



Palliser Airshed Society

Ambient Air Monitoring Network Summary

May 2008

Prepared By:



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June 25, 2008

Alberta Environment
12th Floor, Oxbridge Place
9820-106 Street
Edmonton Alberta T6B 2X3

Attention: Director of Monitoring and Evaluation

RE: Palliser Airshed Society (PAS) Ambient Air Monitoring Report – May 2008

Enclosed is the PAS Ambient Monitoring Report for the month of **May 2008**.

Continuous Monitoring – Crescent Heights and Portable-Brooks

Included in this report are; monthly sampling table, detailed hourly average reports and multipoint calibration reports of all instruments.

Crescent Heights:

- ◆ All analyzers and instruments at the Crescent Heights Station were greater than 90% operational for for the month of May.
- ◆ The measured ambient air quality was within the Alberta Objectives and Federal guidelines with no exceedences recorded at the Crescent Heights Station
- ◆ The following is a summary of the monthly averages recorded during sampling:
 - Monthly average concentrations of NO₂ was 5.8 ppb
 - Monthly average concentrations for O₃ was 31.6 ppb
 - Monthly average concentrations for CO was 0.20 ppm
 - Monthly average concentrations for THC was 2.00 ppm
 - Monthly average concentrations for PM_{2.5} was 4.3 µg/m³
- ◆ The Air Quality Index (AQI) recorded 637 hours of Good readings and 69 hours of Fair readings for the month of May.

Portable-Brooks:

- ◆ All pollutant analyzers at the Portable Brooks Station were 100% operational for the month of May.
- ◆ The measured ambient air quality was within the Alberta Objectives and Federal guidelines for SO₂ and O₃ pollutants recorded at the Portable - Brooks Station. The H₂S analyzer recorded one (1) exceedence greater then the Alberta Objective of 10 (ppb):
 1. May 17: 02:00 12.9 ppb Alberta Environment Reference # **201376**.
 2. *May 6: 02:00 10.0 ppb Alberta Environment Reference # **199714**. (This reading was called in to Alberta Environment but after zero baseline adjustment it was no longer greater than the Alberta Objective.)
- ◆ The following is a summary of the monthly averages recorded during sampling:
 - Monthly average concentrations of SO₂ was 0.4 ppb
 - Monthly average concentrations for H₂S was 0.45 ppb
 - Monthly average concentrations for O₃ was 32.8 ppb



Passive Monitoring – Twenty Sites throughout the PAS zone:

The passive sample analyses were performed by MAXXAM Analytics Inc. There were two duplicate sites sampled in the month of March: Site 9 and Site 19 – Monitoring Station. The following are the ranges for May 2008 recorded by the twenty passive stations located throughout the PAS zone.

- ◆ Average concentrations for SO₂ passives ranged from 0.2 to 0.5 ppb with a mean of 0.3 ppb.
- ◆ Average concentrations for NO₂ passives ranged from 0.2 to 3.6 ppb with a mean of 1.2 ppb.
- ◆ Average concentrations for O₃ passives ranged from 12.4 to 49.0 ppb with a mean of 41.8 ppb.

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

Sharon Whiteley, B.Sc.
AQM Data Specialist

Kelly Baragar, C.E.T
AQM Technical Field Supervisor



Continuous Monitoring

Ambient Air Monitoring Network

Crescent Heights Station

General Station Issues

Routine monthly calibrations were performed on May 21st (NO_x and O₃) and May 29th (CO, THC and PM_{2.5}).

Parameter	Make	Model	Units	Notes
Ozone	TECO	43I	ppb	No operational problems observed.
Nitrogen Dioxide	Teledyne - API	200E	ppb	No operational problems observed.
Total Hydrocarbons	Bendix	400A	ppm	Rebuilt internal sample pump. No other operational problems observed.
Carbon Monoxide	TEI	49C	ppm	No operational problems observed.
PM _{2.5}	R&P TEOM	1400ab	µg/m ³	Two (2) hours were flagged for excessive baseline drift. Pump was replaced on May 29 th .
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	No operational problems observed.
Data Acquisition System	Titan Logix	AP1000		No operational problems observed.



Continuous Monitoring

Ambient Air Monitoring Network

Portable-Brooks Station

General Station Issues

Routine monthly calibrations were performed on May 21st (O₃) and May 28th (SO₂ and H₂S).

Parameter	Make	Model	Units	Notes
Ozone	Teledyne - API	400E	ppb	No operational problems observed.
Sulphur Dioxide	TEI	43A	ppb	No operational problems observed.
Hydrogen Sulphide	TEI	43A	ppb	No operational problems observed.
Wind Speed	Blue Sky		kph	No operational problems observed.
Wind Direction	Blue Sky		Deg	No operational problems observed.
Data Acquisition System	Titan Logix	AP1000		No operational problems observed.



PAS - Crescent Heights

Monthly Summary Tables, Graphs and Roses



PAS - Crescent Heights - AQI Monthly Summary

Station: Crescent Heights
Station Owner: PAS

Air Quality Index (AQI)

Monitoring Dates: May 1, 2008 to June 1, 2008

Alberta's Air Quality Index

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

Summary

Number of 1-hr Good Readings:	637
Number of 1-hr Fair Readings:	69
Number of 1-hr Poor Readings:	0
Number of 1-hr Very Poor Readings:	0

Status Flag Characters

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

Day Mountain Standard Time

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00
1-May-08	5	6	N	6	5	6	5	9	13	14	13	15	16	17	16	16	15	15	15	14	14	14	14	13
2-May-08	11	N	8	3	4	4	3	5	9	16	20	22	24	23	24	25	25	25	23	21	18	12	7	7
3-May-08	N	5	5	3	4	4	5	9	16	21	24	26	27	29	29	29	29	30	28	23	18	13	11	N
4-May-08	7	6	8	8	7	7	7	10	14	17	27	33	34	34	34	34	32	31	25	21	20	22	N	19
5-May-08	18	20	13	5	5	7	6	13	19	29	32	31	32	32	31	30	30	29	28	24	26	N	22	20
6-May-08	20	20	20	17	14	17	20	21	23	24	23	23	25	27	28	25	25	28	26	22	N	23	21	17
7-May-08	15	14	11	10	10	10	12	12	13	11	20	24	24	24	24	26	24	22	20	N	19	22	21	19
8-May-08	19	20	21	19	18	18	16	14	16	20	23	24	20	17	17	19	22	N	N	22	19	19	19	17
9-May-08	18	16	13	13	12	12	11	14	18	18	18	20	19	20	20	20	20	N	20	18	14	12	5	6
10-May-08	5	7	7	3	3	4	6	12	19	20	21	21	22	22	22	22	N	20	19	17	13	12	9	8
11-May-08	7	7	8	9	8	10	9	10	10	12	17	20	17	22	23	N	22	21	19	17	18	17	14	13
12-May-08	8	9	9	8	7	7	9	10	13	14	14	17	19	21	N	21	22	21	21	17	13	11	10	8
13-May-08	3	4	5	5	5	6	5	6	15	17	16	17	20	N	21	21	21	22	18	16	15	14	15	14
14-May-08	14	12	12	11	11	10	10	13	16	20	21	25	N	24	23	24	25	25	23	20	15	13	7	7
15-May-08	6	4	8	9	5	7	7	7	9	10	12	N	16	16	16	15	16	17	18	14	11	11	8	10
16-May-08	5	5	5	5	5	7	8	6	12	13	N	16	18	20	22	24	25	26	25	22	18	30	18	15
17-May-08	13	11	8	8	6	8	11	9	11	N	16	23	25	26	26	28	27	25	23	20	15	13	8	10
18-May-08	6	8	9	9	8	11	8	12	N	12	13	20	23	21	21	21	20	21	20	16	15	16	17	15
19-May-08	16	15	16	15	13	14	14	N	17	20	23	24	25	26	26	26	28	29	24	21	18	14	15	17
20-May-08	18	20	20	18	16	15	N	16	17	17	18	19	18	18	17	16	13	11	11	11	12	10	11	11
21-May-08	7	7	9	13	12	N	8	11	13	14	15	N	N	2	12	12	12	11	11	10	10	10	10	10
22-May-08	10	10	N	11	17	17	18	19	15	13	15	17	19	15	14	12	11	10	9	5	8	5	11	13
23-May-08	15	N	16	15	14	14	14	14	16	18	20	23	23	22	22	23	22	21	19	18	18	17	11	11
24-May-08	N	16	18	22	19	18	14	15	14	13	18	24	26	26	25	25	23	24	23	22	21	20	20	N
25-May-08	17	16	15	15	14	11	13	18	18	21	23	25	19	16	15	17	15	14	13	13	12	12	N	10
26-May-08	11	11	11	11	8	7	10	9	12	13	13	13	15	17	18	19	22	24	23	22	21	N	17	14
27-May-08	13	15	16	13	12	13	14	17	23	26	26	26	28	29	29	29	29	29	30	26	N	18	16	15
28-May-08	21	19	15	13	14	9	11	15	22	19	20	20	21	21	21	21	20	20	19	N	16	13	9	6
29-May-08	4	3	3	3	4	2	5	5	9	12	N	N	N	24	24	25	26	24	26	23	16	13	10	19
30-May-08	24	24	N	18	16	15	14	15	16	23	22	24	25	26	26	26	27	24	23	21	19	16	16	13
31-May-08	8	N	5	5	4	5	6	13	19	22	23	25	30	32	32	29	27	26	26	23	19	16	15	15



PAS - Crescent Heights Nitrogen Dioxide Monthly Summary

Station: Crescent Heights
Station Owner: PAS

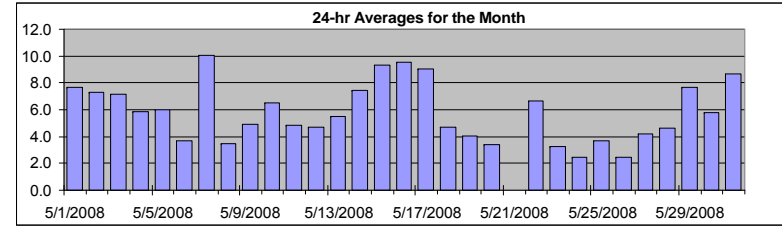
HOURLY AVERAGE TABLE

Nitrogen Dioxide (NO₂)

Monitoring Dates: May 1, 2008 to June 1, 2008

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

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	30.3 ppb 16-May 22:00 23:00
Maximum 24-hr Average:	10.0 ppb 7-May



AIC Time:	33 hrs	Operational Time:	706 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	24.1	17.8	7.2	4.0	2.4	1.3	1.0	5.8 ppb	4.0 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																							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	23:00	0:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
1-May-08	20	25	A	25	22	20	19	9	4	3	5	3	3	2	3	2	2	2	2	2	1	1	1	1	2	7.7	25.4	
2-May-08	3	A	6	13	15	18	13	11	9	5	3	2	1	3	1	1	1	0	3	7	10	14	16	12	7.3	18.3		
3-May-08	A	12	10	13	14	12	12	8	4	3	2	1	2	1	1	1	1	1	1	6	13	19	21	A	7.2	21.2		
4-May-08	17	11	8	8	8	8	9	5	4	5	4	3	2	3	3	3	3	2	6	7	8	3	A	5	5.9	17.4		
5-May-08	4	3	9	23	22	15	19	12	4	1	1	1	1	1	2	1	1	1	2	2	2	A	5	4	6.0	23.0		
6-May-08	3	3	4	4	5	4	4	4	3	2	2	2	1	1	1	3	4	4	4	8	A	6	4	8	3.7	7.9		
7-May-08	8	6	14	18	18	20	20	20	22	14	7	5	6	5	6	4	5	7	5	A	7	5	5	4	10.0	21.6		
8-May-08	2	3	1	1	3	3	8	12	7	4	5	2	2	2	2	1	1	3	A	3	3	7	4	3	3.5	11.5		
9-May-08	4	2	3	3	3	4	4	4	2	2	2	2	2	2	2	2	2	A	4	6	13	14	20	12	4.9	20.3		
10-May-08	12	8	5	13	12	12	11	8	3	2	2	3	2	2	2	2	A	5	9	8	10	6	7	6	6.5	12.8		
11-May-08	4	6	4	3	5	4	5	4	7	6	4	4	11	4	3	A	4	5	5	6	4	3	4	5	4.9	11.0		
12-May-08	8	6	5	6	5	4	4	5	4	3	4	3	2	2	A	3	3	3	2	4	7	7	7	11	4.7	10.6		
13-May-08	14	11	5	6	5	8	12	9	4	3	2	3	2	A	5	4	3	4	6	5	3	5	3	3	5.5	13.7		
14-May-08	5	4	4	5	7	7	10	8	4	3	3	2	A	4	4	3	3	2	5	7	15	16	28	22	7.5	28.1		
15-May-08	21	18	7	5	10	12	8	8	5	4	3	A	4	2	3	3	4	3	5	12	15	12	23	25	9.3	24.9		
16-May-08	13	12	8	11	12	12	14	8	2	3	A	4	3	3	3	2	3	3	3	6	13	21	30	29	9.5	30.3		
17-May-08	18	18	15	17	12	11	14	9	8	A	5	3	3	2	2	3	3	4	5	7	8	8	20	14	9.0	20.2		
18-May-08	7	9	7	6	9	10	8	6	A	6	5	4	2	3	2	2	2	2	2	4	3	2	3	6	4.7	10.0		
19-May-08	4	4	3	6	8	5	5	A	6	4	2	2	2	2	1	1	1	1	3	4	7	9	7	5	4.0	9.0		
20-May-08	3	1	1	2	3	5	A	5	4	4	3	2	2	2	5	5	6	5	3	4	3	4	2	2	3.4	5.8		
21-May-08	8	6	4	2	2	A	9	C	C	C	C	C	A	8	5	6	5	5	5	6	6	5	4	4	N	9.4		
22-May-08	3	3	A	4	3	2	2	2	3	4	3	3	3	9	6	8	8	10	10	21	12	16	10	8	6.6	20.9		
23-May-08	4	A	4	3	2	3	3	2	2	2	2	1	1	1	1	1	4	3	3	3	3	4	11	11	3.2	11.1		
24-May-08	A	4	3	2	3	2	3	2	3	3	2	2	1	1	1	1	1	1	2	2	4	4	4	A	2.4	4.3		
25-May-08	5	7	6	6	7	7	7	6	6	4	3	2	2	2	2	1	1	1	1	1	1	1	A	4	3.7	7.3		
26-May-08	2	2	2	2	4	3	3	3	2	2	2	2	1	1	1	2	1	1	1	2	2	A	7	7	2.5	7.1		
27-May-08	5	3	2	6	7	7	4	5	4	2	2	2	2	2	2	2	2	3	4	5	A	11	6	7	4.2	11.4		
28-May-08	3	4	5	6	6	11	10	8	1	2	2	2	1	1	3	2	2	3	3	A	9	6	8	10	4.7	10.7		
29-May-08	17	14	11	11	13	10	13	13	10	10	7	3	0	2	2	3	2	2	2	4	7	11	12	4	7.6	16.6		
30-May-08	2	2	A	7	6	7	6	9	8	4	6	5	3	4	4	3	2	2	2	2	5	7	14	23	5.8	23.0		
31-May-08	23	A	19	17	14	11	11	5	3	3	3	3	2	1	2	2	2	3	2	3	9	12	24	25	8.7	25.3		
Hourly Avg	8.4	7.4	6.3	8.2	8.6	8.5	9.1	7.3	5.1	3.9	3.4	2.6	2.4	2.6	2.6	2.6	2.9	3.0	3.6	5.5	7.1	8.3	10.7	9.6				
Hourly Max	23.2	24.8	18.6	25.4	22.0	20.1	20.4	20.0	21.6	13.5	7.4	5.3	11.0	8.8	6.1	7.9	8.4	9.7	10.4	20.9	15.1	21.2	30.3	29.2				

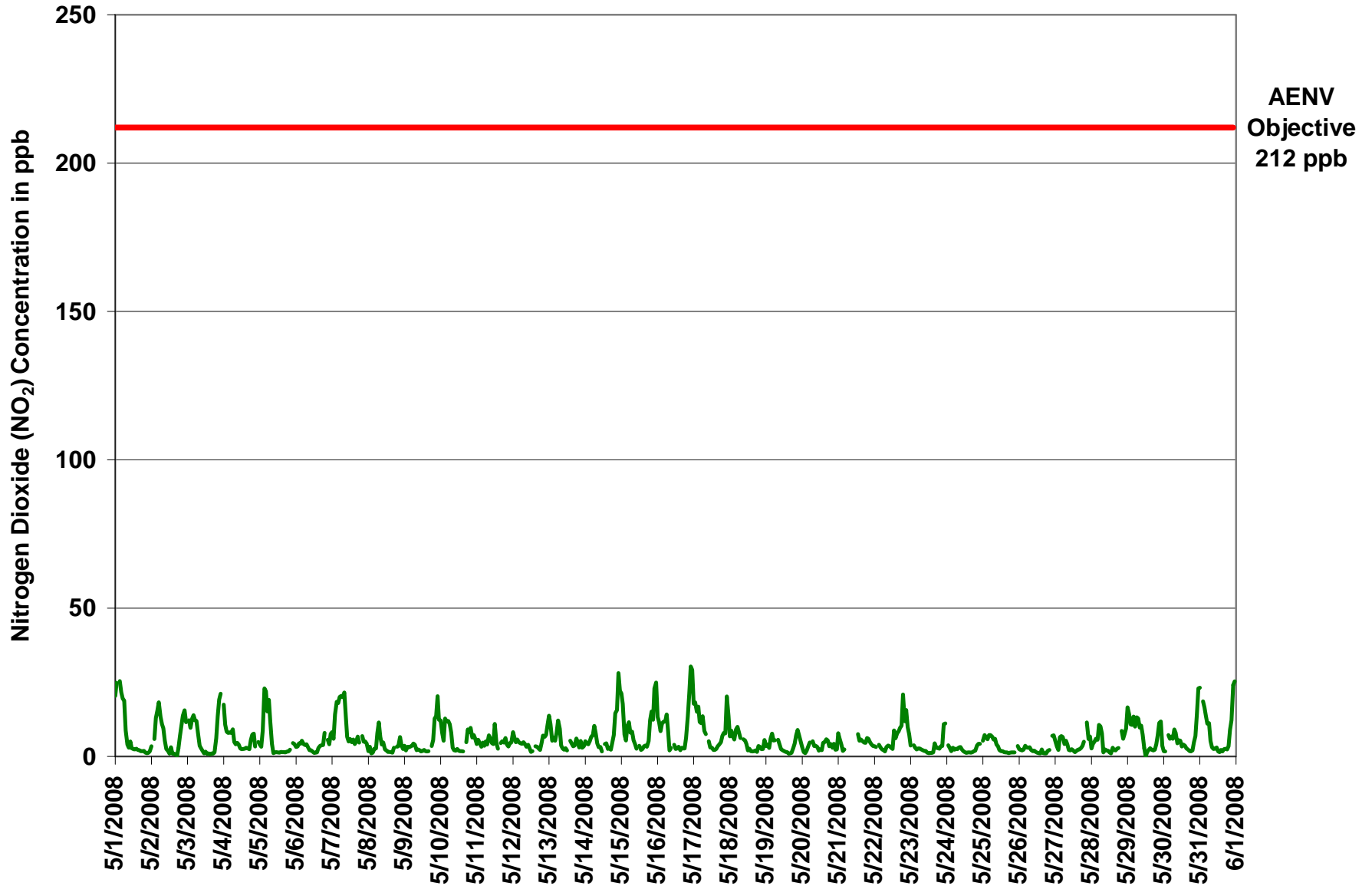


Figure 1. PAS - Crescent Heights Nitrogen Dioxide 1-hr Average Monthly Trend



Station: Crescent Heights
Station Owner: PAS

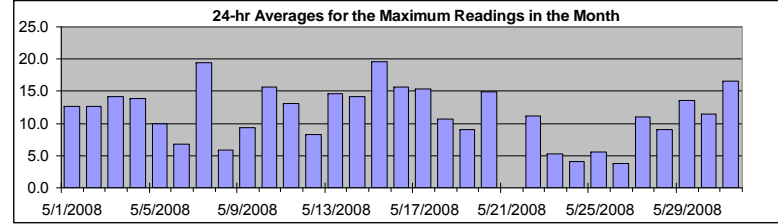
INSTANTANEOUS (30 Second) MAXIMUM TABLE

Nitrogen Dioxide (NO₂)

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Maximum 1-hr Value:	56.7	ppb	27-May	19:00 20:00
Maximum 24-hr Value:	19.6	ppb	15-May	



AIC Time:	33 hrs	Operational Time:	706 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	45.9	34.6	15.0	7.7	4.3	2.6	2.0	11.6 ppb	7.7 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-May-08	34	39	A	42	28	27	24	15	7	4	16	4	5	7	6	3	4	4	4	3	4	3	4	4	12.6	42.1	
2-May-08	5	A	8	19	22	26	20	15	13	7	4	4	3	46	4	3	2	2	7	12	14	18	21	17	12.7	45.9	
3-May-08	A	17	12	16	51	17	17	13	7	4	3	3	5	4	3	3	3	2	3	11	37	49	31	A	14.1	51.2	
4-May-08	39	14	13	29	14	32	27	9	15	29	7	7	4	5	5	5	4	4	10	11	22	7	A	8	13.9	39.4	
5-May-08	5	4	17	45	32	20	27	22	8	3	4	3	3	2	3	2	3	2	3	3	4	A	7	7	10.0	45.3	
6-May-08	6	19	8	7	8	6	5	6	4	3	6	3	2	2	2	4	7	7	5	11	A	8	5	18	6.7	19.5	
7-May-08	17	9	36	28	29	24	23	25	26	17	11	9	11	8	27	6	8	49	8	A	9	44	13	10	19.4	48.7	
8-May-08	3	6	2	2	4	5	13	16	11	6	11	5	4	3	3	3	2	4	A	5	6	10	8	4	5.9	16.2	
9-May-08	5	4	6	6	5	5	11	5	3	4	3	3	3	5	4	3	4	A	5	10	19	38	51	15	9.4	50.7	
10-May-08	29	27	8	28	18	17	20	26	20	3	3	16	3	3	3	3	A	8	42	13	30	9	23	9	15.7	41.8	
11-May-08	6	26	7	6	25	22	9	7	34	14	8	9	38	8	4	A	7	12	7	9	6	6	19	13	13.1	37.7	
12-May-08	15	13	9	11	10	8	6	7	7	6	8	5	3	8	A	5	6	4	3	8	12	12	11	14	8.3	15.3	
13-May-08	32	27	8	9	8	25	39	23	8	4	3	23	6	A	9	16	5	6	34	8	4	20	9	10	14.6	38.7	
14-May-08	19	29	8	8	10	10	15	13	7	6	6	3	A	9	13	4	7	4	11	12	33	29	43	29	14.2	42.9	
15-May-08	47	44	14	32	28	21	17	10	8	9	9	A	8	7	4	5	7	8	6	9	37	26	27	38	42	19.6	47.2
16-May-08	21	14	13	13	15	15	30	12	5	8	A	8	5	5	5	4	6	5	4	10	43	41	37	40	15.6	43.4	
17-May-08	25	22	20	21	23	24	16	14	13	A	7	4	5	4	4	7	7	10	9	13	12	12	32	45	15.3	45.1	
18-May-08	21	26	8	8	23	28	11	32	A	7	11	11	3	5	5	4	5	5	3	6	6	4	6	10	10.7	32.0	
19-May-08	7	7	6	13	13	10	9	A	8	7	3	4	3	3	4	3	3	3	15	27	29	12	13	8	9.1	29.0	
20-May-08	8	19	13	22	43	12	A	14	5	31	17	4	16	4	35	28	23	10	8	7	7	8	5	6	14.9	43.4	
21-May-08	27	25	10	4	5	A	16	C	C	C	C	C	A	19	7	7	9	6	8	9	17	7	6	4	N	27.5	
22-May-08	5	10	A	7	4	3	5	3	5	5	5	4	6	35	14	13	13	13	16	29	14	20	15	15	11.1	34.9	
23-May-08	8	A	5	4	3	4	4	4	3	3	3	2	2	2	2	2	8	6	5	5	6	6	17	19	5.3	18.7	
24-May-08	A	5	4	2	5	4	5	4	4	4	4	3	2	2	3	4	3	3	3	4	7	7	7	A	4.0	7.1	
25-May-08	7	13	10	8	10	10	8	8	8	6	6	5	3	3	3	3	2	2	2	3	3	3	A	4	5.6	13.2	
26-May-08	3	3	3	3	5	4	5	4	4	3	4	2	2	2	2	5	3	3	2	3	4	A	10	8	3.8	10.0	
27-May-08	8	5	3	11	11	10	6	8	8	6	6	14	4	4	3	5	4	6	8	57	A	47	8	11	10.9	56.7	
28-May-08	9	6	6	8	9	16	14	14	3	4	5	3	3	2	35	15	5	4	4	A	11	10	9	11	9.0	35.1	
29-May-08	3	21	16	15	17	12	16	14	15	12	43	17	1	3	6	4	4	3	4	9	29	18	18	7	13.6	43.3	
30-May-08	3	4	A	23	9	9	10	13	12	8	14	10	9	9	17	13	11	8	4	2	3	7	13	28	35	11.5	35.2
31-May-08	29	A	22	20	17	14	26	15	19	46	7	9	5	4	8	4	6	8	7	7	20	28	31	30	16.6	46.0	
Hourly Avg	16.1	16.3	10.5	15.1	16.3	14.7	15.1	12.7	10.0	9.3	8.2	6.7	5.7	7.6	7.9	6.3	5.9	6.8	8.4	11.9	15.1	17.8	18.0	15.6			
Hourly Max	47.2	43.9	35.7	45.3	51.2	32.3	38.7	32.0	33.8	46.0	43.3	23.5	37.7	45.9	35.1	27.9	22.7	48.7	41.8	56.7	43.4	49.5	50.7	45.1			

