



Palliser Airshed Society

Ambient Air Monitoring Network Summary

April 2005

Prepared By:
FOCUS
AIR QUALITY MONITORING

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

Attention: Director of Monitoring and Evaluation

RE: Palliser Airshed Society (PAS) Ambient Air Monitoring Report – April 2005

Enclosed is the PAS Ambient Monitoring Report for the month of **April 2005**.

Please note that this report has been prepared in partial fulfillment of the City of Medicine Hat's air monitoring requirement as well as all members of the Palliser Airshed Society.

Continuous Monitoring – Crescent Heights

Included in this report are; monthly sampling table, detailed hourly average reports and multipoint calibration reports of all instruments. The measured ambient air quality was within the Provincial and Federal guidelines with no exceedences recorded. Operational time of all instruments was above 95% uptime for the month of April. There were no significant events leading to emergency response for the month of April.

The following is a summary of the monthly averages recorded during sampling:

- Monthly average concentrations of NO₂ was 6.8 ppb
- Monthly average concentrations for O₃ was 32.8 ppb
- Monthly average concentrations for THC was 1.96 ppm
- Monthly average concentrations for CO was 0.24 ppm
- Monthly average concentrations for PM_{2.5} was 2.7 µg/m³

Passive Monitoring – Six Stations throughout the PAS zone:

The following are the ranges for April 2005 recorded by the six passive stations located throughout the PAS zone:

- Monthly average concentrations for SO₂ passives ranged from 0.5 ppb to 0.7 ppb
- Monthly average concentrations for NO₂ passives ranged from 5.4 ppb to 9.5 ppb
- Monthly average concentrations for O₃ passives ranged from 19.1 ppb to 27.4 ppb

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

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AQM Technical Manager

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April 2005 Monthly Overall Summary Report

Ambient Air Quality Data

Apr-2005		Palliser Airshed Society					Maximum Recorded Values						Operational Time (%)
Pollutant (units)	Guidelines		Station	Monthly Average	Exceedence		1-hr				24-hr		
	1-hr	24-hr			1-hr	24-hr	Conc	Day	WSPD (km/hr)	WDIR (Sector)	Conc	Day	
NO (ppb)			Crescent Heights	2.5	0	0	66.0	Apr-25	2.1	SW	10.1	Apr-25	99.9%
NO ₂ (ppb)	212	106	Crescent Heights	6.8	0	0	33.7	Apr-06	4.0	SSE	12.4	Apr-25	99.9%
NO _x (ppb)			Crescent Heights	9.1	0	0	89.3	Apr-25	2.1	SW	22.3	Apr-25	99.9%
O ₃ (ppb)	82		Crescent Heights	32.8	0	0	58.2	Apr-05	13.8	WSW	40.4	Apr-26	100.0%
CO (ppm)	13		Crescent Heights	0.24	0	0	1.20	Apr-11	1.7	S	0.35	Apr-30	99.7%
THC (ppm)			Crescent Heights	1.96	0	0	2.96	Apr-25	1.0	Calm	2.16	Apr-05	100.0%
PM _{2.5} (µg/m ³)		30 ^a	Crescent Heights	2.7	0	0	21.4	Apr-20	1.6	N	5.1	Apr-05	95.8%
RH (%)			Crescent Heights	51.0									100.0%
SR (W/m ²)			Crescent Heights	201.0									100.0%
Temp (°C)			Crescent Heights	8.7									100.0%
WSPD v (km/hr)			Crescent Heights	4.5									100.0%
WSPD s (km/hr)			Crescent Heights	12.1									100.0%
WDIR (Deg)			Crescent Heights	WNW*									100.0%

Note: ^a the 24-hr Canada Wide Standard level is considered as an absolute value

* Wind Direction is the predominate direction for the Month



Continuous Monitoring

Ambient Air Monitoring Network

Crescent Heights Station

General Station Issues

No general issues to report

Parameter	Make	Model	Units	Notes
Ozone	Teledyne - API	400E	ppb	No operational problems observed
Nitrogen Dioxide	Teledyne - API	200E	ppb	No operational problems observed
Total Hydrocarbons	Bendix	400A	ppm	No operational problems observed
Carbon Monoxide	TEI	49C	ppm	The analyzer was installed late in March. Due to routine maintenance during the monthly calibration operational time dropped to 99.7%
PM 2.5	R&P TEOM	1400ab	$\mu\text{g}/\text{m}^3$	Intermittent flow problems resulted in 28 hours of excessive drift from April 25 to 28. The filter was changed on the 28, and all systems checked. All parameters were within specifications.
Wind Speed	Met One	010C	kph	No operational problems observed
Wind Direction	Met One	020C	Deg	No operational problems observed
Ambient Temperature	Met One	083D	DegC	No operational problems observed
Relative Humidity	Met One	083D	%	No operational problems observed
Solar Radiation	Met One	096-1	W/m^2	Slight baseline drift indicates a value of -1 during the night time periods.
Data Acquisition System	Titan Logix	AP1000		No operational problems observed



PAS - Crescent Heights Oxides of Nitrogen Monthly Summary

Station: Crescent Heights

HOURLY AVERAGE TABLE

Nitrogen Dioxide (NO₂)

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	34 ppb 6-Apr 21:00 22:00
Maximum 24-hr Average:	12 ppb 25-Apr

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

AIC Time:	33 hrs	Operational Time:	682 hrs					
Calibration Time:	4 hrs	AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	Average
	27	20	9	5	3	1	0	6.8 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	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Apr-05	4	6	7	4	3	3	3	4	4	3	2	2	4	5	A	8	5	2	4	3	3	2	2	3	3.8	8.0
2-Apr-05	10	7	2	3	5	8	17	5	4	2	2	6	2	A	5	4	4	4	7	7	5	17	11	3	6.0	17.4
3-Apr-05	8	6	8	9	6	12	18	17	4	1	0	0	A	4	4	3	1	1	1	1	2	4	2	1	5.0	18.3
4-Apr-05	7	11	4	5	5	6	10	9	4	5	2	A	5	4	3	3	3	3	5	10	20	17	8	13	7.0	19.8
5-Apr-05	12	9	13	7	9	12	10	15	9	4	A	C	C	C	C	A	M	5	8	16	A	17	9	7	N	17.0
6-Apr-05	9	6	A	7	9	12	22	19	7	5	6	4	2	3	3	8	9	7	15	17	26	34	27	12	11.7	33.7
7-Apr-05	22	A	17	13	11	13	17	14	15	11	8	4	5	2	3	3	3	6	27	25	17	8	15	20	12.2	26.9
8-Apr-05	A	9	5	6	6	10	15	21	6	3	6	7	4	6	5	12	7	10	17	14	10	10	10	A	9.1	21.0
9-Apr-05	9	7	4	4	5	12	9	15	6	5	6	3	2	2	1	3	3	4	4	5	11	12	A	7	6.0	14.8
10-Apr-05	7	6	7	4	5	6	5	4	4	5	3	2	3	2	2	2	2	2	5	11	14	A	28	15	6.2	27.5
11-Apr-05	17	20	20	19	24	23	22	29	10	2	2	3	3	4	3	5	4	4	5	26	A	12	5	7	11.7	29.4
12-Apr-05	7	9	9	5	11	24	22	20	7	5	1	0	0	1	6	8	8	3	5	A	11	4	4	5	7.5	23.8
13-Apr-05	9	13	7	12	16	20	22	26	18	7	7	2	2	2	2	1	2	3	A	7	6	6	12	7	9.1	25.9
14-Apr-05	2	11	4	2	6	7	2	3	2	3	3	3	5	6	8	6	4	A	12	11	9	6	10	4	5.7	12.5
15-Apr-05	3	2	2	1	1	2	3	4	3	5	8	5	2	3	4	6	A	6	5	6	6	5	5	3	3.9	7.8
16-Apr-05	3	3	5	3	10	6	10	14	3	1	1	2	1	1	1	A	6	4	4	9	13	9	6	10	5.5	14.3
17-Apr-05	7	4	4	3	4	7	6	9	9	6	3	2	4	2	A	5	3	2	2	3	4	4	4	3	4.4	9.3
18-Apr-05	6	6	5	4	11	17	21	16	3	3	2	2	1	A	5	2	2	2	2	4	12	11	6	6	6.5	21.3
19-Apr-05	7	11	15	22	11	14	13	13	15	10	1	0	A	3	2	1	1	1	1	4	6	11	7	12	7.9	22.3
20-Apr-05	12	20	12	17	20	28	18	19	21	15	6	A	4	2	2	1	1	2	9	14	4	3	2	5	10.3	27.5
21-Apr-05	3	4	3	4	10	8	9	6	4	4	A	7	3	3	3	2	2	1	3	3	3	7	9	4	4.6	10.5
22-Apr-05	7	11	11	8	16	18	11	11	4	A	6	3	2	3	3	4	3	4	6	13	11	4	12	7	7.6	17.9
23-Apr-05	3	4	6	6	1	1	3	2	A	4	2	1	1	1	1	1	1	1	1	3	4	5	16	21	3.8	20.5
24-Apr-05	10	17	29	21	10	13	14	A	9	4	1	1	0	0	0	1	1	1	1	2	5	10	9	24	8.0	28.9
25-Apr-05	29	25	24	24	21	20	A	23	24	11	5	2	3	3	4	3	3	2	4	8	10	13	16	8	12.4	29.3
26-Apr-05	7	6	7	7	3	A	8	4	2	3	2	2	1	1	2	2	4	4	2	2	1	1	3	1	3.3	8.0
27-Apr-05	4	3	1	2	A	5	4	3	2	1	2	2	2	3	2	2	2	2	2	3	3	2	5	8	2.7	7.8
28-Apr-05	20	11	8	A	7	7	8	4	2	2	4	2	3	3	2	3	3	4	4	6	5	10	6	5	5.7	19.9
29-Apr-05	2	2	A	16	15	14	14	7	3	3	3	2	3	4	3	4	4	5	5	4	4	2	4	2	5.4	16.0
30-Apr-05	2	A	5	3	2	3	3	2	2	2	2	2	2	2	3	3	2	3	3	3	4	3	2	2	2.6	5.5
																									N	0.0
Hourly Avg	8.5	8.9	8.7	8.3	9.0	11.4	11.7	11.7	7.1	4.7	3.5	2.6	2.6	2.8	3.1	3.7	3.2	3.2	5.9	8.3	8.1	8.6	8.9	7.8		
Hourly Max	29.3	25.5	28.9	23.6	23.6	27.5	21.9	29.4	24.4	15.1	8.2	7.1	5.3	6.4	8.1	11.7	9.0	9.6	26.9	25.8	25.7	33.7	27.5	23.7		

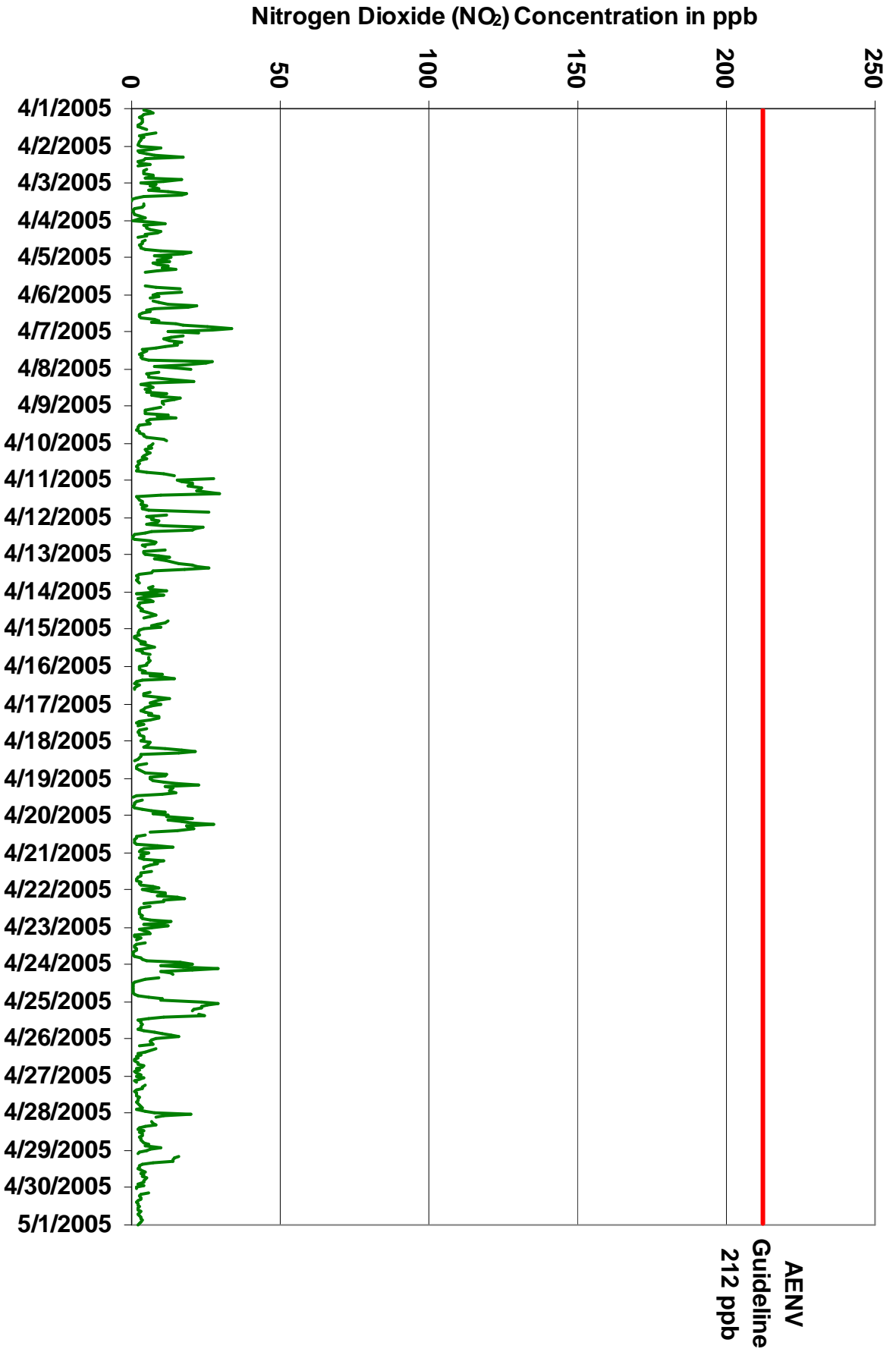


Figure 1. PAS - Crescent Heights Nitrogen Dioxide 1-hr Average Monthly Trend



Station: Crescent Heights

HOURLY MAXIMUM TABLE

Nitrogen Dioxide (NO₂)

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005
Summary

Maximum 1-hr Value:	77.9	ppb	1-Apr	2:00 3:00
Maximum 24-hr Value:	25.9	ppb	11-Apr	

AIC Time:	33 hrs	Operational Time:	682 hrs					
Calibration Time:	4 hrs	AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	Average
	55	38	22	11	5	2	1	15.0 ppb

Status Flag Characters

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

Day Mountain Standard Time

Day	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
	Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Apr-05	40	19	78	17	35	28	12	24	5	10	7	25	9	36	A	20	11	6	51	24	4	14	3	6	21.0	77.9	
2-Apr-05	48	13	8	7	6	10	34	8	39	17	4	38	5	A	8	25	10	12	39	21	9	42	21	5	18.6	47.7	
3-Apr-05	17	10	21	20	9	20	22	29	9	3	1	1	A	18	20	7	2	1	1	2	4	32	5	1	11.0	31.5	
4-Apr-05	20	36	29	20	9	17	30	11	33	30	10	A	7	7	5	4	5	5	7	20	25	36	18	32	18.2	36.2	
5-Apr-05	29	11	36	10	14	17	16	19	13	6	A	C	C	C	C	A	M	7	13	38	A	30	14	9	N	38.3	
6-Apr-05	29	26	A	9	14	18	29	55	18	7	38	8	4	4	4	52	17	16	40	44	37	38	36	18	24.4	54.6	
7-Apr-05	35	A	31	22	13	17	22	19	18	17	22	31	43	4	6	7	4	11	52	57	25	14	24	33	23.0	57.5	
8-Apr-05	A	14	6	7	14	42	22	33	27	6	10	38	7	10	9	54	31	31	37	33	19	23	21	A	22.5	54.3	
9-Apr-05	18	15	5	6	5	17	14	23	14	10	12	4	3	5	2	5	5	12	6	11	18	20	A	14	10.5	22.8	
10-Apr-05	11	6	9	6	6	9	6	5	5	12	8	5	5	4	3	5	4	3	12	23	34	A	41	21	10.5	40.5	
11-Apr-05	35	29	29	25	30	25	37	38	29	3	4	17	38	52	15	68	7	13	11	45	A	23	11	13	25.9	67.7	
12-Apr-05	53	36	28	9	30	42	30	31	12	11	3	1	1	3	19	46	30	28	23	A	24	5	6	8	20.8	53.0	
13-Apr-05	14	20	10	14	18	25	26	30	27	12	15	4	3	6	4	2	3	4	A	9	13	14	28	22	14.0	29.6	
14-Apr-05	2	20	14	4	14	12	4	5	11	4	5	5	6	13	14	10	5	A	38	34	37	24	19	8	13.3	37.8	
15-Apr-05	4	3	3	2	2	6	5	8	7	14	24	30	5	33	6	36	A	22	42	22	24	21	32	4	15.4	42.1	
16-Apr-05	4	4	16	18	30	22	15	18	9	3	2	39	16	1	14	A	34	69	8	14	45	13	8	20	18.4	69.2	
17-Apr-05	32	6	7	8	43	24	25	14	12	9	6	3	19	5	A	24	4	3	4	4	5	6	7	5	11.9	43.0	
18-Apr-05	17	15	15	9	29	28	23	25	5	4	4	3	2	A	10	3	3	3	5	7	22	15	12	12	11.8	28.8	
19-Apr-05	12	15	25	28	15	16	16	17	17	18	3	1	A	7	3	2	1	1	3	6	14	15	9	17	11.3	27.9	
20-Apr-05	22	28	14	21	26	53	31	24	24	19	13	A	10	3	3	2	2	5	16	29	6	14	3	19	16.8	53.1	
21-Apr-05	4	5	4	12	26	11	11	8	32	15	A	13	5	6	4	3	3	2	5	7	5	31	29	7	10.8	31.8	
22-Apr-05	25	15	17	13	21	22	14	15	10	A	12	5	11	15	16	55	17	8	14	21	21	11	41	60	19.9	59.8	
23-Apr-05	6	24	37	10	4	3	5	3	A	9	2	2	2	8	13	1	1	2	2	6	9	12	30	29	9.6	37.2	
24-Apr-05	13	39	38	33	21	28	19	A	14	7	2	1	1	1	1	1	1	1	2	5	8	22	26	32	13.8	39.3	
25-Apr-05	33	29	29	56	31	28	A	29	37	23	10	5	8	6	7	5	10	3	6	24	20	21	22	16	20.0	56.1	
26-Apr-05	15	15	8	16	5	A	10	8	3	31	3	5	2	12	3	7	12	10	3	5	1	3	11	4	8.3	30.7	
27-Apr-05	10	8	3	3	A	9	12	5	7	2	6	5	5	6	7	7	4	5	4	14	13	4	8	15	7.0	14.8	
28-Apr-05	27	12	10	A	14	9	37	8	9	6	10	7	10	17	5	8	7	8	7	10	11	14	12	13	11.8	36.5	
29-Apr-05	3	3	A	20	18	17	17	12	5	3	4	4	4	9	6	12	5	11	7	8	9	4	6	3	8.4	20.5	
30-Apr-05	3	A	9	4	9	6	4	3	2	3	3	4	3	11	5	4	4	4	4	6	5	7	6	4	3	4.9	11.1
																										N	0.0
Hourly Avg	20.0	17.1	19.3	14.8	17.6	20.0	18.9	18.1	15.6	10.8	8.7	11.3	8.6	11.1	7.8	17.0	8.7	10.6	15.9	19.0	16.8	18.2	17.4	15.3			
Hourly Max	53.0	39.3	77.9	56.1	43.0	53.1	37.0	54.6	39.1	30.7	37.8	38.6	42.7	51.8	20.0	67.7	34.1	69.2	51.5	57.5	45.1	42.4	40.9	59.8			

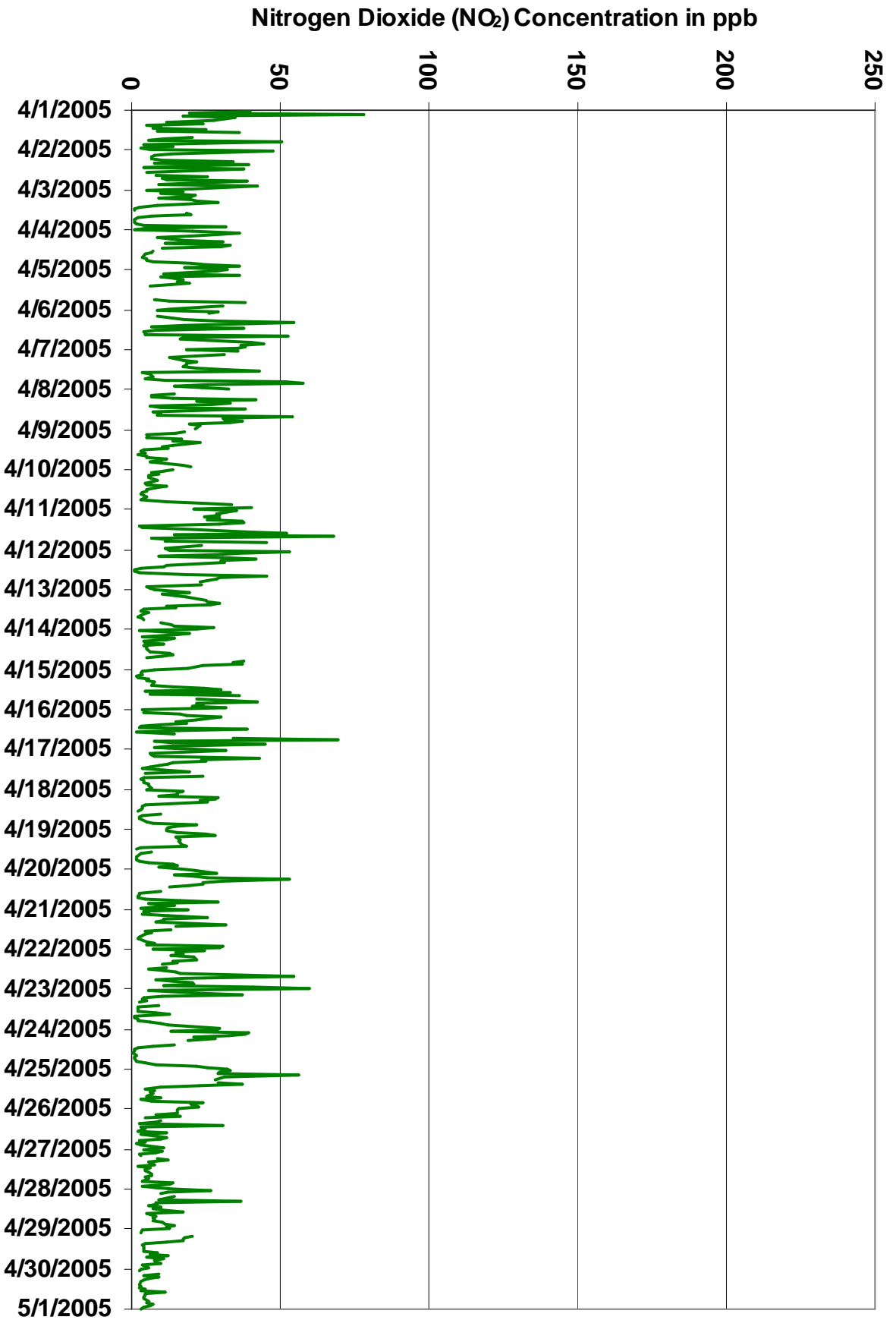
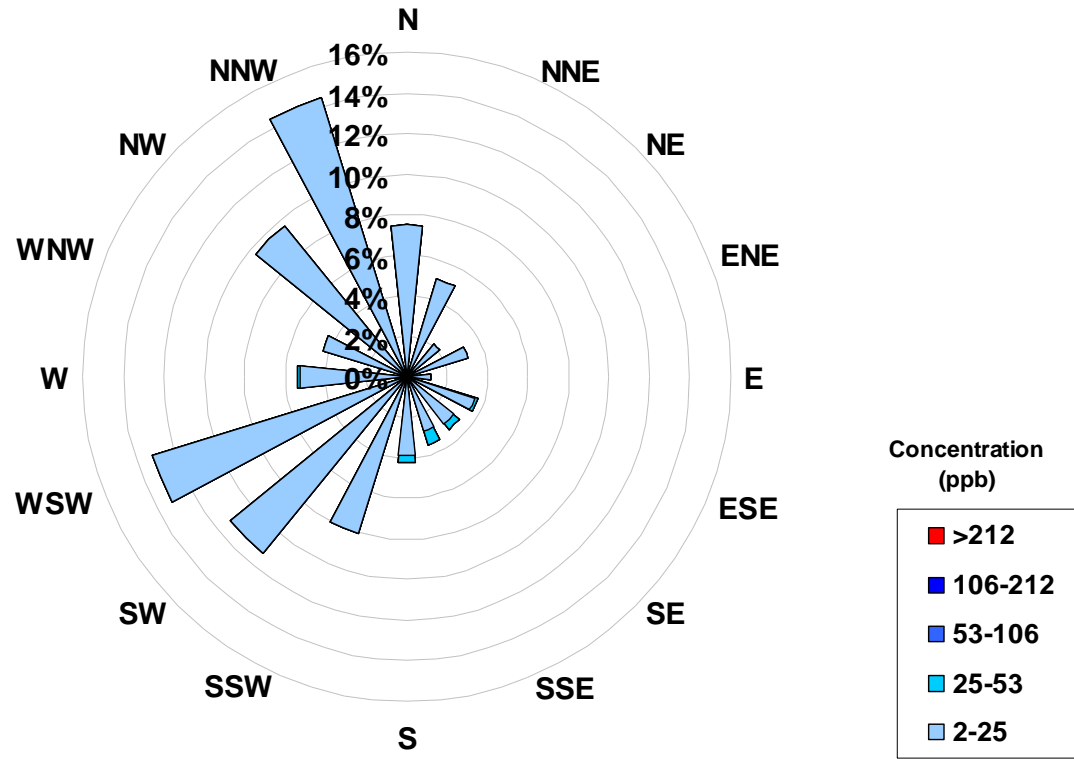


Figure 2. PAS - Crescent Heights Nitrogen Dioxide 1-hr Maximum Value Monthly Trend



Concentration Rose for the 1-hr NO₂ Average Concentration Occurrences at the Crescent Heights Site for April 2005



Frequency Distribution of NO ₂ in ppb			
Range		Frequency (hrs)	
0	< 2	107	
2	to 25	563	
25	to 53	12	
53	to 106	0	
106	to 212	0	
	> 212	0	
Total Non-Zero Values		682	

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



Station: Crescent Heights

HOURLY AVERAGE TABLE

Nitric Oxide (NO)

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005
Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	66	ppb	25-Apr	3:00 4:00
Maximum 24-hr Average:	10	ppb	25-Apr	

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

AIC Time:	33 hrs				Operational Time:	682 hrs			
Calibration Time:	4 hrs				AMD Operational Uptime:	99.9%			
Percentile	99	95	75	50	25	5	1	Average	
	32	9	2	1	1	0	0	2.5 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-Apr-05	2	1	5	1	2	1	1	2	1	1	1	2	2	3	A	3	2	1	4	1	1	1	1	1	1.7	5.1
2-Apr-05	5	1	0	0	0	0	4	2	2	2	1	5	1	A	1	2	1	1	5	1	1	3	1	1	1.8	5.4
3-Apr-05	1	0	2	2	1	1	4	11	2	1	0	0	A	1	1	1	0	0	0	0	1	0	0	1.4	11.3	
4-Apr-05	1	2	2	1	1	2	5	6	4	5	1	A	1	1	1	1	1	0	1	0	1	2	1	1	1.7	6.0
5-Apr-05	1	0	8	0	1	2	3	7	3	2	A	C	C	C	C	A	M	0	2	2	A	3	1	0	N	7.9
6-Apr-05	3	1	A	0	1	1	6	11	2	1	4	1	1	1	1	6	2	1	2	5	4	20	9	1	3.6	19.9
7-Apr-05	8	A	3	1	1	3	9	11	14	7	4	2	4	1	1	1	1	1	6	2	1	1	1	1	3.6	13.9
8-Apr-05	A	0	0	0	1	5	2	9	2	1	2	3	1	2	1	6	2	2	5	2	2	1	1	A	2.4	9.4
9-Apr-05	1	0	0	0	0	1	1	3	2	1	2	1	1	1	1	1	1	1	1	1	1	1	A	0	0.9	3.3
10-Apr-05	0	0	0	0	0	0	0	1	1	2	1	1	1	1	1	1	1	0	1	1	1	A	2	1	0.8	2.3
11-Apr-05	5	3	3	1	7	13	19	51	5	1	1	2	3	3	1	2	1	1	1	6	A	1	0	1	5.6	50.7
12-Apr-05	4	2	1	0	1	11	7	17	3	2	0	0	0	0	2	3	2	1	0	A	1	0	0	0	2.4	17.0
13-Apr-05	0	1	0	1	1	6	32	56	11	2	3	1	1	1	1	1	1	1	A	1	1	1	1	1	5.4	56.1
14-Apr-05	0	1	1	0	1	1	1	1	1	1	1	1	1	1	2	1	1	A	3	4	2	2	1	0	1.2	3.7
15-Apr-05	0	0	0	0	0	0	1	2	2	3	5	4	1	2	1	2	A	2	4	1	2	1	5	0	1.7	4.9
16-Apr-05	0	0	1	1	8	1	3	6	1	0	0	1	1	0	0	A	3	5	0	1	3	0	0	1	1.6	7.6
17-Apr-05	3	0	0	1	4	3	2	1	2	3	2	1	2	1	A	1	1	0	0	0	0	0	0	0	1.3	3.5
18-Apr-05	0	0	0	1	2	5	12	7	1	1	1	1	0	A	1	0	1	1	1	1	2	1	1	1	1.7	11.8
19-Apr-05	0	1	1	5	1	4	6	11	16	7	1	0	A	1	0	0	0	0	0	0	0	0	0	1	2.5	15.8
20-Apr-05	1	4	1	2	4	59	18	28	22	11	3	A	1	0	0	0	0	0	0	1	2	1	1	0	6.9	59.2
21-Apr-05	0	0	0	0	6	2	5	4	2	2	A	1	0	1	1	0	0	0	0	0	0	1	2	0	1.2	5.7
22-Apr-05	1	0	0	0	2	3	4	7	2	A	1	1	1	2	1	2	1	1	0	1	1	0	6	8	2.0	7.7
23-Apr-05	0	1	3	1	0	0	1	1	A	1	1	1	1	1	1	0	0	1	0	0	0	0	1	2	0.8	3.4
24-Apr-05	1	11	35	9	2	4	16	A	4	2	0	0	0	0	0	0	0	0	0	0	1	2	1	5	4.1	34.9
25-Apr-05	10	4	14	66	25	36	A	33	27	6	2	1	1	1	1	1	1	1	1	1	1	0	1	0	10.1	66.0
26-Apr-05	0	0	0	0	0	A	1	1	1	2	1	1	0	0	1	0	1	1	0	1	0	0	0	0	0.5	1.5
27-Apr-05	0	0	0	0	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0.7	1.5
28-Apr-05	1	1	1	A	1	2	8	2	1	1	2	1	2	2	1	1	1	1	1	1	1	1	1	0	1.4	8.2
29-Apr-05	0	0	A	1	1	1	3	3	1	1	1	1	1	2	1	1	1	2	1	1	1	1	1	1	1.1	3.3
30-Apr-05	1	A	1	1	1	1	1	1	1	2	2	2	2	1	2	1	1	1	1	1	1	1	1	1	1.1	2.0
																									N	0.0
Hourly Avg	1.7	1.2	3.0	3.3	2.5	5.8	6.2	10.3	4.7	2.5	1.6	1.4	1.1	1.2	1.0	1.5	1.0	0.9	1.5	1.4	1.1	1.6	1.3	1.0		
Hourly Max	9.5	10.6	34.9	66.0	24.8	59.2	32.2	56.1	26.8	10.8	4.9	4.7	3.9	3.4	1.7	6.1	3.0	4.7	5.5	6.1	4.3	19.9	8.9	7.7		



