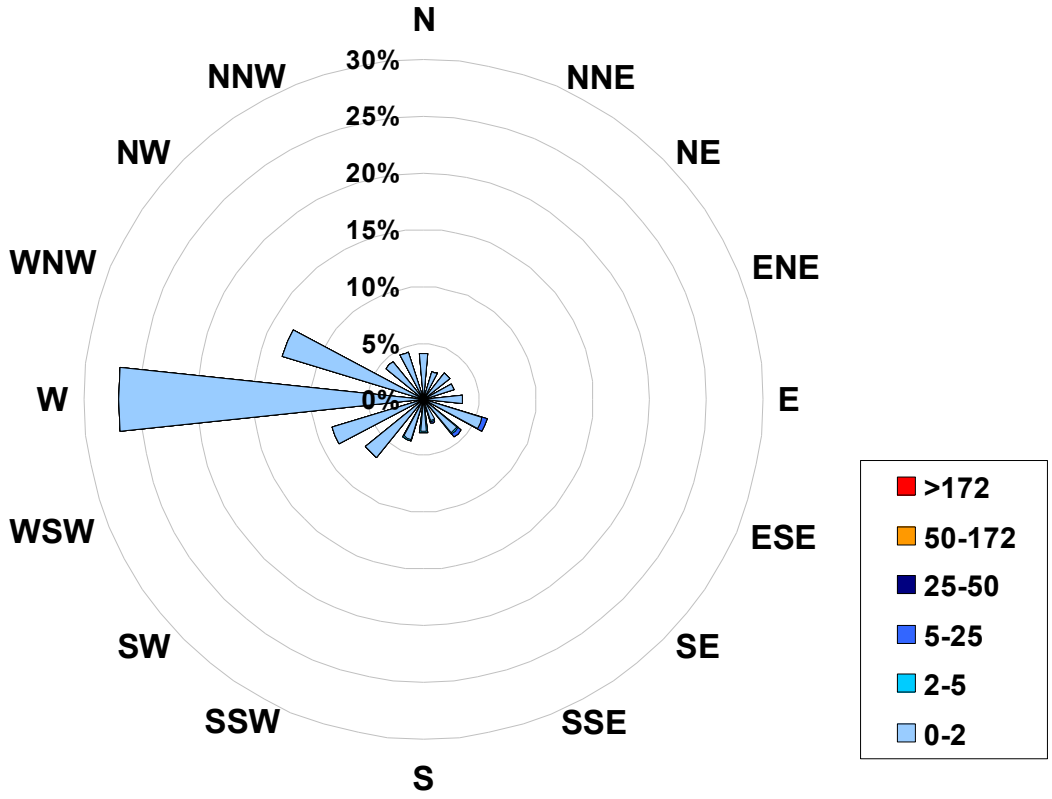


Figure 35. PASZA - Beaverlodge Sulphur Dioxide 1-hr Maximum Value Monthly Trend

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



Calms:	1%

Frequency Distribution of SO_2 in ppb			
Range			Frequency (hrs)
0.0	<	2	706
2	to	5	4
5	to	25	7
25	to	50	0
50	to	172	0
	>	172	0
Total Non-Zero Values			717

PASZA - Beaverlodge Nitrogen Dioxide Monthly Summary

HOURLY AVERAGE TABLE

Nitrogen Dioxide (NO_2)

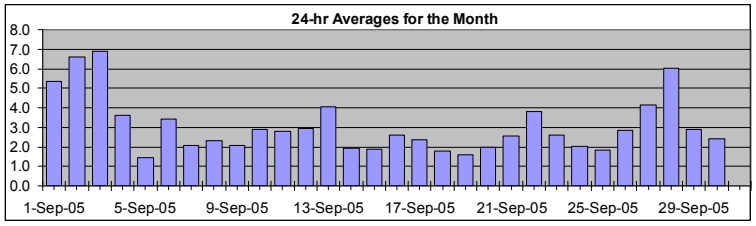
Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005

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

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	18.0	ppb	28-Sep	6:00 7:00
Maximum 24-hr Average:	6.9	ppb	3-Sep	



AIC Time:	0 hrs	Operational Time:	711 hrs
Calibration Time:	9 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	10.4	7.9	4.1	2.2	1.3	0.8	0.0	3.1 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-05	4	3	5	6	5	8	10	7	7	5	4	3	4	4	4	4	4	4	6	6	6	6	6	7	5.4	10.4
2-Sep-05	8	6	6	6	10	8	8	8	6	6	6	5	5	4	5	6	9	5	5	7	9	6	6	7	6.6	9.5
3-Sep-05	8	7	7	7	7	11	11	8	7	6	5	6	5	5	5	5	5	5	7	8	9	8	8	7	6.9	10.9
4-Sep-05	8	8	8	8	8	8	9	7	5	4	3	2	1	1	0	0	0	0	0	5	1	0	0	0	3.6	9.4
5-Sep-05	0	0	0	0	0	0	3	4	2	2	1	1	1	1	1	1	1	1	1	3	5	5	2	1	1.4	5.2
6-Sep-05	3	2	2	2	4	7	9	9	7	8	C	C	C	C	5	0	0	0	1	2	2	3	2	1	3.4	9.4
7-Sep-05	1	1	1	2	2	4	6	4	1	0	0	0	0	0	0	1	1	1	2	11	6	2	1	1	2.1	10.5
8-Sep-05	2	1	1	1	2	4	10	4	2	1	1	1	1	1	1	1	1	1	1	6	3	2	2	7	2.3	9.7
9-Sep-05	7	4	2	2	2	4	3	2	4	2	1	1	1	1	1	1	1	1	1	1	1	3	1	1	2.1	7.2
10-Sep-05	2	4	2	2	4	3	3	2	2	1	1	1	1	1	1	2	2	3	5	6	8	5	6	4	2.9	8.0
11-Sep-05	4	5	5	4	5	4	4	3	3	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2.8	5.0
12-Sep-05	2	1	2	3	3	8	8	7	2	1	1	1	1	1	1	1	2	2	2	4	6	5	3	4	3.0	8.2
13-Sep-05	4	5	5	6	5	8	9	9	6	C	C	C	C	C	2	1	1	1	3	3	2	2	3	1	4.1	9.2
14-Sep-05	1	1	1	2	1	2	3	3	2	2	1	1	1	2	2	1	1	2	2	3	3	3	3	3	1.9	3.4
15-Sep-05	2	2	1	1	1	2	2	2	2	1	1	1	1	1	1	1	2	2	2	2	2	5	4	3	1.9	5.1
16-Sep-05	3	4	4	4	4	4	4	3	2	1	1	1	2	2	1	1	1	2	2	3	3	3	2	3	2.6	4.3
17-Sep-05	4	4	3	3	2	3	4	3	3	3	2	1	1	1	1	1	1	1	2	2	2	4	3	1	2.4	4.3
18-Sep-05	1	1	2	1	1	2	5	3	3	2	1	1	1	1	1	1	1	1	2	1	2	3	2	1	1.8	5.0
19-Sep-05	1	1	1	1	2	5	4	3	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1.6	5.4
20-Sep-05	1	1	1	1	2	2	5	3	1	1	1	3	1	2	1	1	1	2	2	3	4	2	3	4	2.0	4.7
21-Sep-05	2	1	1	1	2	3	5	6	5	2	1	1	1	2	3	1	1	2	2	3	2	3	6	4	2.5	5.8
22-Sep-05	4	5	3	4	4	6	8	6	6	5	3	3	1	2	2	2	2	3	3	5	4	3	3	4	3.8	8.2
23-Sep-05	3	3	3	3	3	4	6	8	4	2	2	1	1	1	1	2	2	2	2	2	2	2	2	1	2.6	7.5
24-Sep-05	2	2	2	2	1	3	5	4	4	2	2	1	1	1	1	2	1	2	2	2	2	2	2	1	2.0	4.6
25-Sep-05	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	3	5	5	2	2	2	1.8	5.3
26-Sep-05	2	2	2	1	2	2	5	5	4	3	2	2	2	2	2	2	2	3	3	4	3	4	5	5	2.9	5.3
27-Sep-05	4	4	4	5	4	5	8	5	5	3	2	2	3	4	2	2	2	4	5	5	4	6	6	6	4.1	7.6
28-Sep-05	8	10	8	11	10	10	18	12	10	10	7	3	2	2	2	2	2	2	2	2	2	3	3	2	6.0	18.0
29-Sep-05	3	2	2	2	2	3	5	3	2	1	1	2	1	1	1	2	2	3	9	5	8	4	3	3	2.9	9.4
30-Sep-05	4	2	2	2	2	0	1	2	2	1	1	1	1	2	2	1	1	2	4	6	6	4	4	5	2.4	6.2
																									N	0.0
Hourly Avg	3.3	3.2	3.0	3.2	3.4	4.5	6.1	4.9	3.8	2.7	2.0	1.8	1.7	1.8	1.8	1.6	1.8	2.1	2.8	3.9	3.9	3.5	3.2	3.1		
Hourly Max	8.3	10.2	8.2	10.8	9.7	10.8	18.0	12.4	10.5	9.6	6.9	6.2	5.2	5.3	5.3	6.1	9.2	5.5	9.4	10.5	9.4	7.7	7.7	7.3		

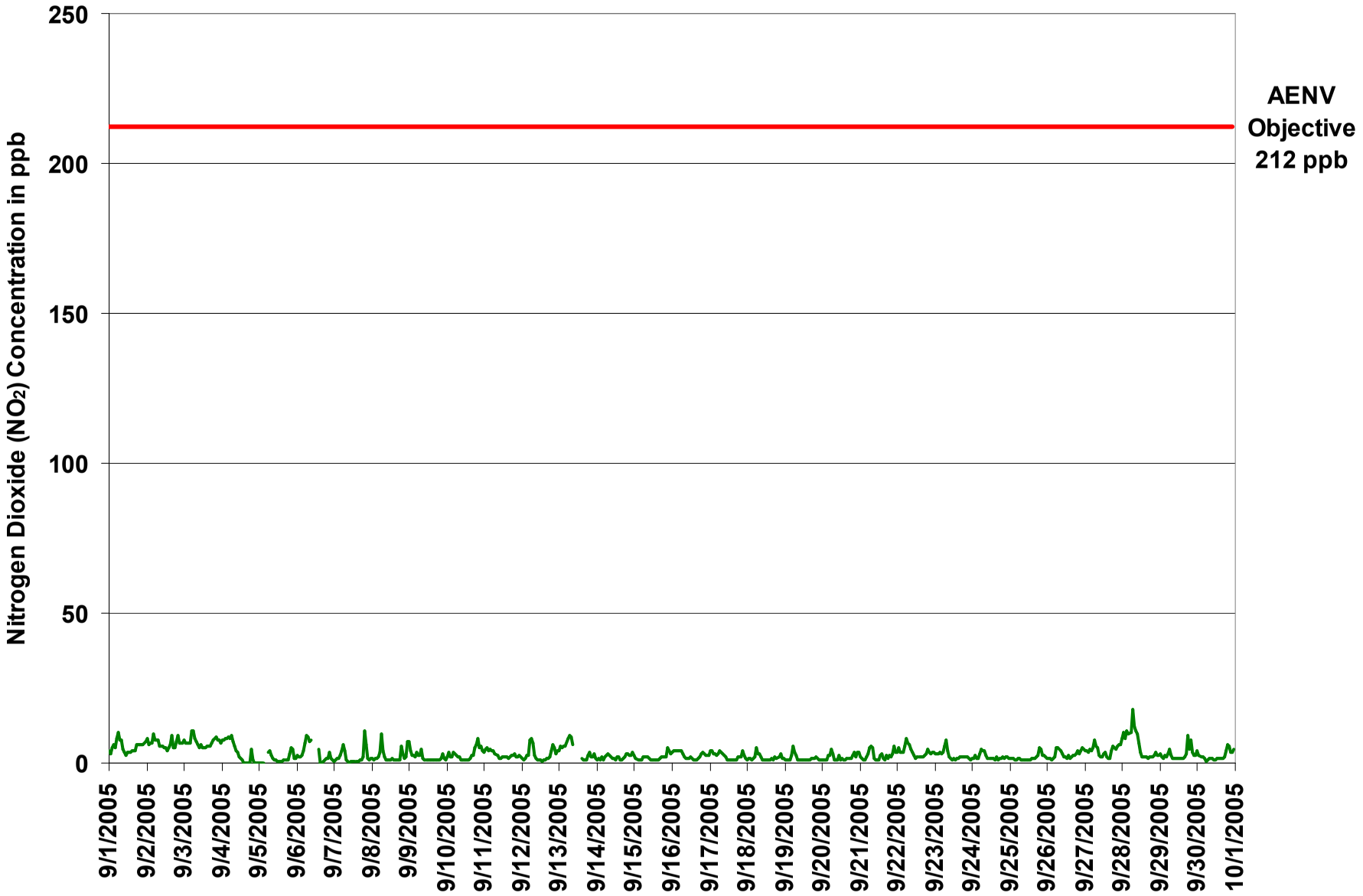


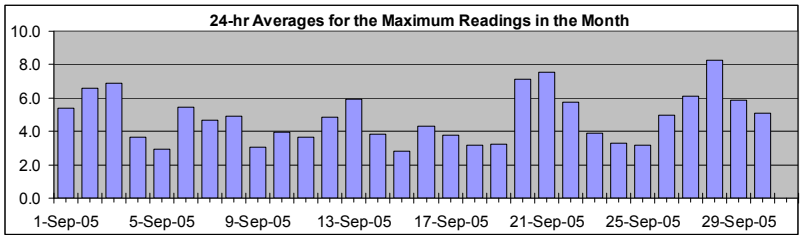
Figure 36. PASZA - Beaverlodge Nitrogen Dioxide 1-hr Average Monthly Trend

HOURLY MAXIMUM TABLE

Nitrogen Dioxide (NO_2)

Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Value:	67.7	ppb	20-Sep	11:00 12:00
Maximum 24-hr Value:	8.2	ppb	28-Sep	

AIC Time:	0 hrs	Operational Time:	711 hrs
Calibration Time:	9 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	21.0	11.0	5.9	3.9	2.0	1.1	0.0	4.8 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-05	4	3	5	6	5	8	10	7	7	5	4	3	4	4	4	4	4	4	6	6	6	6	6	7	5.4	10.4
2-Sep-05	8	6	6	6	10	8	8	8	6	6	6	5	5	4	5	6	9	5	5	7	9	6	6	7	6.6	9.5
3-Sep-05	8	7	7	7	7	11	11	8	7	6	5	6	5	5	5	5	5	5	7	8	9	8	8	7	6.9	10.9
4-Sep-05	8	8	8	8	8	8	9	7	5	4	3	2	1	1	0	0	0	0	0	5	1	0	0	0	3.6	9.4
5-Sep-05	0	0	0	0	0	0	5	5	4	2	2	1	2	1	2	1	2	2	1	8	15	13	2	4	2.9	15.1
6-Sep-05	4	2	2	6	5	10	11	10	12	11	C	C	C	C	5	1	1	1	3	3	5	7	4	2	5.5	12.3
7-Sep-05	1	1	1	14	3	8	8	9	3	5	0	2	1	1	2	2	2	2	5	19	10	3	2	3	4.7	19.1
8-Sep-05	3	3	4	4	4	9	15	6	5	3	2	2	6	2	2	2	4	2	2	12	9	2	6	14	4.9	15.3
9-Sep-05	10	8	3	3	3	5	4	4	6	2	1	2	2	1	2	1	2	1	2	2	2	4	3	2	3.1	9.7
10-Sep-05	4	5	3	2	5	4	4	2	2	2	1	1	1	2	1	2	4	3	9	9	10	7	7	6	4.0	9.8
11-Sep-05	4	5	6	5	5	5	5	5	4	3	2	2	3	3	2	2	2	4	4	5	3	3	4	2	3.6	5.9
12-Sep-05	2	2	4	5	6	10	12	11	4	2	1	1	2	4	2	3	2	2	3	11	11	9	4	5	4.8	11.8
13-Sep-05	6	7	6	6	7	11	10	10	9	C	C	C	C	C	3	2	2	2	5	6	3	11	4	4	5.9	10.8
14-Sep-05	2	8	2	22	3	3	4	5	4	3	2	2	2	2	2	2	2	3	2	4	4	3	3	4	3.8	22.1
15-Sep-05	3	2	1	1	2	3	4	3	2	2	2	2	2	2	1	2	3	3	3	3	4	8	5	5	2.8	7.9
16-Sep-05	5	5	5	5	5	5	5	4	21	2	2	2	3	3	2	2	2	2	3	5	5	4	3	4	4.3	21.2
17-Sep-05	5	5	4	4	3	5	7	5	5	3	6	2	4	2	2	2	2	2	5	4	3	5	4	3	3.8	7.4
18-Sep-05	2	3	3	3	2	4	8	5	6	3	2	2	2	2	2	2	2	2	3	2	5	4	4	3	3.2	7.8
19-Sep-05	2	2	3	1	7	12	7	5	3	2	2	1	2	2	2	2	2	3	2	3	4	4	2	3	3.2	12.2
20-Sep-05	2	2	3	2	5	4	9	6	2	3	2	68	2	23	2	2	4	3	3	4	7	4	5	5	7.1	67.7
21-Sep-05	4	2	1	2	2	5	13	11	8	5	1	2	2	23	48	3	2	7	3	8	7	7	11	6	7.5	48.4
22-Sep-05	4	8	4	4	6	8	11	9	8	9	4	3	2	6	5	4	3	5	5	7	6	5	6	7	5.7	11.1
23-Sep-05	3	5	4	4	3	5	9	11	7	3	2	2	5	2	2	3	3	3	3	4	3	4	3	2	3.9	10.8
24-Sep-05	3	2	6	2	2	5	7	6	5	4	3	2	2	2	2	3	3	3	3	4	3	3	3	2	3.3	6.9
25-Sep-05	4	3	2	2	2	3	2	2	2	2	2	2	2	2	2	3	4	2	5	10	7	5	5	3	3.2	9.8
26-Sep-05	3	2	2	2	3	6	13	12	7	5	3	3	2	5	4	4	4	4	8	6	5	7	6	6	5.0	12.7
27-Sep-05	5	4	5	7	5	8	12	8	7	3	2	4	4	6	3	3	6	7	9	8	9	8	7	9	6.1	11.7
28-Sep-05	13	13	10	12	12	13	24	17	14	12	13	5	3	3	3	3	2	3	3	4	5	5	4	4	8.2	23.5
29-Sep-05	5	4	3	6	5	7	9	5	3	2	4	3	2	2	2	3	4	10	21	10	16	6	6	4	5.9	21.4
30-Sep-05	7	5	3	4	6	1	6	6	5	3	2	2	3	3	3	2	3	3	11	9	13	5	10	8	5.1	13.1
																									N	0.0
Hourly Avg	4.4	4.3	3.8	5.1	4.6	6.4	8.7	7.0	6.1	4.0	2.9	4.7	2.7	4.2	4.1	2.5	3.0	3.3	4.8	6.5	6.6	5.5	4.7	4.7		
Hourly Max	12.7	12.7	9.8	22.1	11.8	13.1	23.5	16.6	21.2	12.2	12.7	67.7	5.6	22.7	48.4	6.1	9.2	9.6	21.4	19.1	16.4	13.4	10.8	14.2		

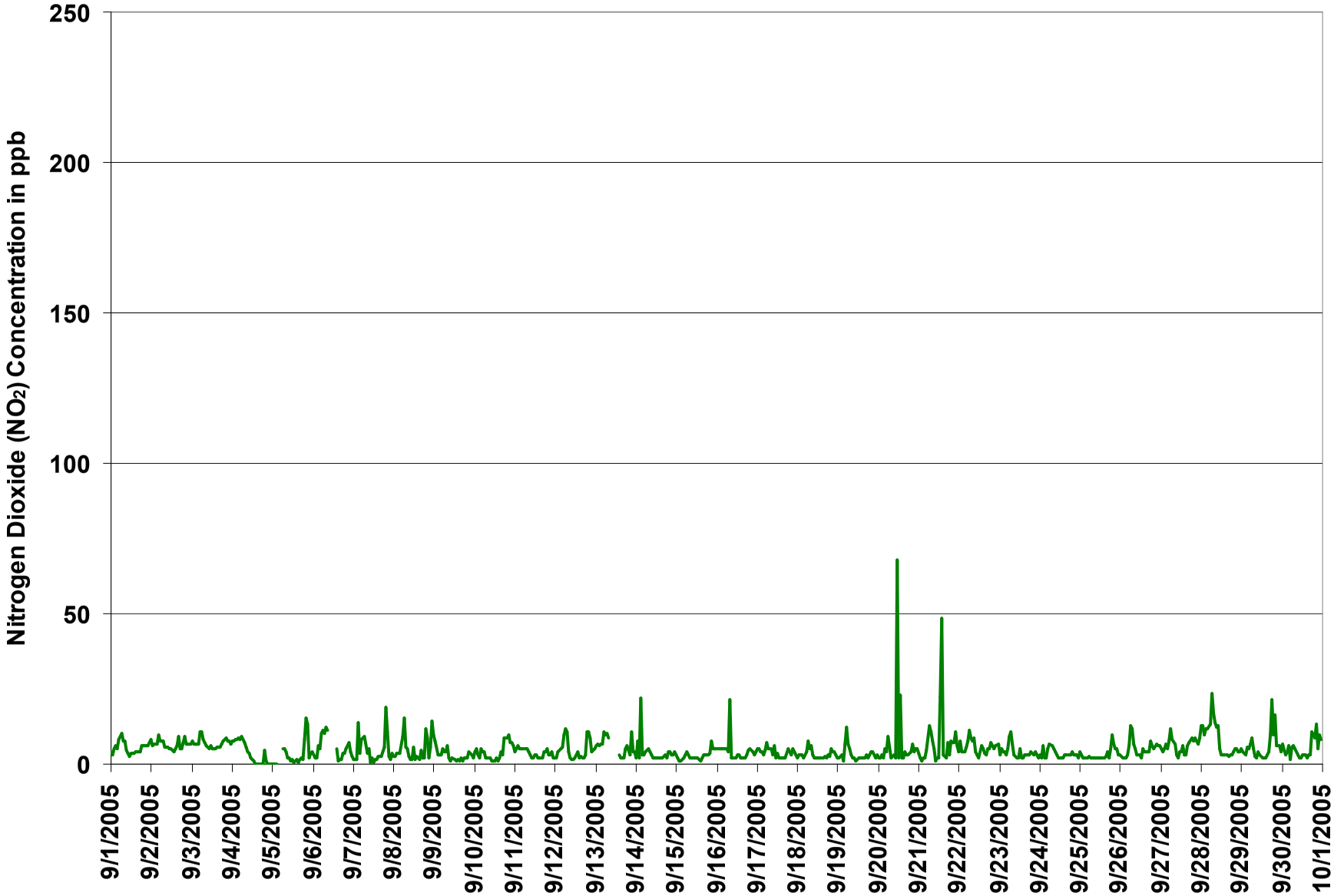
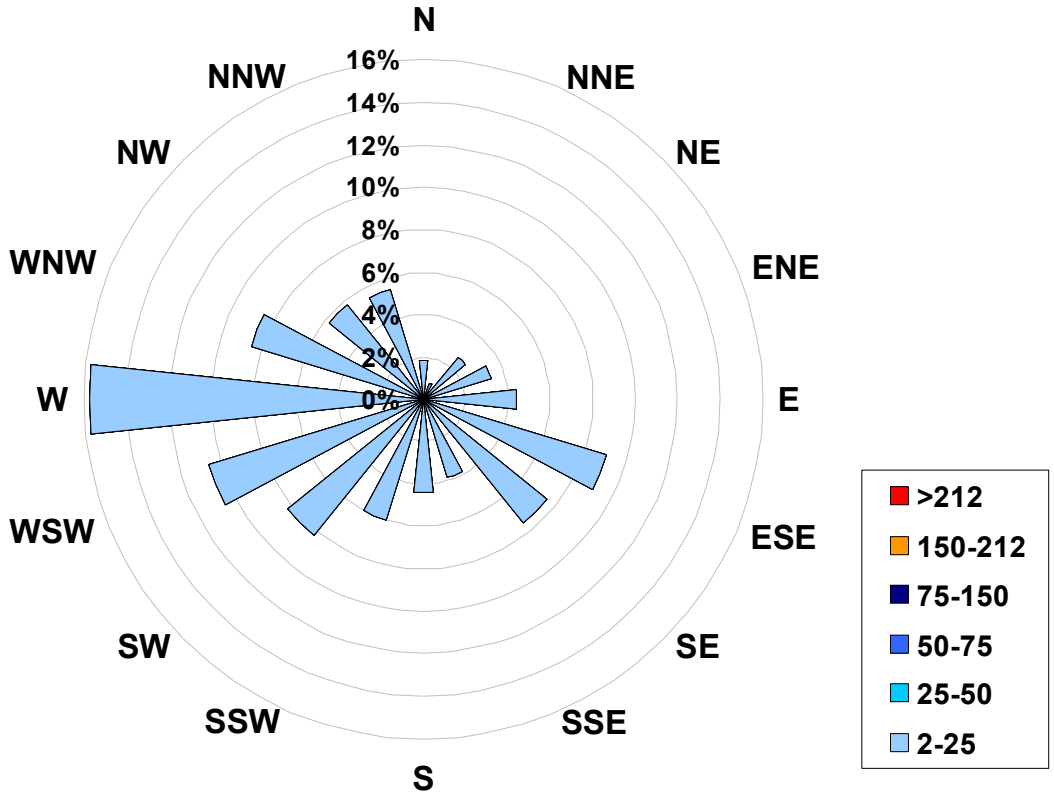


Figure 37. PASZA - Beaverlodge Nitrogen Dioxide 1-hr Maximum Value Monthly Trend

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



Calms:	1%

Frequency Distribution of NO_2 in ppb			
Range			Frequency (hrs)
2.0	<	25	710
25	to	50	1
50	to	75	0
75	to	150	0
150	to	212	0
	>	212	0
Total Non-Zero Values			711

PASZA - Beaverlodge Nitric Oxide Monthly Summary

HOURLY AVERAGE TABLE

Nitric Oxide (NO)

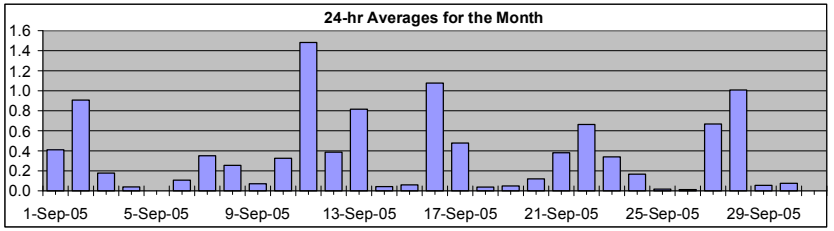
Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005

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

Summary

Maximum 1-hr Average:	9.6	ppb	28-Sep	9:00 10:00
Maximum 24-hr Average:	1.5	ppb	11-Sep	



AIC Time:	0 hrs	Operational Time:	711 hrs
Calibration Time:	9 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	4.9	2.1	0.1	0.0	0.0	0.0	0.0	0.4 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Sep-05	0	0	0	0	0	0	2	3	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.6
2-Sep-05	0	0	0	0	0	2	1	8	4	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	8.2
3-Sep-05	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0.2	1.7
4-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.5
5-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
6-Sep-05	0	0	0	0	0	0	0	2	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.1	1.8
7-Sep-05	0	0	0	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.4	2.5
8-Sep-05	0	0	0	0	0	0	2	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.3	2.3
9-Sep-05	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9
10-Sep-05	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0.3	1.2
11-Sep-05	0	0	0	1	1	2	3	8	8	4	3	2	1	1	1	0	0	0	0	0	0	0	0	0	1.5	8.4
12-Sep-05	0	0	0	0	0	1	2	3	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.4	2.6
13-Sep-05	0	0	0	0	0	2	4	5	4	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.8	4.8
14-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
15-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
16-Sep-05	0	0	0	0	0	0	1	5	6	4	4	2	2	1	0	0	0	0	0	0	0	0	0	0	1.1	6.0
17-Sep-05	0	0	0	0	0	0	0	1	4	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.9
18-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
19-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
20-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
21-Sep-05	0	0	0	0	0	0	0	3	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.7
22-Sep-05	0	0	0	0	0	0	0	2	5	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0.7	5.1
23-Sep-05	0	0	0	0	0	0	0	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	3.0
24-Sep-05	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.2	1.6
25-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
26-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
27-Sep-05	0	0	0	0	0	0	1	1	4	2	1	1	2	2	0	0	0	0	0	0	0	0	0	0	0.7	4.5
28-Sep-05	0	0	0	0	0	1	1	0	5	10	5	1	0	0	0	0	0	0	0	0	0	0	0	0	1.0	9.6
29-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
30-Sep-05	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
																									N	0.0
Hourly Avg	0.0	0.0	0.0	0.1	0.1	0.3	0.7	1.7	2.0	1.3	0.7	0.3	0.3	0.3	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0		
Hourly Max	0.1	0.1	0.1	0.7	0.6	2.2	4.0	8.4	8.3	9.6	5.2	2.2	2.1	2.3	0.5	0.3	1.7	1.0	1.2	1.3	0.7	0.2	0.1	0.2		

PASZA - Beaverlodge Oxides of Nitrogen Monthly Summary

HOURLY AVERAGE TABLE

Oxides of Nitrogen (NO_x)

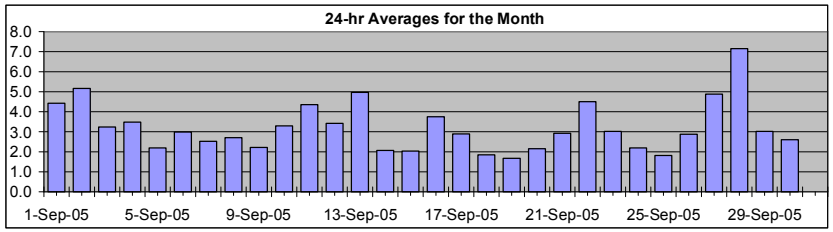
Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005

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

Summary

Maximum 1-hr Average:	19.4	ppb	28-Sep	9:00 10:00
Maximum 24-hr Average:	7.2	ppb	28-Sep	



AIC Time:	0 hrs	Operational Time:	711 hrs
Calibration Time:	9 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	12.2	8.6	4.1	2.3	1.5	1.0	0.3	3.2 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	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-05	3	2	4	5	4	8	11	9	10	5	3	2	2	3	2	2	2	2	4	4	4	4	4	5	4.4	11.1
2-Sep-05	6	4	4	4	8	8	7	14	9	7	5	4	2	2	2	4	7	2	2	4	6	3	3	3	5.2	14.2
3-Sep-05	4	3	3	3	3	7	8	6	5	2	2	2	2	1	1	1	1	1	2	3	4	3	3	2	3.2	8.2
4-Sep-05	3	3	2	3	4	4	7	6	5	4	3	2	1	1	1	1	1	1	3	9	5	3	2	2	3.5	9.3
5-Sep-05	3	3	4	4	3	3	3	5	3	2	0	0	0	0	0	0	1	1	1	3	5	5	1	1	2.2	5.3
6-Sep-05	3	2	2	3	4	6	8	11	5	3	C	C	C	C	0	0	0	1	1	2	2	4	2	1	3.0	10.9
7-Sep-05	1	1	1	2	3	5	7	7	2	1	1	1	1	1	1	1	1	1	2	12	6	2	1	2	2.5	12.1
8-Sep-05	2	1	2	2	2	4	12	5	3	1	1	1	1	2	1	1	2	1	1	6	3	2	2	7	2.7	12.2
9-Sep-05	7	4	2	2	2	4	3	3	5	2	1	1	1	1	1	1	1	1	1	1	2	3	1	1	2.2	7.3
10-Sep-05	2	4	2	2	4	4	3	2	3	2	1	1	1	1	2	2	3	3	6	7	9	5	6	4	3.3	8.8
11-Sep-05	4	5	5	4	5	6	7	12	11	6	5	4	3	3	2	2	2	3	3	3	2	2	3	2	4.4	11.7
12-Sep-05	2	1	2	3	3	9	10	9	4	2	1	1	1	2	1	1	2	2	2	4	6	5	3	4	3.4	10.3
13-Sep-05	5	6	5	6	6	10	13	14	10	C	C	C	C	C	2	1	1	1	3	4	2	2	3	1	5.0	13.5
14-Sep-05	1	1	1	1	1	2	3	3	3	2	2	2	2	2	2	2	1	2	2	3	3	3	3	3	2.1	3.5
15-Sep-05	2	2	1	1	1	2	3	2	2	2	1	2	1	1	1	1	2	2	2	2	2	5	4	4	2.0	5.5
16-Sep-05	4	4	4	4	4	5	5	8	8	5	5	3	4	3	1	1	2	2	2	3	4	3	2	3	3.8	8.4
17-Sep-05	4	4	3	3	2	3	4	5	7	6	4	2	2	1	1	1	1	1	2	2	2	4	3	1	2.9	7.2
18-Sep-05	1	1	1	1	1	2	5	3	4	2	2	1	1	1	1	1	2	1	2	1	2	3	2	1	1.8	5.0
19-Sep-05	1	1	1	1	2	6	4	3	1	1	1	1	1	1	1	1	1	2	1	2	2	2	1	1	1.7	5.6
20-Sep-05	1	1	1	1	2	3	5	3	2	1	1	3	1	2	1	1	2	2	2	3	4	2	3	4	2.1	5.2
21-Sep-05	2	1	1	1	2	3	5	8	9	3	1	1	1	3	3	2	1	3	2	3	2	3	6	4	2.9	8.8
22-Sep-05	3	5	3	4	4	6	9	8	11	9	6	4	2	2	2	2	2	3	3	5	4	3	4	4	4.5	11.4
23-Sep-05	3	3	3	4	3	4	6	11	7	3	2	1	2	1	2	2	2	2	2	2	2	2	2	1	3.0	10.7
24-Sep-05	2	2	2	2	1	3	5	5	6	3	2	2	1	1	1	2	2	2	2	2	2	2	2	1	2.2	5.6
25-Sep-05	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	3	5	5	2	2	2	1.8	5.3
26-Sep-05	1	1	1	1	2	2	5	5	4	3	2	2	2	2	2	2	3	3	3	4	3	4	5	5	2.9	5.4
27-Sep-05	4	4	4	5	4	5	9	7	10	4	3	3	5	6	2	2	2	4	6	5	4	6	6	6	4.9	9.6
28-Sep-05	8	10	8	11	10	11	19	13	15	19	12	5	2	2	2	2	2	2	2	2	2	3	3	2	7.2	19.4
29-Sep-05	3	2	2	2	2	3	5	3	2	1	2	2	2	2	2	2	2	3	10	5	8	4	3	2	3.0	10.0
30-Sep-05	4	2	2	2	2	0	1	2	2	2	1	1	2	2	2	2	2	2	4	6	6	4	4	6	2.6	6.3
																									N	0.0
Hourly Avg	3.0	2.9	2.7	3.0	3.2	4.6	6.5	6.5	5.7	3.7	2.6	2.0	1.7	1.8	1.6	1.5	1.8	2.0	2.8	3.9	3.8	3.3	2.9	3.0		
Hourly Max	8.3	10.3	8.3	11.0	10.4	11.3	19.3	14.2	15.5	19.4	12.2	4.8	4.6	6.1	3.4	4.2	7.2	4.4	10.0	12.1	8.8	5.7	6.2	7.3		

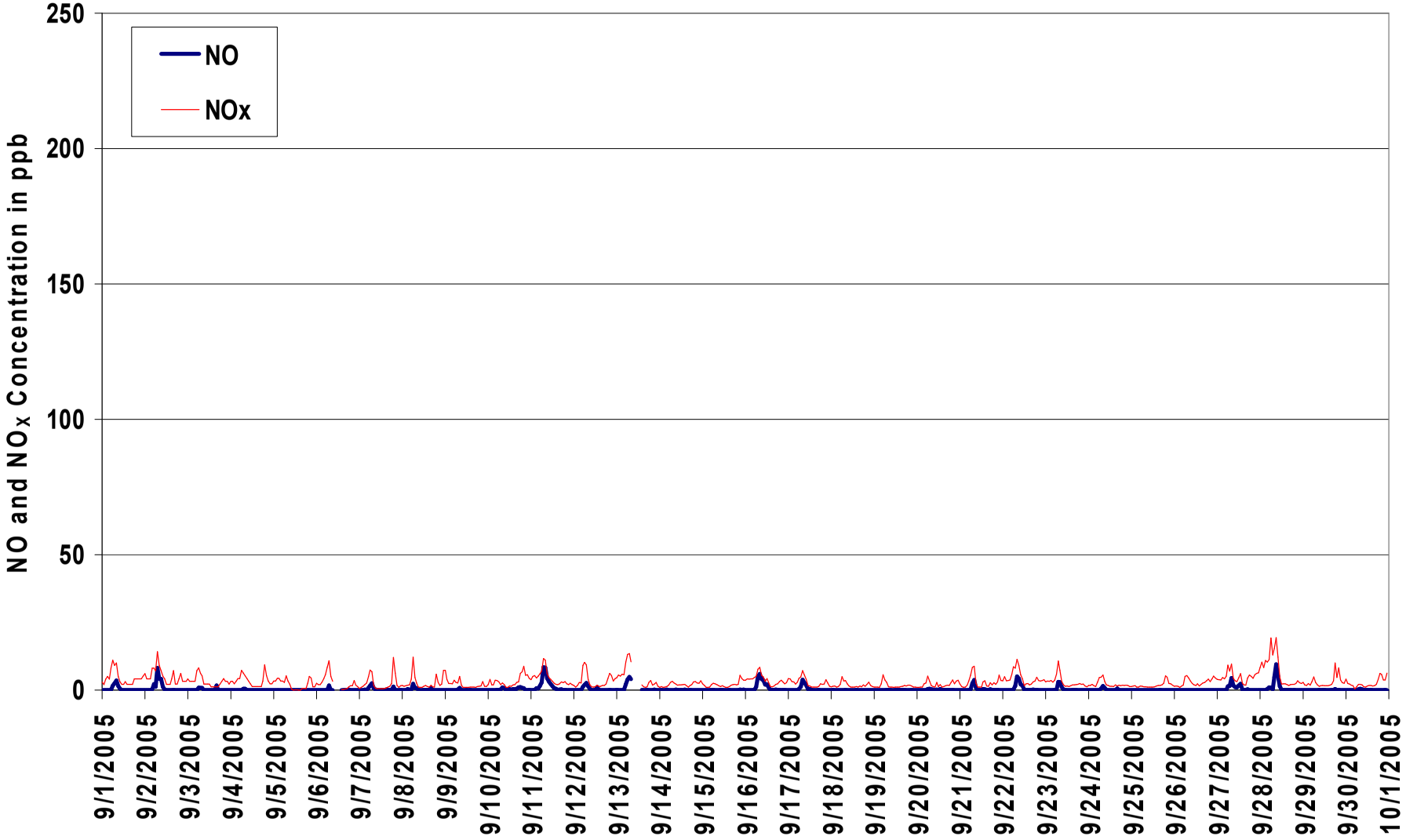


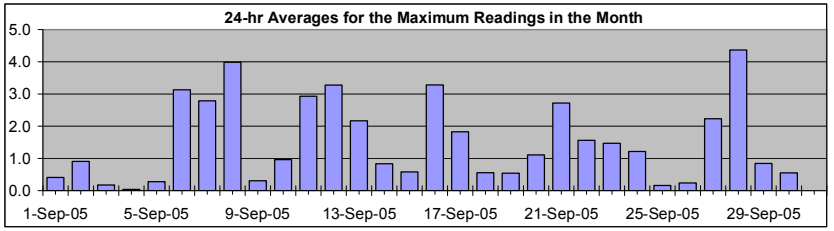
Figure 38. PASZA - Beaverlodge Oxides of Nitrogen 1-hr Average Monthly Trend

HOURLY MAXIMUM TABLE

Nitric Oxide (NO)

Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Value:	56.6	ppb	12-Sep	13:00 14:00
Maximum 24-hr Value:	4.4	ppb	28-Sep	

AIC Time:	0 hrs	Operational Time:	711 hrs
Calibration Time:	9 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	21.7	7.0	1.0	0.1	0.0	0.0	0.0	1.5 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

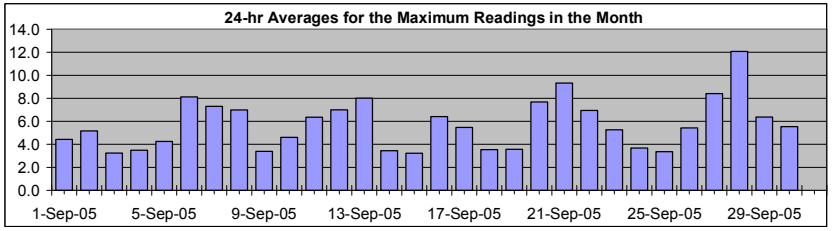
Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Sep-05	0	0	0	0	0	0	2	3	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.6
2-Sep-05	0	0	0	0	0	2	1	8	4	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	8.2
3-Sep-05	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0.2	1.7
4-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.5
5-Sep-05	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	6.6
6-Sep-05	0	0	0	24	0	0	1	5	16	11	C	C	C	C	1	1	1	1	1	1	0	0	0	0	3.1	24.0
7-Sep-05	0	0	0	20	0	9	7	9	2	1	1	1	1	1	1	3	1	1	0	7	0	0	0	1	2.8	20.4
8-Sep-05	0	0	0	36	0	1	8	2	2	1	1	0	3	1	1	1	37	0	0	0	0	0	0	0	4.0	37.4
9-Sep-05	0	0	0	0	0	0	0	1	1	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0.3	1.0
10-Sep-05	0	1	0	0	0	1	1	1	2	1	0	0	1	1	1	1	1	1	2	3	2	0	1	1	1.0	2.9
11-Sep-05	0	1	1	1	2	2	6	19	14	8	4	3	2	2	1	1	1	1	0	1	0	0	0	0	2.9	19.2
12-Sep-05	0	0	0	0	0	2	6	5	3	1	0	0	2	57	0	1	0	0	0	0	1	0	0	0	3.3	56.6
13-Sep-05	1	0	0	0	1	5	7	7	11	C	C	C	C	C	1	1	1	1	0	1	0	4	0	0	2.2	11.0
14-Sep-05	0	2	0	1	7	0	0	1	1	1	1	0	1	1	1	1	0	1	0	0	0	0	0	0	0.8	7.0
15-Sep-05	0	0	0	0	0	2	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	1	1	1	0.6	2.0
16-Sep-05	0	0	0	0	0	1	3	8	31	5	6	2	3	13	1	1	1	1	1	1	0	0	0	0	3.3	30.6
17-Sep-05	0	0	0	0	0	1	7	3	8	4	11	1	4	3	0	0	0	1	0	0	0	0	0	0	1.8	11.0
18-Sep-05	0	7	0	0	0	0	0	0	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0.6	7.1
19-Sep-05	0	0	0	0	0	1	0	1	1	1	1	0	1	1	1	1	1	1	0	0	0	1	0	0	0.5	1.1
20-Sep-05	0	0	0	0	0	1	2	2	1	1	1	1	1	10	0	1	1	1	1	0	1	0	0	0	1.1	10.0
21-Sep-05	0	0	0	0	0	0	3	17	22	6	0	1	0	9	2	1	1	1	1	0	0	0	0	0	2.7	21.9
22-Sep-05	0	0	0	0	0	0	2	4	10	7	3	3	1	1	1	1	1	1	1	0	0	0	0	0	1.6	9.9
23-Sep-05	0	0	0	0	0	3	1	6	13	2	1	1	1	1	0	1	1	1	1	1	0	0	0	0	1.5	12.9
24-Sep-05	0	0	0	0	0	0	1	1	3	1	1	1	0	0	0	1	19	0	0	1	0	0	0	0	1.2	19.0
25-Sep-05	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.2	1.0
26-Sep-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	1	1	0.2	1.0
27-Sep-05	0	0	0	0	0	0	19	4	12	3	2	1	2	5	1	1	1	1	0	1	0	0	0	0	2.2	18.6
28-Sep-05	0	0	0	0	2	10	3	1	33	30	16	3	1	1	0	1	0	0	0	1	1	0	1	0	4.4	32.6
29-Sep-05	0	0	0	0	0	1	1	1	1	1	1	3	3	1	1	1	1	1	2	0	1	0	0	0	0.8	3.0
30-Sep-05	0	0	0	0	0	0	0	1	1	1	2	1	1	1	1	1	0	1	0	0	0	0	2	0	0.6	2.0
																									N	0.0
Hourly Avg	0.1	0.4	0.1	2.8	0.4	1.4	2.7	3.8	6.8	3.3	2.0	0.9	1.1	3.9	0.6	0.7	2.5	0.6	0.4	0.6	0.2	0.3	0.2	0.2		
Hourly Max	1.0	7.1	1.0	36.3	7.0	9.7	18.6	19.2	32.6	30.5	15.9	3.1	4.0	56.6	2.0	2.7	37.4	1.1	2.0	7.0	2.0	4.0	1.7	1.1		

Station: Beaverlodge
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Oxides of Nitrogen (NO_x)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Value:	69.3	ppb	20-Sep	11:00 12:00
Maximum 24-hr Value:	12.1	ppb	28-Sep	