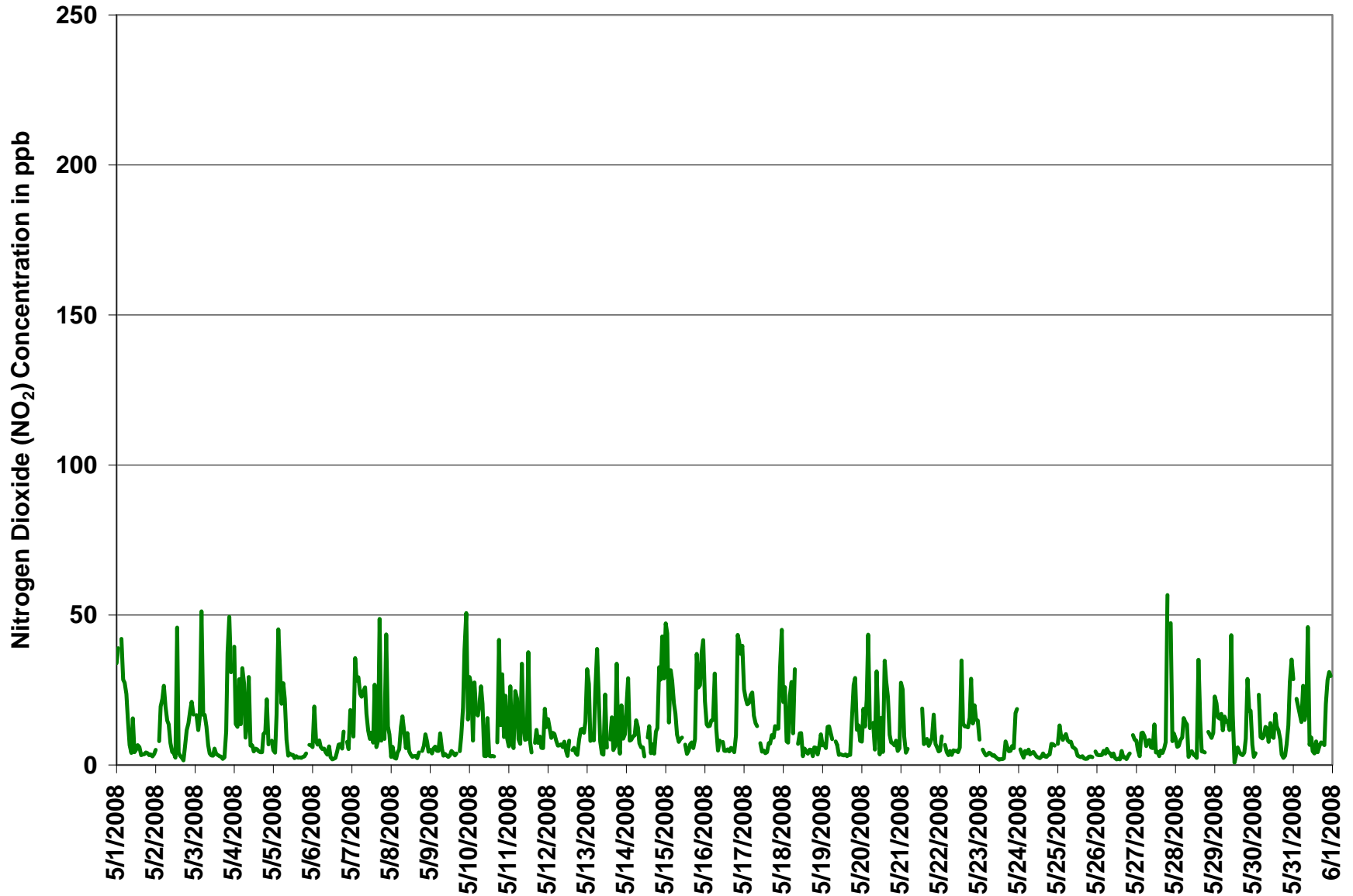
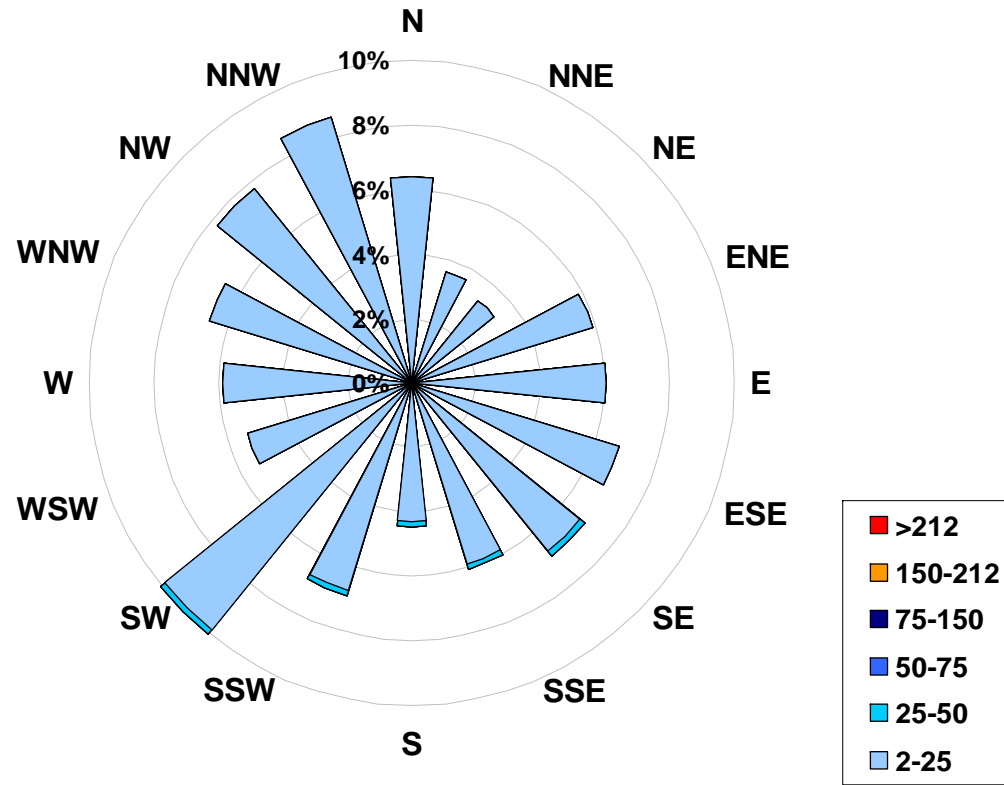


Figure 2. PAS - Crescent Heights Nitrogen Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend



1-hr Average Concentration Rose for Nitrogen Dioxide (in ppb) Located at the Crescent Heights Site for May 2008



Calms: 0%

Frequency Distribution of NO ₂ in ppb			
Range		Frequency (hrs)	
2.0	< 25	703	
25	to 50	3	
50	to 75	0	
75	to 150	0	
150	to 212	0	
	> 212	0	
Total Non-Zero Values		706	



PAS - Crescent Heights Nitric Oxide Monthly Summary

Station: Crescent Heights
 Station Owner: PAS

HOURLY AVERAGE TABLE

Nitric Oxide (NO)

Monitoring Dates: May 1, 2008 to June 1, 2008

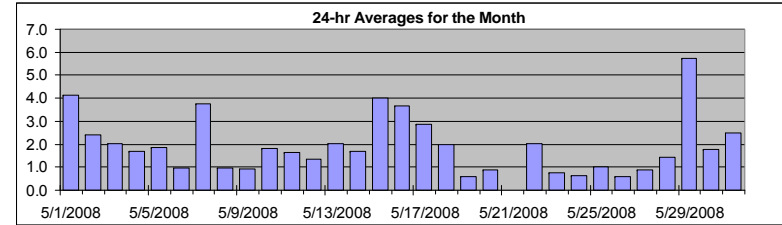
Guideline Limit:

1-hr	na	ppb
------	----	-----

24-hr	na	ppb
-------	----	-----

 Summary

Maximum 1-hr Average:	37.4	ppb	29-May	6:00 7:00
Maximum 24-hr Average:	5.7	ppb	29-May	



AIC Time:	33 hrs	Operational Time:	706 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	14.9	7.1	1.9	1.0	0.7	0.3	0.1	2.0 ppb	1.0 ppb

Status Flag Characters

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

Day	Mountain Standard Time																							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			
1-May-08	2	13	A	17	11	15	11	4	2	2	3	2	2	2	2	1	1	1	1	1	1	1	1	1	1	4.1	16.6
2-May-08	1	A	1	2	6	11	10	8	8	2	1	1	0	2	1	0	0	0	0	0	0	0	0	0	1	2.4	11.1
3-May-08	A	1	0	1	6	3	7	5	2	1	1	1	1	1	1	0	1	1	1	1	1	8	1	A	2.0	7.9	
4-May-08	5	1	1	4	1	2	6	2	2	3	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.7	5.7	
5-May-08	0	0	1	10	3	2	7	5	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.8	9.6	
6-May-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1.0	1.4	
7-May-08	1	1	2	3	3	4	11	15	15	6	3	2	2	2	3	2	1	3	1	A	1	3	1	1	3.8	15.2	
8-May-08	1	1	1	1	1	1	1	3	2	1	2	1	1	1	1	1	0	1	A	1	1	1	1	1	1.0	2.5	
9-May-08	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	A	0	0	1	2	4	1	0.9	3.9	
10-May-08	4	3	0	6	1	3	7	5	2	0	0	1	1	0	0	0	A	1	2	1	1	0	2	1	1.8	6.9	
11-May-08	0	3	1	0	2	1	1	1	5	2	2	2	5	2	1	A	1	1	1	1	1	1	1	1	1.6	5.3	
12-May-08	1	1	1	1	1	2	2	2	2	2	3	2	1	1	A	1	1	1	1	1	1	1	1	1	1.4	3.3	
13-May-08	3	3	1	1	1	2	10	8	2	1	1	2	1	A	1	1	1	1	1	2	1	1	1	1	2.0	9.6	
14-May-08	1	2	1	1	1	1	2	3	2	2	2	1	A	1	2	1	1	1	1	1	1	5	1	4	1.7	4.5	
15-May-08	24	7	1	3	5	2	4	3	3	3	2	A	2	1	2	2	2	1	1	2	1	1	8	13	4.0	23.6	
16-May-08	1	1	1	1	2	9	25	8	2	3	A	2	1	1	1	1	1	1	1	1	2	2	4	13	3.7	25.4	
17-May-08	2	3	1	5	3	6	12	6	5	A	2	1	1	1	1	1	1	1	1	1	1	1	1	9	2.8	12.4	
18-May-08	3	3	1	1	4	4	3	6	A	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	2.0	6.1	
19-May-08	1	1	0	1	1	1	2	A	2	1	1	1	0	0	0	0	0	0	1	1	1	0	0	0	0.6	1.9	
20-May-08	0	0	0	1	2	0	A	1	1	2	2	0	1	1	2	2	2	1	1	1	0	1	1	0	0.9	2.0	
21-May-08	3	1	1	1	1	A	2	C	C	C	C	C	A	4	3	3	3	2	2	2	3	2	2	1	N	4.3	
22-May-08	2	2	A	1	1	1	1	1	1	1	1	1	1	4	3	3	3	2	2	9	2	2	1	1	2.0	8.7	
23-May-08	1	A	1	1	0	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	0	0	1	1	0.8	1.3	
24-May-08	A	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	0	1	1	1	A	0.6	1.3	
25-May-08	1	1	1	1	1	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1.0	1.9	
26-May-08	0	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	A	0	0	0.6	1.3	
27-May-08	0	0	0	0	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	2	0	1	0.9	2.3	
28-May-08	0	1	0	1	1	4	5	5	1	1	1	1	1	1	2	1	1	1	1	1	A	1	1	1	1.5	5.3	
29-May-08	9	4	2	3	10	10	37	25	12	9	5	2	0	1	1	1	1	1	1	1	1	1	1	1	5.7	37.4	
30-May-08	1	1	A	1	1	2	3	5	4	2	3	2	1	2	2	1	1	1	1	1	1	1	1	4	1.8	4.6	
31-May-08	9	A	6	3	2	5	15	3	2	2	1	1	0	0	0	0	1	1	0	1	0	2	2	2	2.5	14.7	
Hourly Avg	2.8	1.9	0.9	2.3	2.4	3.3	6.4	4.6	3.0	2.0	1.6	1.2	1.1	1.2	1.2	1.1	1.0	1.0	0.9	1.1	1.1	1.3	1.5	2.1			
Hourly Max	23.6	12.7	5.6	16.6	11.4	14.9	37.4	25.2	15.2	8.8	4.7	2.3	5.3	4.3	2.7	3.2	3.2	3.3	2.3	8.7	4.5	7.9	7.6	13.2			



PAS - Crescent Heights Oxides of Nitrogen Monthly Summary

Station: Crescent Heights
 Station Owner: PAS

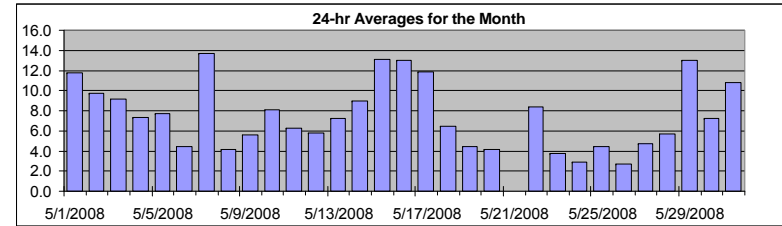
HOURLY AVERAGE TABLE

Oxides of Nitrogen (NO_x)

Monitoring Dates: May 1, 2008 to June 1, 2008

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

Maximum 1-hr Average:	50.1	ppb	29-May	6:00 7:00
Maximum 24-hr Average:	13.7	ppb	7-May	



AIC Time:	33 hrs	Operational Time:	706 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	37.5	23.3	8.6	5.0	2.9	1.6	1.0	7.5 ppb	5.0 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																								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	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-May-08	23	38	A	42	33	35	30	13	6	4	8	4	4	4	5	3	3	3	2	2	2	2	2	2	2	11.8	42.4
2-May-08	4	A	7	15	21	30	23	19	18	8	3	2	1	5	1	1	1	0	3	7	11	14	16	12	9.8	29.6	
3-May-08	A	13	10	14	20	15	19	13	6	4	3	2	2	1	2	1	2	1	2	7	15	27	23	A	9.2	27.3	
4-May-08	23	12	9	12	9	10	15	7	6	7	5	3	3	3	3	3	3	3	6	8	9	4	A	5	7.4	22.9	
5-May-08	4	3	10	33	26	18	26	17	6	2	2	2	2	2	2	2	2	2	2	3	A	5	5		7.7	32.8	
6-May-08	4	4	5	5	7	5	5	5	4	3	3	2	2	2	2	4	4	5	4	9	A	6	4	8	4.4	8.6	
7-May-08	9	7	16	22	21	24	32	35	37	20	9	7	8	6	8	6	6	10	6	A	8	8	6	5	13.7	36.9	
8-May-08	3	4	2	2	3	3	9	14	8	5	6	3	3	2	2	2	1	3	A	3	4	7	4	3	4.2	14.1	
9-May-08	4	2	3	3	3	4	5	5	2	3	3	2	2	3	2	2	2	A	4	6	13	16	24	13	5.6	24.4	
10-May-08	16	11	5	18	13	15	18	13	4	2	2	4	2	2	2	2	A	5	11	9	11	7	9	6	8.1	18.2	
11-May-08	4	8	5	4	6	4	6	5	12	8	6	6	16	7	4	A	6	6	6	7	4	4	5	6	6.3	16.4	
12-May-08	9	7	5	6	6	6	6	7	6	5	7	4	2	2	A	4	4	3	3	5	8	8	8	11	5.8	11.3	
13-May-08	17	14	6	7	6	10	22	17	5	4	3	4	3	A	6	5	4	4	8	6	3	6	3	4	7.3	21.7	
14-May-08	6	6	5	6	7	8	12	10	6	5	5	3	A	5	6	3	4	3	6	8	19	17	33	24	8.9	32.5	
15-May-08	45	24	8	8	15	14	11	11	8	7	4	A	5	3	4	5	5	4	6	14	16	13	31	38	13.1	44.9	
16-May-08	15	13	9	12	14	21	39	16	4	5	A	6	4	4	4	3	3	3	3	7	15	23	35	43	13.1	42.7	
17-May-08	20	21	17	22	15	18	26	14	12	A	7	4	4	3	3	3	4	5	6	8	9	9	22	22	11.9	26.1	
18-May-08	10	11	8	6	13	14	11	12	A	8	8	6	3	4	3	3	3	3	2	4	4	3	3	6	6.4	14.0	
19-May-08	4	5	3	6	8	6	7	A	8	5	3	3	2	2	1	1	1	1	3	5	9	9	7	5	4.4	9.2	
20-May-08	3	1	1	2	5	5	A	7	4	5	5	2	3	3	7	6	7	6	4	5	3	5	3	2	4.1	7.4	
21-May-08	11	7	4	2	3	A	11	C	C	C	C	C	A	11	7	7	7	6	6	7	9	6	5	4	N	11.0	
22-May-08	5	4	A	5	4	3	3	2	4	5	4	4	3	13	8	11	11	12	12	29	14	18	11	9	8.4	29.5	
23-May-08	4	A	4	3	2	3	4	3	3	3	2	1	1	1	1	2	5	3	4	3	4	4	12	12	3.7	12.4	
24-May-08	A	4	3	2	3	3	3	3	4	4	3	2	2	1	2	2	2	2	2	2	4	5	5	A	2.9	5.3	
25-May-08	6	8	7	6	8	9	8	7	8	5	4	3	3	3	2	2	2	2	2	2	2	1	A	4	4.4	8.8	
26-May-08	2	2	2	2	3	3	4	4	3	3	3	2	2	1	1	3	1	1	1	2	2	A	7	7	2.7	7.1	
27-May-08	5	3	2	6	7	7	5	7	5	3	2	3	2	2	2	3	3	3	4	6	A	13	6	7	4.7	13.4	
28-May-08	3	4	5	6	6	14	15	12	2	3	3	3	2	1	5	3	3	3	3	A	10	6	8	10	5.7	15.2	
29-May-08	25	17	12	13	23	19	50	38	21	19	12	4	0	2	3	4	3	3	2	5	8	12	13	5	13.0	50.1	
30-May-08	2	2	A	8	7	8	8	13	12	6	8	7	5	5	5	3	3	2	2	2	5	8	15	27	7.2	27.2	
31-May-08	32	A	24	19	16	16	26	8	5	4	3	3	1	1	2	2	3	3	2	3	10	13	26	27	10.8	31.9	
Hourly Avg	11.0	9.2	7.0	10.3	10.8	11.7	15.4	11.7	7.9	5.6	4.7	3.5	3.2	3.5	3.5	3.4	3.6	3.7	4.2	6.3	8.0	9.4	12.1	11.6			
Hourly Max	44.9	37.9	23.9	42.4	33.3	34.8	50.1	37.6	36.9	19.7	11.5	7.2	16.4	12.6	8.5	10.9	11.4	11.9	12.2	29.5	18.8	27.3	35.3	42.7			

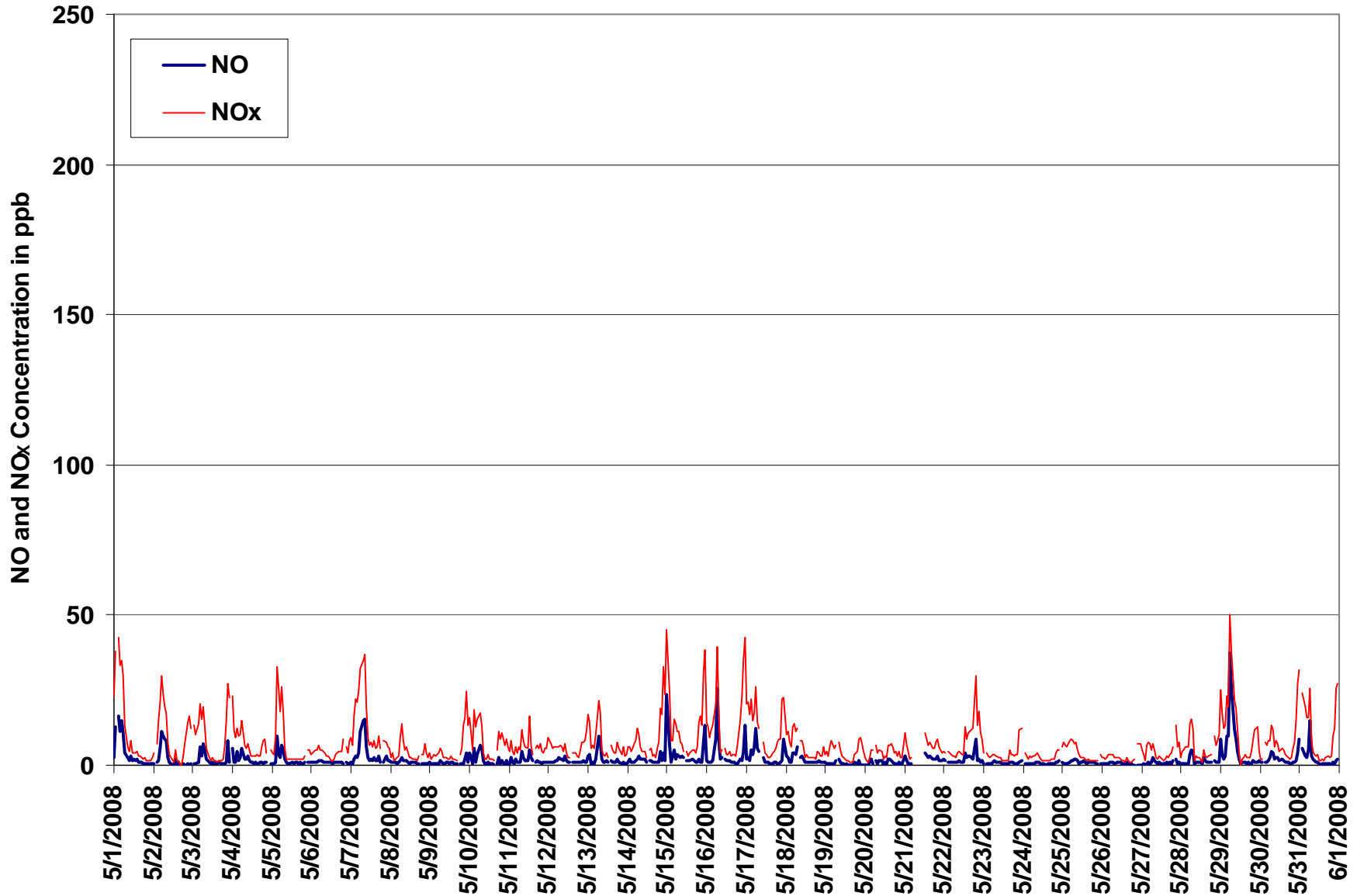


Figure 3. PAS - Crescent Heights Oxides of Nitrogen 1-hr Average Monthly Trend



Station: Crescent Heights
 Station Owner: PAS

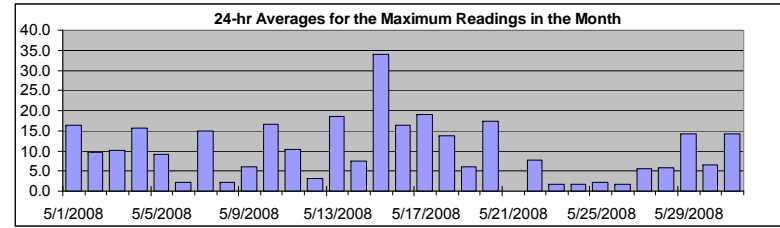
INSTANTANEOUS (30 Second) MAXIMUM TABLE

Nitric Oxide (NO)

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Maximum 1-hr Value:	242.8	ppb	15-May	0:00 1:00
Maximum 24-hr Value:	33.9	ppb	15-May	



AIC Time:	33 hrs	Operational Time:	706 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	95.0	51.8	6.3	2.6	1.8	1.3	0.9	10.3 ppb	2.6 ppb

Status Flag Characters

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

Day Mountain Standard Time

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum	
1-May-08	17	61	A	90	41	69	18	8	4	3	16	3	4	8	7	3	2	3	3	3	2	3	2	2	16.3	90.3	
2-May-08	3	A	3	4	26	47	31	14	16	4	3	3	2	48	3	3	2	1	2	1	1	1	2	2	9.7	48.4	
3-May-08	A	1	3	3	73	11	10	4	2	2	2	4	3	4	3	2	2	1	2	13	64	2	A	2	10.1	72.9	
4-May-08	57	3	3	63	6	41	85	4	21	34	4	3	3	3	3	2	1	1	6	1	10	2	A	2	15.6	84.9	
5-May-08	1	1	2	108	29	6	16	14	4	4	2	3	2	2	2	2	2	1	1	2	A	2	2	9.0	107.7		
6-May-08	2	5	2	2	3	2	2	2	2	2	3	2	1	1	2	2	2	2	2	2	A	2	1	2	2.1	5.3	
7-May-08	2	2	16	35	7	10	19	24	20	11	5	3	5	3	29	3	2	60	2	A	2	77	3	3	14.9	77.0	
8-May-08	2	2	3	2	1	2	3	4	3	3	4	2	2	2	2	2	1	2	A	1	2	2	1	1	2.2	3.9	
9-May-08	2	2	2	1	2	1	15	3	2	2	2	2	1	3	2	1	1	A	1	1	1	53	35	2	6.0	53.0	
10-May-08	40	51	1	33	2	31	50	38	25	1	1	24	1	1	2	1	A	1	21	1	34	1	17	2	16.6	51.4	
11-May-08	2	40	2	1	45	14	2	13	48	6	3	3	32	4	2	A	2	3	2	3	2	2	5	2	10.4	48.1	
12-May-08	2	2	2	2	2	6	5	4	4	3	8	3	3	7	A	2	2	2	2	2	2	3	2	2	3.1	8.5	
13-May-08	83	52	2	2	2	36	95	65	5	2	3	19	9	A	4	6	2	2	23	2	2	5	2	2	18.5	95.1	
14-May-08	3	52	2	2	2	9	5	5	4	4	3	2	A	7	7	2	3	2	3	4	25	11	14	3	7.6	51.9	
15-May-08	243	88	2	66	59	4	10	4	4	14	7	A	3	2	3	5	4	3	2	14	3	3	111	124	33.9	242.8	
16-May-08	4	3	2	2	7	25	165	14	5	7	A	4	2	3	3	3	3	3	1	1	28	11	23	57	16.4	164.6	
17-May-08	9	6	5	50	64	93	21	10	12	A	4	2	2	2	2	3	3	4	3	2	3	3	5	129	18.9	128.7	
18-May-08	34	65	2	2	34	30	6	91	A	10	7	7	2	2	2	3	4	3	2	2	2	2	2	2	13.8	90.9	
19-May-08	3	3	2	3	3	3	4	A	3	3	2	2	2	2	2	2	2	1	18	16	61	1	1	2	6.1	61.1	
20-May-08	2	17	8	29	73	13	A	27	2	37	31	2	21	2	37	50	29	3	3	3	2	3	3	3	17.3	72.6	
21-May-08	17	14	3	3	2	A	4	C	C	C	C	C	A	17	6	5	4	4	4	4	23	4	4	3	N	22.9	
22-May-08	4	11	A	4	2	2	3	2	3	3	2	2	2	2	33	13	6	6	5	4	53	3	4	2	11	7.8	53.4
23-May-08	1	A	2	2	1	2	3	2	2	2	2	2	1	2	2	1	2	2	2	2	1	1	2	4	1.8	3.6	
24-May-08	A	1	1	1	2	2	2	1	1	2	2	1	1	1	1	2	2	2	2	2	2	2	3	A	1.7	2.5	
25-May-08	2	2	1	2	2	5	2	4	3	2	2	2	3	2	2	2	2	1	2	2	2	2	A	2	2.2	5.2	
26-May-08	1	1	2	2	1	2	4	2	1	4	2	2	2	2	1	2	2	2	1	1	1	A	1	1	1.7	3.6	
27-May-08	1	1	1	2	2	2	2	4	4	4	3	8	2	2	2	2	2	2	3	38	A	35	1	3	5.4	38.2	
28-May-08	1	3	1	2	2	8	9	8	2	2	3	2	2	2	53	19	2	2	2	A	3	2	2	2	5.9	53.5	
29-May-08	19	14	4	10	40	14	52	46	29	11	28	24	1	2	4	3	2	2	2	2	23	2	3	3	14.2	51.7	
30-May-08	2	1	A	7	2	3	5	8	7	5	7	5	3	13	5	4	3	2	2	1	2	2	20	38	6.4	37.8	
31-May-08	24	A	15	8	6	10	101	28	53	42	4	6	3	3	3	1	2	2	2	2	4	1	6	6	14.3	101.0	
Hourly Avg	20.1	18.1	3.3	17.5	17.5	16.8	25.0	15.9	10.2	7.8	5.6	4.9	4.2	6.2	7.0	4.8	3.3	4.2	4.1	5.9	9.1	10.5	9.6	14.3			
Hourly Max	242.8	88.5	15.5	107.7	72.9	92.6	164.6	90.9	53.1	42.2	30.7	24.1	31.8	48.4	53.5	49.9	28.6	59.8	23.3	53.4	61.1	77.0	111.4	128.7			



Station: Crescent Heights
 Station Owner: PAS

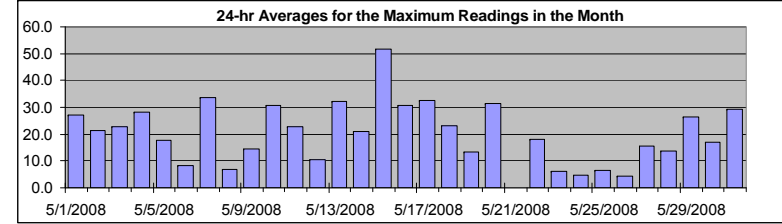
INSTANTANEOUS (30 Second) MAXIMUM TABLE

Oxides of Nitrogen (NO_x)

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Maximum 1-hr Value:	273.7	ppb	15-May	0:00 1:00
Maximum 24-hr Value:	51.7	ppb	15-May	