Station: Crescent Heights

HOURLY MAXIMUM TABLE

Nitric Oxide (NO)

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005
Summary

Maximum 1-hr Value:	289.6	ppb	25-Apr	3:00 4:00
Maximum 24-hr Value:	31.5	ppb	25-Apr	

AIC Time:	33 hrs	Operational Time:	682 hrs					
Calibration Time:	4 hrs	AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	Average
	135	65	13	3	1	1	1	14.1 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-Apr-05	64	4	173	11	65	46	4	31	2	13	13	46	3	39	A	11	3	2	88	26	1	14	1	2	28.8	172.7
2-Apr-05	112	3	1	1	1	1	24	3	38	32	2	55	2	A	2	26	2	5	73	1	2	39	17	1	19.3	112.3
3-Apr-05	11	1	12	34	2	2	18	29	4	2	1	1	A	10	21	2	1	1	1	1	1	46	1	1	8.7	45.9
4-Apr-05	2	59	62	27	3	28	49	9	71	71	12	A	2	4	2	1	1	1	1	2	16	3	2	8	18.9	71.4
5-Apr-05	2	1	110	1	3	5	7	11	6	4	A	C	C	C	C	A	M	0	3	22	A	22	1	1	N	109.7
6-Apr-05	24	28	A	1	2	8	22	134	17	2	107	9	2	2	2	96	4	4	25	47	20	47	32	2	27.7	134.0
7-Apr-05	31	A	33	8	3	5	25	23	20	14	40	42	60	1	2	7	1	2	52	27	5	2	10	4	18.2	60.5
8-Apr-05	A	2	1	1	14	126	17	32	18	9	3	48	3	5	4	88	17	21	73	10	4	8	17	A	23.7	126.3
9-Apr-05	1	1	1	1	1	2	2	6	3	4	4	2	2	2	1	2	1	4	1	6	2	4	A	2	2.3	6.2
10-Apr-05	1	0	1	0	0	1	1	1	1	4	4	3	3	2	3	2	2	1	5	10	3	A	9	2	2.5	9.6
11-Apr-05	33	15	18	2	38	19	75	110	33	1	2	20	100	79	10	64	3	11	2	18	A	3	2	2	28.7	110.1
12-Apr-05	127	22	23	1	22	60	35	44	7	5	1	1	1	1	33	50	31	14	4	A	3	1	1	1	21.2	127.2
13-Apr-05	1	3	2	3	2	15	49	79	26	5	13	3	2	4	2	2	1	2	A	2	3	2	4	3	9.9	79.1
14-Apr-05	1	3	2	1	2	2	2	12	1	1	1	2	4	4	3	1	A	21	39	32	15	9	1	6.9	38.7	
15-Apr-05	1	1	1	1	1	1	3	4	6	9	34	48	5	38	3	21	A	43	88	16	36	11	120	1	21.3	120.4
16-Apr-05	1	1	15	18	48	17	6	11	3	1	2	17	43	1	8	A	55	191	1	1	47	1	1	4	21.4	190.9
17-Apr-05	140	1	1	12	137	18	36	2	4	5	4	1	23	1	A	11	2	1	1	1	1	1	1	1	17.7	140.1
18-Apr-05	1	1	1	2	14	36	16	26	1	2	2	2	1	A	2	2	1	1	2	2	4	3	2	2	5.5	36.0
19-Apr-05	1	1	3	13	3	7	12	17	21	16	2	1	A	1	1	1	1	1	1	1	1	1	1	2	4.7	20.8
20-Apr-05	9	14	1	3	11	280	62	47	34	15	8	A	3	1	2	1	1	2	2	43	1	11	1	10	24.4	280.4
21-Apr-05	1	2	2	2	48	4	7	6	33	8	A	3	1	2	1	1	1	1	1	4	1	23	30	1	8.0	48.0
22-Apr-05	5	1	1	1	4	7	10	15	6	A	3	2	12	46	14	36	19	2	1	2	2	1	97	179	20.3	179.0
23-Apr-05	1	18	50	2	1	1	2	2	A	2	1	1	1	4	5	1	1	1	1	1	1	1	3	5	4.6	50.1
24-Apr-05	2	76	71	75	4	36	32	A	6	3	1	1	1	1	1	1	1	1	1	1	2	18	19	10	15.8	75.9
25-Apr-05	23	16	52	290	72	89	A	65	55	23	4	2	3	4	3	2	2	1	2	8	6	1	2	1	31.5	289.6
26-Apr-05	1	1	1	2	1	A	4	2	1	21	2	2	1	12	1	2	15	1	1	1	1	1	1	1	3.3	21.4
27-Apr-05	1	1	1	1	A	2	6	3	10	2	10	2	2	6	3	2	2	9	2	10	10	1	1	1	3.7	9.8
28-Apr-05	3	2	2	A	2	3	77	11	6	2	5	4	5	12	2	3	2	5	2	3	6	1	1	1	6.9	77.3
29-Apr-05	1	1	A	2	1	3	5	6	2	2	2	3	2	3	2	4	3	3	2	2	1	1	1	1	2.3	5.5
30-Apr-05	1	A	1	2	5	1	2	2	2	3	2	4	3	15	3	3	2	2	2	2	2	2	1	2	2.8	14.9
																									N	0.0
Hourly Avg	20.8	9.9	22.8	17.9	17.6	28.5	21.0	25.2	15.4	9.7	10.2	12.0	10.6	11.1	5.0	15.7	6.3	11.5	15.9	10.7	7.5	9.9	13.3	8.7		
Hourly Max	140.1	75.9	172.7	289.6	136.9	280.4	77.3	134.0	71.4	70.6	106.8	55.3	100.0	78.8	32.8	96.5	54.7	190.9	88.4	46.9	46.7	46.6	120.4	179.0		



Station: Crescent Heights

HOURLY AVERAGE TABLE

Oxides of Nitrogen (NO_x)

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	89 ppb 25-Apr 3:00 4:00
Maximum 24-hr Average:	22 ppb 25-Apr

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

AIC Time:	33 hrs	Operational Time:	682 hrs					
Calibration Time:	4 hrs	AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	Average
	55	29	11	6	3	1	1	9.1 ppb

Status Flag Characters

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

Day Mountain Standard Time

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum	
1-Apr-05	6	7	12	4	5	4	4	5	5	4	3	4	5	8	A	11	7	3	8	4	3	3	3	4	5.3	12.2	
2-Apr-05	15	7	2	3	6	8	22	6	6	4	4	10	3	A	6	6	5	5	12	8	5	20	12	3	7.7	21.6	
3-Apr-05	9	6	10	11	6	13	22	28	6	2	0	0	A	5	5	4	1	1	1	1	2	6	2	1	6.2	28.0	
4-Apr-05	8	13	6	6	6	8	15	15	8	9	3	A	6	5	4	3	4	3	5	10	21	18	8	14	8.7	21.5	
5-Apr-05	12	9	21	8	10	14	14	22	12	7	A	C	C	C	C	A	M	8	8	18	A	19	9	7	N	22.0	
6-Apr-05	11	7	A	7	10	13	28	30	9	6	10	5	3	3	4	13	11	8	17	22	30	54	36	13	15.2	53.5	
7-Apr-05	30	A	20	14	12	16	26	25	29	18	13	6	9	3	4	4	4	6	32	27	19	8	15	21	15.7	32.4	
8-Apr-05	A	10	5	6	6	16	18	30	8	4	8	10	6	8	6	18	9	11	22	16	12	11	12	A	11.4	30.4	
9-Apr-05	10	8	5	5	5	13	10	18	8	6	8	3	2	2	2	3	3	5	5	5	11	13	A	7	6.8	18.0	
10-Apr-05	7	6	7	5	5	6	6	5	5	7	4	3	3	3	2	3	2	2	5	12	15	A	30	16	6.9	29.7	
11-Apr-05	22	23	23	20	30	36	40	80	15	2	3	4	6	6	4	7	4	4	6	32	A	12	5	8	17.1	79.8	
12-Apr-05	10	10	10	5	12	34	29	37	10	6	2	1	0	1	8	11	9	4	5	A	12	4	5	5	10.0	37.4	
13-Apr-05	9	13	8	13	17	26	54	82	28	10	10	4	3	3	3	2	2	3	A	8	7	7	13	8	14.4	81.9	
14-Apr-05	2	12	4	2	7	8	3	4	3	3	4	3	6	8	10	8	5	A	15	15	11	8	11	4	6.7	15.4	
15-Apr-05	3	2	2	1	1	2	3	6	5	8	13	8	2	5	5	8	A	7	9	7	7	6	10	3	5.4	12.6	
16-Apr-05	3	2	6	4	18	7	13	20	4	2	1	3	3	1	1	A	9	9	4	9	16	10	6	11	7.1	20.4	
17-Apr-05	10	5	4	4	8	9	8	10	11	9	4	2	5	3	A	6	3	3	3	3	4	4	5	3	5.5	11.5	
18-Apr-05	7	6	5	5	13	21	33	22	3	4	3	3	1	A	6	2	2	2	3	5	13	12	7	7	8.1	33.1	
19-Apr-05	7	11	16	27	13	17	19	24	31	18	2	1	A	4	2	1	1	1	1	4	6	12	7	13	10.3	30.6	
20-Apr-05	12	24	12	18	23	86	37	46	43	26	9	A	5	2	2	1	1	2	9	15	5	3	2	6	17.0	86.4	
21-Apr-05	3	4	3	4	16	9	13	10	6	6	A	8	3	4	3	2	2	1	3	3	3	8	11	4	5.6	16.0	
22-Apr-05	7	11	11	8	17	21	15	18	6	A	8	3	3	4	4	5	4	4	6	14	11	4	18	14	9.5	20.9	
23-Apr-05	3	5	9	6	1	2	4	3	A	5	2	2	1	2	2	1	1	1	1	3	4	6	17	22	4.4	22.2	
24-Apr-05	10	28	64	29	11	18	30	A	13	6	1	1	1	0	1	1	1	1	1	2	6	12	10	28	12.0	63.8	
25-Apr-05	39	29	38	89	46	56	A	55	51	17	7	3	4	4	5	4	4	2	5	8	11	13	16	8	22.3	89.3	
26-Apr-05	7	6	7	7	2	A	9	5	2	4	2	2	1	1	2	2	5	4	2	3	1	1	3	1	3.6	9.2	
27-Apr-05	4	2	1	2	A	5	5	5	2	2	3	2	2	4	3	3	2	3	3	4	4	2	5	8	3.3	8.2	
28-Apr-05	21	11	9	A	8	9	16	7	3	3	6	4	5	5	3	4	4	4	5	7	5	10	7	5	6.9	21.0	
29-Apr-05	2	2	A	17	15	15	17	10	4	3	3	3	4	6	4	5	5	7	5	5	5	3	4	2	6.4	16.9	
30-Apr-05	2	A	6	3	3	4	4	3	3	3	3	4	3	3	4	4	3	3	4	4	4	5	3	3	2	3.5	6.1
																										N	0.0
Hourly Avg	10.0	10.0	11.6	11.5	11.5	17.1	17.8	21.8	11.7	7.1	4.9	3.8	3.6	3.8	3.9	5.0	4.0	4.0	7.1	9.5	9.1	10.0	10.0	8.6			
Hourly Max	38.6	29.0	63.8	89.3	45.6	86.4	54.4	81.9	51.2	25.8	12.6	10.4	9.0	8.5	9.6	17.7	10.8	11.4	32.4	31.7	29.9	53.5	36.0	28.2			



Station: Crescent Heights

HOURLY MAXIMUM TABLE

Oxides of Nitrogen (NO_x)

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005
Summary

Maximum 1-hr Value:	323.7	ppb	25-Apr	3:00 4:00
Maximum 24-hr Value:	53.1	ppb	11-Apr	

AIC Time:	33 hrs	Operational Time:	682 hrs					
Calibration Time:	4 hrs	AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	Average
	166	99	33	14	6	3	1	27.9 ppb

Status Flag Characters

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

Day Mountain Standard Time

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum	
1-Apr-05	92	23	250	28	99	73	15	51	6	22	20	67	11	71	A	31	14	7	138	47	5	28	4	7	48.2	250.3	
2-Apr-05	160	16	8	7	7	11	50	10	77	44	6	92	6	A	9	48	13	14	86	22	10	80	36	7	35.6	159.9	
3-Apr-05	28	10	33	54	11	22	39	57	13	4	1	1	A	27	40	8	2	1	1	2	4	72	5	1	19.1	72.5	
4-Apr-05	21	95	83	45	11	44	79	19	104	99	20	A	8	10	6	4	6	6	8	21	38	38	18	40	35.9	104.4	
5-Apr-05	31	11	141	10	17	23	21	30	19	9	A	C	C	C	C	A	M	11	14	52	A	52	14	8	N	141.4	
6-Apr-05	53	53	A	9	15	26	50	188	33	7	144	16	5	5	6	149	21	20	64	88	56	79	64	19	50.9	187.7	
7-Apr-05	66	A	63	29	14	22	42	38	38	30	61	66	96	5	8	11	5	13	95	85	28	17	32	36	39.2	96.3	
8-Apr-05	A	15	7	8	24	158	36	65	44	13	14	85	10	14	11	125	47	53	108	39	22	26	38	A	43.7	157.9	
9-Apr-05	19	16	5	5	5	19	15	28	16	12	15	4	4	6	3	6	6	15	6	18	19	22	A	15	12.2	28.3	
10-Apr-05	11	6	10	6	6	9	7	6	6	16	11	8	8	5	5	7	5	3	13	32	35	A	49	23	12.4	48.5	
11-Apr-05	68	43	46	26	64	44	104	145	62	3	5	34	138	131	24	130	9	24	12	59	A	24	12	14	53.1	144.5	
12-Apr-05	167	58	52	10	52	100	66	73	18	16	4	2	2	3	46	96	61	36	27	A	26	5	6	8	40.6	167.2	
13-Apr-05	14	22	11	17	20	40	73	108	53	16	27	6	4	9	5	3	4	5	A	10	16	16	31	25	23.3	107.7	
14-Apr-05	3	22	15	4	16	13	6	6	22	5	6	6	7	16	17	12	6	A	56	73	66	39	28	8	19.6	72.6	
15-Apr-05	4	3	4	2	3	6	7	11	12	22	57	66	9	71	8	57	A	64	129	34	60	31	146	4	35.2	146.3	
16-Apr-05	5	4	31	36	75	38	21	27	12	3	4	55	59	2	22	A	88	254	8	14	90	14	8	24	38.9	253.7	
17-Apr-05	164	7	7	19	166	40	61	15	14	14	10	5	37	5	A	35	5	3	4	5	6	6	7	5	27.9	165.6	
18-Apr-05	18	16	16	11	42	64	39	47	6	5	6	4	3	A	11	4	3	3	6	9	25	15	14	13	16.4	63.8	
19-Apr-05	12	16	27	40	18	22	28	32	37	34	4	2	A	7	3	2	2	2	3	6	14	16	9	17	15.4	40.3	
20-Apr-05	31	43	15	24	36	315	91	70	58	33	20	A	11	3	3	2	2	6	17	71	6	25	4	29	39.8	315.1	
21-Apr-05	4	5	5	14	73	15	16	14	65	23	A	15	6	8	5	4	3	2	5	10	5	54	59	7	18.2	72.5	
22-Apr-05	30	15	18	13	24	28	24	30	15	A	15	7	23	59	30	82	30	10	14	22	22	11	133	208	37.6	207.9	
23-Apr-05	6	41	83	12	4	4	6	4	A	11	3	2	3	12	17	2	2	2	2	7	10	13	31	33	13.5	83.2	
24-Apr-05	14	114	109	108	25	63	51	A	20	10	2	2	1	1	1	2	2	2	2	5	9	39	44	40	29.0	114.0	
25-Apr-05	56	45	77	324	101	110	A	93	92	46	14	5	10	10	9	6	11	3	7	31	22	22	24	16	49.4	323.7	
26-Apr-05	16	16	8	19	5	A	13	10	3	52	4	6	3	24	4	8	23	11	3	5	1	3	11	4	10.9	52.4	
27-Apr-05	10	8	3	3	A	9	18	8	14	3	16	7	6	12	9	8	5	14	5	23	23	4	9	16	10.1	23.4	
28-Apr-05	29	13	11	A	16	12	91	19	15	7	14	11	15	29	7	10	9	11	8	11	16	15	12	13	17.1	90.5	
29-Apr-05	4	3	A	21	19	18	22	17	6	5	5	6	5	12	8	14	7	13	9	9	11	4	6	4	9.9	22.0	
30-Apr-05	3	A	10	5	14	7	5	4	4	6	4	8	5	26	8	6	6	5	8	6	8	8	5	4	7.2	26.1	
																										N	0.0
Hourly Avg	39.3	26.5	41.0	31.4	33.8	46.7	37.8	42.3	30.5	19.7	18.3	21.8	18.3	21.6	12.2	31.1	14.3	21.2	29.7	28.1	23.4	26.8	29.6	22.3			
Hourly Max	167.2	114.0	250.3	323.7	165.6	315.1	103.6	187.7	104.4	98.6	143.9	92.3	137.9	130.6	46.3	149.0	88.4	253.7	137.9	88.3	90.4	80.3	146.3	207.9			

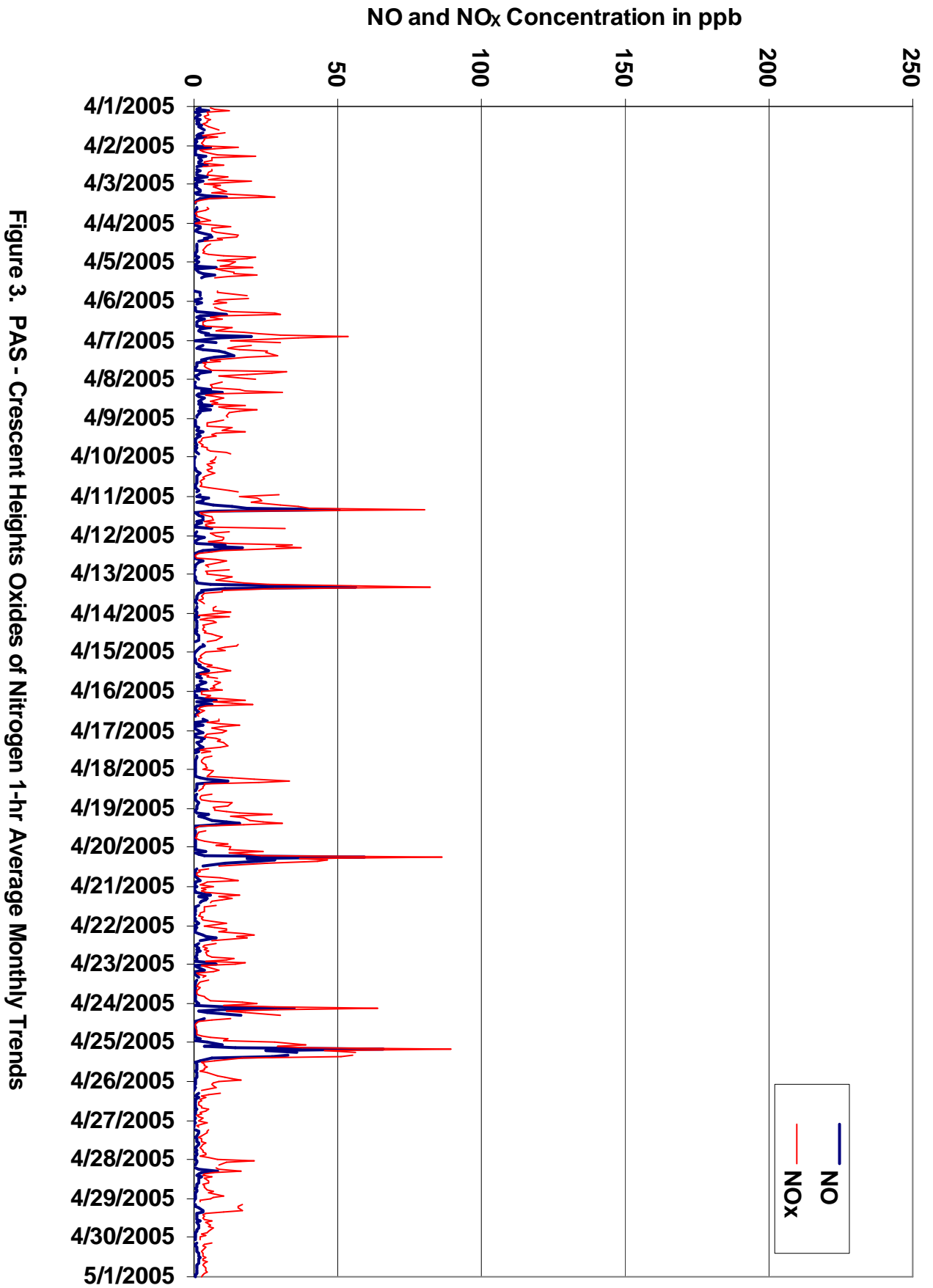


Figure 3. PAS - Crescent Heights Oxides of Nitrogen 1-hr Average Monthly Trends

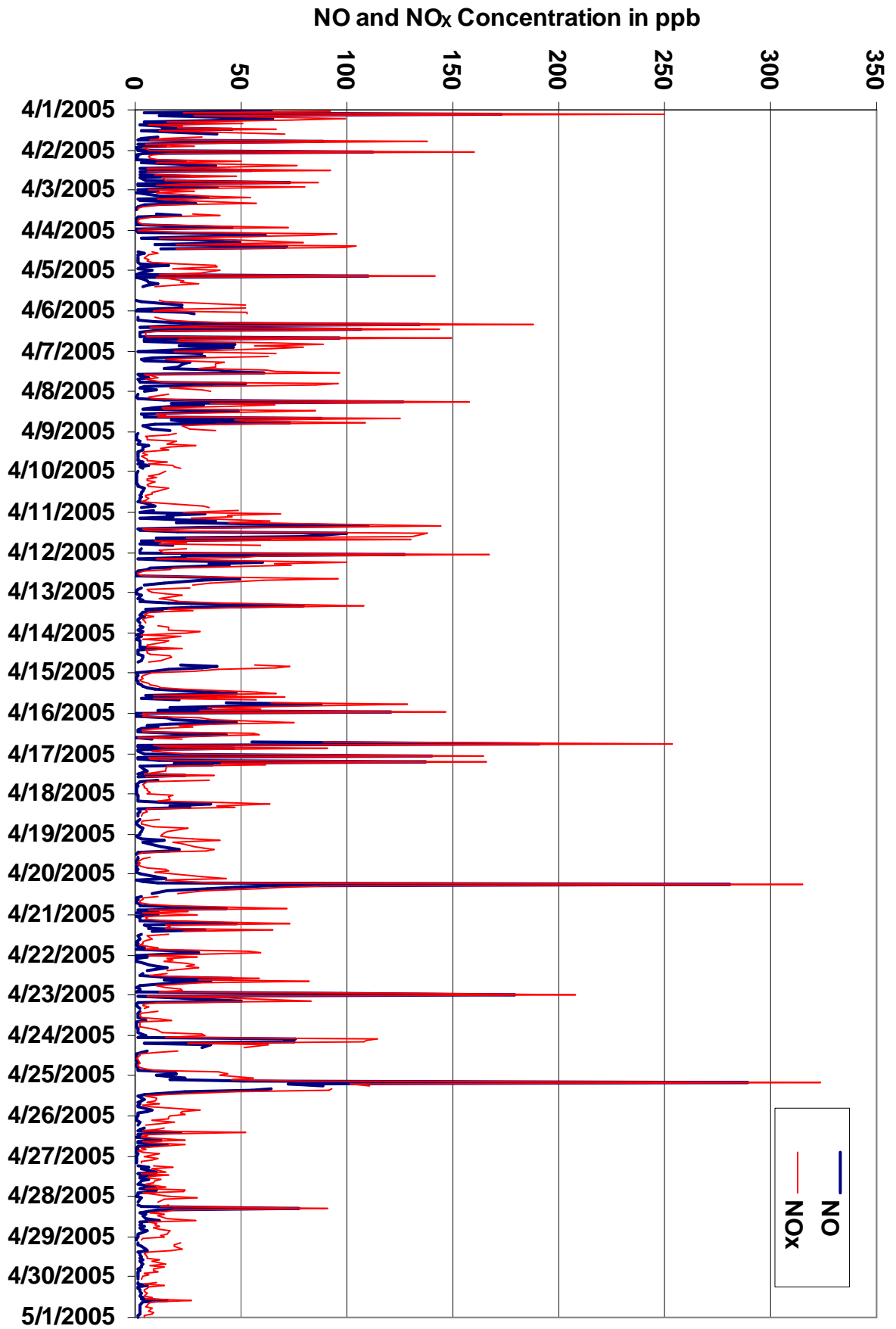


Figure 4. PAS - Crescent Heights Oxides of Nitrogen 1-hr Maximum Value Monthly Trends



PAS - Crescent Heights Ozone Monthly Summary

Station: Crescent Heights

HOURLY AVERAGE TABLE

Ozone (O₃)

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	58 ppb 5-Apr 16:00 17:00
Maximum 24-hr Average:	40 ppb 26-Apr

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

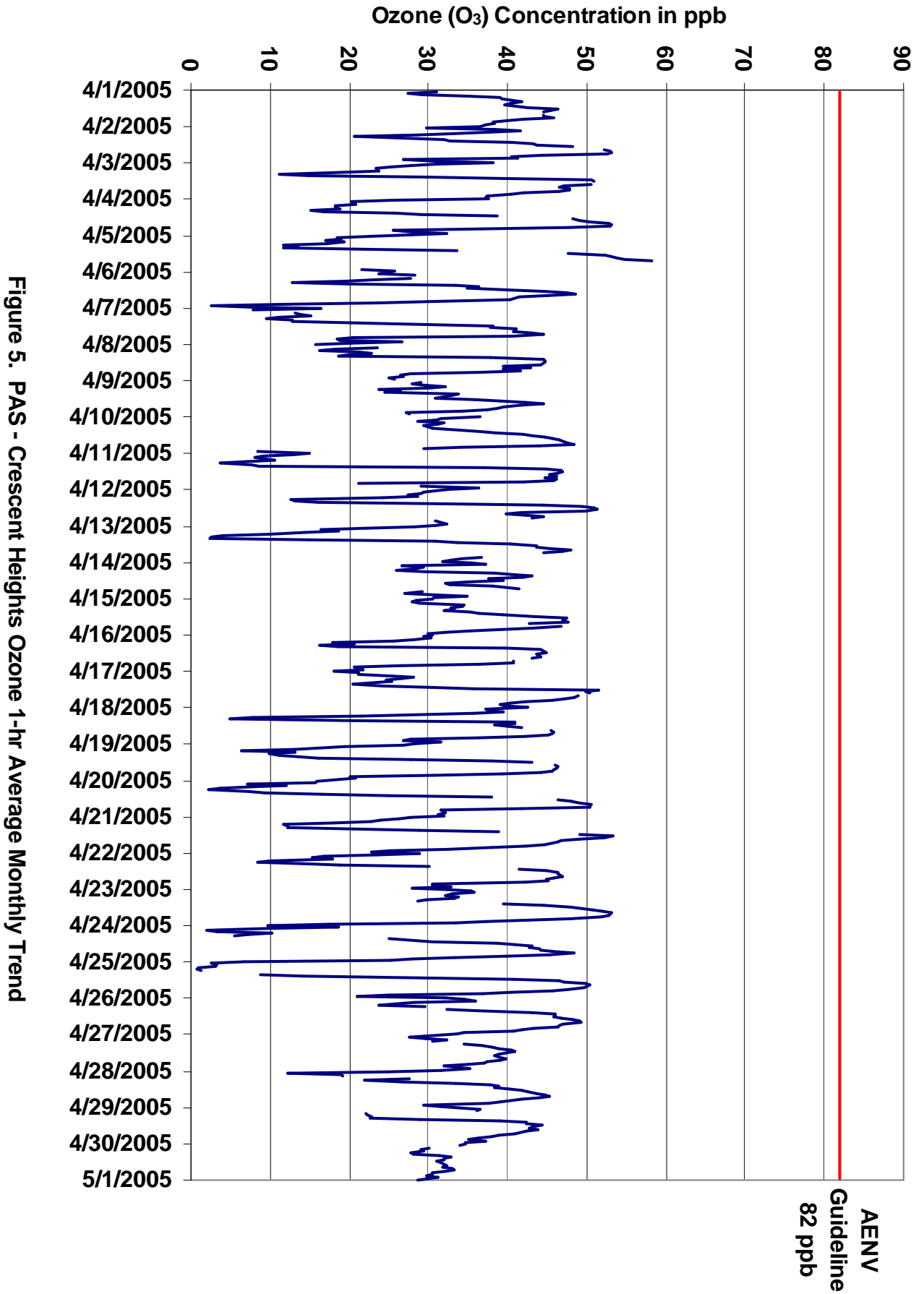
AIC Time:	33 hrs	Operational Time:	685 hrs					
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	53	50	43	34	25	9	2	32.8 ppb