AIC Time:	0 hrs	Operational Time:	711 hrs
Calibration Time:	9 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	34.3	16.9	6.2	4.0	3.0	1.7	1.0	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**

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-05	3	2	4	5	4	8	11	9	10	5	3	2	2	3	2	2	2	2	4	4	4	4	4	5	4.4	11.1
2-Sep-05	6	4	4	4	8	8	7	14	9	7	5	4	2	2	2	4	7	2	2	4	6	3	3	3	5.2	14.2
3-Sep-05	4	3	3	3	3	7	8	6	5	2	2	2	2	1	1	1	1	1	2	3	4	3	3	2	3.2	8.2
4-Sep-05	3	3	2	3	4	4	7	6	5	4	3	2	1	1	1	1	1	1	3	9	5	3	2	2	3.5	9.3
5-Sep-05	3	3	4	4	3	3	5	7	10	3	1	1	1	1	1	0	2	2	1	9	16	14	2	4	4.2	16.0
6-Sep-05	4	2	3	35	5	11	13	14	25	18	C	C	C	C	1	1	1	2	4	3	5	7	4	2	8.1	35.0
7-Sep-05	1	1	1	35	3	17	15	17	5	6	1	3	1	2	2	4	3	3	6	25	11	4	3	4	7.3	34.8
8-Sep-05	3	3	4	25	4	11	23	7	8	5	2	2	9	3	3	3	10	2	2	12	9	2	6	15	7.0	24.8
9-Sep-05	10	8	3	3	3	5	4	5	6	2	2	2	3	2	3	2	2	2	2	2	2	4	3	2	3.4	9.9
10-Sep-05	4	5	3	2	5	5	4	3	4	2	2	1	2	2	2	3	5	4	11	10	11	7	7	7	4.6	11.0
11-Sep-05	4	6	6	6	7	7	10	24	17	11	6	5	5	5	3	3	3	4	4	5	3	3	4	2	6.4	23.9
12-Sep-05	2	2	4	5	6	11	18	15	8	3	2	2	2	35	2	3	2	2	3	11	11	10	4	5	7.0	34.8
13-Sep-05	7	7	6	7	7	15	17	17	20	C	C	C	C	C	3	3	2	3	6	6	3	15	5	4	8.0	19.9
14-Sep-05	2	10	2	3	3	3	5	6	4	3	3	2	3	3	3	2	2	3	3	4	4	3	3	4	3.4	9.6
15-Sep-05	3	2	1	1	2	5	5	4	3	3	2	2	2	2	2	2	3	3	3	3	4	9	6	6	3.2	9.0
16-Sep-05	5	6	5	5	5	5	7	10	36	7	7	4	5	9	3	2	3	3	4	5	6	4	3	5	6.4	36.1
17-Sep-05	6	5	4	4	3	5	13	8	12	7	17	4	7	3	2	2	2	3	5	4	3	5	4	3	5.5	17.2
18-Sep-05	2	3	3	3	2	4	8	5	7	4	3	3	2	2	3	2	3	2	3	3	6	5	4	3	3.5	8.0
19-Sep-05	2	2	3	1	7	13	7	6	4	2	2	2	2	2	3	2	3	3	3	3	4	5	2	3	3.6	12.9
20-Sep-05	2	2	3	2	5	5	11	7	3	3	2	69	3	24	2	3	5	4	3	5	7	5	5	5	7.7	69.3
21-Sep-05	4	2	1	2	2	4	16	26	20	9	2	2	2	24	50	4	3	8	4	8	7	7	11	6	9.3	50.3
22-Sep-05	4	8	4	4	6	8	13	12	18	14	6	5	3	6	6	4	3	6	5	7	6	5	6	7	6.9	17.9
23-Sep-05	3	5	4	4	3	8	11	17	20	5	3	2	6	3	3	4	3	3	4	4	3	4	3	3	5.3	19.6
24-Sep-05	3	2	6	2	2	5	8	6	8	5	3	3	2	2	2	3	3	3	3	5	3	3	3	2	3.7	8.0
25-Sep-05	4	3	2	2	2	3	2	2	3	2	2	2	2	2	2	3	5	3	5	10	7	5	5	3	3.4	10.0
26-Sep-05	3	2	2	2	3	6	14	12	8	5	4	3	3	5	5	4	5	5	8	6	5	7	7	7	5.4	13.8
27-Sep-05	4	4	6	7	5	8	31	12	19	6	4	5	6	11	4	4	7	8	10	9	9	8	7	9	8.4	30.6
28-Sep-05	13	13	10	12	14	21	26	17	43	40	27	8	4	4	4	3	3	3	3	4	5	5	5	4	12.1	42.7
29-Sep-05	5	4	3	6	5	8	10	5	3	3	4	3	3	3	3	3	5	11	24	11	17	6	6	4	6.4	23.9
30-Sep-05	7	5	3	4	6	1	6	6	7	3	3	2	4	3	3	3	3	3	11	9	13	5	11	10	5.5	13.4
																									N	0.0
Hourly Avg	4.2	4.2	3.7	6.7	4.6	7.5	11.2	10.2	11.6	6.5	4.4	5.3	3.2	5.9	4.2	2.7	3.4	3.5	5.1	6.8	6.7	5.7	4.7	4.7		
Hourly Max	13.0	13.0	10.0	35.0	14.0	20.6	30.6	26.4	42.7	39.8	26.9	69.3	8.7	34.8	50.3	4.5	10.0	10.7	23.9	24.7	17.3	15.4	11.0	14.9		

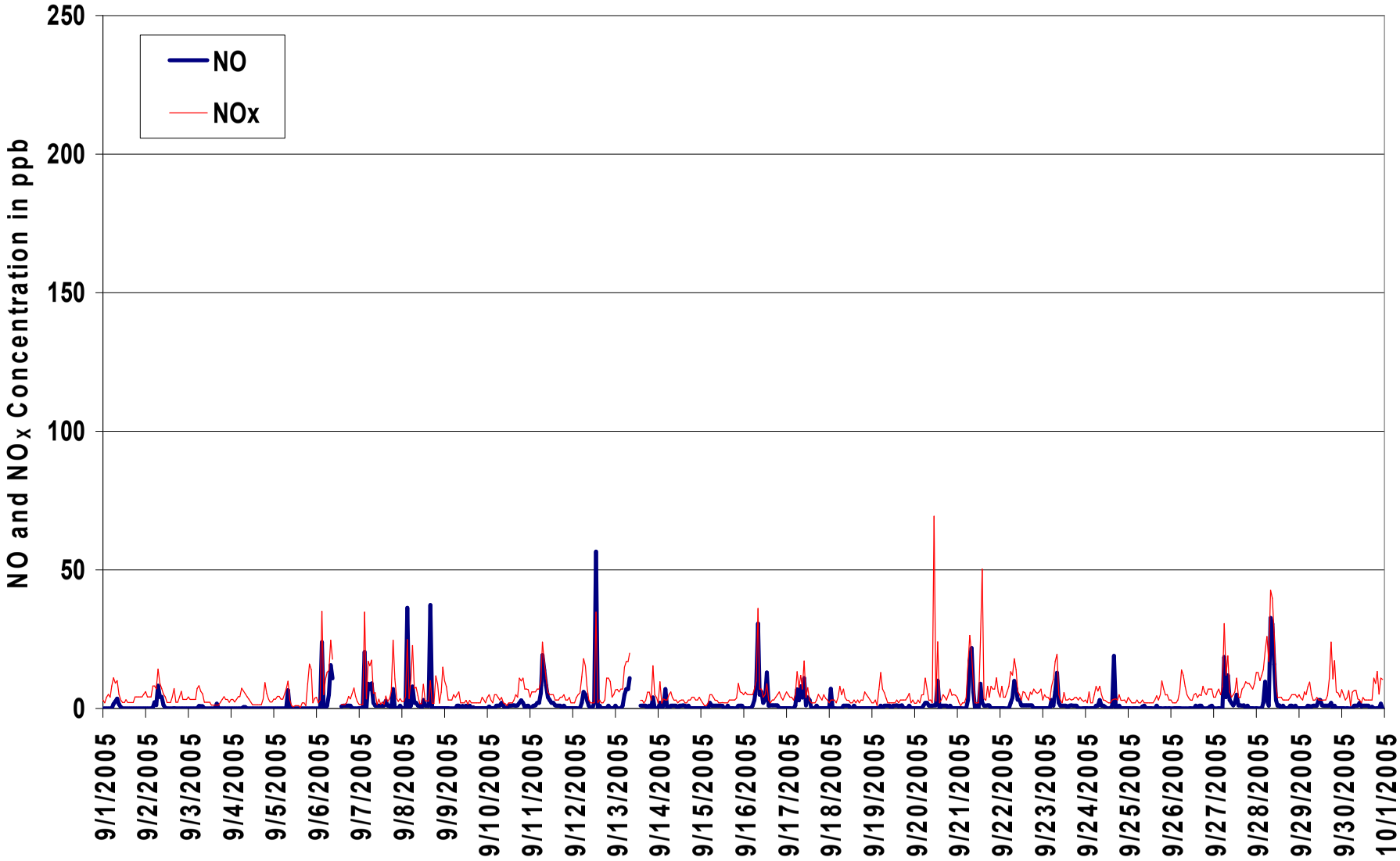


Figure 39. PASZA - Beaverlodge Oxides of Nitrogen 1-hr Maximum Value Monthly Trend

PASZA - Beaverlodge Ozone Monthly Summary

Station: Beaverlodge
Station Owner: PASZA

HOURLY AVERAGE TABLE

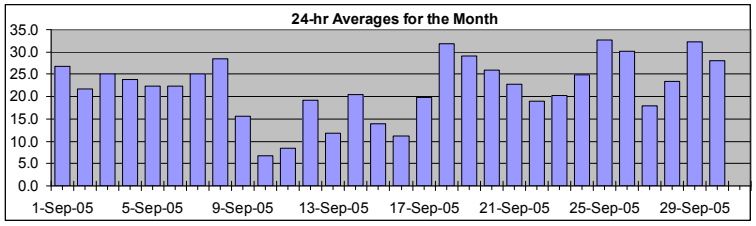
Ozone (O_3)

Monitoring Dates: September 1, 2005 to October 1, 2005

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

Summary

Number of 1-hr Exceedances:	0			
Maximum 1-hr Average:	44.0	ppb	26-Sep	3:00 4:00
Maximum 24-hr Average:	32.7	ppb	25-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
	38.8	36.0	29.5	22.9	14.1	5.7	1.7	22.0 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-05	25	26	20	16	15	14	10	16	17	26	33	37	37	38	39	38	39	39	33	28	30	27	23	22	26.9	38.9
2-Sep-05	16	14	14	19	6	7	10	5	7	10	20	26	32	34	35	35	31	37	34	27	23	23	29	32	21.8	36.9
3-Sep-05	28	22	24	26	23	14	8	10	15	26	29	27	29	31	33	34	34	33	30	29	26	26	24	24	25.1	33.9
4-Sep-05	22	20	17	16	15	14	11	13	15	19	23	28	32	34	34	34	34	34	28	22	24	29	32	26	23.9	33.9
5-Sep-05	19	18	15	15	14	13	13	12	17	19	26	29	31	32	32	32	30	29	28	24	20	21	24	21	22.3	32.1
6-Sep-05	16	16	15	13	9	8	6	7	12	14	22	30	33	33	34	35	34	33	30	29	30	26	27	25	22.3	34.6
7-Sep-05	26	25	24	22	19	14	6	14	24	28	32	33	35	35	34	33	32	31	28	15	21	24	24	20	25.0	35.2
8-Sep-05	21	23	23	23	23	22	12	20	32	39	C	C	C	38	38	38	36	37	35	29	31	32	29	18	28.5	39.0
9-Sep-05	17	20	21	20	19	18	19	17	12	16	18	18	20	20	18	18	16	14	12	11	10	7	8	8	15.7	21.2
10-Sep-05	7	5	6	6	3	3	3	5	4	5	10	10	10	10	10	11	9	11	10	5	3	4	6	7	6.8	11.2
11-Sep-05	7	4	1	1	2	0	0	2	3	4	6	11	13	15	14	12	11	12	14	13	15	16	13	12	8.4	15.8
12-Sep-05	13	17	18	14	11	6	5	8	15	21	26	26	26	27	28	28	27	27	25	21	20	14	19	19	19.1	27.7
13-Sep-05	16	13	12	9	5	2	2	3	4	4	5	7	10	14	17	18	18	18	16	12	16	20	19	23	11.9	23.3
14-Sep-05	32	35	33	30	29	28	28	28	25	21	20	19	17	18	18	16	16	13	10	9	9	11	13	12	20.4	34.8
15-Sep-05	13	15	15	14	12	12	10	10	11	12	13	16	18	18	18	19	18	16	17	18	16	9	7	7	13.9	18.5
16-Sep-05	6	6	6	6	4	3	1	1	3	4	6	10	13	18	23	23	22	21	18	15	14	14	15	15	11.1	22.8
17-Sep-05	11	11	11	10	10	10	8	8	8	13	16	22	25	27	30	30	29	30	28	29	28	25	25	30	19.7	30.4
18-Sep-05	30	29	28	32	32	33	30	33	32	32	33	36	35	34	33	36	36	35	32	35	29	25	27	26	31.7	36.3
19-Sep-05	25	29	30	31	29	23	22	26	29	31	32	32	32	33	32	32	32	31	31	28	26	26	29	28	29.1	32.8
20-Sep-05	28	29	29	27	25	25	21	23	26	27	28	29	29	29	30	29	28	27	27	24	22	23	21	17	26.0	30.1
21-Sep-05	20	22	23	23	18	17	16	14	15	24	27	27	28	27	26	28	28	26	27	25	25	23	20	20	22.8	28.3
22-Sep-05	19	17	15	16	14	11	9	10	11	13	18	22	27	27	27	28	27	26	25	21	22	20	18	16	19.1	28.4
23-Sep-05	16	14	13	12	13	11	9	6	12	16	23	27	28	29	29	29	27	26	25	24	24	22	24	24	20.1	29.2
24-Sep-05	23	23	22	22	22	21	15	15	16	20	24	26	27	28	29	29	29	30	31	30	29	28	29	31	25.0	31.5
25-Sep-05	31	30	29	30	32	32	33	33	33	33	34	35	35	36	37	36	35	35	33	29	28	32	32	31	32.7	36.8
26-Sep-05	35	35	37	44	43	42	34	31	30	32	34	32	33	31	32	31	28	26	23	21	22	21	15	13	30.1	44.0
27-Sep-05	12	12	12	12	11	10	7	9	9	13	16	19	21	24	28	31	32	26	23	24	23	20	19	19	18.0	32.1
28-Sep-05	16	14	16	12	8	8	6	13	14	12	20	30	38	39	38	38	38	36	34	32	27	23	25	24	23.4	39.2
29-Sep-05	24	28	35	31	33	33	29	33	36	38	38	37	37	36	36	37	36	33	24	27	23	29	32	29	32.3	37.8
30-Sep-05	31	30	27	27	31	28	22	20	24	29	32	34	34	33	33	34	33	31	28	24	25	24	23	17	28.1	33.8
																									N	0.0
Hourly Avg	20.1	20.0	19.7	19.3	17.6	16.0	13.5	14.8	17.0	20.0	22.8	25.3	27.1	28.3	28.8	28.9	28.3	27.4	25.2	22.6	22.0	21.5	21.7	20.5		
Hourly Max	34.6	34.8	37.0	44.0	42.5	41.7	33.6	33.4	36.1	39.0	37.7	37.2	38.2	39.2	38.9	38.3	38.9	38.9	35.0	34.8	30.5	31.9	32.0	31.9		

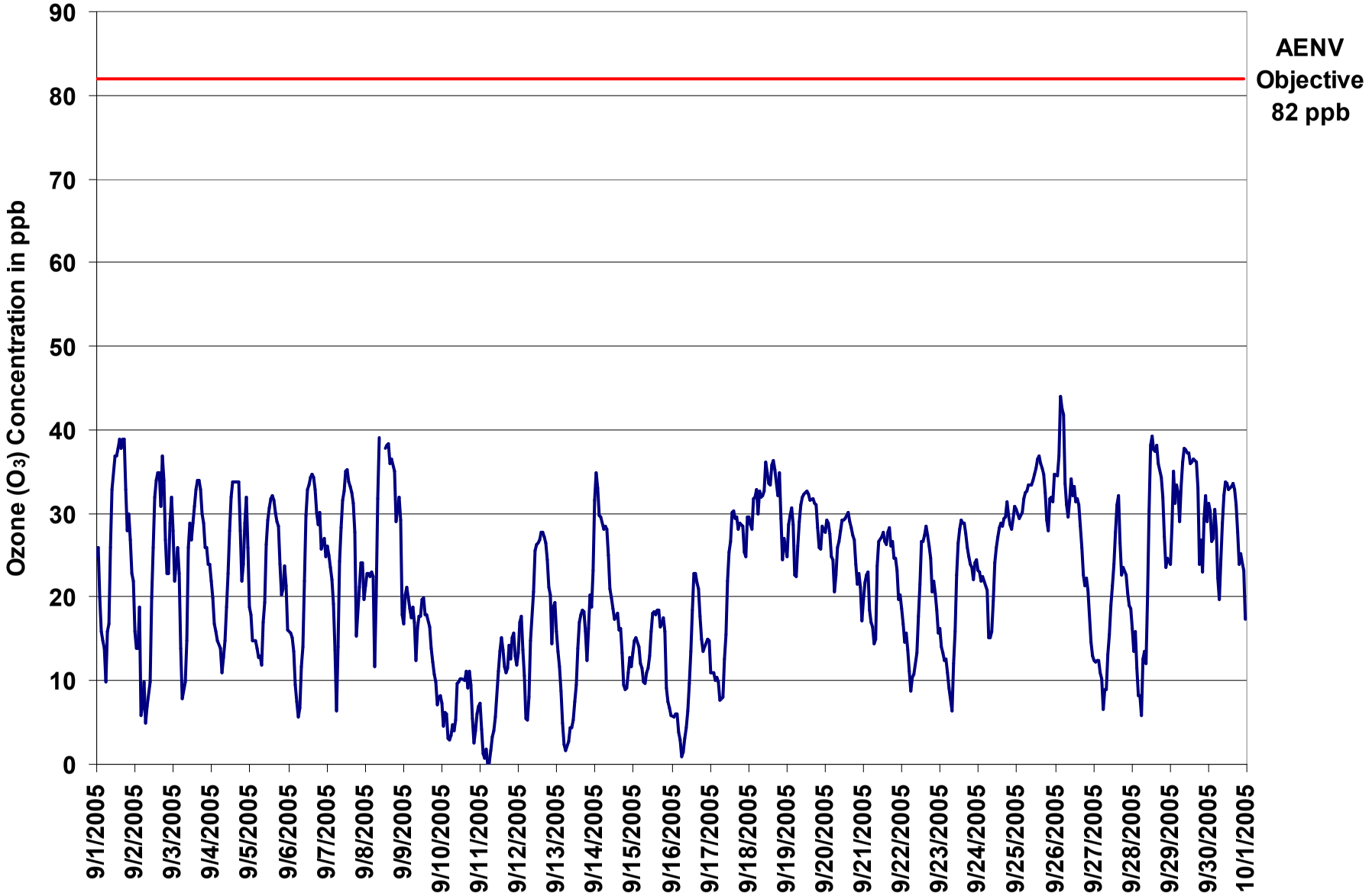


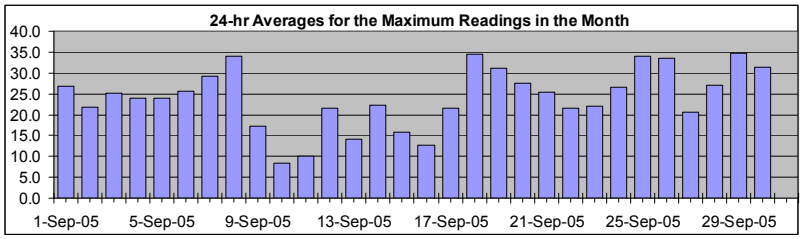
Figure 40. PASZA - Beaverlodge Ozone 1-hr Average Monthly Trend

HOURLY MAXIMUM TABLE

Ozone (O_3)

Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Value:	58.9	ppb	8-Sep	3:00 4:00
Maximum 24-hr Value:	34.8	ppb	29-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
	41.6	37.7	31.7	25.9	16.2	7.0	3.0	24.1 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-05	25	26	20	16	15	14	10	16	17	26	33	37	37	38	39	38	39	39	33	28	30	27	23	22	26.9	38.9
2-Sep-05	16	14	14	19	6	7	10	5	7	10	20	26	32	34	35	35	31	37	34	27	23	23	29	32	21.8	36.9
3-Sep-05	28	22	24	26	23	14	8	10	15	26	29	27	29	31	33	34	34	33	30	29	26	26	24	24	25.1	33.9
4-Sep-05	22	20	17	16	15	14	11	13	15	19	23	28	32	34	34	34	34	34	28	22	24	29	32	26	23.9	33.9
5-Sep-05	19	18	15	15	14	13	15	16	18	24	29	31	32	33	33	33	32	30	30	28	23	25	25	25	24.0	33.2
6-Sep-05	18	16	16	38	11	10	8	11	14	17	28	32	34	35	36	36	36	35	33	31	32	31	30	27	25.6	38.1
7-Sep-05	27	26	25	57	21	20	10	25	28	30	33	35	36	36	35	35	34	33	31	22	27	27	26	22	29.3	57.2
8-Sep-05	24	24	26	59	26	27	21	29	36	42	C	C	C	39	40	40	38	38	37	36	36	35	33	28	34.0	58.9
9-Sep-05	20	22	22	21	20	20	20	19	15	18	18	19	23	21	19	19	17	16	14	12	11	10	9	8	17.2	22.9
10-Sep-05	9	6	7	6	5	4	5	5	5	8	10	11	11	12	12	13	11	13	12	10	3	5	8	10	8.4	12.9
11-Sep-05	9	5	2	1	3	0	1	3	5	5	7	14	17	17	15	13	12	14	16	16	17	17	14	13	9.9	16.9
12-Sep-05	17	19	20	15	12	7	10	13	19	25	27	27	27	28	29	29	28	27	27	24	24	22	21	20	21.6	28.8
13-Sep-05	19	17	13	10	7	4	3	5	8	6	9	9	15	16	18	19	19	19	18	15	18	22	21	25	14.1	25.5
14-Sep-05	34	37	36	30	31	29	31	30	28	24	21	21	19	19	19	19	17	16	11	11	10	13	14	13	22.3	37.0
15-Sep-05	16	16	16	15	13	13	12	11	12	13	16	17	20	19	20	20	21	19	18	20	19	15	9	9	15.8	21.0
16-Sep-05	7	6	7	7	4	4	2	2	4	6	9	12	16	21	26	24	23	23	20	17	15	15	16	17	12.7	25.9
17-Sep-05	13	12	12	11	11	11	9	9	13	14	18	26	27	30	32	33	30	31	31	30	30	29	26	31	21.7	33.1
18-Sep-05	30	30	32	34	36	36	35	37	36	35	34	38	36	35	35	37	38	37	34	40	33	27	31	29	34.6	40.4
19-Sep-05	30	32	31	33	31	29	28	28	31	33	33	33	33	34	33	33	33	33	32	30	28	28	30	29	31.2	33.7
20-Sep-05	29	30	30	28	28	27	23	25	27	28	30	30	30	31	31	31	30	29	28	26	24	24	24	20	27.6	31.0
21-Sep-05	22	24	26	26	22	19	20	21	19	27	28	28	29	29	29	29	30	29	28	26	27	26	24	23	25.4	29.9
22-Sep-05	22	21	18	17	16	14	12	12	13	16	21	24	28	28	30	31	30	29	27	24	25	24	21	18	21.6	30.8
23-Sep-05	17	16	15	13	13	13	12	9	15	19	27	28	30	30	30	30	30	28	26	25	24	24	25	25	21.9	30.3
24-Sep-05	24	24	24	23	23	22	19	18	19	22	27	27	28	29	30	30	31	32	33	31	29	29	30	32	26.5	33.0
25-Sep-05	32	31	30	31	33	34	34	34	34	34	35	36	36	38	38	37	37	36	34	31	31	35	34	33	34.1	38.0
26-Sep-05	39	37	43	46	45	45	42	36	34	36	37	35	35	34	34	33	31	28	25	23	26	26	18	14	33.5	46.0
27-Sep-05	14	14	14	14	12	12	10	12	12	15	17	21	23	31	30	34	34	30	27	26	28	22	21	20	20.6	34.0
28-Sep-05	21	16	17	15	13	13	12	18	18	23	28	40	41	40	39	39	39	37	36	34	30	25	26	26	27.1	40.7
29-Sep-05	28	34	38	34	36	35	32	36	38	40	39	39	39	37	38	38	38	37	28	29	27	33	34	31	34.8	39.5
30-Sep-05	34	34	33	33	36	31	26	25	27	32	34	35	35	34	35	35	34	32	31	27	28	29	28	25	31.5	35.9
																									N	0.0
Hourly Avg	22.2	21.7	21.5	23.8	19.3	18.0	16.3	17.8	19.4	22.4	24.8	27.0	28.6	29.8	30.2	30.4	29.7	29.3	27.2	25.0	24.3	24.1	23.6	22.6		
Hourly Max	39.0	37.5	43.2	58.9	45.0	44.9	42.0	37.1	37.5	41.8	39.0	40.3	40.7	40.4	39.9	40.0	39.2	38.9	37.2	40.4	35.7	35.1	34.0	33.0		

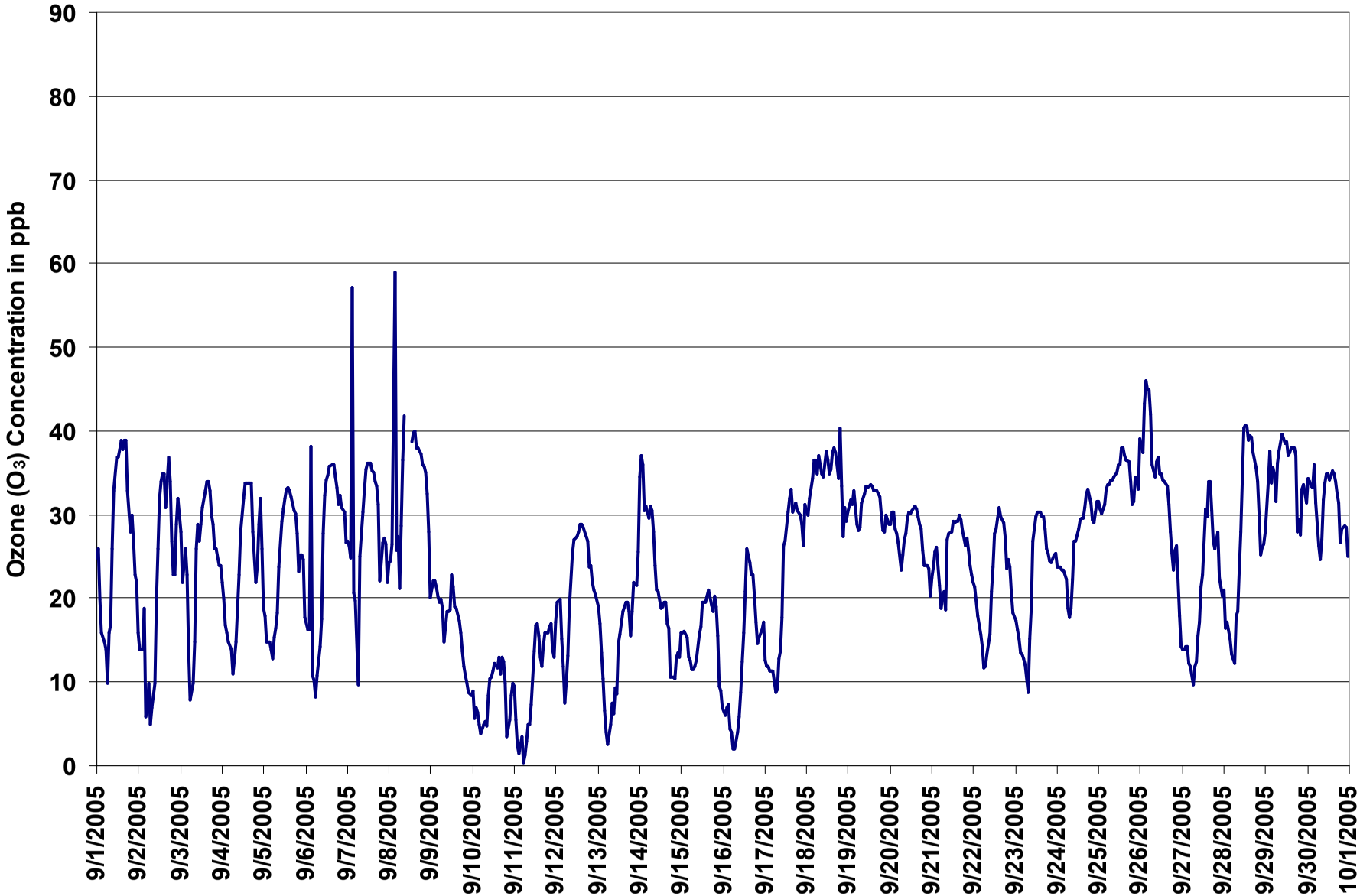
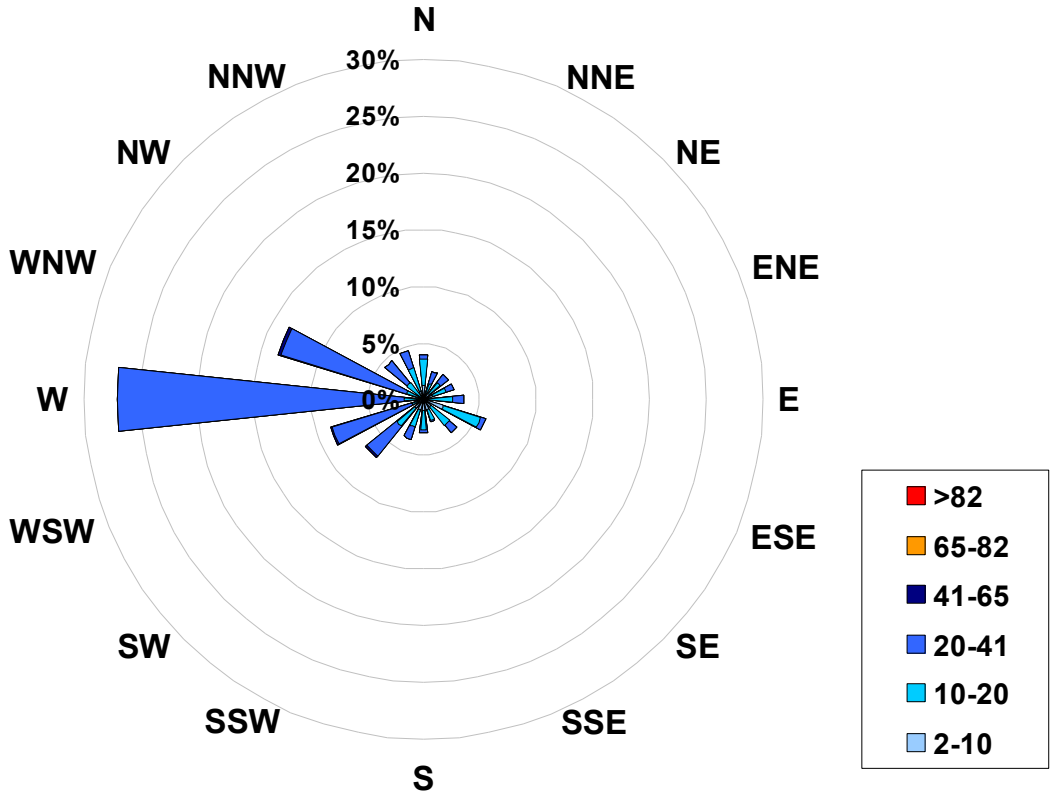


Figure 41. PASZA - Beaverlodge Ozone 1-hr Maximum Value Monthly Trend

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



Calms: 1%

Frequency Distribution of O_3 in ppb			
Range			Frequency (hrs)
2.0	<	10	94
10	to	20	202
20	to	41	418
41	to	65	3
65	to	82	0
	>	82	0
Total Non-Zero Values			717

PASZA - Beaverlodge Ozone Monthly Summary

EIGHT HOUR RUNNING AVERAGE TABLE

Ozone (O_3)

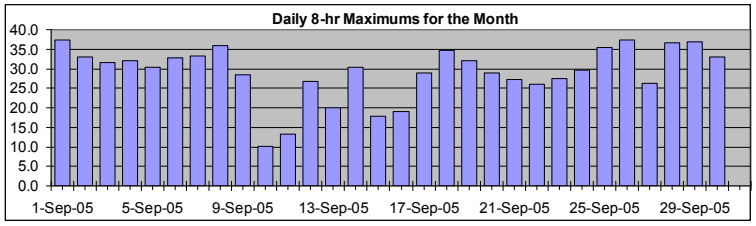
Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: September 1, 2005 to October 1, 2005

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

Summary

Number of 8-hr Exceedances:	0			
Maximum 8-hr Average:	37.4	ppb	26-Sep	6:00 7:00



Percentile	99	95	75	50	25	5	1
	36.7	34.5	28.8	23.0	14.9	6.5	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**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	Daily Maximum
1-Sep-05	12	14	15	15	15	16	17	18	17	17	18	21	24	27	30	33	36	37	37	36	35	34	32	30	37.4
2-Sep-05	27	24	22	20	17	15	13	11	10	10	10	11	14	18	21	25	28	31	33	33	32	30	30	29	33.0
3-Sep-05	29	27	26	26	26	25	22	19	18	18	19	19	20	22	25	28	30	31	31	31	31	30	29	28	31.5
4-Sep-05	27	25	23	22	20	19	17	16	15	15	16	17	19	22	25	27	30	31	32	31	30	30	29	28	32.1
5-Sep-05	27	25	23	22	21	19	16	15	15	15	16	18	20	22	25	27	29	30	30	30	28	27	26	25	30.4
6-Sep-05	23	21	20	18	17	15	13	11	11	10	11	13	16	20	23	27	29	32	33	33	32	31	30	29	32.8
7-Sep-05	28	27	26	26	24	23	20	19	19	19	20	21	23	26	29	32	33	33	33	31	29	27	26	24	33.2
8-Sep-05	23	22	21	22	23	22	21	21	22	24	24	N	N	N	N	N	N	N	N	36	35	34	33	31	35.9
9-Sep-05	28	26	25	23	22	20	19	19	18	18	17	17	17	17	17	17	18	18	17	16	15	13	12	11	28.4
10-Sep-05	10	9	8	7	6	6	5	5	4	4	5	5	6	7	8	9	9	10	10	10	9	8	7	7	10.1
11-Sep-05	7	6	5	4	4	4	3	2	2	2	2	3	5	7	9	10	11	12	13	13	13	13	13	13	13.2
12-Sep-05	13	14	15	15	14	13	12	11	12	12	13	15	17	19	22	24	26	27	27	26	25	24	23	22	26.8
13-Sep-05	20	18	17	15	13	12	10	8	6	5	4	4	5	6	8	10	12	13	15	15	16	17	17	18	20.1
14-Sep-05	20	22	24	26	28	29	30	30	30	28	26	25	23	22	21	19	18	17	16	15	14	13	12	12	30.4
15-Sep-05	11	11	12	13	13	13	13	13	12	12	12	12	13	13	14	15	16	17	18	18	17	16	15	14	17.7
16-Sep-05	12	11	9	8	6	6	5	4	4	4	4	4	5	7	10	13	15	17	18	19	19	19	18	17	19.1
17-Sep-05	15	14	13	13	12	12	11	10	9	10	10	12	14	16	19	21	24	26	28	29	29	29	28	28	29.0
18-Sep-05	28	28	28	28	29	30	30	31	31	31	32	33	33	33	33	34	34	35	35	35	34	33	32	31	34.8
19-Sep-05	29	28	28	28	28	27	27	27	27	28	28	28	29	30	31	32	32	32	32	31	31	30	29	29	32.1
20-Sep-05	28	28	28	28	28	27	26	26	26	25	25	25	26	26	28	28	29	29	29	28	27	26	25	24	28.8
21-Sep-05	23	22	21	21	21	20	20	19	19	19	19	20	21	22	23	25	27	27	27	27	26	26	25	24	27.1
22-Sep-05	23	22	20	19	18	16	15	14	13	12	13	13	15	17	19	22	24	25	26	26	25	25	24	22	26.1
23-Sep-05	21	19	18	17	15	14	13	12	11	12	13	15	16	19	21	24	26	27	27	27	27	26	25	25	27.5
24-Sep-05	24	24	23	23	23	23	22	20	20	19	19	20	20	21	23	25	27	28	29	29	29	29	29	30	29.6
25-Sep-05	30	30	30	30	30	31	31	31	32	32	33	33	34	34	35	35	35	35	35	35	34	33	32	32	35.4
26-Sep-05	32	32	32	34	36	37	37	37	37	36	36	35	33	32	32	32	32	31	30	28	27	26	23	21	37.4
27-Sep-05	19	17	16	15	14	12	11	11	10	10	11	12	13	15	17	20	23	25	26	26	26	26	25	23	26.3
28-Sep-05	21	20	19	17	15	14	12	12	11	11	12	14	18	21	25	29	32	35	36	37	35	33	32	30	36.6
29-Sep-05	28	27	27	27	28	29	30	31	32	34	34	35	35	36	36	37	37	36	35	33	31	31	30	29	36.8
30-Sep-05	29	28	29	29	30	29	28	27	26	26	27	28	28	28	30	32	33	33	32	31	30	29	28	26	32.9
																									0.0
Hourly Max	31.8	31.8	32.3	34.2	36.0	37.2	37.4	37.4	36.7	36.4	36.0	34.6	35.1	35.5	36.4	36.8	36.8	37.4	37.4	36.6	35.4	34.5	33.3	31.9	

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

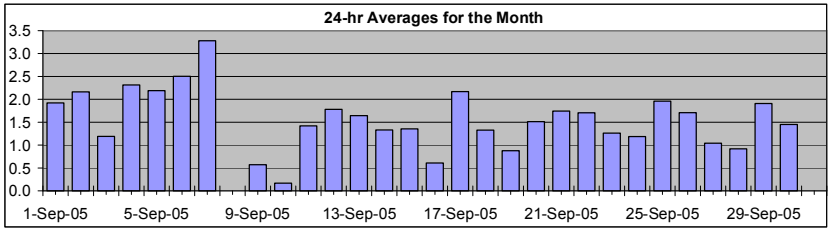
Station: Beaverlodge
Station Owner: PASZA

HOURLY AVERAGE TABLE

Particulate Matter ($PM_{2.5}$)

Monitoring Dates: September 1, 2005 to October 1, 2005

Draft Objective Limit: **Alberta Environment:** 1-hr - µg/m³ | 24-hr 30 µg/m³



Summary

Number of 24-hr Exceedances (draft):	0			
Maximum 1-hr Average:	20.0	µg/m³	29-Sep	18:00 19:00
Maximum 24-hr Value:	3.3	µg/m³	7-Sep	

AIC Time:	0 hrs	Operational Time:	705 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	98.2%

Percentile	99	95	75	50	25	5	1	Average	Geomean
	9.0	4.1	2.3	1.3	0.2	0.0	0.0	1.5 µg/m³	1.4 µg/m³

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-05	1	2	1	1	2	1	3	3	3	1	0	0	1	0	0	2	0	0	7	3	10	5	2	0	1.9	9.6
2-Sep-05	0	0	D	0	D	0	2	5	11	10	D	-3	D	0	5	0	6	0	3	1	2	0	D	0	2.2	10.9
3-Sep-05	1	2	0	0	0	1	1	2	3	0	0	3	0	0	D	0	0	2	3	1	2	2	1	2	1.2	3.4
4-Sep-05	1	1	1	1	1	1	2	2	3	3	2	0	0	0	0	0	1	0	11	9	7	5	0	3	2.3	11.3
5-Sep-05	2	1	3	2	2	2	2	3	4	4	D	0	0	0	0	1	3	2	3	4	4	4	3	3	2.2	4.3
6-Sep-05	3	4	3	3	3	3	3	4	4	5	1	0	D	0	1	2	2	4	4	0	0	2	2	3	2.5	4.7
7-Sep-05	2	2	3	6	2	6	5	7	3	0	0	0	0	1	2	3	2	4	5	10	10	3	3	0	3.3	10.0
8-Sep-05	0	0	0	0	0	0	2	3	0	D	D	1	1	4	C	C	D	D	D	1	3	0	1	2	N	4.0
9-Sep-05	0	0	0	1	1	1	1	1	1	0	0	0	0	0	1	0	1	1	1	1	1	1	1	0	0.6	1.4
10-Sep-05	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0.2	0.8
11-Sep-05	0	0	0	0	0	0	0	0	1	0	0	0	1	2	3	3	4	3	3	2	2	2	3	4	1.4	4.1
12-Sep-05	3	1	0	2	1	3	3	2	1	0	0	0	0	0	0	0	0	1	1	4	6	9	4	3	1.8	8.5
13-Sep-05	3	3	3	2	1	1	1	2	2	2	3	4	4	2	0	1	0	0	1	1	0	0	0	2	1.6	3.8
14-Sep-05	2	0	0	1	3	2	1	2	2	1	1	1	1	2	2	1	1	1	1	1	2	3	2	2	1.3	2.9
15-Sep-05	2	2	2	2	2	2	1	1	1	0	0	1	1	1	1	2	2	2	2	2	2	2	2	0	1.4	2.1
16-Sep-05	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2	2	2	2	2	1	2	0.6	2.3
17-Sep-05	2	2	2	2	2	2	3	3	3	2	2	0	1	1	0	2	3	3	3	3	3	3	4	2	2.2	3.6
18-Sep-05	2	3	2	1	1	2	1	1	2	2	2	1	1	1	1	0	2	3	3	3	0	0	0	0	1.3	2.8
19-Sep-05	0	0	0	0	0	1	1	2	1	0	0	0	1	1	1	1	2	2	2	1	1	1	1	1	0.9	2.2
20-Sep-05	1	1	1	0	1	1	2	3	1	0	0	0	0	1	1	2	3	2	2	3	4	3	2	2	1.5	4.2
21-Sep-05	2	2	1	1	1	2	1	2	4	2	0	0	0	1	2	1	1	3	2	5	2	2	3	2	1.7	4.6
22-Sep-05	2	2	2	2	2	2	2	3	1	3	3	3	0	1	1	1	2	1	1	2	2	1	1	1	1.7	3.4
23-Sep-05	1	1	0	0	1	1	1	2	2	2	0	0	0	0	0	1	1	2	3	3	4	3	2	2	1.3	3.6
24-Sep-05	2	2	1	2	0	2	0	2	3	3	1	0	0	0	1	2	0	0	1	1	1	1	1	1	1.2	3.0
25-Sep-05	1	1	0	1	1	2	2	1	3	2	1	1	1	1	3	2	1	1	2	8	6	2	1	2	2.0	8.1
26-Sep-05	1	0	1	0	1	2	3	2	3	1	2	3	2	3	2	3	3	2	2	1	2	1	1	0	1.7	3.0
27-Sep-05	0	1	0	1	1	1	1	2	3	2	2	0	1	0	0	0	0	3	2	1	1	1	1	1	1.0	2.8
28-Sep-05	1	1	1	1	1	0	2	1	2	4	2	0	1	0	1	0	0	0	1	2	0	0	0	0	0.9	3.8
29-Sep-05	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	2	20	5	5	3	2	3	1.9	20.0
30-Sep-05	4	2	3	4	2	1	0	1	1	0	0	0	0	1	0	0	0	0	4	5	3	1	1	1	1.5	4.5
																									N	0.0
Hourly Avg	1.3	1.3	1.1	1.2	1.2	1.3	1.5	2.1	2.3	1.7	0.9	0.6	0.6	0.8	1.0	1.0	1.3	1.6	3.3	2.8	2.9	2.1	1.6	1.4		
Hourly Max	3.5	4.2	3.2	6.0	3.0	6.0	4.8	6.8	10.9	9.5	3.2	3.8	3.8	4.0	5.4	3.3	5.6	3.8	20.0	10.0	9.8	8.5	3.9	3.8		