AIC Time:	33 hrs	Operational Time:	706 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	129.6	82.3	21.2	9.5	5.1	3.0	2.3	20.6 ppb	9.5 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-May-08	49	98	A	118	70	96	41	23	10	6	32	6	8	15	13	5	4	4	4	4	3	3	5	27.0	117.9		
2-May-08	7	A	10	23	47	72	49	29	29	11	6	5	3	96	4	4	2	2	9	12	15	19	23	18	21.4	95.6	
3-May-08	A	18	13	18	120	28	28	23	11	5	4	4	9	5	5	3	3	3	3	12	51	103	33	A	22.8	120.4	
4-May-08	97	16	14	90	19	69	111	11	34	63	8	7	6	6	6	6	5	5	15	11	31	8	A	9	28.1	111.2	
5-May-08	5	4	18	151	53	26	44	36	11	4	5	4	4	3	3	4	3	3	3	4	4	A	8	8	17.8	151.3	
6-May-08	7	25	10	9	12	7	7	6	5	5	9	4	2	3	3	6	8	8	6	12	A	8	6	20	8.2	24.9	
7-May-08	19	10	50	64	35	33	41	48	44	27	16	11	16	10	54	8	10	109	9	A	10	119	16	12	33.5	119.2	
8-May-08	4	7	3	3	4	7	15	19	13	7	14	5	4	3	4	3	3	5	A	5	8	11	8	5	6.9	18.9	
9-May-08	6	5	6	6	5	5	26	7	3	5	5	3	4	7	6	4	5	A	5	10	19	89	85	16	14.4	89.4	
10-May-08	70	73	8	60	20	42	68	61	37	3	4	39	4	3	3	3	A	8	64	14	63	9	39	9	30.7	73.1	
11-May-08	7	66	9	6	67	35	10	19	82	20	11	11	70	12	6	A	9	15	8	12	6	6	23	14	22.9	82.3	
12-May-08	16	14	10	11	12	12	10	10	10	8	16	6	5	14	A	6	7	5	4	10	13	13	12	15	10.5	16.4	
13-May-08	113	78	11	10	10	61	132	87	13	5	6	43	14	A	12	21	6	7	52	9	4	25	10	13	32.2	131.8	
14-May-08	22	81	9	9	11	16	18	18	11	9	8	4	A	17	19	6	9	5	13	14	57	39	57	31	21.0	81.2	
15-May-08	274	130	16	95	82	24	27	14	11	22	16	A	10	5	8	11	10	7	9	49	27	29	151	163	51.7	273.7	
16-May-08	23	14	14	14	20	40	194	26	9	15	A	12	7	7	8	4	6	6	5	11	63	53	58	98	30.8	194.2	
17-May-08	34	28	23	68	88	116	36	24	24	A	11	6	6	5	5	8	8	11	12	14	13	15	37	156	32.5	156.0	
18-May-08	55	88	9	8	55	57	15	117	A	15	18	17	4	7	7	4	7	7	3	8	7	5	6	10	23.0	116.9	
19-May-08	7	7	6	13	13	11	11	A	10	9	4	4	4	4	4	4	3	3	29	44	84	12	14	7	13.3	83.8	
20-May-08	8	33	21	50	118	24	A	41	7	69	45	4	38	6	73	76	52	12	9	8	6	10	6	6	31.3	117.8	
21-May-08	43	38	12	5	6	A	20	C	C	C	C	C	A	28	11	12	11	9	9	11	38	9	8	6	N	43.1	
22-May-08	7	17	A	8	5	4	5	3	7	6	6	5	7	68	28	18	18	17	18	82	16	24	17	25	17.9	82.3	
23-May-08	9	A	6	4	3	4	6	5	5	4	3	3	2	3	2	3	9	7	5	6	6	6	18	23	6.1	22.7	
24-May-08	A	6	4	3	6	4	6	4	4	6	4	3	2	2	4	4	3	3	4	4	8	9	9	A	4.5	8.8	
25-May-08	8	14	10	9	12	14	9	11	10	7	6	6	5	4	4	3	3	3	3	3	3	3	A	5	6.7	14.1	
26-May-08	3	3	3	4	4	5	8	5	4	4	4	3	3	2	2	6	3	3	2	3	4	A	10	9	4.3	10.2	
27-May-08	9	5	3	12	13	10	8	11	11	9	8	21	5	4	4	6	4	7	10	96	A	82	8	11	15.6	95.6	
28-May-08	9	8	7	8	10	23	23	21	4	6	6	4	4	3	89	33	5	6	5	A	13	11	9	12	13.9	88.9	
29-May-08	40	34	19	25	53	23	67	60	43	22	70	40	2	4	7	6	5	4	5	10	51	19	20	8	26.5	70.3	
30-May-08	3	4	A	31	10	11	15	18	18	12	20	11	11	28	17	15	11	4	3	4	9	13	48	73	16.9	73.1	
31-May-08	50	A	36	25	22	21	121	43	72	87	7	14	4	4	10	4	8	9	9	7	24	29	36	33	29.4	120.8	
Hourly Avg	34.7	33.0	12.9	30.9	32.4	30.0	38.9	27.6	19.0	16.2	12.8	10.6	9.1	12.6	14.0	9.7	8.0	10.0	11.2	16.8	22.7	26.9	26.8	28.2			
Hourly Max	273.7	130.1	50.4	151.3	120.4	116.2	194.2	116.9	82.3	87.3	70.3	42.7	70.1	95.6	88.9	76.4	52.4	109.3	63.6	95.6	83.8	119.2	150.7	162.6			

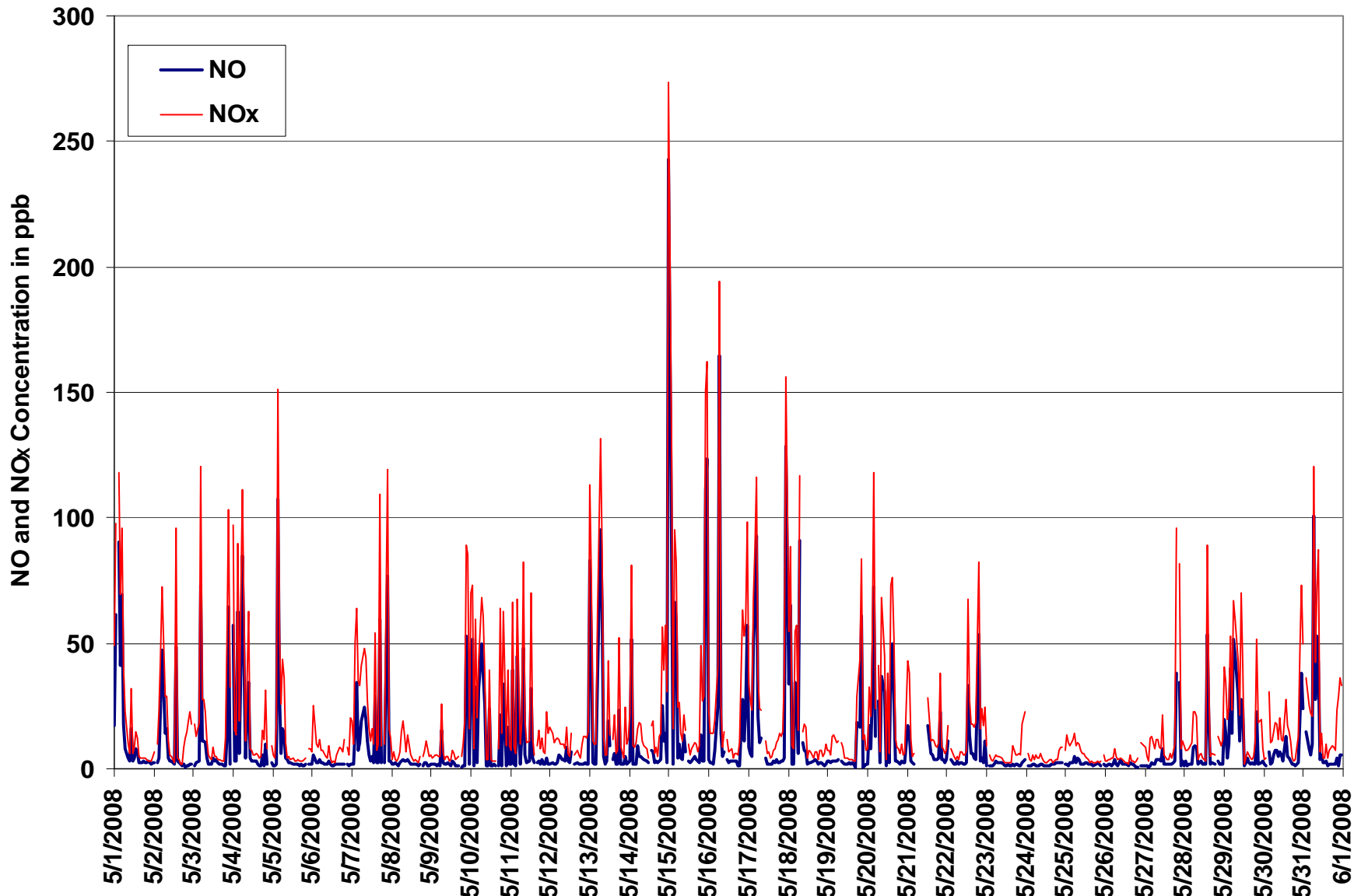


Figure 4. PAS - Crescent Heights Oxides of Nitrogen Instantaneous (30 Second) Maximum Value Monthly Trend



PAS - Crescent Heights Ozone Monthly Summary

Station: Crescent Heights
Station Owner: PAS

HOURLY AVERAGE TABLE

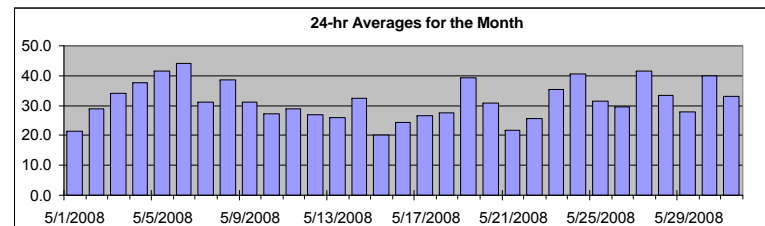
Ozone (O₃)

Monitoring Dates: May 1, 2008 to June 1, 2008

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

Number of 1-hr Exceedances:	0		
Maximum 1-hr Average:	60.8 ppb	4-May	14:00 15:00
Maximum 24-hr Average:	44.0 ppb	6-May	

AIC Time:	32 hrs	Operational Time:	709 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	58.3	53.5	42.8	32.4	21.9	5.6	0.1	31.6 ppb	32.4 ppb



Status Flag Characters

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

Day	Mountain Standard Time																							24-hour Average	Daily Maximum		
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-May-08	6	1	A	0	0	0	4	17	25	29	26	29	32	34	33	31	31	30	31	28	28	27	27	26	21.6	34.4	
2-May-08	21	A	17	5	3	2	5	9	18	32	40	44	48	46	49	49	50	50	46	41	35	25	15	15	28.9	49.8	
3-May-08	A	11	10	6	7	7	9	18	33	42	48	51	52	55	55	54	55	56	54	46	36	25	21	A	34.2	56.0	
4-May-08	11	13	15	16	14	14	14	21	27	35	53	59	61	60	61	60	59	57	50	42	41	44	A	39	37.7	60.8	
5-May-08	36	39	25	9	8	14	12	26	38	55	58	58	58	58	57	56	56	55	54	49	51	A	43	40	41.5	58.3	
6-May-08	40	40	40	33	28	35	40	41	46	48	47	47	50	52	53	50	50	54	52	44	A	46	42	34	44.0	53.8	
7-May-08	30	28	19	9	7	2	2	6	10	22	40	48	49	49	48	51	48	44	40	A	39	44	42	37	31.1	51.1	
8-May-08	39	39	43	39	36	36	31	28	31	40	45	47	39	34	34	38	44	52	A	43	37	37	39	33	38.5	51.8	
9-May-08	36	32	27	27	24	24	23	28	36	36	36	40	38	40	40	39	41	A	A	40	37	28	24	11	12	31.3	40.6
10-May-08	11	14	14	6	7	8	13	24	38	40	41	43	44	43	44	44	A	41	38	34	27	23	17	16	27.3	43.9	
11-May-08	15	14	16	18	17	19	18	19	20	25	35	40	34	43	46	A	44	41	38	34	37	34	29	27	28.8	46.3	
12-May-08	16	18	19	17	15	13	18	19	25	27	28	34	38	41	A	43	43	43	42	34	26	23	21	15	26.9	43.3	
13-May-08	7	7	10	9	10	12	8	13	29	35	32	34	40	A	43	41	43	43	36	32	30	28	29	29	26.1	43.2	
14-May-08	28	25	24	23	22	20	19	26	32	39	42	49	A	48	47	49	49	50	47	40	29	25	9	6	32.5	50.1	
15-May-08	5	5	16	18	10	13	15	14	17	20	24	A	31	32	32	31	31	33	36	28	23	23	5	0	20.2	36.0	
16-May-08	9	9	11	6	2	0	2	13	24	27	A	33	36	40	44	49	50	52	50	44	35	25	5	0	24.5	51.5	
17-May-08	3	0	1	0	2	6	6	17	23	A	32	45	49	51	51	53	52	50	47	40	30	25	10	16	26.6	53.1	
18-May-08	12	9	12	12	10	10	8	13	A	24	27	40	46	43	43	41	40	43	41	32	31	33	34	31	27.5	45.5	
19-May-08	32	30	32	29	26	28	28	A	35	41	46	48	50	51	52	52	53	55	49	42	36	29	30	33	39.3	54.7	
20-May-08	36	41	39	36	33	30	A	33	34	34	36	38	37	36	34	33	26	23	22	22	23	19	23	22	30.9	41.0	
21-May-08	13	13	18	27	25	A	16	22	26	28	29	C	C	C	25	24	24	23	22	20	20	20	19	19	21.7	29.4	
22-May-08	19	20	A	22	34	34	36	39	30	26	30	35	39	30	29	23	21	20	18	9	16	11	22	26	25.5	38.6	
23-May-08	30	A	31	30	29	28	28	29	32	37	40	46	46	44	45	46	44	42	38	37	37	33	22	22	35.4	46.0	
24-May-08	A	32	35	45	39	37	29	29	28	26	36	49	51	52	50	50	45	48	46	44	41	40	39	A	40.4	51.6	
25-May-08	34	31	31	31	27	23	26	35	36	42	46	49	39	31	30	33	30	28	27	26	24	23	A	20	31.4	49.3	
26-May-08	22	22	23	22	15	15	19	19	24	26	26	26	29	34	36	38	44	47	46	45	42	A	33	27	29.6	47.4	
27-May-08	25	30	31	25	23	25	29	33	46	51	52	52	54	55	55	55	55	55	56	51	A	35	33	30	41.6	55.8	
28-May-08	42	38	30	27	28	19	22	30	43	39	39	40	41	43	42	41	40	39	39	A	31	26	18	12	33.4	43.4	
29-May-08	4	5	6	5	1	5	4	9	18	24	36	44	47	47	49	49	51	48	51	46	33	27	21	37	27.8	51.4	
30-May-08	47	48	A	36	33	29	29	30	33	46	44	49	50	52	52	51	53	48	47	41	37	32	24	8	40.0	52.9	
31-May-08	3	A	4	4	4	8	9	26	38	44	46	50	56	59	58	55	53	51	51	46	39	32	16	7	33.0	58.6	
Hourly Avg	21.9	22.0	21.4	19.1	17.4	17.1	17.4	22.9	29.8	34.7	38.7	43.6	44.3	45.0	44.5	44.4	44.2	44.0	41.8	37.1	32.5	28.9	24.1	22.1			
Hourly Max	47.3	48.1	42.7	44.9	38.5	36.8	40.3	41.2	46.2	55.4	58.2	59.1	60.7	60.5	60.8	60.4	58.6	57.5	55.8	51.0	51.4	45.8	43.0	39.7			

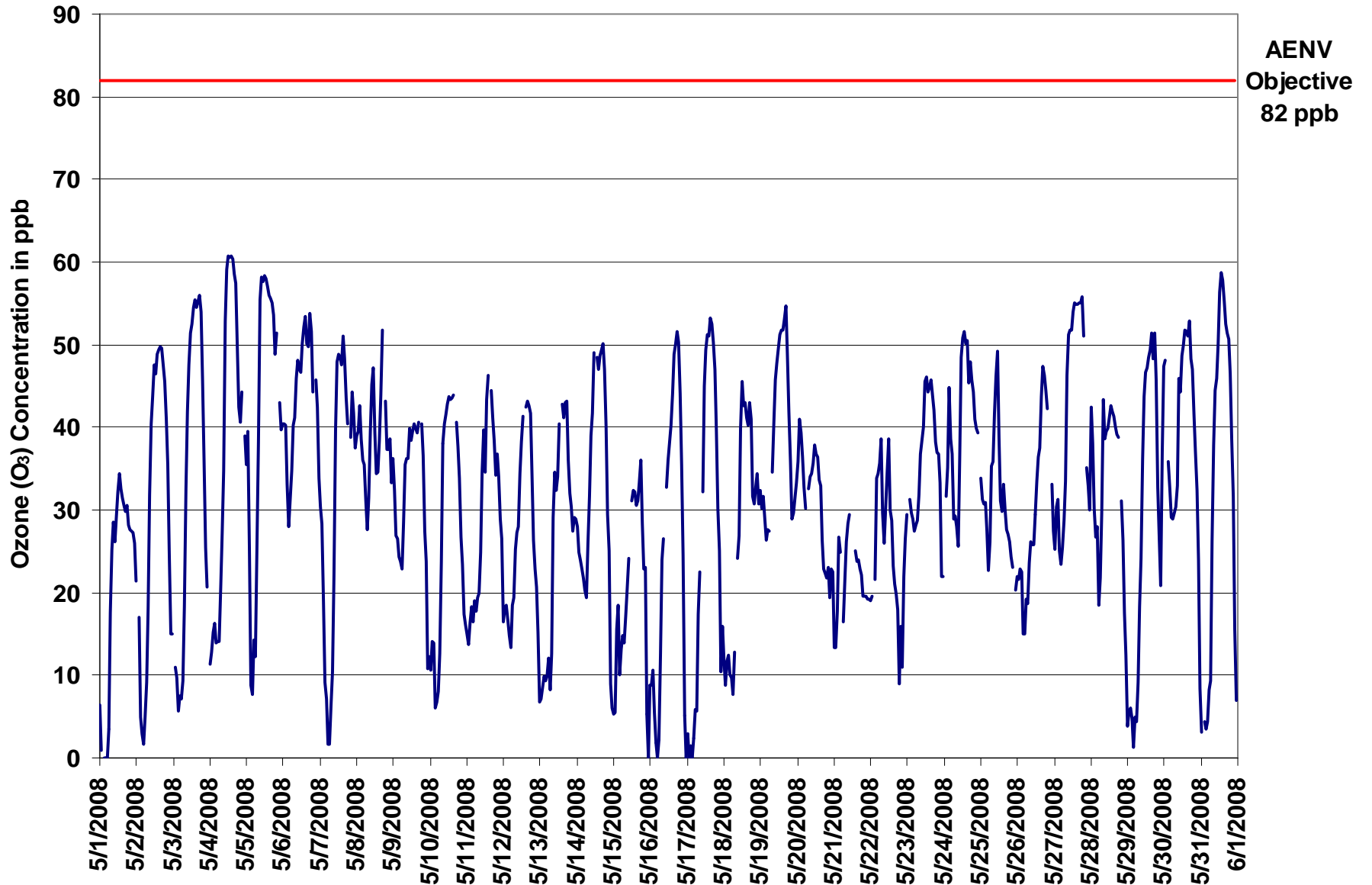


Figure 5. PAS - Crescent Heights Ozone 1-hr Average Monthly Trend



Station: Crescent Heights
 Station Owner: PAS

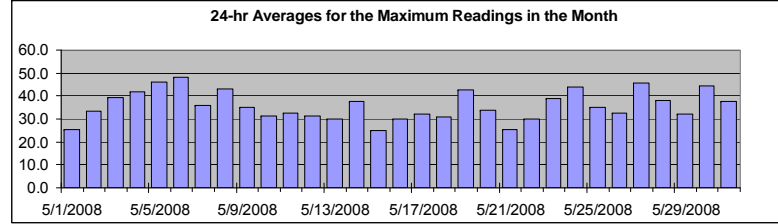
INSTANTANEOUS (30 Second) MAXIMUM TABLE

Ozone (O₃)

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Maximum 1-hr Value:	62.9	ppb	4-May	14:00 15:00
Maximum 24-hr Value:	48.1	ppb	6-May	



AIC Time:	32 hrs	Operational Time:	709 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	60.3	56.8	46.8	36.5	25.9	10.7	4.0	35.8 ppb	36.5 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-May-08	17	8	A	4	4	3	13	23	31	31	30	31	36	37	35	33	33	31	33	31	29	30	28	25.2	37.1	
2-May-08	26	A	21	12	8	8	11	13	28	39	43	47	49	49	50	51	51	51	49	46	43	32	19	21	33.3	51.1
3-May-08	A	14	12	10	12	11	20	23	43	46	51	53	54	56	57	56	57	58	57	54	47	37	35	A	39.3	57.7
4-May-08	17	16	21	21	17	17	17	27	29	42	59	61	63	63	63	63	61	60	56	49	46	46	A	43	41.6	62.9
5-May-08	38	41	36	21	17	21	20	34	54	59	60	59	60	60	59	58	57	56	56	53	55	A	46	41	46.2	60.1
6-May-08	42	42	49	38	32	38	43	44	48	52	50	50	53	54	56	57	52	60	57	50	A	50	48	40	48.1	59.8
7-May-08	34	31	29	18	13	4	7	10	18	26	47	51	52	52	53	53	53	48	45	A	46	49	46	44	36.1	53.5
8-May-08	42	44	45	43	39	39	37	32	35	46	49	51	47	41	38	41	46	57	A	51	43	45	47	36	43.2	56.6
9-May-08	42	34	30	28	27	27	27	33	37	39	39	42	40	42	43	42	43	A	43	42	34	33	21	20	35.1	43.0
10-May-08	16	17	18	14	10	14	18	36	41	42	43	45	45	44	45	46	A	43	44	40	32	26	20	20	31.3	45.9
11-May-08	17	17	19	21	21	22	21	21	25	30	40	44	43	47	48	A	48	46	42	39	39	36	33	31	32.5	48.0
12-May-08	25	21	21	20	17	16	20	24	31	34	34	44	44	48	A	44	46	45	44	40	32	26	23	22	31.4	48.1
13-May-08	11	14	12	12	13	15	11	22	36	37	37	39	43	A	47	44	45	46	43	36	33	31	31	31	29.9	46.6
14-May-08	32	30	26	26	25	23	26	35	36	44	47	52	A	50	50	51	52	52	52	46	39	35	20	17	37.6	52.2
15-May-08	12	15	21	24	16	17	18	16	21	24	26	A	34	34	34	33	34	37	39	36	29	16	7	7	24.8	38.7
16-May-08	12	10	14	9	4	2	9	21	28	29	A	35	39	44	47	51	52	54	53	48	53	51	19	4	29.9	54.1
17-May-08	13	5	5	4	6	11	11	22	26	A	47	48	52	53	53	57	57	54	51	50	35	30	26	22	32.1	57.3
18-May-08	17	12	13	13	13	15	10	15	A	26	35	47	47	45	44	43	43	47	47	35	33	36	36	34	30.8	47.4
19-May-08	35	32	33	33	30	30	32	A	39	44	48	49	51	53	54	53	55	57	55	46	39	38	37	37	42.6	56.5
20-May-08	41	43	41	39	35	34	A	35	36	37	38	39	38	38	37	36	32	26	25	24	26	23	26	26	33.8	42.5
21-May-08	22	17	24	30	31	A	22	28	31	33	34	C	C	C	27	26	26	24	24	21	23	22	22	22	25.4	33.9
22-May-08	21	22	A	29	36	36	37	41	38	29	36	42	41	34	33	28	27	24	22	18	18	17	29	31	29.9	42.1
23-May-08	33	A	33	30	30	29	29	30	34	40	43	48	49	47	46	50	50	45	41	40	39	38	28	37	38.7	50.2
24-May-08	A	33	45	48	44	40	31	30	29	27	46	50	52	53	55	55	47	51	49	47	46	46	43	A	44.0	55.4
25-May-08	36	35	34	35	32	28	32	39	40	46	49	52	52	34	33	37	33	30	29	28	25	24	A	22	35.0	52.4
26-May-08	24	23	26	26	17	18	23	21	27	29	30	28	32	37	39	42	48	49	48	47	46	A	42	32	32.7	49.0
27-May-08	28	35	33	32	27	30	31	45	53	53	54	54	57	57	58	57	57	59	59	58	A	42	36	33	45.5	58.9
28-May-08	46	45	32	33	34	27	26	48	48	40	42	42	43	44	45	45	43	42	42	A	37	31	20	18	37.9	48.2
29-May-08	13	10	9	10	4	8	6	16	23	29	42	47	48	50	50	52	54	52	54	54	37	32	30	45	32.1	54.0
30-May-08	52	50	A	43	36	33	31	32	37	53	50	54	52	55	55	55	58	53	49	44	40	38	29	23	44.5	57.7
31-May-08	7	A	10	9	7	10	19	36	45	47	50	54	59	61	60	58	56	55	54	49	44	41	25	12	37.8	60.7
Hourly Avg	26.6	25.6	25.4	23.6	21.1	20.9	21.9	28.5	34.8	38.4	43.3	46.9	47.4	47.6	47.1	47.2	47.1	47.0	45.5	42.1	37.5	34.9	30.5	27.5		
Hourly Max	51.6	49.7	49.3	47.7	43.8	40.1	43.4	48.2	53.7	58.6	60.1	61.4	62.5	62.7	62.9	62.7	60.6	59.8	58.9	58.0	55.3	50.7	48.4	44.8		