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

Day	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
	Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Apr-05	2	27	29	35	39	39	41	42	40	40	43	46	46	45	A	45	45	46	42	40	38	38	37	37	37	38.3	46.3
2-Apr-05	30	38	42	38	33	29	21	32	33	41	43	44	48	A	52	53	53	53	44	41	41	27	31	38	39.2	53.0	
3-Apr-05	31	28	25	23	24	17	11	15	30	39	51	51	A	51	47	46	48	48	46	42	40	37	37	38	35.9	51.0	
4-Apr-05	26	20	21	18	18	19	15	17	26	29	39	A	48	49	50	53	53	53	48	37	26	28	32	23	32.5	53.2	
5-Apr-05	18	19	17	19	17	12	14	12	22	34	A	48	52	53	54	55	58	C	C	A	A	22	26	25	30.3	58.2	
6-Apr-05	24	28	A	28	23	19	13	20	33	36	35	40	45	47	49	45	41	40	30	24	12	3	7	16	28.6	48.5	
7-Apr-05	8	A	13	14	15	11	9	13	13	20	30	38	38	41	41	43	45	41	21	18	19	27	20	16	24.1	44.6	
8-Apr-05	A	24	18	16	21	23	20	19	38	45	45	44	40	43	39	42	36	28	26	27	25	26	A	31.3	44.8		
9-Apr-05	29	28	30	32	30	24	26	24	34	32	31	36	39	42	45	42	39	39	37	34	27	28	A	36	33.2	44.6	
10-Apr-05	32	31	29	32	31	29	31	34	37	38	42	43	45	46	47	47	48	48	44	34	29	A	8	15	35.6	48.3	
11-Apr-05	13	9	8	11	7	4	8	9	37	45	47	47	46	45	46	45	46	46	42	21	A	29	36	32	29.5	46.9	
12-Apr-05	29	29	27	29	24	13	13	16	31	44	49	51	51	50	42	40	42	44	43	A	31	32	31	28	34.4	51.4	
13-Apr-05	22	16	19	14	10	4	2	2	15	31	34	40	44	44	45	48	47	45	A	37	34	33	32	35	28.4	48.0	
14-Apr-05	37	27	29	28	26	30	38	41	43	42	38	39	35	32	33	38	41	A	29	27	31	35	31	30	33.9	43.2	
15-Apr-05	28	28	29	35	34	33	33	32	35	36	39	44	48	47	48	43	A	47	43	39	35	32	30	30	36.9	47.7	
16-Apr-05	29	30	28	26	18	21	16	19	40	44	45	44	44	43	A	41	41	37	27	21	22	22	18	31.2	44.9		
17-Apr-05	21	21	25	28	26	25	25	21	24	30	36	52	50	50	A	49	48	47	46	42	40	39	40	43	36.0	51.5	
18-Apr-05	37	38	39	36	22	8	5	21	41	41	38	40	42	A	45	46	46	45	42	36	28	27	32	28	34.0	45.8	
19-Apr-05	27	19	13	6	13	10	11	14	16	28	38	43	A	46	46	46	46	46	44	39	31	20	21	16	27.8	46.3	
20-Apr-05	16	7	12	7	4	2	7	9	17	25	38	A	46	48	49	51	50	50	42	31	32	31	32	28	27.6	50.5	
21-Apr-05	26	24	23	18	12	12	12	20	29	39	A	49	53	52	49	47	46	45	42	38	32	25	23	29	32.5	53.4	
22-Apr-05	23	17	15	18	10	8	14	19	30	A	41	45	46	46	47	46	45	45	42	31	30	33	28	32	31.0	46.8	
23-Apr-05	35	36	33	32	34	33	30	29	A	39	45	48	51	52	53	53	53	52	48	43	37	33	17	10	39.0	53.1	
24-Apr-05	19	10	2	3	10	7	5	A	25	30	39	41	43	43	44	44	46	48	45	40	33	28	25	7	27.7	48.3	
25-Apr-05	2	3	3	1	1	1	A	9	14	29	41	47	47	50	50	50	50	48	46	40	37	25	21	32	28.1	50.3	
26-Apr-05	34	36	28	24	30	A	32	36	43	46	46	46	47	48	49	49	47	47	46	43	42	41	34	34	40.4	49.2	
27-Apr-05	28	30	32	31	A	35	37	38	39	40	41	40	39	38	39	40	39	37	37	35	32	35	32	25	35.5	40.9	
28-Apr-05	12	19	19	A	28	22	27	33	38	39	38	40	42	43	44	45	45	44	42	39	38	29	32	34	34.4	45.3	
29-Apr-05	36	36	A	22	22	23	23	29	39	42	42	44	43	43	44	42	41	39	38	36	35	37	35	35	36.0	44.4	
30-Apr-05	34	A	30	29	29	28	28	31	33	32	32	31	32	32	32	33	33	32	31	31	30	31	30	29	31.0	34.0	
																										N	0.0
Hourly Avg	24.5	24.2	22.9	22.5	21.1	18.6	19.6	22.6	30.8	36.5	40.1	43.6	44.8	45.3	45.5	45.6	45.7	44.7	40.2	34.7	31.7	29.4	27.8	27.5			
Hourly Max	37.3	38.4	41.7	37.5	39.2	39.2	40.6	41.9	43.2	46.0	50.5	51.5	53.4	53.1	53.9	54.8	58.2	52.9	48.1	43.2	41.7	40.6	39.6	42.6			





Station: Crescent Heights

HOURLY MAXIMUM TABLE

Ozone (O₃)

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005
 Summary

Maximum 1-hr Value:	113.6	ppb	26-Apr	9:00 10:00
Maximum 24-hr Value:	46.4	ppb	26-Apr	

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
	56	52	46	38	31	15	7	37.1 ppb

Status Flag Characters

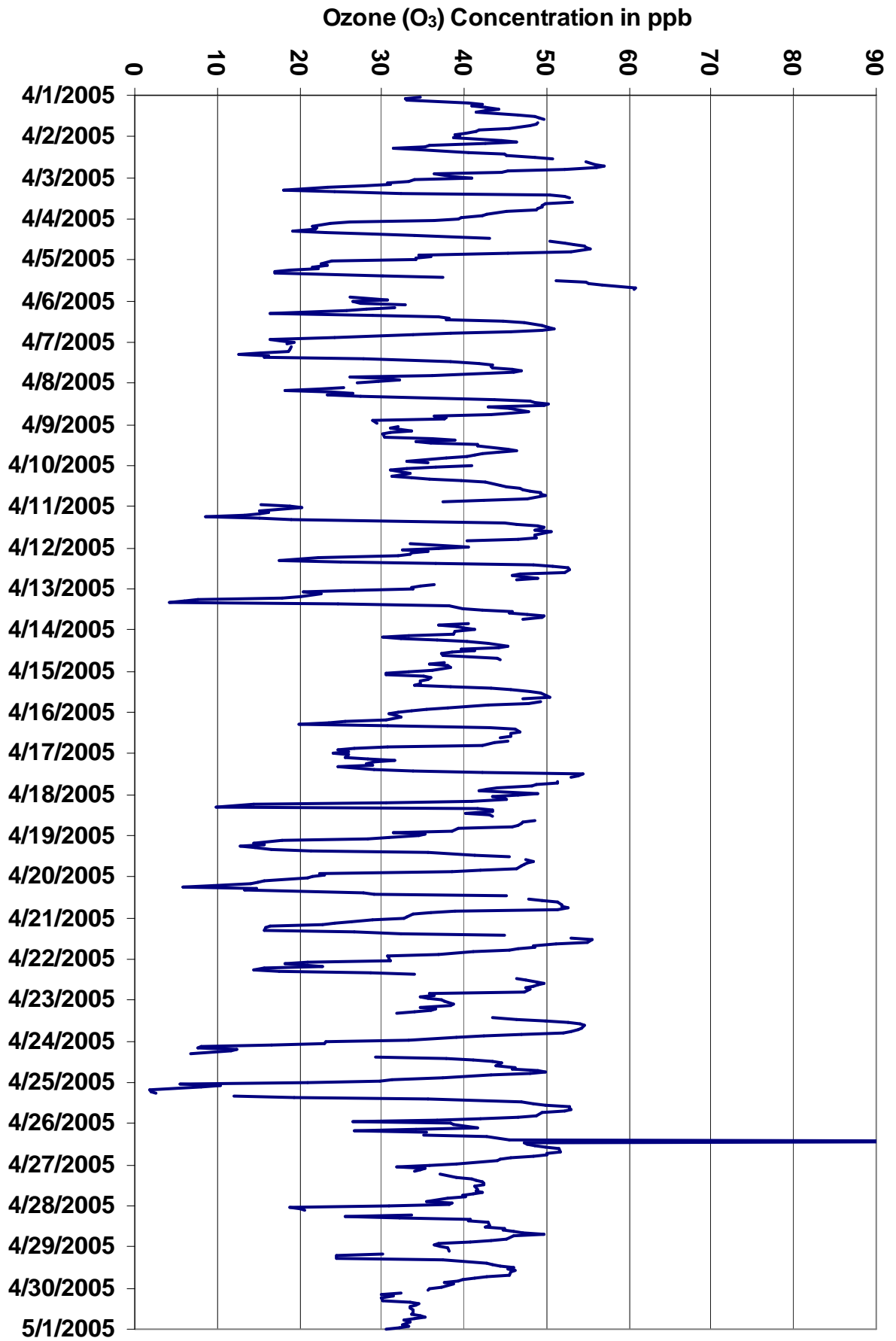
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day Mountain Standard Time

Day	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Apr-05	35	33	33	40	42	41	43	44	43	41	47	49	49	50	A	49	49	48	46	42	41	40	39	39	42.7	49.7	
2-Apr-05	39	45	46	43	36	35	31	35	41	45	45	49	51	A	55	56	57	56	52	45	44	36	39	41	44.4	56.9	
3-Apr-05	34	33	31	31	28	23	18	24	32	50	52	53	A	53	50	50	50	49	49	45	43	42	40	39	39.9	53.1	
4-Apr-05	36	26	24	22	22	22	19	23	29	34	43	A	50	52	53	55	55	55	53	45	35	36	34	34	37.3	55.3	
5-Apr-05	24	23	23	21	22	19	17	17	30	37	A	51	55	55	57	61	61	C	C	A	A	26	31	27	34.6	60.8	
6-Apr-05	27	33	A	32	28	26	16	29	37	38	38	45	47	49	50	51	49	46	38	34	24	16	18	19	34.4	50.9	
7-Apr-05	18	A	19	19	19	15	13	16	16	28	38	42	43	43	43	46	47	46	36	26	30	32	30	27	30.1	46.9	
8-Apr-05	A	25	22	18	24	26	23	27	44	48	48	50	50	43	45	48	46	43	36	38	38	29	29	A	36.5	50.2	
9-Apr-05	32	31	32	34	31	30	30	36	39	34	36	42	42	45	46	44	42	41	40	38	33	36	A	41	37.2	46.3	
10-Apr-05	36	33	31	33	33	31	34	36	40	43	44	45	47	47	48	49	49	50	48	42	38	A	15	19	38.7	49.8	
11-Apr-05	20	15	16	15	13	9	15	19	45	46	49	50	49	49	51	48	49	49	46	40	A	33	41	37	35.0	50.6	
12-Apr-05	33	36	34	33	32	22	17	25	36	48	51	53	53	52	47	46	47	49	46	A	36	35	34	34	39.1	52.7	
13-Apr-05	27	21	23	20	18	8	6	4	25	38	40	42	46	45	48	50	50	47	A	40	37	39	40	41	32.8	49.6	
14-Apr-05	39	39	33	30	32	37	40	43	45	44	40	41	39	37	37	44	44	A	38	36	38	38	36	33	38.4	45.2	
15-Apr-05	30	30	35	36	36	35	35	34	38	43	46	48	49	50	50	47	A	49	48	43	38	35	34	32	40.1	50.4	
16-Apr-05	31	32	32	31	26	24	20	31	43	46	47	46	46	46	44	A	45	44	42	31	27	25	26	24	35.0	46.8	
17-Apr-05	26	26	28	32	29	28	29	25	29	34	42	54	54	53	A	51	51	49	48	44	43	42	49	46	39.6	54.4	
18-Apr-05	43	45	45	41	30	14	10	42	44	43	40	43	43	A	49	47	47	46	46	39	38	31	35	34	39.0	48.5	
19-Apr-05	31	28	18	14	16	13	15	17	21	36	41	45	A	47	48	48	47	47	46	42	39	22	23	22	31.6	48.5	
20-Apr-05	21	16	15	14	9	6	15	13	28	29	45	A	48	49	51	52	52	53	51	39	36	34	33	33	32.2	52.5	
21-Apr-05	29	26	24	23	16	16	16	27	32	45	A	53	56	55	51	48	49	47	45	41	37	31	31	31	36.0	55.5	
22-Apr-05	31	21	18	23	16	14	17	29	34	A	46	48	49	50	49	48	47	48	47	36	36	35	36	37	35.5	49.7	
23-Apr-05	38	39	38	35	36	36	34	32	A	43	46	50	53	54	55	54	54	53	52	47	42	39	33	23	42.9	54.6	
24-Apr-05	23	17	8	8	12	12	7	A	29	38	41	43	45	44	46	46	49	50	48	43	37	31	30	21	31.6	49.9	
25-Apr-05	5	10	8	2	2	3	A	12	19	36	47	48	50	53	53	53	52	49	49	47	42	37	26	38	32.2	53.0	
26-Apr-05	39	42	34	27	35	A	35	43	45	114	47	48	49	50	51	52	50	50	48	46	44	44	39	36	46.4	113.6	
27-Apr-05	32	35	35	34	A	37	39	41	41	42	42	42	41	42	41	42	41	40	40	38	35	38	38	31	38.7	42.4	
28-Apr-05	19	20	21	A	34	26	32	41	41	43	43	42	45	45	46	47	50	46	45	43	41	37	36	37	38.2	49.6	
29-Apr-05	38	38	A	30	25	24	24	37	43	43	44	46	45	46	46	45	43	41	40	39	38	39	37	36	38.7	46.2	
30-Apr-05	36	A	32	30	31	30	30	33	34	34	33	33	34	34	34	35	35	34	33	33	32	33	32	30	32.9	35.7	
																										N	0.0
Hourly Avg	30.1	29.2	27.1	26.5	25.3	22.8	23.5	28.8	35.3	42.9	43.7	46.5	47.3	47.8	48.0	48.7	48.5	47.3	44.9	40.1	37.2	34.2	33.2	32.5			
Hourly Max	43.5	44.8	46.5	42.6	42.1	41.0	42.5	44.3	45.4	113.6	52.2	54.4	55.5	55.2	56.8	60.8	60.7	56.0	52.9	47.0	44.5	44.0	48.8	46.5			



Figure 6. PAS - Crescent Heights Ozone 1-hr Maximum Value Monthly Trend





Station: Crescent Heights

EIGHT HOUR RUNNING AVERAGE TABLE

Ozone (O₃)

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005

Summary

Number of 8-hr Exceedances:	0						
Maximum 8-hr Average:	51.2	ppb	23-Apr	18:00	19:00		

Guideline Limit: Canada Wide Standard 8-hr 65 ppb

Percentile	99	95	75	50	25	5	1
	49.3	46.6	40.4	33.4	27.2	13.4	8.3

Status Flag Characters

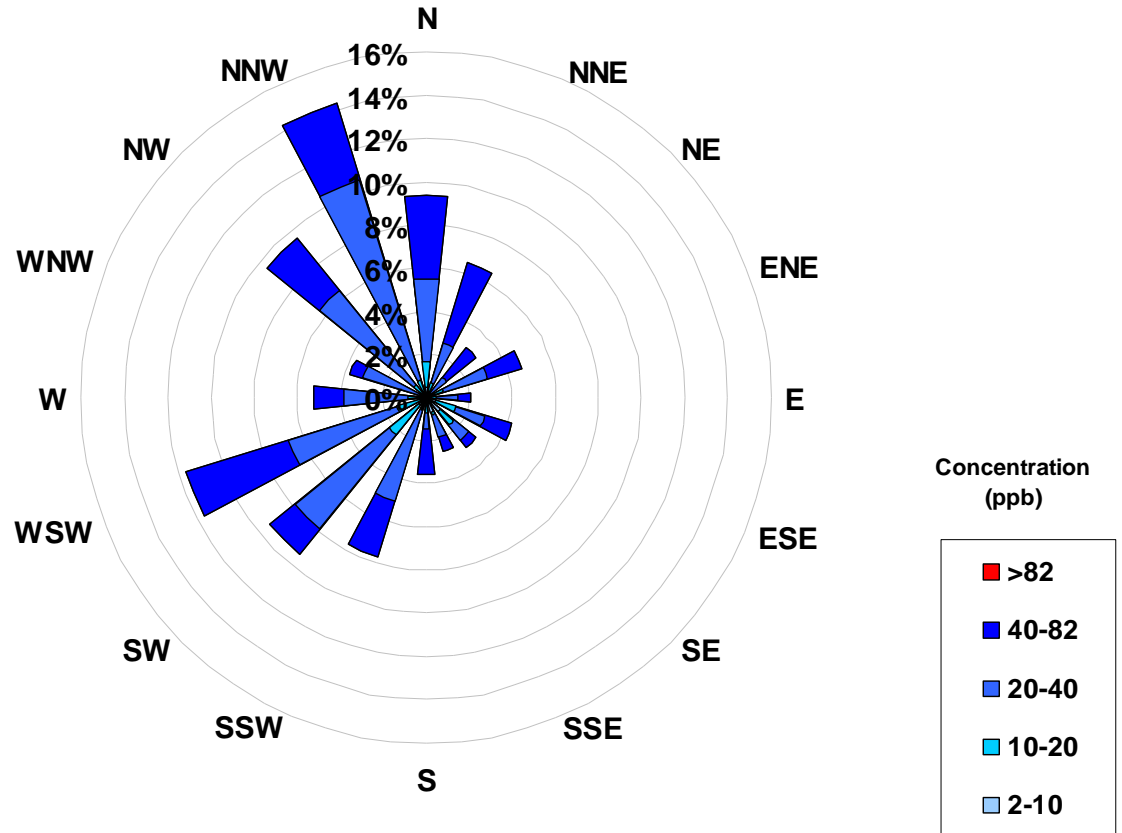
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day Mountain Standard Time

Day	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	24-hour Average	Daily Maximum
	Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Apr-05		31	27	27	29	30	31	33	35	37	38	40	41	42	43	43	43	44	45	45	44	43	42	41	40		38.1	44.8
2-Apr-05		38	38	38	37	37	35	33	33	33	33	34	34	36	37	42	45	48	49	50	49	48	45	43	41		39.8	49.5
3-Apr-05		38	35	33	31	28	27	25	22	22	23	26	30	31	35	40	45	48	49	48	47	46	44	43	42		35.8	48.8
4-Apr-05		39	36	33	30	27	25	22	19	19	20	23	23	27	32	37	42	46	49	51	49	46	43	41	37		34.0	50.6
5-Apr-05		33	29	25	23	22	20	17	16	16	18	18	22	27	33	39	45	50	N	N	N	N	N	N	N		N	50.5
6-Apr-05		N	N	N	N	25	25	23	22	23	25	26	27	30	34	38	41	42	43	42	40	36	30	25	22		31.0	42.8
7-Apr-05		18	14	12	10	11	12	12	12	13	14	16	19	22	25	29	33	37	40	38	36	33	32	29	26		22.6	39.5
8-Apr-05		23	21	20	20	20	20	20	20	22	25	28	32	35	37	40	42	43	42	40	37	35	33	31	30		29.8	42.7
9-Apr-05		28	27	27	28	28	28	28	28	29	29	29	30	31	33	35	37	38	39	40	40	38	36	35	34		32.4	39.8
10-Apr-05		33	32	31	31	31	31	31	31	32	33	34	36	37	39	41	43	44	46	46	45	43	42	37	32		36.8	45.9
11-Apr-05		27	22	17	13	10	9	9	8	11	16	21	25	30	35	40	45	46	46	45	42	42	39	38	36		28.1	46.0
12-Apr-05		34	31	29	30	30	28	25	23	23	25	27	30	34	38	42	45	46	46	45	45	42	39	38	36		34.6	46.2
13-Apr-05		33	29	26	24	22	18	15	11	10	12	14	17	22	26	32	38	42	43	45	44	43	41	39	37		28.5	44.6
14-Apr-05		36	33	33	32	31	31	31	32	33	35	36	37	38	39	38	38	37	37	35	34	33	33	33	32		34.4	38.5
15-Apr-05		30	30	30	31	31	31	31	31	32	33	35	36	37	39	41	42	43	45	45	45	43	41	38	37		36.7	45.5
16-Apr-05		36	34	32	30	28	27	25	23	25	26	29	31	34	37	40	43	44	43	42	39	36	33	30	28		33.1	43.5
17-Apr-05		26	23	22	22	23	23	24	24	24	26	27	30	33	36	38	42	45	47	49	47	46	45	44	43		33.7	48.8
18-Apr-05		42	41	40	39	37	33	28	26	26	27	26	27	29	33	38	42	43	43	44	43	41	39	38	35		35.8	43.7
19-Apr-05		33	30	26	23	21	19	16	14	13	14	17	22	23	28	33	38	42	44	45	45	43	40	37	33		29.0	45.3
20-Apr-05		29	24	20	16	13	11	9	8	8	10	14	15	21	27	33	39	44	48	48	46	44	42	40	37		26.9	48.1
21-Apr-05		34	31	28	27	24	22	19	19	19	21	20	25	31	36	42	45	48	49	48	47	44	41	37	35		33.0	48.8
22-Apr-05		32	29	25	23	20	18	17	16	16	16	20	24	29	35	39	43	45	45	45	44	42	40	37	36		30.7	45.3
23-Apr-05		35	33	32	32	33	33	33	33	32	33	35	37	39	42	45	49	49	51	51	51	49	47	42	37		39.7	51.2
24-Apr-05		32	27	21	16	13	10	8	8	9	12	17	23	27	32	38	39	41	43	44	44	43	41	39	34		27.6	44.3
25-Apr-05		29	23	18	13	9	5	3	3	5	8	14	20	27	34	36	41	45	48	48	48	46	43	40	37		26.7	48.3
26-Apr-05		35	34	32	30	29	29	31	32	33	34	37	40	42	43	45	47	47	47	47	47	46	45	44	42		39.1	47.4
27-Apr-05		39	37	35	34	33	32	32	33	34	36	37	39	39	39	39	40	40	39	39	38	37	37	36	34		36.5	39.5
28-Apr-05		31	28	26	25	24	22	22	23	27	29	32	33	35	37	40	41	42	43	43	43	42	41	39	38		33.6	43.0
29-Apr-05		37	36	35	32	30	29	28	27	28	29	30	33	36	38	41	43	43	42	42	41	40	39	38	37		35.5	42.7
30-Apr-05		36	36	35	34	33	31	30	30	30	30	30	31	31	31	32	32	32	32	32	32	32	32	31	31		31.9	36.1
		30	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		N	30.4
Hourly Avg		32.6	30.0	27.9	26.4	25.1	23.8	22.7	22.1	22.8	24.3	26.4	28.9	31.8	35.2	38.6	41.6	43.5	44.3	44.2	43.1	41.5	39.6	37.4	35.2			
Hourly Max		41.7	40.5	39.8	39.0	36.6	35.4	33.3	35.4	36.6	38.1	39.8	41.2	42.3	43.1	45.2	48.7	50.5	50.7	51.2	50.5	48.9	46.6	43.9	43.1			



Concentration Rose for the 1-hr O₃ Average Concentration Occurrences at the Crescent Heights Site for April 2005



Frequency Distribution of O ₃ in ppb			
Range		Frequency (hrs)	
0	< 2	5	
2	to 10	36	
10	to 20	75	
20	to 40	338	
40	to 82	231	
	> 82	0	
Total Non-Zero Values		685	

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



PAS - Crescent Heights Carbon Monoxide Monthly Summary

Station: Crescent Heights

HOURLY AVERAGE TABLE

Carbon Monoxide (CO)

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	1.20 ppm 11-Apr 7:00 8:00
Maximum 24-hr Average:	0.35 ppm 30-Apr

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

AIC Time:	32 hrs	Operational Time:	678 hrs					
Calibration Time:	8 hrs	AMD Operational Uptime:	99.7%					
Percentile	99	95	75	50	25	5	1	Average
	0.6	0.4	0.3	0.2	0.2	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	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum	
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Apr-05	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	A	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.34	0.53
2-Apr-05	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.23	0.31
3-Apr-05	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.2	0.2	0.2	A	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.27	0.40	
4-Apr-05	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	A	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.32	0.53	
5-Apr-05	0.5	0.6	0.5	0.5	0.6	0.7	0.7	0.7	0.7	0.6	C	C	C	C	C	C	M	M	C	C	A	A	0.3	0.2	N	0.72	
6-Apr-05	0.2	0.2	A	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.2	0.22	0.43	
7-Apr-05	0.2	A	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.3	0.2	0.2	0.2	0.3	0.21	0.38	
8-Apr-05	A	0.2	0.1	0.2	0.2	0.2	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	A	0.22	0.39	
9-Apr-05	0.2	0.3	0.2	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	A	0.2	0.28	0.37	
10-Apr-05	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	A	0.1	0.2	0.17	0.33	
11-Apr-05	0.2	0.2	0.2	0.2	0.3	0.5	0.6	1.2	0.3	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.26	1.20	
12-Apr-05	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.5	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.24	0.53	
13-Apr-05	0.3	0.2	0.2	0.2	0.3	0.4	0.6	1.0	0.4	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.28	0.98	
14-Apr-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.28	
15-Apr-05	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.25	
16-Apr-05	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.24	0.37	
17-Apr-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.28	
18-Apr-05	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.2	0.2	0.3	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.24	0.42	
19-Apr-05	0.2	0.2	0.2	0.4	0.3	0.3	0.4	0.4	0.5	0.3	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.27	0.46	
20-Apr-05	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.6	0.6	0.4	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.29	0.58	
21-Apr-05	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.28	
22-Apr-05	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.4	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.23	0.38	
23-Apr-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.22	0.39	
24-Apr-05	0.3	0.3	0.3	0.2	0.2	0.3	0.3	A	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.21	0.35	
25-Apr-05	0.3	0.3	0.3	0.3	0.3	0.4	A	0.5	0.3	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23	0.46	
26-Apr-05	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.19	
27-Apr-05	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.25	
28-Apr-05	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.24	
29-Apr-05	0.2	0.2	A	0.2	0.2	0.2	0.3	0.2	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	0.17	0.25	
30-Apr-05	0.2	A	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.35	0.51	
																									N	0.00	
Hourly Avg	0.24	0.24	0.24	0.24	0.26	0.30	0.33	0.38	0.27	0.23	0.21	0.19	0.19	0.20	0.20	0.20	0.20	0.20	0.23	0.26	0.26	0.25	0.25	0.24			
Hourly Max	0.53	0.55	0.54	0.55	0.58	0.72	0.68	1.20	0.66	0.64	0.35	0.35	0.37	0.36	0.39	0.39	0.40	0.43	0.43	0.44	0.53	0.48	0.51	0.52			

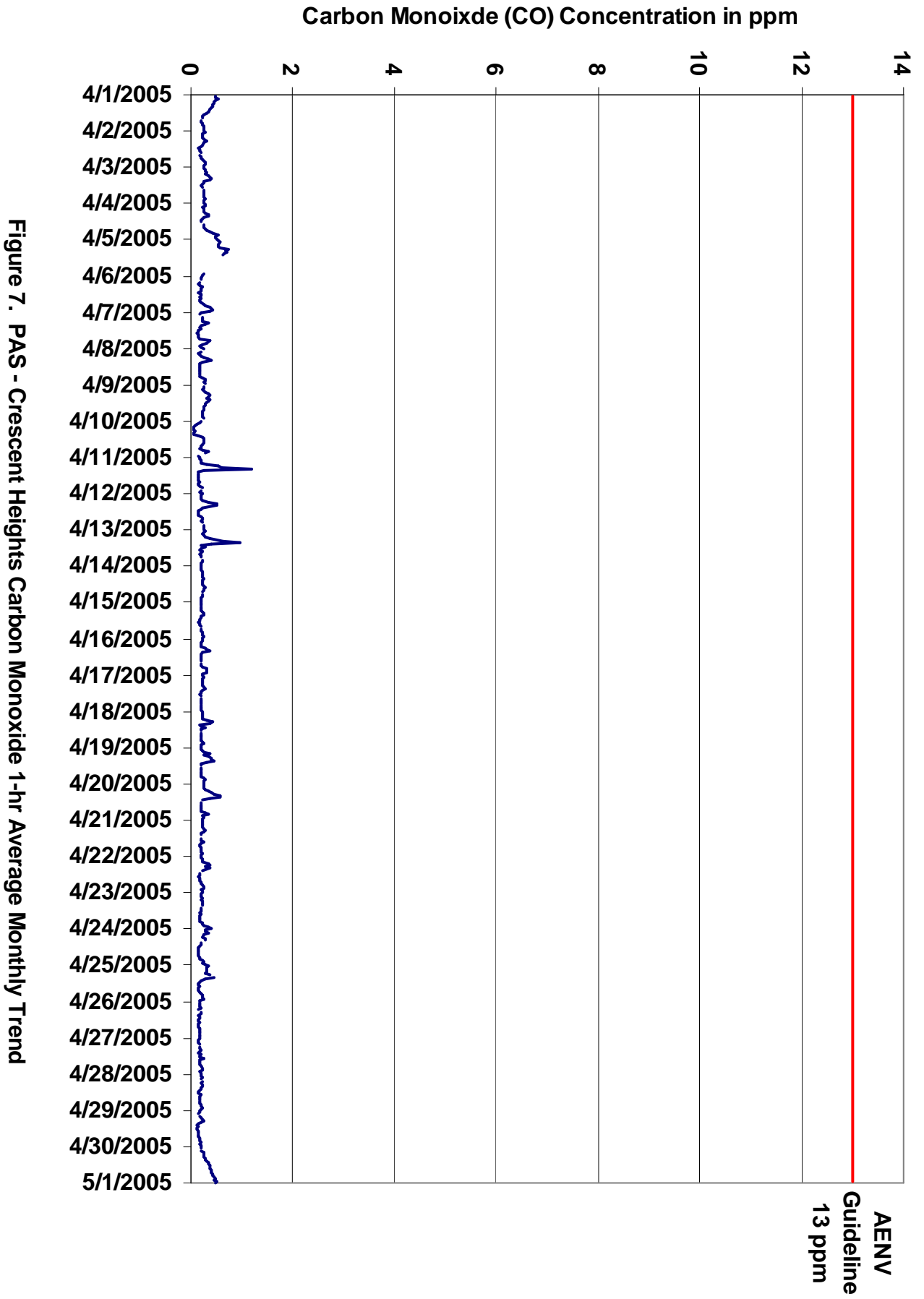


Figure 7. PAS - Crescent Heights Carbon Monoxide 1-hr Average Monthly Trend



Station: Crescent Heights

HOURLY MAXIMUM TABLE

Carbon Monoxide (CO)

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005
Summary

Maximum 1-hr Value:	2.2	ppm	11-Apr	7:00 8:00
Maximum 24-hr Value:	0.5	ppm	4-Apr	

AIC Time:	29 hrs	Operational Time:	673 hrs					
Calibration Time:	6 hrs	AMD Operational Uptime:	98.3%					
Percentile	99	95	75	50	25	5	1	Average
	1.4	0.7	0.4	0.3	0.2	0.2	0.1	0.3 ppm