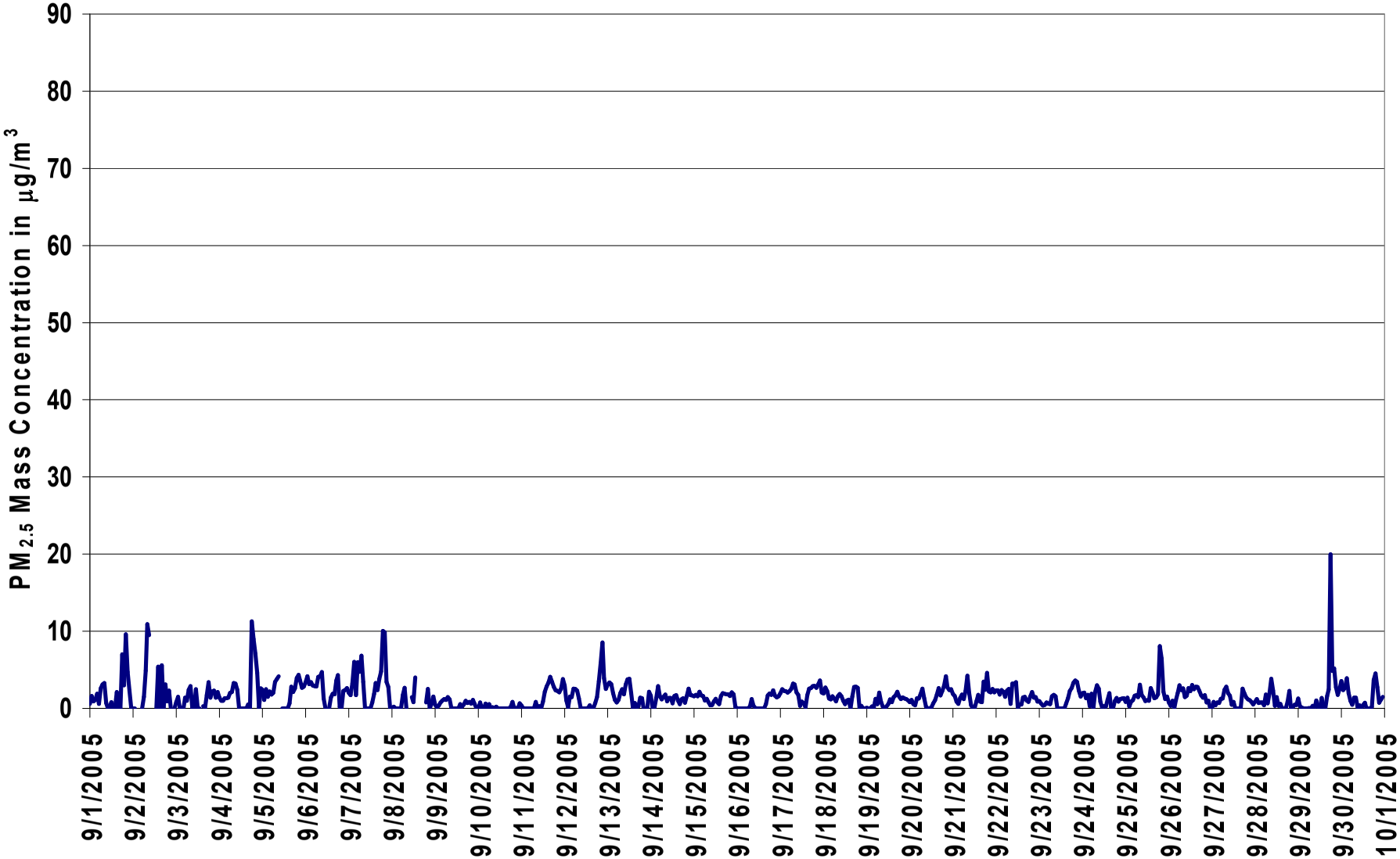


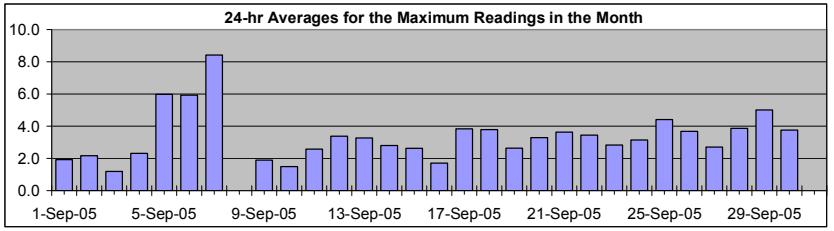
Figure 42. PASZA - Beaverlodge Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Beaverlodge
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Particulate Matter ($PM_{2.5}$)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Average:	52.7	µg/m³	29-Sep	18:00 19:00
Maximum 24-hr Value:	8.4	µg/m³	7-Sep	

AIC Time:	0 hrs	Operational Time:	705 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	98.2%

Percentile	99	95	75	50	25	5	1	Average	Geomean
	12.7	8.1	4.2	2.9	1.9	0.0	0.0	3.4 µg/m³	3.1 µg/m³

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-05	1	2	1	1	2	1	3	3	3	1	0	0	1	0	0	2	0	0	7	3	10	5	2	0	1.9	9.6
2-Sep-05	0	0	D	0	D	0	2	5	11	10	D	-3	D	0	5	0	6	0	3	1	2	0	D	0	2.2	10.9
3-Sep-05	1	2	0	0	0	1	1	2	3	0	0	3	0	0	D	0	0	2	3	1	2	2	1	2	1.2	3.4
4-Sep-05	1	1	1	1	1	1	2	2	3	3	2	0	0	0	0	0	1	0	11	9	7	5	0	3	2.3	11.3
5-Sep-05	2	1	3	2	2	2	3	6	8	12	D	11	5	12	6	6	10	10	8	7	7	6	4	4	6.0	11.9
6-Sep-05	4	5	5	4	4	5	5	7	7	10	9	3	D	4	8	11	6	8	7	4	2	6	6	7	5.9	11.1
7-Sep-05	4	4	5	21	8	18	11	12	7	9	4	6	5	4	6	8	6	7	7	18	15	9	5	2	8.4	20.6
8-Sep-05	2	3	1	2	0	3	5	8	4	D	D	5	9	0	C	C	D	D	D	7	8	0	3	3	N	8.9
9-Sep-05	2	1	2	2	3	3	3	2	3	1	1	1	0	2	2	1	2	2	2	2	2	2	1	1	1.9	3.3
10-Sep-05	2	4	1	2	3	1	2	1	1	1	1	1	1	0	0	1	0	1	2	2	1	1	2	3	1.5	3.8
11-Sep-05	2	1	0	0	1	0	0	2	4	1	2	1	3	4	5	5	5	4	4	4	4	3	4	5	2.6	5.5
12-Sep-05	5	3	1	3	3	4	5	4	3	1	0	2	2	1	2	1	1	2	3	5	8	11	7	4	3.4	11.0
13-Sep-05	4	4	5	3	3	2	2	4	5	5	4	5	5	5	1	2	2	2	2	3	1	2	1	5	3.3	5.5
14-Sep-05	6	1	1	3	4	3	3	3	3	2	2	3	2	3	3	2	2	3	2	2	3	4	3	3	2.8	5.7
15-Sep-05	3	3	2	3	3	3	2	2	2	1	2	3	3	2	2	2	3	4	3	3	3	3	3	3	2.6	3.6
16-Sep-05	0	1	1	1	0	0	0	3	3	1	1	2	1	1	1	2	2	3	4	3	3	3	3	2	1.7	3.8
17-Sep-05	3	3	3	4	4	3	4	5	5	4	3	2	2	3	2	4	5	5	5	5	5	4	5	4	3.8	5.5
18-Sep-05	3	4	3	3	3	3	3	2	5	4	3	3	2	3	4	3	3	5	8	8	2	2	10	1	3.8	10.0
19-Sep-05	2	1	1	4	2	2	2	4	2	2	2	3	2	3	3	3	4	3	4	3	3	3	3	3	2.6	3.9
20-Sep-05	2	2	2	2	2	2	4	6	3	2	2	2	2	3	3	4	5	4	3	4	7	5	3	4	3.3	6.7
21-Sep-05	3	3	2	2	3	3	2	4	5	6	2	1	1	3	5	5	3	6	4	7	4	4	6	4	3.6	6.9
22-Sep-05	4	4	3	4	3	3	3	4	4	5	5	5	2	3	3	4	3	3	2	4	4	2	3	2	3.4	5.3
23-Sep-05	2	2	2	3	2	2	2	3	4	3	3	2	2	1	1	2	3	4	4	5	5	4	4	3	2.8	4.7
24-Sep-05	3	3	4	4	2	4	3	4	5	5	4	2	3	2	3	4	1	2	2	4	3	3	2	3	3.1	5.3
25-Sep-05	3	3	1	4	4	3	3	3	5	3	3	3	3	4	5	4	4	3	4	13	13	8	3	3	4.4	12.7
26-Sep-05	2	2	3	3	3	4	4	4	5	5	4	4	4	5	4	5	5	5	4	3	3	3	3	1	3.7	5.3
27-Sep-05	1	2	3	2	2	3	3	4	4	4	3	3	2	2	2	2	2	5	4	3	3	3	2	1	2.7	4.9
28-Sep-05	2	3	3	2	3	2	4	2	11	11	7	4	4	3	3	2	1	3	3	6	4	3	3	2	3.9	11.2
29-Sep-05	3	2	2	1	1	1	2	2	3	1	4	3	2	5	2	1	4	5	53	7	7	5	3	4	5.0	52.7
30-Sep-05	5	4	5	6	4	3	2	4	3	3	2	1	2	2	1	0	1	1	12	13	5	2	3	3	3.8	13.2
																									N	0.0
Hourly Avg	2.6	2.4	2.3	3.1	2.7	2.9	3.0	3.9	4.4	4.0	2.8	2.7	2.5	2.6	2.9	3.1	3.1	3.6	6.2	5.3	4.9	3.8	3.4	2.9		
Hourly Max	5.7	5.0	5.0	20.6	7.6	18.1	11.5	12.5	10.9	11.9	9.0	10.7	8.9	11.5	7.5	11.1	10.0	10.5	52.7	17.5	14.6	11.0	10.0	6.6		

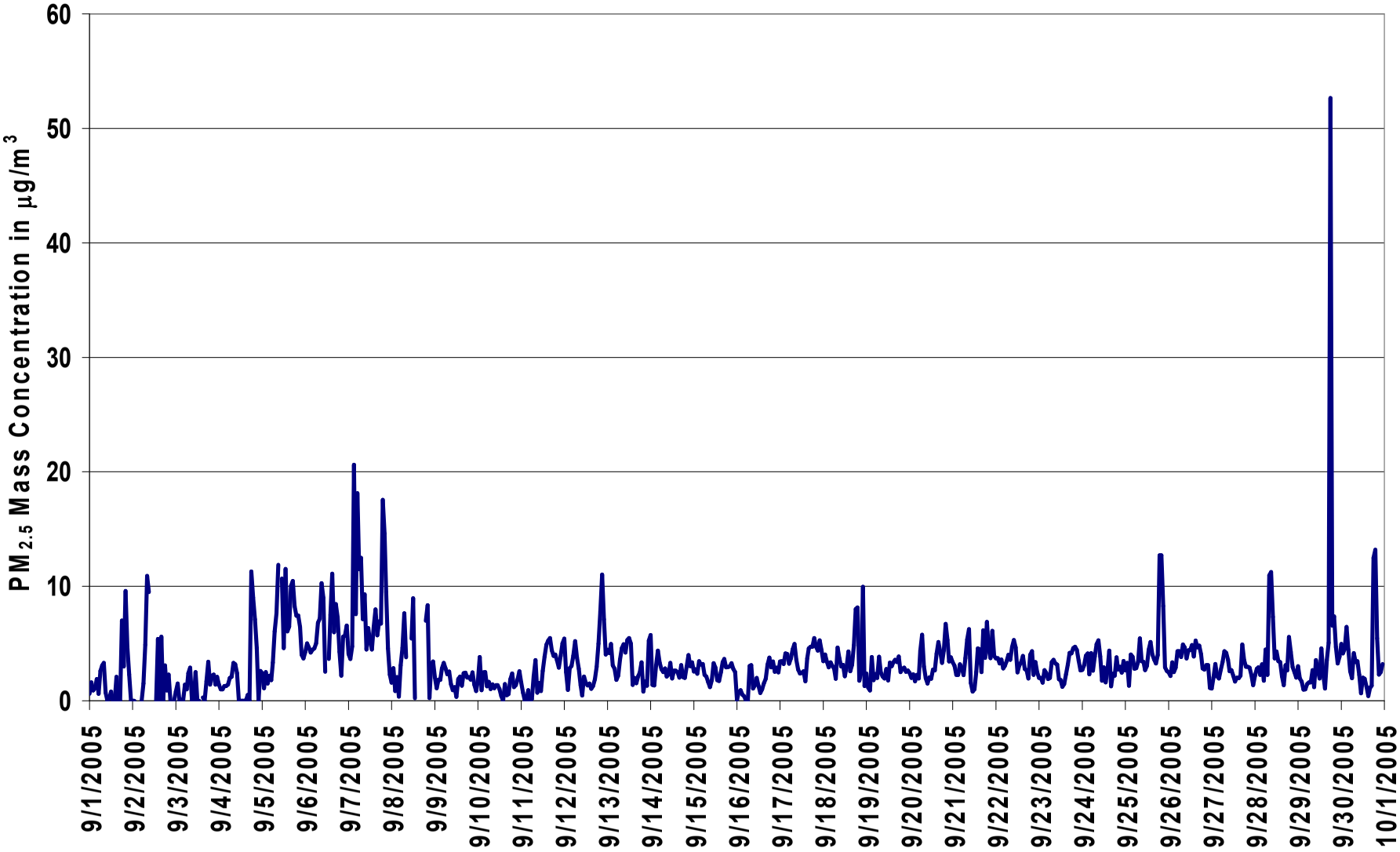
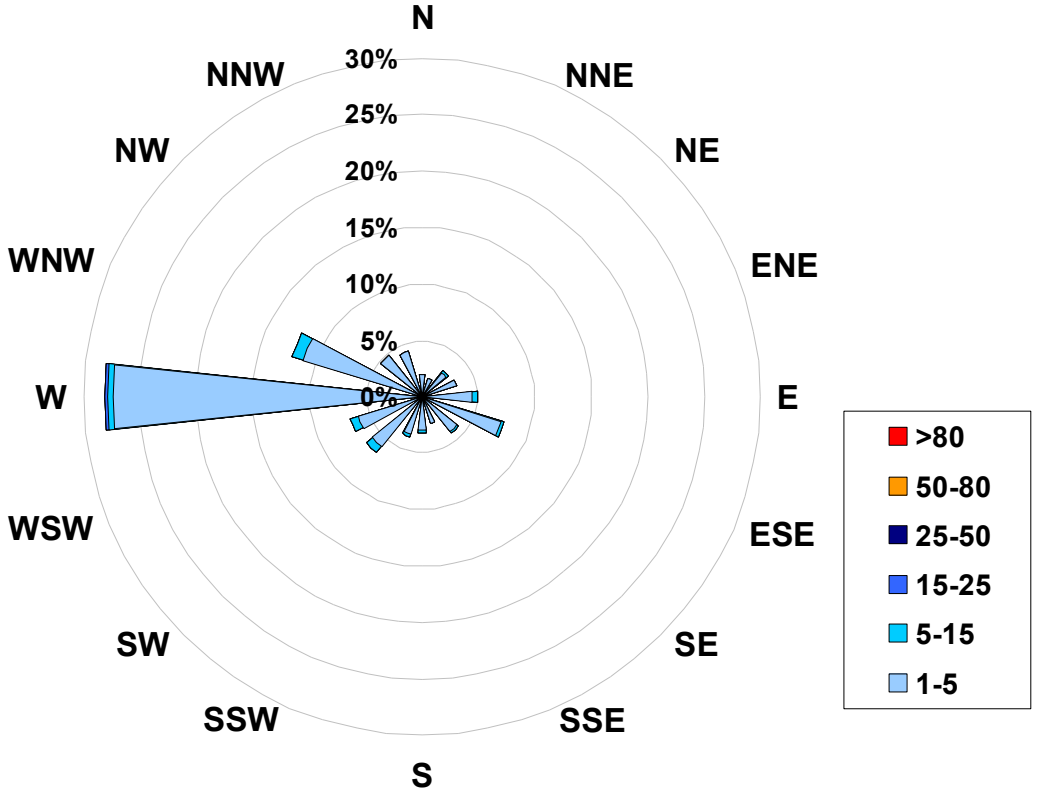


Figure 43. PASZA - Beaverlodge Particulate Matter (less than 2.5 microns) 1-hr Maximum Value Monthly Trend

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



Calms:	1%

Frequency Distribution of $PM_{2.5}$ in $\mu g/m^3$			
Range			Frequency (hrs)
1.0	<	5	685
5	to	15	19
15	to	25	1
25	to	50	0
50	to	80	0
	>	80	0
Total Non-Zero Values			705

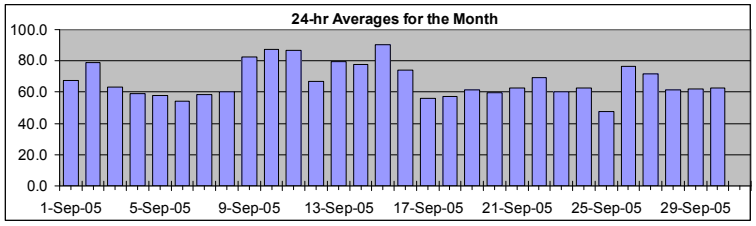
PASZA - Beaverlodge Relative Humidity Monthly Summary

Station: Beaverlodge
Station Owner: PASZA

HOURLY AVERAGE TABLE

Relative Humidity (RH)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Average:	98.0	%	11-Sep	1:00 2:00
Maximum 24-hr Value:	90.6	%	15-Sep	

AIC Time:	0 hrs	Operational Time:	720 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	97.8	95.0	84.0	69.5	49.8	34.0	30.0	67.2 %

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / 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-05	79	79	84	86	87	88	87	74	71	60	52	46	44	42	42	44	44	44	52	63	81	87	91	91	67.4	91.0
2-Sep-05	95	96	97	97	97	97	97	96	94	84	72	65	54	51	56	62	65	61	67	76	81	86	73	69	78.7	97.0
3-Sep-05	72	82	82	80	81	85	91	86	73	58	56	60	52	45	36	34	34	37	45	50	61	67	73	76	63.2	91.0
4-Sep-05	78	83	86	86	88	87	84	75	71	66	58	47	36	34	32	30	30	32	41	44	52	57	58	67	59.3	88.0
5-Sep-05	76	76	82	84	86	87	84	74	70	64	46	36	34	31	30	29	32	34	38	49	58	58	60	69	57.8	87.0
6-Sep-05	76	80	81	83	86	87	85	75	68	61	49	38	30	27	26	26	26	30	37	44	41	45	48	55	54.3	87.0
7-Sep-05	54	56	58	62	63	67	76	72	61	52	46	45	40	37	40	46	49	52	57	62	69	78	81	86	58.7	86.0
8-Sep-05	80	80	81	83	84	82	83	79	63	47	38	38	37	33	32	30	41	43	53	57	63	70	71	81	60.4	84.0
9-Sep-05	86	89	90	92	91	89	88	91	91	86	84	77	68	65	65	66	64	80	86	83	86	89	88	88	82.6	92.0
10-Sep-05	91	92	91	92	93	94	95	93	92	92	89	87	80	78	73	73	80	77	77	85	91	94	93	96	87.4	96.0
11-Sep-05	96	96	97	97	97	98	98	98	92	91	83	65	60	60	63	69	86	90	90	91	90	90	90	91	86.6	98.0
12-Sep-05	88	82	83	87	90	91	90	86	74	63	52	48	46	43	43	44	45	47	53	62	62	75	74	72	66.7	91.0
13-Sep-05	78	83	84	85	86	85	84	83	82	85	88	91	92	87	76	69	61	60	69	78	74	75	78	76	79.5	92.0
14-Sep-05	78	77	77	74	76	83	84	83	82	78	73	72	66	66	63	67	64	71	82	85	88	90	91	91	77.5	91.0
15-Sep-05	91	90	90	92	93	94	93	94	93	93	91	90	90	86	83	81	84	90	90	90	91	94	95	96	90.6	96.0
16-Sep-05	97	97	97	97	97	98	98	98	94	85	79	69	59	54	41	39	41	44	54	63	66	68	68	69	73.8	98.0
17-Sep-05	76	77	80	82	83	84	87	76	70	63	53	41	33	32	28	28	31	35	40	43	47	49	54	49	55.9	87.0
18-Sep-05	54	57	62	62	67	67	68	63	60	54	45	35	35	36	35	30	31	38	52	82	80	83	86	86	57.0	86.0
19-Sep-05	84	79	80	79	79	83	83	72	63	53	45	42	38	37	36	37	39	46	59	65	69	67	67	72	61.4	84.0
20-Sep-05	74	71	72	78	77	75	77	69	59	53	46	40	40	38	36	40	39	42	46	61	70	73	75	80	59.6	80.0
21-Sep-05	78	76	76	75	82	86	86	77	69	54	46	40	38	41	43	41	37	42	47	56	72	77	78	80	62.4	86.0
22-Sep-05	84	80	88	84	87	89	90	83	75	68	54	46	39	41	43	43	54	60	66	74	72	76	79	82	69.0	90.0
23-Sep-05	83	84	81	88	92	93	92	82	73	65	48	40	34	32	31	32	36	43	48	51	54	57	55	58	60.5	93.0
24-Sep-05	65	68	70	73	75	76	82	76	68	60	50	48	46	46	48	62	57	54	56	61	65	68	65	61	62.5	82.0
25-Sep-05	62	63	65	62	55	54	54	54	51	47	44	39	37	33	31	33	37	36	44	49	54	48	48	48	47.8	65.0
26-Sep-05	38	39	39	40	49	61	79	89	92	89	86	86	81	84	80	79	84	88	90	93	93	91	96	97	76.8	97.0
27-Sep-05	97	98	98	97	97	96	96	91	87	82	77	68	59	51	50	37	36	49	56	55	59	63	64	64	72.0	98.0
28-Sep-05	64	64	63	66	72	73	62	58	59	57	46	39	35	41	47	49	47	51	59	75	84	88	85	86	61.3	88.0
29-Sep-05	86	80	75	80	75	75	78	68	56	47	46	45	43	45	42	41	41	50	64	66	69	71	71	77	62.1	86.0
30-Sep-05	74	78	81	78	88	88	88	86	74	63	51	43	43	43	39	34	37	43	51	57	59	64	69	77	62.8	88.0
																									N	0.0
Hourly Avg	77.8	78.4	79.7	80.7	82.4	83.7	84.6	80.0	74.2	67.3	59.8	54.2	49.6	48.0	46.3	46.5	48.4	52.3	59.0	65.7	70.0	73.3	74.1	76.3		
Hourly Max	97.0	98.0	98.0	97.0	97.0	98.0	98.0	98.0	94.0	93.0	91.0	91.0	92.0	87.0	83.0	81.0	86.0	90.0	90.0	93.0	93.0	94.0	96.0	97.0		

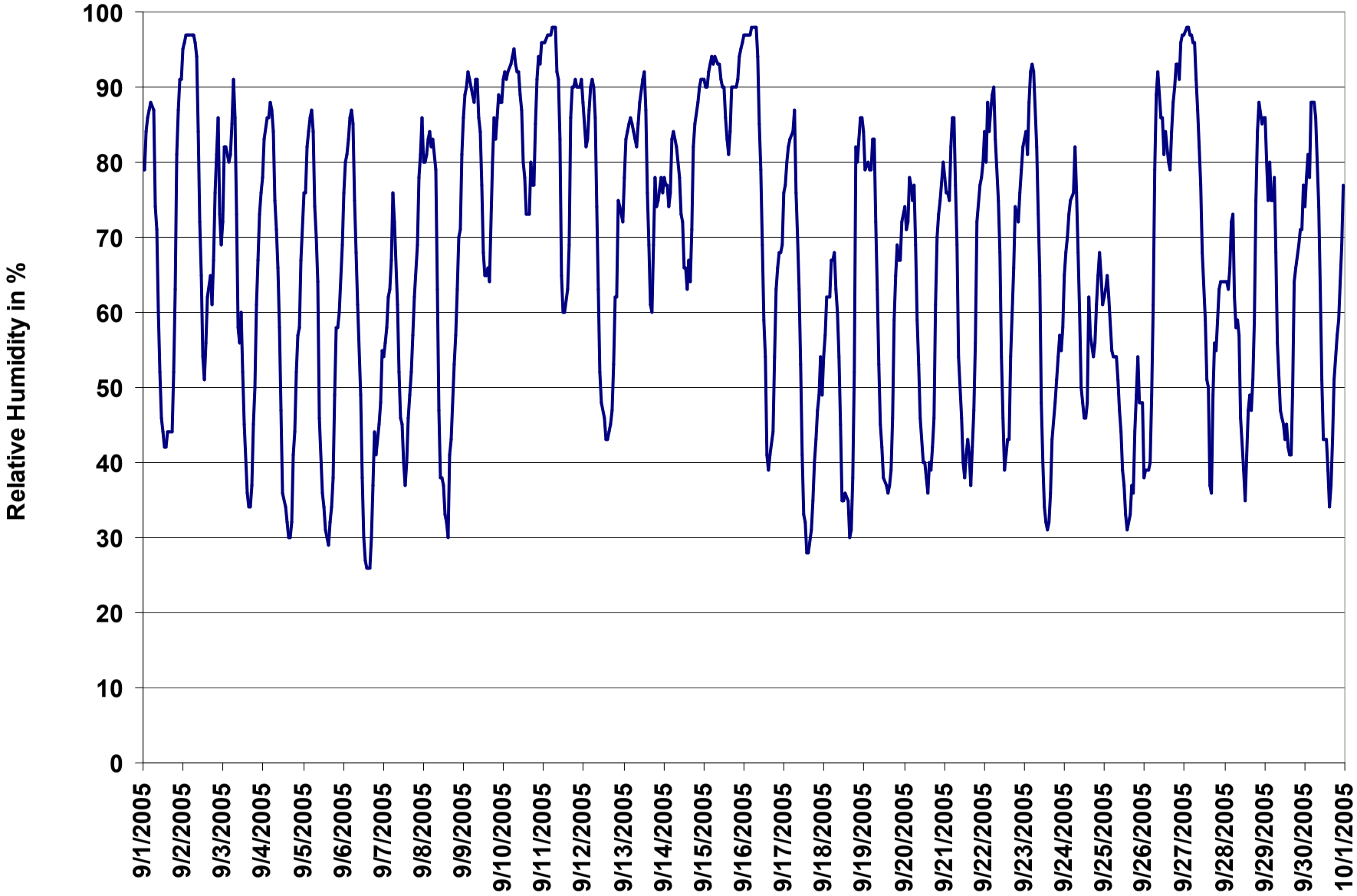


Figure 44. PASZA - Beaverlodge Relative Humidity 1-hr Average Monthly Trend

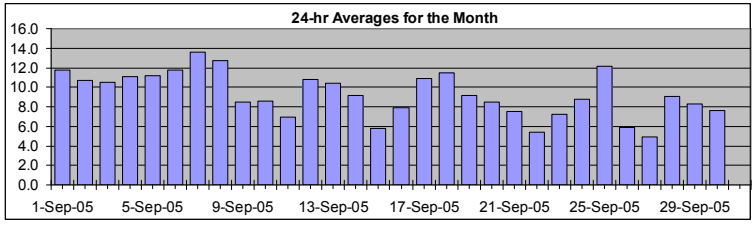
PASZA - Beaverlodge Temperature Monthly Summary

Station: Beaverlodge
Station Owner: PASZA

HOURLY AVERAGE TABLE

Ambient Temperature (T)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Average:	21.4	°C	6-Sep	15:00 16:00
Maximum 24-hr Value:	13.6	°C	7-Sep	

AIC Time:	0 hrs	Operational Time:	720 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	19.0	17.4	12.4	9.0	5.8	2.2	-0.5	9.3 °C

Status Flag Characters

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

Day **Mountain Standard Time**

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-05	7	7	6	5	5	5	5	8	10	13	15	16	18	18	18	18	18	18	16	15	12	11	11	10	11.8	17.9
2-Sep-05	9	8	7	7	5	4	4	5	7	10	13	14	16	17	17	15	15	16	15	13	12	10	10	9	10.7	17.0
3-Sep-05	8	7	7	7	6	5	4	6	10	12	12	12	14	16	17	17	17	16	14	13	10	9	7	7	10.5	17.2
4-Sep-05	6	5	4	4	3	3	4	6	8	10	13	16	18	18	18	19	19	18	16	14	13	12	11	9	11.1	19.0
5-Sep-05	7	7	6	5	4	4	5	7	9	12	16	17	17	18	18	18	18	17	15	12	10	10	9	7	11.1	18.3
6-Sep-05	5	5	4	3	2	2	2	5	8	11	14	17	19	20	21	21	21	20	18	14	14	13	12	10	11.7	21.4
7-Sep-05	10	10	9	10	10	9	8	11	14	16	17	18	19	20	19	17	16	16	15	14	13	12	12	11	13.6	19.7
8-Sep-05	11	11	10	10	9	9	8	10	13	15	16	16	17	18	18	18	16	15	13	12	11	10	10	8	12.7	18.4
9-Sep-05	7	6	5	5	6	7	8	8	8	9	9	10	11	11	11	11	12	10	9	9	8	8	8	8	8.5	11.5
10-Sep-05	7	7	7	7	7	7	7	7	8	8	9	9	11	11	12	12	11	11	11	10	8	7	7	6	8.6	12.1
11-Sep-05	4	4	3	2	2	0	0	1	4	4	7	12	13	13	12	11	9	9	9	9	9	9	9	9	6.9	13.5
12-Sep-05	9	9	8	7	7	7	7	8	10	12	13	13	14	15	15	15	15	14	13	11	11	8	8	8	10.8	15.3
13-Sep-05	7	6	6	7	7	7	7	8	9	9	9	10	11	13	13	15	16	16	15	13	13	12	10	12	10.4	16.1
14-Sep-05	11	10	9	9	9	8	8	8	8	9	10	10	11	11	12	12	12	10	9	8	8	7	6	6	9.1	12.0
15-Sep-05	6	5	5	5	5	5	5	5	5	5	6	6	6	7	7	7	7	6	6	6	6	6	6	5	5.8	7.3
16-Sep-05	4	3	3	3	2	2	0	0	3	5	8	10	13	14	16	16	16	15	12	10	9	9	8	8	7.9	16.0
17-Sep-05	6	6	5	4	4	3	3	6	8	11	13	17	18	18	19	18	17	16	14	13	12	11	11	11	10.9	18.5
18-Sep-05	10	9	8	8	7	7	7	8	10	12	15	17	17	16	17	18	17	16	13	9	9	9	8	7	11.5	18.1
19-Sep-05	7	8	7	6	5	4	4	6	9	11	13	13	14	14	15	14	13	12	9	8	7	7	7	6	9.2	14.5
20-Sep-05	6	7	6	5	5	5	4	6	9	10	12	13	13	13	14	12	13	12	11	8	6	5	5	3	8.5	13.8
21-Sep-05	3	4	3	3	2	2	2	3	6	10	12	13	13	12	13	14	13	12	10	9	6	5	5	4	7.5	13.6
22-Sep-05	3	2	0	1	0	-1	-1	0	2	6	10	12	13	12	11	11	10	8	7	5	6	5	4	4	5.4	13.1
23-Sep-05	3	3	2	2	1	0	0	1	4	6	10	12	13	14	13	13	12	10	9	9	9	8	9	9	7.2	13.6
24-Sep-05	7	6	6	5	5	4	2	4	7	9	12	12	12	12	12	11	12	12	12	11	10	9	9	10	8.8	12.5
25-Sep-05	10	9	9	10	11	11	11	11	12	14	14	15	16	15	16	16	15	15	13	10	9	10	10	10	12.1	15.7
26-Sep-05	11	11	11	11	9	8	6	5	5	5	5	5	5	5	6	6	6	5	4	3	3	2	1	0	5.9	11.2
27-Sep-05	-1	-1	-1	0	-1	-1	-2	0	1	3	5	8	10	12	12	14	12	10	8	8	7	6	5	5	5.0	13.5
28-Sep-05	5	5	5	5	5	4	5	6	7	8	11	15	17	16	13	13	14	13	12	10	8	7	7	7	9.1	16.9
29-Sep-05	7	8	8	6	7	6	5	6	9	10	11	11	12	12	12	12	12	10	7	7	6	6	5	4	8.3	12.4
30-Sep-05	5	4	3	5	5	5	4	4	7	9	11	12	12	12	13	14	13	11	9	7	7	6	5	3	7.6	13.8
																									N	0.0
Hourly Avg	6.7	6.3	5.7	5.4	5.2	4.8	4.5	5.6	7.5	9.5	11.4	12.8	13.7	14.1	14.3	14.3	13.8	13.0	11.5	10.0	9.0	8.3	7.9	7.1		
Hourly Max	11.3	11.0	10.8	10.6	11.4	11.5	11.2	11.1	13.6	16.3	17.2	17.5	19.2	20.1	20.8	21.4	21.1	19.7	17.7	14.5	14.0	12.5	12.0	11.6		

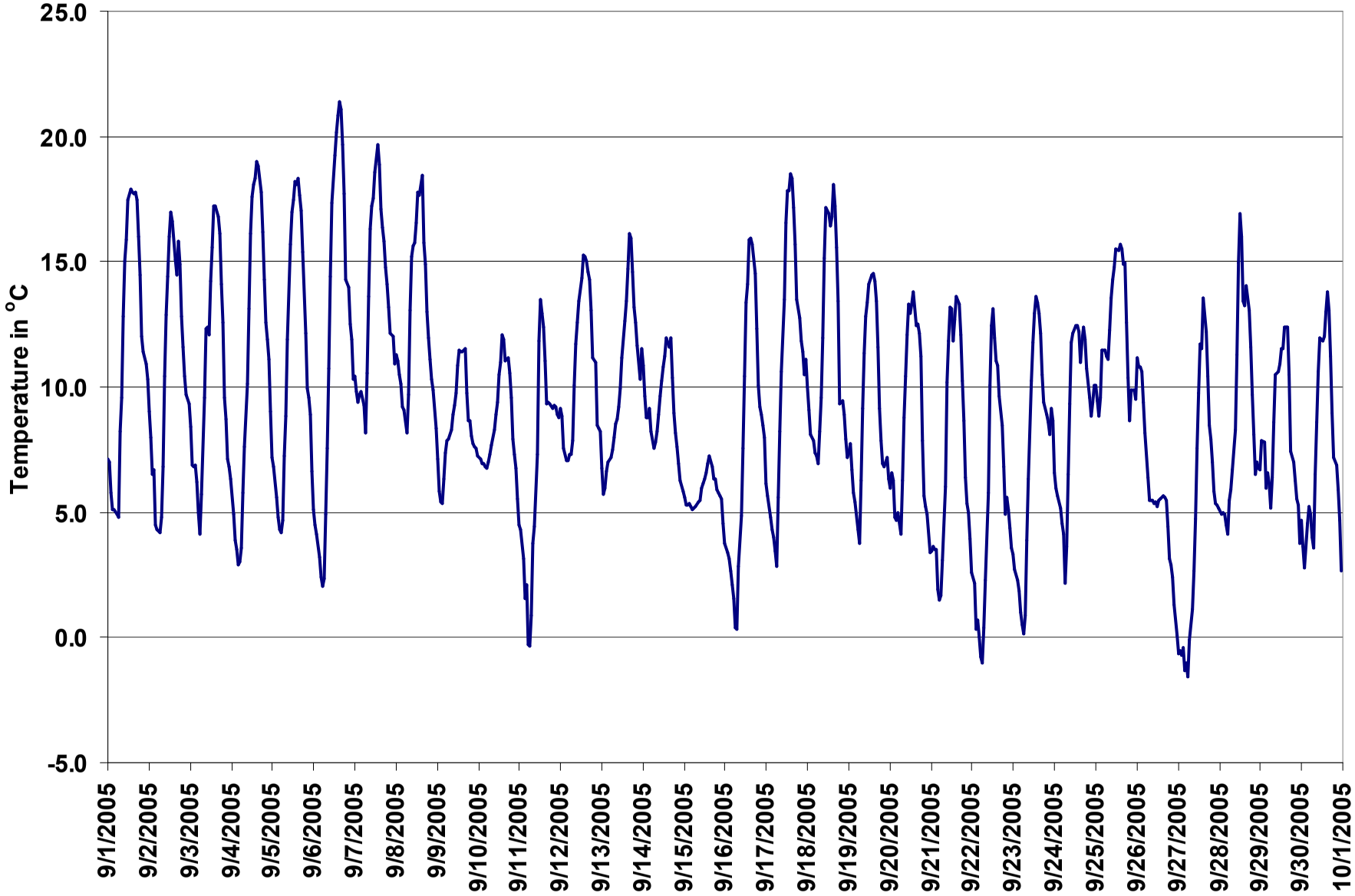


Figure 45. PASZA - Beaverlodge Temperature 1-hr Average Monthly Trend

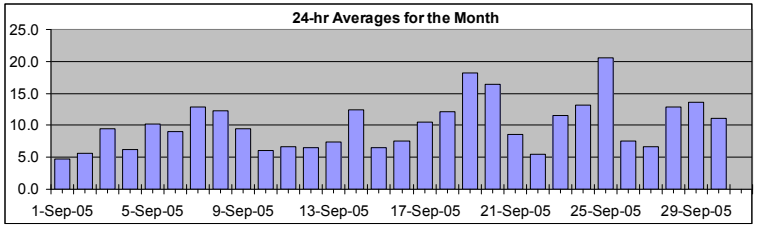
PASZA - Beaverlodge Scalar Wind Speed Monthly Summary

Station: Beaverlodge
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Speed (WSs)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Average:	32.8	km/hr	28-Sep	15:00 16:00
Maximum 24-hr Value:	20.5	km/hr	25-Sep	

Calm Time:	3 hrs	**0%** calms	Operational Time: 711 hrs
Calibration Time:	0 hrs		AMD Operational Uptime: 99.2%

Percentile	99	95	75	50	25	5	1	AverageS
	31.4	24.7	14.3	7.9	4.2	2.5	1.6	10.1 km/hr

Status Flag Characters

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

Day — **Mountain Standard Time**

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-hr Scalar Average	Daily Max
1-Sep-05	5	6	4	3	3	4	3	3	4	5	6	8	5	7	7	8	5	4	4	5	7	3	3	3	4.8	7.9
2-Sep-05	1	4	4	calm	1	2	3	2	3	3	3	5	7	8	7	11	11	13	11	7	6	5	8	8	5.7	12.7
3-Sep-05	5	6	5	5	4	4	2	3	5	10	12	13	18	14	17	19	18	16	11	12	10	7	3	7	9.5	19.0
4-Sep-05	8	2	4	3	3	3	3	3	4	6	6	7	9	11	9	9	8	8	5	5	7	12	9	7	6.2	12.1
5-Sep-05	4	4	4	3	3	2	3	3	6	9	17	19	19	20	20	21	19	19	16	11	10	7	5	2	10.3	20.5
6-Sep-05	4	3	2	2	3	4	4	3	4	5	7	11	19	20	20	19	18	17	14	12	12	4	5	3	9.0	19.9
7-Sep-05	1	3	2	3	3	3	5	11	14	20	25	23	25	27	30	30	20	15	9	4	9	9	12	8	12.9	29.8
8-Sep-05	7	6	8	5	4	9	6	6	12	25	28	23	22	21	21	20	16	10	7	4	9	9	8	7	12.2	28.2
9-Sep-05	6	7	9	7	7	5	8	7	7	12	13	13	13	12	13	13	12	12	10	8	8	8	8	10	9.5	13.3
10-Sep-05	10	8	7	9	10	8	7	9	8	9	9	8	6	3	3	4	4	4	2	calm	3	4	2	3	6.1	9.8
11-Sep-05	5	3	1	4	3	3	2	4	3	4	4	5	9	11	15	16	15	9	9	7	9	7	7	8	6.7	15.9
12-Sep-05	10	9	8	5	6	6	6	7	8	9	10	8	8	6	7	7	6	6	5	6	4	2	4	4	6.5	10.1
13-Sep-05	5	3	4	4	4	4	4	4	3	4	4	6	6	7	16	20	19	17	5	2	7	10	4	14	7.3	20.4
14-Sep-05	17	16	13	15	21	16	16	16	17	16	14	11	12	9	9	10	9	10	9	8	7	9	8	9	12.4	21.5
15-Sep-05	10	9	10	9	8	9	7	4	5	5	8	8	8	8	8	7	7	5	4	4	2	3	3	4	6.5	10.1
16-Sep-05	3	3	3	2	2	3	2	2	4	6	7	8	9	9	14	18	19	18	14	10	7	7	6	6	7.5	19.2
17-Sep-05	2	3	2	3	3	4	4	2	3	7	8	15	20	19	23	24	25	19	12	13	9	5	7	14	10.4	25.4
18-Sep-05	12	8	4	6	9	8	4	4	6	6	10	19	18	18	17	18	20	21	15	19	18	16	13	5	12.2	21.2
19-Sep-05	3	7	8	4	7	7	7	12	18	22	26	30	32	31	31	30	31	25	21	17	15	17	19	14	18.2	32.3
20-Sep-05	13	15	15	13	10	14	14	13	22	24	24	26	24	25	25	23	20	17	20	13	10	9	4	3	16.4	26.0
21-Sep-05	3	4	3	4	4	3	3	3	3	12	19	16	15	13	11	13	18	13	17	11	7	5	6	4	8.6	18.7
22-Sep-05	2	4	3	4	3	3	2	1	3	3	4	5	9	7	9	14	18	9	8	3	4	5	6	3	5.5	18.3
23-Sep-05	2	3	3	1	2	3	2	3	4	7	11	17	17	21	21	23	24	25	20	17	14	11	13	12	11.5	24.8
24-Sep-05	8	4	6	6	4	5	4	2	4	6	12	15	19	25	24	20	22	17	25	22	16	15	16	17	13.2	24.7
25-Sep-05	17	15	12	13	24	22	25	25	32	30	32	31	29	31	31	29	24	22	13	8	4	7	8	6	20.5	32.0
26-Sep-05	13	13	11	11	8	7	4	5	3	6	6	9	12	6	10	5	8	11	8	8	6	3	2	calm	7.6	13.3
27-Sep-05	3	N	N	N	N	N	N	3	4	6	7	7	7	9	7	10	19	11	8	7	2	3	3	3	6.7	18.5
28-Sep-05	5	4	3	4	6	3	3	2	2	3	6	13	19	32	32	33	32	23	21	26	16	5	10	7	12.9	32.8
29-Sep-05	3	11	13	11	13	12	10	16	22	25	22	21	21	20	18	17	14	12	10	7	8	9	7	2	13.6	25.3
30-Sep-05	6	6	4	8	16	8	6	5	6	17	23	23	20	15	14	21	19	15	9	5	5	4	5	4	11.0	23.0
																									N	0.0
1-hr Average	6.4	6.5	6.1	5.9	6.6	6.3	5.9	6.1	8.0	10.8	12.7	14.0	15.2	15.5	16.3	17.0	16.7	14.1	11.4	9.8	8.4	7.4	7.2	6.9		
Hourly Max	16.8	15.6	14.9	15.2	23.9	22.4	25.2	25.3	32.0	30.5	31.5	30.6	32.3	32.4	32.1	32.8	32.1	25.4	24.7	25.8	18.1	17.3	19.2	17.3		

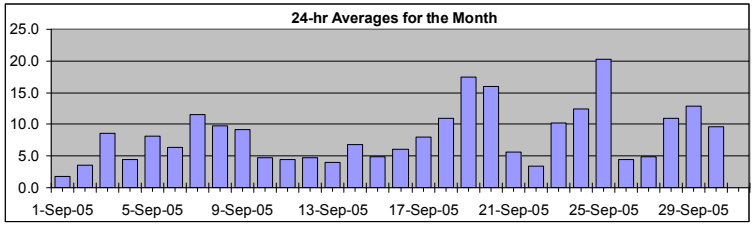
PASZA - Beaverlodge Vector Wind Speed Monthly Summary

Station: Beaverlodge
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Speed (WSv)

Monitoring Dates: September 1, 2005 to October 1, 2005



Summary

Maximum 1-hr Average:	32.8	km/hr	28-Sep	15:00 16:00
Maximum 24-hr Value:	20.3	km/hr	25-Sep	

Calm Time:	3 hrs	**0%** calms	
Calibration Time:	0 hrs		
Operational Time:	711 hrs		
AMD Operational Uptime:	99.2%		

Percentile	99	95	75	50	25	5	1	AverageV
	31.4	24.7	14.3	7.9	4.2	2.5	1.6	48.8 km/hr