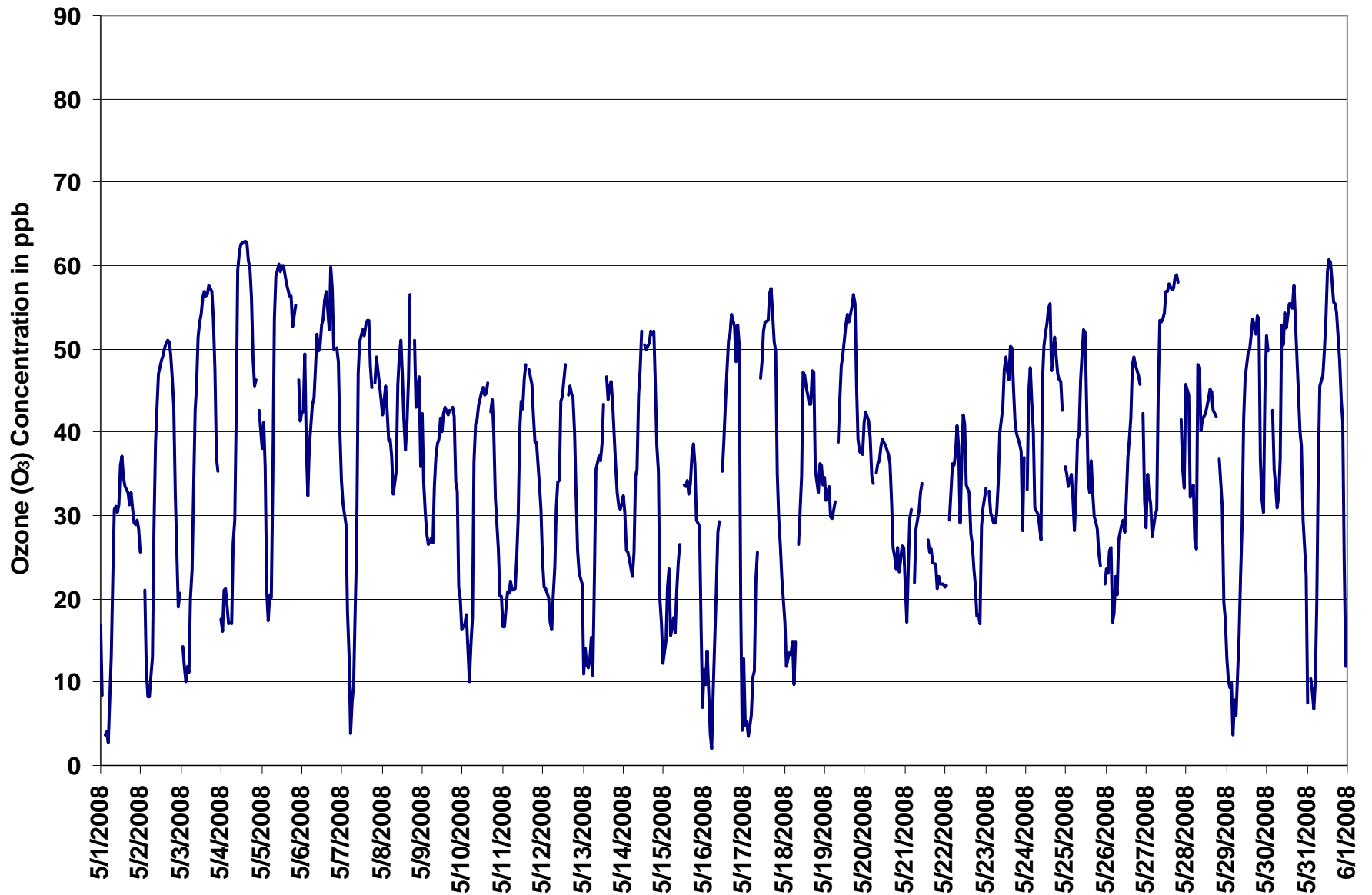
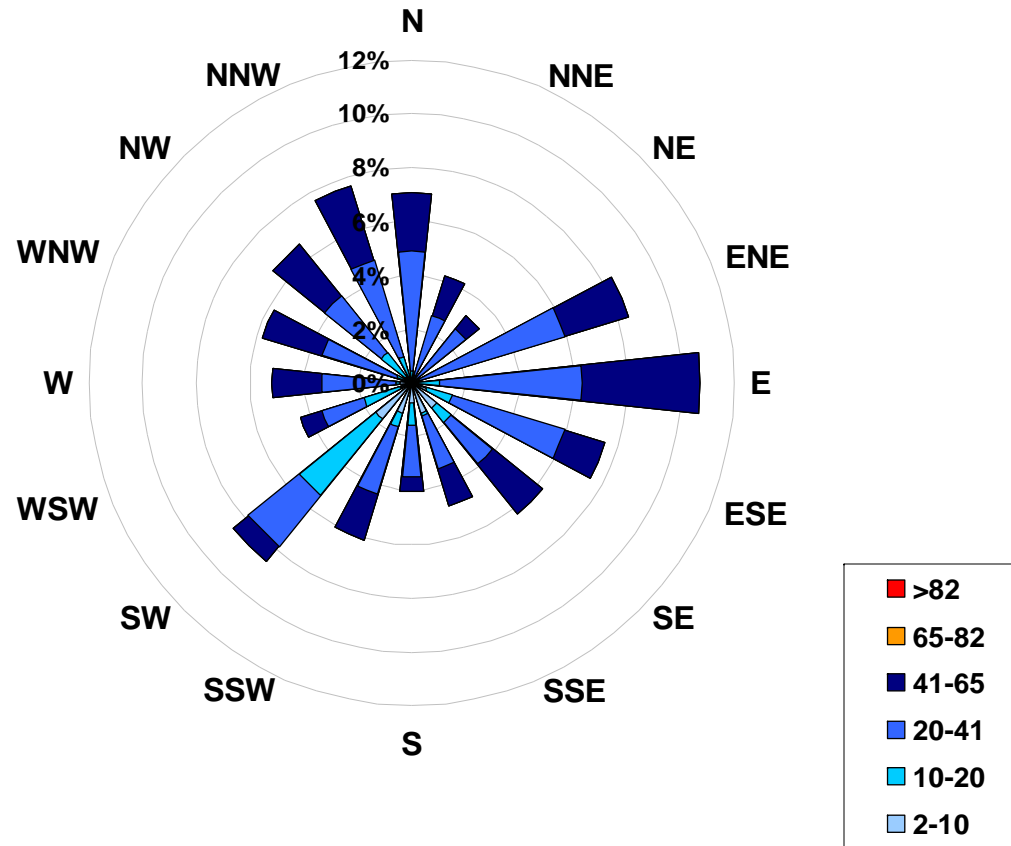


Figure 6. PAS - Crescent Heights Ozone Instantaneous (30 Second) Maximum Value Monthly Trend



1-hr Average Concentration Rose for Ozone (in ppb) Located at the Crescent Heights Site for May 2008



Calms: 0%

Frequency Distribution of O ₃ in ppb			
Range		Frequency (hrs)	
2.0	< 10	73	
10	to 20	88	
20	to 41	341	
41	to 65	207	
65	to 82	0	
	> 82	0	
Total Non-Zero Values			709



PAS - Crescent Heights Ozone Eight Hour Average Summary

Station: Crescent Heights
 Station Owner: PAS

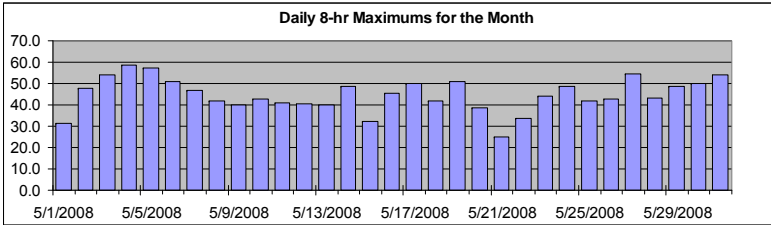
EIGHT HOUR RUNNING AVERAGE TABLE

Ozone (O₃)

Monitoring Dates: May 1, 2008 to June 1, 2008

Objective Limit: Alberta Environment: 8-hr 65 ppb

Number of 8-hr Exceedances:		0
Maximum 8-hr Average:	58.8 ppb	4-May 17:00 18:00



Percentile							
	99	95	75	50	25	5	1
	55.2	50.7	40.4	32.9	22.5	10.4	5.0

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

Day	Mountain Standard Time																							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	0:00
1-May-08	31	25	21	15	10	6	3	4	7	11	13	16	20	25	28	30	31	31	31	31	31	31	30	29	28	31.4
2-May-08	27	27	25	22	18	14	11	9	8	11	14	19	25	30	36	41	45	47	48	47	46	43	39	35	47.6	
3-May-08	32	27	22	17	13	10	9	10	13	16	21	27	33	39	44	49	52	53	54	53	51	48	43	42	54.2	
4-May-08	36	29	24	20	17	15	14	15	17	20	24	30	35	41	47	52	56	59	58	56	54	52	50	47	58.8	
5-May-08	44	42	38	33	29	24	23	21	21	23	28	34	40	45	51	55	57	57	56	55	54	54	52	50	57.0	
6-May-08	47	45	43	41	38	37	37	37	38	39	40	41	44	46	48	49	50	50	51	51	51	50	48	46	50.9	
7-May-08	43	39	35	30	27	21	16	13	10	10	12	17	22	28	34	40	44	47	47	47	45	45	44	42	47.0	
8-May-08	41	40	41	40	40	39	37	36	35	35	36	37	37	37	37	39	40	42	41	41	41	41	42	41	41.8	
9-May-08	40	37	36	34	32	30	28	28	28	28	29	31	33	35	37	38	39	39	40	39	38	36	31	27	39.8	
10-May-08	23	22	19	15	12	10	11	12	15	19	22	27	31	36	40	42	43	43	42	41	39	36	32	28	42.8	
11-May-08	26	23	20	18	17	17	17	17	18	19	21	24	26	29	33	35	38	41	41	40	41	39	37	36	41.1	
12-May-08	32	29	27	25	22	19	18	17	18	19	20	23	26	29	31	34	36	39	41	41	39	36	34	31	40.6	
13-May-08	26	22	18	15	13	11	10	10	12	16	19	22	25	27	32	36	38	40	40	40	38	37	35	34	40.1	
14-May-08	32	30	28	27	26	25	24	23	24	26	28	31	32	36	40	44	46	48	49	47	45	42	37	32	48.5	
15-May-08	27	21	17	14	12	10	11	12	14	15	17	16	19	22	24	27	29	31	32	32	31	30	26	22	32.4	
16-May-08	20	17	13	11	8	5	5	6	8	10	10	14	19	25	31	36	40	43	44	46	46	44	39	33	45.6	
17-May-08	27	20	14	9	5	2	2	4	7	8	12	19	25	32	38	44	48	48	50	49	47	44	39	34	50.0	
18-May-08	29	24	19	16	13	11	11	11	10	13	15	19	24	29	34	38	38	40	42	41	39	38	37	36	42.0	
19-May-08	35	33	32	31	31	30	29	29	30	31	33	36	39	42	46	47	49	51	51	50	49	46	43	41	51.1	
20-May-08	39	37	36	35	35	35	36	35	35	34	34	34	35	35	35	35	34	33	31	29	27	25	24	23	38.6	
21-May-08	21	20	19	20	20	20	19	19	21	23	25	N	N	N	N	N	N	N	N	N	22	22	21	21	24.8	
22-May-08	20	20	19	20	22	24	26	29	30	31	31	33	33	33	32	30	29	28	27	23	21	18	17	18	33.5	
23-May-08	19	19	21	24	26	28	29	29	29	30	31	33	36	38	40	42	43	44	44	43	42	40	37	34	44.1	
24-May-08	33	32	31	32	32	33	34	35	34	33	34	34	36	37	40	43	45	48	49	48	47	46	44	43	48.8	
25-May-08	42	39	37	35	33	31	29	30	30	31	33	36	37	38	39	38	37	36	33	30	29	28	27	26	41.7	
26-May-08	24	23	23	22	21	20	20	20	20	20	21	21	23	25	27	30	32	35	38	40	41	43	42	41	42.6	
27-May-08	38	36	33	31	28	28	27	28	30	33	36	39	43	47	50	52	54	54	55	54	55	52	49	45	54.6	
28-May-08	43	41	37	34	33	31	29	29	30	30	31	32	34	37	40	41	41	41	41	41	39	37	34	29	43.2	
29-May-08	24	19	15	13	10	7	5	5	7	9	13	18	23	29	34	39	43	46	48	49	47	44	41	39	48.6	
30-May-08	39	39	37	36	35	36	37	36	34	34	35	37	39	42	44	47	50	50	50	49	48	45	42	36	50.2	
31-May-08	30	28	22	16	11	8	6	8	13	17	22	28	35	41	47	51	53	53	54	54	51	48	43	37	54.1	

Hourly Max 47.4 45.3 43.4 41.2 39.9 38.8 37.5 37.3 38.0 38.9 39.8 41.5 44.3 46.5 51.1 54.9 57.0 58.8 58.4 56.3 54.5 53.9 51.9 49.6



PAS - Crescent Heights Carbon Monoxide Monthly Summary

Station: Crescent Heights
Station Owner: PAS

HOURLY AVERAGE TABLE

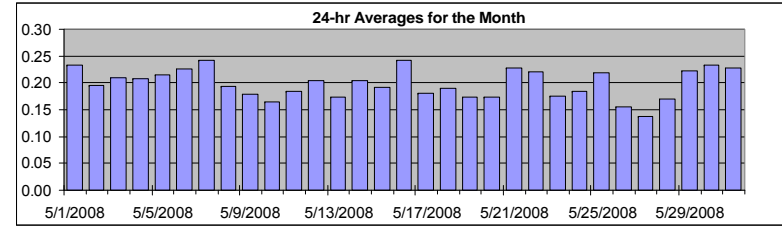
Carbon Monoxide (CO)

Monitoring Dates: May 1, 2008 to June 1, 2008

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

Number of 1-hr Exceedances:	0		
Maximum 1-hr Average:	0.7 ppm	16-May	21:00 22:00
Maximum 24-hr Value:	0.2 ppm	7-May	

AIC Time:	33 hrs	Operational Time:	709 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.2 ppm	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																							24-hour Average	Daily Maximum			
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-May-08	0.3	0.3	A	0.3	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23	0.37
2-May-08	0.2	A	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.30
3-May-08	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.5	A	0.21	0.47		
4-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	A	0.2	0.21	0.27	
5-May-08	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.22	0.38	
6-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.2	0.2	0.3	0.23	0.26	
7-May-08	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.24	0.38	
8-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	A	0.2	0.2	0.2	0.2	0.2	0.19	0.29	
9-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.2	0.3	0.2	0.18	0.27	
10-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.21	
11-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.22	
12-May-08	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	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.20	0.32	
13-May-08	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.22	
14-May-08	0.2	0.2	0.1	0.2	0.2	0.2	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	0.2	0.2	0.3	0.3	0.3	0.3	0.21	0.30	
15-May-08	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.19	0.29	
16-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.3	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	0.6	0.7	0.5	0.4	0.24	0.69	
17-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.25	
18-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	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	0.3	0.19	0.25	
19-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	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	0.21	
20-May-08	0.2	0.1	0.1	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.20	
21-May-08	0.2	0.2	0.2	0.2	0.2	A	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23	0.28	
22-May-08	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.22	0.31	
23-May-08	0.2	A	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.23	
24-May-08	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.18	0.21	
25-May-08	0.2	0.3	0.2	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.1	0.22	0.38	
26-May-08	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.1	0.1	0.16	0.19	
27-May-08	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	A	0.1	0.1	0.1	0.14	0.17	
28-May-08	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.17	0.24	
29-May-08	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.3	0.3	C	C	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.22	0.38		
30-May-08	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.5	0.4	0.23	0.53		
31-May-08	0.3	A	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	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.5	0.5	0.23	0.53		
Hourly Avg	0.20	0.19	0.17	0.18	0.19	0.19	0.23	0.22	0.20	0.19	0.19	0.18	0.17	0.18	0.18	0.18	0.18	0.19	0.19	0.19	0.21	0.24	0.24	0.25	0.22			
Hourly Max	0.33	0.32	0.25	0.38	0.29	0.28	0.38	0.38	0.38	0.38	0.31	0.28	0.24	0.22	0.31	0.26	0.27	0.28	0.24	0.24	0.27	0.57	0.69	0.53	0.47			

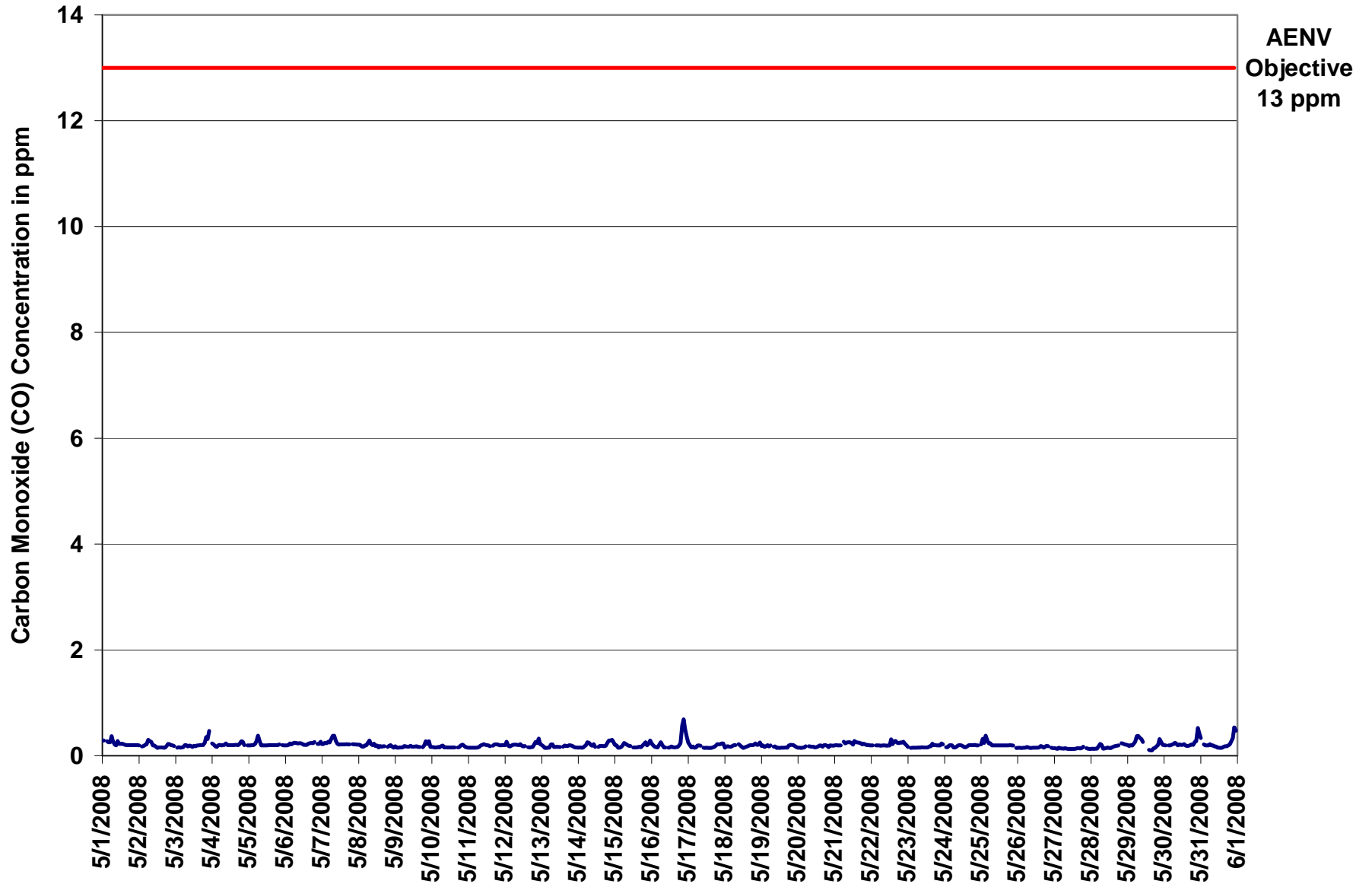


Figure 7. PAS - Crescent Heights Carbon Monoxide 1-hr Average Monthly Trend



Station: Crescent Heights
Station Owner: PAS

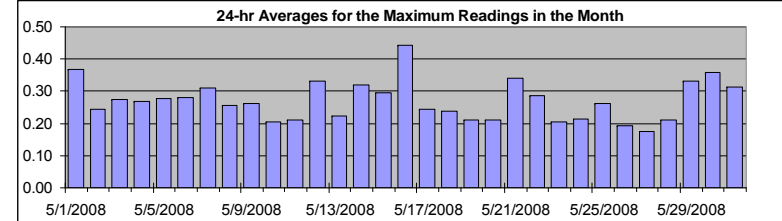
INSTANTANEOUS (30 Second) MAXIMUM TABLE

Carbon Monoxide (CO)

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Maximum 1-hr Value:	2.5	ppm	16-May	21:00 22:00
Maximum 24-hr Value:	0.4	ppm	16-May	



AIC Time:	33 hrs	Operational Time:	709 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	0.9	0.5	0.3	0.2	0.2	0.2	0.1	0.3 ppm	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	24:00	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-May-08	0.3	0.5	A	0.3	0.3	0.3	0.9	0.6	0.3	0.2	0.9	0.4	0.4	0.6	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.37	0.89
2-May-08	0.2	A	0.2	0.3	0.3	0.3	0.5	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.3	0.2	0.24	0.45	
3-May-08	A	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.6	0.4	0.7	A	0.27	0.65	
4-May-08	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.4	0.4	0.5	0.2	A	0.2	0.27	0.45	
5-May-08	0.2	0.2	0.3	0.3	0.5	0.4	0.7	0.5	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	A	0.3	0.2	0.28	0.73	
6-May-08	0.2	0.2	0.2	0.3	0.2	0.3	0.5	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.4	0.3	0.3	0.3	0.3	0.3	A	0.3	0.2	0.4	0.28	0.48	
7-May-08	0.3	0.3	0.3	0.3	0.9	0.3	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.3	A	0.3	0.3	0.3	0.2	0.31	0.87	
8-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.7	0.3	0.2	0.2	0.3	0.2	0.3	0.3	A	0.2	0.2	0.3	0.2	0.2	0.26	0.74	
9-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.5	0.4	0.3	0.3	0.3	0.3	0.2	0.2	A	0.2	0.3	0.4	0.3	0.6	0.2	0.26	0.56	
10-May-08	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	0.3	0.2	0.2	0.2	0.20	0.30	
11-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.3	0.3	0.2	0.2	A	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.21	0.35	
12-May-08	0.3	0.4	0.3	0.2	0.3	0.3	0.8	0.3	0.4	0.3	0.7	0.3	0.3	0.4	A	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.3	0.33	0.79	
13-May-08	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	A	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.22	0.34	
14-May-08	0.2	0.2	0.2	0.2	0.2	0.4	0.6	0.4	0.3	0.3	0.3	0.2	A	0.3	0.4	0.3	0.3	0.2	0.3	0.5	0.6	0.5	0.4	0.4	0.32	0.58	
15-May-08	0.3	0.3	0.2	0.2	0.3	0.2	0.5	0.3	0.5	0.3	0.4	A	0.2	0.4	0.3	0.2	0.2	0.2	0.3	0.3	0.6	0.2	0.4	0.4	0.30	0.60	
16-May-08	0.4	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.3	A	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.3	0.3	1.5	2.5	0.7	0.5	0.44	2.53	
17-May-08	0.4	0.3	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	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.24	0.35	
18-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	A	0.4	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.24	0.35	
19-May-08	0.3	0.2	0.2	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	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.21	0.28	
20-May-08	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.21	0.33	
21-May-08	0.4	0.3	0.3	0.2	0.2	A	0.6	0.3	0.3	0.3	0.3	0.4	0.3	1.0	0.8	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.34	0.98	
22-May-08	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	0.9	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.29	0.87	
23-May-08	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.20	0.25	
24-May-08	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	A	0.21	0.33	
25-May-08	0.4	0.5	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.26	0.50	
26-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.1	0.19	0.24	
27-May-08	0.1	0.1	0.1	0.3	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.1	0.18	0.28	
28-May-08	0.1	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	A	0.3	0.3	0.3	0.2	0.21	0.33	
29-May-08	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.5	0.3	0.3	C	A	0.2	0.2	0.2	0.2	0.2	0.3	0.3	1.2	0.3	0.3	0.33	1.23		
30-May-08	0.2	0.2	A	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.3	C	0.5	0.4	0.3	0.2	0.3	0.4	0.3	0.8	0.5	1.1	0.6	0.36	1.05	
31-May-08	0.4	A	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.6	1.0	0.7	0.31	1.04	
Hourly Avg	0.24	0.24	0.21	0.22	0.25	0.24	0.37	0.30	0.26	0.25	0.30	0.23	0.22	0.31	0.27	0.22	0.24	0.23	0.24	0.27	0.36	0.39	0.35	0.27			
Hourly Max	0.40	0.53	0.40	0.40	0.87	0.38	0.89	0.63	0.53	0.45	0.88	0.38	0.41	0.98	0.81	0.38	0.38	0.35	0.40	0.45	1.52	2.53	1.05	0.69			

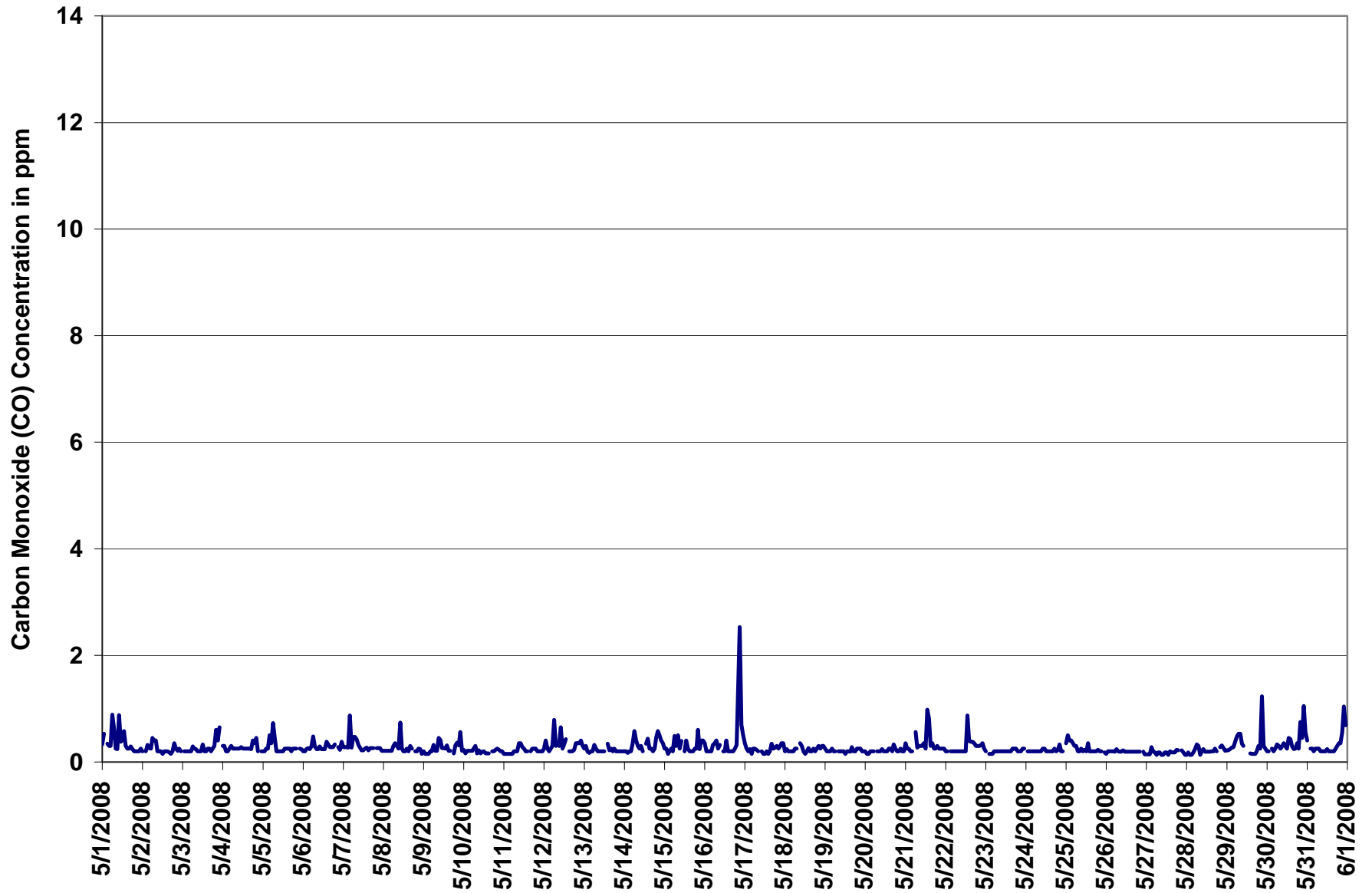
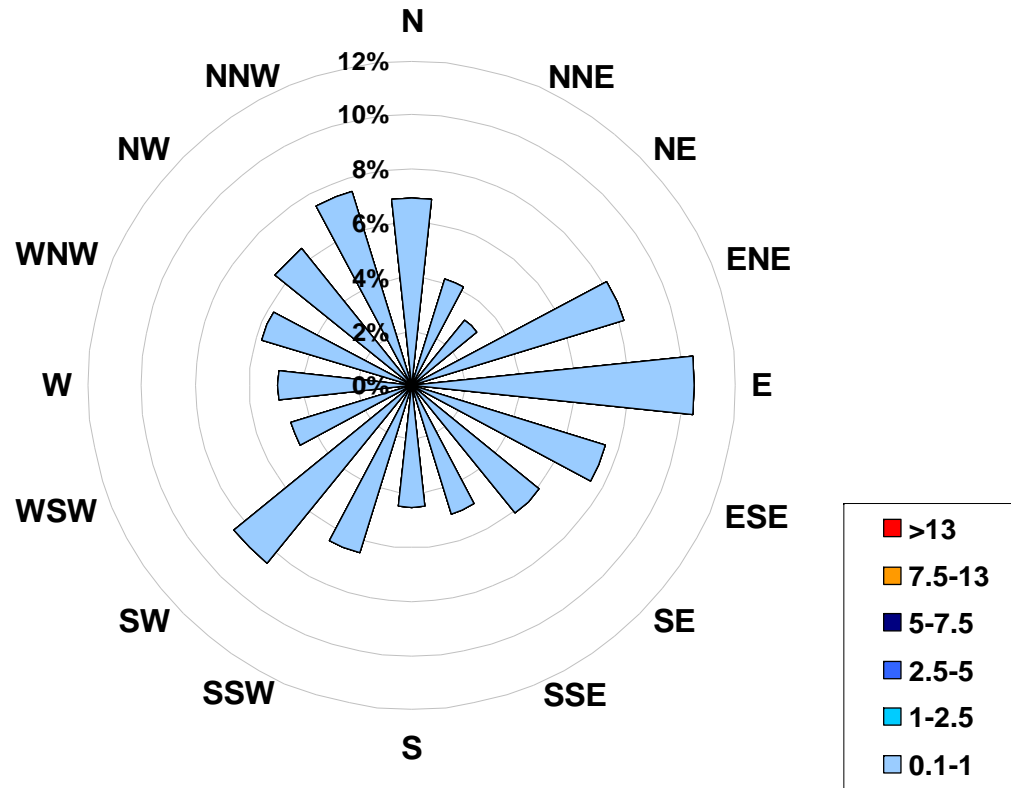