Status Flag Characters

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

Day Mountain Standard Time

Day	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Apr-05	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	A	0.4	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.38	0.56
2-Apr-05	0.5	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.2	0.2	0.3	0.3	0.3	A	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.31	0.51
3-Apr-05	0.5	0.4	0.4	0.4	0.4	0.4	0.6	0.6	0.3	0.3	0.3	0.2	0.2	A	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.34	0.56
4-Apr-05	0.3	0.3	0.8	0.3	0.4	0.4	0.6	0.5	0.3	0.3	0.3	0.3	A	0.9	0.3	0.3	0.3	0.4	0.5	0.6	0.9	0.7	0.5	0.6	0.47	0.88	
5-Apr-05	0.6	0.6	0.6	0.6	0.6	1.7	0.8	1.0	0.7	0.7	C	C	C	C	C	C	M	N	N	N	N	N	N	N	N	N	1.70
6-Apr-05	N	N	N	N	0.2	0.3	0.3	0.5	0.3	0.3	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.3	0.3	0.6	0.7	0.7	0.6	0.3	0.36	0.68	
7-Apr-05	0.2	A	0.7	0.6	0.3	0.3	0.6	0.6	0.7	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.9	0.6	0.3	0.2	0.3	0.3	0.39	0.94	
8-Apr-05	A	0.2	0.2	0.2	0.2	0.3	0.5	0.6	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.4	0.2	0.3	0.5	0.7	0.5	0.6	A	0.34	0.71	
9-Apr-05	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.3	0.3	0.5	A	0.3	0.36	0.49	
10-Apr-05	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.6	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.4	0.4	0.4	A	0.2	0.2	0.24	0.56	
11-Apr-05	0.2	0.2	0.2	0.2	0.5	1.4	1.5	2.2	0.8	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.3	A	0.2	0.2	0.3	0.45	2.21	
12-Apr-05	0.3	0.2	0.3	0.2	0.4	0.5	1.4	1.0	0.4	0.3	0.4	0.1	0.1	0.2	0.3	0.3	0.3	0.2	0.2	A	0.3	0.2	0.2	0.3	0.36	1.42	
13-Apr-05	0.3	0.3	0.2	0.3	0.3	0.4	1.8	1.4	0.6	0.3	0.8	0.2	0.3	0.6	0.3	0.2	0.2	0.3	A	0.3	0.3	0.3	0.2	0.2	0.44	1.76	
14-Apr-05	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.3	0.5	0.6	0.4	0.3	0.3	A	0.3	0.2	0.2	0.2	0.2	0.2	0.30	0.56	
15-Apr-05	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.4	0.2	0.2	A	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.26	0.39	
16-Apr-05	0.3	0.3	0.3	0.3	0.2	0.5	0.4	0.5	0.3	0.3	0.3	0.3	0.2	0.3	0.2	A	0.2	0.3	0.2	0.4	0.4	0.4	0.3	0.2	0.30	0.50	
17-Apr-05	0.3	0.2	0.3	0.3	0.4	0.3	0.2	0.4	0.4	0.3	0.2	0.3	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26	0.37	
18-Apr-05	0.2	0.2	0.3	0.3	0.3	0.7	0.7	0.7	0.2	0.3	1.1	0.3	0.3	A	0.5	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.2	0.37	1.07	
19-Apr-05	0.3	0.3	0.3	1.3	0.4	0.7	0.6	0.6	0.6	0.5	0.4	0.2	A	0.7	0.2	0.2	0.3	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.41	1.35	
20-Apr-05	0.3	0.3	0.3	0.3	0.5	0.5	0.6	0.8	0.7	0.5	0.3	A	0.3	0.2	0.3	0.2	0.2	0.3	0.4	0.7	0.3	0.3	0.3	0.2	0.38	0.75	
21-Apr-05	0.2	0.5	0.2	0.6	0.3	0.4	0.4	0.4	0.3	A	0.4	0.4	0.3	0.7	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.32	0.74	
22-Apr-05	0.3	0.2	0.2	0.2	1.1	0.6	0.5	0.6	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.32	1.10	
23-Apr-05	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.5	0.25	0.47	
24-Apr-05	0.4	0.4	0.6	0.3	0.4	0.4	0.4	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.7	0.29	0.72	
25-Apr-05	0.5	0.5	1.1	0.4	0.5	0.5	A	0.7	0.4	0.3	0.3	0.2	0.2	0.6	0.2	0.2	0.2	0.2	0.3	0.6	0.6	0.4	0.3	0.2	0.41	1.06	
26-Apr-05	0.2	0.2	0.2	0.3	0.2	A	0.3	0.2	0.2	0.9	0.3	0.2	0.3	0.7	0.3	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.28	0.94	
27-Apr-05	0.2	0.2	0.2	0.2	A	0.2	0.3	0.3	0.2	0.2	0.5	0.5	0.5	1.1	0.4	0.3	0.2	0.3	0.4	0.4	0.3	0.2	0.3	0.2	0.34	1.10	
28-Apr-05	0.3	0.3	0.3	A	0.3	0.2	0.3	0.3	0.5	0.3	0.3	0.2	0.3	0.6	0.3	0.3	0.2	0.2	0.2	0.4	0.4	0.4	0.3	0.3	0.31	0.62	
29-Apr-05	0.2	0.2	A	0.2	0.3	0.3	0.4	0.3	0.2	0.1	0.2	0.2	0.2	0.3	0.1	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.23	0.40	
30-Apr-05	0.3	A	0.2	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.6	0.6	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.43	0.63	
		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.00
Hourly Avg	0.30	0.29	0.35	0.35	0.36	0.46	0.55	0.57	0.40	0.33	0.35	0.26	0.27	0.41	0.28	0.25	0.26	0.26	0.32	0.37	0.38	0.33	0.32	0.30			
Hourly Max	0.63	0.57	1.06	1.35	1.10	1.70	1.76	2.21	0.85	0.94	1.07	0.63	0.53	1.10	0.51	0.48	0.49	0.50	0.94	0.74	0.87	0.68	0.60	0.72			



Carbon Monoxide (CO) Concentration in ppm

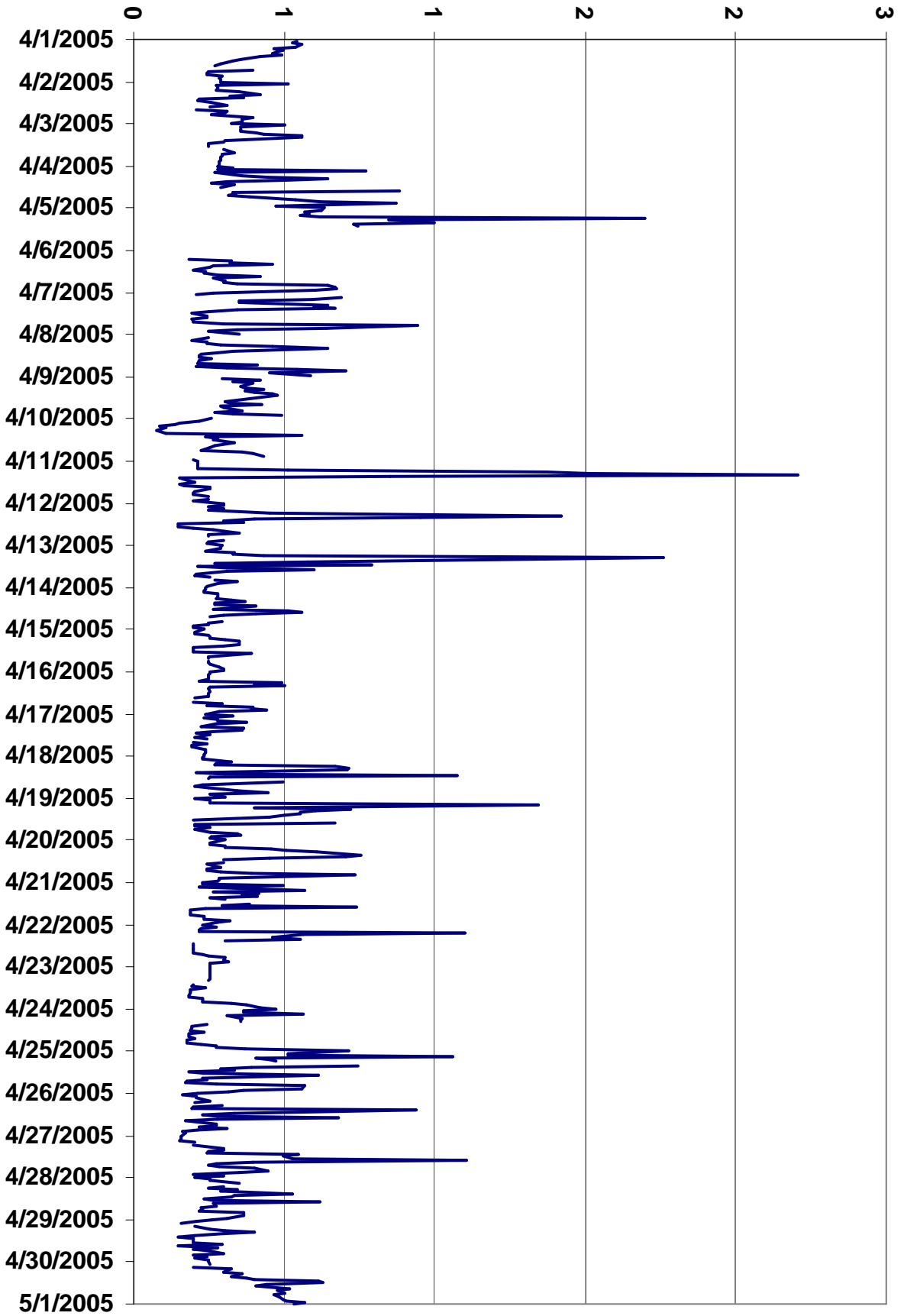


Figure 8. PAS - Crescent Heights Carbon Monoxide 1-hr Maximum Value Monthly Trend



Station: Crescent Heights

EIGHT HOUR RUNNING AVERAGE TABLE

Carbon Monoxide (CO)

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005

Summary

Number of 8-hr Exceedances:	0						
Maximum 8-hr Average:	0.65	ppm	5-Apr	10:00	11:00		

Guideline Limit: Alberta Environment: 8-hr 5 ppm

Percentile	99	95	75	50	25	5	1
	0.52	0.42	0.26	0.22	0.19	0.16	0.13

Status Flag Characters

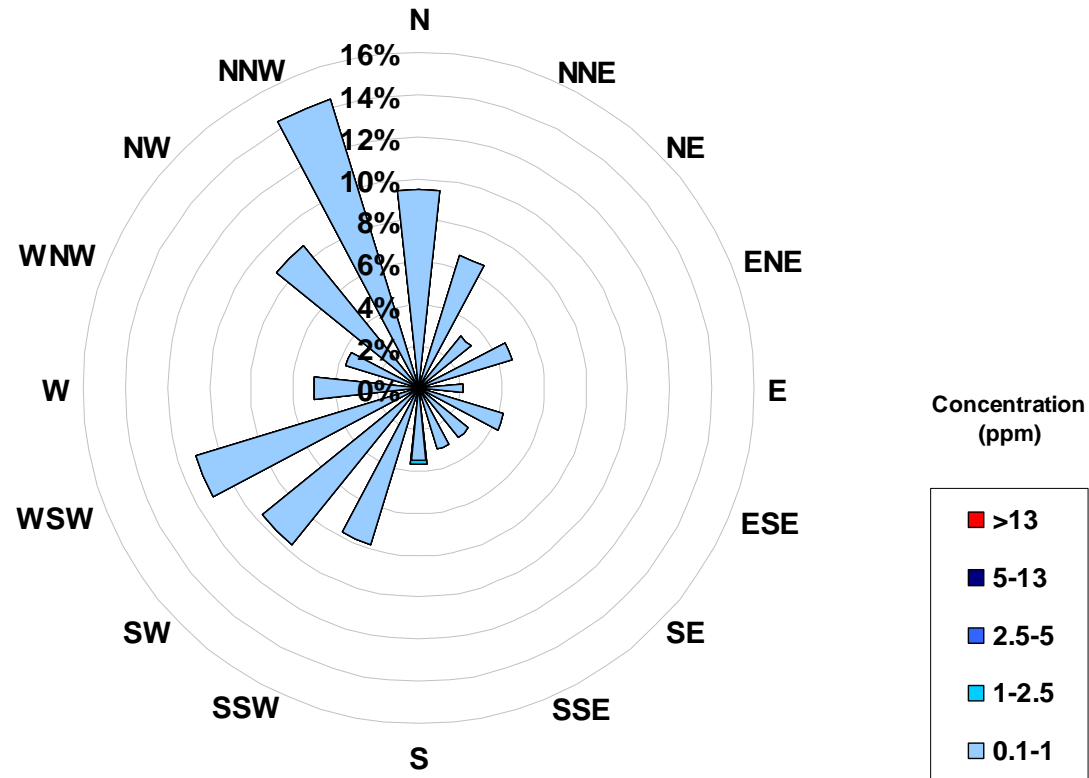
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day Mountain Standard Time

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum	
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Apr-05	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	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.37	0.51	
2-Apr-05	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23	0.26	
3-Apr-05	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.27	0.32	
4-Apr-05	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.28	0.43	
5-Apr-05	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.65	
6-Apr-05	N	N	N	N	N	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.20	0.28	
7-Apr-05	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.29	
8-Apr-05	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.25	
9-Apr-05	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.28	0.33	
10-Apr-05	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.23	
11-Apr-05	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26	0.44	
12-Apr-05	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23	0.30	
13-Apr-05	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29	0.42	
14-Apr-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.25	
15-Apr-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.23	
16-Apr-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.23	0.25	
17-Apr-05	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.26	
18-Apr-05	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23	0.28	
19-Apr-05	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26	0.35	
20-Apr-05	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29	0.42	
21-Apr-05	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.26	
22-Apr-05	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.29	
23-Apr-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.25	
24-Apr-05	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.22	0.30	
25-Apr-05	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24	0.34	
26-Apr-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.17	0.20	
27-Apr-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.20	
28-Apr-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.22	
29-Apr-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.17	0.20	
30-Apr-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.31	0.45	
	0.5	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.46
Hourly Avg	0.25	0.25	0.25	0.25	0.25	0.25	0.26	0.28	0.28	0.28	0.28	0.26	0.25	0.24	0.23	0.21	0.20	0.20	0.20	0.20	0.21	0.22	0.22	0.23	0.24		
Hourly Max	0.49	0.49	0.51	0.52	0.53	0.56	0.58	0.61	0.62	0.64	0.65	0.42	0.40	0.38	0.34	0.35	0.36	0.38	0.39	0.40	0.41	0.43	0.44	0.45			



Concentration Rose for the 1-hr CO Average Concentration Occurrences at the Crescent Heights Site for April 2005



Frequency Distribution of CO in ppm			
Range			Frequency (hrs)
0	<	0.1	7
0.1	to	1	670
1	to	2.5	1
2.5	to	5	0
5	to	13	0
	>	13	0
Total Non-Zero Values			678

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



PAS - Crescent Heights Total Hydrocarbon Monthly Summary

Station: Crescent Heights

HOURLY AVERAGE TABLE

Total HydroCarbons (THC)

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	3.0	ppm	25-Apr	5:00 6:00
Maximum 24-hr Average:	2.2	ppm	5-Apr	

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

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
	2.6	2.3	2.0	1.9	1.9	1.8	1.6	1.96 ppb

Status Flag Characters

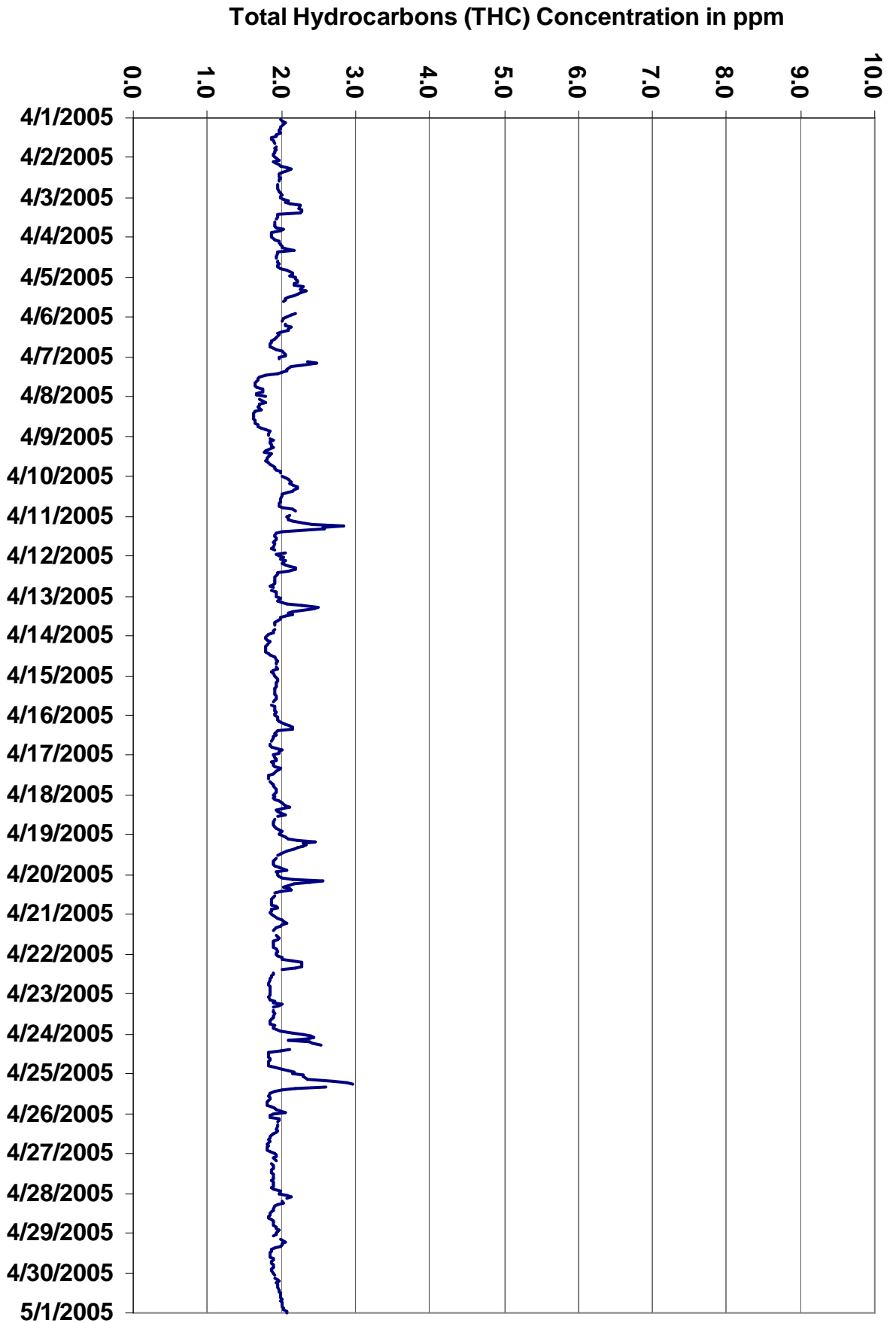
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day Mountain Standard Time

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum	
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Apr-05	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.05
2-Apr-05	2.0	1.9	1.9	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.13
3-Apr-05	2.0	2.1	2.1	2.1	2.3	2.2	2.3	2.3	2.2	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	2.02	2.28	
4-Apr-05	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.2	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.2	2.01	2.20	
5-Apr-05	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.1	2.0	2.0	2.0	C	C	A	A	2.0	A	2.2	2.1	2.1	2.16	2.34	
6-Apr-05	2.0	2.0	A	2.0	2.1	2.1	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	2.0	2.1	2.0	2.0	1.97	2.12	
7-Apr-05	2.0	A	2.3	2.5	2.3	2.1	2.1	2.1	2.0	1.9	1.8	1.7	1.7	1.7	1.7	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.87	2.48
8-Apr-05	A	1.7	1.8	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8	A	1.70	1.84
9-Apr-05	1.8	1.9	1.8	1.8	1.9	1.9	1.9	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.0	2.0	A	2.0	1.86	2.01
10-Apr-05	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	A	2.1	2.1	2.07	2.21	
11-Apr-05	2.1	2.1	2.1	2.3	2.4	2.8	2.6	2.6	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	1.9	2.0	2.08	2.85	
12-Apr-05	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	A	1.9	1.9	1.9	1.9	1.98	2.20
13-Apr-05	2.0	2.0	1.9	2.0	2.1	2.3	2.5	2.4	2.2	2.1	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.8	1.8	2.03	2.50	
14-Apr-05	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.0	1.9	1.9	A	1.9	2.0	1.9	1.9	1.9	1.9	1.86	1.95	
15-Apr-05	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	1.96	
16-Apr-05	1.9	1.9	1.9	2.0	2.0	2.1	2.2	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.8	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.95	2.16	
17-Apr-05	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.8	1.8	1.8	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	1.99
18-Apr-05	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.0	1.9	1.9	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.96	2.10	
19-Apr-05	2.0	2.1	2.2	2.4	2.3	2.3	2.3	2.2	2.2	2.1	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	1.9	1.9	1.9	2.06	2.45	
20-Apr-05	2.0	2.0	2.1	2.5	2.4	2.2	2.0	2.1	2.1	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	2.00	2.55	
21-Apr-05	1.9	1.9	2.0	2.0	2.1	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.94	2.07	
22-Apr-05	2.0	2.0	2.0	2.1	2.3	2.3	2.3	2.2	2.0	A	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.96	2.28	
23-Apr-05	1.9	1.8	1.8	1.9	1.9	2.0	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	2.0	2.2	2.3	1.92	2.30	
24-Apr-05	2.4	2.4	2.4	2.1	2.4	2.4	2.5	A	2.1	2.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.1	2.2	2.1	2.06	2.54	
25-Apr-05	2.3	2.3	2.4	2.7	2.9	3.0	A	2.6	2.2	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.0	1.9	2.11	2.96	
26-Apr-05	1.8	1.8	2.0	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.88	1.97	
27-Apr-05	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.89	1.98	
28-Apr-05	2.1	2.1	2.1	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.93	2.12	
29-Apr-05	1.9	1.9	A	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	2.05	
30-Apr-05	1.9	A	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	1.98	2.07	
																									N	0.00	
Hourly Avg	1.99	1.99	2.03	2.07	2.10	2.12	2.09	2.08	1.99	1.94	1.92	1.90	1.89	1.89	1.88	1.87	1.87	1.87	1.89	1.92	1.93	1.94	1.95	1.96			
Hourly Max	2.38	2.43	2.36	2.69	2.89	2.96	2.55	2.60	2.26	2.21	2.16	2.09	2.04	2.04	2.03	2.00	1.99	2.02	2.03	2.14	2.19	2.19	2.17	2.30			



Figure 9. PAS - Crescent Heights Total Hydrocarbons 1-hr Average Monthly Trend





Station: Crescent Heights

HOURLY MAXIMUM TABLE

Total HydroCarbons (THC)

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005
Summary

Maximum 1-hr Value:	4.0	ppm	19-Apr	3:00 4:00
Maximum 24-hr Value:	2.3	ppm	25-Apr	

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
	3.0	2.5	2.1	2.0	1.9	1.8	1.7	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

Day	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Apr-05	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9	A	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.98	2.09
2-Apr-05	2.1	1.9	2.0	2.1	2.1	2.2	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.04	2.26	
3-Apr-05	2.1	2.2	2.1	2.2	2.4	2.3	2.4	2.5	2.6	2.0	2.0	2.0	2.0	A	1.9	1.9	2.0	2.0	2.1	2.2	1.9	1.9	1.9	1.9	2.10	2.64	
4-Apr-05	1.9	2.1	2.1	2.0	2.2	2.2	2.3	2.3	2.1	2.0	2.0	2.0	A	2.1	2.0	2.0	2.0	2.1	2.1	2.2	2.3	2.2	2.1	2.3	2.10	2.34	
5-Apr-05	2.3	2.2	2.3	2.2	2.2	2.6	2.4	2.4	2.3	2.2	2.4	2.1	2.1	2.1	2.1	C	C	A	A	2.0	A	2.3	2.3	2.1	2.24	2.57	
6-Apr-05	2.1	2.1	A	2.1	2.1	2.5	2.1	2.2	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.1	2.2	2.2	2.0	2.06	2.49	
7-Apr-05	2.2	A	3.2	3.1	2.6	2.3	2.3	2.2	2.1	2.1	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.9	1.8	1.9	1.8	1.7	1.8	2.04	3.20	
8-Apr-05	A	1.8	2.0	1.8	1.7	1.7	1.8	1.8	1.7	1.7	1.6	1.6	1.7	1.7	1.7	1.7	1.8	1.7	1.7	2.0	2.1	1.9	1.9	A	1.78	2.10	
9-Apr-05	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	2.0	2.0	2.1	A	2.1	1.92	2.11	
10-Apr-05	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.5	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.5	A	2.1	2.1	2.14	2.53	
11-Apr-05	2.2	2.2	2.2	2.4	2.7	3.8	2.9	3.0	2.3	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	A	2.1	2.0	2.1	2.22	3.77	
12-Apr-05	2.1	2.1	2.1	2.1	2.2	2.2	2.4	2.3	2.3	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.0	A	1.9	1.9	2.0	2.06	2.41	
13-Apr-05	2.1	2.0	2.0	2.2	2.2	2.5	2.8	2.6	2.2	2.1	2.4	2.1	2.0	2.1	2.0	1.9	1.9	1.9	A	2.0	2.0	2.0	1.9	1.8	2.12	2.85	
14-Apr-05	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.0	2.0	2.1	2.0	2.0	A	2.0	2.0	1.9	1.9	1.9	2.0	1.91	2.08
15-Apr-05	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	1.99
16-Apr-05	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.3	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.1	2.0	2.0	1.9	2.00	2.26
17-Apr-05	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.1	2.0	1.9	1.9	1.8	1.8	A	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.94	2.06
18-Apr-05	2.0	1.9	2.0	2.0	2.1	2.2	2.3	2.1	2.0	2.0	2.1	2.2	2.0	A	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.0	2.04	2.28	
19-Apr-05	2.1	2.2	2.9	4.0	2.5	2.6	2.5	2.3	2.2	2.2	2.1	2.0	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.0	2.0	2.0	2.23	4.01
20-Apr-05	2.0	2.1	2.2	2.7	2.8	2.4	2.1	2.3	2.3	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.1	1.9	1.9	1.9	2.09	2.84	
21-Apr-05	1.9	2.0	2.1	2.1	2.2	2.0	2.0	2.0	1.9	1.9	A	2.0	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.99	2.24
22-Apr-05	2.1	2.0	2.1	2.2	2.6	2.6	2.4	2.5	2.2	A	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.05	2.57
23-Apr-05	1.9	1.9	1.9	2.1	1.9	2.2	2.2	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.0	2.0	2.1	2.4	2.5	2.00	2.49	
24-Apr-05	2.5	2.5	2.5	2.3	2.5	2.5	2.6	A	2.2	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	2.0	2.1	2.2	2.2	2.2	2.14	2.65	
25-Apr-05	2.4	2.5	2.6	2.8	3.2	3.3	A	3.1	2.4	2.2	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	2.0	2.1	2.1	2.1	2.0	2.25	3.29	
26-Apr-05	1.9	1.9	2.0	2.0	2.0	A	2.0	2.0	2.0	2.6	2.0	1.9	1.9	2.0	1.9	1.8	1.9	1.8	1.8	1.9	1.8	1.8	1.9	1.9	1.95	2.62	
27-Apr-05	2.0	2.0	1.9	2.1	A	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.2	2.0	1.96	2.16
28-Apr-05	2.1	2.2	2.1	A	2.1	2.1	2.0	1.9	2.0	2.1	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.1	2.0	2.0	2.0	2.0	2.00	2.19	
29-Apr-05	2.0	1.9	A	2.0	2.1	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.95	2.10
30-Apr-05	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.0	2.1	2.2	2.1	2.1	2.1	2.04	2.24	
																										N	0.00
Hourly Avg	2.05	2.05	2.15	2.22	2.22	2.28	2.21	2.19	2.11	2.02	1.99	1.95	1.93	1.95	1.92	1.90	1.91	1.91	1.95	2.01	2.03	2.00	2.02	2.02			
Hourly Max	2.49	2.54	3.20	4.01	3.23	3.77	2.86	3.11	2.64	2.62	2.40	2.22	2.09	2.10	2.12	2.05	2.05	2.08	2.14	2.24	2.53	2.30	2.43	2.49			



Total Hydrocarbons (THC) Concentration in ppm

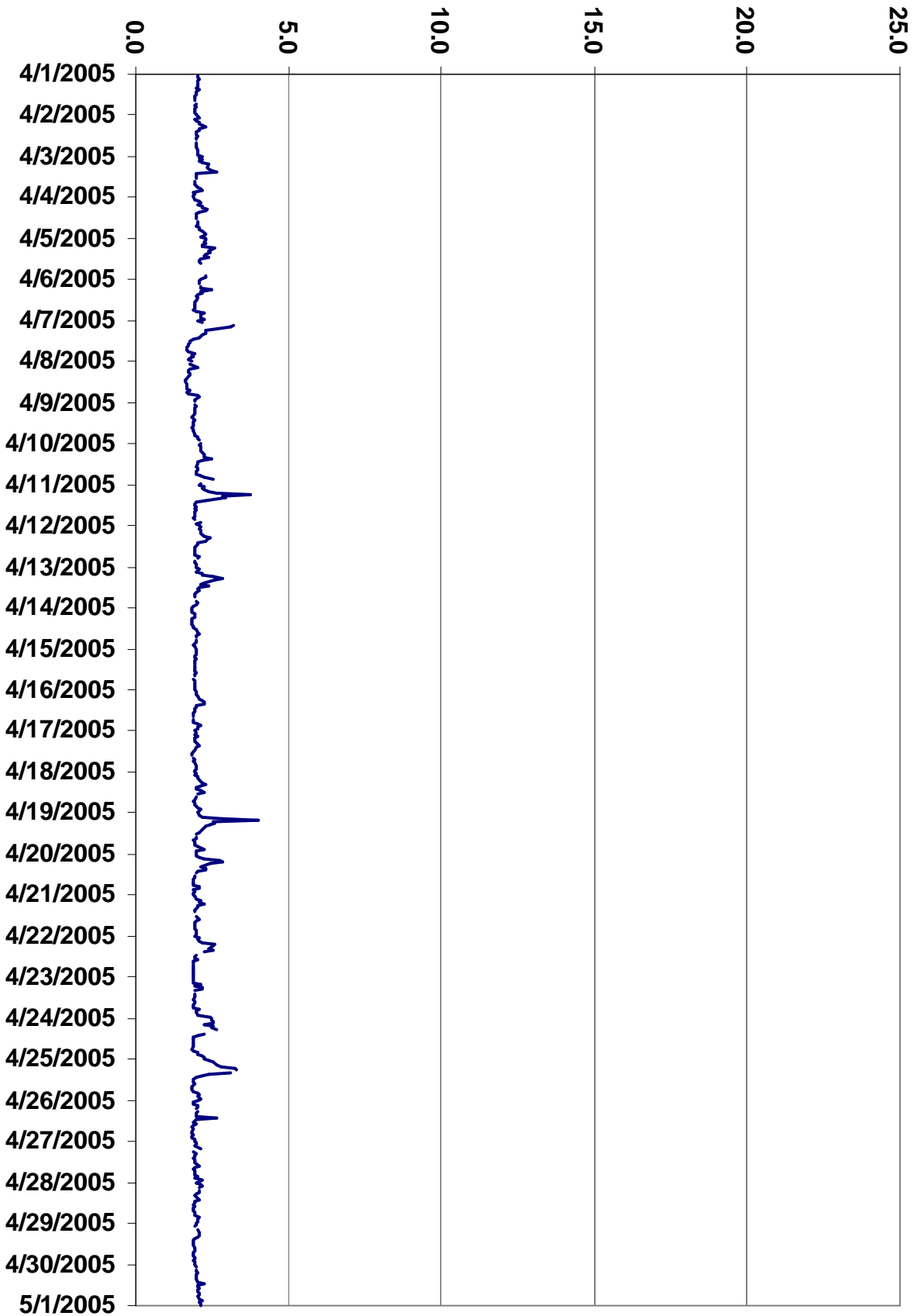


Figure 10. PAS - Crescent Heights Total Hydrocarbons 1-hr Maximum Value Monthly Trend



PAS - Crescent Heights Particulate Matter (less than 2.5 microns) Monthly Summary

Station: Crescent Heights

HOURLY AVERAGE TABLE

Particulate Matter (PM_{2.5})

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	21.4 $\mu\text{g}/\text{m}^3$ 20-Apr 8:00 9:00
Maximum 24-hr Average:	5.1 $\mu\text{g}/\text{m}^3$ 5-Apr

Guideline Limit Canada Wide Standard

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

AIC Time:	0 hrs	Operational Time:	686 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	95.8%						
Percentile	99	95	75	50	25	5	1	Average	Geomean
	12.5	7.5	3.6	2.0	0.8	0.0	0.0	2.7 $\mu\text{g}/\text{m}^3$	2.4 $\mu\text{g}/\text{m}^3$