Status Flag Characters

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

Day — **Mountain Standard Time**

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-hr Vector Average	Daily Max
1-Sep-05	5	6	4	3	3	4	3	3	4	5	6	8	5	7	7	8	5	4	4	5	7	3	3	3	1.8	7.9
2-Sep-05	1	4	4	calm	1	2	3	2	3	3	3	5	7	8	7	11	11	13	11	7	6	5	8	8	3.5	12.7
3-Sep-05	5	6	5	5	4	4	2	3	5	10	12	13	18	14	17	19	18	16	11	12	10	7	3	7	8.6	19.0
4-Sep-05	8	2	4	3	3	3	3	3	4	6	6	7	9	11	9	9	8	8	5	5	7	12	9	7	4.4	12.1
5-Sep-05	4	4	4	3	3	2	3	3	6	9	17	19	19	20	20	21	19	19	16	11	10	7	5	2	8.2	20.5
6-Sep-05	4	3	2	2	3	4	4	3	4	5	7	11	19	20	20	19	18	17	14	12	12	4	5	3	6.4	19.9
7-Sep-05	1	3	2	3	3	3	5	11	14	20	25	23	25	27	30	30	20	15	9	4	9	9	12	8	11.5	29.8
8-Sep-05	7	6	8	5	4	9	6	6	12	25	28	23	22	21	21	20	16	10	7	4	9	9	8	7	9.8	28.2
9-Sep-05	6	7	9	7	7	5	8	7	7	12	13	13	13	12	13	13	12	12	10	8	8	8	8	10	9.2	13.3
10-Sep-05	10	8	7	9	10	8	7	9	8	9	9	8	6	3	3	4	4	4	2	calm	3	4	2	3	4.8	9.8
11-Sep-05	5	3	1	4	3	3	2	4	3	4	4	5	9	11	15	16	15	9	9	7	9	7	7	8	4.5	15.9
12-Sep-05	10	9	8	5	6	6	6	7	8	9	10	8	8	6	7	7	6	6	5	6	4	2	4	4	4.8	10.1
13-Sep-05	5	3	4	4	4	4	4	4	3	4	4	6	6	7	16	20	19	17	5	2	7	10	4	14	4.0	20.4
14-Sep-05	17	16	13	15	21	16	16	16	17	16	14	11	12	9	9	10	9	10	9	8	7	9	8	9	6.8	21.5
15-Sep-05	10	9	10	9	8	9	7	4	5	5	8	8	8	8	8	7	7	5	4	4	2	3	3	4	4.9	10.1
16-Sep-05	3	3	3	2	2	3	2	2	4	6	7	8	9	9	14	18	19	18	14	10	7	7	6	6	6.1	19.2
17-Sep-05	2	3	2	3	3	4	4	2	3	7	8	15	20	19	23	24	25	19	12	13	9	5	7	14	8.0	25.4
18-Sep-05	12	8	4	6	9	8	4	4	6	6	10	19	18	18	17	18	20	21	15	19	18	16	13	5	10.9	21.2
19-Sep-05	3	7	8	4	7	7	7	12	18	22	26	30	32	31	31	30	31	25	21	17	15	17	19	14	17.5	32.3
20-Sep-05	13	15	15	13	10	14	14	13	22	24	24	26	24	25	25	23	20	17	20	13	10	9	4	3	16.0	26.0
21-Sep-05	3	4	3	4	4	3	3	3	3	12	19	16	15	13	11	13	18	13	17	11	7	5	6	4	5.7	18.7
22-Sep-05	2	4	3	4	3	3	2	1	3	3	4	5	9	7	9	14	18	9	8	3	4	5	6	3	3.5	18.3
23-Sep-05	2	3	3	1	2	3	2	3	4	7	11	17	17	21	21	23	24	25	20	17	14	11	13	12	10.2	24.8
24-Sep-05	8	4	6	6	4	5	4	2	4	6	12	15	19	25	24	20	22	17	25	22	16	15	16	17	12.4	24.7
25-Sep-05	17	15	12	13	24	22	25	25	32	30	32	31	29	31	31	29	24	22	13	8	4	7	8	6	20.3	32.0
26-Sep-05	13	13	11	11	8	7	4	5	3	6	6	9	12	6	10	5	8	11	8	8	6	3	2	calm	4.4	13.3
27-Sep-05	3	N	N	N	N	N	N	3	4	6	7	7	7	9	7	10	19	11	8	7	2	3	3	3	4.9	18.5
28-Sep-05	5	4	3	4	6	3	3	2	2	3	6	13	19	32	32	33	32	23	21	26	16	5	10	7	10.9	32.8
29-Sep-05	3	11	13	11	13	12	10	16	22	25	22	21	21	20	18	17	14	12	10	7	8	9	7	2	12.9	25.3
30-Sep-05	6	6	4	8	16	8	6	5	6	17	23	23	20	15	14	21	19	15	9	5	5	4	5	4	9.6	23.0
																									N	0.0
1-hr Vector	2.3	2.9	2.1	2.0	2.9	2.5	1.9	2.7	5.3	8.1	9.7	11.0	11.8	12.9	13.5	14.3	14.2	11.4	8.8	7.3	6.2	5.1	4.7	3.4		
Hourly Max	16.8	15.6	14.9	15.2	23.9	22.4	25.2	25.3	32.0	30.5	31.5	30.6	32.3	32.4	32.1	32.8	32.1	25.4	24.7	25.8	18.1	17.3	19.2	17.3		

PASZA - Beaverlodge Wind Direction Monthly Summary

Station: Beaverlodge
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: September 1, 2005 to October 1, 2005

Summary

Calm Time:	0 hrs	**0%** calms				Operational Time:																				720 hrs
Calibration Time:	0 hrs					AMD Operational Uptime:																				100.0%
Percentile	99	95	75	50	25	5	1	Average																		
	355.0	335.0	281.0	260.5	154.0	44.0	8.2	277 deg																		

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	WD Sector
1-Sep-05	237	247	194	155	91	144	122	192	216	221	221	240	235	236	210	85	61	133	89	55	240	284	52	327	202	SSW
2-Sep-05	302	325	69	61	18	102	50	208	187	225	192	143	150	145	196	215	223	212	218	203	223	276	278	293	213	SSW
3-Sep-05	243	219	256	254	295	210	184	58	224	263	279	228	258	281	282	289	279	284	288	279	277	290	238	263	269	W
4-Sep-05	271	322	98	157	125	120	177	152	174	200	237	269	271	271	284	290	265	297	288	283	289	267	267	257	263	W
5-Sep-05	164	170	169	132	117	113	175	167	213	234	279	287	282	275	288	281	276	273	280	283	277	285	292	110	271	W
6-Sep-05	77	90	102	126	132	111	98	119	171	189	230	254	263	257	259	258	263	263	265	265	288	227	262	97	253	WSW
7-Sep-05	107	97	126	91	99	140	237	258	258	269	273	283	280	279	275	274	272	269	265	234	264	261	251	236	269	W
8-Sep-05	241	249	232	218	236	288	263	338	270	275	274	282	286	296	287	285	337	14	28	302	344	15	359	333	293	WNW
9-Sep-05	345	326	335	330	329	333	349	348	340	5	16	12	18	2	1	5	7	15	11	358	349	347	356	2	358	N
10-Sep-05	352	347	349	355	346	343	355	9	355	19	40	37	74	38	348	264	329	313	304	88	105	82	103	94	6	N
11-Sep-05	125	154	135	51	127	154	133	357	276	230	205	264	335	337	335	329	322	311	310	296	305	311	310	333	319	NW
12-Sep-05	347	358	349	317	288	301	304	299	312	316	304	302	315	309	317	343	335	26	41	44	56	108	94	108	333	NNW
13-Sep-05	94	153	142	126	128	130	144	149	163	179	206	226	235	279	292	292	286	286	332	135	266	264	188	257	258	WSW
14-Sep-05	297	301	293	298	318	328	317	312	318	328	342	355	358	351	8	51	51	76	117	111	105	113	123	110	340	NNW
15-Sep-05	105	100	97	101	105	90	73	46	59	40	52	47	33	43	25	24	12	4	56	46	70	197	197	179	67	ENE
16-Sep-05	105	78	78	161	244	190	205	113	201	216	207	227	228	244	267	267	273	275	261	261	273	272	267	249	253	WSW
17-Sep-05	131	129	111	114	108	77	75	184	118	222	230	262	275	271	276	280	264	263	280	272	260	227	252	283	265	W
18-Sep-05	291	298	300	261	248	247	144	172	225	233	261	268	273	267	266	263	272	293	300	288	246	241	257	180	266	W
19-Sep-05	108	220	257	208	233	232	252	269	269	273	278	280	279	279	271	271	272	273	263	262	259	261	265	262	268	W
20-Sep-05	260	270	270	264	276	270	271	277	273	273	277	281	283	283	281	286	290	284	272	267	265	275	284	85	277	W
21-Sep-05	75	69	73	88	65	107	121	109	140	277	292	300	311	293	240	304	279	286	259	308	23	287	295	272	292	WNW
22-Sep-05	268	231	92	71	93	181	107	113	175	225	301	275	294	323	331	267	255	263	247	202	308	237	250	219	264	W
23-Sep-05	112	192	218	153	186	105	112	125	210	245	281	291	291	280	276	276	264	264	261	263	266	264	280	286	269	W
24-Sep-05	283	303	262	278	271	281	94	118	197	241	262	265	260	262	263	264	266	267	277	271	265	269	270	277	267	W
25-Sep-05	276	279	281	272	277	270	268	273	271	268	279	287	287	291	291	282	286	283	288	302	257	276	271	285	280	W
26-Sep-05	286	268	282	298	222	257	205	250	288	332	15	28	58	351	29	302	260	238	259	261	274	282	194	146	286	WNW
27-Sep-05	87	98	105	225	254	252	252	223	153	217	224	225	228	238	225	267	263	271	265	269	304	107	136	117	242	WSW
28-Sep-05	144	119	136	139	179	159	161	126	170	108	195	238	255	244	246	250	256	255	261	260	253	233	243	211	242	WSW
29-Sep-05	144	246	268	244	255	249	244	256	260	265	270	274	271	265	260	269	288	280	264	267	264	284	303	38	265	W
30-Sep-05	281	273	80	265	270	257	273	9	252	282	288	286	296	298	293	279	285	285	296	326	305	353	68	48	289	WNW
																									N	-
Hourly Avg	284	274	278	269	270	262	264	278	261	270	278	280	283	280	280	280	279	279	276	275	274	271	270	273		

PASZA - Beaverlodge Standard Deviation of Wind Direction Monthly Summary

Station: Beaverlodge
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: September 1, 2005 to October 1, 2005

Summary

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	**0%** calms	Operational Time: 718 hrs
Calibration Time:	0 hrs		AMD Operational Uptime: 99.7%

Percentile	99	95	75	50	25	5	1
	23.0	20.0	13.0	9.0	7.0	4.0	3.0

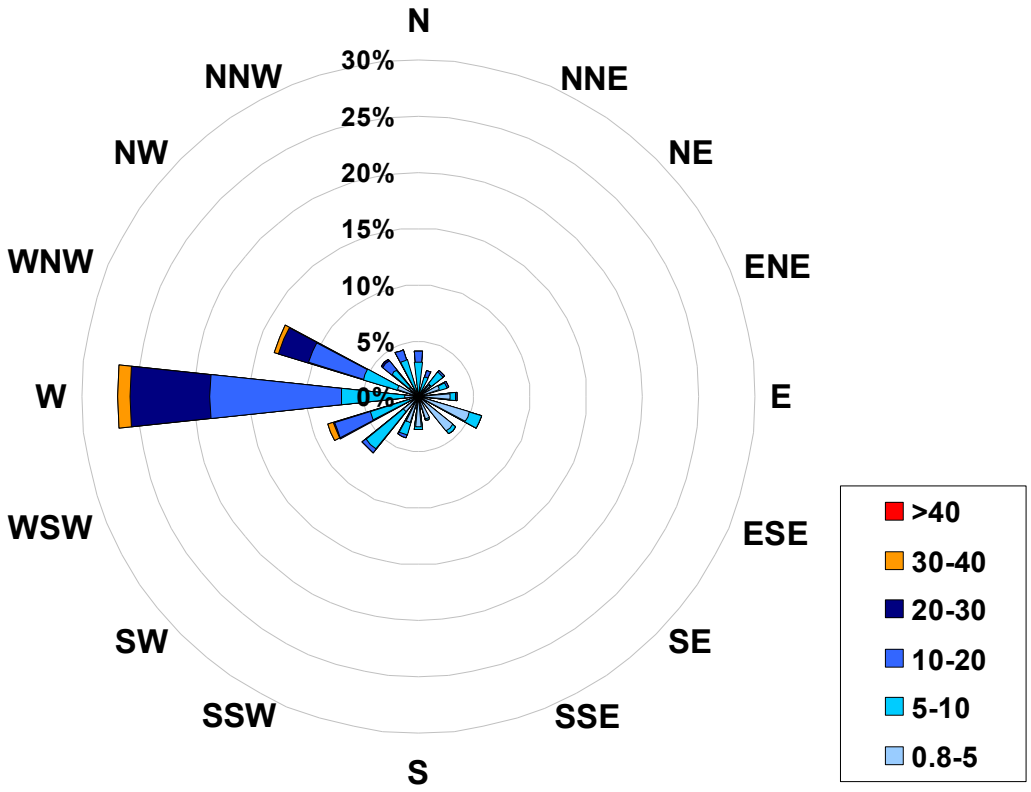
Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	Daily Maximum
1-Sep-05	16	13	10	18	17	4	5	12	13	14	14	12	22	19	15	15	13	27	4	5	7	10	4	5	27.0
2-Sep-05	2	8	3	8	6	11	10	8	15	21	23	23	13	14	10	9	8	9	8	5	3	13	6	7	23.0
3-Sep-05	7	3	4	3	11	8	9	10	18	10	9	8	9	10	10	10	10	8	8	7	4	5	15	6	18.0
4-Sep-05	5	19	13	11	13	11	8	12	14	13	16	23	17	12	13	12	11	9	5	3	7	14	10	7	23.0
5-Sep-05	14	17	4	9	11	15	17	14	11	9	10	10	10	10	10	9	9	8	7	5	3	4	4	10	17.0
6-Sep-05	5	10	12	15	16	13	12	12	14	16	15	13	9	10	9	9	8	8	7	5	6	13	15	22	22.0
7-Sep-05	7	8	8	10	8	11	4	6	8	9	9	9	9	9	9	8	9	8	6	2	6	6	7	6	11.0
8-Sep-05	10	9	10	6	20	9	10	13	10	9	8	9	10	10	10	9	21	16	8	6	18	14	14	11	21.0
9-Sep-05	17	10	12	11	14	17	18	17	15	20	20	21	17	22	23	24	20	19	19	20	20	19	21	22	24.0
10-Sep-05	20	17	17	19	16	15	18	20	18	15	12	10	10	18	15	13	12	6	1	9	5	8	6	3	20.0
11-Sep-05	8	7	14	6	7	8	4	8	14	14	23	23	15	17	16	13	9	9	9	8	10	9	10	14	23.0
12-Sep-05	19	21	18	12	3	5	6	8	10	12	12	13	16	20	23	16	15	12	6	6	5	3	9	8	23.0
13-Sep-05	7	6	9	9	6	8	8	8	12	7	9	9	9	9	9	9	9	9	15	13	6	7	19	11	19.0
14-Sep-05	9	9	8	9	11	13	10	10	11	13	20	22	22	20	19	9	11	8	10	10	9	9	9	8	22.0
15-Sep-05	8	8	8	8	8	6	5	9	8	10	9	9	12	10	14	14	13	12	7	9	7	3	3	2	14.0
16-Sep-05	8	5	4	9	10	9	5	7	15	12	13	13	13	10	9	9	9	8	7	5	4	5	9	12	15.0
17-Sep-05	21	13	12	11	11	7	6	15	12	9	11	10	9	10	9	9	8	8	8	7	6	6	6	8	21.0
18-Sep-05	6	4	8	11	6	7	20	12	14	17	12	10	8	8	8	9	8	9	8	8	8	8	8	10	20.0
19-Sep-05	18	14	9	22	4	7	19	7	9	9	9	9	9	9	9	9	9	8	9	7	7	8	8	9	22.0
20-Sep-05	8	10	8	5	6	7	6	8	9	8	9	9	9	9	9	9	9	9	8	7	5	7	18	25	25.0
21-Sep-05	26	20	23	15	22	15	11	12	13	13	9	11	10	8	12	18	8	7	7	10	16	2	9	4	26.0
22-Sep-05	22	3	12	3	7	12	10	9	13	16	19	23	17	11	15	10	7	8	8	18	23	15	3	7	23.0
23-Sep-05	12	7	7	14	13	10	15	15	11	10	14	9	10	8	8	8	8	7	7	8	7	7	8	7	15.0
24-Sep-05	6	10	5	4	7	5	12	11	12	11	8	8	8	7	7	7	8	8	8	7	8	8	8	7	12.0
25-Sep-05	7	7	6	8	8	9	8	9	8	8	8	8	8	8	8	8	8	8	7	6	11	8	5	4	11.0
26-Sep-05	9	7	10	13	9	19	17	6	5	12	14	12	8	13	13	11	6	7	4	4	6	15	7	7	19.0
27-Sep-05	6	6	15	5	12			4	8	9	11	13	13	11	10	11	7	5	4	3	8	11	11	11	15.0
28-Sep-05	3	5	6	5	5	8	9	10	8	12	12	9	9	8	8	8	8	8	9	7	7	13	7	10	13.0
29-Sep-05	22	9	6	6	7	7	6	7	8	8	8	8	8	8	8	8	8	6	4	4	3	6	6	21	22.0
30-Sep-05	10	7	15	16	7	7	7	14	18	9	8	9	8	9	9	8	8	8	6	16	9	11	15	13	18.0
																									0.0
Hourly Max	26	21	23	22	22	19	20	20	18	21	23	23	22	22	23	24	21	27	19	20	23	19	21	25	

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



Calms:	1%

Frequency Distribution of Wind in km/hr			
Range			Frequency (hrs)
0.8	<	5	215
5	to	10	228
10	to	20	180
20	to	30	73
30	to	40	15
	>	40	0
Total Non-Zero Values			711

PEACE AIRSHED ZONE ASSOCIATION

PASZA Monthly Passive Data Summary

Table 1. PASZA Passive Stations for September 2005

Station Number	Station Name	PASZA SO2 ppb	PASZA O3 ppb	PASZA NO2 ppb	Site Legal
Duplicates					
39a	High Prairie	**0.2**	**23.7**	**0.7**	
39b	High Prairie	**0.2**	**23.8**	**0.9**	
41a	Peavine	**0.3**	**22.8**	**0.7**	
41b	Peavine	**0.2**	**24.1**	**0.7**	
42a	Gift Lake	**0.2**	**26.0**	**1.1**	
42b	Gift Lake	**0.2**	**24.6**	**0.8**	
49a	Grande Prairie HP	**0.2**	**20.4**	**5.9**	
49b	Grande Prairie HP	**0.2**	**21.2**	**6.5**	
1	Silver Valley	**0.3**	**22.0**	**1.1**	08-27-081-11 W6M
2	Bay Tree	**0.1**	**23.1**	**0.6**	13-16-078-13 W6M
3	Forth Creek	**0.3**	**25.7**	**0.9**	04-13-082-07 W6M
4	Gordondale	**0.2**	**23.8**	**1.1**	04-34-078-10 W6M
5	Boone Creek	**0.1**	**16.9**	**1.2**	01-23-076-11 W6M
7	Steeprock Creek	**0.1**	**24.6**	**0.7**	09-35-072-13 W6M
9	Spirit River	**0.3**	**22.9**	**1.5**	08-12-079-07 W6M
10	Woking	**0.3**	**22.3**	**1.0**	01-13-076-07 W6M
11	Webber Creek	**0.4**	**20.2**	**1.0**	09-36-074-09 W6M
12	Hythe	**0.4**	**21.5**	**1.1**	14-36-072-11 W6M
14	Sylvester	**0.0**	**20.1**	**0.4**	08-06-069-12 W6M
16	Beaverlodge	**0.2**	**24.6**	**2.1**	15-36-071-10 W6M
17	Poplar	**0.1**	**22.0**	**0.8**	13-06-073-08 W6M
18	Saddle Hills	**0.2**	**22.0**	**1.3**	04-25-074-07 W6M

Table 1. PASZA Passive Stations for September 2005 (Continued)

		PASZA			
Station Number	**Station Name**	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
19	Wanham	**0.2**	**25.1**	**1.0**	16-22-077-03 W6M
20	Shaftesbury	**0.1**	**20.1**	**0.9**	04-03-082-23 W5M
21	Eaglesham	**0.1**	**17.7**	**0.8**	16-21-079-25 W5M
23	Bear Lake	**0.1**	**21.0**	**1.3**	15-31-072-06 W6M
24	Wembley	**0.2**	**19.7**	**1.0**	12-31-070-08 W6M
25	Pinto Creek	**0.3**	**21.8**	**0.6**	04-24-069-11 W6M
26	Flyingshot	**0.1**	**20.8**	**1.2**	15-36-070-07 W6M
27	Grande Prairie I	**0.2**	**20.5**	**3.7**	08-15-071-06 W6M
28	Clairmont Lake	**0.2**	**21.4**	**1.6**	09-06-073-04 W6M
29	Smoky Heights	**0.3**	**24.6**	**1.4**	04-06-075-02 W6M
30	Fitzsimmons	**0.1**	**22.8**	**1.7**	15-36-072-03 W6M
32	Gold Creek	**0.2**	**17.4**	**1.1**	06-33-067-05 W6M
33	Wapiti	**0.1**	**23.1**	**1.1**	02-25-071-03 W6M
34	Puskwaskau	**0.1**	**18.5**	**0.5**	15-35-074-25 W5M
35	Jean Cote	**0.6**	**19.9**	**1.0**	12-35-079-21 W5M
36	Guy	**0.1**	**23.8**	**0.7**	03-04-076-22 W5M
37	Crooked Creek	**0.2**	**20.5**	**1.0**	16-01-071-26 W5M
38	Karr Creek	**0.1**	**14.4**	**0.4**	10-16-065-02 W6M
39	Clouston Creek	**0.2**	**23.3**	**0.8**	12-01-073-22 W5M
40	McLennan	**0.2**	**23.3**	**1.0**	03-29-077-19 W5M
41	Valleyview	**0.2**	**23.5**	**0.7**	09-30-069-22 W5M
42	Sunset House	**0.2**	**25.3**	**0.9**	05-32-070-19 W5M
43	High Prairie	**0.1**	**20.6**	**0.8**	16-13-074-17 W5M
44	Peavine	**0.3**	**20.4**	**0.5**	03-05-079-15 W5M
45	Gift Lake	**0.1**	**17.9**	**1.1**	10-07-079-12 W5M
46	Little Smoky	**0.1**	**18.4**	**1.7**	12-01-065-21 W5M
47	Kinuso	**0.1**	**18.4**	**0.4**	12-10-073-10 W5M
48	Deer Mountain	**0.1**	**18.6**	**0.5**	15-22-068-09 W5M
49	Grande Prairie HP	**0.2**	**20.8**	**6.2**	17-26-071-06 W6M

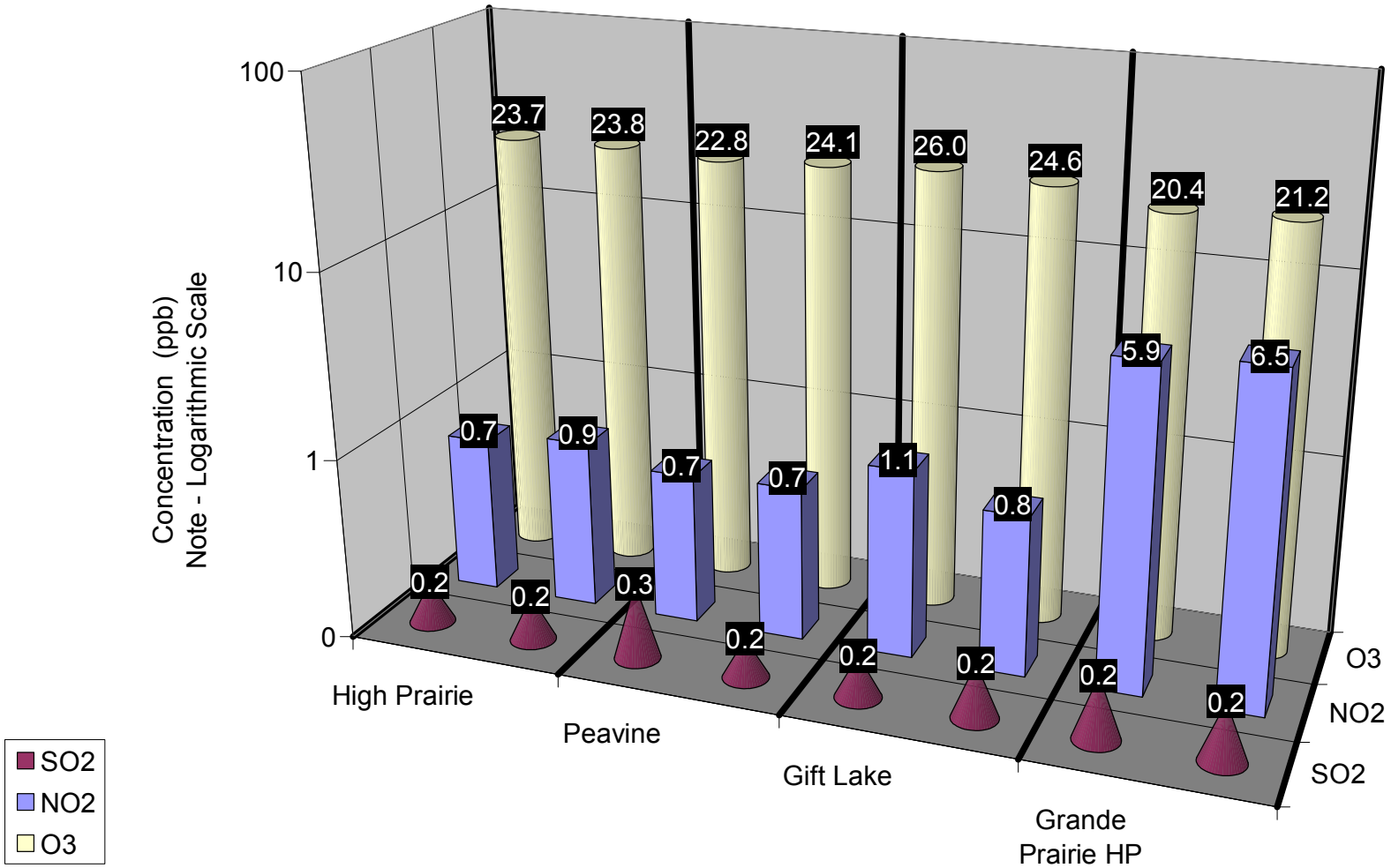


Figure 46. Duplicate Summary Chart

Table 2. Passive Summary Results for September 2005

Stats	Sulphur Dioxide SO_2	Ozone O_3	Nitrogen Dioxide NO_2
	ppb	ppb	ppb
	Passive Summary for Sept 2005 (PASZA Zone)		
Mean	**0.2**	**21.3**	**1.2**
Standard Deviation	**0.1**	**2.6**	**1.0**
Minimum	**0.0** Sylvester (#14)	**14.4** Karr Creek (#38)	**0.4** Sylvester (#14)
Maximum	**0.6** Jean Cote (#35)	**25.7** Forth Creek (#3)	**6.2** Grande Prairie HP (#49)

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

	SO_2	O_3	NO_2
AENV Beaverlodge station	**0.2**	**22.0**	**3.1**
PASZA Beaverlodge passive	**0.2**	**24.6**	**2.1**

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

	SO_2	O_3	NO_2
PASZA Henry Pirker station	**0.3**	**16.5**	**7.4**
PASZA Grande Prairie passive	**0.2**	**20.8**	**6.2**