Figure 8. PAS - Crescent Heights Carbon Monoxide Instantaneous (30 Second) Maximum Value Monthly Trend



1-hr Average Concentration Rose for Carbon Monoxide (in ppm) Located at the Crescent Heights Site for May 208



Calms: 0%

Frequency Distribution of CO in ppm			
Range		Frequency (hrs)	
0.1	< 1	709	
1	to 2.5	0	
2.5	to 5	0	
5	to 7.5	0	
7.5	to 13	0	
	> 13	0	
Total Non-Zero Values			709



PAS - Crescent Heights Carbon Monoxide Eight Hour Average Summary

Station: Crescent Heights
 Station Owner: PAS

EIGHT HOUR RUNNING AVERAGE TABLE

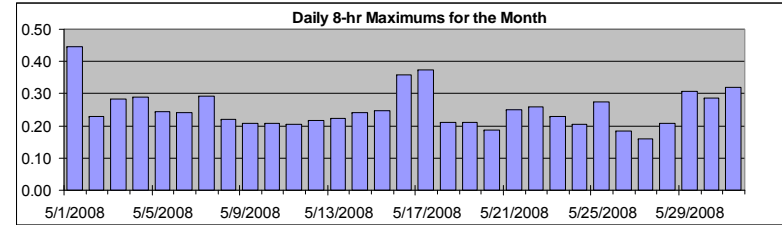
Carbon Monoxide (CO)

Monitoring Dates: May 1, 2008 to June 1, 2008

Objective Limit: Alberta Environment: 8-hr 5 ppm

Summary

Number of 8-hr Exceedances:	0
Maximum 8-hr Average:	0.4 ppm 1-May 0:00 1:00



Percentile	99	95	75	50	25	5	1
	0.4	0.3	0.2	0.2	0.2	0.2	0.1

Status Flag Characters

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

Day	Mountain Standard Time																								Daily Maximum
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	Daily Maximum
1-May-08	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.45
2-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
3-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.28
4-May-08	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29
5-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
6-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
7-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29
8-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
9-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
10-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
11-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
12-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
13-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
14-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
15-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
16-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.36
17-May-08	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	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.37
18-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
19-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
20-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
21-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
22-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.26
23-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
24-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
25-May-08	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27
26-May-08	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
27-May-08	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16
28-May-08	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
29-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	N	N	N	N	N	N	N	N	0.1	0.2	0.2	0.2	0.31
30-May-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.28
31-May-08	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	0.2	0.2	0.2	0.3	0.3	0.3	0.32
Hourly Max	0.45	0.43	0.42	0.39	0.36	0.33	0.32	0.29	0.29	0.29	0.29	0.31	0.28	0.28	0.26	0.25	0.25	0.25	0.24	0.25	0.26	0.29	0.33	0.36	



PAS - Crescent Heights Total Hydrocarbons Monthly Summary

Station: Crescent Heights
 Station Owner: PAS

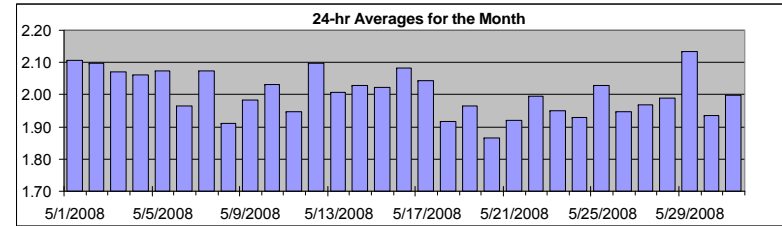
HOURLY AVERAGE TABLE

Total Hydrocarbons (THC)

Monitoring Dates: May 1, 2008 to June 1, 2008

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

Maximum 1-hr Average:	2.9	ppm	15-May	1:00 2:00
Maximum 24-hr Value:	2.1	ppm	29-May	



AIC Time:	33 hrs	Operational Time:	706 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	2.5	2.3	2.0	2.0	1.9	1.9	1.8	2.0 ppm	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																								24-hour Average	Daily Maximum			
	Hour Start	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00			0:00		
1-May-08	0:00	2.2	2.3	A	2.5	2.4	2.3	2.3	2.2	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.47
2-May-08	1:00	2.1	A	2.4	2.1	2.1	2.1	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	2.0	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.36
3-May-08	2:00	A	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.2	2.3	A	2.07	2.30	2.07	2.30	
4-May-08	3:00	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	A	2.0	2.06	2.38	2.07	2.43	
5-May-08	4:00	2.1	2.1	2.2	2.2	2.4	2.4	2.4	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	1.9	A	2.1	2.07	2.43	2.07	2.43	
6-May-08	5:00	1.9	1.9	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.1	1.97	2.10	1.97	2.10
7-May-08	6:00	2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	1.9	1.9	2.07	2.30	2.07	2.30
8-May-08	7:00	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.91	1.96	1.91	1.96
9-May-08	8:00	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.1	2.1	2.2	2.1	1.98	2.25	1.98	2.25
10-May-08	9:00	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	1.9	2.0	2.0	2.0	2.1	2.1	2.03	2.19	2.03	2.19
11-May-08	10:00	2.2	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.95	2.18	1.95	2.18
12-May-08	11:00	2.0	2.5	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.8	2.3	2.10	2.84	2.10	2.84
13-May-08	12:00	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	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	2.01	2.33	2.01	2.33
14-May-08	13:00	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.0	2.0	2.0	1.9	A	1.9	2.0	2.0	2.0	1.9	2.0	2.2	2.1	2.1	2.4	2.5	2.03	2.52	2.03	2.52
15-May-08	14:00	2.5	2.9	2.1	2.0	2.1	2.1	2.2	2.1	2.0	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	2.0	2.2	2.02	2.93	2.02	2.93
16-May-08	15:00	2.3	2.1	2.1	2.1	2.2	2.2	2.2	2.0	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.4	2.6	2.5	2.08	2.65	2.08	2.65
17-May-08	16:00	2.2	2.2	2.2	2.2	2.3	2.1	2.2	2.1	2.0	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.04	2.28	2.04	2.28
18-May-08	17:00	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	2.0	1.92	2.03	1.92	2.03
19-May-08	18:00	1.9	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.9	2.0	2.0	1.9	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.97	2.02	1.97	2.02
20-May-08	19:00	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.9	1.8	1.8	1.87	1.95	1.87	1.95
21-May-08	20:00	1.9	2.0	1.9	1.9	1.9	A	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	1.92	2.02	1.92	2.02
22-May-08	21:00	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.2	2.1	2.1	2.1	1.99	2.16	1.99	2.16
23-May-08	22:00	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0	1.95	2.00	1.95	2.00
24-May-08	23:00	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	A	1.93	2.01	1.93	2.01
25-May-08	0:00	2.0	2.4	2.2	2.7	2.4	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.03	2.71	2.03	2.71
26-May-08	1:00	2.0	1.9	1.9	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.0	2.0	1.95	2.05	1.95	2.05
27-May-08	2:00	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	1.97	2.09	1.97	2.09
28-May-08	3:00	1.9	2.0	2.1	2.1	2.0	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.3	2.2	2.1	1.99	2.30	1.99	2.30
29-May-08	4:00	2.2	2.3	2.4	2.5	2.4	2.3	2.3	2.2	2.2	2.2	C	C	C	C	C	A	1.9	1.9	1.9	1.9	1.9	2.0	2.1	1.9	2.13	2.46	2.13	2.46
30-May-08	5:00	1.9	1.8	A	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.3	2.3	1.94	2.25	1.94	2.25
31-May-08	6:00	2.2	A	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	2.0	2.1	2.3	2.3	2.00	2.28	2.00	2.28
Hourly Avg		2.07	2.11	2.07	2.09	2.09	2.07	2.07	2.02	1.99	1.96	1.94	1.93	1.93	1.93	1.93	1.94	1.93	1.93	1.93	1.94	1.97	2.00	2.03	2.09	2.06			
Hourly Max		2.48	2.93	2.37	2.71	2.42	2.43	2.39	2.28	2.23	2.16	2.07	2.03	2.02	2.03	2.03	2.15	2.03	2.01	2.02	2.17	2.40	2.65	2.84	2.52				

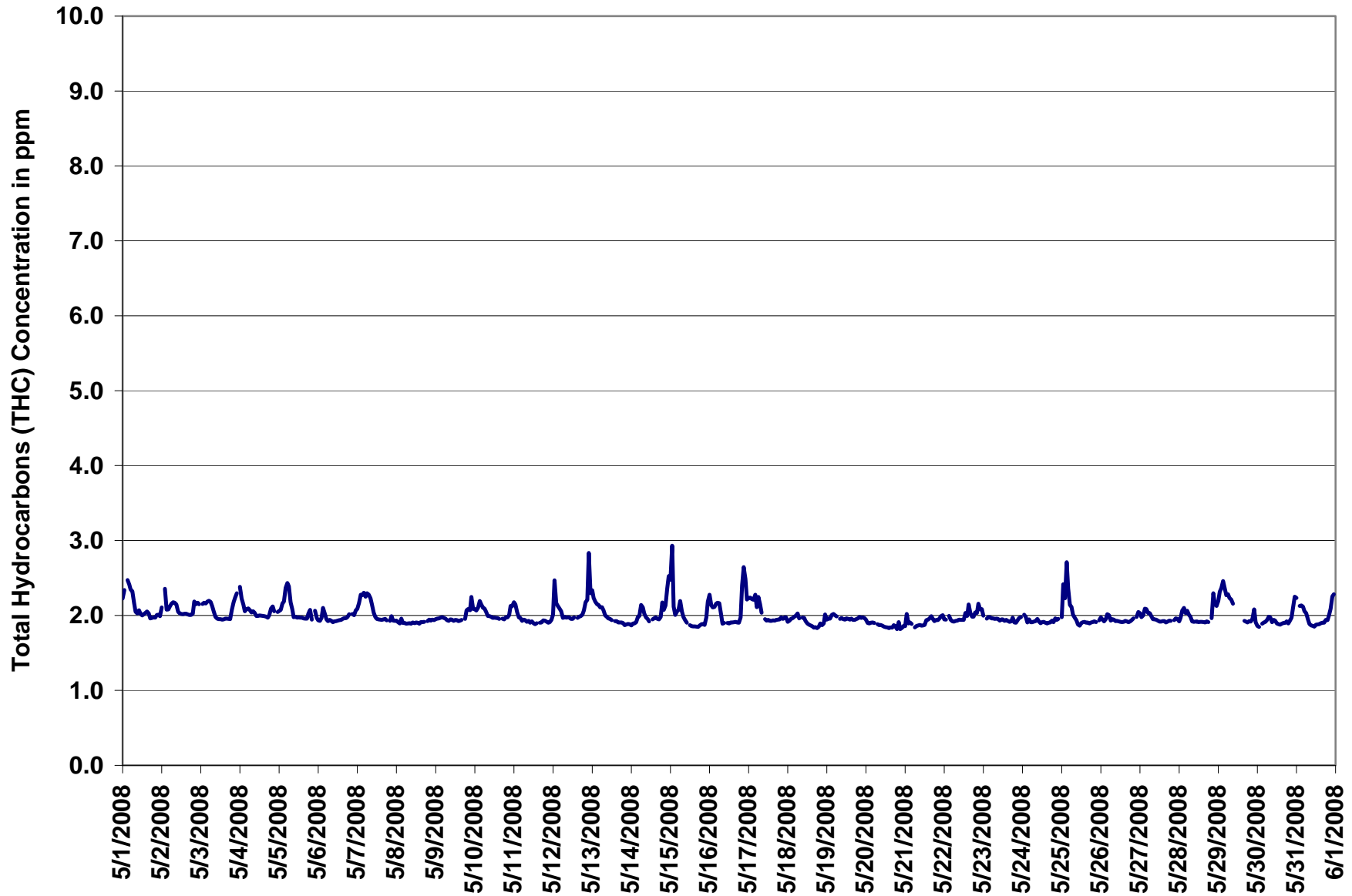


Figure 9. PAS - Crescent Heights Total Hydrocarbons 1-hr Average Monthly Trend



Station: Crescent Heights
 Station Owner: PAS

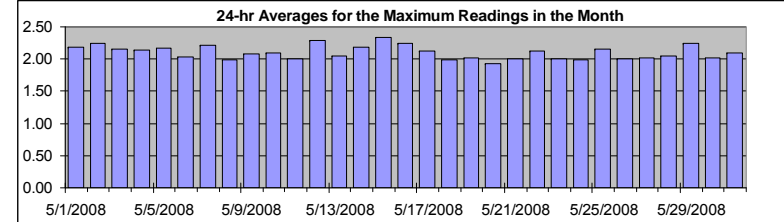
INSTANTANEOUS (30 Second) MAXIMUM TABLE

Total Hydrocarbons (THC)

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Maximum 1-hr Value:	7.3	ppm	15-May	1:00 2:00
Maximum 24-hr Value:	2.3	ppm	15-May	



AIC Time:	33 hrs	Operational Time:	706 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	2.9	2.5	2.2	2.0	2.0	1.9	1.9	2.1 ppm	2.0 ppm

Status Flag Characters

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

Day Mountain Standard Time

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum	
1-May-08	2.3	2.5	A	2.5	2.6	2.4	2.4	2.3	2.1	2.1	2.3	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.2	2.19	2.55
2-May-08	2.2	A	4.1	2.1	2.2	2.3	2.3	2.3	2.3	2.2	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.3	2.2	2.3	2.2	2.2	2.24	4.14
3-May-08	A	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.6	2.3	2.4	A	2.1	2.15	2.59	
4-May-08	2.5	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.0	2.1	2.3	2.3	2.2	A	2.1	2.14	2.54	
5-May-08	2.2	2.2	2.2	2.3	2.7	2.5	2.7	2.4	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	A	A	2.2	2.0	2.17	2.70	
6-May-08	2.0	2.0	2.1	2.2	2.2	2.0	2.0	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	A	2.1	2.1	2.2	2.03	2.22	
7-May-08	2.2	2.3	2.4	2.3	2.6	2.3	2.4	2.3	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	3.0	2.5	2.0	2.0	2.21	2.98	
8-May-08	2.1	2.0	2.1	2.1	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	1.98	2.09	
9-May-08	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	A	2.0	2.4	2.2	2.3	2.7	2.1	2.08	2.69	
10-May-08	2.1	2.1	2.2	2.4	2.2	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.1	2.0	2.1	2.2	2.2	2.09	2.35	
11-May-08	2.3	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	1.9	1.9	1.9	A	1.9	1.9	2.1	2.0	2.0	1.9	1.9	2.0	2.00	2.25	
12-May-08	2.4	2.9	2.6	2.4	2.3	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.0	2.1	2.0	2.1	2.3	2.6	2.8	3.3	2.7	2.30	3.29	
13-May-08	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	1.9	2.0	1.9	2.0	1.9	1.9	1.9	1.9	2.05	2.41	
14-May-08	1.9	1.9	1.9	2.0	2.0	2.2	2.4	2.6	2.2	2.1	2.2	2.0	A	2.0	2.1	2.1	2.0	2.1	2.8	2.2	2.3	2.7	2.7	2.7	2.18	2.76	
15-May-08	2.6	7.3	2.4	2.1	2.1	2.1	2.6	2.5	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	1.9	2.2	2.4	2.4	2.34	7.30	
16-May-08	2.9	2.2	2.5	2.2	2.3	2.3	2.3	2.1	2.0	2.0	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.9	3.5	2.7	2.4	2.25	3.45	
17-May-08	2.3	2.5	2.3	2.3	2.4	2.3	2.3	2.2	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.12	2.47	
18-May-08	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	A	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.3	1.98	2.26	
19-May-08	2.2	2.0	2.0	2.1	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02	2.22	
20-May-08	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.4	1.9	1.9	2.0	1.9	1.9	2.0	1.94	2.38	
21-May-08	1.9	2.1	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	2.0	2.0	2.2	2.1	2.0	2.0	2.0	2.0	2.2	2.2	2.00	2.24	
22-May-08	2.0	2.0	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.4	2.1	2.5	2.4	2.1	2.1	2.2	2.1	2.4	2.4	2.2	2.12	2.54	
23-May-08	2.2	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.1	2.1	2.0	1.9	2.0	2.1	2.1	2.00	2.16	
24-May-08	A	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.0	2.1	A	1.98	2.12	
25-May-08	2.1	3.2	2.8	2.9	2.6	2.2	2.2	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.0	A	2.1	2.16	3.18
26-May-08	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	1.9	1.9	2.0	2.0	A	2.0	2.1	2.00	2.12	
27-May-08	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	A	2.0	2.0	2.0	2.02	2.20	
28-May-08	2.0	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.1	2.5	2.3	2.3	2.05	2.47	
29-May-08	2.4	2.6	2.6	2.5	2.5	2.4	2.3	2.3	2.3	2.3	C	C	C	C	C	A	2.0	2.0	1.9	2.0	1.9	2.3	2.2	2.0	2.24	2.56	
30-May-08	1.9	1.9	A	2.0	1.9	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	2.0	2.1	2.3	2.4	2.02	2.39	
31-May-08	2.4	A	2.2	2.2	2.2	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.5	2.1	2.1	2.3	2.6	2.4	2.10	2.64	
Hourly Avg	2.19	2.39	2.26	2.17	2.18	2.13	2.17	2.12	2.05	2.02	2.01	1.98	1.97	2.00	1.98	2.00	2.00	1.99	2.01	2.07	2.12	2.20	2.25	2.17			
Hourly Max	2.85	7.30	4.14	2.88	2.67	2.52	2.70	2.62	2.34	2.25	2.30	2.09	2.04	2.40	2.11	2.54	2.44	2.38	2.50	2.76	2.85	3.45	3.29	2.66			

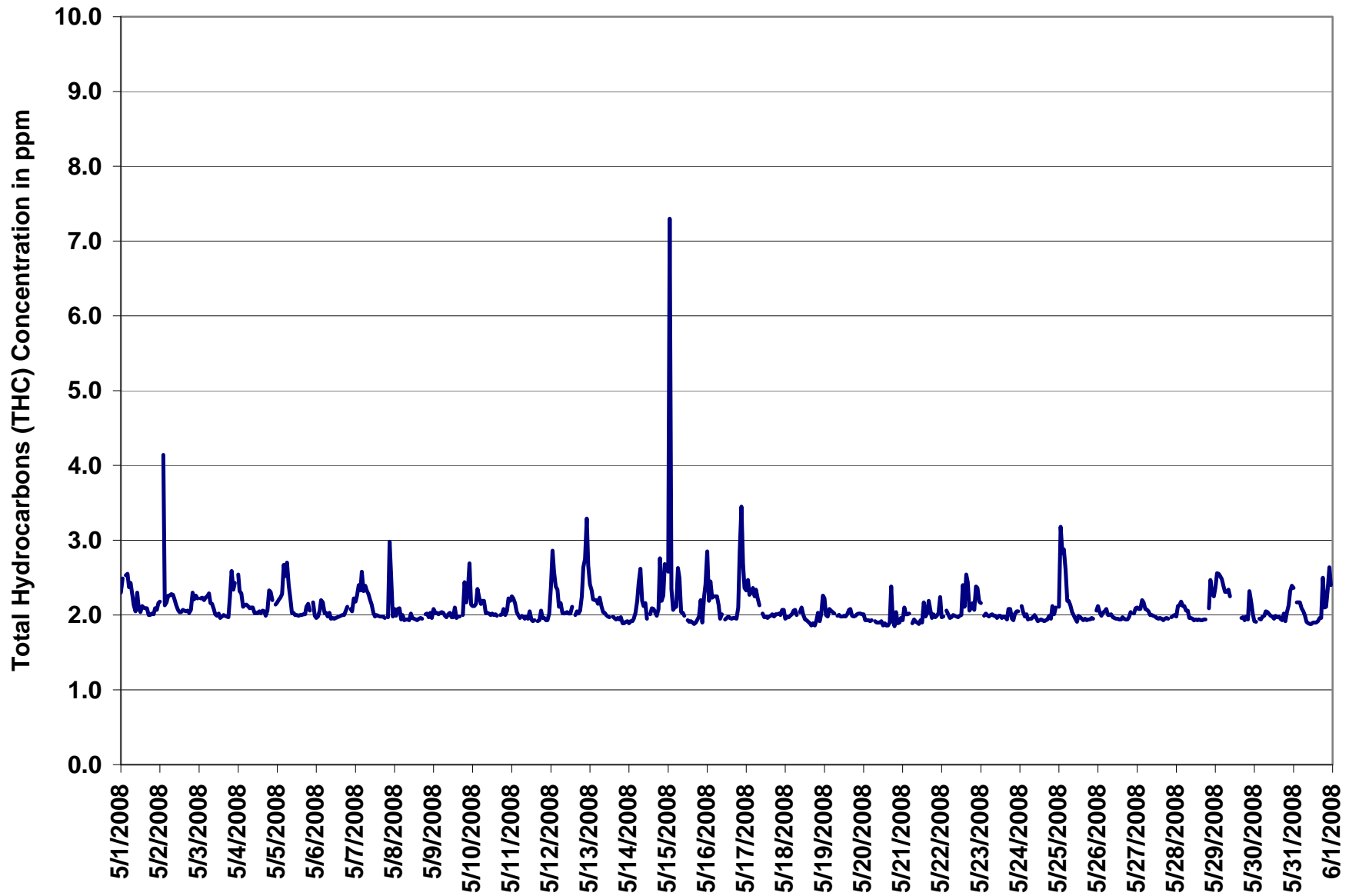
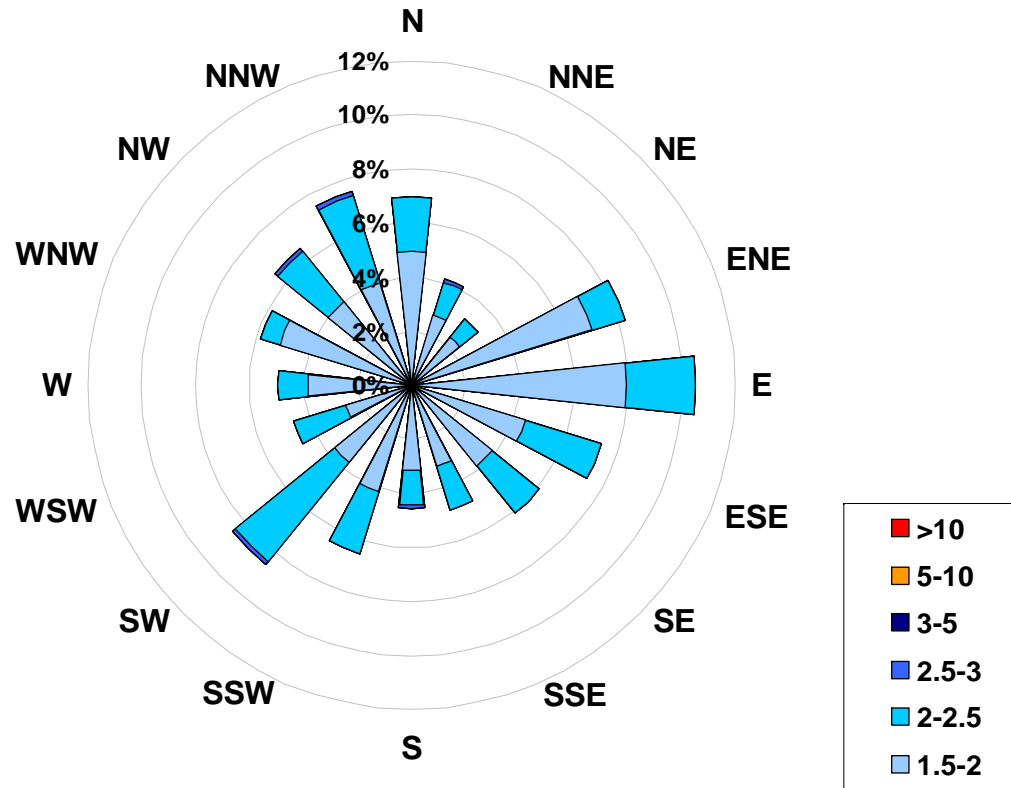


Figure 10. PAS - Crescent Heights Total Hydrocarbons Instantaneous (30 Second) Maximum Value Monthly Trend



**1-hr Average Concentration Rose for Total Hydrocarbons (in ppm)
Located at the Crescent Heights Site for May 2008**



Calms: 0%

Frequency Distribution of THC in ppm			Frequency (hrs)
Range			
1.5	< 2		469
2	to 2.5		232
2.5	to 3		5
3	to 5		0
5	to 10		0
	> 10		0
Total Non-Zero Values			706



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

Station: Crescent Heights
 Station Owner: PAS

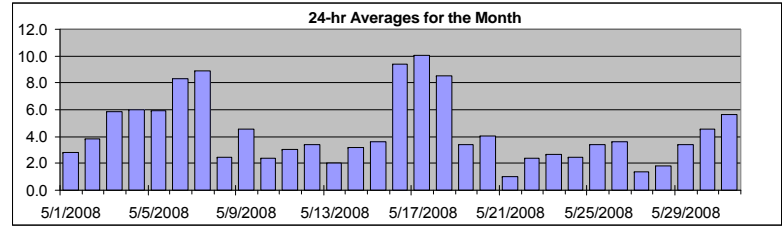
HOURLY AVERAGE TABLE

Particulate Matter (PM_{2.5})

Monitoring Dates: May 1, 2008 to June 1, 2008

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

Number of 24-hr Exceedances (draft):	0
Maximum 1-hr Average:	39.4 µg/m ³ 16-May 21:00 22:00
Maximum 24-hr Value:	10.0 µg/m ³ 17-May