Status Flag Characters

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

Day Mountain Standard Time

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-Apr-05	1	0	0	1	0	0	0	2	1	1	3	4	1	3	1	6	1	15	0	0	0	1	0	1	1.7	14.8
2-Apr-05	1	1	21	1	1	1	1	1	1	0	0	0	D	0	0	0	3	0	2	1	1	1	1	1	1.7	21.0
3-Apr-05	1	2	2	2	0	2	3	4	1	1	0	0	1	2	4	2	2	1	1	1	1	1	1	0	1.5	4.2
4-Apr-05	1	0	1	1	3	3	4	3	3	3	1	0	1	1	3	3	4	4	5	6	6	5	8	7	3.1	7.9
5-Apr-05	7	7	9	9	11	11	10	9	6	3	1	1	0	D	0	C	C	2	2	2	6	5	4	2	5.1	10.6
6-Apr-05	2	2	2	3	2	2	4	7	3	2	3	3	2	1	2	2	3	3	3	5	7	7	5	2	3.2	7.3
7-Apr-05	3	2	1	0	1	2	4	4	4	2	0	0	0	0	1	0	1	2	9	8	7	6	4	5	2.8	9.1
8-Apr-05	3	3	3	3	3	3	3	7	0	1	0	0	2	0	0	1	2	2	4	10	10	6	5	3	3.1	10.2
9-Apr-05	0	0	0	0	0	1	1	0	1	2	1	0	2	1	0	1	0	0	1	2	1	2	0	2	0.8	2.4
10-Apr-05	2	1	1	1	1	1	1	2	2	2	0	0	0	0	0	0	0	0	1	2	4	6	3	2	1.4	5.7
11-Apr-05	2	1	1	0	1	2	3	9	1	2	2	2	2	3	4	3	2	5	6	7	7	3	3	3	3.1	8.8
12-Apr-05	3	3	2	1	2	11	4	7	4	0	1	0	0	1	2	2	3	6	6	13	5	5	3	4	3.6	12.5
13-Apr-05	2	0	0	2	2	2	5	9	1	2	0	0	1	2	1	1	2	3	2	3	1	2	1	0	1.9	8.7
14-Apr-05	1	3	4	2	4	2	0	0	0	0	0	0	3	5	5	4	3	4	3	1	1	0	0	0	1.9	5.1
15-Apr-05	0	1	0	0	0	0	1	2	0	0	0	0	0	0	0	2	1	1	3	4	3	3	2	1	1.1	4.5
16-Apr-05	2	1	1	1	1	1	3	2	0	2	1	0	0	0	0	0	0	0	2	3	4	3	4	1	1.4	4.4
17-Apr-05	2	1	1	0	0	3	2	3	2	2	1	0	2	3	2	2	1	1	19	2	0	2	2	5	2.4	18.7
18-Apr-05	4	2	1	1	3	4	6	1	3	4	2	0	0	0	0	1	1	0	1	3	1	2	2	1	1.8	6.0
19-Apr-05	3	1	2	2	2	2	3	4	5	2	0	0	0	0	0	1	1	1	1	2	4	4	3	2	1.8	4.9
20-Apr-05	1	1	1	2	1	6	5	8	21	8	0	1	0	1	1	0	0	0	4	8	3	3	4	3	3.5	21.4
21-Apr-05	1	2	2	1	3	2	3	5	3	0	2	2	4	5	4	2	3	2	2	2	2	3	1	0	2.4	5.4
22-Apr-05	1	1	1	2	0	2	6	4	2	3	1	1	2	0	1	0	2	1	1	5	4	2	3	4	2.1	5.8
23-Apr-05	2	2	3	3	3	3	5	7	6	4	2	2	2	3	2	2	3	3	5	6	9	6	11	13	4.5	12.6
24-Apr-05	7	7	9	6	5	6	8	6	4	6	3	1	2	1	0	0	0	2	2	4	4	5	4	7	4.1	9.3
25-Apr-05	6	5	4	8	D	D	10	8	5	4	0	1	1	2	3	3	4	3	3	5	5	6	7	3	4.3	9.7
26-Apr-05	4	4	7	7	3	5	4	4	2	19	0	0	0	1	1	2	5	4	5	5	4	D	D	D	4.1	18.6
27-Apr-05	D	D	D	D	D	D	D	D	D	D	D	D	D	C	C	14	10	8	7	7	6	4	3	3	N	4.5
28-Apr-05	D	D	D	D	D	D	D	D	D	D	D	D	D	C	C	14	10	8	7	7	6	4	4	3	N	13.5
29-Apr-05	3	3	2	4	3	6	4	3	1	0	6	2	3	4	5	3	8	7	7	4	3	2	3	2	3.7	7.8
30-Apr-05	2	2	2	1	1	1	3	2	1	3	3	3	3	3	3	3	3	3	3	2	4	2	2	2	2.3	3.5
																									N	0.0
Hourly Avg	2.3	2.0	3.0	2.3	2.1	3.1	3.8	4.4	3.0	2.7	1.1	0.9	1.3	1.6	1.6	2.2	2.5	2.9	3.9	4.3	3.9	3.3	3.2	2.8		
Hourly Max	7.1	7.4	21.0	9.4	10.5	10.9	10.1	8.9	21.4	18.6	5.5	3.8	3.9	5.4	4.6	13.5	9.6	14.8	18.7	12.5	10.0	7.3	10.7	12.6		

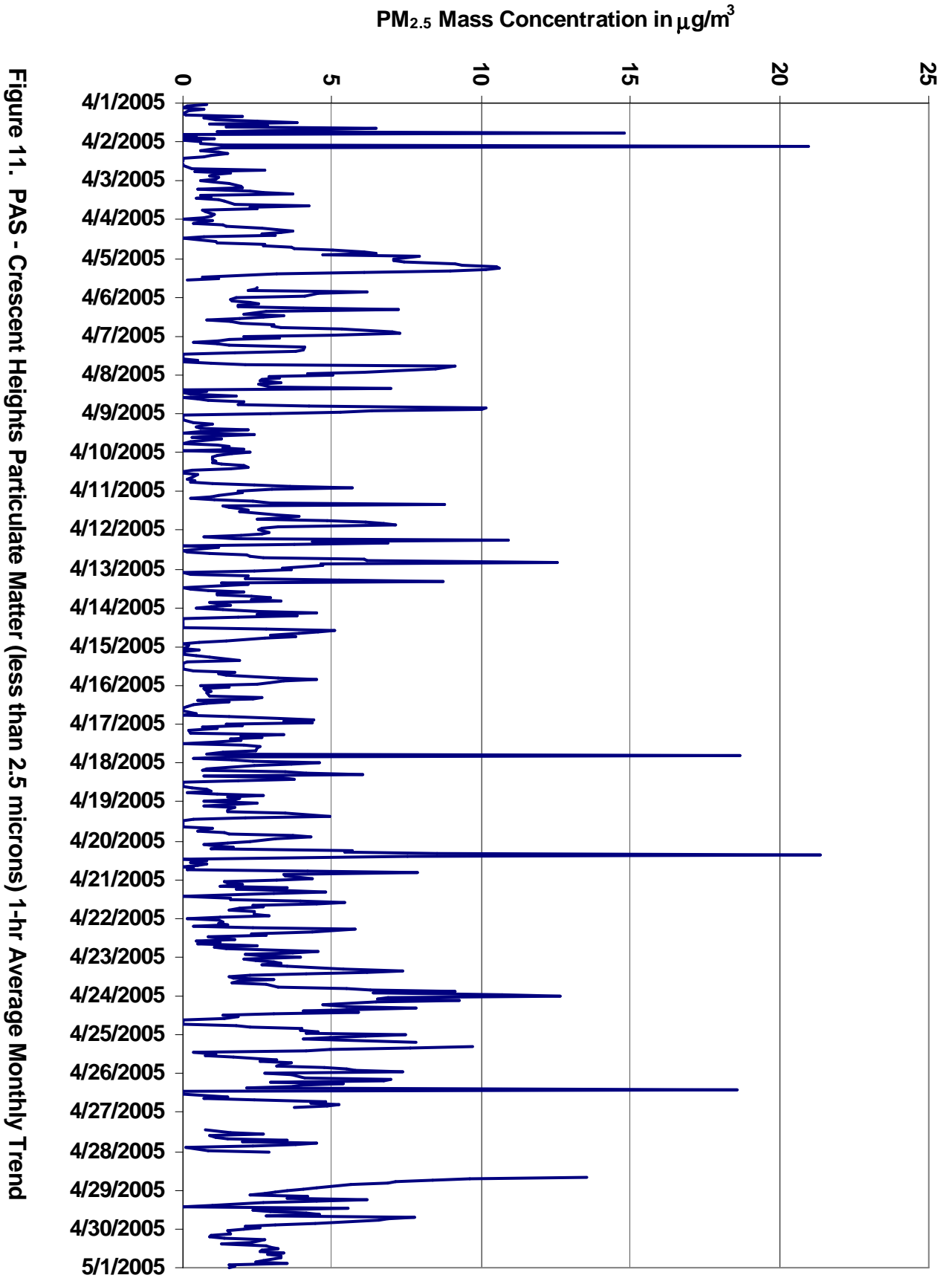


Figure 11. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend



Station: Crescent Heights

HOURLY MAXIMUM TABLE

Particulate Matter (PM_{2.5})

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005
Summary

Maximum 1-hr Value:	105.3	µg/m ³	17-Apr	18:00 19:00
Maximum 24-hr Value:	12.1	µg/m ³	26-Apr	

AIC Time:	0 hrs	Operational Time:	686 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	95.8%						
Percentile	99	95	75	50	25	5	1	Average	Geomean
	24.6	13.4	8.3	6.1	4.4	2.5	1.9	7.2 µg/m ³	6.9 µg/m ³

Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Apr-05	3	3	8	7	2	2	3	5	3	5	6	10	5	11	5	10	5	92	3	3	1	4	1	5	8.4	91.7
2-Apr-05	5	5	79	5	6	7	8	4	5	2	2	1	D	4	2	4	17	4	4	4	4	4	4	2	7.9	79.3
3-Apr-05	3	3	4	3	3	6	5	7	4	4	4	6	6	5	8	6	6	4	3	4	3	4	4	2	4.4	7.9
4-Apr-05	3	2	3	3	4	7	14	6	5	6	4	4	4	5	7	7	7	8	10	11	10	10	10	10	6.6	13.8
5-Apr-05	10	10	12	13	13	14	14	12	10	7	4	5	3	D	3	C	C	6	6	6	10	8	8	6	8.6	14.0
6-Apr-05	5	4	5	6	5	6	9	10	8	5	8	6	5	5	5	5	8	7	8	9	13	13	8	5	6.9	12.6
7-Apr-05	10	5	5	3	2	4	7	8	8	6	5	5	6	5	4	5	5	6	14	14	12	12	7	9	7.0	14.0
8-Apr-05	6	6	5	5	6	7	6	19	8	5	5	7	7	4	4	4	6	7	7	24	18	10	9	6	7.9	23.8
9-Apr-05	2	1	2	3	2	3	2	2	3	4	4	4	10	5	4	5	6	3	3	4	3	3	2	5	3.5	10.2
10-Apr-05	4	2	2	2	2	2	3	4	5	14	5	6	3	5	6	5	5	5	5	6	7	10	7	5	5.0	14.2
11-Apr-05	6	4	5	4	5	5	8	13	8	5	7	6	7	7	8	8	7	11	15	11	12	9	6	7	7.7	14.7
12-Apr-05	10	10	5	5	5	36	8	12	8	5	5	3	4	6	7	6	6	14	12	27	8	10	9	10	9.6	35.6
13-Apr-05	7	2	4	6	5	5	11	18	13	12	7	6	6	7	7	6	6	8	6	8	8	12	6	7	7.6	18.1
14-Apr-05	5	6	10	8	7	7	1	2	2	2	2	4	8	10	7	6	7	10	7	6	4	2	3	4	5.4	10.4
15-Apr-05	3	3	2	3	3	3	3	6	4	3	3	4	4	4	7	8	7	6	6	10	7	6	5	3	4.7	9.6
16-Apr-05	5	4	3	6	5	4	8	7	5	5	4	5	4	4	3	3	5	4	7	7	8	7	9	6	5.4	9.1
17-Apr-05	5	3	4	3	5	17	11	14	6	6	6	6	6	8	7	8	7	4	105	5	3	8	10	10	11.1	105.3
18-Apr-05	8	9	4	5	10	10	10	8	10	8	7	4	4	4	6	7	5	5	6	6	5	5	4	3	6.4	10.5
19-Apr-05	5	3	5	5	5	3	6	8	9	7	4	4	5	6	3	6	6	5	6	6	7	7	6	5	5.4	8.6
20-Apr-05	5	5	5	6	5	13	9	22	28	16	6	7	4	6	8	5	8	9	10	14	7	7	9	6	9.1	28.1
21-Apr-05	4	4	4	3	9	4	6	8	7	7	7	6	7	10	9	9	7	6	7	6	6	6	5	3	6.3	9.6
22-Apr-05	4	3	5	6	3	9	10	8	7	8	6	5	7	8	11	6	7	5	6	8	7	5	7	9	6.6	10.7
23-Apr-05	5	5	6	6	6	6	10	12	12	10	7	5	9	9	9	6	7	7	10	10	13	10	16	15	8.8	16.4
24-Apr-05	10	10	14	10	9	9	15	16	10	13	9	8	8	6	3	5	6	9	8	7	7	8	8	11	9.1	16.5
25-Apr-05	10	9	8	14	D	D	16	13	11	12	5	8	4	6	7	8	9	8	8	9	12	10	11	8	9.4	15.5
26-Apr-05	6	9	11	10	7	10	9	9	5	105	3	2	4	6	5	7	9	12	10	8	8	D	D	D	12.1	104.5
27-Apr-05	D	D	D	D	D	D	D	D	D	D	5	8	10	10	10	7	7	6	9	6	8	4	4	7	N	10.4
28-Apr-05	D	D	D	D	D	D	D	D	D	D	D	D	D	C	C	19	13	10	12	8	8	5	6	6	N	19.4
29-Apr-05	5	6	5	6	6	9	7	5	4	3	24	4	5	7	8	5	12	11	10	6	5	4	6	3	6.9	24.2
30-Apr-05	5	4	4	3	3	3	5	6	4	5	7	5	5	4	5	4	6	5	5	4	7	3	4	3	4.6	6.8
																									N	0.0
Hourly Avg	5.7	5.1	8.2	5.7	5.3	7.8	7.9	9.4	7.5	10.4	5.8	5.4	5.8	6.2	6.2	6.6	7.3	9.8	10.9	8.4	7.6	7.1	6.8	6.3		
Hourly Max	10.4	9.9	79.3	14.0	13.1	35.6	15.5	21.7	28.1	104.5	24.2	10.0	10.4	10.8	10.7	19.4	17.1	91.7	105.3	26.6	17.6	12.6	16.4	15.2		



PM_{2.5} Mass Concentration in $\mu\text{g}/\text{m}^3$

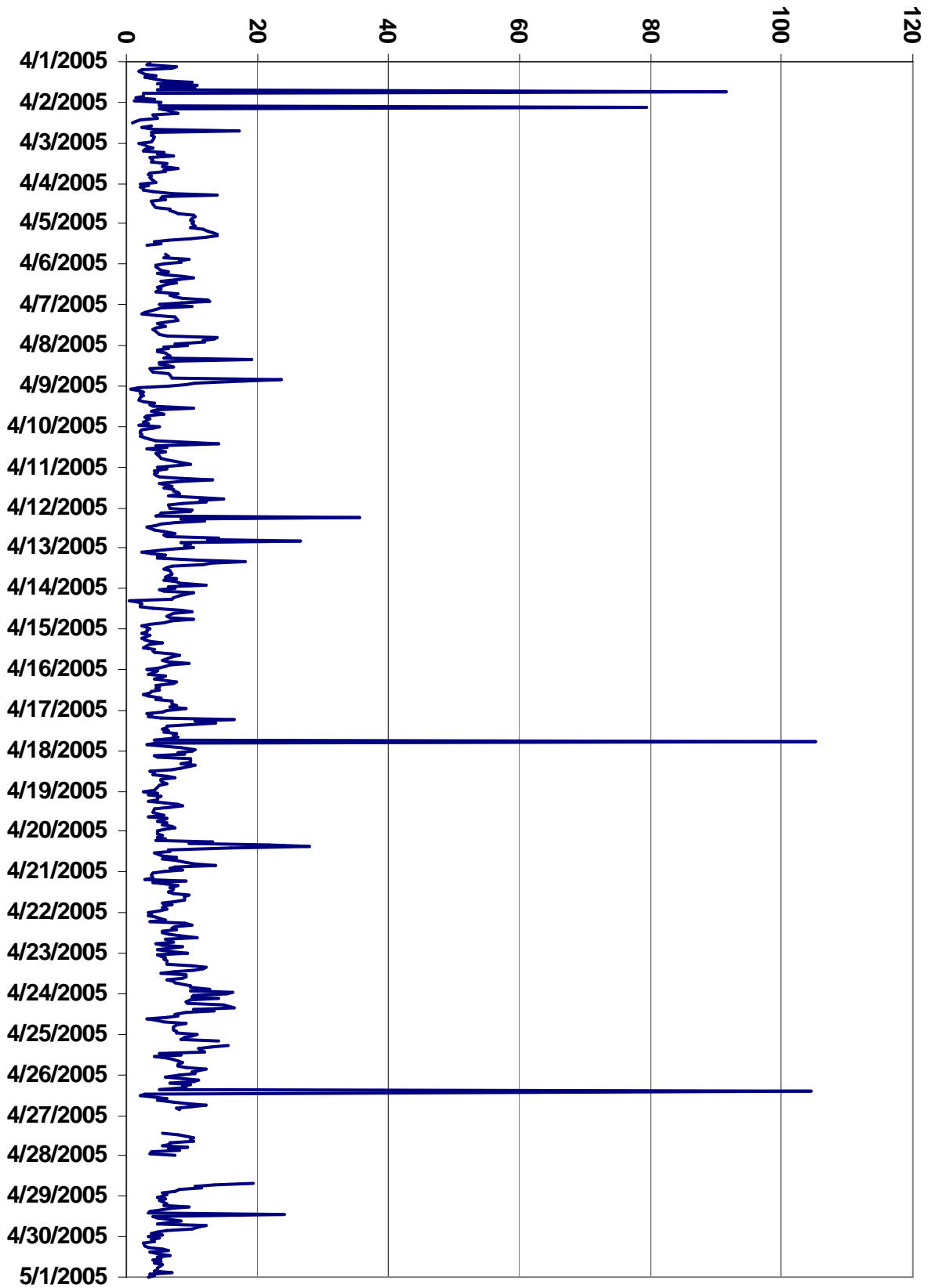
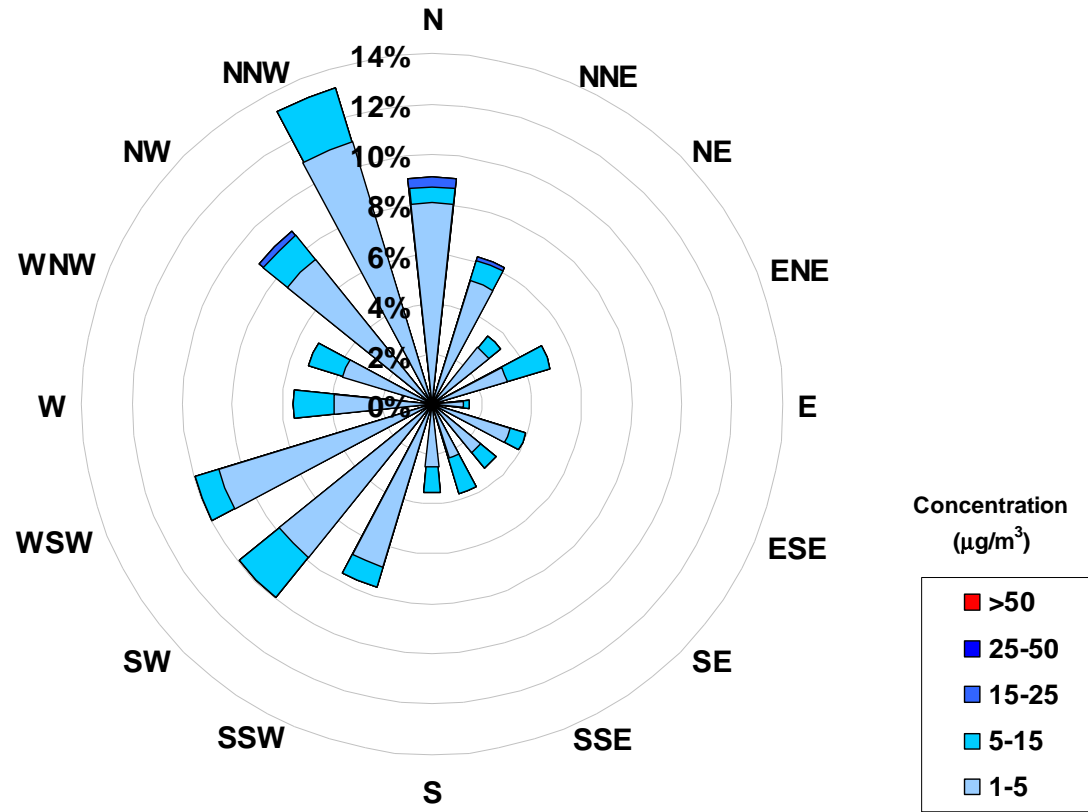


Figure 12. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) 1-hr Maximum Value Monthly



Concentration Rose for the 1-hr PM_{2.5} Average Concentration Occurrences at the Crescent Heights Site for April 2005



Frequency Distribution of PM _{2.5} in $\mu\text{g}/\text{m}^3$			
Range	Frequency (hrs)		
0 < 1	197		
1 to 5	392		
5 to 15	93		
15 to 25	4		
25 to 50	0		
> 50	0		
Total Non-Zero Values		686	

Calms	
Range	$\mu\text{g}/\text{m}^3$
1-5	0.0%
5-15	0.0%
15-25	0.0%
25-50	0.0%
>50	0.0%



PAS - Crescent Heights Meteorological Parameters Monthly Summary

Station: Crescent Heights

HOURLY AVERAGE TABLE

Relative Humidity (RH - %)

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	93.8 % 13-Apr 6:00 7:00
Maximum 24-hr Average:	83.8 % 14-Apr

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
	92.5	82.8	65.6	52.5	32.8	21.3	17.3	51.0 ppb

Status Flag Characters

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

Day Mountain Standard Time

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Apr-05	62	65	63	59	52	52	48	43	44	44	40	34	33	30	26	27	28	32	38	44	50	55	59	60	45	65
2-Apr-05	62	57	67	87	87	88	84	79	72	53	39	30	25	23	21	19	20	22	29	35	37	43	47	48	49	88
3-Apr-05	53	59	62	63	68	70	70	65	56	46	34	31	30	31	42	49	52	53	57	61	61	60	62	64	54	70
4-Apr-05	71	71	75	77	76	75	76	70	61	52	42	33	29	29	27	24	23	22	26	33	38	37	52	61	49	77
5-Apr-05	68	73	77	82	82	84	83	78	71	59	51	43	40	25	20	20	20	21	23	27	32	42	48	54	51	84
6-Apr-05	56	54	56	58	61	63	61	53	44	41	40	35	31	27	24	21	22	26	28	34	42	50	53	59	43	63
7-Apr-05	61	62	62	63	64	68	65	58	51	40	25	17	16	15	17	15	14	15	21	26	32	36	40	44	39	68
8-Apr-05	47	51	60	65	64	64	63	58	47	38	34	30	31	30	28	27	27	29	31	41	69	75	74	75	48	75
9-Apr-05	74	76	75	74	76	75	74	69	62	62	58	54	61	71	72	70	64	44	45	48	49	49	47	51	62	76
10-Apr-05	54	53	53	51	51	54	54	47	43	38	32	28	23	21	21	19	19	19	22	29	33	43	54	59	38	59
11-Apr-05	62	65	67	64	63	70	62	48	30	26	23	21	19	20	20	20	17	17	23	35	41	42	42	49	39	70
12-Apr-05	55	56	59	60	61	66	63	54	44	30	26	23	21	21	23	25	25	32	36	69	73	76	85	91	49	91
13-Apr-05	93	93	92	92	93	94	94	91	77	62	56	49	46	45	45	45	46	50	54	59	63	68	75	80	69	94
14-Apr-05	81	81	83	85	88	89	92	93	93	92	92	92	93	91	89	87	81	74	78	75	71	71	70	72	84	93
15-Apr-05	73	73	72	62	62	62	60	59	53	45	33	28	26	26	26	31	30	30	35	43	49	55	58	60	48	73
16-Apr-05	61	61	61	67	70	70	68	58	40	34	33	31	29	26	24	23	23	23	28	37	44	48	53	53	44	70
17-Apr-05	58	62	62	60	64	66	64	66	61	48	42	31	31	32	34	34	33	33	35	38	38	39	40	52	47	66
18-Apr-05	61	62	62	59	67	77	79	66	52	55	51	39	34	31	29	29	29	28	30	40	45	49	53	57	49	79
19-Apr-05	59	65	70	72	75	77	73	65	55	46	43	35	32	29	26	27	27	27	30	35	43	56	63	65	50	77
20-Apr-05	68	70	72	75	76	72	63	56	44	37	28	24	24	22	19	20	20	18	21	31	40	47	57	65	45	76
21-Apr-05	72	75	79	79	81	83	80	72	58	39	29	24	24	26	29	25	23	23	24	31	39	45	49	46	48	83
22-Apr-05	53	59	64	64	66	65	60	49	39	32	28	26	26	25	24	23	25	24	26	34	38	45	42	45	41	66
23-Apr-05	49	49	53	56	63	64	61	60	52	44	38	33	28	26	25	24	23	23	27	34	41	45	54	62	43	64
24-Apr-05	63	69	72	74	78	78	70	60	51	45	39	33	31	30	26	23	21	20	23	30	36	39	44	54	46	78
25-Apr-05	60	66	72	74	75	73	66	58	43	32	26	24	22	22	22	23	24	25	28	34	37	44	50	46	44	75
26-Apr-05	44	44	50	59	56	54	57	51	47	40	36	33	33	30	30	36	44	58	70	84	86	85	78	53	86	
27-Apr-05	78	74	70	71	73	69	63	60	58	52	51	53	55	52	56	51	50	52	57	59	56	52	55	62	60	78
28-Apr-05	68	70	71	73	80	79	84	76	66	63	57	57	51	50	55	56	53	50	54	52	54	60	62	64	63	84
29-Apr-05	66	69	70	70	66	66	63	55	42	36	33	30	30	34	42	44	59	67	66	81	80	75	78	85	59	85
30-Apr-05	81	82	85	85	84	82	78	72	65	65	66	67	64	63	65	63	62	64	66	67	67	66	67	68	71	85
																									N	0
Hourly Avg	64	66	68	69	71	72	69	63	54	47	41	36	35	34	34	33	33	34	37	44	49	53	57	61		
Hourly Max	93	93	92	92	93	94	94	93	93	92	92	92	93	91	89	87	81	74	78	81	84	86	85	91		

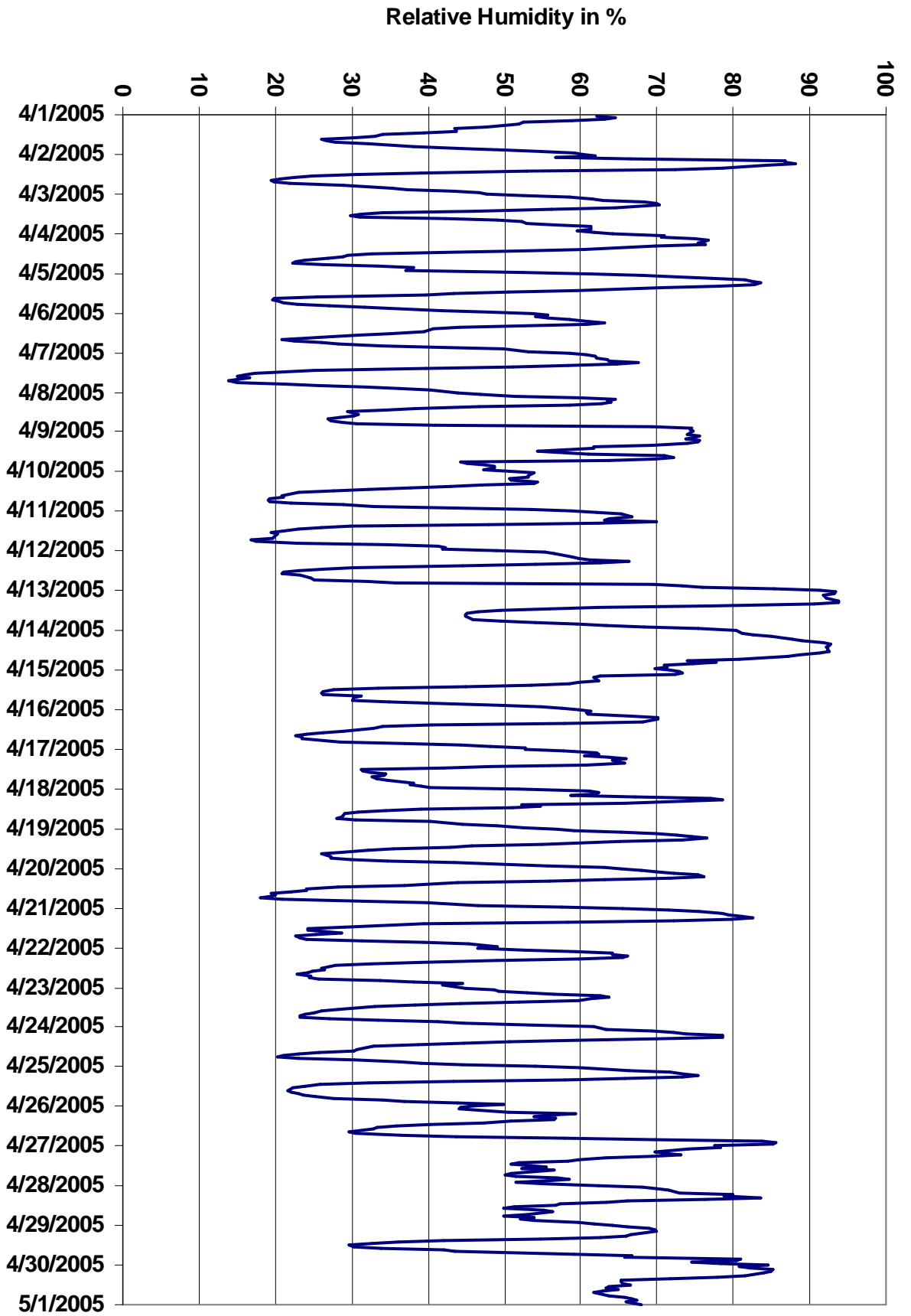


Figure 13. PAS - Crescent Heights Relative Humidity 1-hr Average Monthly Trend



Station: Crescent Heights

HOURLY AVERAGE TABLE

Ambient Temperature (AT - °C)

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005
Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	26.1 °C 7-Apr 16:00 17:00
Maximum 24-hr Average:	16.5 °C 7-Apr

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
	22.6	20.0	13.5	8.3	3.5	-1.7	-3.5	8.7 ppb