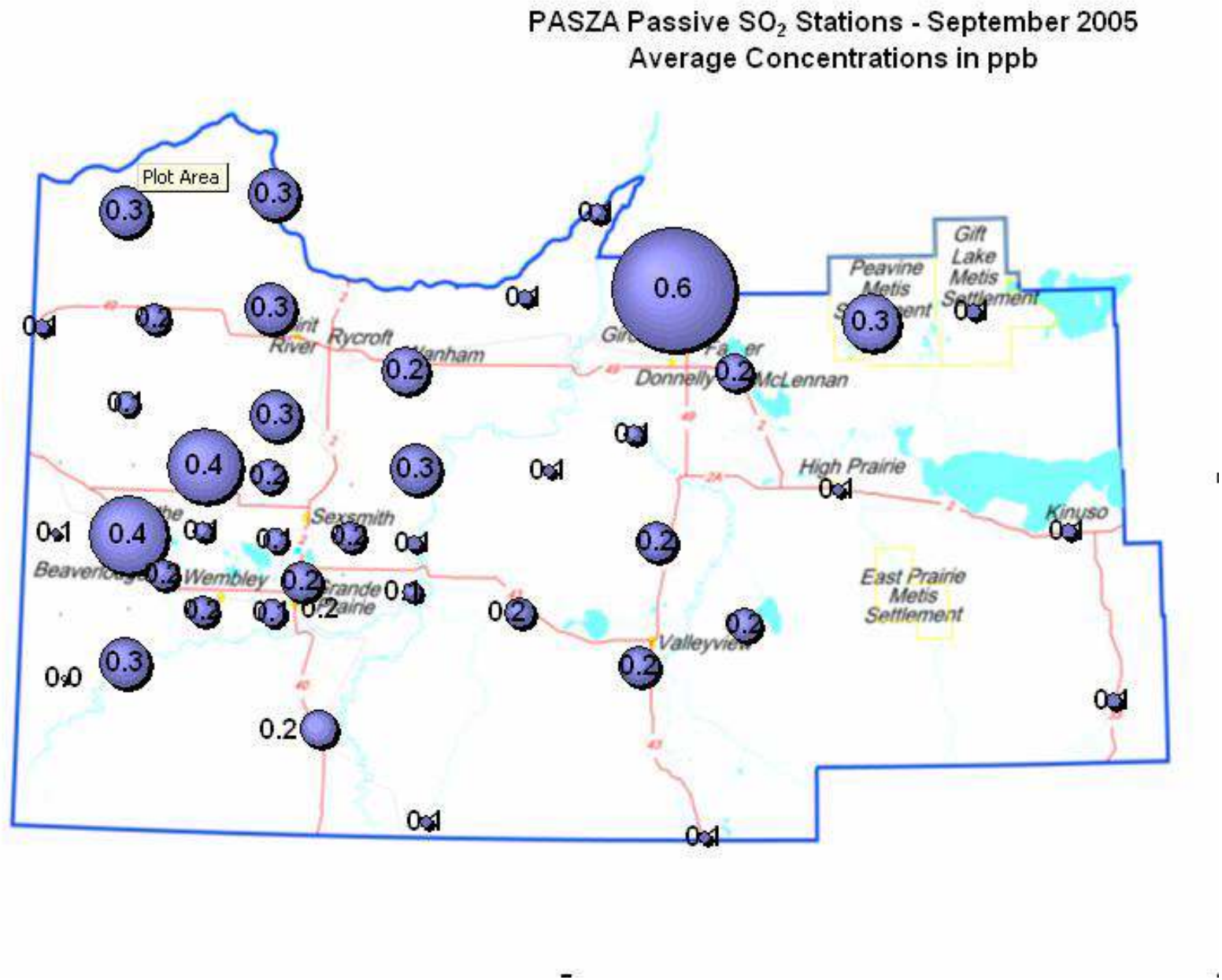


Figure 47. SO_2 Bubble Chart

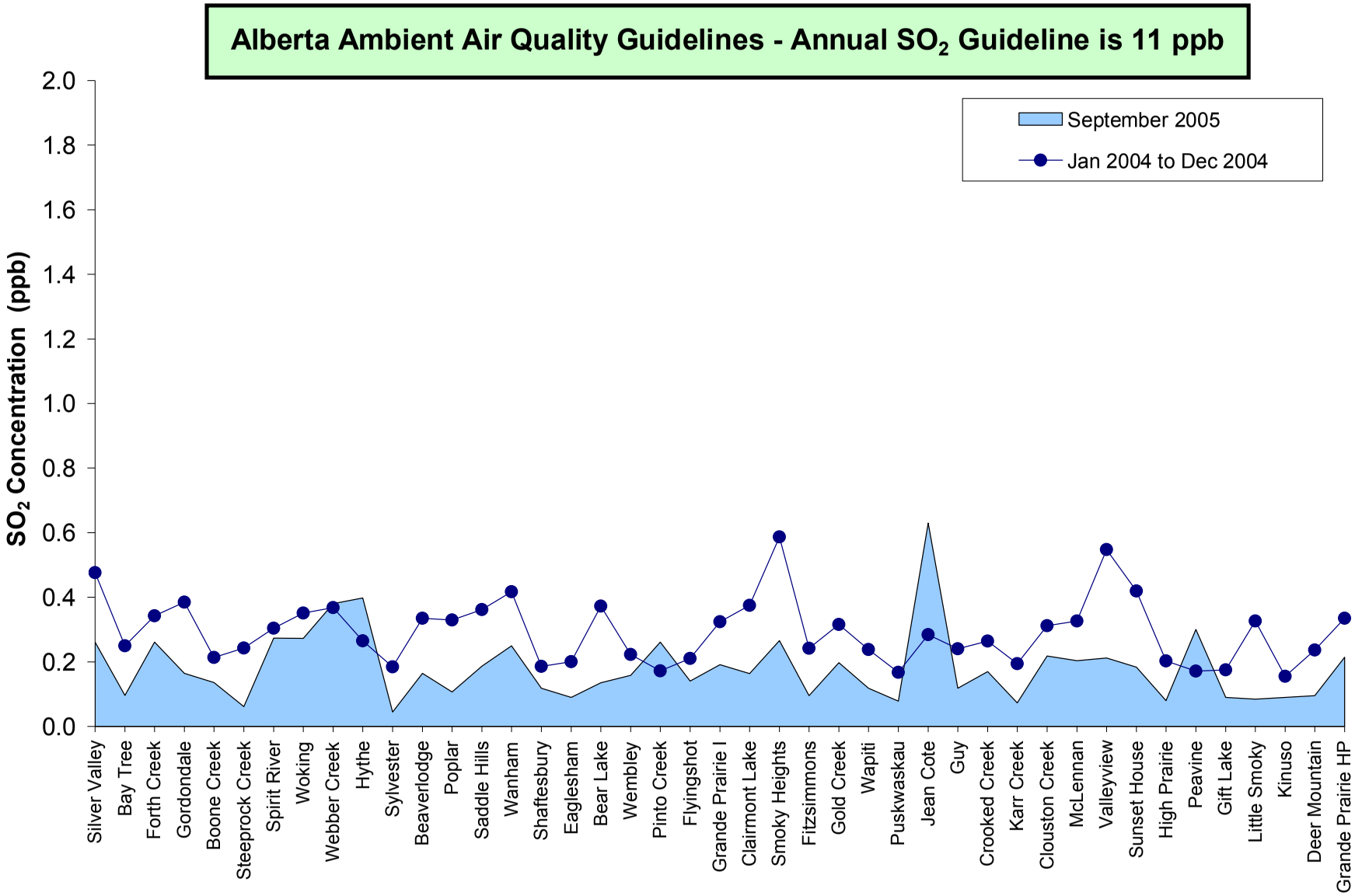


Figure 48. SO_2 Summary Chart

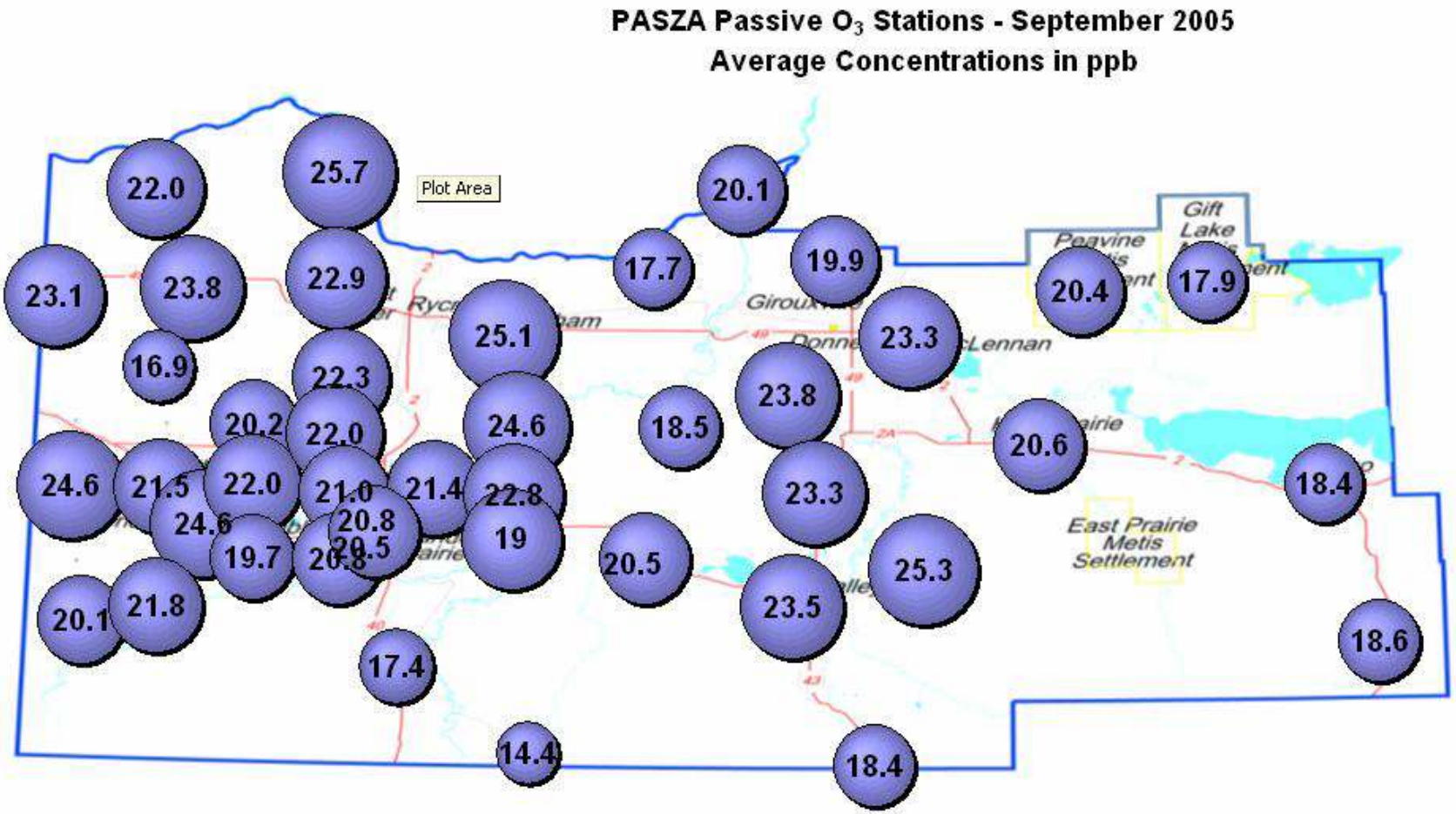


Figure 49. O_3 Bubble Chart

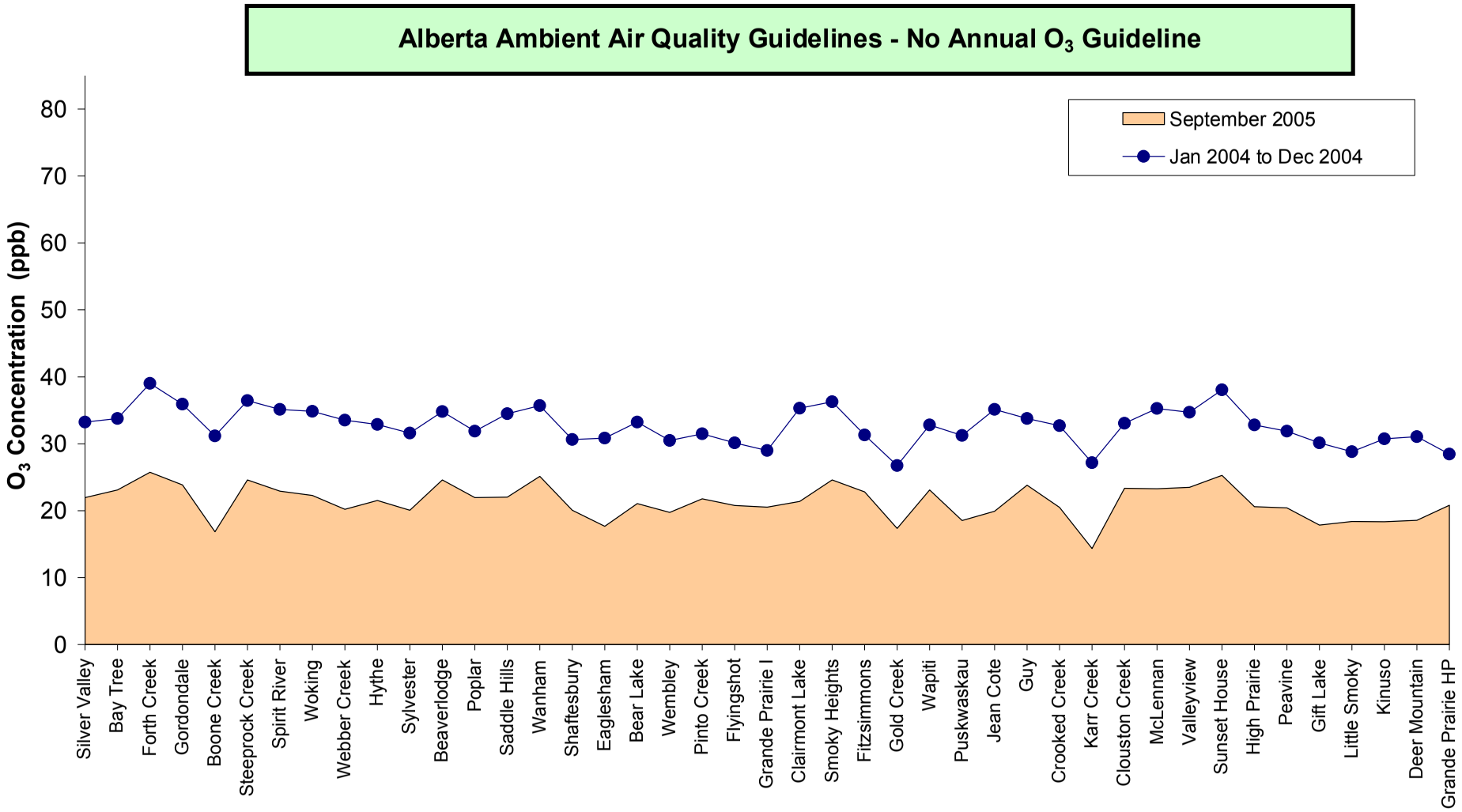


Figure 50. O_3 Summary Chart

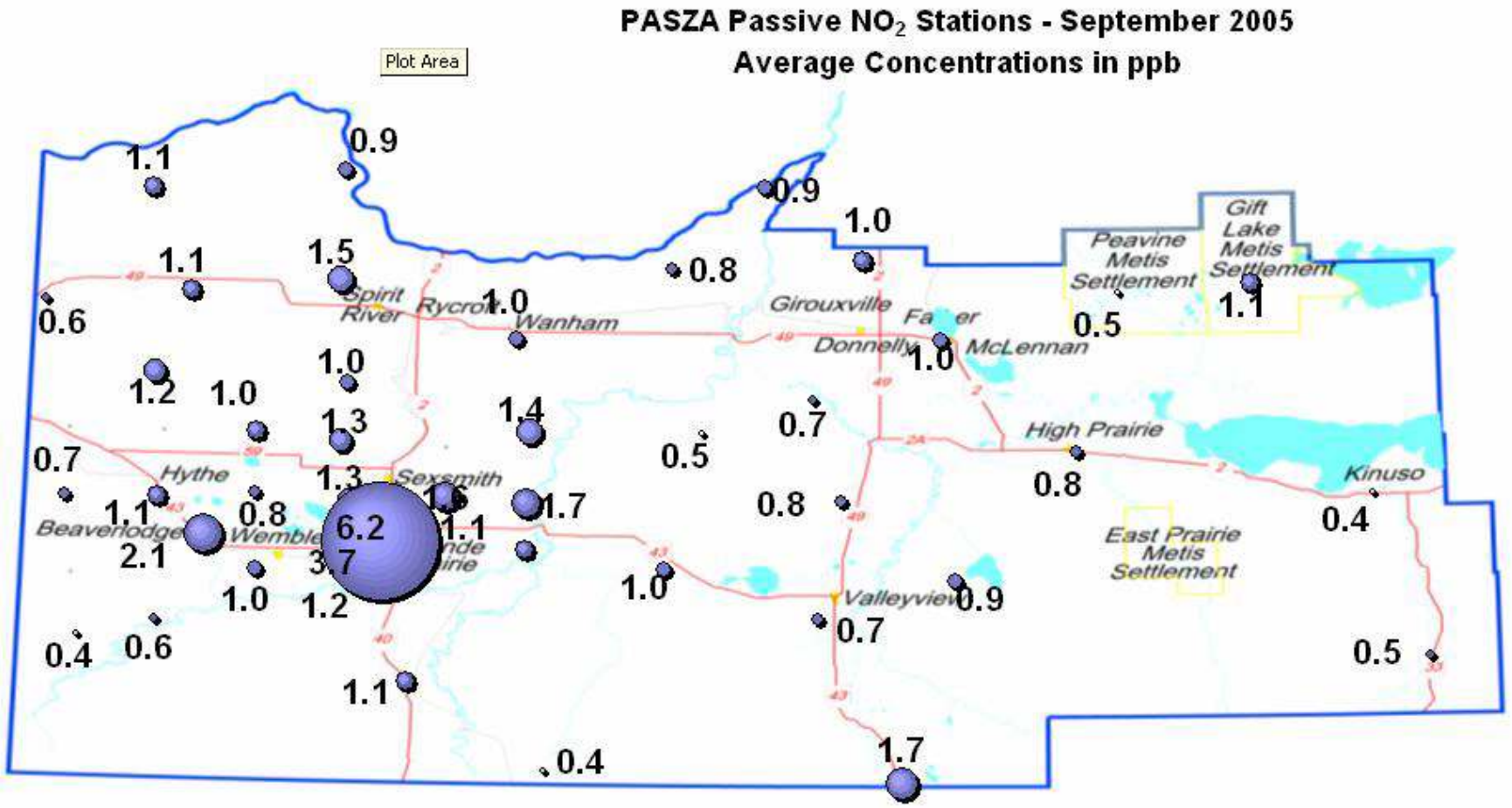


Figure 51. NO_2 Bubble Chart

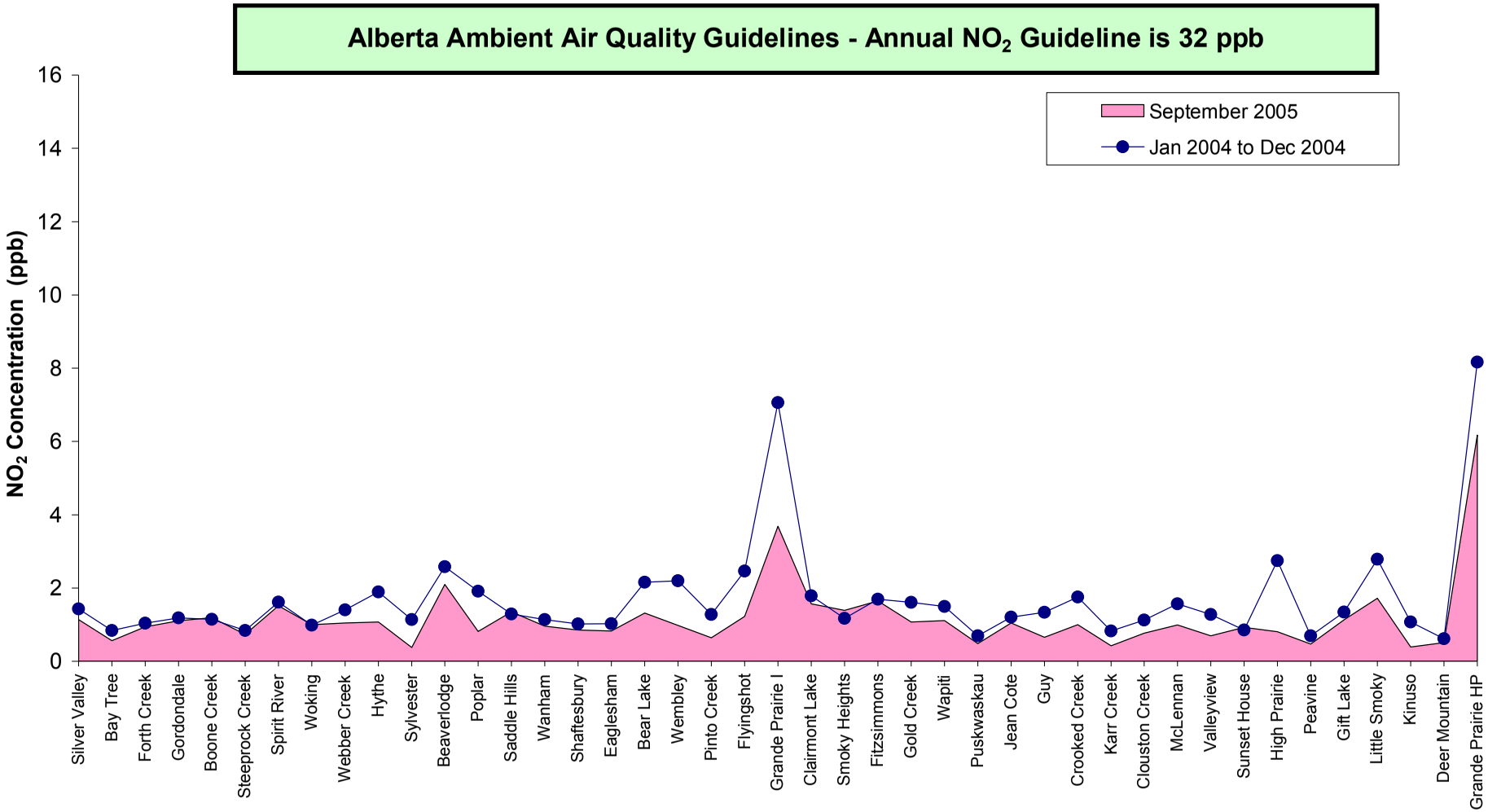


Figure 52. NO_2 Summary Chart

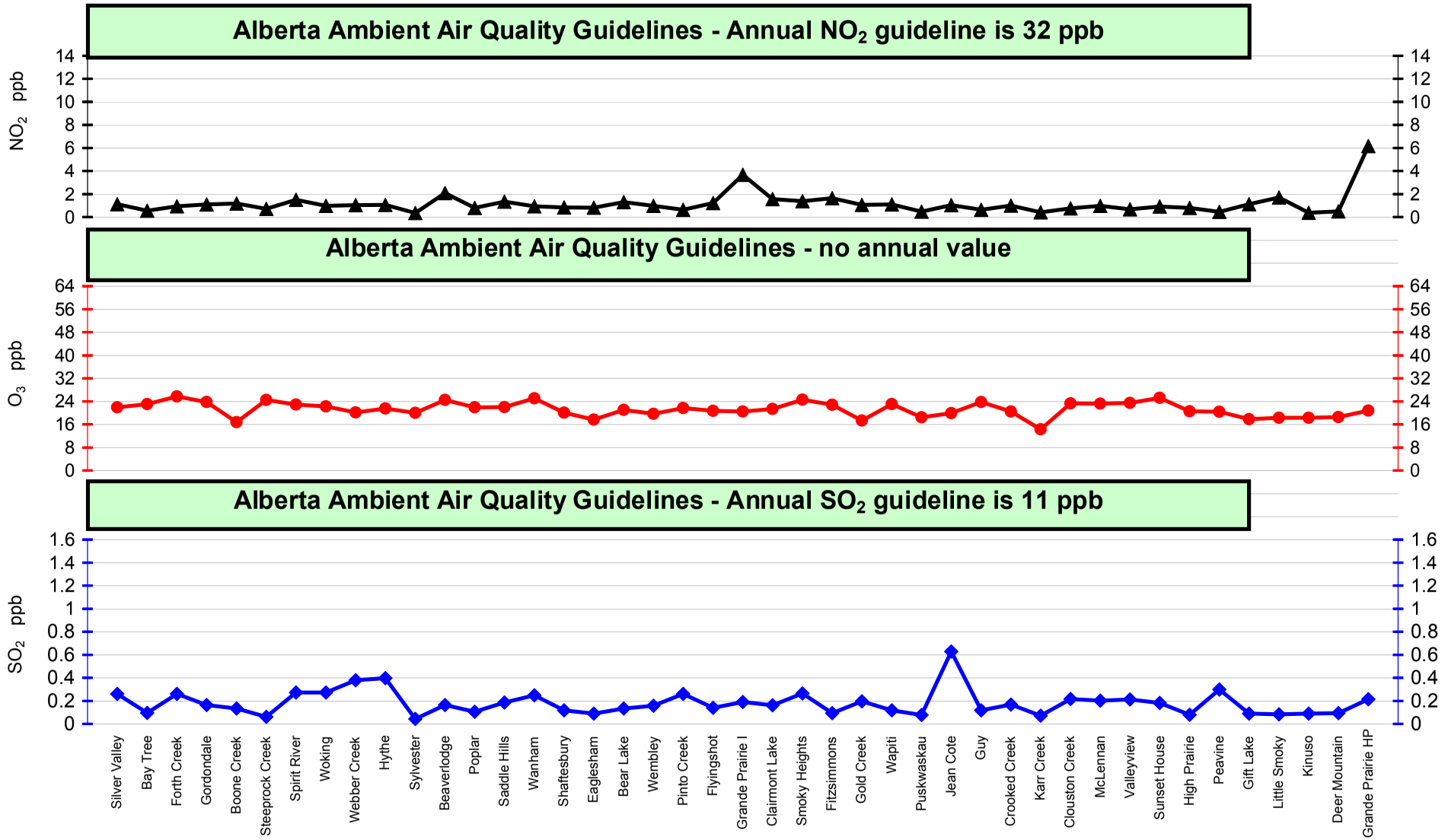


Figure 53. Overview Summary

September 2005 Calibration Reports

PASZA - Henry Pirker Station with the following calibrations:

SO_2, NO, NO_2, NO_x, O_3, CO, THC, TRS, $PM_{2.5}$

PASZA – Evergreen Park Station with the following calibrations:

SO_2, TRS, $PM_{2.5}$

PASZA – Smoky Heights Station with the following calibrations:

SO_2, TRS, $PM_{2.5}$

PASZA – Beaverlodge Station with the following calibrations:

SO_2, NO, NO_2, NO_x, O_3, $PM_{2.5}$

Calibration Report

Parameter **SO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 12, 2005	Previous Calibration	August 15, 2005
Station Number	1	Station Location	Muskoseepi Park

Reason: [Routine] [Install] [Removal] [Other:]

Start Time (MST)	11:11	End Time (MST)	14:00
Barometric Pressure	27.7 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	2,097 ng/min	Perm-tube Expiry Date	
Correction factor	0.942621	Perm-tube Cert #	19-9955
DACS make	Focus AP1000	DACS serial No.	45266
DACS voltage range	0 - 10 volt	DACS channel #	4
	Before		After
Calculated slope	0.991079	Calculated slope	0.997175
Calculated intercept	0.087672	Calculated intercept	0.966989

Analyzer make: TEI Model 43A — Analyzer serial #: 43A-21120-195

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
SO2 zero pot	187		170	
SO2 span pot	298		152	
UV Lamp voltage	933	V	934	V
Vacuum	18.5	" Hg	18.4	" Hg
Sample Flow	425	ccm	420	ccm

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
zero	2158.6	0.0	0.1	N/A
2290	2158.6	370.8	371.1	0.9991
5025	4736.7	169.0	168.6	1.0021
10060	9482.8	84.4	82.2	1.0265
zero	2158.6	0.0	-2.0	As Found Zero
2290	2158.6	370.8	366.7	As Found Span
			Average Correction Factor	1.0092

Calculated value of As Found Response: 365.470 ppm Percent Change of As Found: 1.4%

	before calibration		after calibration	
Auto zero	-2.0	ppm	0.8	ppm
Auto span	321.9	ppm	320.5	ppm

Notes: Adjusted zero and span

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

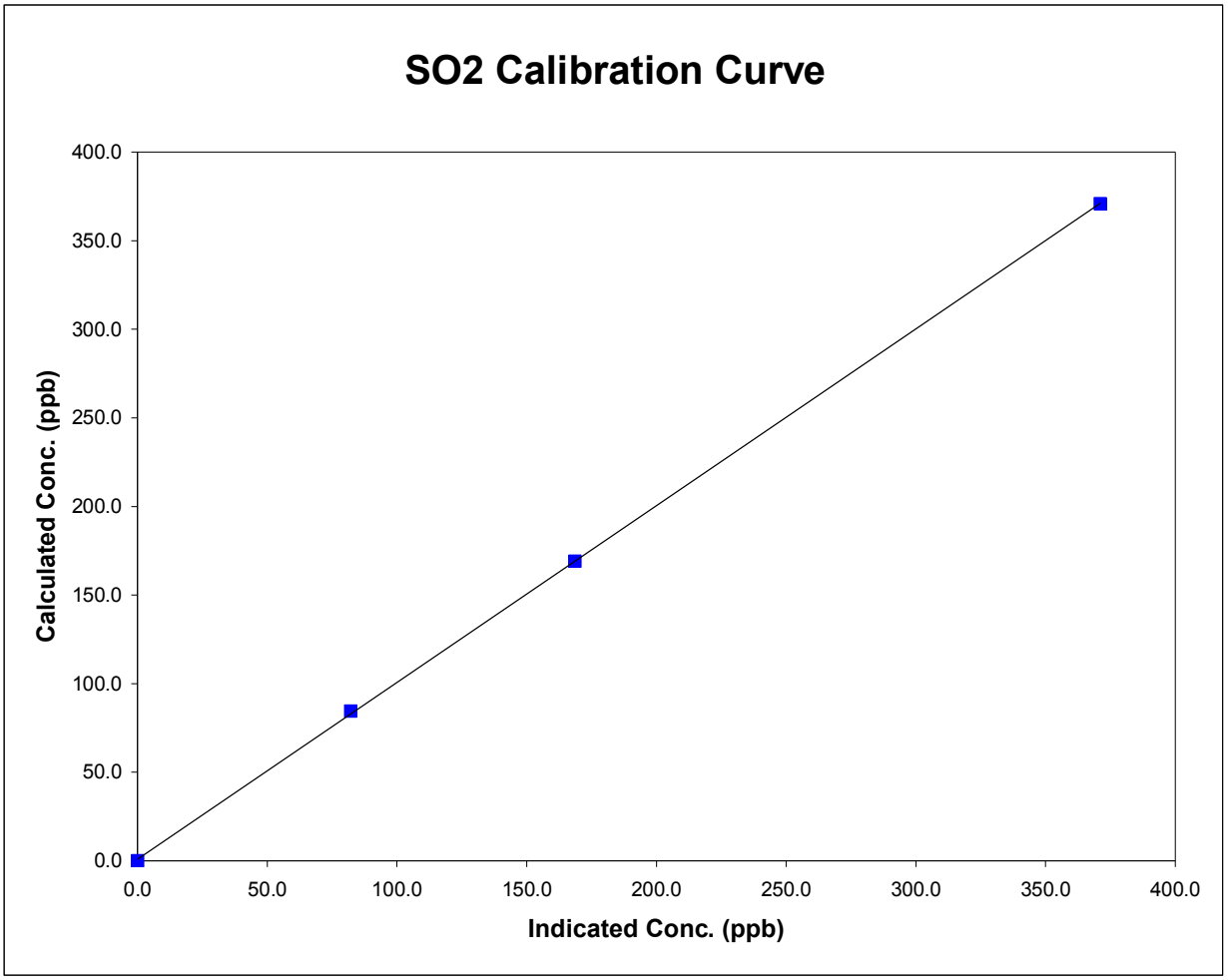
FOCUS AIR QUALITY MONITORING

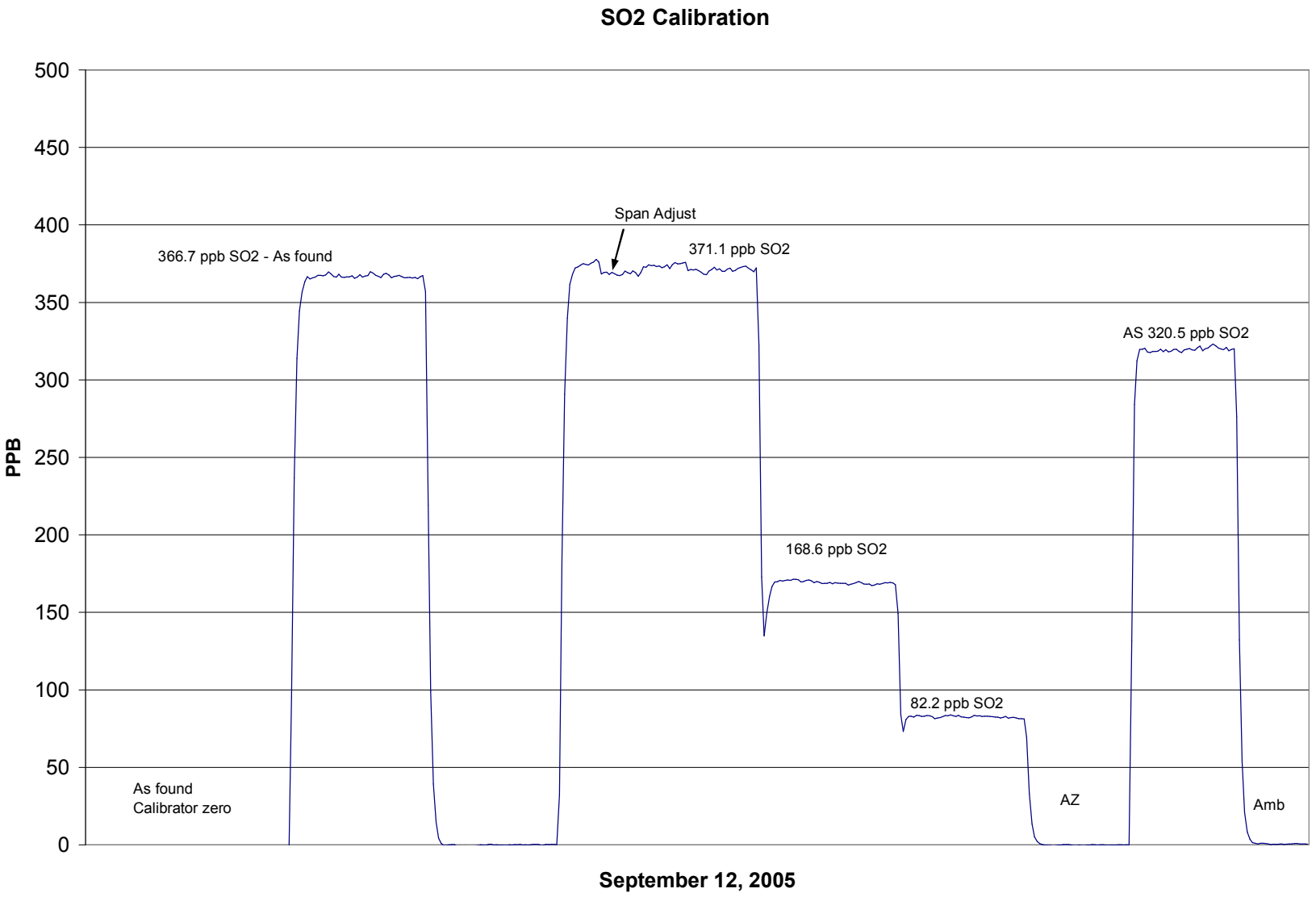
Station Information

Calibration Date	September 12, 2005	Previous Calibration	August 15, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	11:11	End Time (MST)	14:00
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	0.1	N/A		
370.8	371.1	0.9991	Correlation Coefficient	0.999957
169.0	168.6	1.0021		
84.4	82.2	1.0265	Slope	0.997175
			Intercept	0.966989




SO2 Calibration
500
450
400
350
300
250
200
150
100
50
0
PPB
366.7 ppb SO2 - As found
Span Adjust
371.1 ppb SO2
168.6 ppb SO2
82.2 ppb SO2
AS 320.5 ppb SO2
As found
Calibrator zero
AZ
Amb
September 12, 2005

Calibration Report

Parameter **$NOx-NO-NO_2$**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 7, 2005	Previous Calibration	August 17, 2005
Station Number	1	Station Location	Muskoseepi Park

Reason: Routine | Installation | Removal | Other:

Start Time (MST)	8:50		End Time (MST)	13:43	
Barometric Pressure	0.925	Atm	Station Temperature	20.0	Deg C
Calibrator	Environics 6100		Serial Number	3016	
NO Cal Gas Conc	50.3	ppm	Cal Gas Expiry Date	22-Nov-06	
NOx Cal Gas Conc	50.5	ppm	Cal Gas Serial #	BAL786	

DACS Information

DACS make	FOCUS AP1000	DACS serial No.	45269

Parameter		NO2	NOx	NO
Before	Data Slope	0.986120	0.999628	0.990704
	Data Offset	-0.207216	0.077330	4.530133
After	Data Slope	1.002413	0.991733	0.991880
	Data Offset	-1.753210	-1.534499	-1.731013
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

Analyzer Information

Analyzer make/model Teco 42C Analyzer serial # 508011073

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO background	7.0	ppb	6.3	mV
NOx background	6.7	ppb	6.6	mV
NO coefficient	1.005		0.904	
NOx coefficient	0.888		0.994	
Chamber Temp	49.6	Deg C	49.7	Deg C
Cooler Temp	-2.5	Deg C	-2.4	Deg C
Converter Temp	318.0	Deg C	319.0	Deg C
Vacuum	195.6	mm Hg	190.7	mm Hg

Notes: No zero adjustment necessary.
Adjusted span.

Calibration Report

Parameter **NOx-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date: September 7, 2005 Station Location: Muskoseepi Park

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4993	0.00	0.0	0.0	0.0	0.5	0.3	0.3	N/A	N/A
1	4993	39.97	401.1	399.5	1.6	405.6	403.8	1.9	0.9889	0.9894
2	4993	19.98	201.3	200.5	0.8	204.6	204.5	0.2	0.9838	0.9804
3	4993	9.99	100.8	100.4	0.4	104.6	104.6	0.0	0.9643	0.9601
AFZ	4993	0.00	0.0	0.0	0.0	0.5	0.3	0.3	0.0000	0.0000
AFS	4993	39.97	401.1	399.5	1.6	401.7	450.9	-11.5	0.9983	0.8860
							Average Correction Factor		0.9790	0.9766

As Found Concentrations: NO_X= 401.3 NO= 455.1 As Found Percent Change NO_X= 0.1% NO= 13.9%

GPT Calibration Data

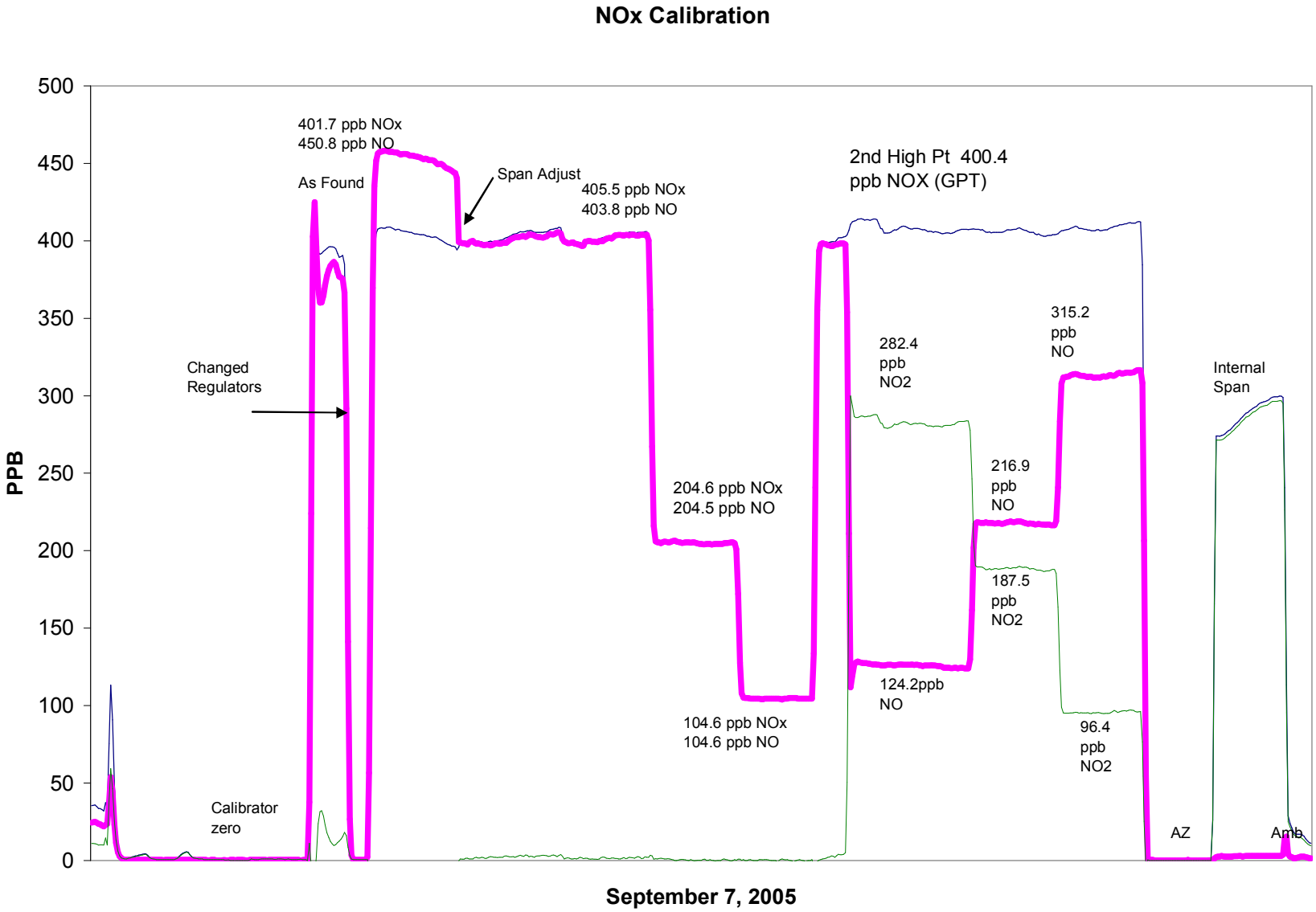
Dilution Flow 4993 ccm Source Gas Flow 39.97 ccm

O3 Setpoint (ppb)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A	N/A
NO point	402.2	392.7	9.5	400.4	397.7	2.8	1.0046	0.9875	N/A	N/A
300	402.2	121.5	280.7	406.3	124.2	282.4	0.9901	0.9779	0.9943	100.6%
200	402.2	213.4	188.8	403.9	216.9	187.5	0.9958	0.9839	1.0073	99.3%
100	402.2	310.9	91.3	411.2	315.2	96.4	0.9781	0.9864	0.9471	105.6%
					Average Correction Factor		0.9880	0.9827	0.9829	101.8%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.1	0.2	0.1	ppb	1.0	1.0	1.2	ppb
Auto span	307.5	312.9	-1.9	ppb	294.8	294.8	1.3	ppb

Calibration Performed By: Dawn Ewan


NOx Calibration
PPB
500
450
400
350
300
250
200
150
100
50
0
401.7 ppb NOx
450.8 ppb NO
As Found
Span Adjust
405.5 ppb NOx
403.8 ppb NO
2nd High Pt 400.4
ppb NOX (GPT)
Changed
Regulators
204.6 ppb NOx
204.5 ppb NO
282.4
ppb
NO2
315.2
ppb
NO
216.9
ppb
NO
187.5
ppb
NO2
Internal
Span
124.2ppb
NO
104.6 ppb NOx
104.6 ppb NO
96.4
ppb
NO2
Calibrator
zero
AZ
Amb
September 7, 2005

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PASZA**

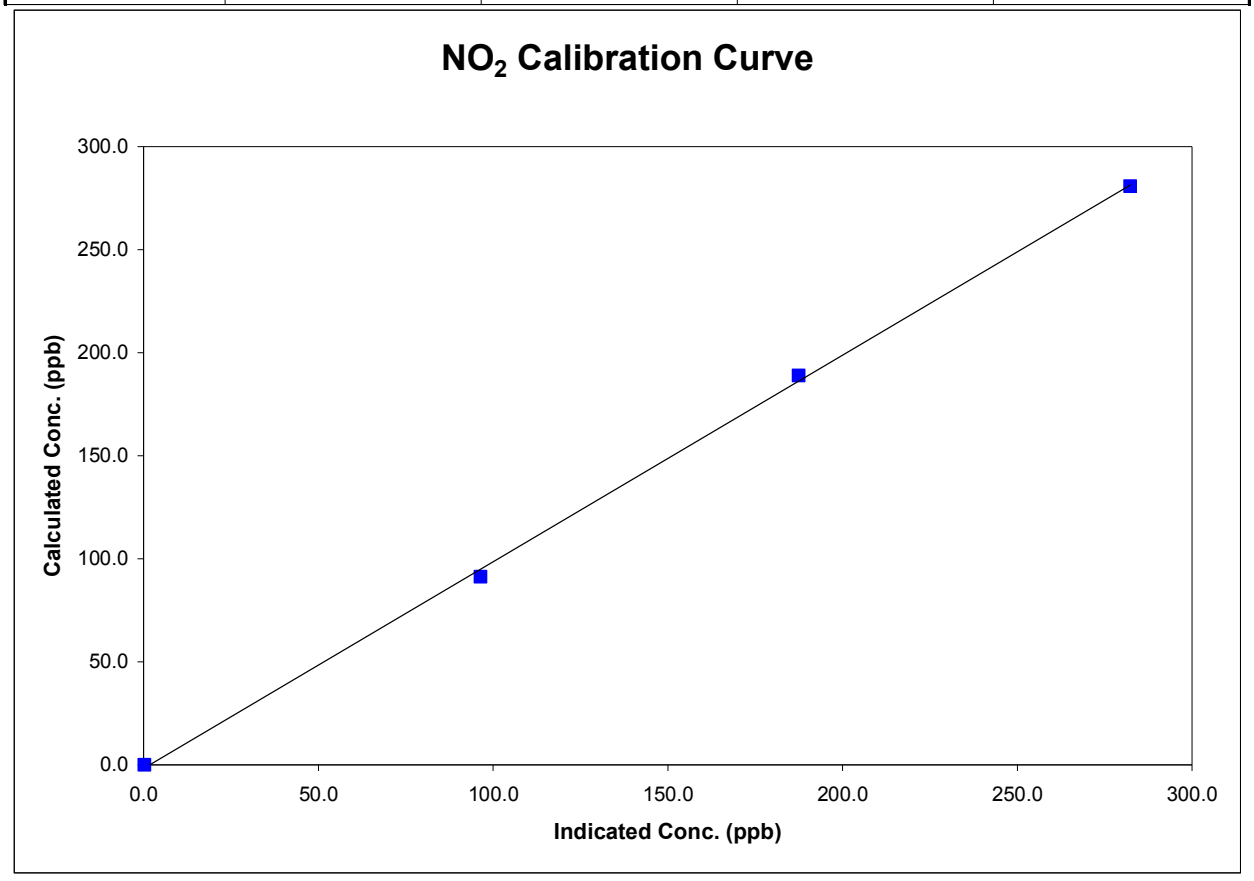
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 7, 2005	Previous Calibration	August 17, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	8:50	End Time (MST)	13:43
Analyzer make	Teco 42C	Analyzer serial #	508011073

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	0.0000		
280.7	282.4	0.9943	Correlation Coefficient	0.999494
188.8	187.5	1.0073		
91.3	96.4	0.9471	Slope	1.002413
			Intercept	-1.753210



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PASZA**

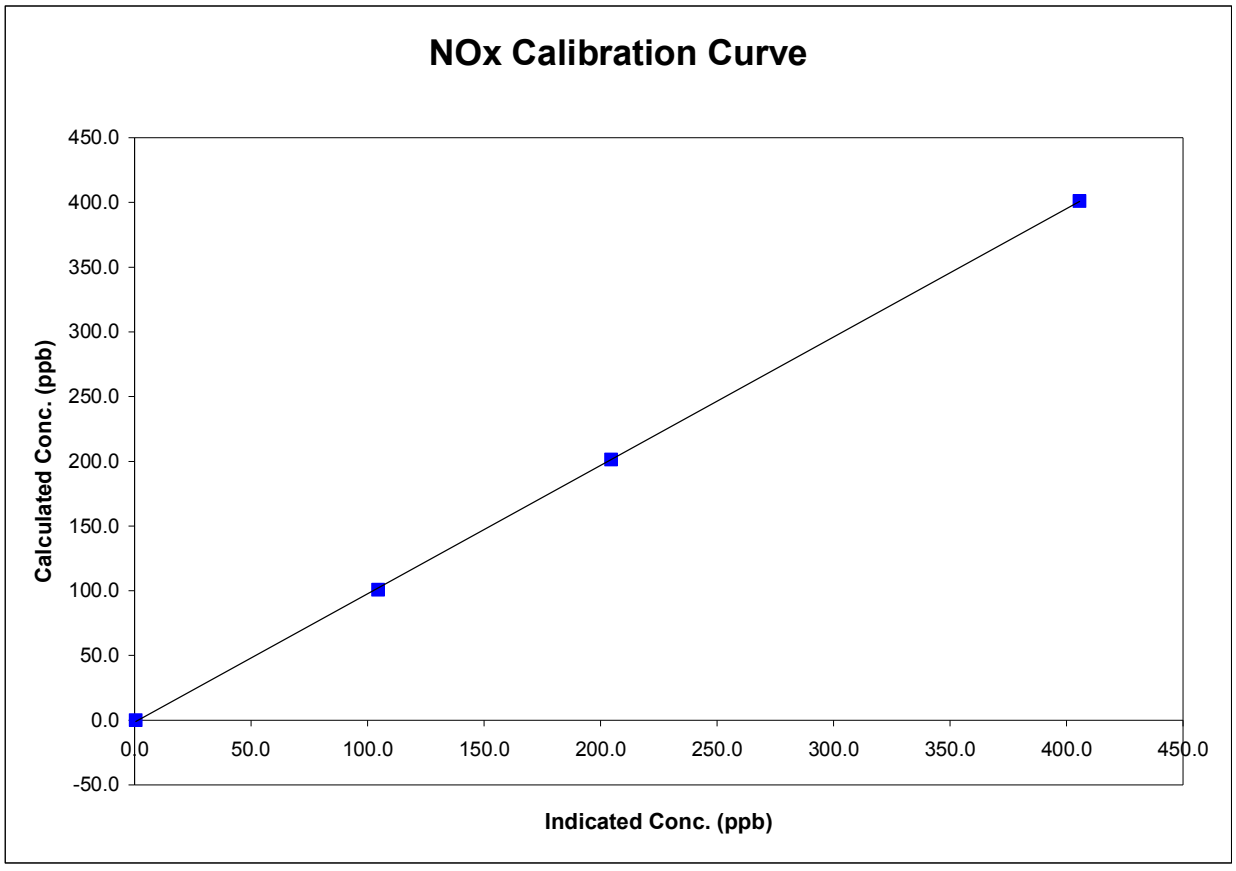
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 7, 2005	Previous Calibration	August 17, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	8:50	End Time (MST)	13:43
Analyzer make	Teco 42C	Analyzer serial #	508011073

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	0.0000		
401.1	405.6	0.9889	Correlation Coefficient	0.999966
201.3	204.6	0.9838		
100.8	104.6	0.9643	Slope	0.991733
			Intercept	-1.534499



Calibration Summary

Parameter **NO**

Air Monitoring Network **PASZA**

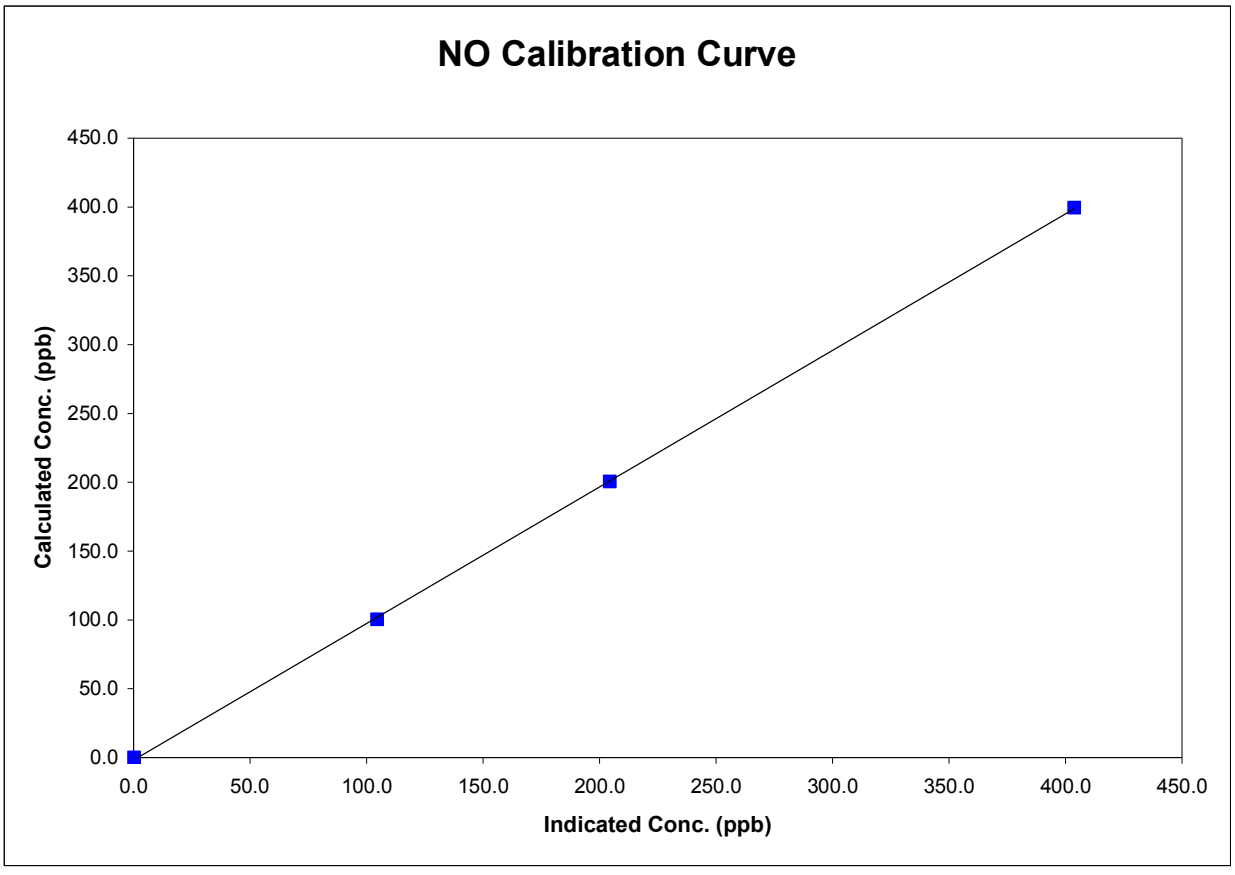
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 7, 2005	Previous Calibration	August 17, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	8:50	End Time (MST)	13:43
Analyzer make	Teco 42C	Analyzer serial #	508011073

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
399.5	403.8	0.9894	Correlation Coefficient	0.999936
200.5	204.5	0.9804		
100.4	104.6	0.9601	Slope	0.991880
			Intercept	-1.731013



Calibration Report

Parameter **O3**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 9, 2005	Previous Calibration	August 17, 2005
Station Number	1	Station Location	Muskoseepi Park

Reason: [Routine] [Install] [Removal] [Other:]

Start Time (MST)	9:05	End Time (MST)	11:20
Barometric Pressure	0.925 atm	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	45269
DACS voltage range	0 - 1 volt	DACS channel #	5
	Before		After
Calculated slope	0.992518	Calculated slope	0.994292
Calculated intercept	0.947540	Calculated intercept	-0.259167
Analyzer make	API Model 400	Analyzer serial #	383

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-1.3	ppb	-1.3	ppb
slope	1.12		1.061	
Lamp measure	2451	mV	2423	mV
Lamp Reference	2455	mV	2423	mV
Pressure	27.7	inches Hg	26.9	inches Hg
Sample Flow	677	ccm	663	ccm
Lamp temp	52	Deg C	48	Deg C

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4993	0.00	0.0	0.1	N/A
4993	0.00	280.7	283.4	0.9905
4993	0.00	188.8	188.3	1.0026
4993	0.00	91.3	93.3	0.9787
4993	0.00	0.0	0.1	As found zero
4993	0.00	280.7	300.3	As found span
			Average Correction Factor	0.9906

Calculated value of As Found Response: 299.0 ppm Percent Change of As Found: 6.5%

	before calibration		after calibration	
Auto zero	1.7	ppb	0.8	ppb
Auto span	275.0	ppb	261.8	ppb

Notes:

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **O3**

Air Monitoring Network **PASZA**

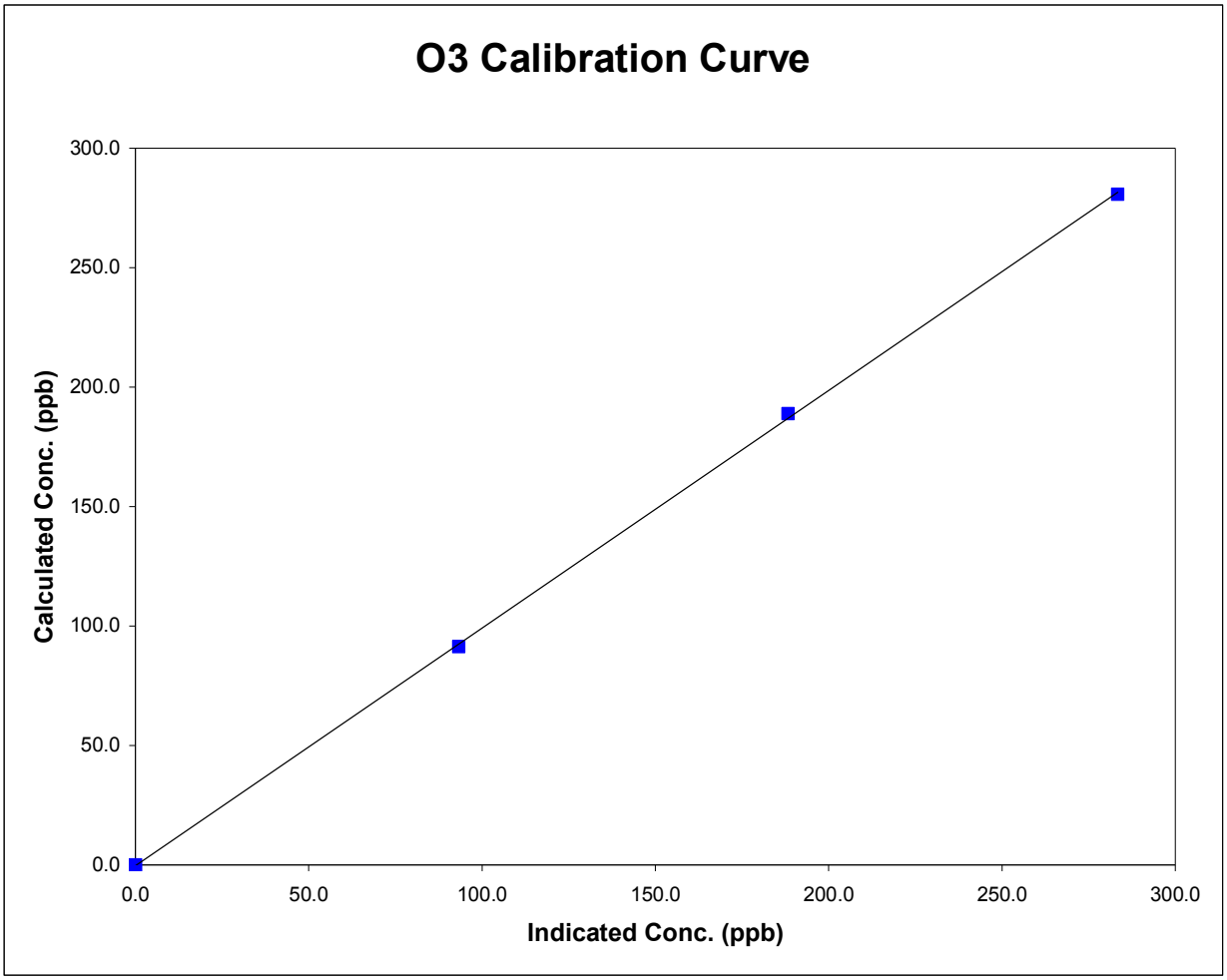
FOCUS AIR QUALITY MONITORING

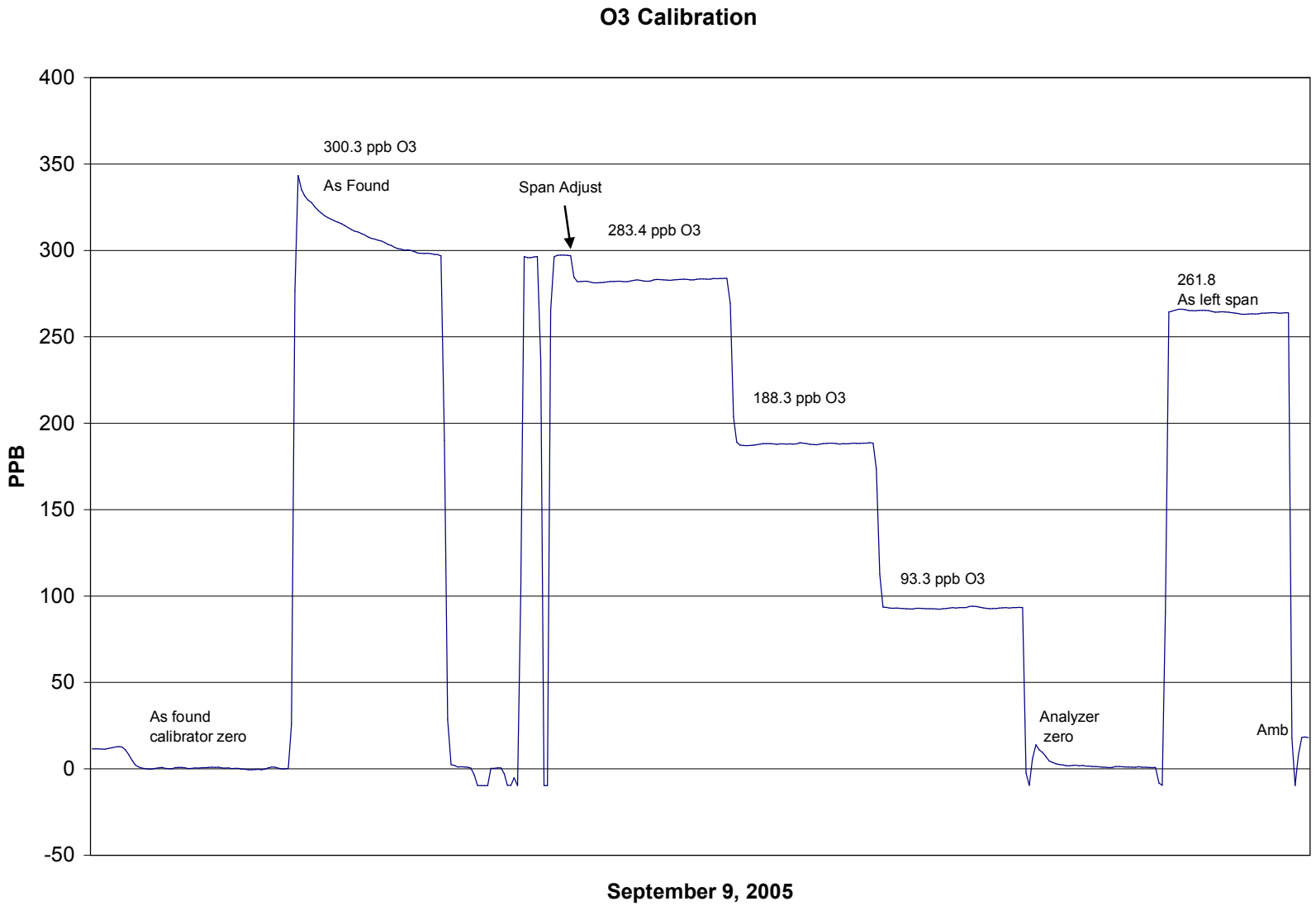
Station Information

Calibration Date	September 9, 2005	Previous Calibration	August 17, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	9:05	End Time (MST)	11:20
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	0.1	NA		
280.7	283.4	0.9905	Correlation Coefficient	0.999877
188.8	188.3	1.0026		
91.3	93.3	0.9787	Slope	0.994292
			Intercept	-0.259167