AIC Time:	0 hrs	Operational Time:	740 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	99.9%
Percentile	99	95	75
	16.9	11.8	5.7
	5.7	3.7	1.8
	0.0	0.0	0.0
	Average / Median		4.3
			4 µg/m ³
	Geomean		3.7 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	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-May-08	5	6	4	6	6	7	6	3	1	0	1	1	1	2	3	4	5	3	1	1	1	1	0	1	2.8	6.7	
2-May-08	1	1	1	0	1	5	4	3	4	4	2	1	2	4	4	4	4	3	3	4	19	6	7	5	3.8	18.7	
3-May-08	5	4	4	4	5	4	6	7	5	5	4	3	3	3	4	4	4	4	5	8	11	11	13	12	5.8	12.7	
4-May-08	9	5	5	5	6	6	7	8	9	10	4	4	4	4	5	6	5	5	7	7	8	6	5	4	6.0	10.0	
5-May-08	4	3	5	6	5	6	8	6	3	3	6	6	6	6	6	6	7	7	7	9	9	6	6	7	5.9	9.0	
6-May-08	6	5	7	10	11	8	7	6	5	5	7	6	4	5	6	9	8	9	14	13	12	12	12	12	8.3	14.4	
7-May-08	12	13	13	12	12	12	14	15	15	12	11	7	6	5	5	2	5	6	9	7	5	4	5	6	8.9	15.2	
8-May-08	4	3	0	0	2	1	2	3	2	1	1	3	3	2	3	3	1	D	5	3	5	1	4	5	2.5	5.1	
9-May-08	2	2	3	4	5	5	8	7	5	3	3	5	5	5	4	3	4	4	4	6	7	6	6	3	4.6	7.8	
10-May-08	4	3	3	4	3	4	5	5	1	2	1	0	0	0	0	0	0	2	2	3	5	3	3	2	2.4	5.4	
11-May-08	2	2	2	2	2	3	4	4	4	5	6	5	3	3	1	0	0	5	3	2	4	4	3	1	4	3.0	5.6
12-May-08	3	2	2	4	4	4	4	4	5	4	4	4	4	4	2	1	2	2	2	4	4	4	4	5	3.4	4.8	
13-May-08	4	2	3	4	4	3	5	5	0	0	0	0	0	0	1	2	1	1	4	4	2	1	1	0	2.0	5.5	
14-May-08	0	1	1	2	3	3	5	6	7	3	2	0	1	0	1	1	2	2	4	5	5	6	7	9	3.2	8.5	
15-May-08	8	5	2	3	3	5	3	3	3	0	0	0	0	0	1	0	1	1	3	6	9	9	9	12	3.6	12.1	
16-May-08	6	6	5	6	6	8	10	6	2	3	4	4	4	5	6	7	8	9	9	13	20	39	22	18	9.4	39.4	
17-May-08	16	13	10	10	8	9	14	11	12	13	6	4	6	6	6	8	8	10	10	13	13	11	10	12	10.0	15.9	
18-May-08	8	9	10	11	10	14	10	15	13	7	6	7	9	9	8	10	8	10	7	5	6	6	3	4	8.5	14.9	
19-May-08	2	1	2	3	4	4	3	4	4	3	2	2	2	3	2	2	3	4	6	6	6	6	4	3	3.4	6.4	
20-May-08	3	2	3	4	4	5	5	5	5	5	4	3	4	4	3	5	8	5	4	1	3	9	1	4	4.1	9.5	
21-May-08	5	6	3	2	0	0	0	0	1	0	1	2	1	1	0	1	0	0	0	0	1	0	1	0	1.0	5.7	
22-May-08	0	0	1	1	1	1	2	2	2	3	3	3	2	1	4	5	5	3	4	5	3	5	0	3	2.4	5.2	
23-May-08	0	0	2	1	2	3	2	3	3	3	2	1	2	2	1	2	11	2	5	0	4	5	6	3	2.7	11.0	
24-May-08	2	2	4	5	2	0	1	0	2	3	3	3	2	0	2	9	6	1	5	1	2	1	2	2	2.4	8.7	
25-May-08	1	2	1	1	2	3	2	2	2	2	3	2	1	4	5	2	5	5	4	5	7	7	8	7	3.4	7.8	
26-May-08	5	4	3	5	5	5	6	6	5	6	7	7	6	3	2	0	0	0	2	2	2	1	2	2	3.6	7.3	
27-May-08	0	0	0	0	1	1	3	1	0	1	1	1	0	1	1	1	1	1	0	5	4	4	3	3	1.3	5.0	
28-May-08	1	2	2	2	2	2	3	3	3	1	1	2	2	0	1	1	1	0	1	2	3	3	3	1	1.8	3.1	
29-May-08	2	1	2	0	4	3	6	6	5	4	C	C	C	0	2	2	2	4	2	6	5	4	7	4	3.4	7.0	
30-May-08	6	2	3	2	4	5	4	4	5	0	5	3	3	1	0	2	0	5	4	6	6	8	20	16	4.6	19.6	
31-May-08	10	8	6	6	5	5	8	7	3	2	0	1	0	0	2	5	2	2	4	4	9	11	18	18	5.6	18.1	
Hourly Avg	4.3	3.8	3.7	4.0	4.3	4.7	5.4	5.2	4.4	3.7	3.3	2.9	2.9	2.6	2.8	3.5	3.9	3.8	4.4	5.1	6.4	6.5	6.2	6.0			
Hourly Max	15.9	13.4	13.1	12.1	11.9	13.6	13.8	14.9	15.2	13.5	10.9	7.3	8.7	8.9	7.5	9.7	11.0	10.4	14.4	13.4	19.6	39.4	21.9	18.3			

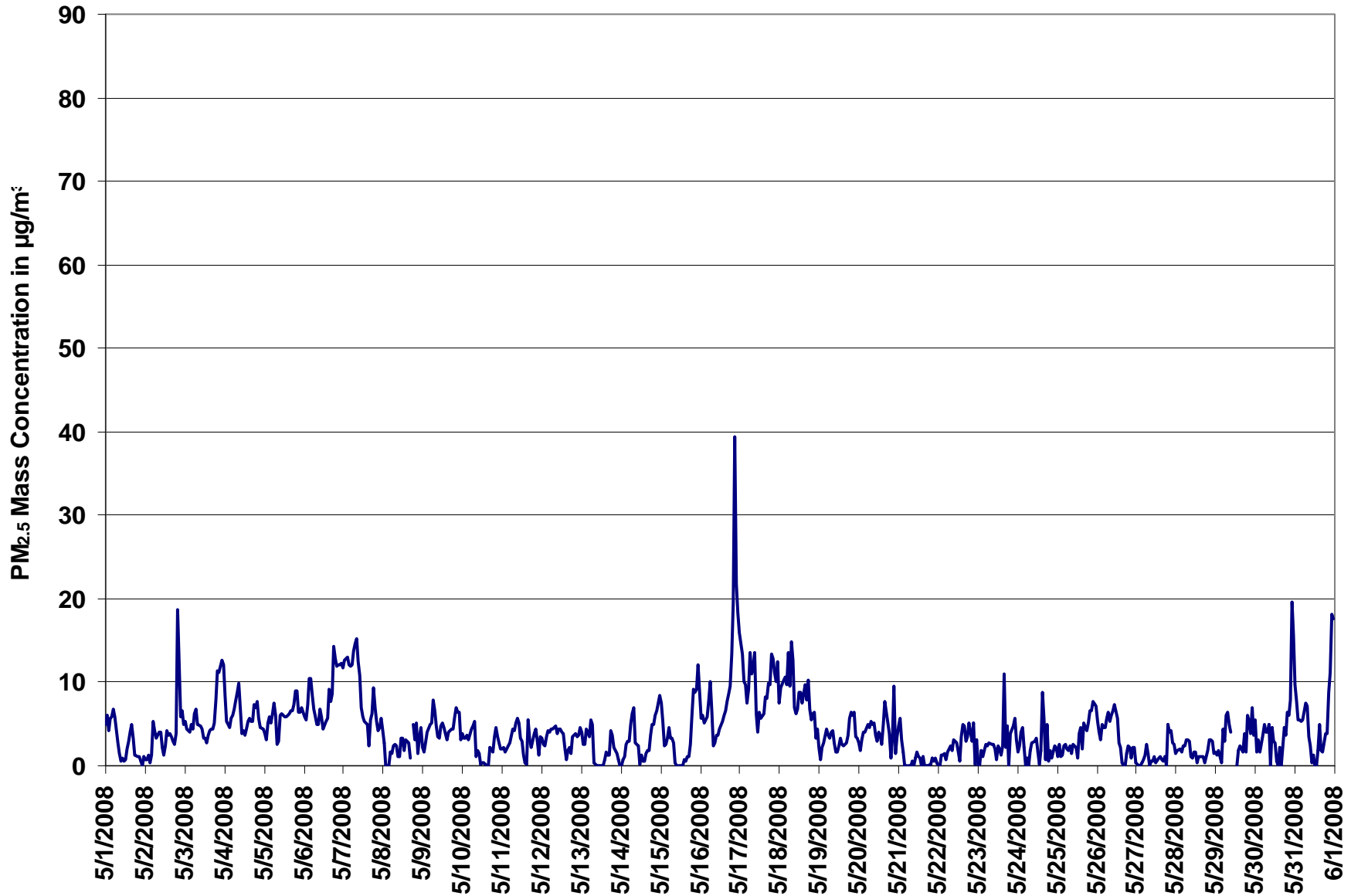


Figure 11. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend



Station: Crescent Heights
 Station Owner: PAS

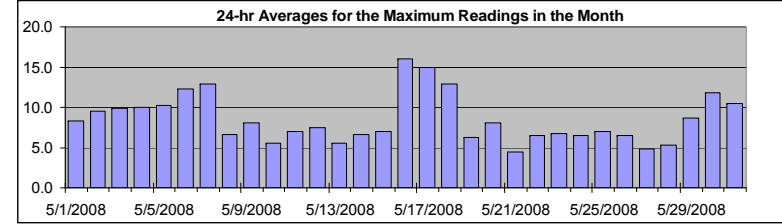
INSTANTANEOUS (30 Second) MAXIMUM TABLE

Particulate Matter (PM_{2.5})

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Maximum 1-hr Average:	106.4	µg/m ³	16-May	21:00 22:00
Maximum 24-hr Value:	16.0	µg/m ³	16-May	



AIC Time:	0 hrs	Operational Time:	741 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average / Median	Geommean
	26.3	16.1	10.1	7.5	5.6	3.5	1.9	8.5	8 µg/m ³
									8.0 µg/m ³

Status Flag Characters

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

Day Mountain Standard Time

Hour Start 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-May-08	10	14	11	13	12	14	12	8	7	6	7	5	6	7	8	8	11	8	6	5	6	6	5	6	8.4	13.7
2-May-08	8	7	8	4	7	17	9	11	8	8	7	9	6	8	9	8	7	8	7	10	35	9	10	8	9.5	35.3
3-May-08	8	8	6	7	10	9	11	9	10	9	7	6	6	6	9	8	9	9	8	12	16	16	19	18	9.9	18.6
4-May-08	12	9	9	8	11	10	10	13	12	13	11	9	9	10	9	11	9	9	10	11	11	11	8	7	10.0	13.0
5-May-08	8	8	9	10	10	10	12	9	8	6	9	10	9	10	9	9	12	10	10	16	20	11	11	10	10.2	19.8
6-May-08	9	10	11	15	13	16	10	9	9	9	13	9	8	9	8	14	13	14	19	17	15	15	16	15	12.3	18.6
7-May-08	14	15	16	14	16	16	18	19	21	17	16	12	11	10	9	7	9	11	16	10	9	7	8	9	12.9	21.0
8-May-08	8	7	0	3	5	3	6	6	7	5	7	8	9	7	8	6	6	9	10	10	10	7	7	7	6.6	10.4
9-May-08	6	4	6	7	8	9	11	9	9	7	6	8	10	8	7	7	8	8	8	11	10	10	11	5	8.0	10.7
10-May-08	6	5	5	6	5	7	9	10	5	4	6	4	4	4	4	4	6	5	7	7	7	4	4	4	5.5	9.8
11-May-08	4	5	5	4	6	6	7	7	9	9	9	7	7	5	4	5	14	10	7	7	8	8	7	7	7.0	14.3
12-May-08	7	6	7	8	8	8	7	8	10	7	9	9	7	12	6	6	6	9	6	7	8	6	6	7	7.5	12.2
13-May-08	6	5	5	7	6	5	11	8	5	3	3	2	5	5	7	6	8	6	7	8	5	6	4	2	5.5	10.8
14-May-08	2	4	4	6	6	6	8	11	11	6	6	5	5	5	4	5	5	6	7	8	7	11	11	11	6.6	11.4
15-May-08	10	8	4	6	6	7	6	6	5	4	1	4	4	3	5	4	5	5	6	8	14	13	13	19	6.9	19.1
16-May-08	8	9	7	7	8	11	14	12	6	5	8	8	10	9	9	11	12	13	13	18	27	106	29	22	16.0	106.4
17-May-08	19	18	13	13	9	15	17	16	15	17	16	14	10	12	13	14	17	16	13	17	18	13	15	19	15.0	19.4
18-May-08	10	11	12	12	11	31	11	18	19	11	14	16	13	14	11	14	11	14	13	8	9	10	8	9	12.9	30.6
19-May-08	4	2	5	6	6	5	5	8	7	6	5	5	7	7	6	5	6	9	9	8	9	8	7	5	6.3	9.1
20-May-08	6	3	5	6	7	6	6	8	10	10	9	6	8	8	7	9	13	10	10	5	9	22	6	8	8.1	21.7
21-May-08	11	11	9	4	6	1	2	4	3	3	3	7	4	6	3	3	4	1	2	5	4	4	3	4	4.5	10.9
22-May-08	2	2	4	5	4	2	5	6	7	6	7	7	6	5	7	11	10	7	7	13	7	11	8	7	6.5	12.6
23-May-08	3	3	3	4	4	5	5	5	5	6	6	4	5	6	5	8	27	6	8	5	8	10	9	11	6.7	26.9
24-May-08	5	5	9	11	7	4	6	2	5	7	5	8	6	5	6	15	11	4	8	5	6	5	6	5	6.6	15.4
25-May-08	4	6	6	6	6	5	4	5	6	4	7	7	7	8	8	6	8	9	10	8	9	10	12	9	7.0	12.3
26-May-08	8	8	7	7	9	6	9	9	8	9	9	10	9	5	5	2	3	4	4	6	5	3	7	4	6.4	10.3
27-May-08	2	2	2	2	3	4	5	4	4	4	5	4	7	5	5	4	4	5	9	10	7	8	6	4	4.8	9.9
28-May-08	5	4	4	5	4	5	6	7	6	6	6	6	5	5	7	6	4	4	4	5	6	6	7	4	5.3	7.0
29-May-08	5	4	5	4	8	7	11	11	12	9	C	C	C	9	11	10	7	10	7	14	12	6	10	11	8.6	13.6
30-May-08	12	9	5	4	6	8	6	8	10	7	17	11	13	8	7	13	12	12	7	9	8	12	41	36	11.8	41.2
31-May-08	13	11	9	7	8	9	13	12	8	8	8	7	8	4	7	14	5	6	7	9	12	17	26	23	10.5	25.8
Hourly Avg	7.5	7.2	6.8	7.1	7.5	8.7	8.7	8.9	8.6	7.4	8.1	7.5	7.4	7.2	7.1	8.2	9.0	8.3	8.5	9.4	10.7	12.7	11.0	10.3		
Hourly Max	19.4	17.9	15.9	14.7	15.5	30.6	18.2	19.4	21.0	16.9	17.2	15.8	13.3	14.3	13.0	15.4	26.9	15.8	18.6	17.9	35.3	106.4	41.2	35.7		

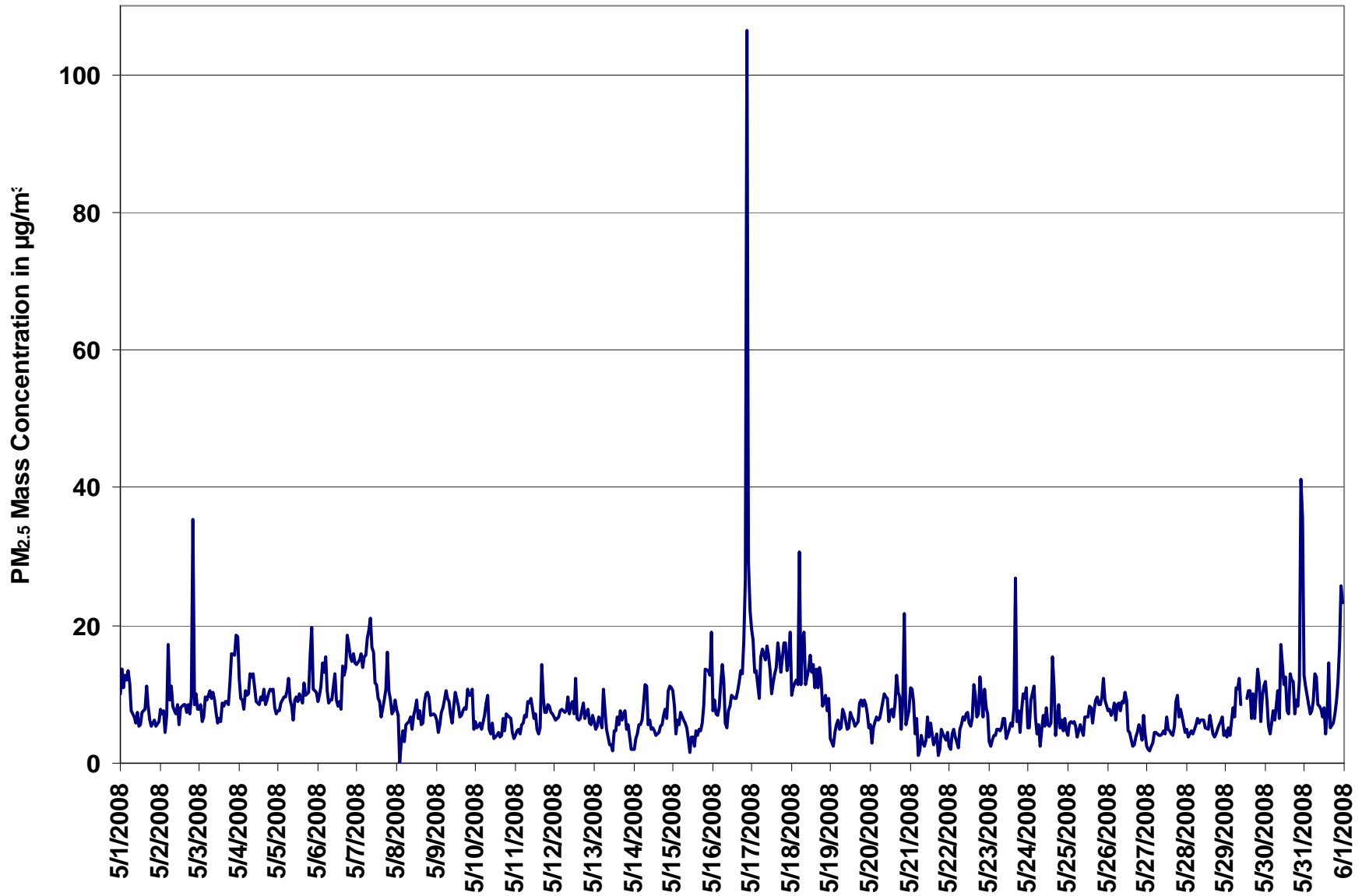
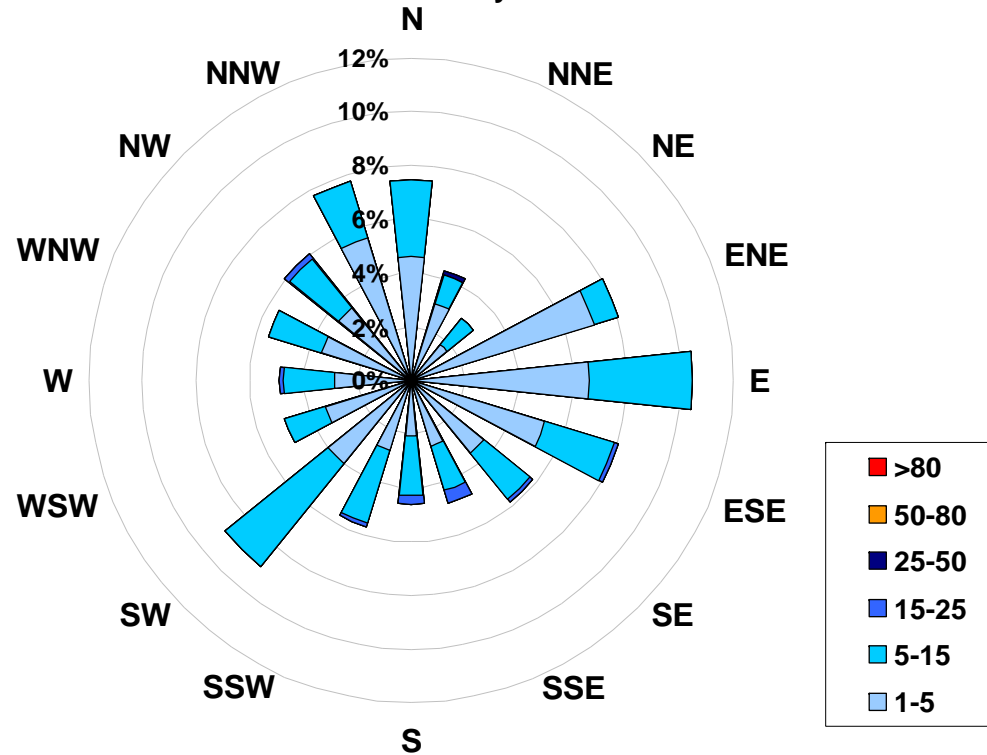


Figure 12. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) Instantaneous (30 Second) Maximum Value Monthly Trend



1-hr Average Concentration Rose for Particulate Matter (less than 2.5 microns) (in micrograms per cubic meter) Located at the Crescent Heights Site for May 2008



Calms: 0%

Frequency Distribution of PM _{2.5} in µg/m ³			
Range			Frequency (hrs)
1.0	<	5	497
5	to	15	232
15	to	25	10
25	to	50	1
50	to	80	0
	>	80	0
Total Non-Zero Values			740



PAS - Crescent Heights Relative Humidity Monthly Summary

Station: Crescent Heights
Station Owner: PAS

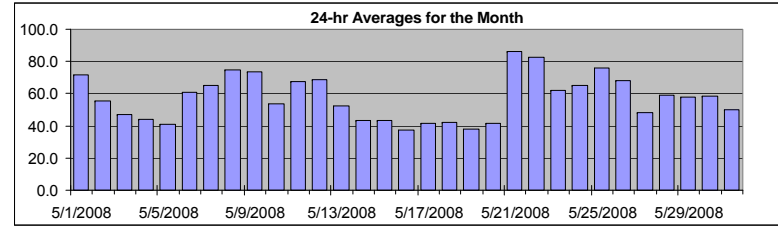
HOURLY AVERAGE TABLE

Relative Humidity (RH)

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Maximum 1-hr Average:	90.6	%	21-May	15:00 16:00
Maximum 24-hr Value:	85.9	%	21-May	



AIC Time:	0 hrs	Operational Time:	744 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	89.8	86.1	74.7	58.5	41.5	24.3	18.6	57.3 %	58.5 %

Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-May-08	82	83	84	86	86	86	82	78	70	63	60	57	52	50	49	53	57	71	75	78	80	82	82	81		71.9	86.1
2-May-08	84	85	87	89	90	90	87	79	71	69	56	40	29	26	26	26	24	23	24	28	37	43	57	62		55.6	90.0
3-May-08	67	70	74	76	76	73	65	57	44	36	33	30	28	25	26	26	26	26	28	34	40	49	55	64		47.1	76.0
4-May-08	66	71	71	72	73	72	68	64	53	44	29	26	22	21	21	20	20	20	25	31	36	42	43	45		44.0	73.1
5-May-08	49	46	58	64	66	64	59	48	39	27	25	25	25	24	25	27	27	28	30	34	41	46	48	55		40.9	66.4
6-May-08	55	56	54	57	68	76	74	72	68	73	71	66	56	50	47	52	55	46	52	56	56	60	68	71		60.8	76.3
7-May-08	73	77	78	79	81	81	78	70	63	58	50	43	44	48	48	41	42	42	55	77	78	83	84	88		65.1	88.1
8-May-08	90	89	86	85	82	81	80	78	76	70	65	70	79	76	74	66	60	54	60	72	78	72	76	79		74.9	89.9
9-May-08	84	84	84	79	80	78	78	78	82	83	79	72	80	74	67	65	57	53	52	59	67	71	78	77		73.4	84.5
10-May-08	80	81	83	84	85	81	73	67	52	47	42	37	33	32	30	27	23	31	31	38	46	53	61	65		53.5	84.5
11-May-08	69	70	70	70	72	70	68	66	62	60	62	71	71	59	48	42	58	71	69	70	73	80	81	82		67.2	81.8
12-May-08	83	81	81	83	85	85	84	82	88	87	79	73	63	62	54	46	36	37	40	50	59	67	72	75		68.8	87.6
13-May-08	78	79	80	81	82	79	78	72	57	46	44	39	32	28	27	29	28	28	35	40	45	47	48	49		52.2	82.1
14-May-08	50	56	55	55	56	58	58	58	56	48	45	35	31	27	26	26	26	25	25	32	38	43	51	58		43.2	58.2
15-May-08	63	67	63	63	66	60	60	59	57	49	42	36	31	28	26	23	21	20	20	25	31	35	46	52		43.5	67.4
16-May-08	48	50	50	55	59	62	53	45	38	35	33	29	27	24	23	19	17	16	17	24	30	37	49	60		37.5	62.3
17-May-08	64	68	71	72	73	67	58	51	44	42	33	20	19	15	14	13	14	19	26	32	42	47	49	48		41.7	72.8
18-May-08	49	49	46	48	49	48	54	50	44	38	33	27	24	23	25	28	31	33	37	45	50	56	62	61		42.1	61.5
19-May-08	57	56	53	51	52	52	51	47	41	36	30	27	24	23	22	22	21	21	26	33	37	43	44	41		37.8	56.7
20-May-08	43	38	40	43	47	48	43	40	36	33	31	28	26	26	26	26	32	43	50	49	49	65	70	72		41.9	72.5
21-May-08	77	85	88	90	90	89	89	89	90	84	77	73	69	81	90	91	90	90	90	89	89	89	88	88		85.9	90.6
22-May-08	87	86	86	87	87	86	85	85	86	86	84	85	83	77	76	77	80	81	82	82	84	82	73	71		82.4	87.3
23-May-08	65	61	65	70	72	71	68	65	61	55	52	47	50	51	50	46	69	73	73	67	59	59	68	69		61.9	73.4
24-May-08	64	64	64	74	74	69	66	61	62	68	57	50	46	41	41	53	72	71	75	77	76	76	78	83		65.1	83.2
25-May-08	84	84	86	86	86	87	85	77	75	72	74	75	70	66	64	62	65	66	67	72	76	77	80	83		75.8	87.2
26-May-08	82	84	83	82	85	85	82	81	77	73	71	70	65	60	55	55	50	45	46	50	56	56	66	72		67.9	85.3
27-May-08	75	70	68	70	71	65	61	53	40	36	35	34	33	32	32	31	31	31	27	36	44	55	64	67		48.3	75.1
28-May-08	62	68	77	79	78	74	67	61	53	52	50	48	48	47	44	43	44	45	45	50	54	64	77	80		58.7	80.5
29-May-08	83	82	85	86	89	79	71	65	58	52	45	42	39	36	32	34	35	41	37	42	56	61	69	68		57.8	89.1
30-May-08	74	79	78	83	84	80	76	64	58	49	51	47	48	42	39	36	35	40	40	48	54	60	66	74		58.5	83.8
31-May-08	77	79	81	83	84	77	69	61	53	46	40	34	29	24	23	28	28	26	29	35	39	45	54	61		50.1	83.5
Hourly Avg	69.7	70.9	71.9	73.6	75.1	73.3	70.0	65.2	59.8	55.3	50.9	47.0	44.3	41.9	40.3	39.7	41.1	42.6	44.7	50.2	54.8	59.5	64.7	67.8			
Hourly Max	89.9	89.1	88.3	90.0	90.0	90.0	88.7	89.3	89.6	86.9	83.7	84.8	83.2	81.4	89.6	90.6	89.9	90.1	90.1	89.4	89.2	88.7	88.4	88.1			