Status Flag Characters

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

Day Mountain Standard Time

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-Apr-05	2	2	2	2	5	5	7	8	8	9	13	16	17	17	18	18	17	15	13	12	10	9	7	6	10.0	18.5
2-Apr-05	5	6	5	2	2	2	2	3	5	7	9	11	11	11	12	12	12	11	9	7	6	5	4	4	6.8	12.4
3-Apr-05	3	2	1	1	0	0	0	2	4	7	10	13	14	15	13	12	12	12	11	10	9	10	9	8	7.4	14.9
4-Apr-05	6	6	4	3	3	3	2	4	7	10	12	14	15	16	16	17	17	16	14	12	10	9	7	6	9.6	16.7
5-Apr-05	5	4	4	4	5	5	4	5	6	9	11	12	13	14	15	14	14	14	13	10	9	6	5	4	8.5	14.6
6-Apr-05	3	3	3	2	2	1	2	6	9	10	11	14	17	19	20	22	21	19	18	16	14	11	10	8	10.9	21.5
7-Apr-05	7	7	7	7	7	6	7	10	13	17	23	25	25	25	25	26	26	25	23	20	18	17	15	14	16.5	26.1
8-Apr-05	13	11	9	8	9	8	9	10	13	15	16	17	17	16	16	16	16	15	14	13	10	8	8	7	12.3	17.3
9-Apr-05	7	5	5	5	5	5	5	6	7	7	8	8	7	5	5	6	6	8	7	7	7	7	7	6	6.2	8.1
10-Apr-05	6	5	5	5	4	3	3	6	8	9	10	11	12	13	13	14	14	13	12	9	8	4	2	1	7.9	13.8
11-Apr-05	0	-1	-1	-1	-1	-1	0	6	12	14	15	16	17	17	18	16	16	16	15	13	10	8	8	6	9.1	17.5
12-Apr-05	5	4	3	2	2	1	1	5	8	12	14	15	17	17	18	18	19	17	16	11	10	9	8	7	10.0	18.6
13-Apr-05	7	6	5	4	4	4	4	5	7	9	10	12	13	15	15	15	14	14	14	12	11	10	8	7	9.4	15.5
14-Apr-05	7	7	7	7	6	6	4	3	3	2	1	1	1	2	2	3	4	5	5	5	5	4	3	4	4.1	7.2
15-Apr-05	2	2	2	3	3	3	4	5	7	9	11	12	12	13	13	12	12	12	11	9	8	7	6	5	7.6	12.8
16-Apr-05	5	5	5	3	3	3	4	7	12	15	17	18	19	21	22	23	22	22	20	17	15	13	12	13	13.1	22.5
17-Apr-05	11	10	10	10	9	8	8	8	9	13	15	17	17	17	16	16	16	15	14	12	12	11	11	11	12.4	17.0
18-Apr-05	10	9	9	8	7	5	6	8	9	10	10	11	12	12	13	13	13	13	12	10	8	7	7	5	9.5	13.1
19-Apr-05	5	3	3	2	1	0	1	5	8	11	12	13	14	15	16	16	15	15	14	12	10	6	5	4	8.6	15.6
20-Apr-05	3	2	1	1	0	0	2	5	9	13	15	17	17	18	19	18	17	17	15	14	11	9	8	7	9.9	19.0
21-Apr-05	6	5	4	3	3	2	3	7	10	14	17	19	20	21	21	21	20	20	18	15	13	10	8	8	12.0	20.9
22-Apr-05	7	5	3	4	3	3	5	9	13	17	18	20	20	21	21	21	21	20	19	16	14	12	12	11	13.1	21.2
23-Apr-05	11	11	10	9	7	7	8	10	13	16	17	18	20	21	21	22	22	21	20	18	15	14	11	9	14.7	21.7
24-Apr-05	9	7	6	5	4	4	6	8	11	14	17	18	18	19	19	19	19	18	17	15	13	11	9	7	12.3	19.1
25-Apr-05	6	4	4	3	1	1	4	7	11	15	16	18	19	19	20	20	20	20	20	17	16	13	11	12	12.4	20.3
26-Apr-05	13	13	11	10	7	7	6	7	9	9	11	11	12	12	13	12	11	10	8	6	4	2	2	1	8.6	13.0
27-Apr-05	0	0	-1	-1	-1	-2	-2	-1	-1	0	0	1	1	2	1	2	2	2	1	1	1	1	-1	-2	0.1	1.7
28-Apr-05	-3	-4	-4	-3	-3	-3	-4	-3	-2	-2	-1	0	0	1	2	1	2	2	1	1	0	-1	-2	-2	-1.1	1.7
29-Apr-05	-2	-2	-3	-3	-3	-3	-2	-1	2	3	4	4	4	4	4	3	1	1	-1	-1	-1	-1	-2	-3	0.3	4.5
30-Apr-05	-3	-3	-3	-4	-4	-4	-4	-4	-3	-3	-3	-3	-2	-2	-1	-1	0	-1	-1	-1	-1	-2	-2	-2	-2.3	-0.4
																									N	0.0
Hourly Avg	5.1	4.5	3.9	3.4	2.9	2.6	3.2	5.2	7.6	9.6	11.3	12.7	13.4	13.9	14.2	14.2	14.1	13.6	12.5	10.6	9.1	7.7	6.7	5.8		
Hourly Max	13.0	12.7	11.3	10.0	8.7	8.4	8.6	10.2	13.3	17.1	22.6	25.1	25.5	25.4	24.8	25.5	26.1	25.0	22.5	20.1	17.7	17.3	15.4	13.9		

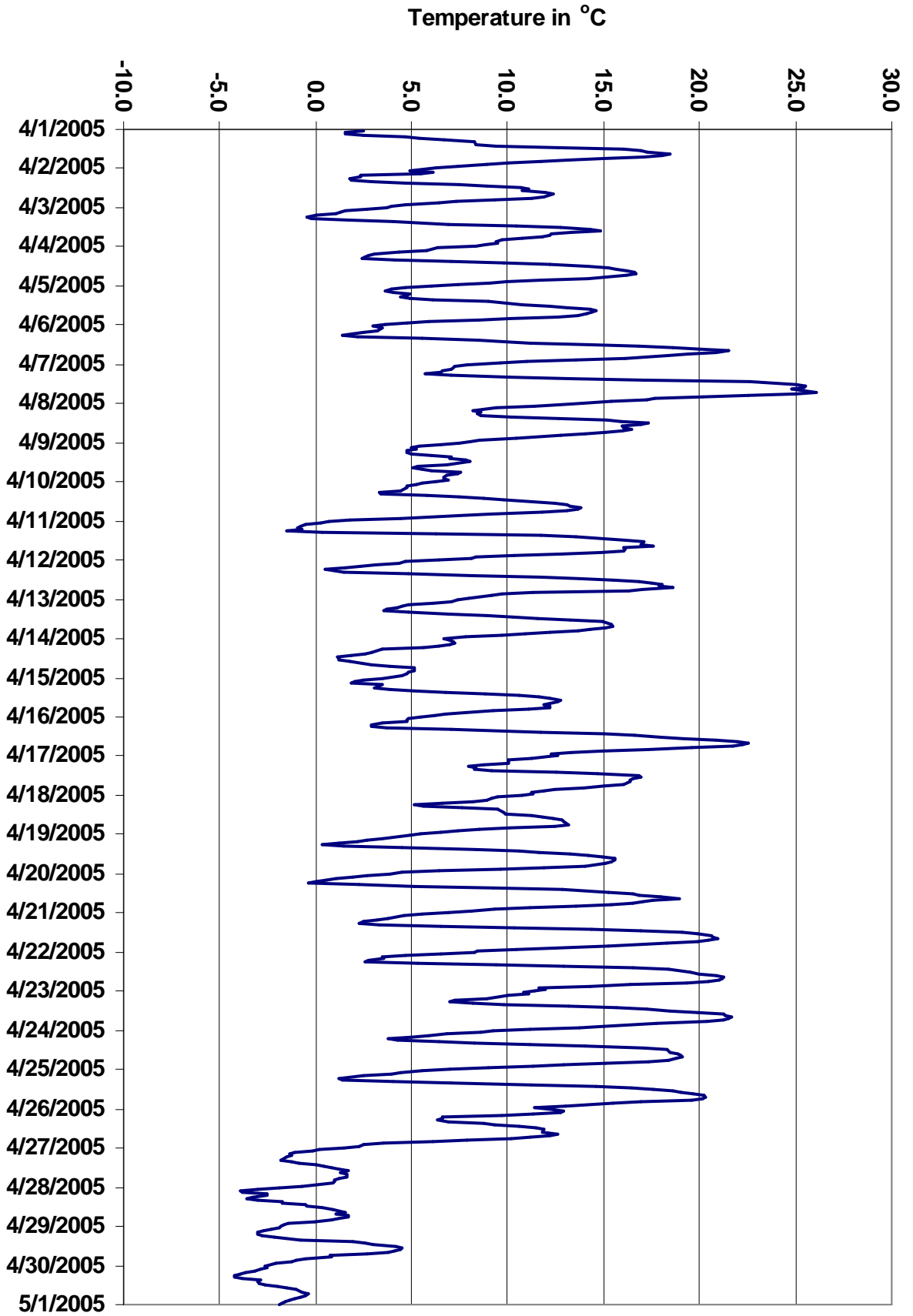


Figure 14. PAS - Crescent Heights Temperature 1-hr Average Monthly Trend



Station: Crescent Heights

HOURLY AVERAGE TABLE

Solar Radiation (SR - W/m²)

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005
Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	858.1 W/m ² 20-Apr 12:00 13:00
Maximum 24-hr Average:	300.7 W/m ² 25-Apr

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
	839.4	758.0	358.9	43.0	-1.2	-1.2	-1.2	201.0 ppb

Status Flag Characters

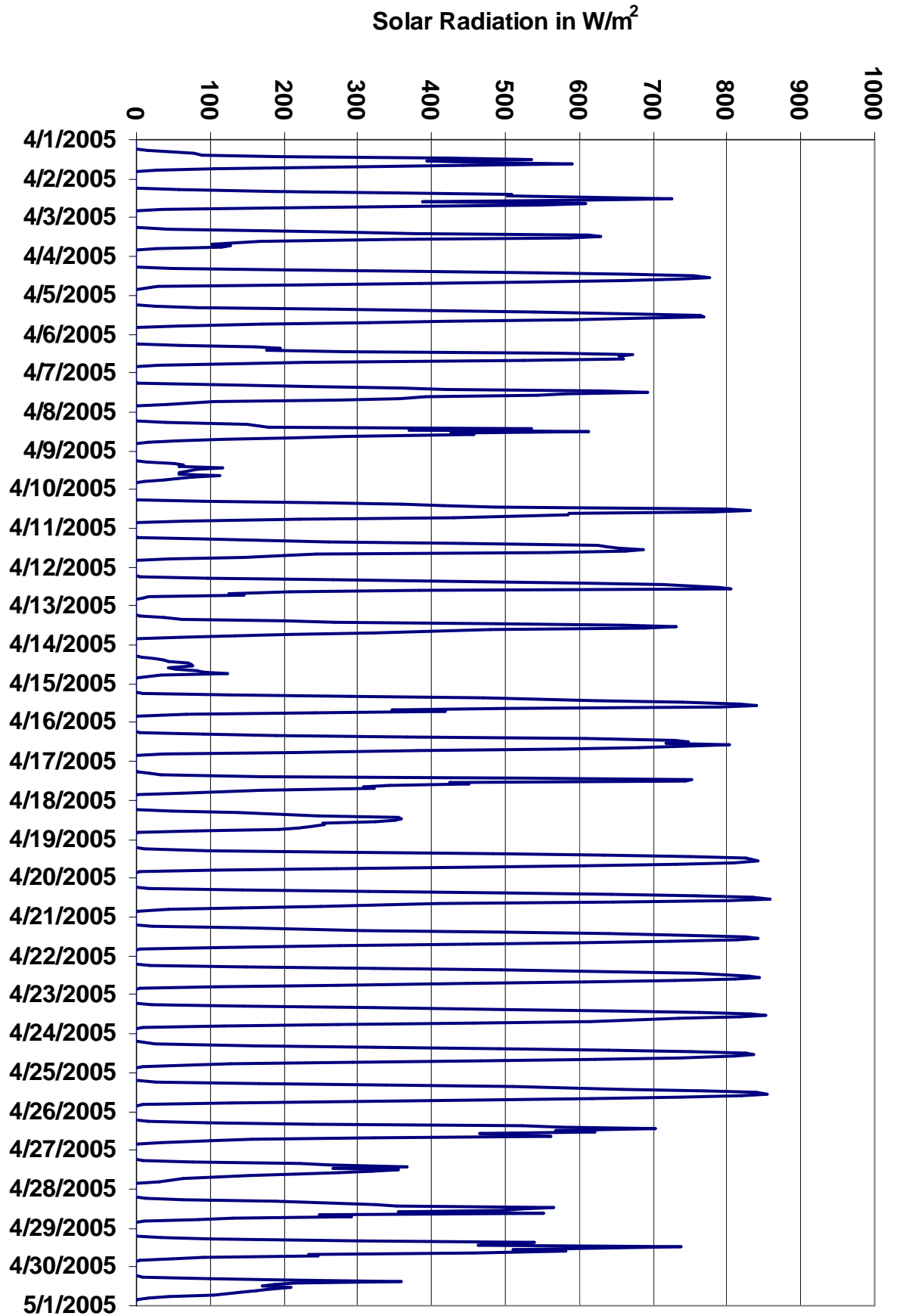
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

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-Apr-05	-1	-1	-1	-1	-1	-1	15	79	87	192	424	535	393	468	590	443	253	105	26	-1	-1	-1	-1	-1	150	590
2-Apr-05	-1	-1	-1	-1	-1	-1	57	186	355	508	502	726	597	387	608	548	359	184	35	-1	-1	-1	-1	-1	210	726
3-Apr-05	-1	-1	-1	-1	-1	-1	42	169	285	375	613	630	586	348	169	102	127	114	27	-1	-1	-1	-1	-1	149	630
4-Apr-05	-1	-1	-1	-1	-1	-1	46	205	384	543	669	754	776	734	661	536	385	221	30	-1	-1	-1	-1	-1	247	776
5-Apr-05	-1	-1	-1	-1	-1	-1	25	82	260	539	674	764	768	673	590	424	316	170	54	-1	-1	-1	-1	-1	222	768
6-Apr-05	-1	-1	-1	-1	-1	-1	60	162	194	176	283	567	672	653	660	524	226	132	29	-1	-1	-1	-1	-1	180	672
7-Apr-05	-1	-1	-1	-1	-1	2	105	237	359	418	628	693	581	542	392	356	270	105	41	-1	-1	-1	-1	-1	197	693
8-Apr-05	-1	-1	-1	-1	-1	0	40	150	178	535	369	613	427	458	286	211	117	58	17	-1	-1	-1	-1	-1	143	613
9-Apr-05	-1	-1	-1	-1	-1	-1	14	52	63	56	117	82	57	57	113	75	55	36	10	-1	-1	-1	-1	-1	32	117
10-Apr-05	-1	-1	-1	-1	-1	1	90	248	361	415	486	800	831	781	587	583	430	221	65	0	-1	-1	-1	-1	245	831
11-Apr-05	-1	-1	-1	-1	-1	3	96	261	441	625	637	653	687	662	558	244	200	145	46	1	-1	-1	-1	-1	219	687
12-Apr-05	-1	-1	-1	-1	-1	4	97	265	452	601	714	789	806	383	207	125	145	16	8	-1	-1	-1	-1	-1	192	806
13-Apr-05	-1	-1	-1	-1	-1	5	36	62	204	269	490	660	732	688	479	322	209	134	60	-1	-1	-1	-1	-1	181	732
14-Apr-05	-1	-1	-1	-1	-1	-1	6	26	37	43	69	74	75	42	52	82	91	124	34	0	-1	-1	-1	-1	31	124
15-Apr-05	-1	-1	-1	-1	-1	7	125	289	469	623	741	817	841	790	498	346	419	241	68	0	-1	-1	-1	-1	261	841
16-Apr-05	-1	-1	-1	-1	-1	5	90	189	367	609	729	748	718	803	681	572	380	218	37	-1	-1	-1	-1	-1	256	803
17-Apr-05	-1	-1	-1	-1	-1	2	18	33	170	530	751	743	425	452	342	306	321	170	63	1	-1	-1	-1	-1	180	751
18-Apr-05	-1	-1	-1	-1	-1	0	47	138	245	355	359	350	324	253	254	236	218	193	79	3	-1	-1	-1	-1	127	359
19-Apr-05	-1	-1	-1	-1	-1	10	97	278	483	634	750	826	843	810	732	607	448	271	106	4	-1	-1	-1	-1	287	843
20-Apr-05	-1	-1	-1	-1	-1	15	143	315	491	644	759	835	858	801	645	408	250	142	43	2	-1	-1	-1	-1	264	858
21-Apr-05	-1	-1	-1	-1	-1	20	142	308	493	640	753	827	842	814	724	601	449	275	110	5	-1	-1	-1	-1	291	842
22-Apr-05	-1	-1	-1	-1	-1	19	149	321	494	645	758	831	844	811	729	606	449	272	106	5	-1	-1	-1	-1	293	844
23-Apr-05	-1	-1	-1	-1	-1	21	145	322	496	646	762	833	852	817	736	614	457	273	118	8	-1	-1	-1	-1	295	852
24-Apr-05	-1	-1	-1	-1	-1	24	158	324	492	639	751	826	836	811	738	621	468	292	128	8	-1	-1	-1	-1	296	836
25-Apr-05	-1	-1	-1	-1	-1	26	165	337	510	657	769	840	855	820	738	617	462	294	129	8	-1	-1	-1	-1	301	855
26-Apr-05	-1	-1	-1	-1	-1	16	97	237	523	575	702	568	621	465	562	323	155	100	33	1	-1	-1	-1	-1	207	702
27-Apr-05	-1	-1	-1	-1	-1	9	76	222	260	366	267	355	320	274	216	152	108	64	31	1	-1	-1	-1	-1	113	366
28-Apr-05	-1	-1	-1	-1	-1	11	63	189	324	353	565	520	497	355	552	249	292	130	84	11	-1	-1	-1	-1	174	565
29-Apr-05	-1	-1	-1	-1	-1	33	102	303	539	483	463	738	511	581	456	234	246	90	49	3	-1	-1	-1	-1	201	738
30-Apr-05	-1	-1	-1	-1	-1	9	98	211	358	215	186	171	209	179	161	142	104	43	16	2	-1	-1	-1	-1	87	358
																									N	0
Hourly Avg	-1	-1	-1	-1	-1	8	81	207	346	464	558	639	613	557	491	374	280	161	56	2	-1	-1	-1	-1		
Hourly Max	-1	-1	-1	-1	-1	33	165	337	539	657	769	840	858	820	738	621	468	294	129	11	-1	-1	-1	-1		



Figure 15. PAS - Crescent Heights Solar Radiation 1-hr Average Monthly Trend





Station: Crescent Heights

HOURLY AVERAGE TABLE

Wind Speed (WSv - km/hr)

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005
Summary

Maximum 1-hr Average:	40.5	km/hr	1-Apr	11:00 12:00
Maximum 24-hr Average:	24.9	km/hr	1-Apr	

Calm Time:	4 hrs	1% calms	Operational Time:	716 hrs					
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	AverageS	AverageV
	32.7	23.6	16.8	11.3	6.7	2.7	1.3	12.1 km/hr	4.5 km/hr

Status Flag Characters

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

Day Mountain Standard Time

Day	Hour Start	Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	0:00	24-hr Vector Average	Daily Max
1-Apr-05	7	4	7	10	16	22	30	37	34	32	37	40	29	33	34	29	31	39	33	27	23	26	26	13	24.9	40.5				
2-Apr-05	6	12	22	10	3	3	7	11	16	18	20	20	21	20	20	23	20	19	14	9	7	7	8	8	12.3	23.4				
3-Apr-05	6	8	7	5	4	2	3	3	5	8	11	9	7	8	13	6	13	13	15	14	17	12	9	8	5.3	16.8				
4-Apr-05	5	9	12	11	9	11	8	9	12	11	12	11	8	9	10	10	11	9	7	8	6	6	13	5	6.5	12.6				
5-Apr-05	9	7	5	6	9	6	10	9	8	11	13	12	10	14	17	15	14	12	8	4	5	5	8	6	8.9	16.7				
6-Apr-05	8	12	6	4	5	4	3	9	18	22	20	21	21	20	17	16	17	14	9	4	4	4	5	5	9.7	21.7				
7-Apr-05	4	4	3	5	9	8	11	10	8	5	6	14	15	16	17	16	17	11	6	5	7	7	4	4	2.7	17.2				
8-Apr-05	7	12	13	9	9	6	6	7	14	19	15	19	19	17	16	15	14	10	5	7	17	8	6	4	9.9	18.8				
9-Apr-05	10	8	8	8	11	14	15	20	23	18	19	22	23	30	29	21	12	19	15	11	11	13	18	12	15.4	29.5				
10-Apr-05	11	14	14	16	16	15	14	16	18	22	24	22	24	21	18	16	16	13	9	5	4	6	4	4	12.6	24.3				
11-Apr-05	4	4	3	3	2	4	3	2	12	22	20	15	15	17	13	18	12	10	7	4	5	8	8	5	7.0	22.3				
12-Apr-05	8	6	6	7	5	4	2	3	5	5	7	15	19	13	7	10	12	17	15	18	13	9	7	4	4.3	18.8				
13-Apr-05	4	7	6	3	5	2	3	3	6	4	5	8	8	6	8	10	14	14	14	13	17	17	28	24	6.6	28.1				
14-Apr-05	19	21	20	14	20	21	23	29	26	22	19	22	27	27	25	26	23	17	11	12	13	17	14	13	18.1	29.3				
15-Apr-05	20	18	14	18	18	17	16	16	18	18	18	17	21	20	22	23	20	20	20	16	17	17	16	12	17.2	22.8				
16-Apr-05	11	8	12	11	6	4	3	8	17	20	24	21	25	30	26	27	23	22	14	9	6	3	5	7	13.6	29.7				
17-Apr-05	9	8	9	15	15	10	8	6	6	7	8	9	9	12	12	10	10	13	12	11	12	10	7	6	3.9	15.1				
18-Apr-05	7	8	10	15	4	4	4	8	20	21	18	17	18	16	14	17	17	14	12	9	10	11	11	8	10.7	21.5				
19-Apr-05	6	2	1	4	7	8	2	1	2	3	6	8	7	6	7	7	9	9	8	8	6	7	6	3	4.4	9.0				
20-Apr-05	2	3	3	1	1	1	3	3	2	3	5	5	7	6	4	5	5	4	4	4	8	16	18	11	10	1.5	18.0			
21-Apr-05	13	10	8	8	9	10	13	15	14	12	8	8	10	12	15	16	17	17	17	14	11	5	5	6	1.3	17.3				
22-Apr-05	7	2	2	3	2	3	1	2	3	4	8	12	15	15	14	16	15	14	12	12	13	13	14	15	7.5	15.5				
23-Apr-05	13	17	12	8	6	7	7	7	5	8	7	7	5	6	7	6	9	10	13	11	9	6	2	2	4.7	17.0				
24-Apr-05	4	1	2	1	6	Calm	1	3	6	15	19	19	20	17	18	18	18	18	15	10	8	6	1	Calm	10.1	19.9				
25-Apr-05	Calm	Calm	3	2	2	1	2	4	3	4	9	12	14	15	13	13	14	16	12	6	7	5	7	13	5.4	15.7				
26-Apr-05	13	15	12	14	17	15	16	20	20	21	19	18	22	24	23	22	18	22	23	20	25	12	17	18	16.5	24.7				
27-Apr-05	11	12	12	8	8	15	20	19	19	22	22	21	19	20	19	18	14	15	14	10	8	9	4	4	14.1	22.4				
28-Apr-05	4	6	7	7	8	12	13	12	14	14	18	21	19	17	17	18	18	18	16	12	11	8	9	10	12.5	21.5				
29-Apr-05	10	10	8	8	9	11	11	13	15	18	19	20	19	24	23	20	25	23	20	16	14	18	13	10	15.2	24.9				
30-Apr-05	13	12	14	12	13	15	14	16	21	17	18	14	13	12	11	12	12	10	10	11	10	8	6	5	12.1	20.9				
1-hr Vector	3.7	4.8	4.5	4.6	4.3	4.4	4.4	4.8	5.3	5.9	5.3	5.3	5.1	6.4	6.4	6.0	5.5	5.6	4.2	3.6	2.5	2.7	3.4	2.7	N	0.0				
Hourly Max	19.9	20.9	21.6	17.7	20.4	21.8	30.2	36.6	33.9	31.9	37.5	40.5	28.9	32.9	34.3	28.6	30.6	39.2	33.1	26.5	24.7	25.8	28.1	23.7						



Station: Crescent Heights

STANDARD DEVIATION TABLE

Wind Direction (WD - Degrees)

Station Owner: PAS

Monitoring Dates: April 1, 2005 to May 1, 2005
Summary

Determined by the Yamartino 15-min interval calculation

Calm Time:	4 hrs	1% calms	Operational Time:	716 hrs			
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%			
Percentile	99	95	75	50	25	5	1
	52.3	39.7	17.2	9.6	6.8	4.8	3.8

Status Flag Characters

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

Day Mountain Standard Time

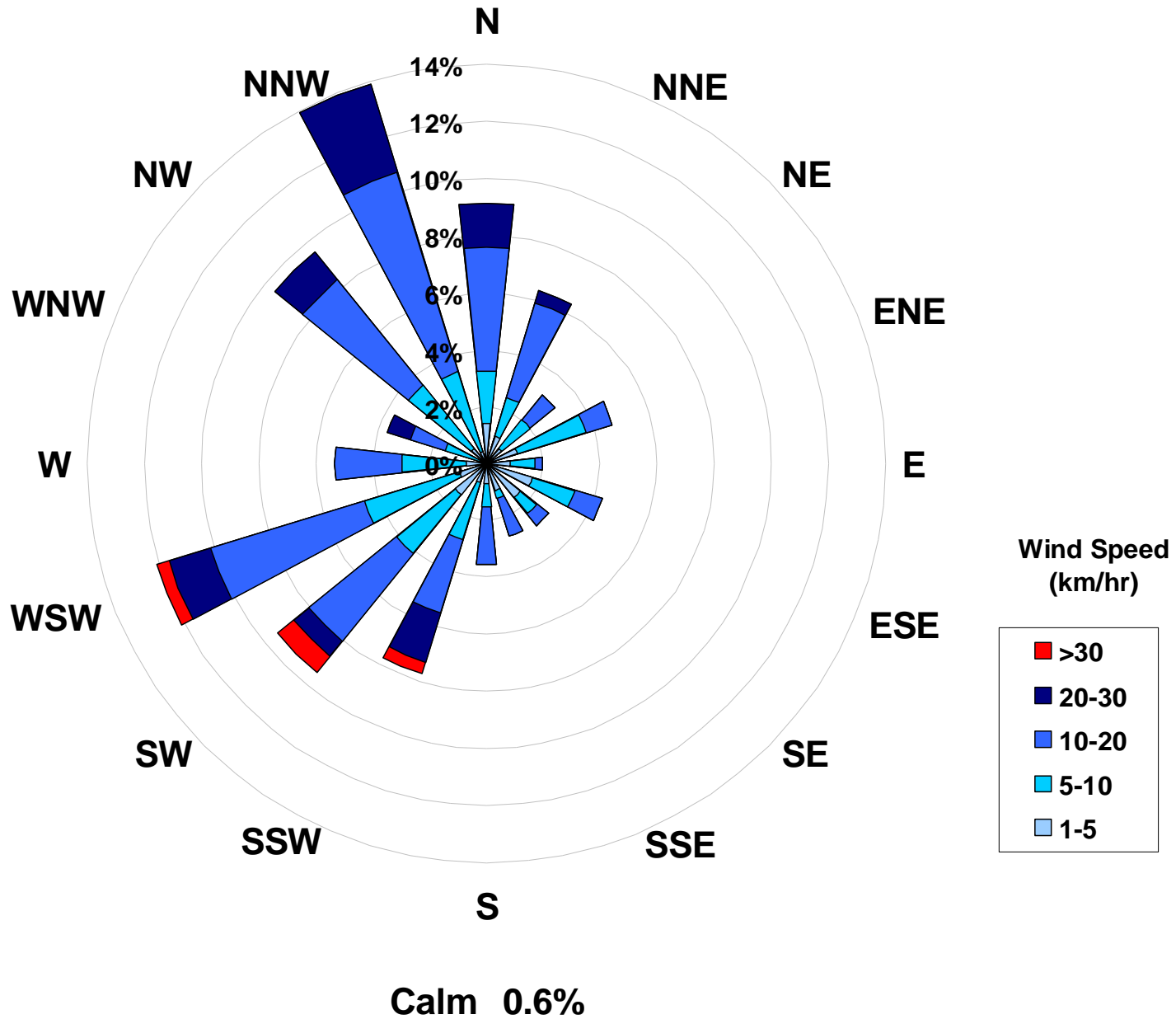
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00
1-Apr-05	17	25	12	9	7	5	4	4	4	5	5	6	7	6	7	7	7	6	4	4	5	5	4	37
2-Apr-05	19	9	10	12	38	47	13	6	8	9	10	13	10	11	12	10	9	9	6	6	18	19	10	6
3-Apr-05	7	8	5	10	20	41	37	39	16	10	13	23	43	36	18	19	6	6	6	8	7	11	10	9
4-Apr-05	13	10	6	4	4	7	9	6	8	14	15	30	43	28	32	19	17	15	9	4	11	8	5	39
5-Apr-05	11	7	22	13	12	13	7	10	14	13	13	17	24	18	14	14	11	8	9	9	19	12	10	15
6-Apr-05	9	7	48	52	35	38	48	18	6	6	7	7	13	15	12	10	7	7	9	27	36	36	26	10
7-Apr-05	33	21	37	20	7	10	9	6	10	14	33	12	11	12	8	10	9	7	8	19	46	23	34	23
8-Apr-05	7	6	6	5	7	14	12	11	10	9	8	9	9	10	9	10	7	9	11	17	5	8	11	22
9-Apr-05	8	7	8	9	8	5	5	6	5	5	6	6	10	6	4	6	9	4	4	5	7	6	5	8
10-Apr-05	9	6	7	6	6	6	7	6	8	7	8	9	11	10	12	14	13	12	9	10	15	7	10	19
11-Apr-05	18	10	10	22	19	8	9	55	18	9	9	13	14	14	17	11	11	15	9	8	13	13	6	20
12-Apr-05	11	26	15	27	20	24	46	20	13	54	28	14	12	19	19	15	16	26	18	7	6	10	14	39
13-Apr-05	17	5	20	29	21	34	32	48	47	47	44	21	21	50	24	18	9	8	6	6	5	8	6	6
14-Apr-05	5	5	6	8	5	6	5	4	5	5	7	6	6	5	6	6	7	8	9	9	7	6	6	8
15-Apr-05	5	5	9	5	5	5	5	7	6	7	9	11	13	13	10	9	9	9	6	5	6	6	9	16
16-Apr-05	14	22	12	6	8	8	17	7	8	12	11	9	11	10	12	9	9	7	7	14	23	43	26	7
17-Apr-05	8	9	12	6	4	7	22	29	11	18	42	31	35	13	16	28	26	7	5	4	4	18	14	24
18-Apr-05	11	11	5	5	55	16	16	25	6	7	9	11	10	12	17	11	11	10	6	3	3	3	4	5
19-Apr-05	14	47	29	32	3	3	27	37	52	57	28	44	40	48	49	39	20	17	13	6	11	7	5	5
20-Apr-05	28	12	26	44	29	15	9	18	40	38	49	48	43	52	66	32	32	36	9	37	6	6	10	9
21-Apr-05	5	6	9	8	6	9	4	5	8	14	28	25	22	18	18	16	15	9	6	4	5	33	16	17
22-Apr-05	10	38	26	10	18	10	24	34	36	41	39	19	20	19	21	14	12	11	9	6	6	5	6	8
23-Apr-05	8	7	8	16	22	7	12	17	15	19	29	34	38	52	68	34	22	10	14	4	19	9	21	31
24-Apr-05	16	34	62	29	20	Calm	31	37	17	9	11	11	13	13	17	10	10	8	6	4	7	5	25	Calm
25-Apr-05	Calm	Calm	7	32	37	15	29	14	27	35	28	21	24	16	19	17	11	10	7	8	12	17	8	6
26-Apr-05	9	12	10	9	16	13	6	6	8	9	12	10	8	9	10	9	16	8	5	5	6	6	4	4
27-Apr-05	5	7	6	5	5	5	5	6	8	8	7	8	9	9	8	8	9	8	8	9	9	6	6	5
28-Apr-05	6	6	7	11	8	5	6	9	8	13	14	9	11	11	15	13	13	8	9	8	6	7	7	8
29-Apr-05	8	8	10	12	11	8	10	8	12	13	12	12	13	10	9	9	7	6	7	6	5	4	7	9
30-Apr-05	8	8	7	8	8	6	8	5	6	6	6	8	9	9	11	9	9	10	10	6	6	8	10	13