O3 Calibration
400
350
300
250
200
150
100
50
0
-50
PPB
300.3 ppb O3
As Found
Span Adjust
283.4 ppb O3
261.8
As left span
188.3 ppb O3
93.3 ppb O3
As found
calibrator zero
Analyzer
zero
Amb
September 9, 2005

Calibration Report

Parameter **CO**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 9, 2005	Previous Calibration	August 22, 2005
Station Number	1	Station Location	Muskoseepi Park
Reason:	Routine ☐ Install ☐ Removal ☐ Other:		
Start Time (MST)	11:20	End Time (MST)	14:15
Barometric Pressure	0.925 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Conc	3000 ppm	Cal Gas Expiry Date	AUG 28/05
		Cal Gas Cylinder #	AAL20565
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.011138	Calculated slope	1.005818
Calculated intercept	0.286376	Calculated intercept	-0.008459
Analyzer make	TEI Model 48C	Analyzer serial #	508011062

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
CO span setting	1.729		1.018	
CO zero setting	1.018		2.029	
Sample pressure	686.5	mm Hg	689.6	mm Hg
Sample Flow	1.078	LPM	1.094	LPM

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4993	0.00	0.00	0.01	N/A
4993	39.97	23.82	23.71	1.0049
4993	19.96	11.95	11.84	1.0086
4993	9.97	5.98	5.98	0.9991
4993	0.00	0.00	-0.13	As Found Zero
4993	39.97	23.82	23.76	As Found Span
			Average Correction Factor	1.0042

Calculated value of As Found Response: 24.437 ppm Percent Change of As Found: -2.6%

	before calibration		after calibration	
Auto zero	-0.01	ppm	0.22	ppm
Auto span	19.88	ppm	19.26	ppm

Notes:

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **CO**

Air Monitoring Network **PASZA**

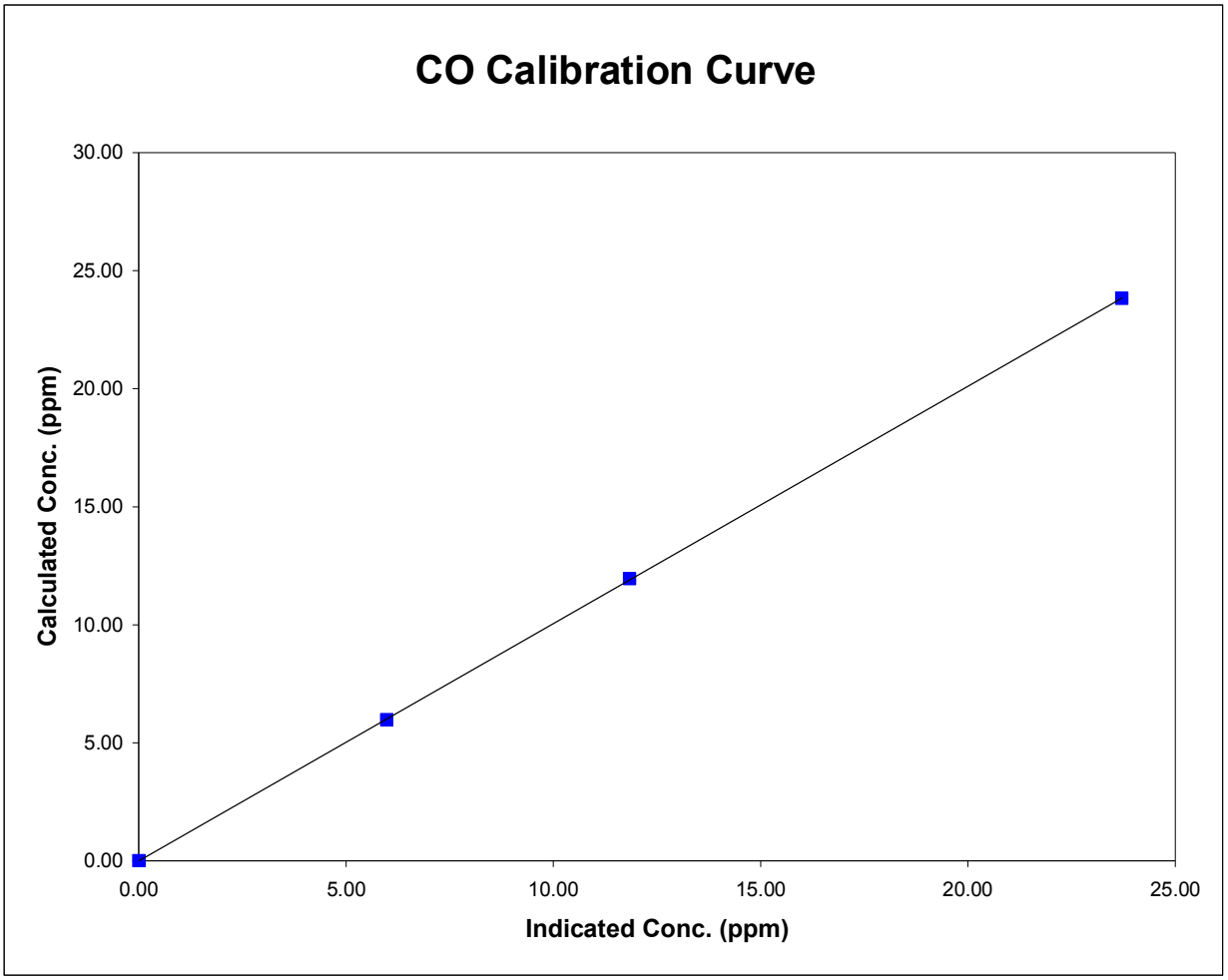
FOCUS AIR QUALITY MONITORING

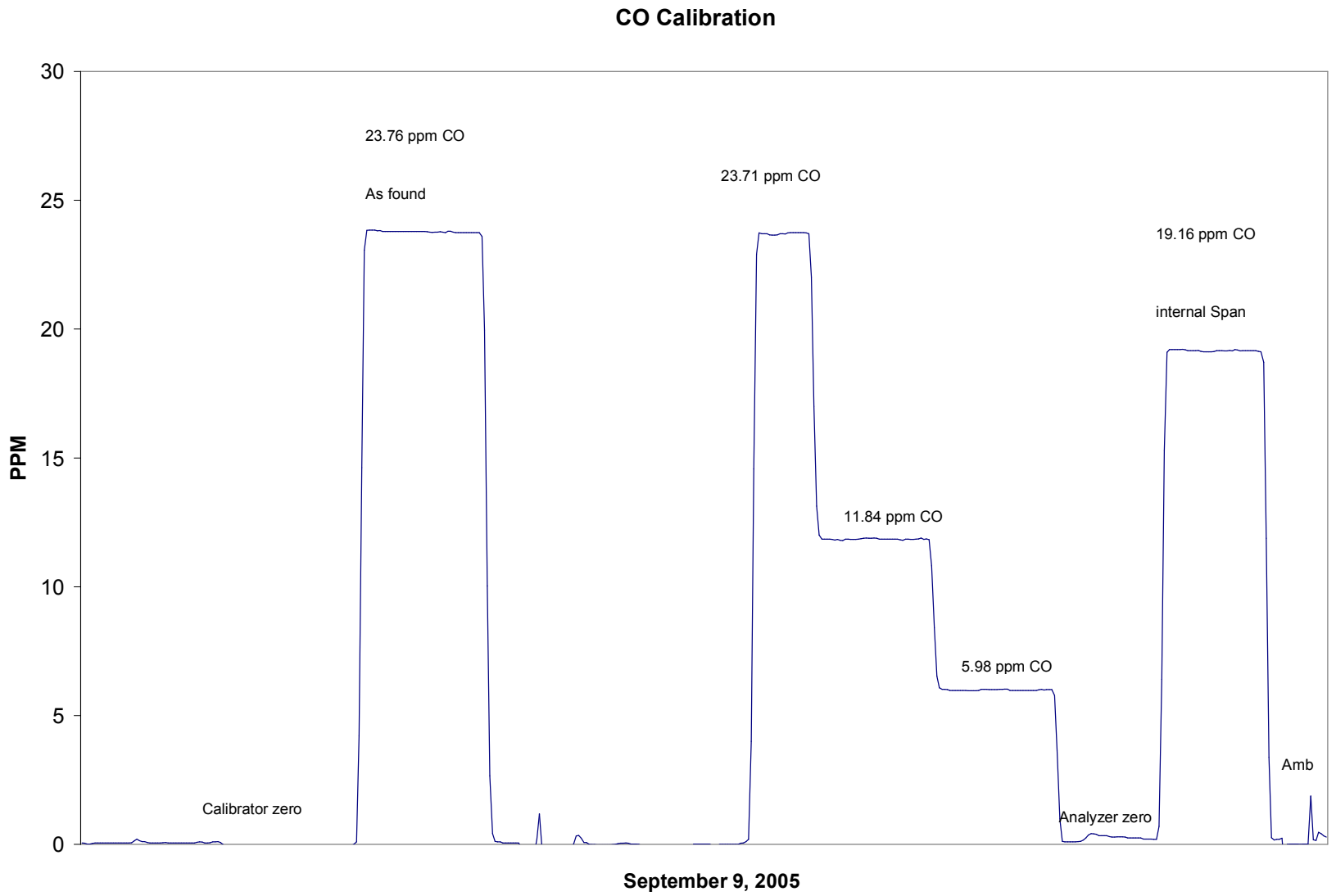
Station Information

Calibration Date	September 9, 2005	Previous Calibration	August 22, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	11:20	End Time (MST)	14:15
Analyzer make/model	TEI Model 48C	Analyzer serial #	508011062

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.006	N/A		
23.825	23.708	1.0049	Correlation Coefficient	0.999991
11.945	11.843	1.0086		
5.978	5.984	0.9991	Slope	1.005818
			Intercept	-0.008459




CO Calibration
30
25
20
15
10
5
0
PPM
23.76 ppm CO
As found
23.71 ppm CO
19.16 ppm CO
internal Span
11.84 ppm CO
5.98 ppm CO
Calibrator zero
Analyzer zero
Amb
September 9, 2005

Calibration Report

Parameter **THC**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 12, 2005	Previous Calibration	August 22, 2005
Station Number	1	Station Location	Muskoseepi Park
Reason:	Routine ☒ Install ☐	Removal ☐	Other: ☐
Start Time (MST)	10:50	End Time (MST)	13:59
Barometric Pressure	0.927 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Concentration	700 ppm CH4/ 299 ppm C3H8	Cal Gas Expiry Date	12/10/2005
Cal Gas CH4 equiv	1522.25 ppm	Cal Gas Cylinder #	ALM 030358
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.012849	Calculated slope	1.000066
Calculated intercept	-0.180686	Calculated intercept	0.056970
Analyzer make	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.1	psi	6.09	psi
THC span counts	6994	capture	6962	capture
THC zero counts	1308	capture	1371	capture

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4993	0.00	0.00	0.03	N/A
4993	64.97	19.55	19.55	1.0002
4993	34.96	10.58	10.44	1.0139
4993	9.97	3.03	2.93	1.0368
4993	0.00	0.00	0.15	As Found Zero
4993	64.97	19.55	19.40	As Found Span
			Average Correction Factor	1.0170

Calculated value of As Found Response: 19.319 ppm Percent Change of As Found: 1.2%

	before calibration		after calibration	
Auto zero	0.06	ppm	-0.07	ppm
Auto span	22.16	ppm	-0.01	ppm

Notes:

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **THC**

Air Monitoring Network **PASZA**

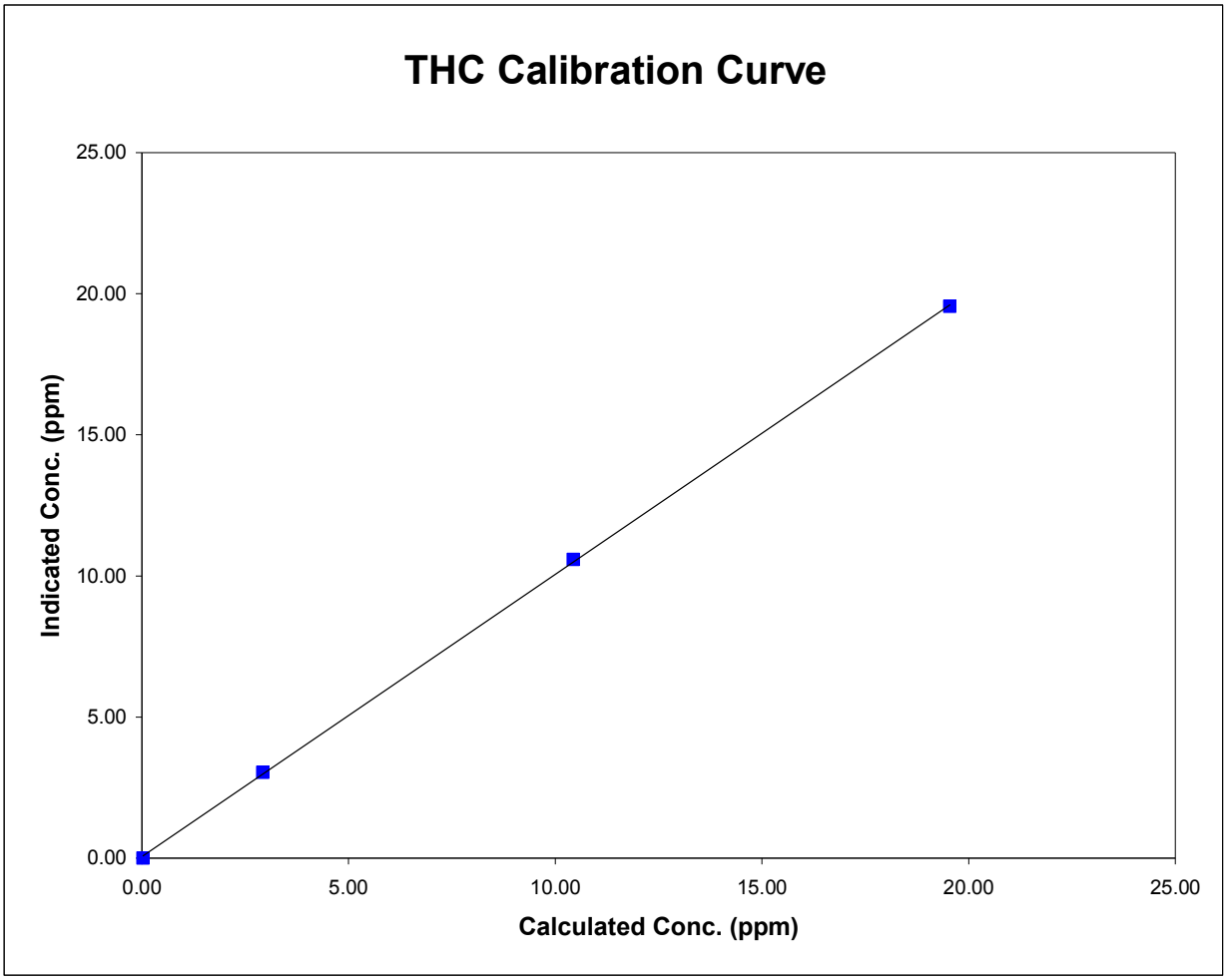
FOCUS AIR QUALITY MONITORING

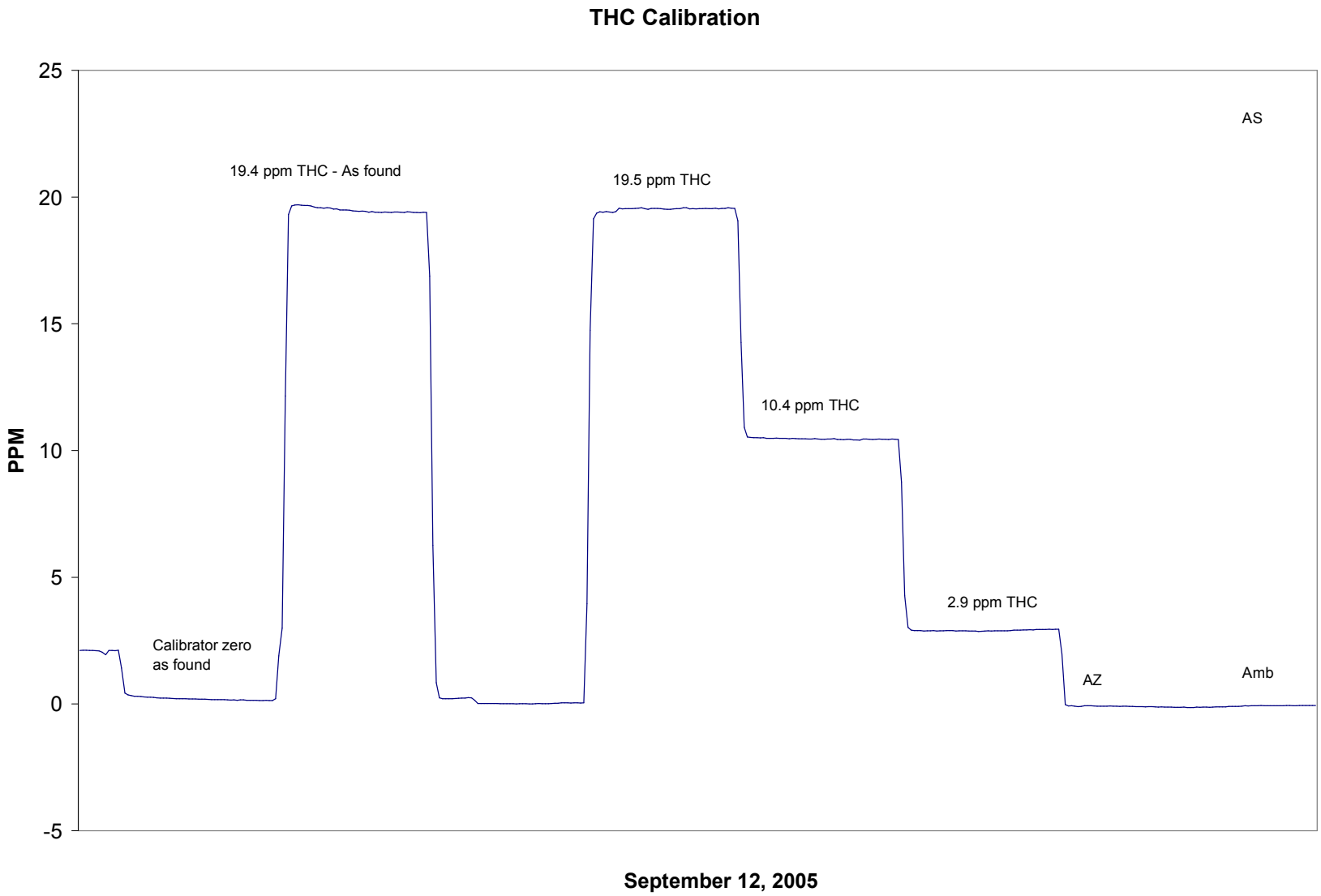
Station Information

Calibration Date	September 12, 2005	Previous Calibration	August 22, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	10:50	End Time (MST)	13:59
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	0.027	N/A		
19.553	19.549	1.0002	Correlation Coefficient	0.999912
10.584	10.440	1.0139		
3.034	2.926	1.0368	Slope	1.000066
			Intercept	0.056970




THC Calibration
25
20
15
10
5
0
-5
PPM
19.4 ppm THC - As found
19.5 ppm THC
10.4 ppm THC
2.9 ppm THC
AS
Calibrator zero
as found
AZ
Amb
September 12, 2005

Calibration Report

Parameter **TRS**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 12, 2005	Previous Calibration	August 15, 2005
Station Number	1	Station Location	Muskoseepi Park
Reason:	Routine ☒ Install ☐	Removal ☐	Other: ☐
Start Time (MST)	11:11	End Time (MST)	14:00
Barometric Pressure	27.7 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	181 ng/min	Perm-tube Expiry Date	12/10/2005
Correction factor	0.942621	Perm-tube Cert #	04-19367
DACS make	Focus AP1000	DACS serial No.	45266
DACS voltage range	0 - 10 volt	DACS channel #	9
	Before		After
Calculated slope	0.972441	Calculated slope	0.982280
Calculated intercept	0.208011	Calculated intercept	0.555779
Analyzer make	TEI Model 43C	Analyzer serial #	31990000000491

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	19.8	ppb	19.9	ppb
coefficient	1.21		1.183	
Lamp Voltage	875	volts	875	volts
Chamber Temp	44.2	Deg C	44.6	Deg C
Perm Gas Temp	45	Deg C	44.99	Deg C
Pressure	665.1	mm Hg	638.9	mm Hg
Sample Flow	692	ccm	692	ccm
Lamp Intesity	39,600	mv	39,500	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
zero	2158.6	0.0	-0.1	N/A
2290	2158.6	60.3	61.1	0.9874
5025	4736.7	27.5	27.0	1.0171
10060	9482.8	13.7	13.1	1.0514
zero	2158.6	0.0	0.1	As Found Zero
2290	2158.6	60.3	59.1	As Found Span
			Average Correction Factor	1.0186

Calculated value of As Found Response: 57.57 ppm Percent Change of As Found: 4.5%

	before calibration		after calibration	
Auto zero	0.1	ppm	0.5	ppm
Auto span	65.1	ppm	65.8	ppm

Notes: adjusted zero

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **TRS**

Air Monitoring Network **PASZA**

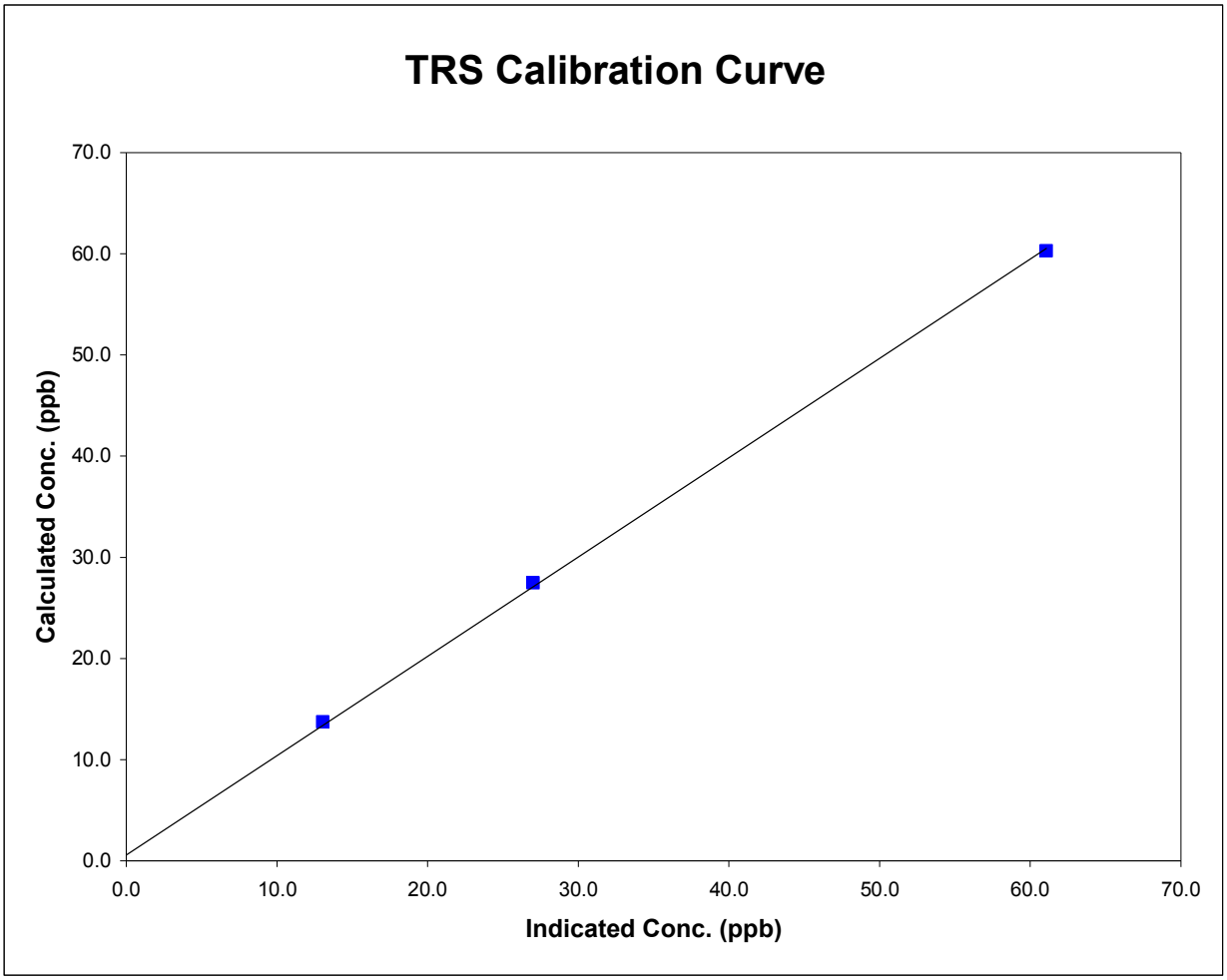
FOCUS AIR QUALITY MONITORING

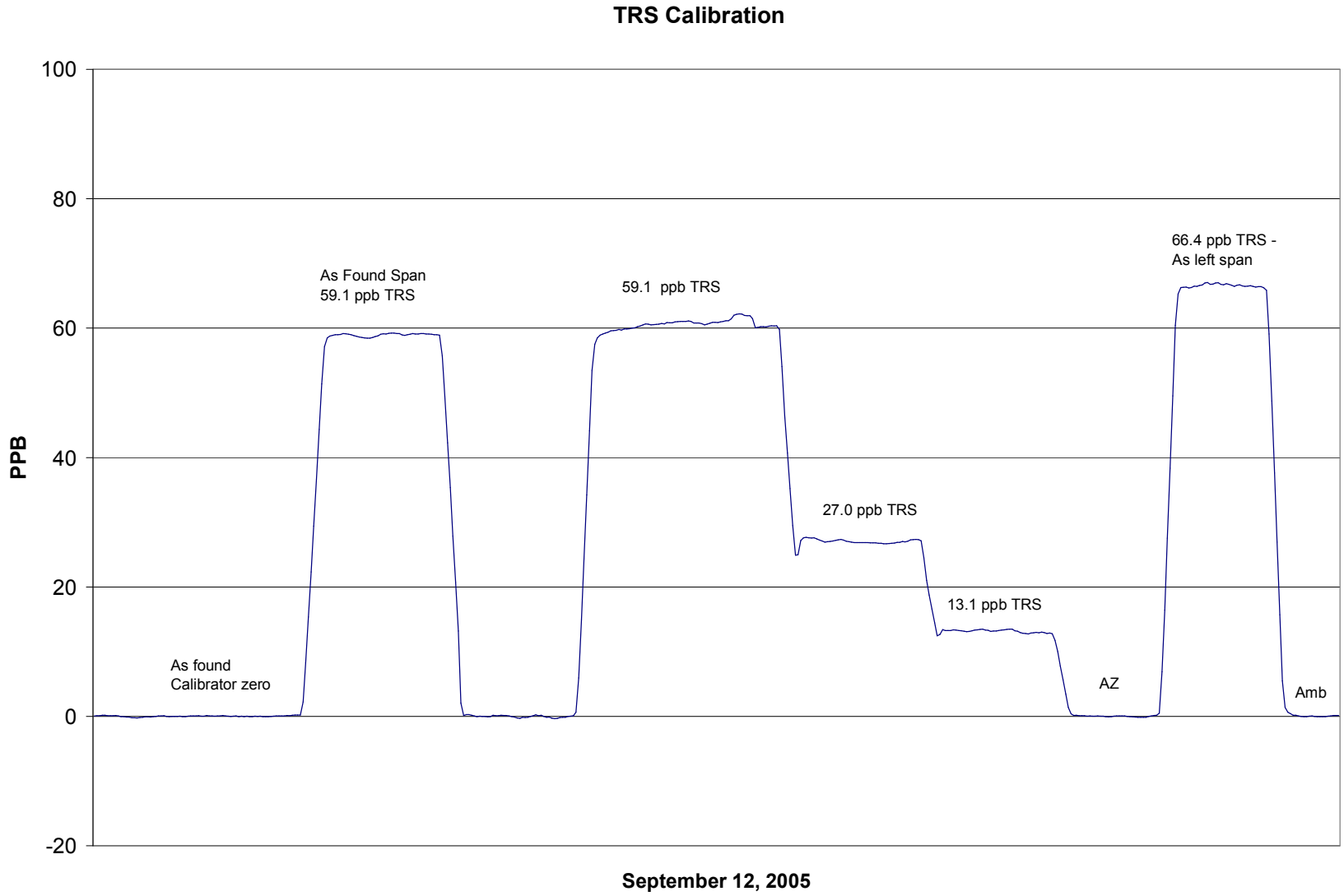
Station Information

Calibration Date	September 12, 2005	Previous Calibration	August 15, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	11:11	End Time (MST)	14:00
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	-0.1	N/A		
60.3	61.1	0.9874	Correlation Coefficient	0.999717
27.5	27.0	1.0171		
13.7	13.1	1.0514	Slope	0.982280
			Intercept	0.555779




TRS Calibration
100
80
60
40
20
0
-20
PPB
As found
Calibrator zero
As Found Span
59.1 ppb TRS
59.1 ppb TRS
27.0 ppb TRS
13.1 ppb TRS
AZ
66.4 ppb TRS -
As left span
Amb
September 12, 2005

Calibration Report

Parameter **SO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 19, 2005	Previous Calibration	August 8, 2005
Station Number	2	Station Location	Evergreen Park

Reason: [Routine] [Install] [Removal] [Other:]

Start Time (MST)	10:46	End Time (MST)	13:36
Barometric Pressure	27.5 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	2,097 ng/min	Perm-tube Expiry Date	June 30/05
Correction factor	0.935482	Perm-tube Cert #	19-9955
DACS make	Focus AP1000	DACS serial No.	45274
DACS voltage range	0 - 10 volt	DACS channel #	4
	Before		After
Calculated slope	0.987883	Calculated slope	0.994372
Calculated intercept	-0.466266	Calculated intercept	-3.483057

Analyzer make: API 100 — Analyzer serial #: 32

	before		after	
Concentration range	500	ppb	500	ppb
Sample Flow	49	ccm	455	ccm
UV Lamp Voltage	3290	mv	3340	mv
Lamp Ratio	94	%	95	%
Rx Cell Temp	49	Deg C	49	Deg C
PMT Temp	10	Deg C	10	Deg C
IZS Temp	40	Deg C	40	Deg C
Slope	10.22		9.91	
Intercept	180.7		160.1	

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	1871.0	0.0	-1.8	N/A
2000	1871.0	427.8	430.2	0.9945
4000	3741.9	213.9	223.6	0.9565
9000	8419.3	95.1	103.0	0.9230
zero	1871.0		-1.3	As Found Zero
2000	1871.0	427.8	416.8	As Found Span
			Average Correction Factor	0.9580

Calculated value of As Found Response: 412.562 ppm Percent Change of As Found: 3.6%

	before calibration		after calibration	
Auto zero	-0.5	ppm	-5.3	ppm
Auto span	266.1	ppm	269.3	ppm

Notes:

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

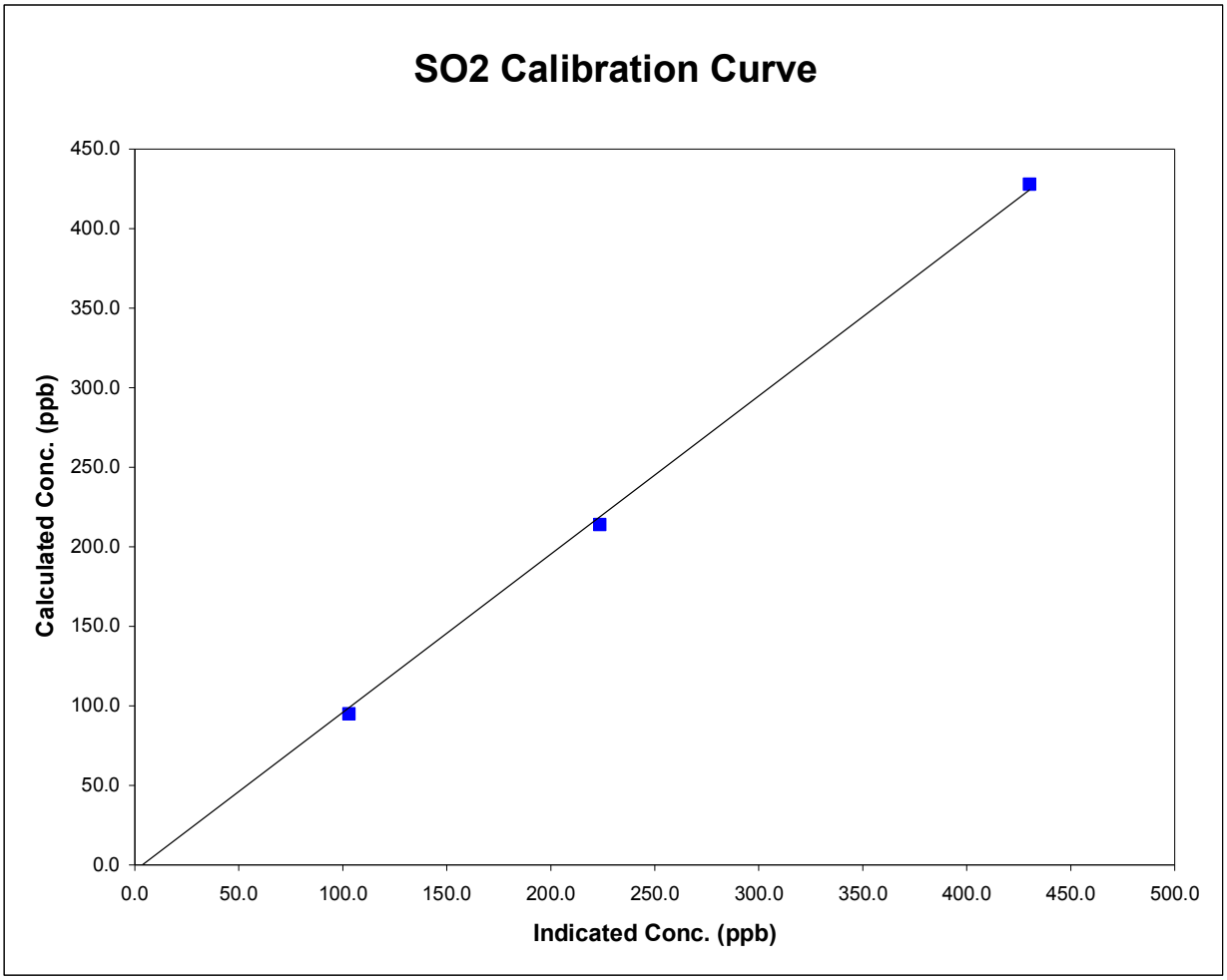
FOCUS AIR QUALITY MONITORING

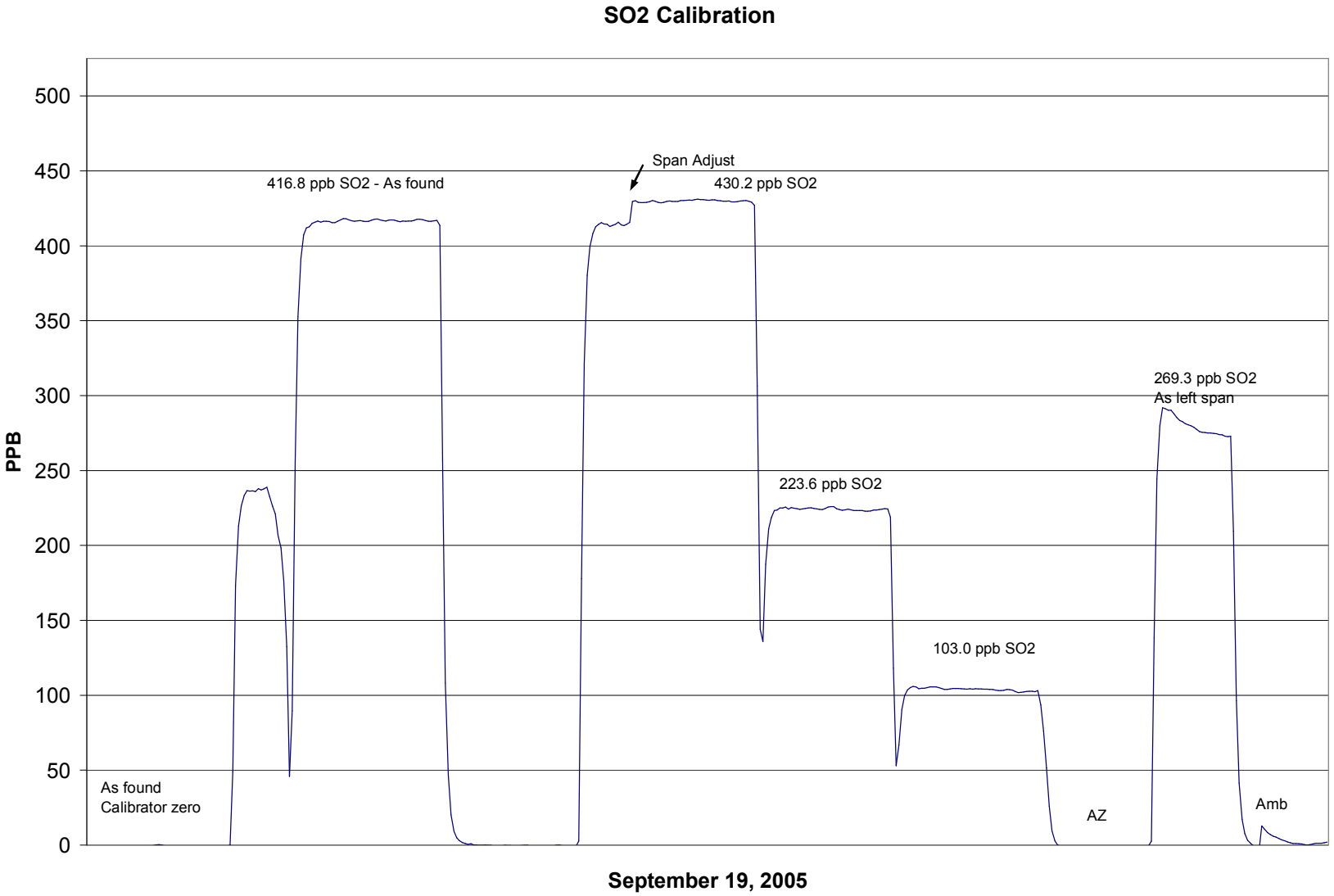
Station Information

Calibration Date	September 19, 2005	Previous Calibration	August 8, 2005
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	10:46	End Time (MST)	13:36
Analyzer make/model	API 100	Analyzer serial #	32

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-1.8	N/A		
427.8	430.2	0.9945	Correlation Coefficient	0.999208
213.9	223.6	0.9565		
95.1	103.0	0.9230	Slope	0.994372
			Intercept	-3.483057




SO2 Calibration
PPB
500
450
400
350
300
250
200
150
100
50
0
416.8 ppb SO2 - As found
Span Adjust
430.2 ppb SO2
223.6 ppb SO2
103.0 ppb SO2
269.3 ppb SO2
As left span
As found
Calibrator zero
AZ
Amb
September 19, 2005

Calibration Report

Parameter **TRS**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 19, 2005	Previous Calibration	August 8, 2005
Station Number	2	Station Location	Evergreen Park

Reason: [Routine] [Install] [Removal] [Other:]

Start Time (MST)	10:46	End Time (MST)	13:36
Barometric Pressure	27.52 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	181 ng/min	Perm-tube Expiry Date	June 30/05
Correction factor	0.935482	Perm-tube Cert #	04-19367
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 10 volt	DACS channel #	9
	Before		After
Calculated slope	1.000338	Calculated slope	1.001248
Calculated intercept	0.269844	Calculated intercept	0.129001

Analyzer make: TEI Model 43C Analyzer serial #: 0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	13.6	ppb	13.6	ppb
coefficient	1.272		1.249	
Lamp Voltage	753	volts	753	volts
Chamber Temp	44.1	Deg C	44.1	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	648.1	mm Hg	634.2	mm Hg
Sample Flow	472	ccm	463	ccm
Lamp Intesity	32,500	mv	32,500	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
zero	1871.0	0.0	-0.1	N/A
2000	1871.0	69.6	69.3	1.0033
4000	3741.9	34.8	34.7	1.0020
9000	8419.3	15.5	15.2	1.0201
zero	1871.0	0.0	0.1	As Found Zero
2000	1871.0	69.6	70.8	As Found Span
			Average Correction Factor	1.0085

Calculated value of As Found Response: 71.04 ppm Percent Change of As Found: -2.1%

	before calibration		after calibration	
Auto zero	0.1	ppm	0.0	ppm
Auto span	61.2	ppm	67.7	ppm

Notes:

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **TRS**

Air Monitoring Network **PASZA**

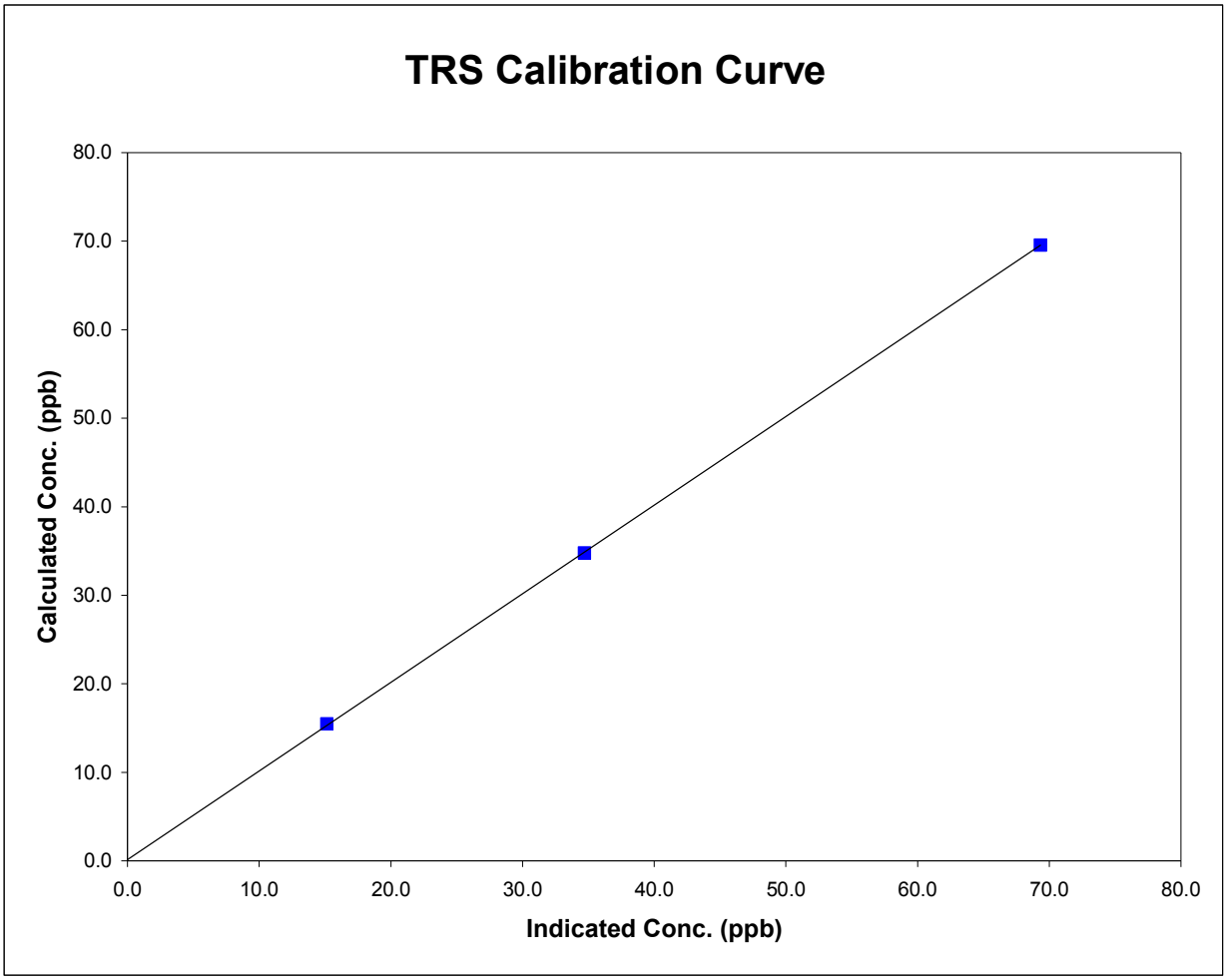
FOCUS AIR QUALITY MONITORING

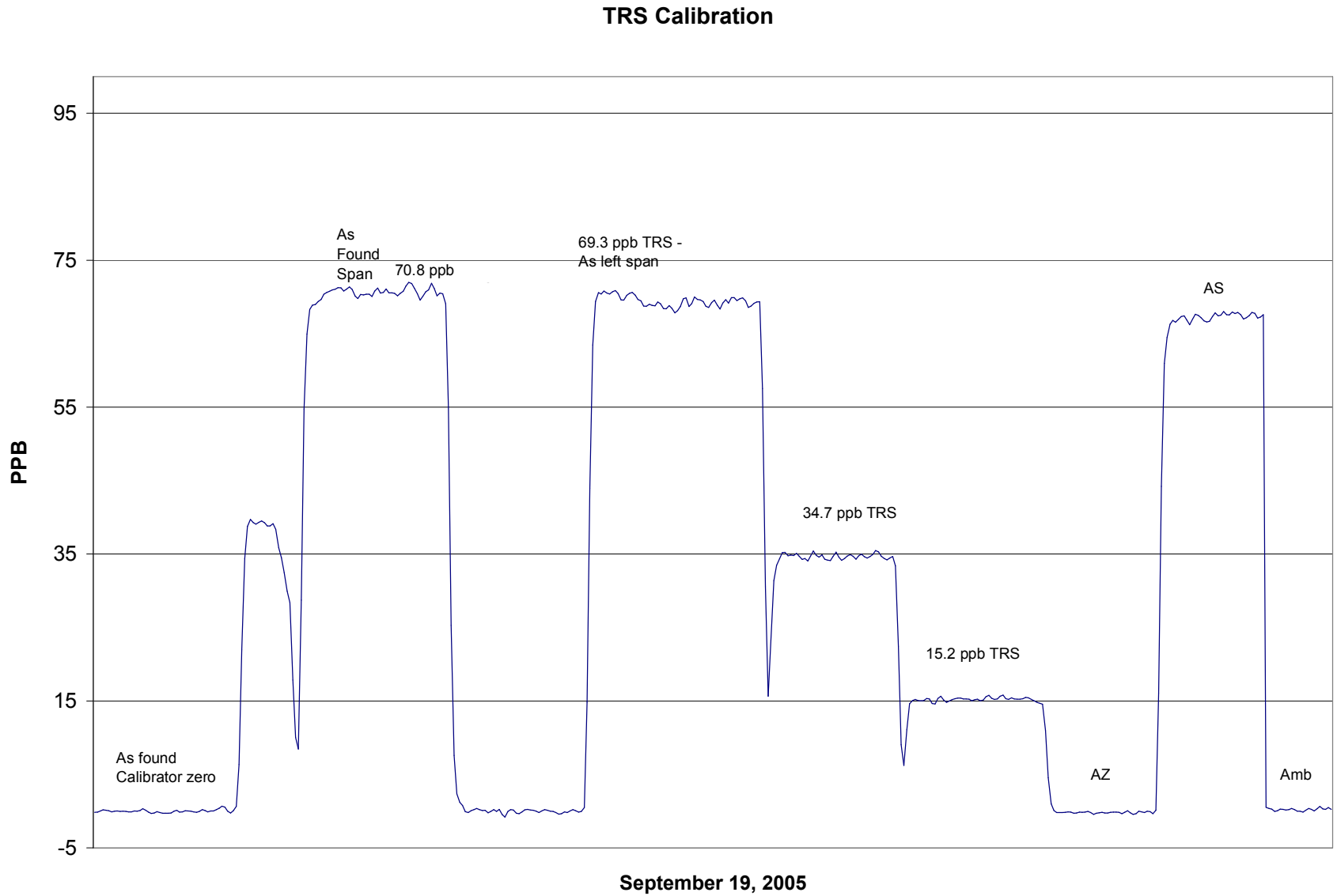
Station Information

Calibration Date	September 19, 2005	Previous Calibration	August 8, 2005
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	10:46	End Time (MST)	13:36
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
69.6	69.3	1.0033	Correlation Coefficient	0.999985
34.8	34.7	1.0020		
15.5	15.2	1.0201	Slope	1.001248
			Intercept	0.129001




TRS Calibration
95
75
55
35
15
-5
PPB
As found
Calibrator zero
As
Found
Span
70.8 ppb
69.3 ppb TRS -
As left span
34.7 ppb TRS
15.2 ppb TRS
AZ
AS
Amb
September 19, 2005

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **PM2.5**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	September 19, 2005	Previous Calibration	August 8, 2005
Station Number	1	Station Location	Evergreen Park
Reason:	Routine ☒	Install ☐	Removal ☐	Other: ☐
Start Time (MST)	13:30	End Time (MST)	15:00
Barometric Pressure	0.920 ATM	Station Temperature	20.0 Deg C
Flow Calibrator	BIOS Drycal DCL-MH	Serial Number	101780
DACS make	AP 1000	DACS serial No.	45269
DACS voltage range	0 - 1 V	DACS channel #	15
	Before		After
DACS slope	0.050000	DACS slope	0.050000
DACS intercept	-50.000000	DACS intercept	-50.000000

Analyzer Information

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

	before		after	
Main Flow Set Point	2.990	SLPM	3.000	SLPM
Aux Flow Set Point	13.66	SLPM	13.67	SLPM
Filter Load	36	%	37	%
Ko Factor	12122		12122	
Temperature	15.3	Deg C	14.5	Deg C
Pressure	0.924	ATM	0.924	ATM

Calibration Data

Parameter	Set Point	Indicated Reading (measured externally)	Tolerance	TEOM Reading
zero flow - main	0.0	0.00		0.01
zero flow - auxillary	0.0	0.00		-0.01
flow recovery - main	45 - 60 Seconds	28.0	45 - 60 Seconds	30
flow recovery - aux	46 - 60 Seconds	55.0	46 - 60 Seconds	50
Temperature	measured	15.2	+/- 1.0 Deg C	14.8
Pressure	measured	0.920	+/- 1.5% Δ_{ATM}	0.924
Total Flow	16.67 SLPM	16.50		16.70
Main Flow	13.67 SLPM	14.20	+/- 1.0 SLPM	13.67
Auxillary Flow	3.0 SLPM	2.997	+/- 0.2 SLPM	2.990
Leak Check - main	0.0		<0.15 SLPM	0.03
Leak Check - aux	0.0		<0.15 SLPM	0.05
Ko Factor (w/o filter)	measured	307.398	filter weight (g)	0.11012
Ko Factor (w/ filter)	measured	215.504	% Ko difference	0.7%

Notes: Very windy and BIOS readings may have been slightly affected.
Changed blue filter. Redid leak check… same readings.
0.66%

Calibration Performed By: Dawn Ewan

Calibration Report

Parameter **SO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 21, 2005	Previous Calibration	August 9, 2005
Station Number	3	Station Location	Smoky Heights
Reason:	Routine ☒ Install ☐	Removal ☐	Other: ☐
Start Time (MST)	8:57	End Time (MST)	12:56
Barometric Pressure	27.91 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	2,097 ng/min	Perm-tube Expiry Date	June 30/05
Correction factor	0.948739	Perm-tube Cert #	19-9955
DACS make	Focus AP1000	DACS serial No.	45274
DACS voltage range	0 - 10 volt	DACS channel #	4
	Before		After
Calculated slope	0.998067	Calculated slope	0.995966
Calculated intercept	0.957641	Calculated intercept	4.546757
Analyzer make	API 102A	Analyzer serial #	212

	before		after	
Concentration range	500	ppb	500	ppb
Sample Flow	578	ccm	562	ccm
UV Lamp Voltage	3230	mv	3047	mv
Lamp Ratio	90	%	84.1	%
Rx Cell Temp	50.9	Deg C	51.1	Deg C
PMT Temp	7	Deg C	6.8	Deg C
IZS Temp	45	Deg C	45	Deg C
Slope	0.806		0.797	
Intercept	20.4		21.8	

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	1888.0	0.0	0.6	N/A
1990	1888.0	424.0	422.6	1.0032
4700	4459.1	179.5	174.7	1.0276
9250	8775.8	91.2	81.3	1.1221
zero	1897.5	0.0	-0.5	As Found Zero
2000	1897.5	421.8	389.0	As Found Span
			Average Correction Factor	1.0510

Calculated value of As Found Response: 389.649 ppm Percent Change of As Found: 7.6%

	before calibration		after calibration	
Auto zero	1.5	ppm	6.1	ppm
Auto span	227.9	ppm	228.0	ppm

Notes: Adjusted span and zero

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

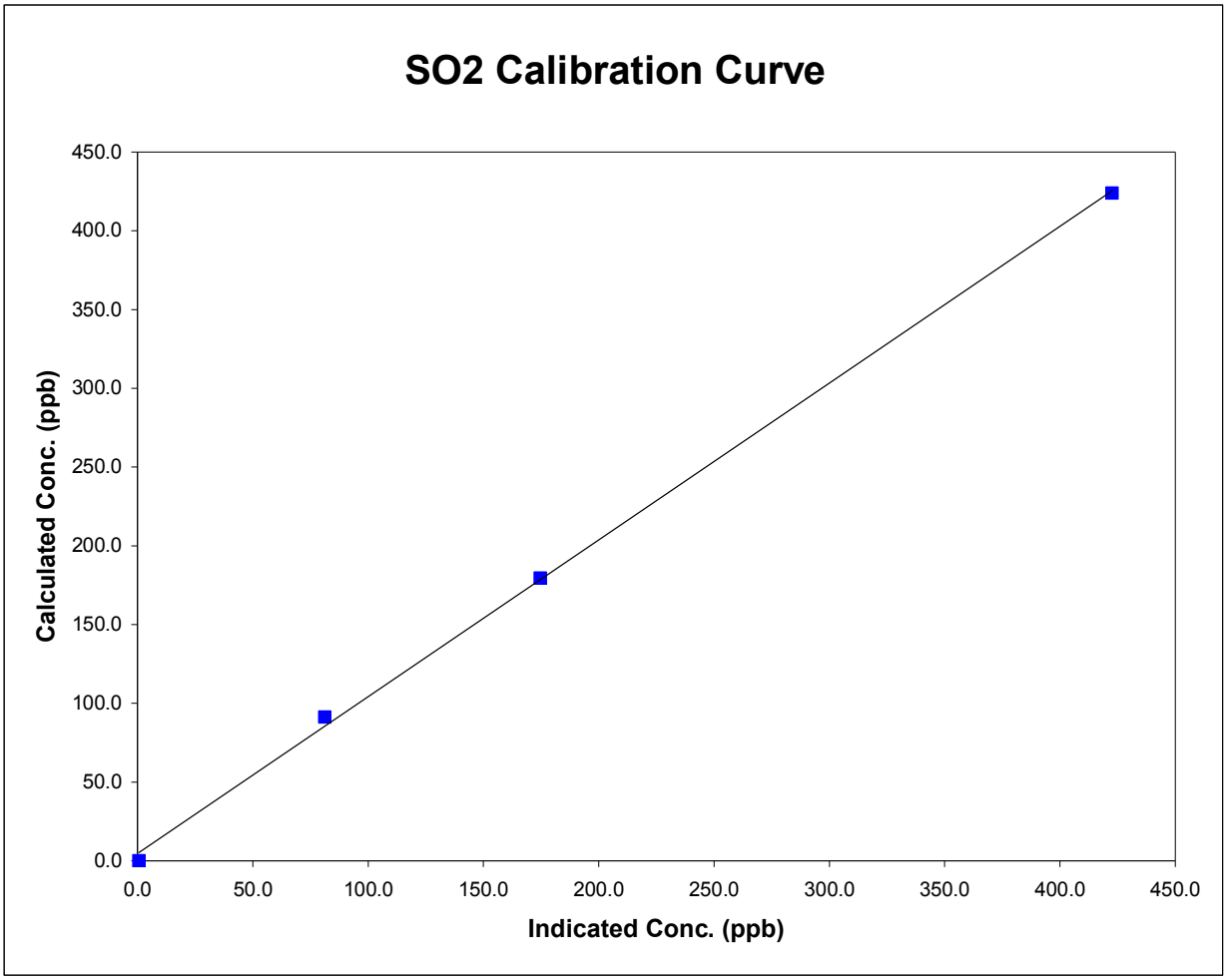
FOCUS AIR QUALITY MONITORING

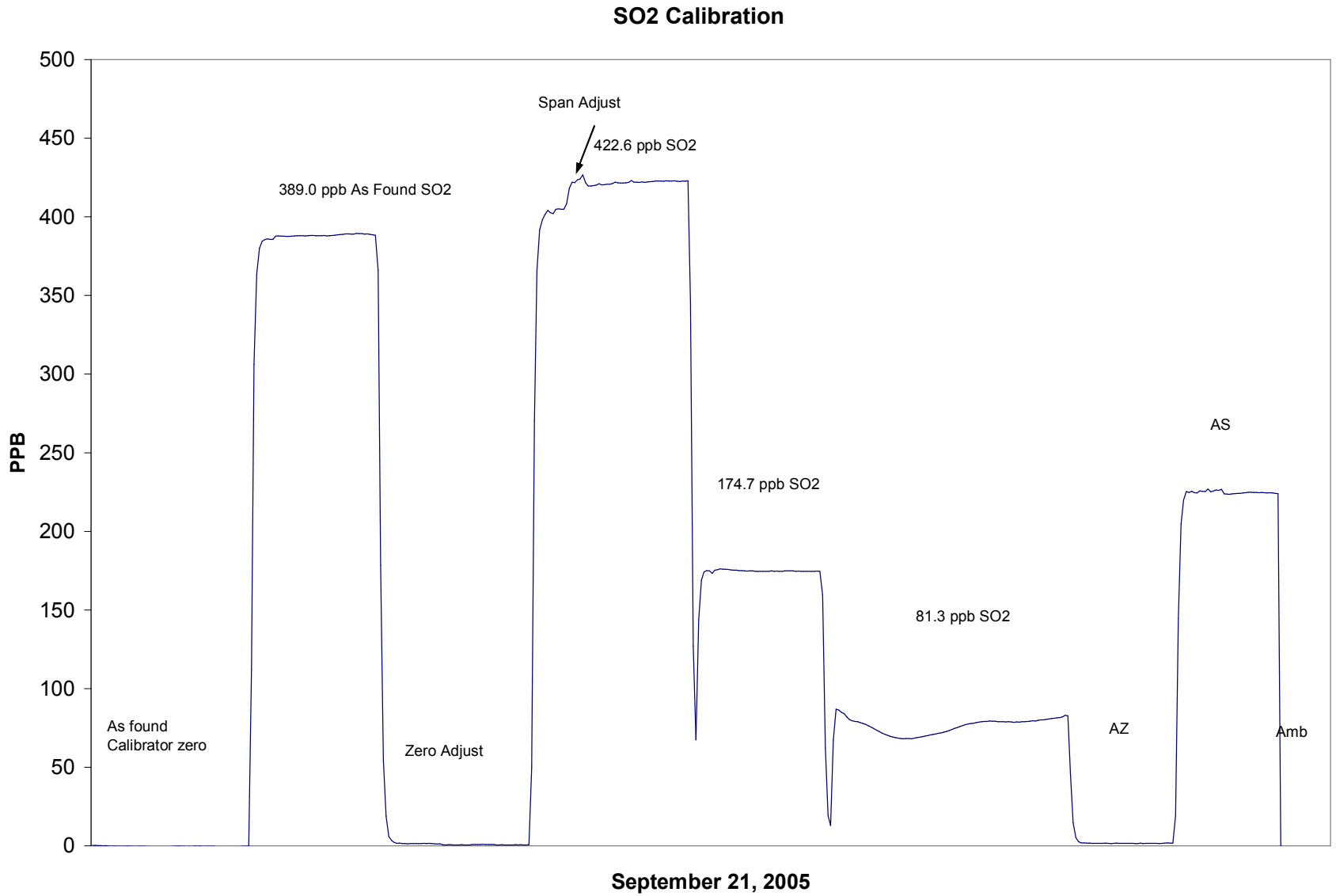
Station Information

Calibration Date	September 21, 2005	Previous Calibration	August 9, 2005
Station Number	3	Station Location	Smoky Heights
Start Time (MST)	8:57	End Time (MST)	12:56
Analyzer make/model	API 102A	Analyzer serial #	212

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	N/A		
424.0	422.6	1.0032	Correlation Coefficient	0.999371
179.5	174.7	1.0276		
91.2	81.3	1.1221	Slope	0.995966
			Intercept	4.546757




SO2 Calibration
PPB
500
450
400
350
300
250
200
150
100
50
0
Span Adjust
422.6 ppb SO2
389.0 ppb As Found SO2
AS
174.7 ppb SO2
81.3 ppb SO2
As found
Calibrator zero
Zero Adjust
AZ
Amb
September 21, 2005

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter: **TRS**

Air Monitoring Network: **PASZA**

Station Information

Calibration Date	September 21, 2005	Previous Calibration	August 2, 2005
Station Number	3	Station Location	Smoky Heights
Reason: Routine	Install	Removal	Other:
Start Time (MST)	9:50	End Time (MST)	12:56
Barometric Pressure	27.91 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	181 ng/min	Perm-tube Expiry Date	June 30/05
Correction factor	0.948739	Perm-tube Cert #	03-13509
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 10 volt	DACS channel #	9
	Before		After
Calculated slope	1.002601	Calculated slope	0.996329
Calculated intercept	0.045085	Calculated intercept	-0.009420
Analyzer make	TEI Model 43C	Analyzer serial #	436610004

	before		after	
Concentration range	100	ppb	100	ppb
Background	10.5	ppb	9.5	ppb
coefficient	1.164		1.114	
Lamp Voltage	776	volts	778	volts
Chamber Temp	43.8	Deg C	44.2	Deg C
Perm Gas Temp	45	Deg C	44.99	Deg C
Pressure	649.3	mm Hg	647.8	mm Hg
Sample Flow	470	ccm	473	ccm
Lamp Intesity	32,000	mv	32,100	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
zero	1888.0	0.0	0.0	N/A
1990	1888.0	68.9	69.3	0.9953
4700	4459.1	29.2	29.0	1.0059
9250	8775.8	14.8	15.2	0.9776
zero	1897.5	0.0	-0.4	As Found Zero
2000	1897.5	68.6	64.8	As Found Span
			Average Correction Factor	0.9929

Calculated value of As Found Response: 65.48 ppm   Percent Change of As Found: 4.5%

	before calibration		after calibration	
Auto zero	-0.8	ppm	-0.1	ppm
Auto span	65.1	ppm	66.9	ppm

Notes: Adjusted span and zero

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **TRS**

Air Monitoring Network **PASZA**

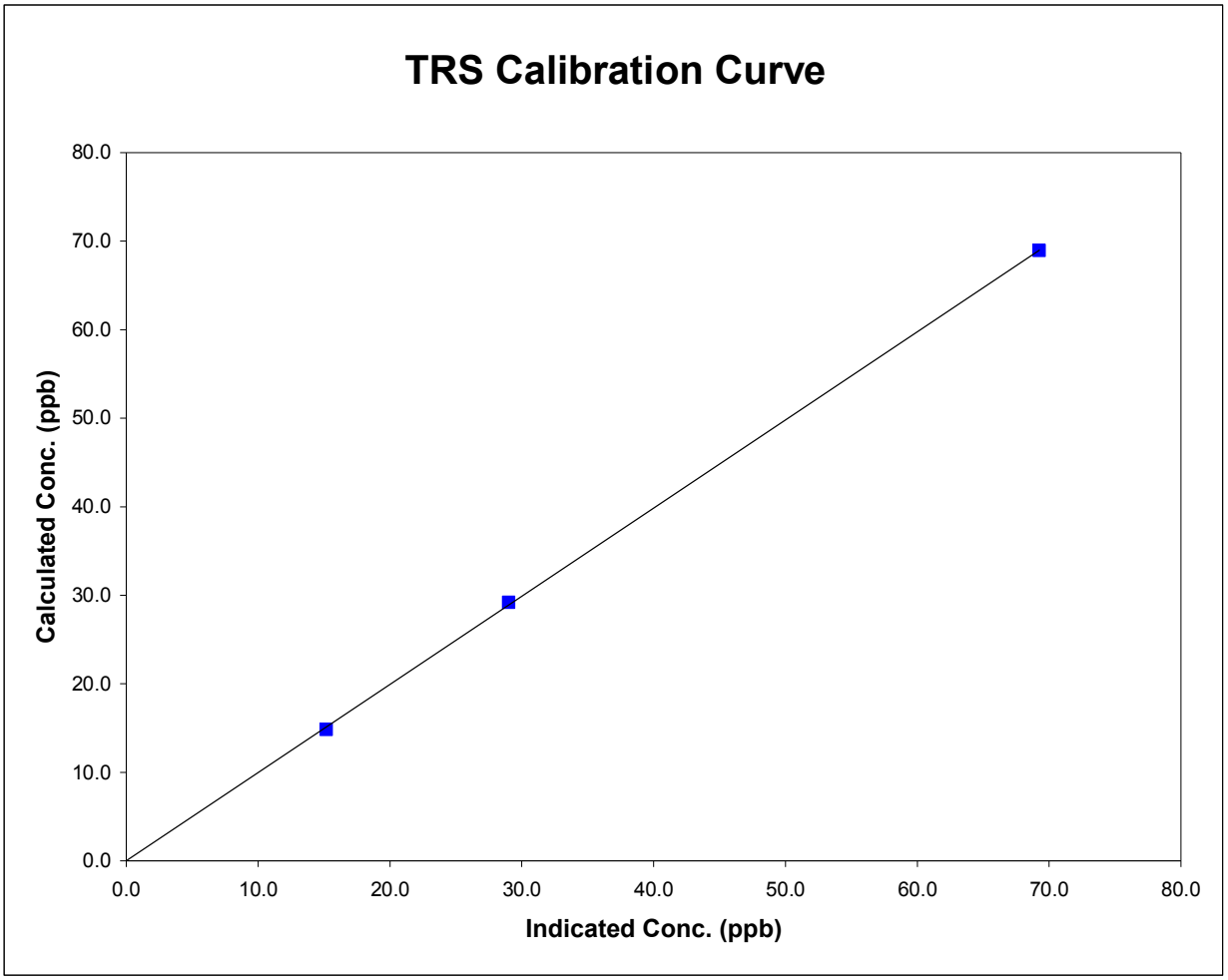
FOCUS AIR QUALITY MONITORING

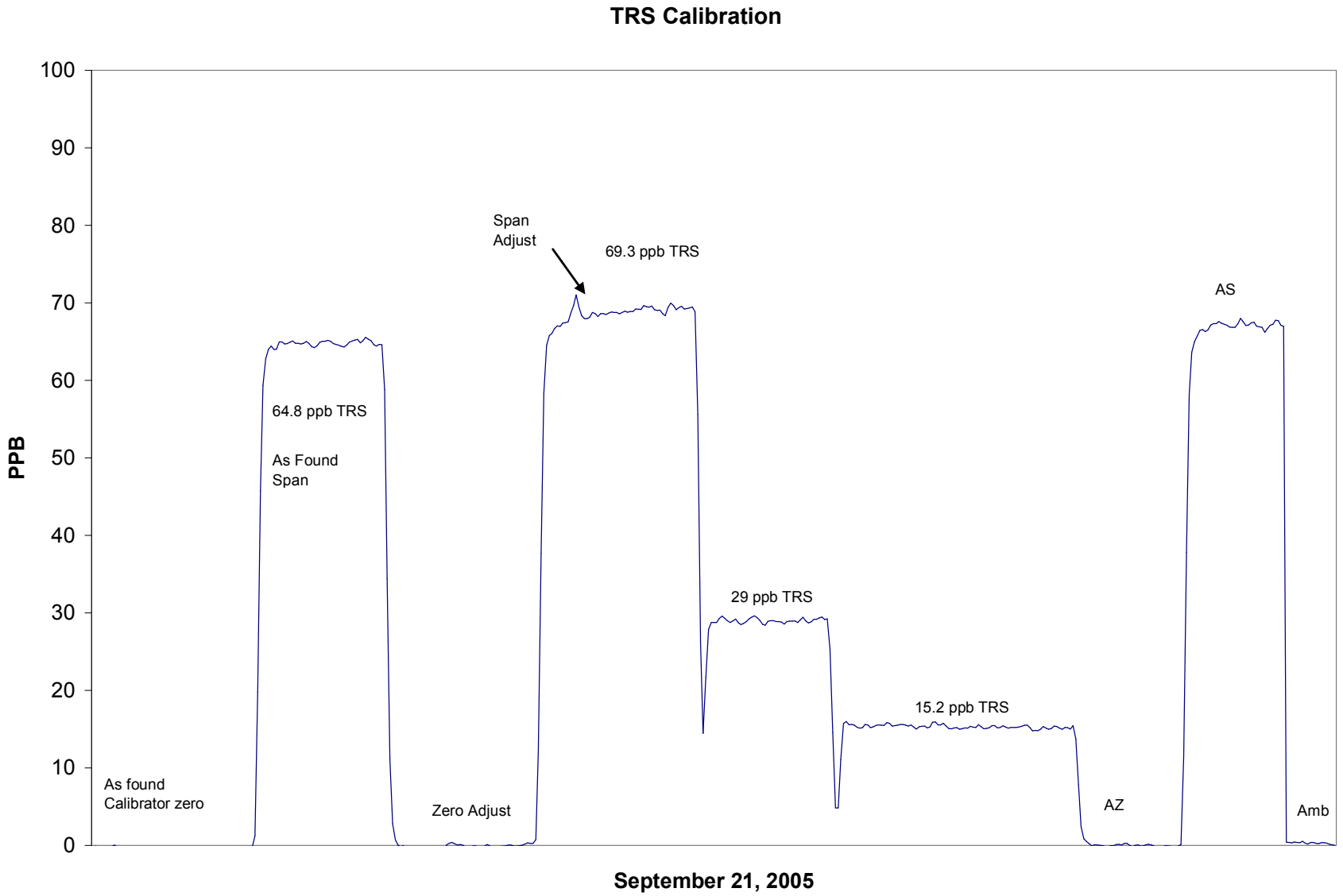
Station Information

Calibration Date	September 21, 2005	Previous Calibration	August 2, 2005
Station Number	3	Station Location	Smoky Heights
Start Time (MST)	9:50	End Time (MST)	12:56
Analyzer make/model	TEI Model 43C	Analyzer serial #	436610004

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
68.9	69.3	0.9953	Correlation Coefficient	0.999937
29.2	29.0	1.0059		
14.8	15.2	0.9776	Slope	0.996329
			Intercept	-0.009420




TRS Calibration
100
90
80
70
60
50
40
30
20
10
0
PPB
As found
Calibrator zero
64.8 ppb TRS
As Found
Span
Zero Adjust
Span
Adjust
69.3 ppb TRS
29 ppb TRS
15.2 ppb TRS
AZ
AS
Amb
September 21, 2005

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **PM2.5**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	September 21, 2005	Previous Calibration	August 2, 2005
Station Number	3	Station Location	Smoky Heights
Reason:	Routine ☒ Install ☐	Removal ☐	Other: ☐
Start Time (MST)	9:58	End Time (MST)	12:30
Barometric Pressure	0.933 inches Hg	Station Temperature	20.0 Deg C
Flow Calibrator	BIOS Drycal DCL-MH	Serial Number	101780
DACS make	AP 1000	DACS serial No.	45269
DACS voltage range	0 - 1 V	DACS channel #	15

Analyzer Information

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

	before		after	
Main Flow Set Point	2.990	SLPM	2.990	SLPM
Aux Flow Set Point	13.66	SLPM	13.66	SLPM
Filter Load	42	%	44	%
Ko Factor	10997		10997	
Temperature	10.3	Deg C	12.7	Deg C
Pressure	0.936	ATM	0.936	ATM
Main Fadj				
Aux Fadj				

Calibration Data

Parameter	Set Point	Indicated Reading (measured externally)	Tolerance	New Reading
zero flow - main	0.0	0.00		0.02
zero flow - auxillary	0.0	0.00		0.04
flow recovery - main	45 - 60 Seconds	27	45 - 60 Seconds	27
flow recovery - aux	46 - 60 Seconds	44	46 - 60 Seconds	44
Temperature	measured	12.7	+/- 1.0 Deg C	11.2
Pressure	measured	0.930	+/- 1.5% Δ_{ATM}	0.930
Total Flow	16.67 SLPM	15.50		16.50
Main Flow	13.67 SLPM	14.02	+/- 1.0 SLPM	14.03
Auxillary Flow	3.0 SLPM	2.580	+/- 0.2 SLPM	2.985
Leak Check - main	0.0	0.10	<0.15 SLPM	0.08
Leak Check - aux	0.0	0.19	<0.15 SLPM	0.09
Ko Factor (w/o filter)	measured	315.524	filter weight (g)	0.11014
Ko Factor (w/ filter)	measured	223.744	% Ko difference	0.9%

Notes: Temperature out 2.4 degrees compared to NIST thermometer. Adjusted.
Leak at blue filter on auxillary flow. New blue filter, connectors and teflon tape.
Cleaned Filter head. Slightly dusty.

Calibration Performed By: Dawn Ewan

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **SO_2**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	September 8, 2005	Previous Calibration	August 18, 2005
Station Number	4	Station Location	Beaverlodge

Reason: [Routine] [Install] [Removal] [Other:]

Start Time (MST)	12:50	End Time (MST)	15:50
Barometric Pressure	0.909 atm	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Make	Scott	Cal Gas Expiry Date	December 12, 2005
Cal Gas Conc.	10.3 ppm	Cal Gas Cylinder #	BLM002816
DACS make	Focus AP1000	DACS serial No.	45271
DACS voltage range	0 - 10 volt	DACS channel #	3
	Before		After
Calculated slope	0.962678	Calculated slope	0.975195
Calculated intercept	0.185709	Calculated intercept	0.233157

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

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	4.12	ppb	2.66	ppb
Coefficient	0.972		0.823	
Lamp Voltage	901.0	Volts	897.0	Volts
Chamber Temp	43.6	Deg C	43.7	Deg C
Sample Flow	608	ccm	618	ccm

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4993	0.00	0.00	0.02	N/A
4993	39.97	81.79	83.72	0.9770
4993	19.96	41.00	41.80	0.9810
4993	10.00	20.59	20.53	1.0026
4993	0.00	0.00	-1.41	As Found Zero
4993	39.97	81.79	93.43	As Found Span
			Average Correction Factor	0.9868

Calculated value of As Found Response: 91.489 ppm Percent Change of As Found: -11.9%

	before calibration		after calibration	
Auto zero	-0.14	ppm	-0.19	ppm
Auto span	33.69	ppm	28.99	ppm

Notes: Adjusted zero and span.

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

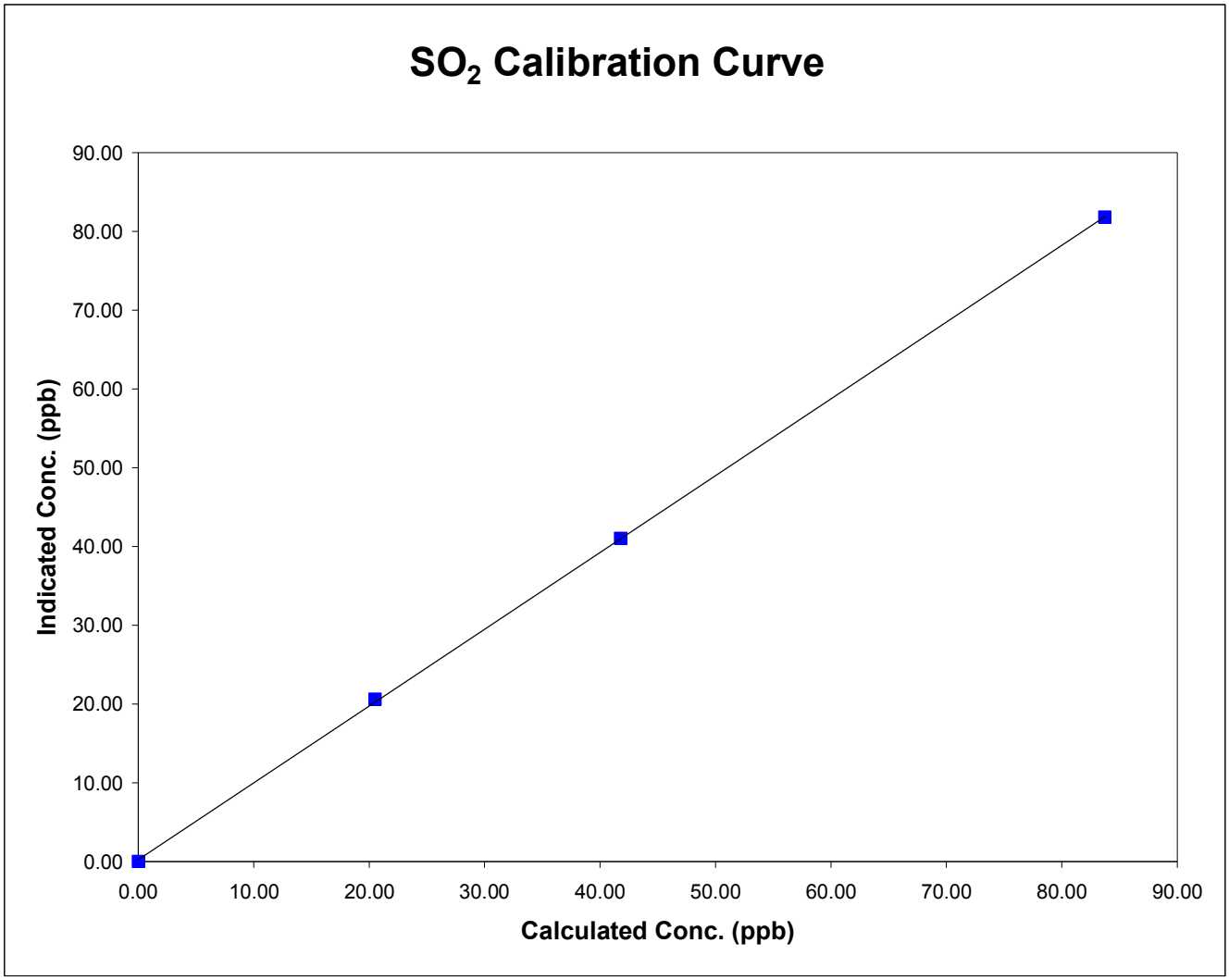
FOCUS AIR QUALITY MONITORING

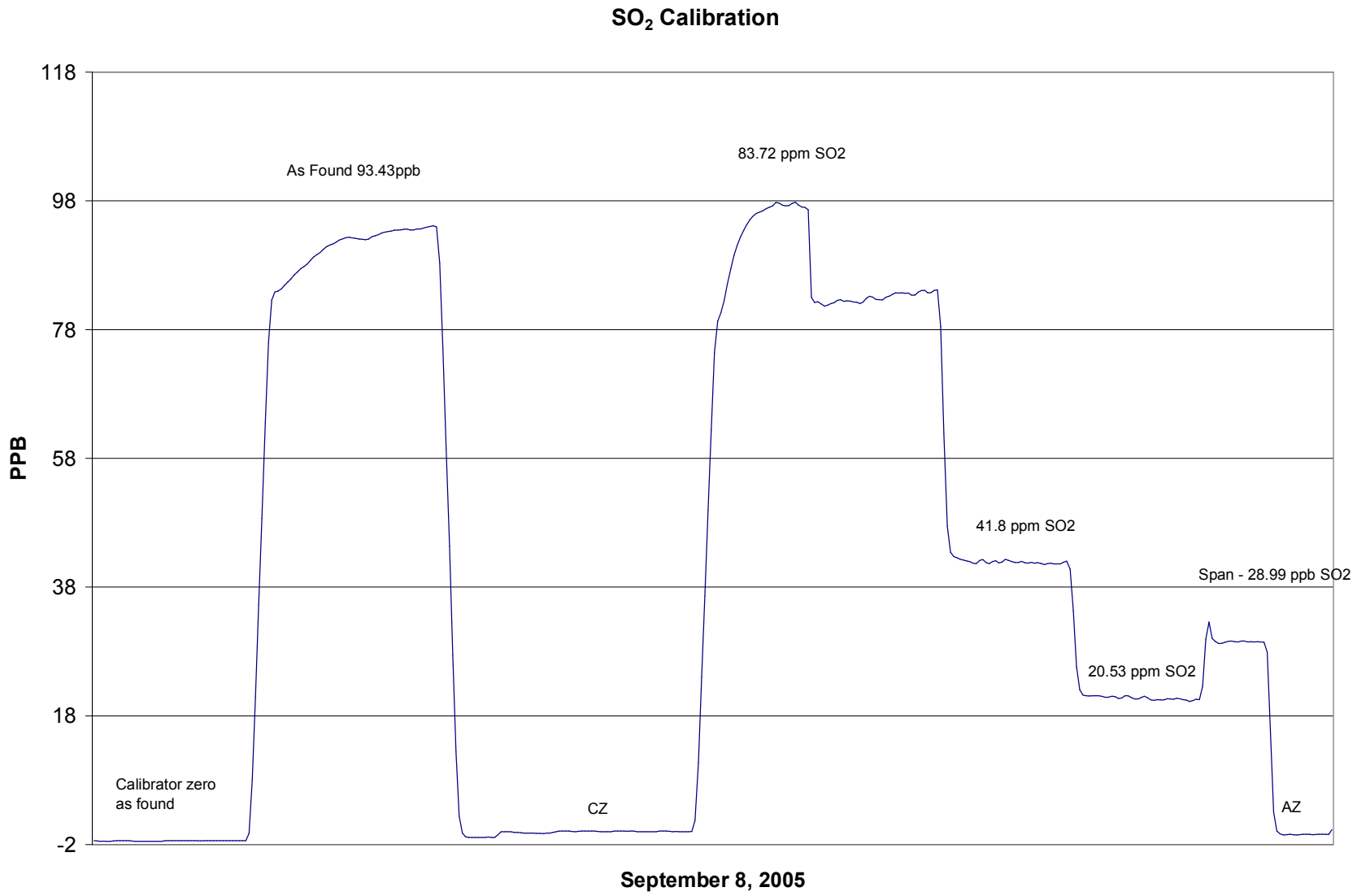
Station Information

Calibration Date	September 8, 2005	Previous Calibration	August 18, 2005
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	12:50	End Time (MST)	15:50
Analyzer make/model	TEI Model 43CTL	Analyzer serial #	43CTL-74200-376

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.020	N/A		
81.795	83.723	0.9770	Correlation Coefficient	0.999951
41.003	41.798	0.9810		
20.588	20.534	1.0026	Slope	0.975195
			Intercept	0.233157




SO2 Calibration
118
98
78
58
38
18
-2
PPB
As Found 93.43ppb
83.72 ppm SO2
41.8 ppm SO2
Span - 28.99 ppb SO2
20.53 ppm SO2
Calibrator zero
as found
CZ
AZ
September 8, 2005

Calibration Report

Parameter **$NOx-NO-NO_2$**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 6, 2005	Previous Calibration	August 19, 2005
Station Number	4	Station Location	Beaverlodge

Reason: Routine | Installation | Removal | Other:

Start Time (MST)	10:00		End Time (MST)	12:40	
Barometric Pressure	0.919	Atm	Station Temperature	20.0	Deg C
Calibrator	Environics 6100		Serial Number	3016	
NO Cal Gas Conc	50.3	ppm	Cal Gas Expiry Date	22-Nov-06	
NOx Cal Gas Conc	50.5	ppm	Cal Gas Serial #	BAL786	

DACS Information

DACS make	FOCUS AP1000	DACS serial No.	45269

Parameter		NO2	NOx	NO
Before	Data Slope	0.977371	0.998362	0.986487
	Data Offset	9.482548	-1.112757	-2.298205
After	Data Slope	0.978050	0.996022	0.993807
	Data Offset	3.026846	1.819193	2.675015
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

Analyzer Information

Analyzer make/model	Teco 42C	Analyzer serial #	508011073

Test Point	before		after	
Concentration range	0-1000	ppb	0-1000	ppb
NO background	1.2	ppb	1.1	mV
NOx background	1.2	ppb	1.2	mV
NO coefficient	1.021		0.922	
NOx coefficient	0.934		1.005	
Chamber Temp	49.4	Deg C	1.0	Deg C
Cooler Temp	-2.1	Deg C	-2.0	Deg C
Converter Temp	324.0	Deg C	323.0	Deg C
Sample flow	813	LPM	835.0	LPM
Pressure	160.7	inches Hg	162.3	inches Hg
Box Temp	30.9	ccm	33.3	ccm

Notes:

Calibration Report

Parameter **NOx-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date: September 6, 2005 Station Location: Beaverlodge

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	2496	0.00	0.0	0.0	0.0	-0.3	-0.4	-0.4	N/A	N/A
1	2496	39.97	795.9	792.8	3.2	798.3	796.3	1.1	0.9970	0.9956
2	2496	19.98	401.0	399.4	1.6	399.3	397.8	0.8	1.0042	1.0041
3	2496	9.99	201.3	200.5	0.8	199.2	197.0	1.7	1.0106	1.0181
AFZ	2496	0.00	0.0	0.0	0.0	-0.3	-0.4	-0.4	0.0000	0.0000
AFS	2496	39.97	795.9	792.8	3.2	810.1	845.7	-23.4	0.9826	0.9375
							Average Correction Factor		1.0040	1.0059

As Found Concentrations: NO_X= 809.2 NO= 843.8 As Found Percent Change NO_X= 1.7% NO= 6.4%

GPT Calibration Data

Dilution Flow 4993 ccm Source Gas Flow 39.97 ccm

O3 Setpoint (ppb)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A	N/A
NO point	785.3	770.0	15.4	778.4	772.1	5.5	1.0089	0.9973	N/A	N/A
350	785.3	537.1	248.3	789.4	537.7	251.0	0.9949	0.9988	0.9890	101.1%
200	785.3	643.6	141.8	789.0	644.9	143.7	0.9954	0.9980	0.9869	101.3%
100	785.3	710.6	74.7	781.6	712.3	68.6	1.0048	0.9976	1.0901	91.7%
					Average Correction Factor		0.9984	0.9981	1.0220	98.1%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	1.1	1.0	1.1	ppb	1.5	2.6	2.3	ppb
Auto span	236.4	1.9	239.6	ppb	434.4	8.2	NA	ppb

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PASZA**

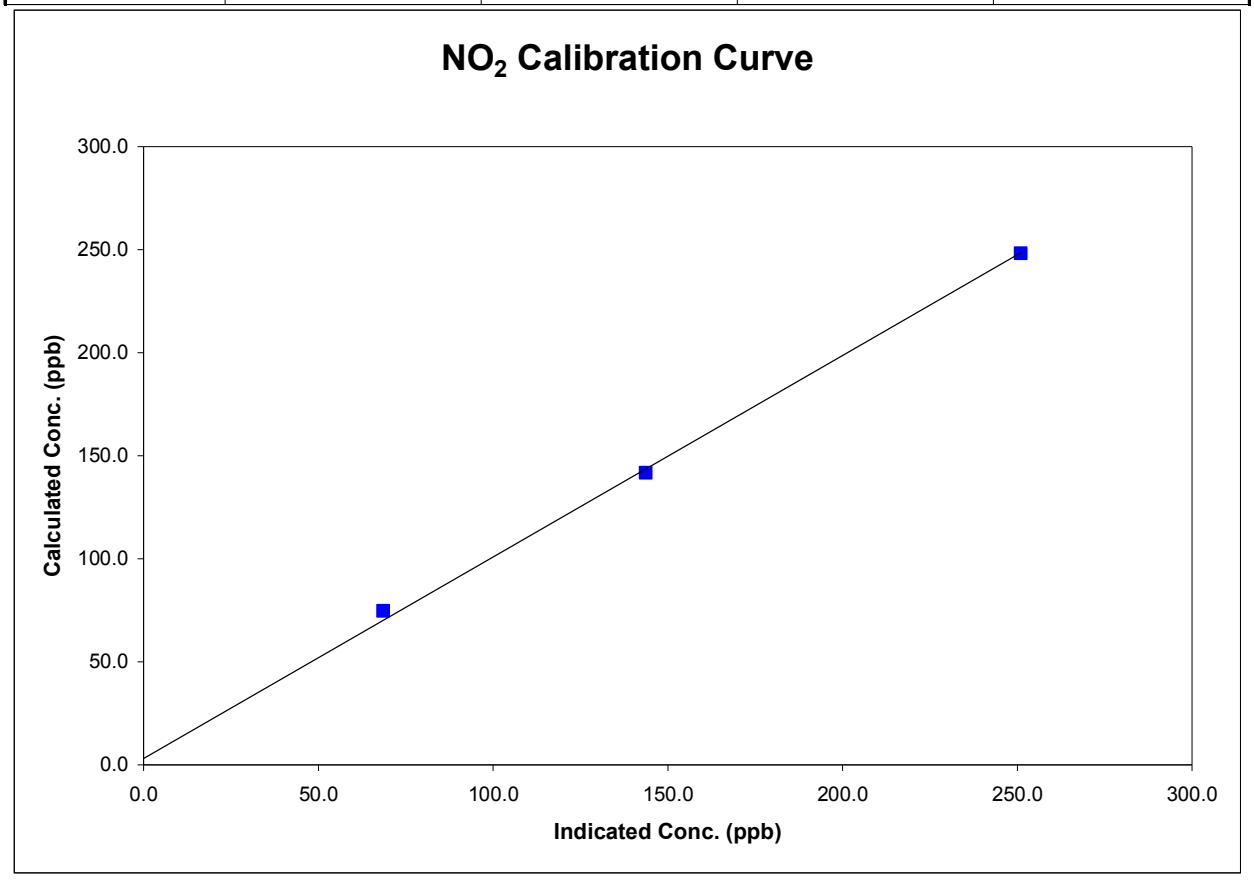
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 6, 2005	Previous Calibration	August 19, 2005
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:00	End Time (MST)	12:40
Analyzer make	Teco 42C	Analyzer serial #	508011073