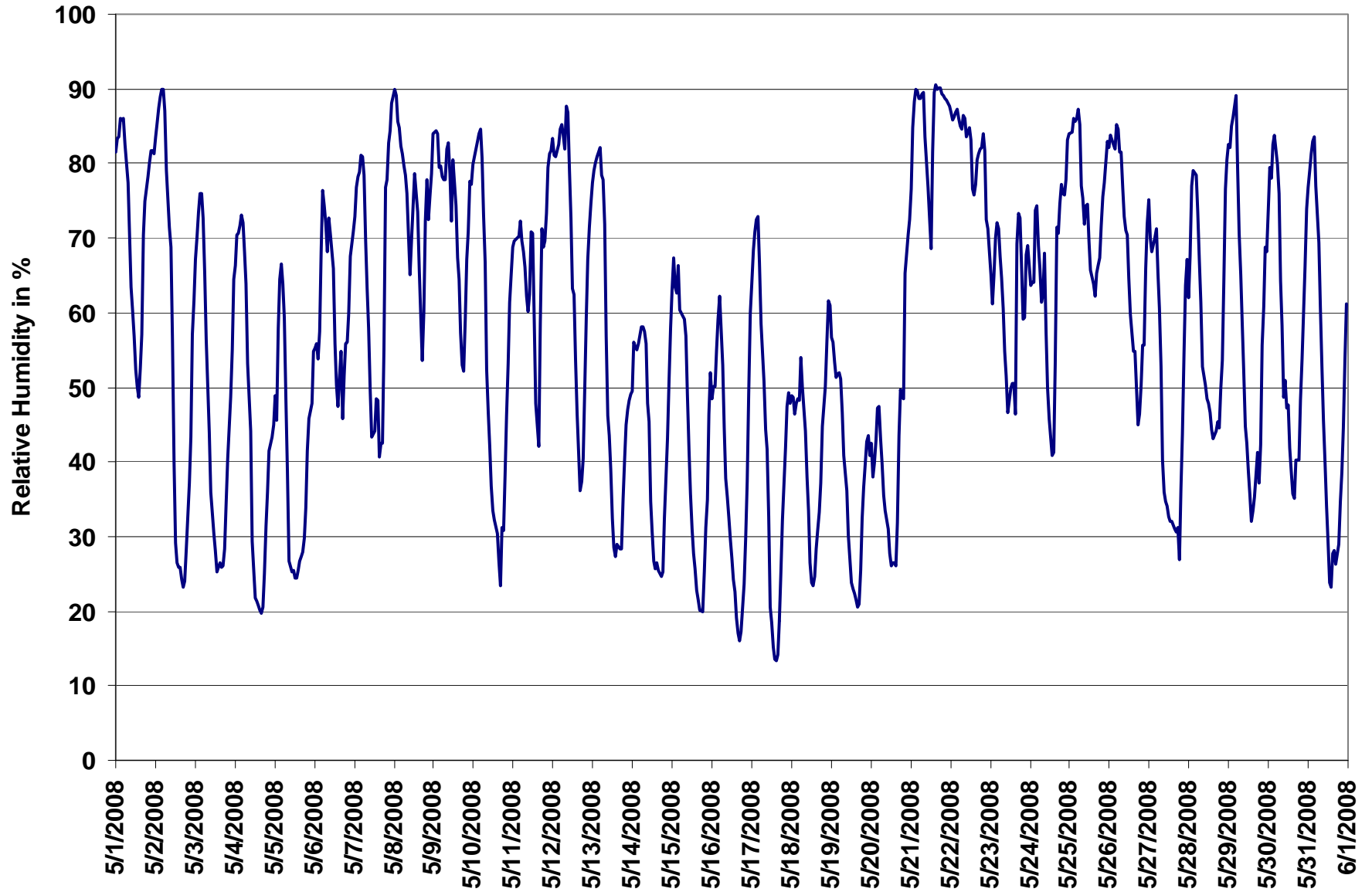


Figure 13. PAS - Crescent Heights Relative Humidity 1-hr Average Monthly Trend



PAS - Crescent Heights Temperature Monthly Summary

Station: Crescent Heights
Station Owner: PAS

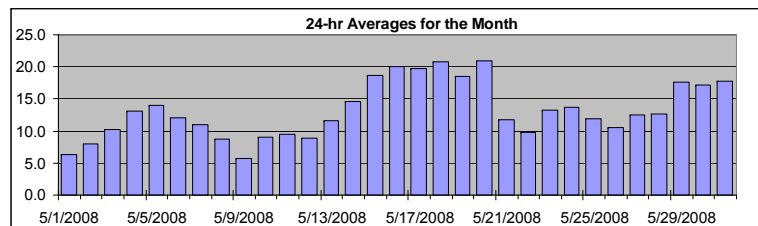
HOURLY AVERAGE TABLE

Ambient Temperature (T)

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Maximum 1-hr Average:	28.7 °C	17-May	15:00 16:00
Maximum 24-hr Value:	21.0 °C	20-May	



AIC Time:	0 hrs	Operational Time:	744 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	27.6	24.8	17.0	12.8	8.8	4.0	0.9	13.2 °C	12.8 °C

Status Flag Characters

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

Day Mountain Standard Time

Hour Start	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-May-08	3	3	3	2	2	2	3	5	7	8	9	10	11	11	12	11	11	8	7	6	5	5	5	5	6.3	11.6
2-May-08	5	4	3	2	2	2	4	5	8	8	10	12	13	14	14	14	14	14	13	10	8	6	4	3	8.1	14.4
3-May-08	2	1	0	0	0	1	4	7	11	14	16	17	17	18	17	17	17	16	14	12	10	9	7	7	10.3	17.7
4-May-08	6	5	4	4	4	4	5	8	12	15	18	19	20	19	20	21	20	20	19	17	15	14	13	12	13.0	20.6
5-May-08	11	11	9	7	6	7	9	12	15	16	17	18	18	19	19	19	18	18	17	16	15	14	13	12	14.0	19.2
6-May-08	12	11	12	11	10	10	10	10	10	10	11	12	14	15	16	15	15	15	14	13	12	11	10	8	12.0	15.9
7-May-08	8	7	7	7	6	6	7	9	11	13	16	17	16	15	15	16	16	15	13	10	10	9	9	8	11.0	16.7
8-May-08	8	8	7	7	8	8	9	10	10	9	9	8	8	9	10	12	12	10	10	8	8	8	7	7	8.8	11.9
9-May-08	5	5	4	5	5	5	5	5	4	4	5	7	5	7	7	7	9	10	10	7	6	5	4	3	5.7	9.8
10-May-08	2	1	1	0	0	1	4	7	10	11	12	14	15	15	15	16	16	15	15	13	12	10	7	6	9.0	16.1
11-May-08	6	5	5	5	5	6	7	8	10	11	11	10	11	14	16	17	13	11	11	11	9	9	8	8	9.4	16.6
12-May-08	7	7	6	6	6	6	7	7	7	7	9	10	12	11	13	13	15	14	13	11	9	7	6	5	8.9	14.5
13-May-08	4	3	2	2	2	4	4	7	11	14	15	16	17	18	18	18	19	18	17	15	14	13	12	12	11.6	18.6
14-May-08	12	10	11	11	11	11	11	12	13	15	15	17	18	19	18	19	19	20	19	17	16	14	12	11	14.6	19.6
15-May-08	10	9	9	10	9	12	13	14	16	19	20	22	24	25	26	27	28	28	27	25	22	21	17	16	18.7	27.7
16-May-08	16	15	15	13	12	11	15	18	20	21	23	24	25	25	26	27	27	27	27	24	21	19	16	13	20.1	27.5
17-May-08	12	11	10	9	9	10	13	16	19	22	25	27	28	28	28	29	28	27	25	23	21	19	18	17	19.7	28.7
18-May-08	16	16	16	16	15	16	16	18	22	23	24	26	27	28	27	27	26	26	24	21	19	17	15	15	20.7	27.7
19-May-08	15	14	14	14	14	14	14	16	18	19	20	21	22	23	23	24	24	24	22	20	18	17	16	17	18.5	23.7
20-May-08	17	18	18	17	16	16	19	20	22	23	25	26	27	28	27	27	24	22	21	20	20	18	17	16	21.0	27.8
21-May-08	16	15	14	13	12	11	11	11	11	12	14	15	16	13	11	11	11	10	10	10	9	9	9	9	11.8	15.9
22-May-08	9	9	9	9	9	9	9	9	8	8	9	8	8	9	10	12	12	11	11	11	11	11	12	12	9.8	12.0
23-May-08	12	11	10	9	8	8	10	11	13	15	16	16	15	16	16	17	15	14	15	15	16	16	14	14	13.3	17.2
24-May-08	14	14	14	14	13	14	13	13	13	12	16	17	18	18	18	16	13	13	12	12	11	11	11	10	13.7	17.8
25-May-08	10	10	10	10	10	10	11	12	12	13	12	13	14	14	15	15	14	14	14	12	11	11	10	8	11.9	14.6
26-May-08	8	7	7	8	7	8	8	8	9	10	10	10	12	14	15	14	15	16	15	14	12	11	8	7	10.5	15.6
27-May-08	5	5	5	4	4	6	9	12	15	16	16	17	18	18	19	19	19	18	18	16	14	11	9	8	12.5	19.3
28-May-08	9	8	5	5	4	6	9	11	13	14	14	16	16	17	18	19	18	18	18	17	16	13	11	10	12.7	18.7
29-May-08	9	9	8	8	8	10	13	15	18	20	22	23	24	25	26	25	24	23	24	22	19	17	16	14	17.7	25.7
30-May-08	14	13	13	12	11	12	14	17	19	20	20	21	21	22	22	22	22	21	21	19	17	15	13	12	17.2	22.3
31-May-08	11	10	9	8	8	10	13	17	19	21	23	24	24	25	25	25	24	24	23	21	19	17	15	14	17.8	25.1
Hourly Avg	9.4	8.9	8.4	8.0	7.6	8.2	9.5	11.3	13.1	14.4	15.6	16.5	17.2	17.8	18.1	18.4	18.0	17.4	16.8	15.2	13.8	12.5	11.1	10.4		
Hourly Max	16.8	18.0	17.6	17.0	16.0	16.2	18.6	20.4	22.1	23.5	25.5	26.8	27.7	28.1	28.0	28.7	28.4	27.7	27.0	24.7	22.3	20.6	17.6	17.3		

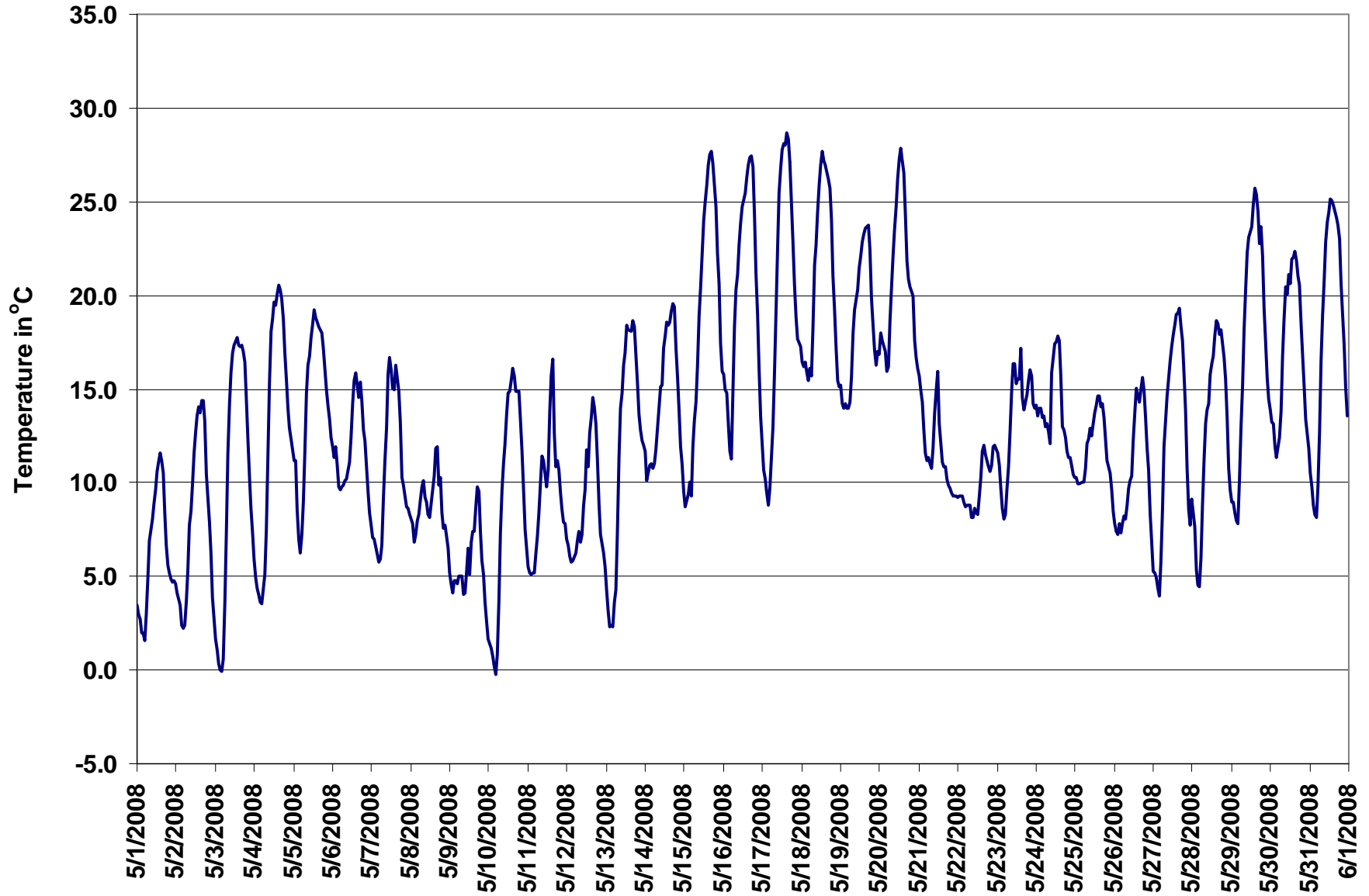


Figure 14. PAS - Crescent Heights Temperature 1-hr Average Monthly Trend



PAS - Crescent Heights Solar Radiation Monthly Summary

Station: Crescent Heights
Station Owner: PAS

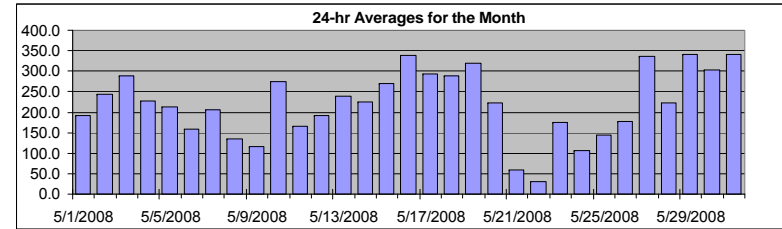
HOURLY AVERAGE TABLE

Solar Radiation (SR)

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Maximum 1-hr Average:	925.1	W/m ²	29-May	14:00 15:00
Maximum 24-hr Value:	341.4	W/m ²	29-May	



AIC Time:	0 hrs	Operational Time:	744 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	884.8	763.7	411.7	70.8	0.0	0.0	0.0	220.6 W/m ²	70.8 W/m ²

Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-May-08	0	0	0	0	0	17	68	198	418	411	356	400	550	561	606	482	315	157	43	3	0	0	0	0	0	191.0	605.6
2-May-08	0	0	0	0	1	40	125	293	445	430	499	634	654	670	597	470	500	325	141	21	0	0	0	0	0	243.5	670.1
3-May-08	0	0	0	0	1	40	149	330	505	640	704	761	862	689	665	619	493	305	143	20	0	0	0	0	0	288.5	861.7
4-May-08	0	0	0	0	1	30	116	263	538	688	636	680	626	466	422	450	301	155	75	14	0	0	0	0	0	227.5	687.9
5-May-08	0	0	0	0	1	46	124	313	495	602	550	608	623	584	380	312	232	157	65	9	0	0	0	0	0	212.7	623.4
6-May-08	0	0	0	0	0	8	33	52	77	180	276	707	639	588	411	356	209	179	88	13	0	0	0	0	0	158.9	706.7
7-May-08	0	0	0	0	1	17	87	229	345	356	742	570	651	535	546	530	203	81	28	7	0	0	0	0	0	205.4	741.8
8-May-08	0	0	0	0	1	38	63	110	145	163	199	181	225	360	641	584	247	69	163	23	0	0	0	0	0	133.9	641.0
9-May-08	0	0	0	0	1	20	107	60	65	86	245	431	121	414	271	182	325	281	133	18	0	0	0	0	0	115.0	431.4
10-May-08	0	0	0	0	3	72	235	395	524	621	729	771	795	591	624	659	291	126	109	22	0	0	0	0	0	273.7	795.3
11-May-08	0	0	0	0	2	36	95	86	171	234	216	199	471	729	720	695	128	126	69	9	0	0	0	0	0	166.1	729.1
12-May-08	0	0	0	0	1	34	53	51	42	104	342	391	806	548	654	481	524	338	181	33	1	0	0	0	0	191.0	806.3
13-May-08	0	0	0	0	9	54	114	353	566	587	712	696	566	695	349	340	374	217	70	23	0	0	0	0	0	238.6	711.5
14-May-08	0	0	0	0	1	16	44	152	290	499	409	808	576	717	429	410	437	357	191	31	1	0	0	0	0	223.7	808.0
15-May-08	0	0	0	0	3	59	99	142	274	498	467	697	861	862	788	673	521	352	149	39	2	0	0	0	0	270.2	862.2
16-May-08	0	0	0	0	6	86	239	410	578	722	828	893	906	874	795	677	526	355	185	39	1	0	0	0	0	338.3	906.3
17-May-08	0	0	0	0	6	88	238	418	583	711	832	848	867	762	509	563	306	191	73	20	1	0	0	0	0	292.4	867.5
18-May-08	0	0	0	0	7	54	113	273	409	310	675	884	903	865	764	644	470	317	181	38	1	0	0	0	0	287.9	903.2
19-May-08	0	0	0	0	8	61	222	385	603	682	810	763	724	885	725	705	534	350	171	35	1	0	0	0	0	319.3	885.4
20-May-08	0	0	0	0	6	42	235	380	516	545	660	726	779	667	344	215	59	66	98	28	1	0	0	0	0	223.6	779.2
21-May-08	0	0	0	0	0	5	14	33	53	124	266	259	459	71	21	36	26	21	37	22	1	0	0	0	0	60.3	458.9
22-May-08	0	0	0	0	1	6	13	32	27	29	44	54	55	88	111	140	99	32	14	5	0	0	0	0	0	31.2	140.3
23-May-08	0	0	0	0	13	107	248	413	537	716	844	257	337	149	166	147	56	67	127	14	1	0	0	0	0	175.0	843.7
24-May-08	0	0	0	0	1	18	36	57	48	121	440	442	396	361	206	176	112	78	36	13	1	0	0	0	0	106.0	442.1
25-May-08	0	0	0	0	2	31	90	162	132	194	117	469	413	443	374	357	247	279	142	15	1	0	0	0	0	144.4	468.6
26-May-08	0	0	0	0	4	28	83	124	153	266	325	306	508	550	671	235	363	364	222	58	4	0	0	0	0	177.6	670.6
27-May-08	0	0	0	0	11	109	256	423	559	734	818	813	878	803	647	669	642	402	255	72	5	0	0	0	0	337.3	877.7
28-May-08	0	0	0	0	12	119	245	399	539	448	355	539	528	506	561	423	280	167	164	43	4	0	0	0	0	222.2	560.8
29-May-08	0	0	0	0	14	126	261	436	587	715	838	857	857	880	925	666	406	337	229	58	4	0	0	0	0	341.4	925.1
30-May-08	0	0	0	0	12	110	264	431	592	734	544	721	527	832	725	649	506	344	218	63	4	0	0	0	0	303.1	832.0
31-May-08	0	0	0	0	15	116	232	428	590	731	841	909	890	918	680	649	509	400	211	35	5	0	0	0	0	339.9	918.2
Hourly Avg	0.0	0.0	0.0	0.0	4.8	52.6	138.7	252.6	367.9	447.7	526.4	589.4	614.7	602.1	526.6	458.0	330.3	225.5	129.4	27.3	1.2	0.0	0.0	0.0	0.0		
Hourly Max	0.0	0.0	0.0	0.1	15.2	125.8	263.6	435.5	603.3	734.3	843.7	908.8	906.3	918.2	925.1	705.0	642.3	401.8	254.7	71.8	4.8	0.4	0.0	0.0	0.0		

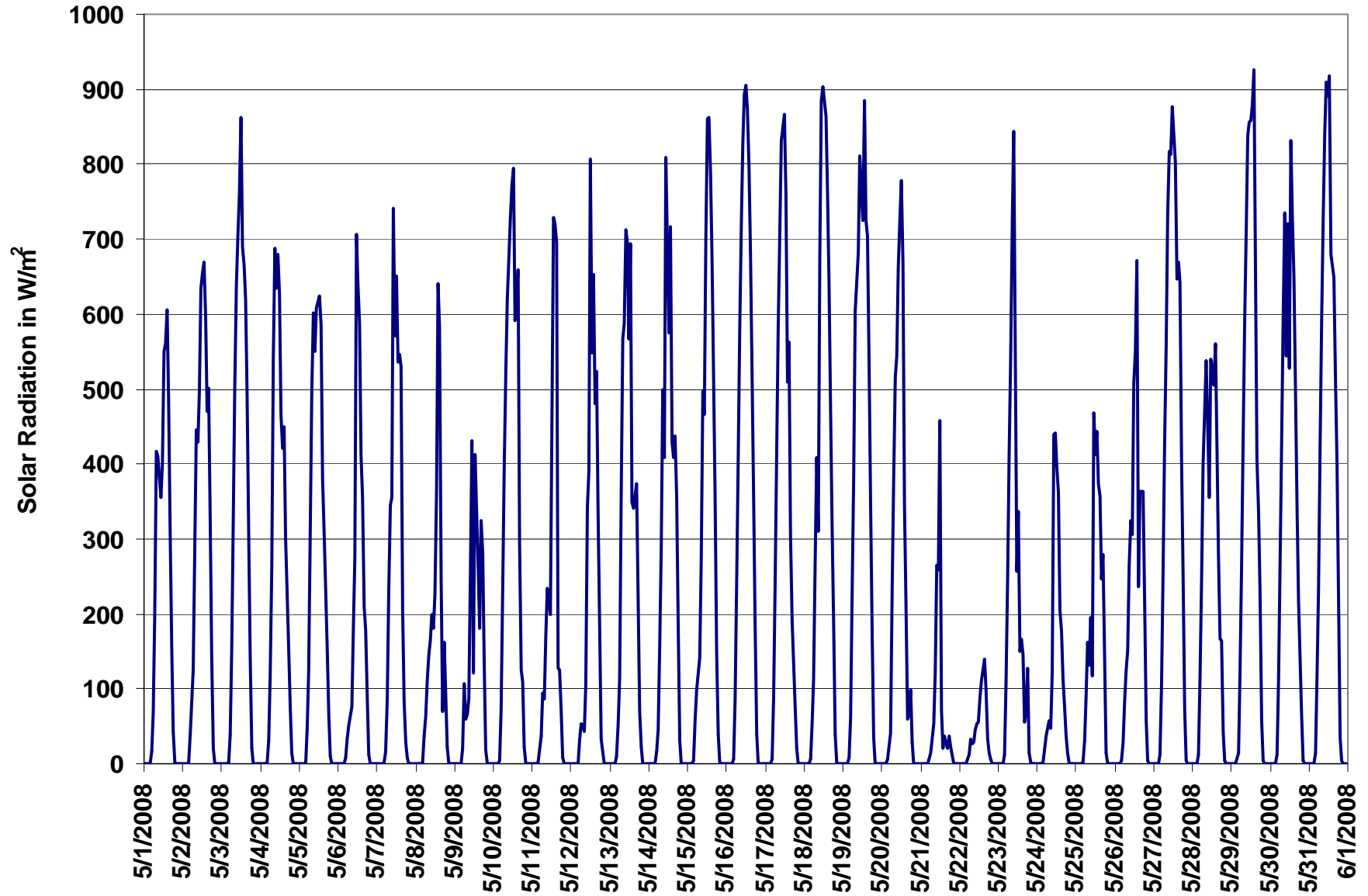


Figure 15. PAS - Crescent Heights Solar Radiation 1-hr Average Monthly Trend



PAS - Crescent Heights Scalar Wind Speed Monthly Summary

Station: Crescent Heights
 Station Owner: PAS

HOURLY AVERAGE TABLE

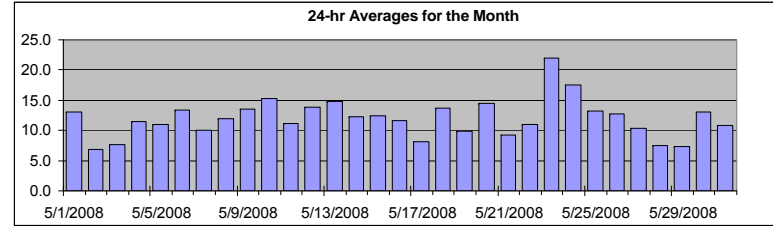
Wind Speed (WSs)

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Maximum 1-hr Average:	37.4	km/hr	23-May	12:00 13:00
Maximum 24-hr Value:	22.0	km/hr	23-May	

Calm Time:	0 hrs	0% calms	Operational Time:	744 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageS
	28.8	22.1	15.3	11.1	7.7	4.8	3.8	12.0 km/hr



Status Flag Characters

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

Day	Mountain Standard Time																							24-hr Scalar Average	Daily Max		
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-May-08	4	7	6	4	7	4	7	13	21	19	16	18	22	22	22	20	19	20	16	13	14	12	5	4	13.0	21.6	
2-May-08	5	10	7	4	6	5	4	6	6	8	9	9	8	7	7	7	7	6	9	7	6	6	8	7	6.8	9.7	
3-May-08	6	6	5	4	5	4	3	5	5	6	7	8	10	9	14	16	14	13	11	6	7	7	5	6	7.7	16.0	
4-May-08	8	9	13	12	9	8	10	12	15	16	11	13	13	12	13	11	12	9	9	8	11	15	13	12	11.4	15.7	
5-May-08	10	11	5	5	5	6	4	8	10	15	16	15	15	14	15	15	13	13	14	13	12	12	11	9	11.1	15.9	
6-May-08	8	9	9	14	14	15	17	18	22	17	16	18	15	11	9	11	11	10	13	8	11	16	17	11	13.3	21.5	
7-May-08	7	4	4	5	5	3	5	4	4	6	7	14	17	20	22	18	12	14	16	14	12	14	8	7	10.0	21.8	
8-May-08	9	12	10	8	7	10	8	8	13	15	9	15	15	17	18	15	10	18	16	17	11	6	10	8	11.9	18.4	
9-May-08	17	16	13	14	14	13	15	20	22	21	20	20	16	18	17	12	10	8	5	6	5	6	7	7	13.5	22.1	
10-May-08	8	8	10	8	7	7	6	12	22	23	27	24	24	25	25	26	25	22	18	11	8	9	12	10	15	15.3	26.6
11-May-08	14	13	13	14	13	12	9	9	14	11	13	10	6	7	7	7	16	9	8	10	14	15	13	9	11.1	15.6	
12-May-08	7	8	11	10	11	11	16	15	13	14	15	16	17	21	18	16	22	24	21	13	10	10	7	7	13.8	23.8	
13-May-08	8	10	11	12	13	14	10	11	15	19	22	19	18	16	14	13	13	11	18	20	16	18	18	17	14.8	21.6	
14-May-08	17	16	12	9	14	10	10	14	11	14	15	13	14	16	18	15	16	15	12	9	8	4	4	8	12.3	18.1	
15-May-08	7	7	12	13	9	9	14	11	12	13	19	18	17	19	18	18	16	15	12	10	9	9	6	7	12.5	18.9	
16-May-08	8	8	7	10	10	6	6	12	24	25	20	17	17	18	16	15	13	11	9	6	6	6	5	6	11.6	24.8	
17-May-08	8	6	7	8	10	10	5	7	9	7	8	9	10	9	8	8	5	7	10	9	10	9	6	10	8.1	10.2	
18-May-08	13	14	14	14	10	7	7	6	5	10	15	17	16	18	19	19	18	20	21	14	14	18	11	7	13.6	21.4	
19-May-08	7	10	9	9	10	10	13	12	11	11	11	10	9	11	10	10	8	7	11	11	10	9	8	10	9.9	13.2	
20-May-08	8	17	18	14	13	15	13	20	19	18	15	16	17	15	14	18	19	13	9	13	12	12	11	9	14.5	19.6	
21-May-08	4	6	6	9	9	5	6	10	8	6	9	8	11	11	13	11	14	14	13	12	12	9	8	9	9.2	14.0	
22-May-08	6	5	6	8	13	15	17	21	16	15	16	16	16	14	9	7	8	9	10	7	10	6	8	6	11.0	20.6	
23-May-08	15	26	24	23	23	20	21	23	26	28	31	36	37	29	25	24	17	12	13	21	25	16	6	6	22.0	37.4	
24-May-08	8	12	16	19	18	18	18	23	25	17	20	30	29	29	29	29	18	9	6	9	8	7	11	11	17.5	29.8	
25-May-08	12	12	7	5	5	5	6	7	10	12	12	10	19	22	23	24	20	21	18	17	15	13	12	11	13.3	24.2	
26-May-08	15	15	13	9	11	10	14	15	15	13	16	15	15	15	15	12	12	14	14	12	10	10	7	6	12.7	16.2	
27-May-08	7	8	9	7	7	6	6	6	9	12	11	11	11	13	12	13	14	14	15	12	13	11	10	10	10.3	14.6	
28-May-08	12	7	6	6	7	6	6	6	9	8	8	9	10	9	9	7	7	8	6	8	9	8	6	5	7.5	11.9	
29-May-08	4	5	3	4	4	3	4	4	5	5	6	8	8	7	8	8	11	13	9	9	9	4	9	24	7.3	24.4	
30-May-08	26	20	10	10	10	9	8	10	10	12	15	12	14	15	18	18	18	19	17	13	9	7	3	5	13.0	26.3	
31-May-08	6	6	6	6	5	6	5	12	20	19	16	13	13	13	13	14	18	18	16	11	8	7	5	5	10.9	20.0	
1-hr Average	9.5	10.4	9.7	9.6	9.8	9.1	9.4	11.6	13.8	14.0	14.5	15.1	15.5	15.6	15.4	14.8	13.9	13.3	12.5	11.2	10.7	10.2	8.6	8.8			
Hourly Max	26.3	26.0	23.8	22.6	23.2	19.6	21.0	23.5	26.2	27.7	31.3	35.8	37.4	29.1	29.0	29.0	22.2	23.8	21.4	21.0	24.9	18.3	17.5	24.4			