Daily Maximum
36.9
46.6
42.7
42.7
24.2
52.1
45.6
22.3
9.9
19.3
55.5
53.7
50.1
8.9
16.4
43.4
41.6
54.9
57.0
66.4
33.0
41.1
67.9
61.8
37.4
16.0
9.3
15.1
12.7
12.5
0.0

Hourly Max	33	47	62	52	55	47	48	55	52	57	49	48	43	52	68	39	32	36	18	37	46	43	34	39
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Wind Rose for the 1-hr Average Meterological Data at the Crescent Heights Site for April 2005





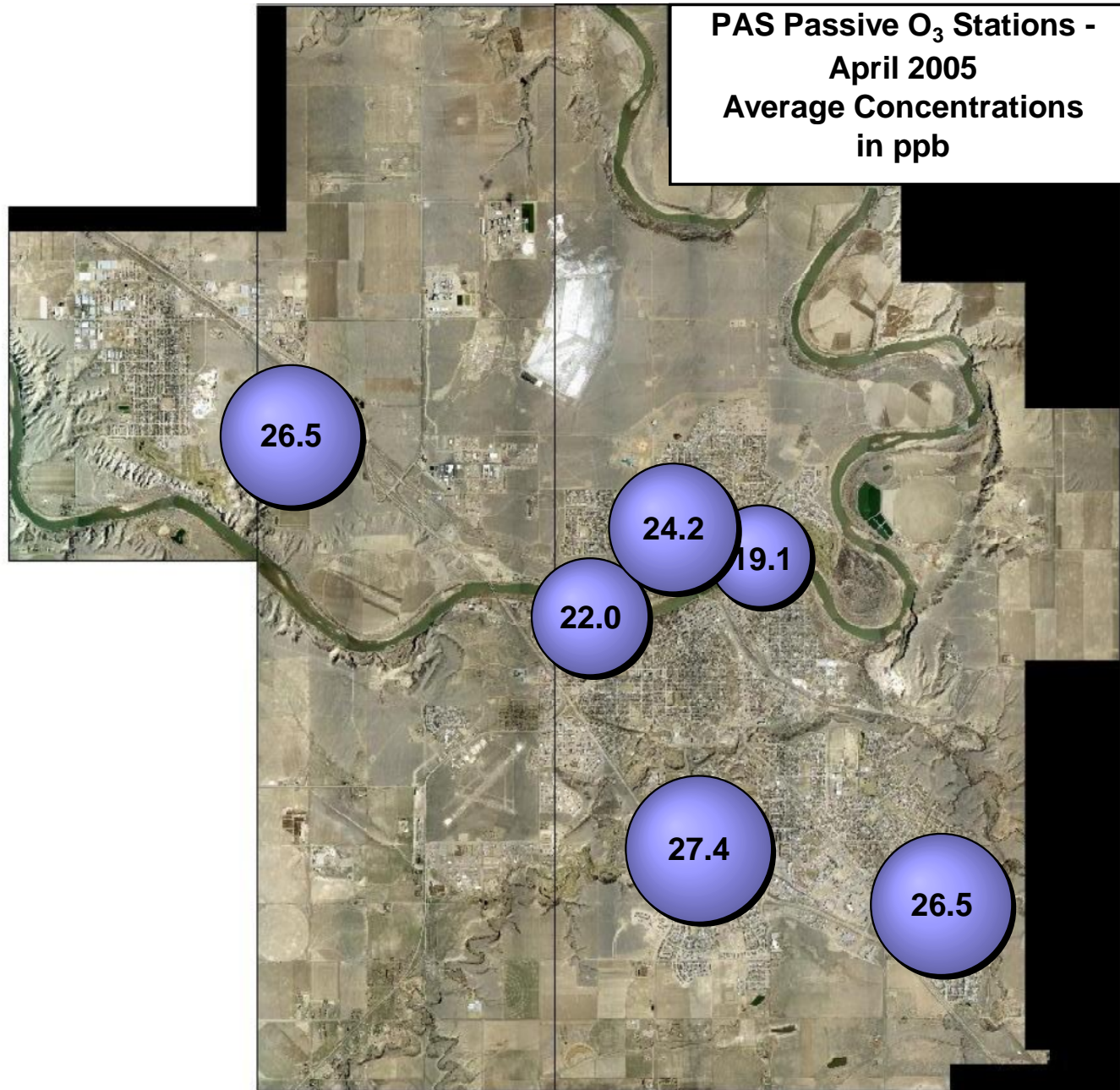
Passive Monitoring – April 2005

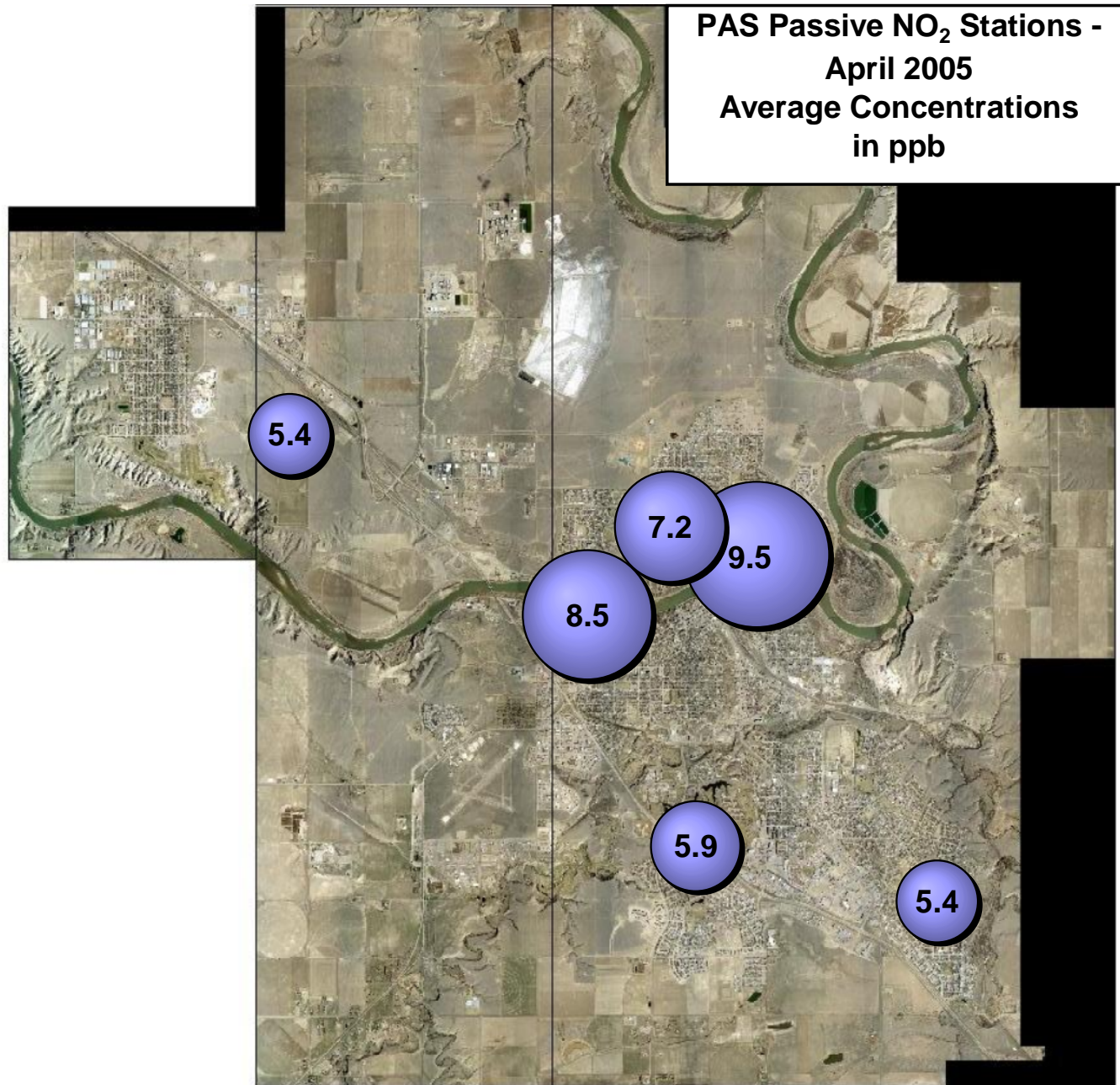
Ambient Air Compliance Network

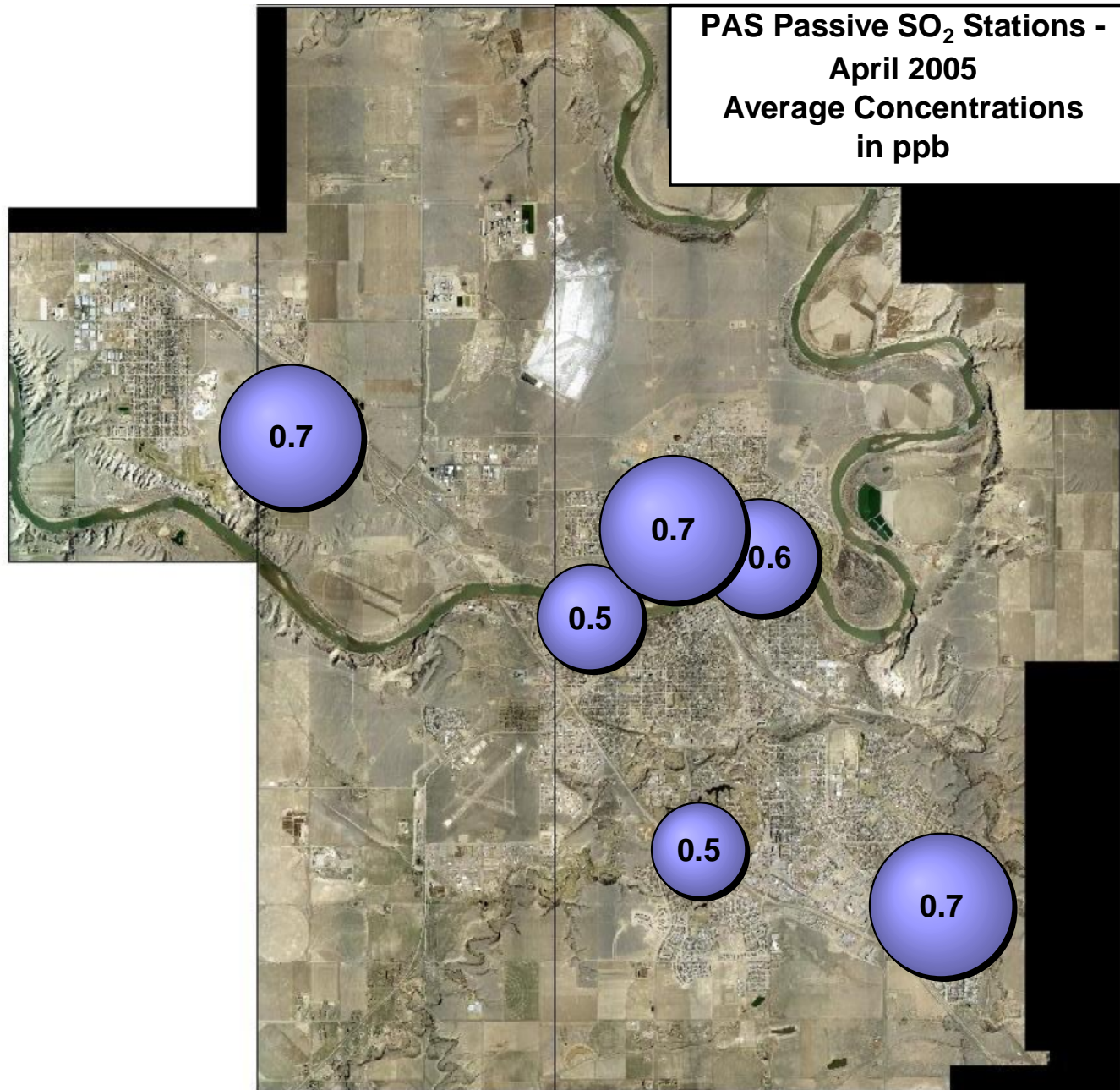


Palliser Airshed Society - PAS Passive Stations for April 2005

Station Number	Station Name	SO ₂ ppb	O ₃ ppb	NO ₂ ppb	Easting	Northing	Elevation
Duplicates							
4a	Redcliff	0.6	27.9	4.0			
4b	Redcliff	0.8	25.1	6.7			
1	Hospital	0.5	22.0	8.5	521648	5542721	698
2	Ball Park	0.6	19.1	9.5	524019	5543686	660
3	Monitoring Station	0.7	24.2	7.2	522812	5544133	714
4	Redcliff	0.7	26.5	5.4	517448	5545608	725
5	Southridge	0.5	27.4	5.9	523172	5539016	721
6	Christian School Park	0.7	26.5	5.4	526577	5538133	709
Stats:							
Mean		0.6	23.8	7.3			
Standard Deviation		0.1	3.4	1.7			
	Minimum	0.5			5	Southridge	
	Maximum	0.7			3	Monitoring Station	
	Minimum		19.1		2	Ball Park	
	Maximum		27.4		5	Southridge	
	Minimum			5.4	4	Redcliff	
	Maximum			9.5	2	Ball Park	







April 2005 - Calibration Reports

PAS - Crescent Heights Station O₃, NO_x, NO, NO₂, THC, CO and PM_{2.5}

Calibration Report

Parameter **O3**
 Air Monitoring Network **Palliser Airshed**



Station Information

Calibration Date	<u> </u> April 5, 2005	Previous Calibration	<u> </u> March 3, 2005
Station Number	<u> </u> 1	Station Location	<u> </u> Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other: <u> </u>
Start Time (MST)	<u> </u> 17:30	End Time (MST)	<u> </u> 19:50
Barometric Pressure	<u> </u> 0.929 ATM	Station Temperature	<u> </u> 22.0 Deg C
Calibrator	<u> </u> Envirionics 6100	Serial Number	<u> </u> 3016
Cal Gas Concentrator	<u> </u> NA	Cal Gas Expiry Date	<u> </u> NA
DACS make	<u> </u> Focus AP1000	DACS serial No.	<u> </u> NA
DACS voltage range	<u> </u> 0 - 1 volt	DACS channel #	<u> </u> 5
	<u> </u> Before		<u> </u> After
DACS slope	<u> </u> 0.050000	DACS slope	<u> </u> 0.050000
DACS intercept	<u> </u> 0.000000	DACS intercept	<u> </u> 0.000000
Calculated slope	<u> </u> 1.037485	Calculated slope	<u> </u> 0.978367
Calculated intercept	<u> </u> 2.149496	Calculated intercept	<u> </u> -2.915832
Analyzer make	<u> </u> API Model 400E	Analyzer serial #	<u> </u> 331

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background coefficient	-2.4	ppb	-2.4	ppb
Lamp measure	1.149		1.149	
Lamp Reference Pressure	2937	mV	2889	mV
Sample Flow	2941	mV	2890	mV
Lamp temp	25.6	inches Hg	25.9	inches Hg
	718	ccm	725	ccm
	52	Deg C	52	Deg C

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	3.2	N/A
4995	0.00	311.4	321.0	0.9700
4995	0.00	177.0	184.7	0.9582
4995	0.00	89.0	93.1	0.9556
4995	0.00	0.0	3.2	0.0000
4995	0.00	311.4	321.0	0.9700
Average Correction Factor				0.9613

Calculated value of As Found Response: 331.9 ppm Percent Change of As Found: 6.6%

	before calibration		after calibration	
Auto zero	0.5	ppb	-4.8	ppb
Auto span	364.2	ppb	340.0	ppb

Notes: No adjustments performed.

Calibration Performed By: Kelly Baragar

Calibration Summary

Parameter O3
 Air Monitoring Network Palliser Airshed

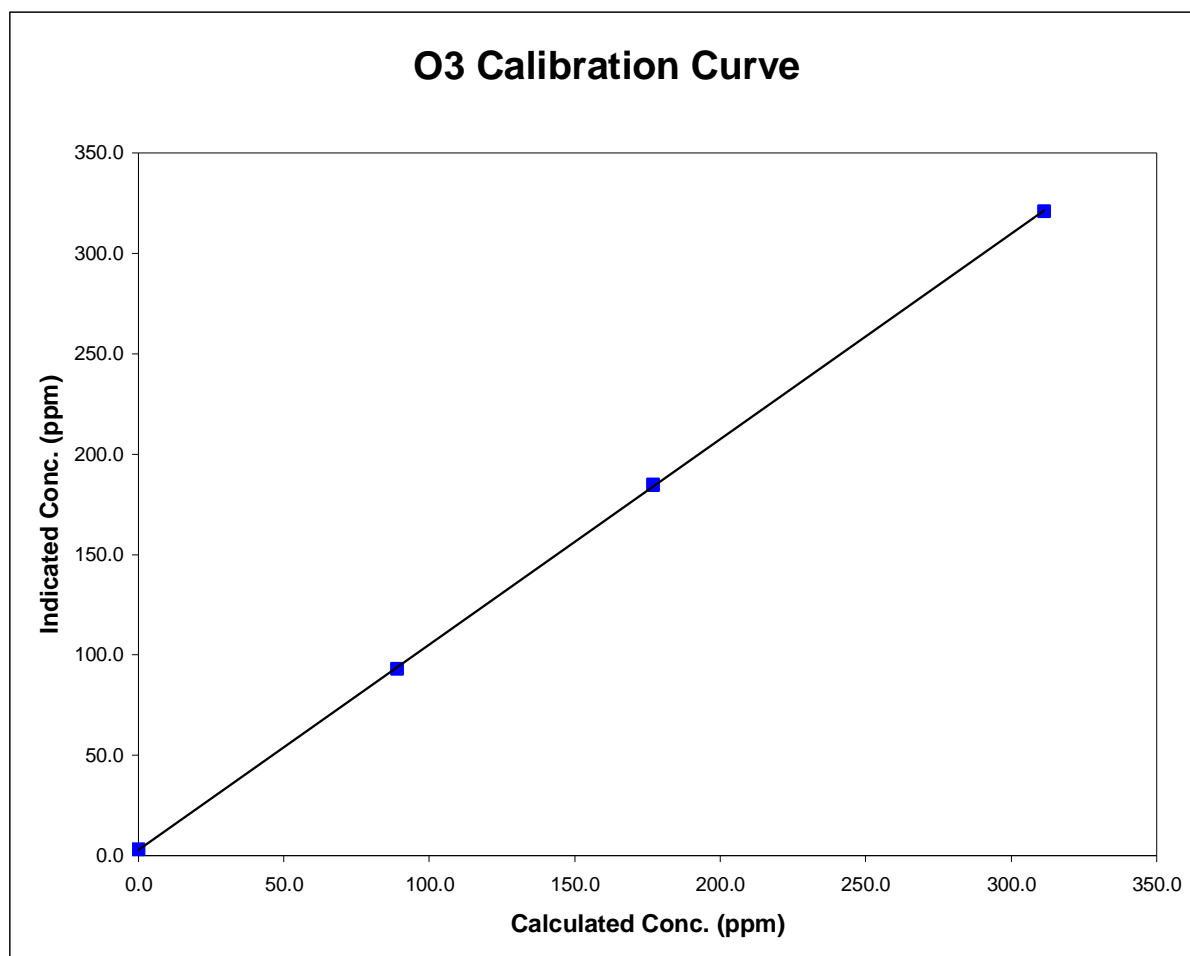


Station Information

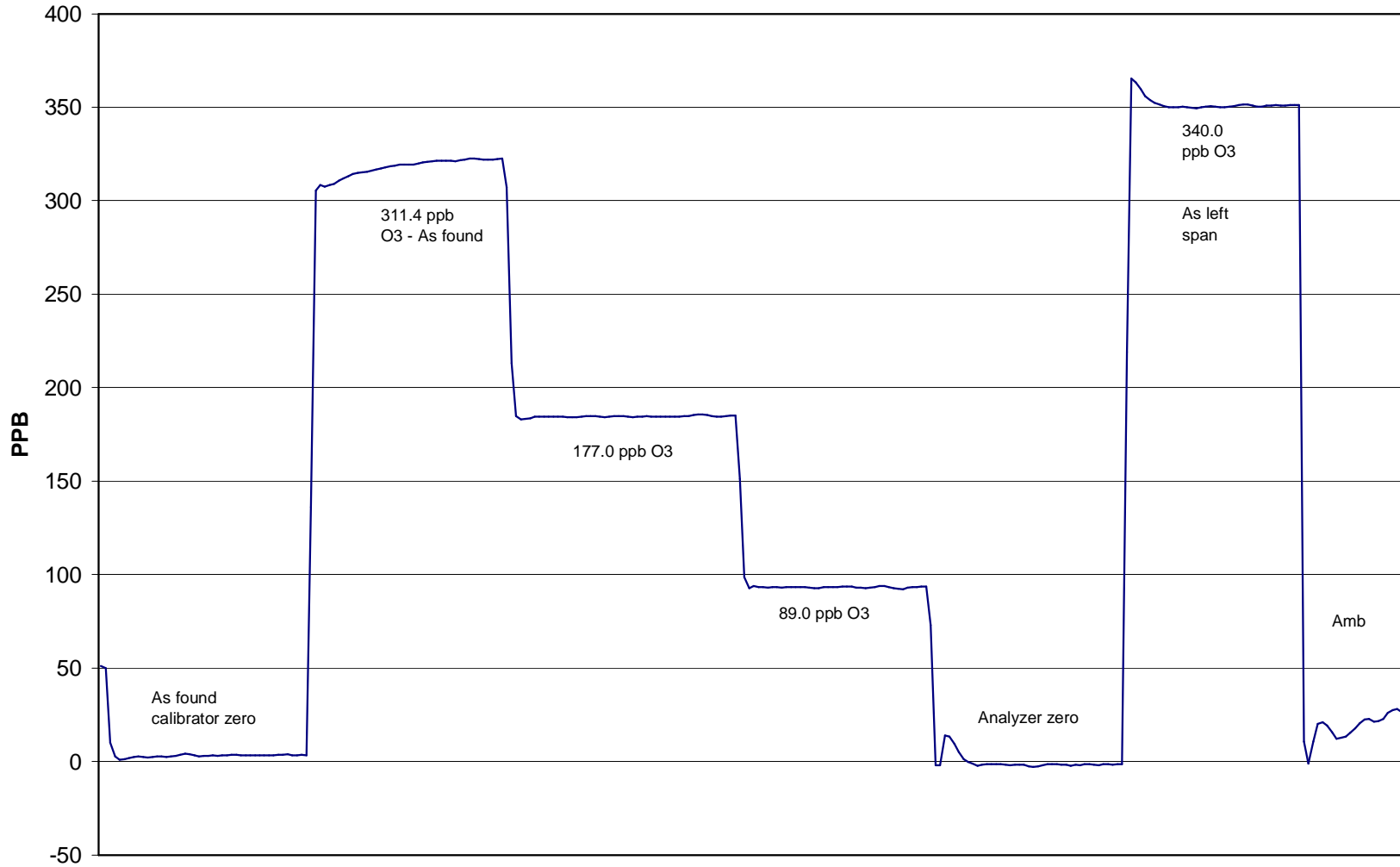
Calibration Date	<u> April 5, 2005 </u>	Previous Calibration	<u> March 3, 2005 </u>
Station Number	<u> 1 </u>	Station Location	<u> Crescent Heights </u>
Start Time (MST)	<u> 17:30 </u>	End Time (MST)	<u> 19:50 </u>
Analyzer make/model	<u> API Model 400E </u>	Analyzer serial #	<u> 331 </u>

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
311.4	321.0	0.9700	Correlation Coefficient	0.999974
177.0	184.7	0.9582		
89.0	93.1	0.9556		
0.0	3.2	N/A		
			Slope	0.978367
			Intercept	-2.915832



O3 Calibration



April 5, 2005

Calibration Report

Parameter **NOx-NO-NO₂**
 Air Monitoring Network **Palliser Airshed**



Station Information

Calibration Date	April 5, 2005	Previous Calibration	March 3, 2005
Station Number	1	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Installation <input type="checkbox"/> Removal <input type="checkbox"/> Other: _____		
Start Time (MST)	11:20	End Time (MST)	16:10
Barometric Pressure	0.929 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
NO Cal Gas Conc	50.5 ppm	Cal Gas Expiry Date	12-Dec-05
NOx Cal Gas Conc	50.5 ppm	Cal Gas Serial #	ALM011558

DACS Information

DACS make	FOCUS AP1000	DACS serial No.	45270
Parameter	NO2	NOx	NO
Before	DACS slope	0.050000	0.050000
	DACS offset	0.000000	0.000000
After	DACS slope	0.050000	0.050000
	DACS offset	0.000000	0.000000
Before	Data Slope	1.013112	1.010299
	Data Offset	-2.440406	-1.765449
After	Data Slope	1.000728	1.002682
	Data Offset	-1.022826	-1.268487
Channel #	8	6	7
Voltage Range	0 - 1 VDC	0 - 1 VDC	0 - 1 VDC

Analyzer Information

Analyzer make/model	API Model 200E	Analyzer serial #	219	
Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO background	-1.1	mV	0.7	mV
NOx background	0.9	mV	4.1	mV
NO coefficient	1.706		1.770	
NOx coefficient	1.702		1.791	
Chamber Temp	49.9	Deg C	49.9	Deg C
Cooler Temp	7.0	Deg C	7.1	Deg C
Azero	34.1		32.1	
Perm Temp	40.2	Deg C	40.1	Deg C
Pressure	3.6	inches Hg	3.6	inches Hg
Sample Flow	455.0	ccm	453.0	ccm

Notes: Analyzer was zero and span adjusted.

Calibration Report

Parameter **NO_x-NO-NO₂**
 Air Monitoring Network **Palliser Airshed**



Station Information

Calibration Date: April 5, 2005 Station Location: Crescent Heights

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NO _x conc (ppb)	Calculated NO conc (ppb)	Calculated NO ₂ conc (ppb)	Indicated NO _x conc (ppb)	Indicated NO conc (ppb)	Indicated NO ₂ conc (ppb)	NO _x Correction factor	NO Correction factor
zero	4993	0.00	0.0	0.0	0.0	1.0	1.5	1.2	N/A	N/A
1	4993	39.97	401.1	401.1	0.0	401.1	400.8	2.4	0.9998	1.0005
2	4993	19.97	201.2	201.2	0.0	202.0	202.9	0.8	0.9959	0.9914
3	4993	9.97	100.6	100.6	0.0	101.9	102.6	0.9	0.9873	0.9809
AFZ	4993	0.00	0.0	0.0	0.0	4.5	2.7	3.3	0.0000	0.0000
AFS	4993	39.97	401.1	401.1	0.0	382.4	385.0	-0.5	1.0488	1.0418
Average Correction Factor									0.9944	0.9910

As Found Concentrations NO_x= 376.1 NO= 381.5 As Found Percent Change NO_x= -6.2% NO= -4.9%

GPT Calibration Data

Dilution Flow 4993 ccm Source Gas Flow 39.97 ccm

O3 Setpoint (ppb)	Calculated NO _x conc (ppb)	Calculated NO conc (ppb)	Calculated NO ₂ conc (ppb)	Indicated NO _x conc (ppb)	Indicated NO conc (ppb)	Indicated NO ₂ conc (ppb)	NO _x Correction factor	NO Correction factor	NO ₂ Correction factor	Converter Efficiency
0	404.3	400.5	3.8	401.4	400.7	1.2	N/A	N/A	N/A	N/A
350	404.3	92.9	311.4	405.4	94.6	312.2	0.9974	0.9828	0.9974	100.3%
200	404.3	227.3	177.0	404.5	228.3	178.0	0.9995	0.9956	0.9942	100.6%
100	404.3	315.3	89.0	403.6	315.9	89.7	1.0017	0.9981	0.9924	100.8%
Average Correction Factor							0.9995	0.9922	0.9947	100.5%

AIC Data

Parameter	Previous calibration				Current calibration			
	NO _x	NO ₂	NO	ppb	NO _x	NO ₂	NO	ppb
Auto zero	0.5	-1.4	1.1	ppb	-1.1	-0.8	-0.8	ppb
Auto span	458.0	449.6	9.1	ppb	456.7	447.5	8.1	ppb

Calibration Performed By: Kelly Baragar

Calibration Summary

Parameter NO₂

Air Monitoring Network Palliser Airshed

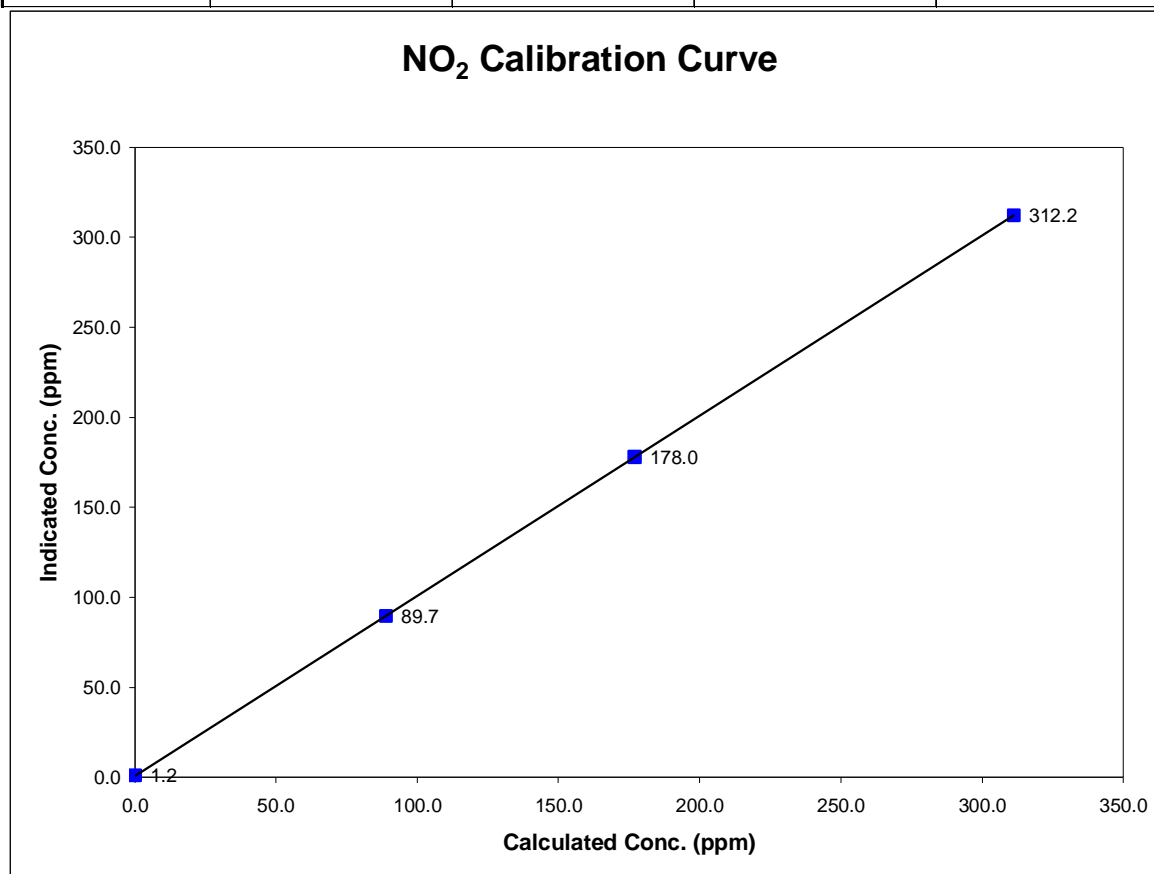


Station Information

Calibration Date	April 5, 2005	Previous Calibration	March 3, 2005
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	11:20	End Time (MST)	16:10
Analyzer make	API Model 200E	Analyzer serial #	219