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	0.0000		
248.3	251.0	0.9890	Correlation Coefficient	0.999047
141.8	143.7	0.9869		
74.7	68.6	1.0901	Slope	0.978050
			Intercept	3.026846



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PASZA**

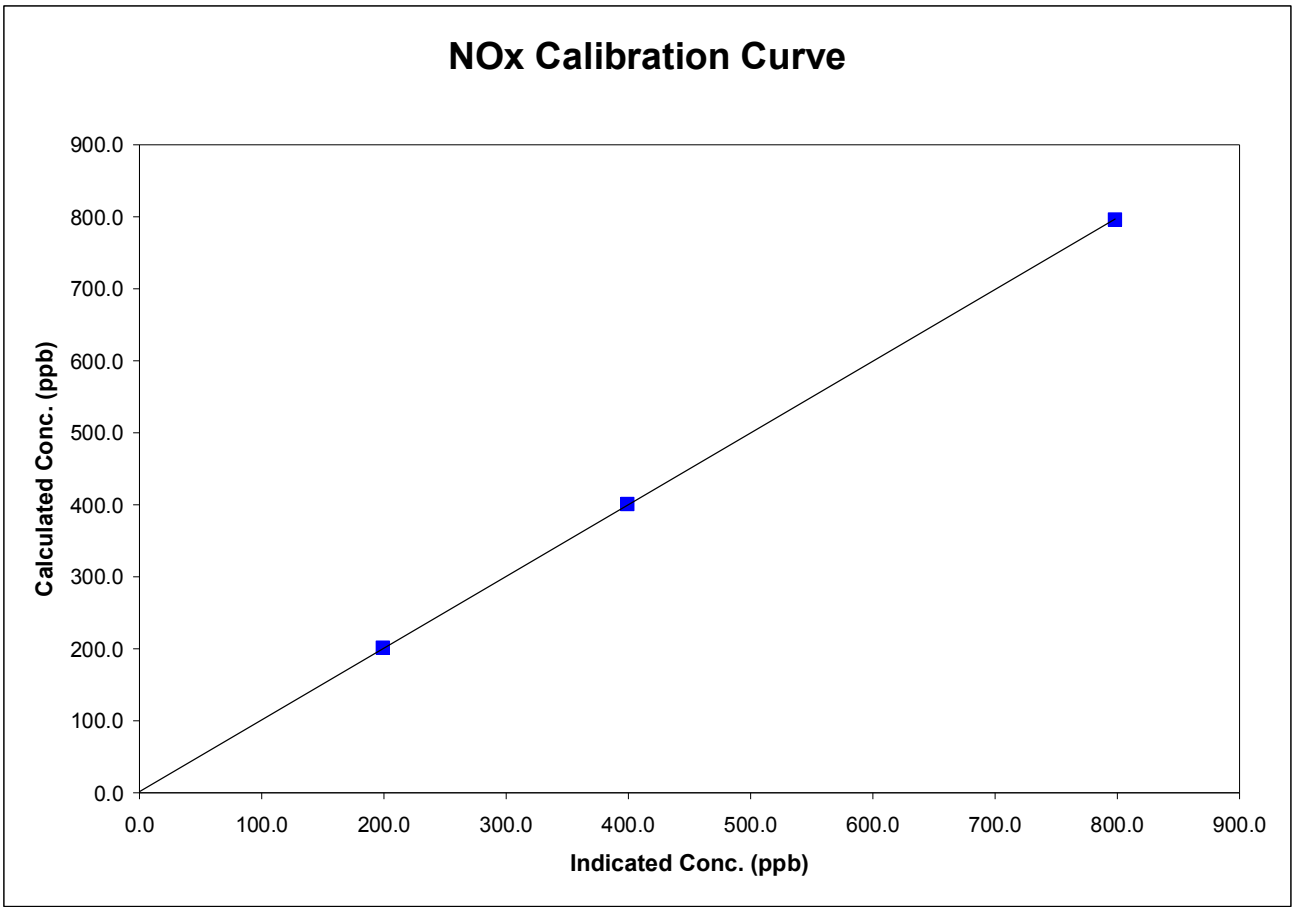
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 6, 2005	Previous Calibration	August 19, 2005
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:00	End Time (MST)	12:40
Analyzer make	Teco 42C	Analyzer serial #	508011073

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.3	0.0000		
795.9	798.3	0.9970	Correlation Coefficient	0.999981
401.0	399.3	1.0042		
201.3	199.2	1.0106	Slope	0.996022
			Intercept	1.819193



Calibration Summary

Parameter **NO**

Air Monitoring Network **PASZA**

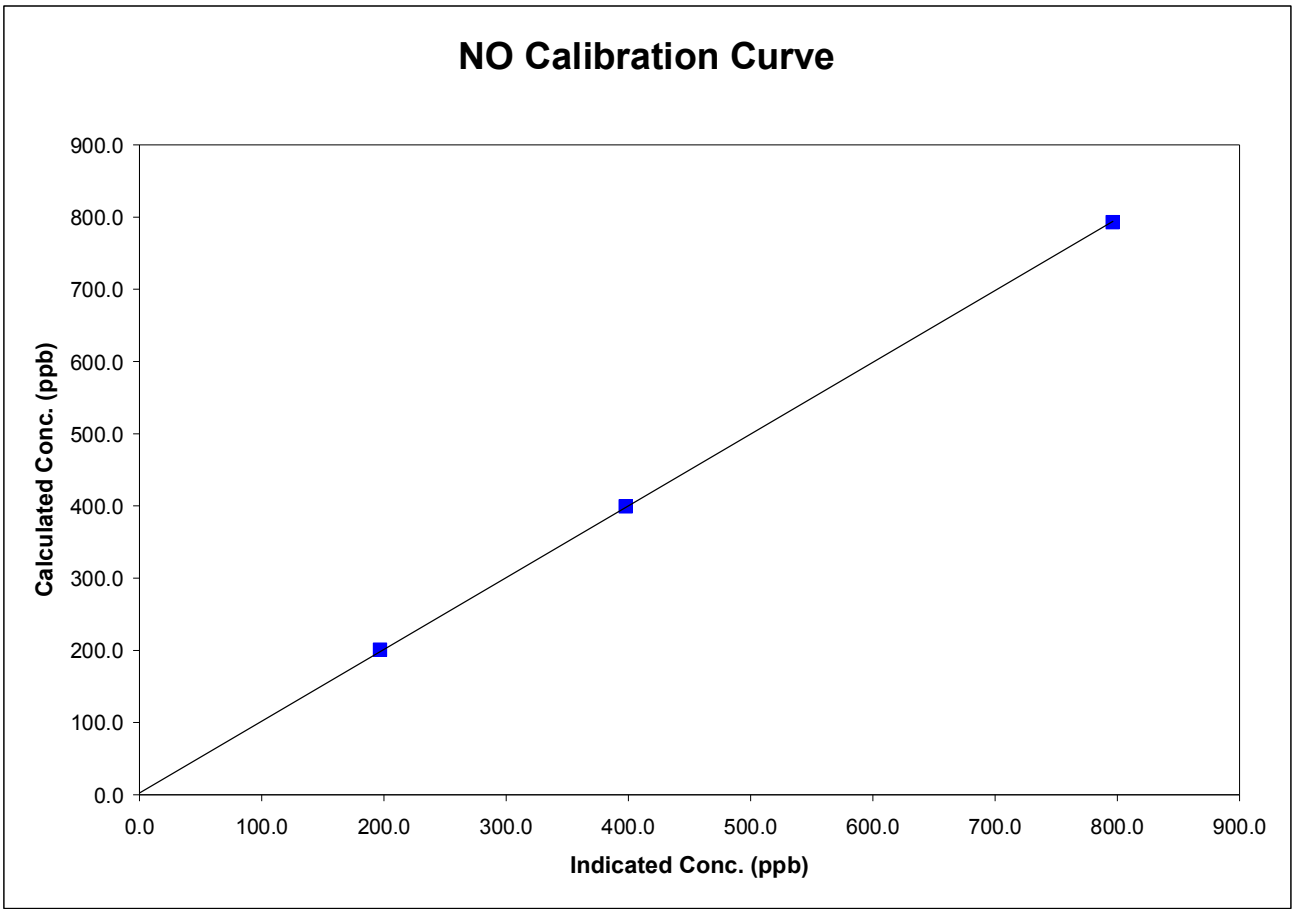
FOCUS AIR QUALITY MONITORING

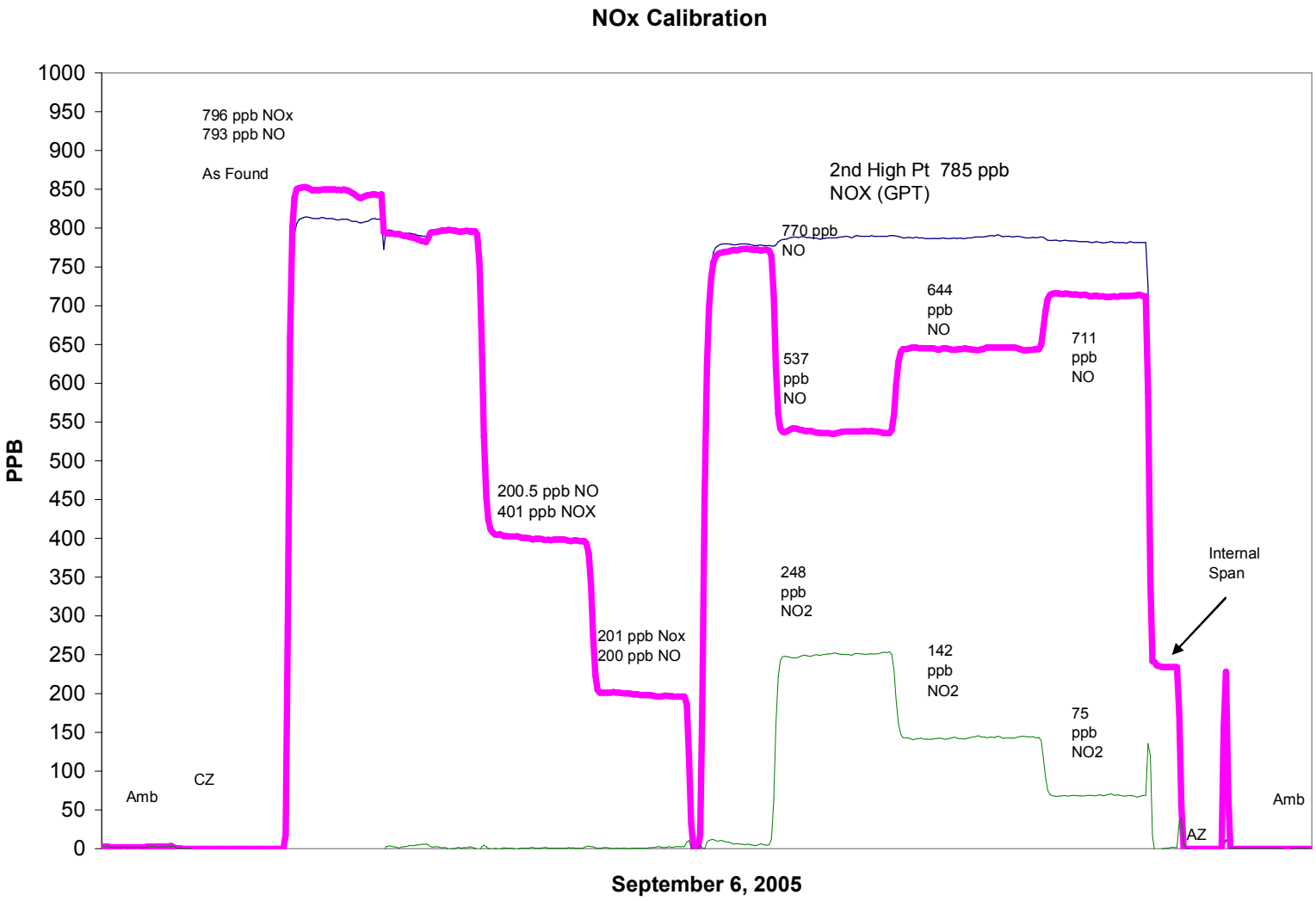
Station Information

Calibration Date	September 6, 2005	Previous Calibration	August 19, 2005
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:00	End Time (MST)	12:40
Analyzer make	Teco 42C	Analyzer serial #	508011073

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	N/A		
792.8	796.3	0.9956	Correlation Coefficient	0.999962
399.4	397.8	1.0041		
200.5	197.0	1.0181	Slope	0.993807
			Intercept	2.675015




NOx Calibration
PPB
1000
950
900
850
800
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
796 ppb NOx
793 ppb NO
As Found
2nd High Pt 785 ppb
NOX (GPT)
770 ppb
NO
644
ppb
NO
537
ppb
NO
711
ppb
NO
200.5 ppb NO
401 ppb NOX
201 ppb Nox
200 ppb NO
248
ppb
NO2
142
ppb
NO2
75
ppb
NO2
Internal
Span
Amb
CZ
AZ
Amb
September 6, 2005

Calibration Report

Parameter **NOx-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 13, 2005	Previous Calibration	September 6, 2005
Station Number	4	Station Location	Beaverlodge

Reason: Routine | Installation | Removal | Other:

Start Time (MST)	10:00		End Time (MST)	13:49	
Barometric Pressure	0.909	Atm	Station Temperature	20.0	Deg C
Calibrator	Environics 6100		Serial Number	3016	
NO Cal Gas Conc	50.3	ppm	Cal Gas Expiry Date	Nov 22/06	
NOx Cal Gas Conc	50.5	ppm	Cal Gas Serial #	BAL786	

DACS Information

DACS make	FOCUS AP1000	DACS serial No.	45269

Parameter		NO2	NOx	NO
Before	Data Slope	0.978114	0.996406	0.994289
	Data Offset	3.028088	1.785636	2.599939
After	Data Slope	1.003398	0.996968	0.993118
	Data Offset	0.227139	-1.251831	-0.511573
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

Analyzer Information

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

Test Point	before		after	
Concentration range	0-1000	ppb	0-1000	ppb
NO background	1.1	ppb	1.1	mV
NOx background	1.2	ppb	1.2	mV
NO coefficient	0.922		0.922	
NOx coefficient	1.005		1.005	
Chamber Temp	1.0	Deg C	1.0	Deg C
Cooler Temp	-2.0	Deg C	-2.0	Deg C
Converter Temp	323.0	Deg C	323.0	Deg C
Sample Flow	835.0	LPM	835.0	LPM
Pressure	162.3	inches HG	162.3	inches HG
Box Temp	33.3	ccm	33.3	ccm

Notes: Span Adjustment made.

Note: No computer to view data incoming so points may be +/- 20 min.

Calibration Report

Parameter **NOx-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date: September 13, 2005 Station Location: Beaverlodge

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4993	0.00	0.0	0.0	0.0	-0.4	-0.4	-0.4	N/A	N/A
1	4993	79.98	796.2	793.0	3.2	798.6	798.2	-0.6	0.9970	0.9935
2	4993	39.97	401.1	399.5	1.6	405.7	404.2	0.8	0.9886	0.9883
3	4993	19.98	201.3	200.5	0.8	204.0	202.7	0.9	0.9869	0.9892
AFZ	4993	0.00	0.0	0.0	0.0	-0.4	-0.4	-0.4	0.0000	0.0000
AFS	4993	79.98	796.2	793.0	3.2	778.3	739.6	38.0	1.0229	1.0723
							Average Correction Factor		0.9908	0.9903

As Found Concentrations: NO_X= 780.5 NO= 742.6 As Found Percent Change NO_X= -2.0% NO= -6.4%

GPT Calibration Data

Dilution Flow 4993 ccm Source Gas Flow 39.97 ccm

O3 Setpoint (ppb)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A	N/A
NO point	798.4	799.7	-1.3	801.6	805.7	-5.1	0.9959	0.9925	N/A	N/A
350	798.4	460.4	338.0	801.1	464.1	336.4	0.9967	0.9920	1.0048	99.5%
200	798.4	612.9	185.5	803.1	617.7	185.1	0.9942	0.9923	1.0021	99.8%
100										
					Average Correction Factor		0.9954	0.9922	1.0035	99.7%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.2	0.2	-0.2	ppb	-1.6	-0.2	-0.9	ppb
Auto span	404.9	407.6	2.2	ppb	334.0	NA	4.9	ppb

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PASZA**

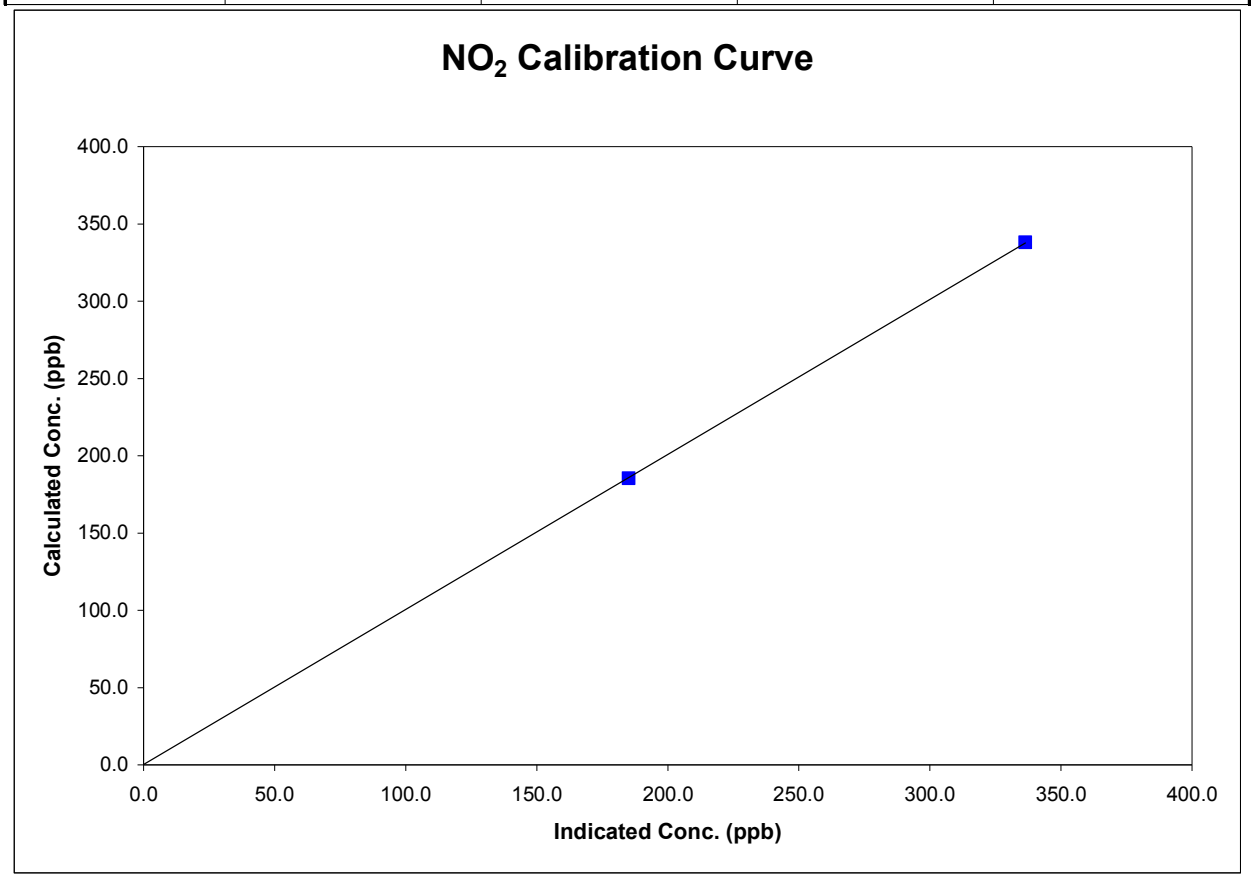
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 13, 2005	Previous Calibration	September 6, 2005
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:00	End Time (MST)	13:49
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	0.0000		
338.0	336.4	1.0048	Correlation Coefficient	0.999994
185.5	185.1	1.0021		
			Slope	1.003398
			Intercept	0.227139



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PASZA**

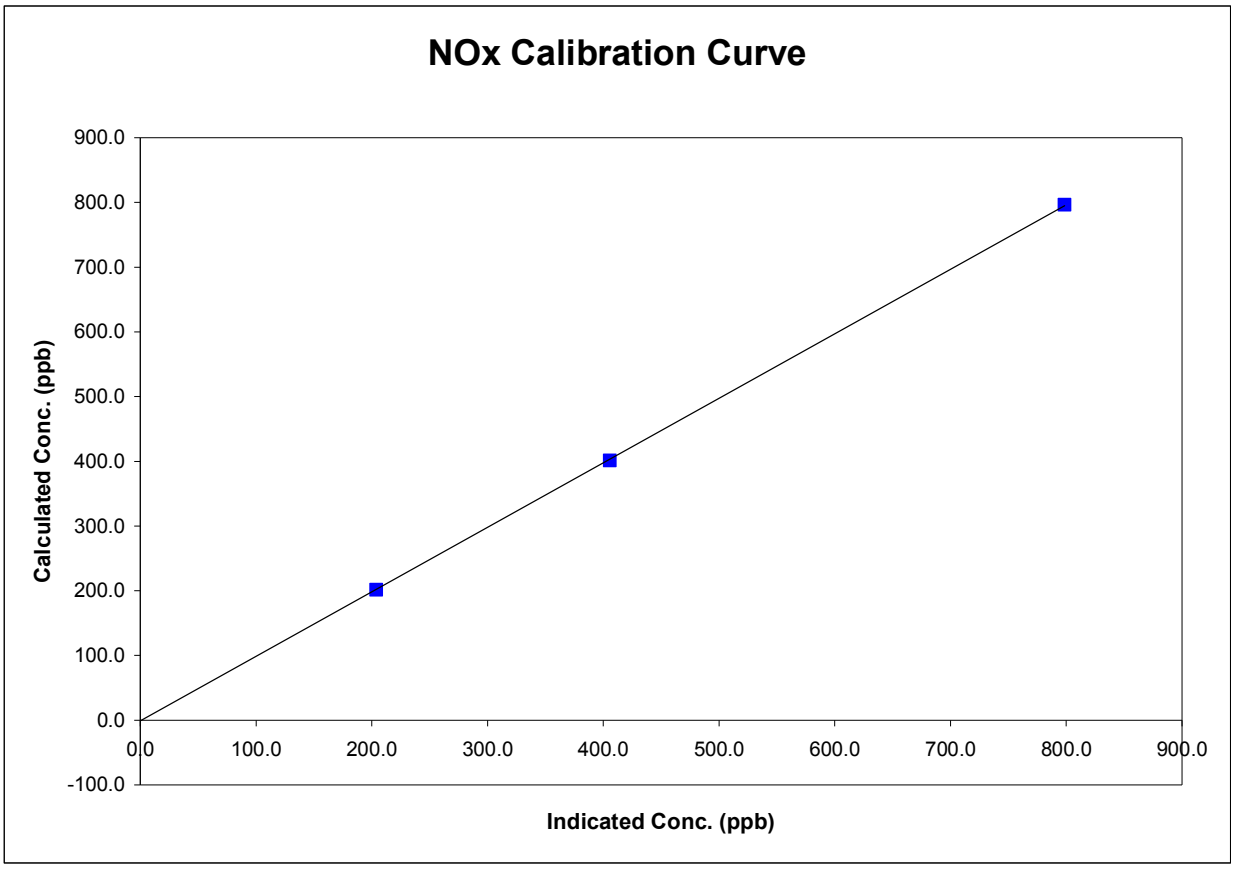
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 13, 2005	Previous Calibration	September 6, 2005
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:00	End Time (MST)	13:49
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	0.0000		
796.2	798.6	0.9970	Correlation Coefficient	0.999972
401.1	405.7	0.9886		
201.3	204.0	0.9869	Slope	0.996968
			Intercept	-1.251831



Calibration Summary

Parameter **NO**

Air Monitoring Network **PASZA**

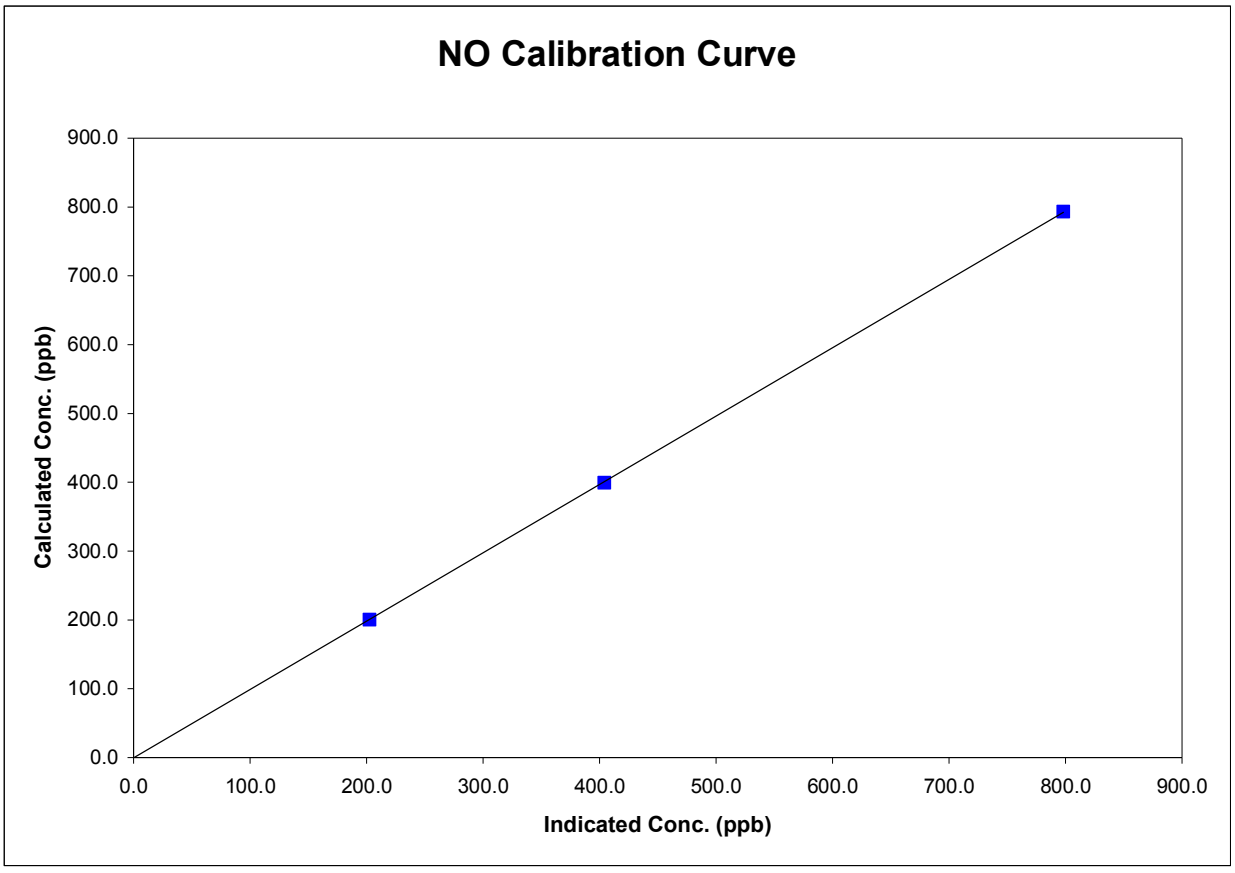
FOCUS AIR QUALITY MONITORING

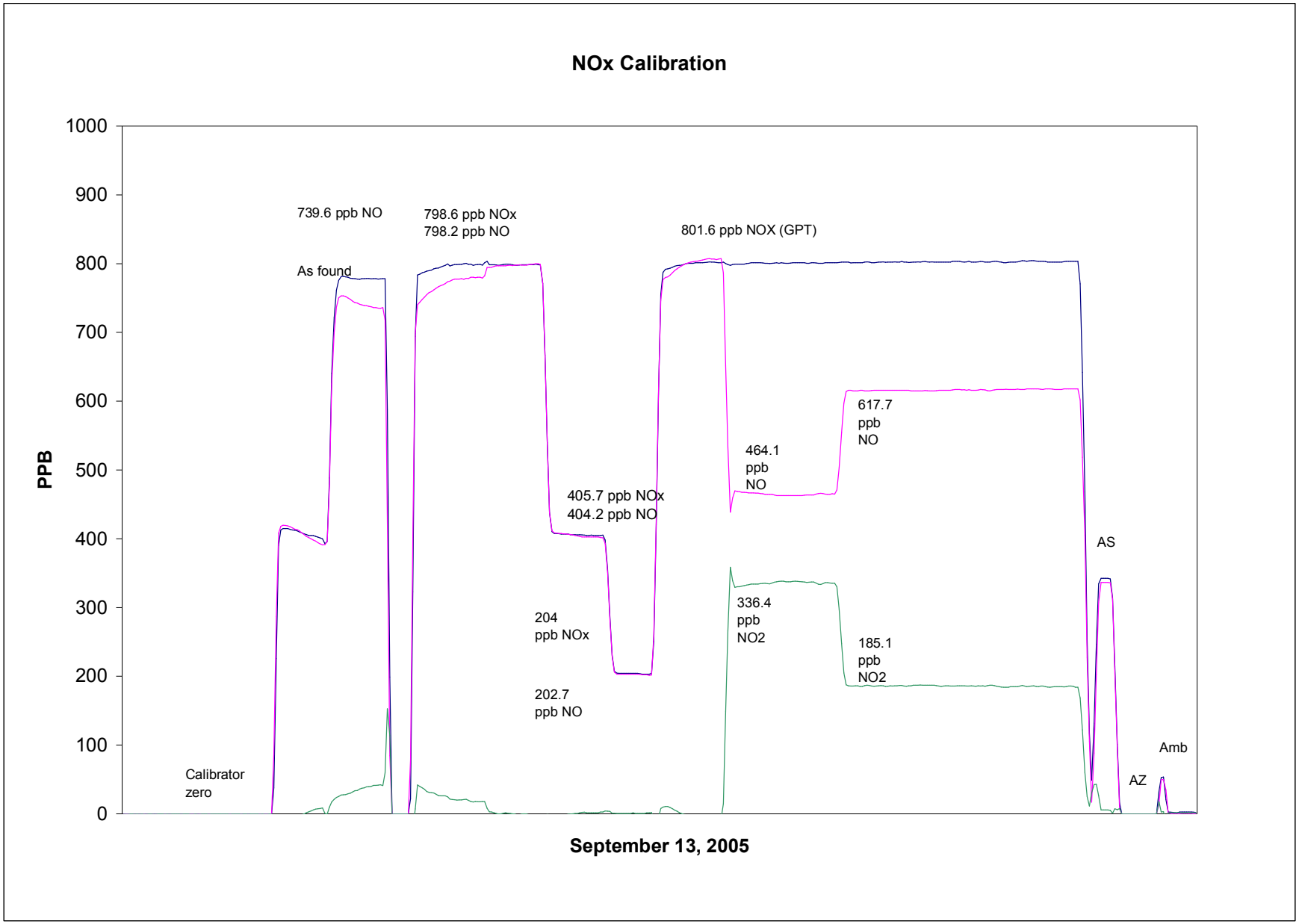
Station Information

Calibration Date	September 13, 2005	Previous Calibration	September 6, 2005
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:00	End Time (MST)	13:49
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	N/A		
793.0	798.2	0.9935	Correlation Coefficient	0.999989
399.5	404.2	0.9883		
200.5	202.7	0.9892	Slope	0.993118
			Intercept	-0.511573




NOx Calibration
1000
900
800
700
600
500
400
300
200
100
0
PPB
739.6 ppb NO
As found
798.6 ppb NOx
798.2 ppb NO
801.6 ppb NOX (GPT)
405.7 ppb NOx
404.2 ppb NO
204
ppb NOx
202.7
ppb NO
464.1
ppb
NO
617.7
ppb
NO
336.4
ppb
NO2
185.1
ppb
NO2
AS
AZ
Amb
Calibrator
zero
September 13, 2005

Calibration Report

Parameter **O3**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 8, 2005	Previous Calibration	August 19, 2005
Station Number	4	Station Location	Beaverlodge

Reason: [Routine] [Install] [Removal] [Other:]

Start Time (MST)	10:13	End Time (MST)	12:50
Barometric Pressure	0.909 atm	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	45269
DACS voltage range	0 - 1 volt	DACS channel #	5
	Before		After
Calculated slope	1.000689	Calculated slope	0.997744
Calculated intercept	0.243984	Calculated intercept	2.592880
Analyzer make	API Model 400	Analyzer serial #	383

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.1	ppb	-0.1	ppb
slope	1.19		1.075	
Lamp temp	71	mV	71	mV
Lamp Intensity A/B	92000/90000	mV	91500/89500	mV
Pressure	681.1	inches Hg	648.7	inches Hg
Flow A	0.714	ccm	0.717	ccm
Flow B	0.674	Deg C	0.678	Deg C

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4993	0.00	0.0	-0.2	N/A
4993	0.00	289.2	290.4	0.9957
4993	0.00	197.6	191.4	1.0326
4993	0.00	98.3	94.4	1.0415
4993	0.00	0.0	-0.2	As found zero
4993	0.00	289.2	320.0	As found span
			Average Correction Factor	1.0233

Calculated value of As Found Response: 320.7 ppm Percent Change of As Found: 10.9%

	before calibration		after calibration	
Auto zero	-0.2	ppb	2.4	ppb
Auto span	143.8	ppb	121.8	ppb

Notes:

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **O3**

Air Monitoring Network **PASZA**

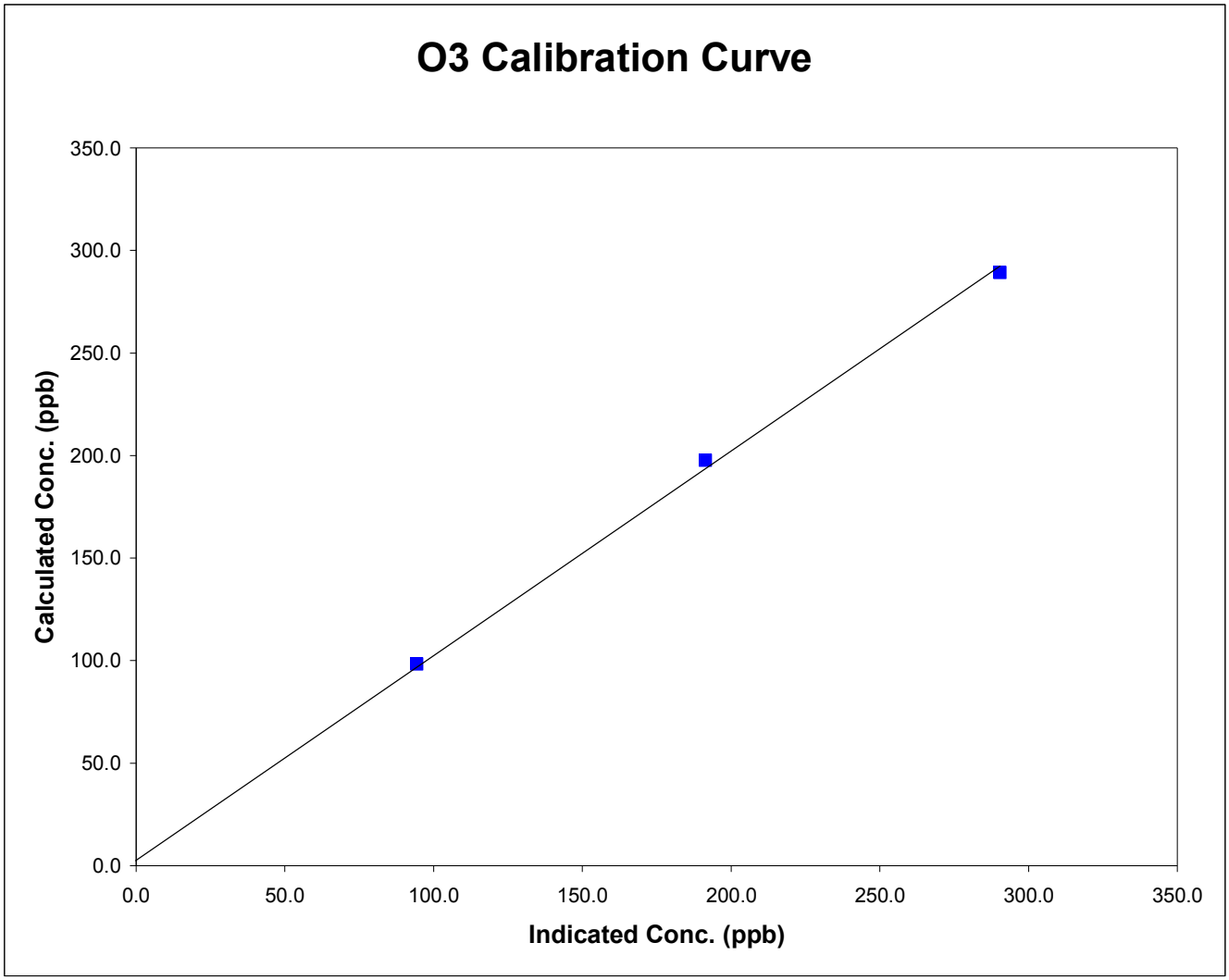
FOCUS AIR QUALITY MONITORING

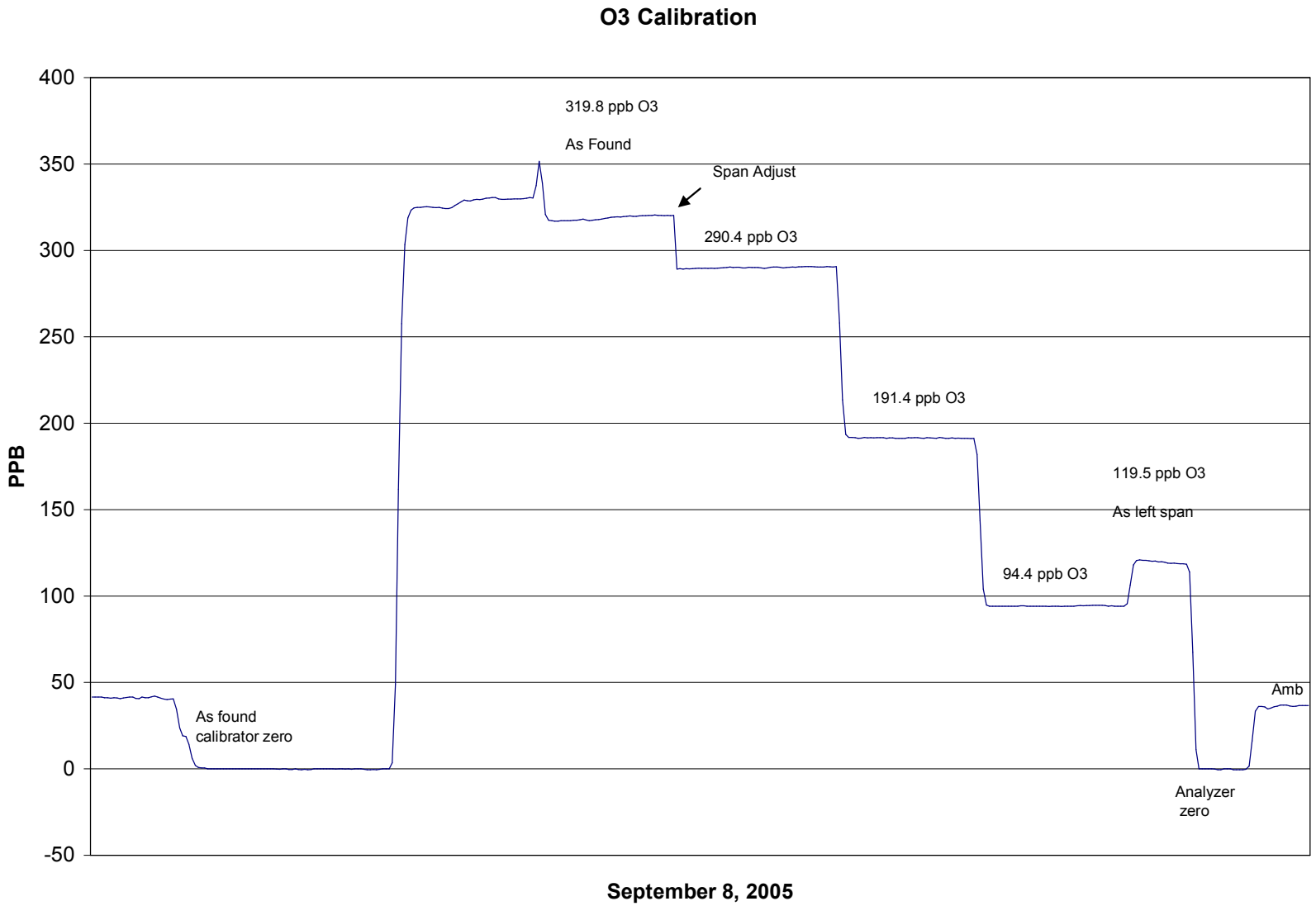
Station Information

Calibration Date	September 8, 2005	Previous Calibration	August 19, 2005
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:13	End Time (MST)	12:50
Analyzer make/model	API Model 400	Analyzer serial #	383

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	NA		
289.2	290.4	0.9957	Correlation Coefficient	0.999249
197.6	191.4	1.0326		
98.3	94.4	1.0415	Slope	0.997744
			Intercept	2.592880




O3 Calibration
400
350
300
250
200
150
100
50
0
-50
PPB
319.8 ppb O3
As Found
Span Adjust
290.4 ppb O3
191.4 ppb O3
119.5 ppb O3
As left span
94.4 ppb O3
Amb
As found
calibrator zero
Analyzer
zero
September 8, 2005

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **PM2.5**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	September 8, 2005	Previous Calibration	August 19, 2005
Station Number	4	Station Location	Beaverlodge

Reason: [Routine] [Install] [Removal] [Other:]

Start Time (MST)	13:48	End Time (MST)	15:30
Barometric Pressure	0.909 ATM	Station Temperature	20.0 Deg C
Flow Calibrator	BIOS Drycal DCL-MH	Serial Number	101780
DACS make	AP 1000	DACS serial No.	45269
DACS voltage range	0 - 1 V	DACS channel #	10

Analyzer Information

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

	before		after	
Main Flow Set Point	3.000	SLPM	2.990	SLPM
Aux Flow Set Point	13.68	SLPM	16.67	SLPM
Filter Load	42	%	17	%
Ko Factor	14287		14287	
Temperature	18.2	Deg C	17.2	Deg C
Pressure	0.915	ATM	0.930	ATM

Calibration Data

Parameter	Set Point	Indicated Reading (measured externally)	Tolerance	TEOM Reading
zero flow - main	0.0	0.00		0.01
zero flow - auxillary	0.0	0.00		0.02
flow recovery - main	45 - 60 Seconds	na	45 - 60 Seconds	22
flow recovery - aux	46 - 60 Seconds	na	46 - 60 Seconds	44
Temperature	measured	17.4	+/- 1.0 Deg C	17.2
Pressure	measured	0.909	+/- 1.5% Δ_{ATM}	0.910
Total Flow	16.67 SLPM	16.23		
Main Flow	13.67 SLPM	13.70	+/- 1.0 SLPM	13.67
Auxillary Flow	3.0 SLPM	3.030	+/- 0.2 SLPM	3.000
Leak Check - main	0.0	0.00	<0.15 SLPM	-0.06
Leak Check - aux	0.0	0.00	<0.15 SLPM	0.02
Ko Factor (w/o filter)	measured		filter weight (g)	
Ko Factor (w/ filter)	measured		% Ko difference	N/A

Notes: TEOM Head clean. Installed new filter.
Adjusted Temp and pressure
Installed quick connect above sensor unit

Calibration Performed By: Dawn Ewan