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	1.2	0.0000		
89.0	89.7	0.9924	Correlation Coefficient	0.999998
177.0	178.0	0.9942		
311.4	312.2	0.9974	Slope	1.000728
			Intercept	-1.022826



Calibration Summary

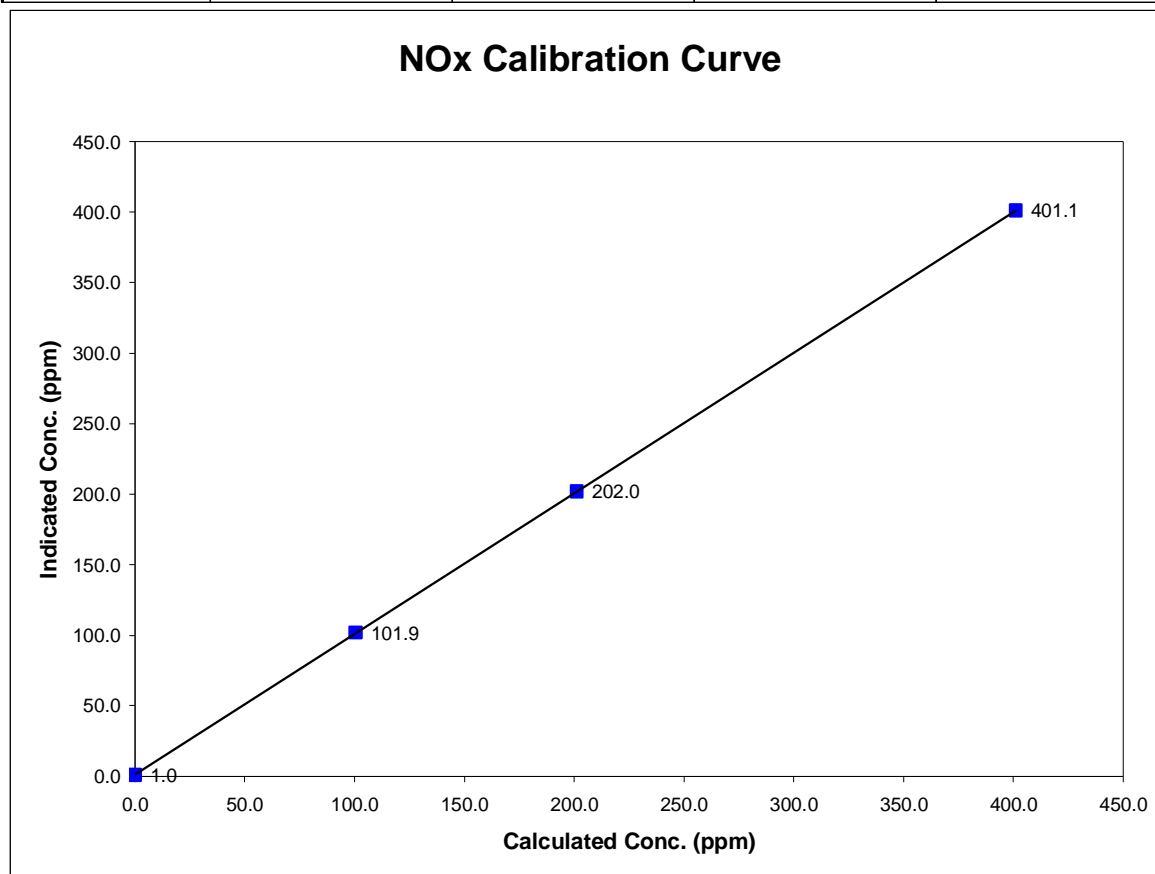
Parameter NO_xAir Monitoring Network Palliser Airshed

Station Information

Calibration Date	April 5, 2005	Previous Calibration	March 3, 2005
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	11:20	End Time (MST)	16:10
Analyzer make	API Model 200E	Analyzer serial #	219

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	1.0	0.0000		
401.1	401.1	0.9998	Correlation Coefficient	0.999998
201.2	202.0	0.9959		
100.6	101.9	0.9873	Slope	1.002682
			Intercept	-1.268487



Calibration Summary

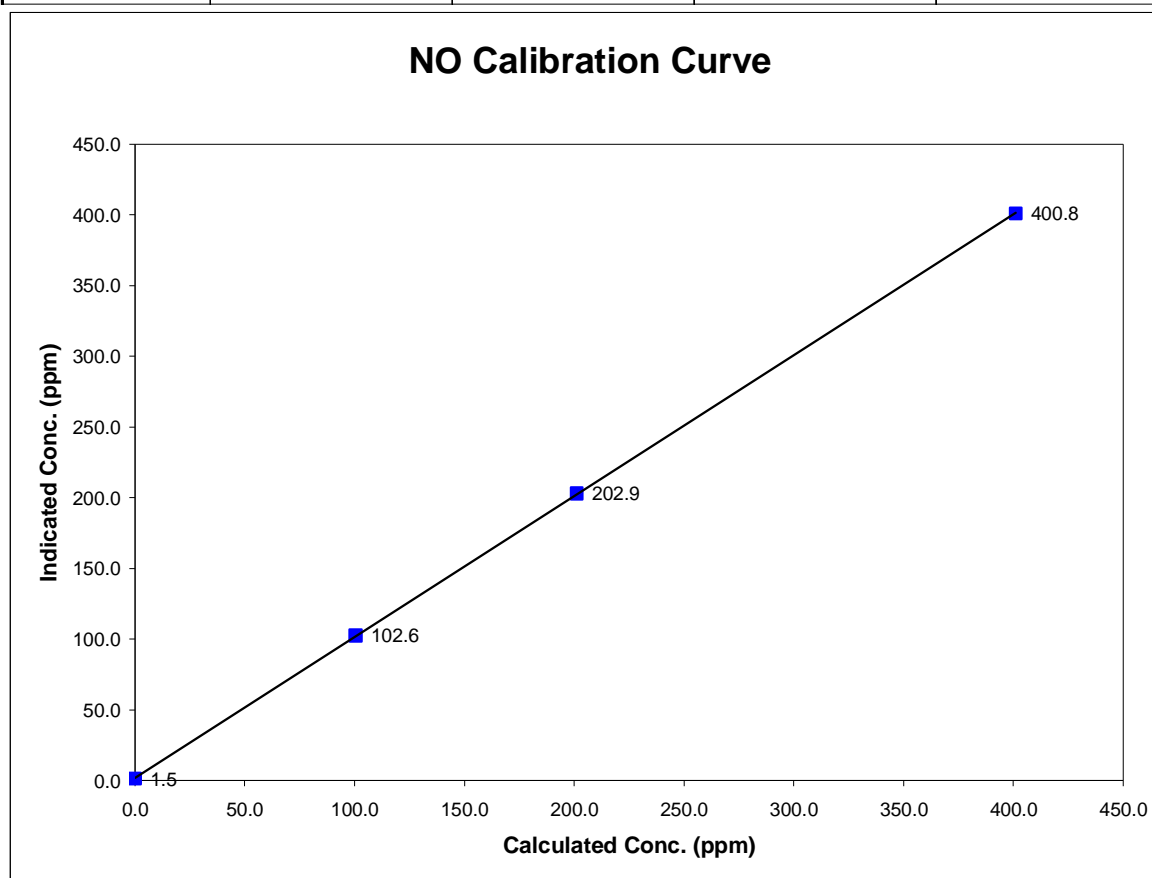
Parameter NO Air Monitoring Network Palliser Airshed 

Station Information

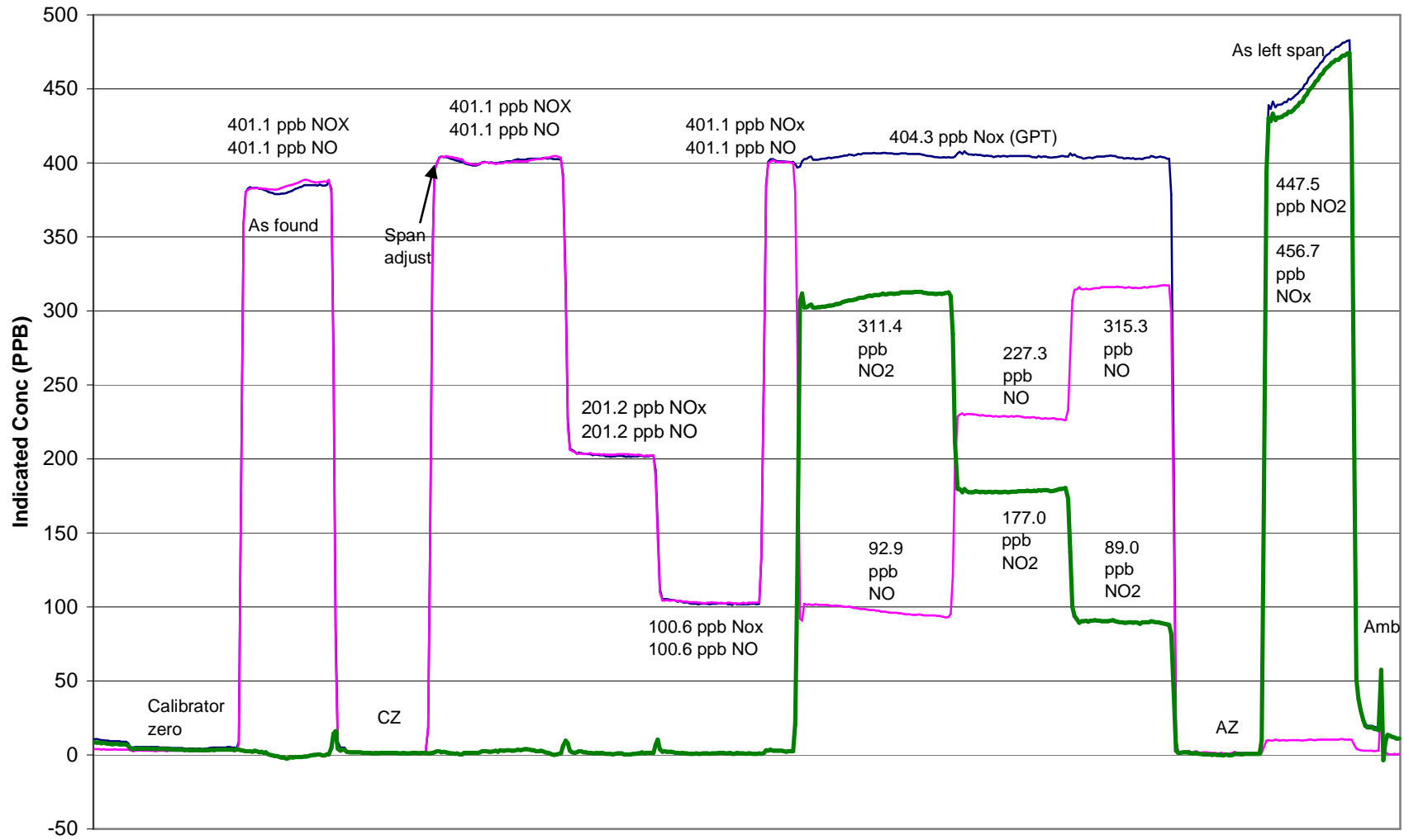
Calibration Date	<u> April 5, 2005 </u>	Previous Calibration	<u> March 3, 2005 </u>
Station Number	<u> 1 </u>	Station Location	<u> Crescent Heights </u>
Start Time (MST)	<u> 11:20 </u>	End Time (MST)	<u> 16:10 </u>
Analyzer make	<u> API Model 200E </u>	Analyzer serial #	<u> 219 </u>

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	1.5	N/A		
401.1	400.8	1.0005	Correlation Coefficient	0.999988
201.2	202.9	0.9914		
100.6	102.6	0.9809	Slope	1.004669
			Intercept	-2.065648



NOx Calibration



April 5, 2005

Calibration Report



Parameter THC
Air Monitoring Network Palliser Airshed

Station Information

Calibration Date	April 5, 2005	Previous Calibration	March 3, 2005
Station Number	1	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			Other: <input type="checkbox"/>
Start Time (MST)	15:18	End Time (MST)	18:20
Barometric Pressure	0.919 ATM	Station Temperature	22.0 Deg C
Calibrator	Envionics 6100	Serial Number	3016
Cal Gas Concentration	700 ppm CH ₄ / 301 ppm C ₃ H ₈	Cal Gas Expiry Date	8/28/2005
Cal Gas CH ₄ equiv	1527.75 ppm	Cal Gas Cylinder #	ALM030358
DACS make	Focus AP1000	DACS serial No.	45270
DACS voltage range	0 - 10 volt	DACS channel #	9
	Before		After
DACS slope	0.005000	DACS slope	0.005000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	0.988595	Calculated slope	1.000536
Calculated intercept	0.078515	Calculated intercept	0.009655
Analyzer make	TEI model 51C-LT	Analyzer serial #	407505596

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
THC sample pressure	5.74	PSI	5.74	PSI
THC span counts	10690	raw	10920	raw
THC zero counts	1711	raw	1711	raw

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)
2994	0.00	0.00	-0.02	N/A
2994	39.98	20.13	20.12	1.0008
2994	19.98	10.13	10.09	1.0036
2994	9.97	5.07	5.08	0.9978
zero	0.00	0.00	-0.02	As Found Zero
2994	39.98	20.13	20.55	As Found Span
Average Correction Factor				1.0007

Calculated value of As Found Response: 20.414 ppm Percent Change of As Found: -1.4%

	before calibration		after calibration	
Auto zero	0.00	ppm	-0.01	ppm
Auto span	21.61	ppm	21.52	ppm

Notes: A span adjustment was performed.

Calibration Performed By: Kelly Baragar

Calibration Summary

Parameter THC
 Air Monitoring Network Palliser Airshed

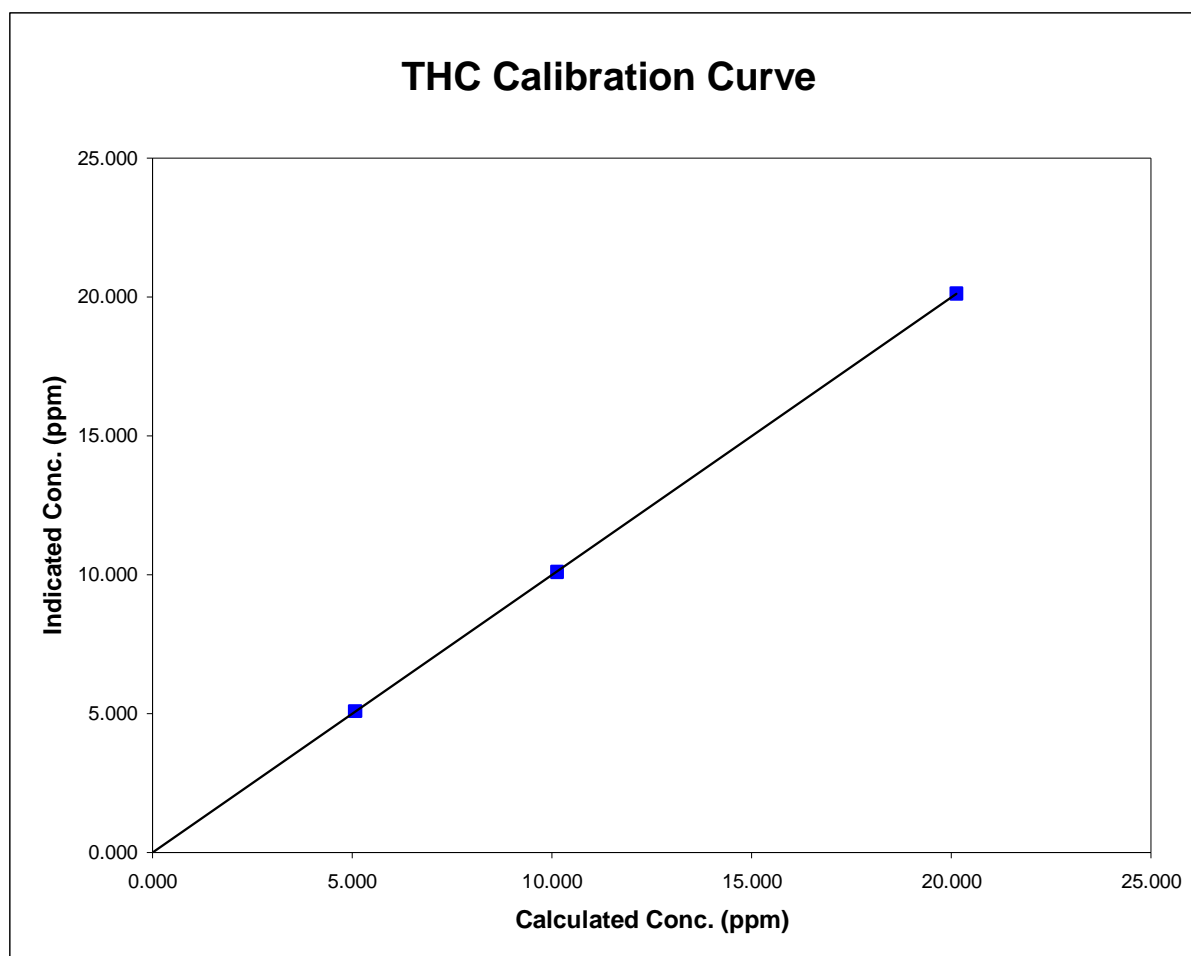


Station Information

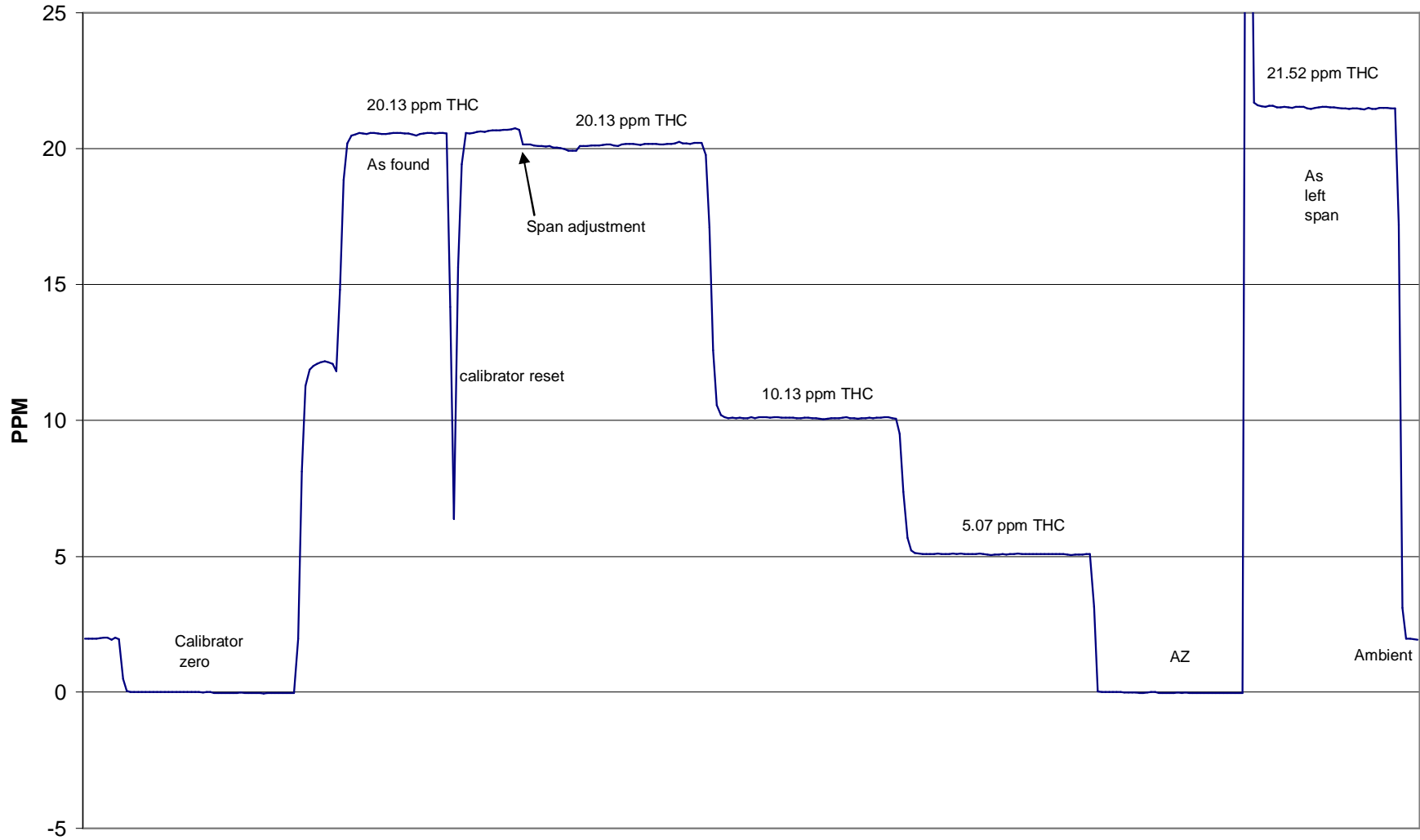
Calibration Date	April 5, 2005	Previous Calibration	March 3, 2005
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	15:18	End Time (MST)	18:20
Analyzer make/model	TEI model 51C-LT	Analyzer serial #	407505596

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.017	N/A		
20.132	20.116	1.0008	Correlation Coefficient	0.999995
10.128	10.091	1.0036		
5.071	5.082	0.9978	Slope	1.000536
			Intercept	0.009655



THC Calibration



April 5, 2005

Calibration Report



Parameter CO
 Air Monitoring Network Palliser

Station Information

Calibration Date	April 5, 2005	Previous Calibration	NA
Station Number	1	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			Other: <input type="text"/>
Start Time (MST)	19:00	End Time (MST)	21:30
Barometric Pressure	0.929 ATM	Station Temperature	22.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Conc	2998 ppm	Cal Gas Expiry Date	3/14/2008
		Cal Gas Cylinder #	BLM002248
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
DACS slope	NA	DACS slope	0.005000
DACS intercept	NA	DACS intercept	0.000000
Calculated slope	NA	Calculated slope	1.003685
Calculated intercept	NA	Calculated intercept	0.507728
Analyzer make	TEI Model 48CLT	Analyzer serial #	436609887

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO coefficient	769		1.026	
CO bkg setting	523		3.134	
Lamp ratio	691		1.1612	
Lamp intensity		Hz	199700	Hz
Sample Flow	1.15	LPM	0.998	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	-0.50	N/A
4993	49.97	29.71	29.11	1.0204
4993	19.96	11.94	11.32	1.0549
4993	9.97	5.97	5.49	1.0886
4993	0.00	0.00	0.56	0.0000
4993	49.97	29.71	31.65	0.9386
Average Correction Factor				1.0546

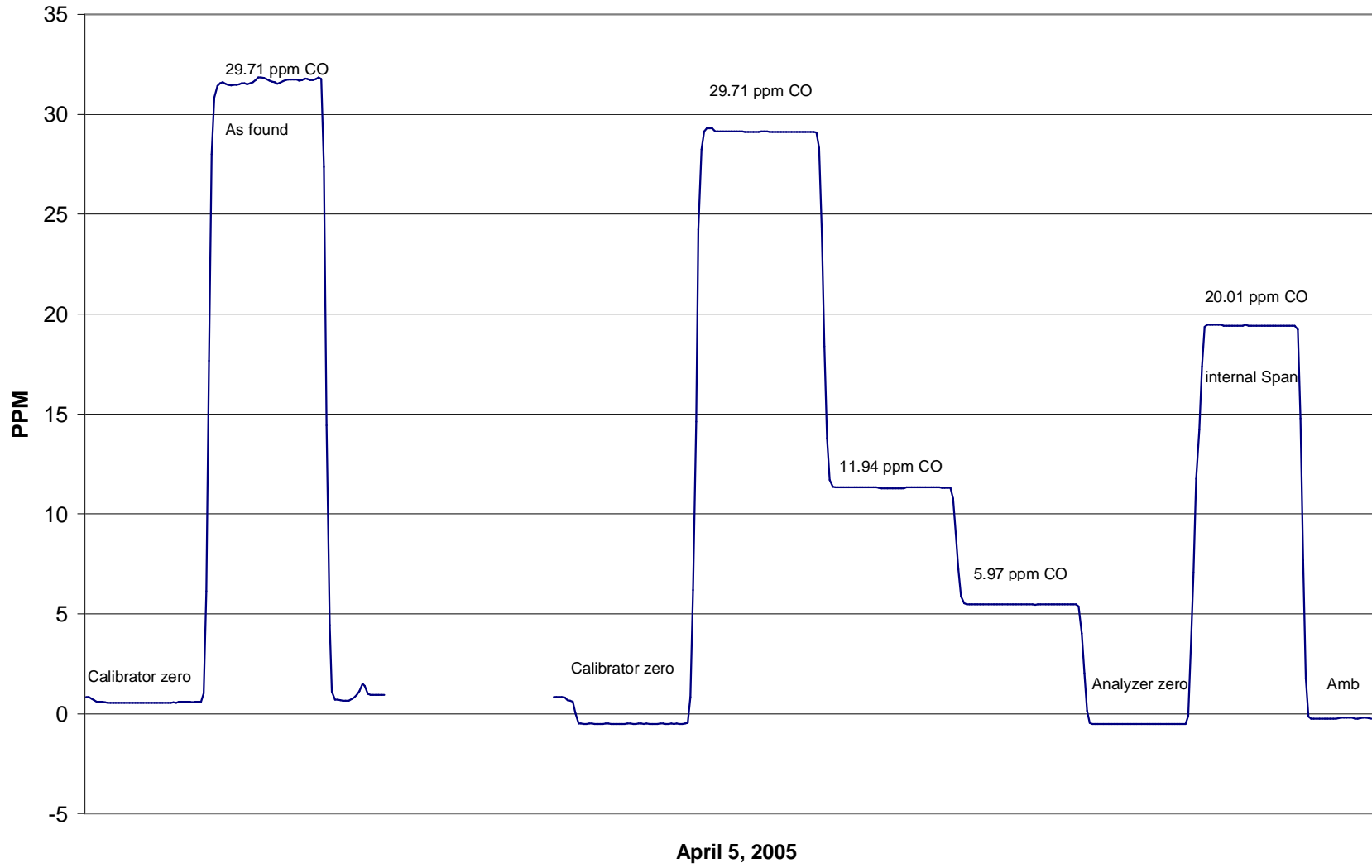
Calculated value of As Found Response: NA ppm Percent Change of As Found: NA

	before calibration		after calibration	
Auto zero	NA	ppm	0.01	ppm
Auto span	NA	ppm	20.01	ppm

Notes: A zero and span adjustment were performed for installation.

Calibration Performed By: Kelly Baragar

CO Calibration



Calibration Report



Parameter PM2.5
 Air Monitoring Network Palliser Airshed

Station Information

Calibration Date	April 5, 2005	Previous Calibration	January 18, 2004
Station Number	1	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			Other: <input type="text"/>
Start Time (MST)	15:30	End Time (MST)	16:30
Barometric Pressure	0.929 ATM	Station Temperature	22.0 Deg C
Flow Calibrator	BIOS Drycal DCL-MH	Serial Number	101780
DACS make	AP 1000	DACS serial No.	45269
DACS voltage range	0 - 1 V	DACS channel #	15
	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 #	140AB237960110
Analyzer model	TEOM 1400AB	Sensor Unit serial #	140AB237960110

	before		after	
Main Flow Set Point	3.000	SLPM	3.000	SLPM
Aux Flow Set Point	16.67	SLPM	16.67	SLPM
Filter Load	33	%	34	%
Ko Factor	12758		12758	
Temperature	13.1	Deg C	13.1	Deg C
Pressure	0.929	ATM	0.929	ATM

Calibration Data

Parameter	Set Point	Indicated Reading (measured externally)	Tolerance	TEOM Reading
zero flow - main	0.0	0.00		0.07
zero flow - auxillary	0.0	0.00		0.08
flow recovery - main	45 - 60 Seconds	NA	45 - 60 Seconds	NA
flow recovery - aux	46 - 60 Seconds	NA	46 - 60 Seconds	NA
Temperature	measured	14.0	+/- 1.0 Deg C	13.1
Pressure	measured	0.929	+/- 1.5% ΔATM	0.929
Total Flow	16.67 SLPM	16.15		16.70
Main Flow	13.67 SLPM	13.20	+/- 1.0 SLPM	13.60
Auxillary Flow	3.0 SLPM	2.950	+/- 0.2 SLPM	3.000
Leak Check - main	0.0	0.00	<0.15 SLPM	0.05
Leak Check - aux	0.0	0.00	<0.15 SLPM	0.11
Ko Factor (w/o filter)	measured	NA	filter weight (g)	NA
Ko Factor (w/ filter)	measured	NA	% Ko difference	N/A

Notes: Performed leak test and flow audit. Software adjusted main and auxiliary flows.

Calibration Performed By: Kelly Baragar

Calibration Report

Parameter PM2.5
 Air Monitoring Network Palliser Airshed



Station Information

Calibration Date	April 28, 2005	Previous Calibration	April 6, 2005
Station Number	1	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			Other: <input type="text"/>
Start Time (MST)	13:00	End Time (MST)	14:30
Barometric Pressure	0.929 ATM	Station Temperature	22.0 Deg C
Flow Calibrator	BIOS Drycal DCL-MH	Serial Number	101780
DACS make	AP 1000	DACS serial No.	45269
DACS voltage range	0 - 1 V	DACS channel #	15
	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 #	140AB237960110
Analyzer model	TEOM 1400AB	Sensor Unit serial #	140AB237960110

	before		after	
Main Flow Set Point	3.000	SLPM	3.000	SLPM
Aux Flow Set Point	16.67	SLPM	16.67	SLPM
Filter Load	41	%	21	%
Ko Factor	12758		12758	
Temperature	0.8	Deg C	0.8	Deg C
Pressure	0.928	ATM	0.928	ATM

Calibration Data

Parameter	Set Point	Indicated Reading (measured externally)	Tolerance	TEOM Reading
zero flow - main	0.0	NA		NA
zero flow - auxillary	0.0	NA		NA
flow recovery - main	45 - 60 Seconds	NA	45 - 60 Seconds	NA
flow recovery - aux	46 - 60 Seconds	NA	46 - 60 Seconds	NA
Temperature	measured	1.4	+/- 1.0 Deg C	0.9
Pressure	measured	0.929	+/- 1.5% ΔATM	0.928
Total Flow	16.67 SLPM	17.30		16.70
Main Flow	13.67 SLPM	14.30	+/- 1.0 SLPM	13.68
Auxillary Flow	3.0 SLPM	3.080	+/- 0.2 SLPM	3.000
Leak Check - main	0.0	0.00	<0.15 SLPM	0.05
Leak Check - aux	0.0	0.00	<0.15 SLPM	0.11
Ko Factor (w/o filter)	measured	NA	filter weight (g)	NA
Ko Factor (w/ filter)	measured	NA	% Ko difference	N/A

Notes: Analyzer pegging full scale due to loaded filter (% loading was erroneous). Replaced filter; all seemed OK. Performed leak test and flow audit. Software adjusted main and auxiliary flows.

Calibration Performed By: Kelly Baragar