PAS - Crescent Heights Vector Wind Speed Monthly Summary

Station: Crescent Heights
 Station Owner: PAS

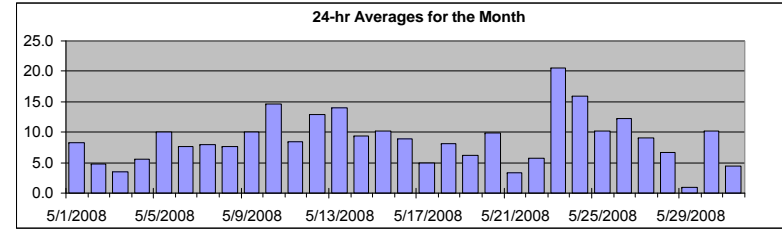
HOURLY AVERAGE TABLE

Wind Speed (WSv)

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Maximum 1-hr Average:	37.1	km/hr	23-May	12:00 13:00
Maximum 24-hr Value:	20.6	km/hr	23-May	



Calm Time:	0 hrs	0% calms	Operational Time:	744 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageV
	28.1	21.8	14.6	10.4	6.7	3.6	1.7	1.5 km/hr

Status Flag Characters

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

Day	Mountain Standard Time																							24-hr Vector Average	Daily Max		
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-May-08	3	6	4	2	7	3	5	13	20	18	15	17	21	21	21	20	18	19	15	13	14	12	4	4		8.2	21.3
2-May-08	5	10	6	2	6	5	2	5	5	7	7	8	5	3	3	3	6	5	8	7	6	6	8	7		4.8	9.6
3-May-08	6	6	5	4	5	4	3	5	4	3	4	5	7	7	13	15	14	13	11	6	6	6	4	6		3.6	15.1
4-May-08	7	9	13	12	9	8	10	12	15	15	8	12	11	12	12	11	11	9	9	8	11	14	13	11		5.6	15.4
5-May-08	9	11	5	4	5	5	4	7	10	15	15	15	15	14	14	14	13	13	14	12	7	11	10	8		10.0	15.3
6-May-08	8	9	6	14	14	15	17	18	21	17	15	17	14	10	7	9	10	10	12	8	10	16	17	11		7.7	21.5
7-May-08	7	4	4	4	4	2	4	2	3	5	5	12	16	19	22	17	11	14	12	14	11	13	7	7		8.0	21.6
8-May-08	8	9	10	7	7	9	8	8	10	14	6	15	14	17	18	14	8	11	13	16	7	5	10	7		7.6	17.8
9-May-08	16	16	13	14	14	13	14	20	22	21	20	20	16	17	17	12	9	8	3	5	5	5	7	7		10.0	21.9
10-May-08	8	8	10	7	7	6	5	12	21	22	26	23	25	25	26	25	22	17	11	8	9	11	9	15		14.7	26.1
11-May-08	14	13	13	14	13	12	8	9	13	11	12	10	5	4	5	3	15	3	8	5	14	15	12	9		8.4	15.1
12-May-08	7	8	11	10	10	11	16	14	13	13	15	16	16	21	18	16	22	24	20	13	10	10	6	6		12.9	23.7
13-May-08	8	10	11	12	13	13	10	11	15	18	21	18	18	15	14	13	12	11	18	19	16	18	17	17		13.9	20.9
14-May-08	17	16	11	8	14	10	10	14	10	13	15	12	13	15	18	15	16	14	12	8	8	3	4	7		9.4	17.5
15-May-08	7	7	12	13	8	8	14	11	11	12	18	17	16	18	18	17	15	14	12	10	9	9	5	2		10.2	18.4
16-May-08	8	7	6	10	9	5	5	9	24	25	20	16	16	17	15	15	12	10	8	6	4	5	5	6		8.9	24.6
17-May-08	7	6	7	8	10	10	5	7	8	6	5	8	8	7	6	6	2	7	10	9	9	8	5	9		4.9	10.1
18-May-08	13	13	14	14	9	5	5	6	1	10	14	17	16	17	18	19	18	20	21	14	14	18	11	7		8.2	21.3
19-May-08	7	10	9	9	10	10	13	12	11	10	10	8	7	8	8	7	5	5	11	11	10	9	8	10		6.2	13.0
20-May-08	8	17	17	13	13	15	12	19	19	18	14	15	16	15	13	18	18	10	7	12	12	10	11	8		9.9	19.4
21-May-08	3	4	4	8	3	3	5	10	8	6	8	7	11	9	12	10	13	14	12	11	12	9	8	8		3.3	13.6
22-May-08	6	4	5	8	13	15	17	20	16	15	16	16	16	14	8	6	7	8	10	6	8	3	7	5		5.8	20.4
23-May-08	15	26	24	23	23	19	21	23	26	27	31	35	37	28	24	24	17	11	13	21	25	14	4	3		20.6	37.1
24-May-08	8	12	16	19	18	18	23	24	17	20	29	29	29	29	29	28	18	9	6	9	7	7	10	11		15.9	29.5
25-May-08	12	12	7	5	5	5	6	7	10	12	12	9	19	22	22	24	20	20	18	17	15	13	11	11		10.1	23.8
26-May-08	14	15	13	7	10	10	13	15	15	13	16	14	14	15	15	12	11	14	14	12	10	10	6	6		12.3	15.9
27-May-08	6	7	9	6	7	6	6	6	8	11	9	10	10	12	11	12	13	14	14	12	13	11	10	10		9.1	14.3
28-May-08	12	6	6	6	7	6	6	5	9	6	6	7	9	9	7	5	6	7	4	8	9	8	6	5		6.7	11.8
29-May-08	4	5	1	1	4	2	2	1	3	0	3	7	5	4	3	4	9	13	9	3	9	4	5	24		1.0	23.9
30-May-08	26	20	6	10	10	9	8	9	10	11	15	12	14	14	17	18	18	19	17	13	9	6	2	5		10.2	26.0
31-May-08	6	5	5	6	5	6	4	12	20	19	14	12	12	12	12	14	18	18	16	11	8	6	0	4		4.4	19.7
1-hr Vector	0.5	2.1	1.2	1.8	1.2	0.5	1.2	1.5	0.9	0.7	3.0	3.8	3.6	2.6	3.1	2.9	3.0	3.4	3.4	1.8	1.8	1.1	1.2	1.1			
Hourly Max	26.0	25.9	23.7	22.6	23.1	19.4	20.8	23.2	25.9	27.4	31.0	35.4	37.1	28.9	28.7	27.7	21.8	23.7	21.3	21.0	24.8	18.1	17.5	23.9			



PAS - Crescent Heights Wind Direction Monthly Summary

Station: Crescent Heights
Station Owner: PAS

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Calm Time:	0 hrs	0% calms	Operational Time:	744 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	Average
	355.7	344.8	273.2	188.0	91.0	22.0	2.8	38 deg

Status Flag Characters

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

Day	Mountain Standard Time																							24-hour Average	WD Sector	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00		
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-May-08	138	228	303	187	250	191	317	336	349	345	337	356	347	1	356	18	30	59	74	83	85	95	75	51	14	NNE
2-May-08	71	75	106	168	252	258	114	117	91	55	92	98	78	209	65	27	67	82	132	134	107	106	112	130	100	E
3-May-08	137	136	135	128	133	119	93	113	60	281	90	95	27	357	6	8	351	354	20	9	338	322	239	217	27	NNE
4-May-08	210	221	223	232	230	216	229	220	219	219	267	317	311	308	291	272	288	310	333	343	2	26	41	81	274	W
5-May-08	94	83	123	147	348	42	16	83	110	92	91	96	106	107	102	90	84	84	84	93	40	78	99	138	90	E
6-May-08	117	132	333	3	9	8	18	33	52	65	66	74	80	92	89	325	299	301	301	278	311	322	325	333	16	NNE
7-May-08	351	132	136	263	209	160	230	124	159	217	158	137	151	157	156	161	161	139	190	223	206	213	155	131	169	S
8-May-08	61	86	106	84	115	118	146	142	181	240	40	69	65	78	80	86	91	245	88	98	138	151	65	37	98	E
9-May-08	5	24	22	18	31	40	45	49	37	42	36	41	60	72	74	91	95	118	114	320	274	239	198	244	45	NE
10-May-08	236	228	224	191	200	203	187	194	194	192	199	196	209	206	203	200	204	203	251	241	230	231	246	230	208	SSW
11-May-08	235	241	240	240	237	233	233	247	224	231	276	336	270	213	166	227	322	160	131	188	275	273	262	282	245	WSW
12-May-08	319	322	319	324	336	343	5	3	356	352	2	1	22	21	11	351	345	343	345	344	339	343	304	255	350	N
13-May-08	230	225	232	234	226	219	228	225	214	212	213	224	238	252	265	270	268	262	258	257	259	262	260	260	242	WSW
14-May-08	259	212	223	264	285	312	328	341	320	336	342	350	329	314	326	319	323	311	327	335	3	6	229	217	311	NW
15-May-08	218	188	231	228	237	299	327	309	303	293	327	320	305	304	305	288	292	296	288	270	267	269	225	198	287	WNW
16-May-08	318	276	297	240	244	200	207	321	342	335	332	322	319	315	293	303	295	294	305	302	324	28	138	161	309	NW
17-May-08	190	169	192	198	220	231	208	232	237	227	231	259	237	276	283	275	219	108	116	123	123	118	143	244	208	SSW
18-May-08	236	233	232	230	230	193	166	182	252	290	325	344	355	340	341	348	348	352	6	3	351	354	349	306	325	NW
19-May-08	295	304	300	281	288	294	302	295	284	294	317	296	289	259	243	261	196	226	189	192	187	148	153	153	263	W
20-May-08	159	188	188	186	197	201	194	198	203	200	188	191	199	180	191	216	230	339	70	56	88	183	58	107	187	S
21-May-08	103	92	92	103	229	287	235	228	203	176	137	173	110	301	307	313	326	317	304	284	255	227	198	197	253	WSW
22-May-08	188	174	89	87	82	84	87	98	72	71	81	82	78	41	3	296	262	263	311	277	310	331	87	30	67	ENE
23-May-08	82	72	72	73	78	76	78	78	76	71	67	89	95	104	92	86	126	71	33	52	52	80	183	10	78	ENE
24-May-08	84	102	92	103	76	63	59	72	73	81	68	72	74	77	60	82	97	90	80	75	24	15	352	335	72	ENE
25-May-08	329	328	325	335	354	346	340	12	359	16	56	23	360	6	15	32	51	62	64	79	90	105	99	90	33	NNE
26-May-08	90	94	103	105	68	88	86	82	100	90	75	79	102	106	107	118	99	94	79	75	81	89	115	131	93	E
27-May-08	121	91	86	47	55	78	104	109	175	138	138	137	136	129	139	145	146	141	162	164	163	122	128	144	133	SE
28-May-08	174	146	115	107	110	122	119	125	113	144	150	153	117	98	127	143	164	166	148	81	60	98	112	135	127	SE
29-May-08	150	79	9	27	206	201	175	153	122	343	162	195	262	234	256	105	68	31	70	179	203	156	46	352	97	E
30-May-08	1	16	354	219	256	273	247	285	288	315	346	333	346	329	328	329	329	352	351	358	357	355	281	150	333	NNW
31-May-08	162	184	160	142	139	126	175	208	208	215	232	252	291	290	281	312	331	331	345	349	1	14	187	192	266	W
Hourly Avg	156	134	167	184	226	131	63	79	97	349	40	53	44	22	13	2	346	360	24	38	15	44	118	195		



PAS - Crescent Heights Standard Deviation of Wind Direction Monthly Summary

Station: Crescent Heights
Station Owner: PAS

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	744 hrs			
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%			
Percentile	99	95	75	50	25	5	1
	79.1	62.7	25.2	14.7	10.0	6.0	4.5

Status Flag Characters

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

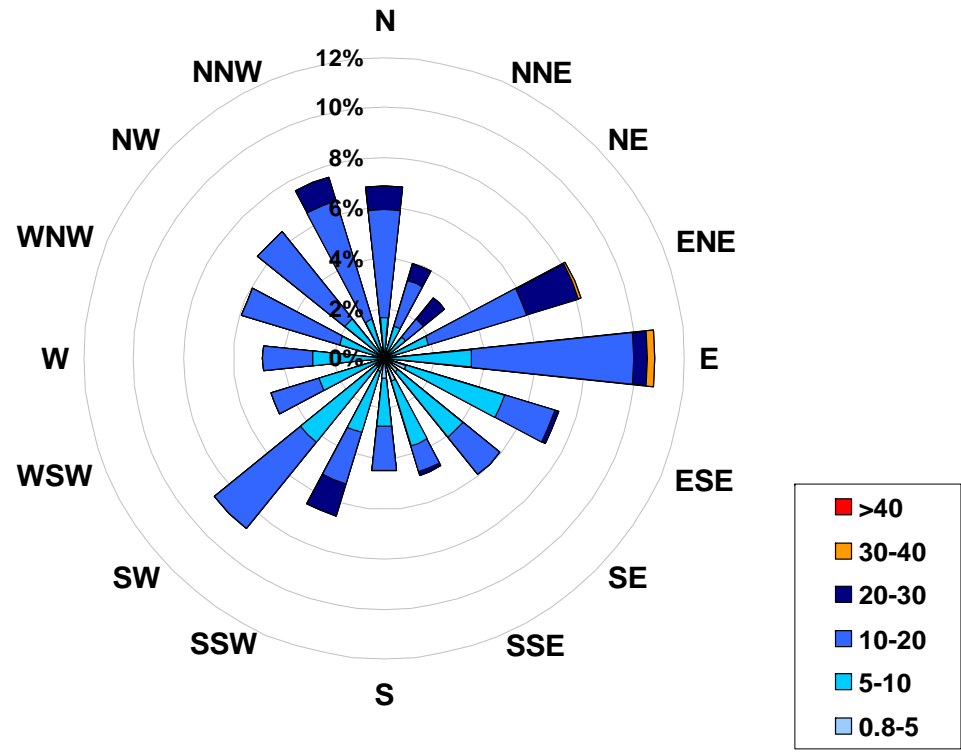
Day Mountain Standard Time

Hour Start	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	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-May-08	38	40	55	77	18	40	45	10	13	9	14	10	10	11	10	13	17	12	14	10	8	8	33	14	76.7	
2-May-08	16	7	27	68	12	21	78	34	34	26	32	36	58	72	69	73	50	59	20	9	6	9	4	12	77.7	
3-May-08	8	6	10	16	17	21	42	15	44	66	63	58	60	50	21	22	15	18	15	6	16	44	35	11	66.1	
4-May-08	24	7	8	6	7	12	10	9	9	12	48	23	30	21	25	20	23	18	12	6	8	14	14	14	47.7	
5-May-08	10	13	17	43	34	41	27	33	14	18	16	16	14	16	17	15	11	10	8	36	60	22	21	22	59.7	
6-May-08	15	15	67	7	8	6	9	10	5	8	11	13	21	30	40	30	26	19	13	13	14	6	5	14	66.9	
7-May-08	22	29	38	49	50	54	28	68	65	41	55	36	14	8	9	10	16	11	41	14	15	15	31	18	67.7	
8-May-08	23	46	22	22	21	15	15	14	41	20	62	18	15	10	12	17	35	65	41	17	49	51	21	18	65.2	
9-May-08	9	8	12	8	13	19	10	10	7	9	8	15	15	13	11	16	23	19	54	54	22	30	20	11	54.3	
10-May-08	9	12	11	24	8	16	15	15	11	10	11	12	13	13	14	12	10	14	12	13	13	11	10	6	24.4	
11-May-08	7	6	7	7	8	11	15	13	12	16	17	14	39	66	56	66	25	72	23	65	9	11	7	17	72.3	
12-May-08	24	16	11	13	28	13	5	9	11	10	9	10	22	12	17	14	11	6	4	5	7	5	23	20	27.9	
13-May-08	10	12	7	6	11	8	7	10	13	12	14	22	13	19	14	13	15	13	7	6	6	6	5	5	21.9	
14-May-08	11	11	21	46	9	16	16	14	21	16	20	26	25	21	14	15	14	16	12	10	6	78	25	7	77.7	
15-May-08	9	18	11	7	13	20	8	12	11	15	14	19	17	15	15	13	16	12	13	8	5	7	54	86	86.0	
16-May-08	19	21	32	6	9	38	31	49	8	9	13	16	17	18	19	15	17	17	12	17	52	45	15	17	52.5	
17-May-08	26	24	6	13	8	10	21	11	17	36	60	31	37	50	43	45	72	23	8	15	9	11	38	19	72.0	
18-May-08	9	5	4	6	30	44	45	30	82	12	18	12	13	17	18	12	11	11	5	4	7	10	14	14	81.6	
19-May-08	17	12	12	12	10	11	9	18	19	21	24	37	45	45	44	50	63	53	17	6	10	12	15	9	63.3	
20-May-08	20	8	8	7	7	6	10	9	12	14	15	20	17	16	20	10	13	39	42	10	22	44	10	24	43.7	
21-May-08	65	50	61	14	75	84	41	10	23	19	26	26	11	69	13	23	19	14	10	14	8	23	14	12	84.2	
22-May-08	18	26	23	8	8	9	6	7	11	8	9	10	14	15	23	31	30	19	14	45	35	79	28	26	79.0	
23-May-08	22	5	5	5	6	8	8	8	9	7	8	9	8	9	8	10	12	24	10	5	4	33	50	59	58.9	
24-May-08	12	10	9	10	9	12	9	6	7	11	8	8	7	8	8	18	9	21	16	17	32	15	15	7	31.6	
25-May-08	8	7	15	9	12	14	12	22	13	9	13	20	10	7	11	10	11	11	10	10	10	9	7	8	22.3	
26-May-08	10	7	12	36	19	9	23	9	11	14	12	17	17	13	15	15	16	13	13	8	7	8	17	15	35.6	
27-May-08	11	19	10	13	12	18	14	13	41	30	29	26	34	27	31	28	23	16	12	12	7	16	6	15	41.2	
28-May-08	7	25	15	15	8	18	16	38	20	49	50	42	25	27	43	50	38	26	43	9	5	9	7	12	50.1	
29-May-08	38	17	91	70	18	48	52	79	54	95	75	44	67	72	80	68	36	18	13	73	18	29	56	11	95.2	
30-May-08	9	12	65	13	14	17	13	17	15	25	13	22	15	17	13	13	16	9	6	5	5	48	56	26	64.7	
31-May-08	18	26	27	22	23	9	44	20	10	12	26	25	23	28	27	18	13	11	10	4	4	44	91	48	90.7	

Hourly Max	65	50	91	77	75	84	78	79	82	95	75	58	67	72	80	73	72	72	54	73	60	79	91	86
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1-hr Average Wind Rose (in km/hr) Located at the Crescent Heights Site for May 2008



Calms: 0%

Frequency Distribution of Wind in km/hr			Frequency (hrs)
Range			
0.8	<	5	45
5	to	10	276
10	to	20	361
20	to	30	59
30	to	40	3
	>	40	0
Total Non-Zero Values			744



PAS – Portable-Brooks

Monthly Summary Tables, Graphs and Roses



PAS – Brooks Sulphur Dioxide Monthly Summary

Station: Portable-Brooks
 Station Owner: PAS

HOURLY AVERAGE TABLE

Sulphur Dioxide (SO₂)

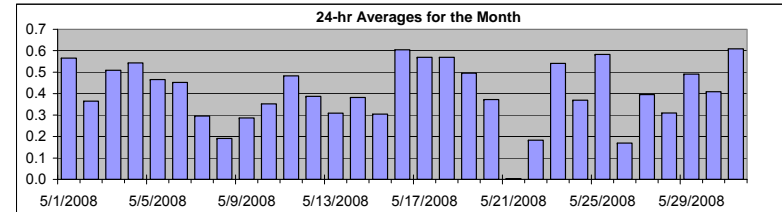
Monitoring Dates: May 1, 2008 to June 1, 2008

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

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	3.2 ppb	25-May	15:00	16:00
Maximum 24-hr Average:	0.6 ppb	31-May		

AIC Time:	33 hrs	Operational Time:	709 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	1.6	1.0	0.5	0.3	0.2	0.1	0.0	0.4 ppb	0.3 ppb



Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00			23:00 0:00
1-May-08	1	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	2	2	2	1	A	0	0	0	0	0.6	2.0
2-May-08	0	0	0	0	0	0	2	2	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	1.6
3-May-08	0	1	1	0	0	0	1	1	1	1	0	0	0	0	0	0	0	A	1	1	1	1	1	1	0.5	1.0	
4-May-08	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	A	1	0	3	1	0	0	1	0.5	2.5	
5-May-08	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	0.5	1.0	
6-May-08	0	0	0	0	0	0	0	0	1	1	1	1	1	1	A	1	1	1	1	0	0	0	0	0	0.5	1.1	
7-May-08	0	0	0	0	0	0	0	0	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.8	
8-May-08	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0.2	0.6	
9-May-08	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4	
10-May-08	0	0	0	0	0	0	1	1	1	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5	
11-May-08	0	0	0	0	0	0	0	0	0	1	A	1	0	0	1	1	1	1	1	1	0	0	0	0	0.5	1.3	
12-May-08	0	0	0	0	0	0	0	0	0	A	1	1	1	0	1	1	0	0	0	1	0	0	0	1	0.4	1.2	
13-May-08	1	0	0	0	0	0	1	A	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.3	0.9	
14-May-08	0	0	0	0	1	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.4	0.6	
15-May-08	1	1	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.3	0.6	
16-May-08	1	1	1	0	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.6	1.1	
17-May-08	1	1	1	A	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.6	0.8	
18-May-08	1	0	A	0	0	1	1	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.6	1.4	
19-May-08	0	A	0	0	0	0	1	0	1	1	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0.5	1.4	
20-May-08	A	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0.4	1.8	
21-May-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
22-May-08	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
23-May-08	A	0	1	0	0	2	2	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	A	0.5	1.6	
24-May-08	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	A	0	0.4	1.1	
25-May-08	0	0	0	0	0	1	1	1	1	1	0	1	1	1	1	3	2	0	0	0	0	A	0	0	0.6	3.2	
26-May-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.4	
27-May-08	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0.4	1.4	
28-May-08	0	0	0	0	0	0	0	0	0	0	C	C	A	0	1	0	0	0	0	0	0	0	0	0	0.3	0.5	
29-May-08	0	A	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0.5	1.1	
30-May-08	A	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	1	1	0	A	0.4	1.5	
31-May-08	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	0	1	1	0	1	3	A	1	0.6	2.9	
Hourly Avg	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.4	0.6	0.6	0.5	0.4	0.4	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.3	0.3			
Hourly Max	0.7	0.8	0.8	1.2	1.4	1.6	1.6	1.6	1.4	1.5	1.4	1.2	1.3	1.1	1.0	3.2	2.0	1.5	1.3	2.5	1.2	2.9	1.1	1.4			

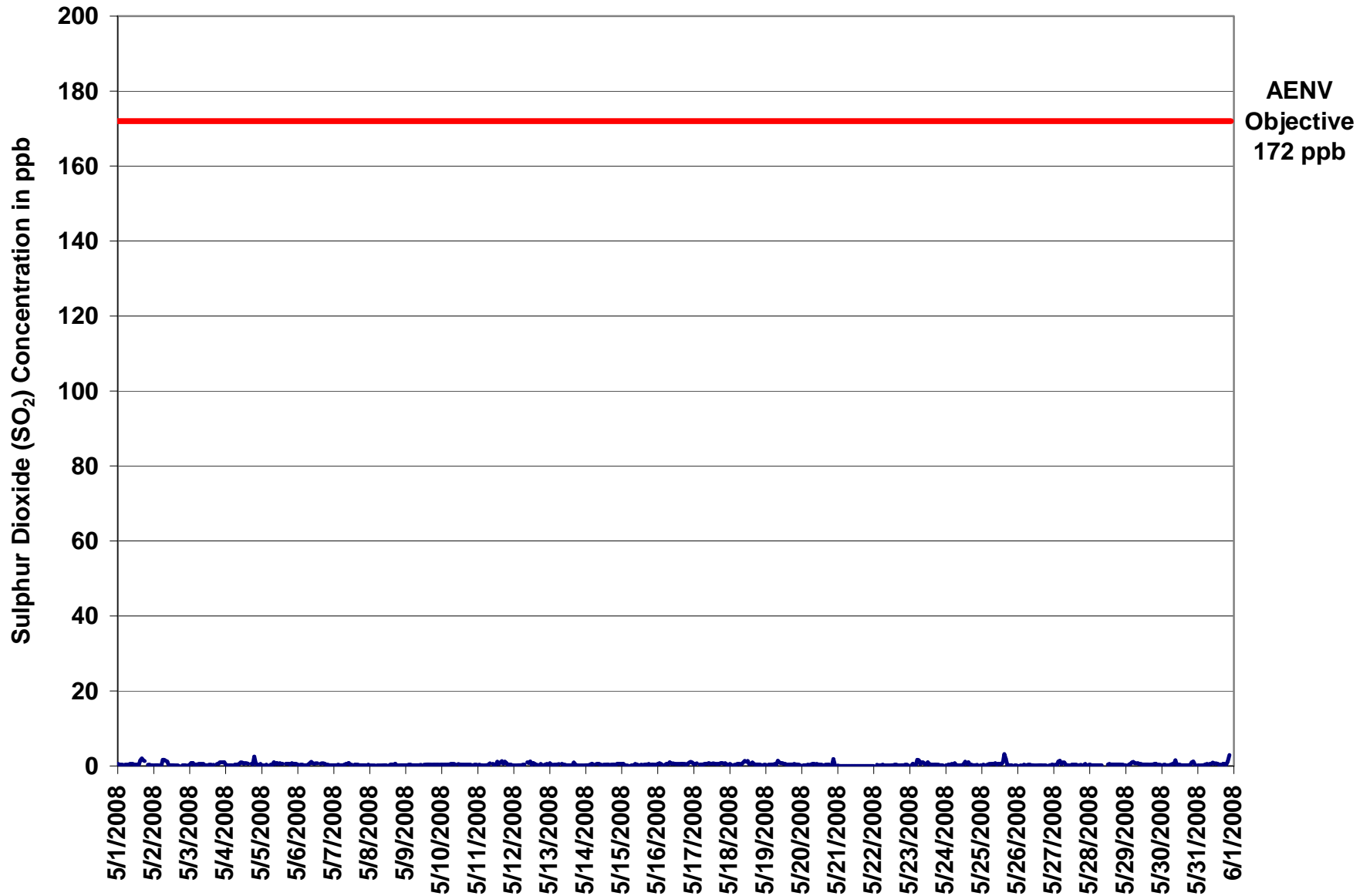


Figure 16. PAS – Brooks Sulphur Dioxide 1-hr Average Monthly Trend



Station: Portable-Brooks
 Station Owner: PAS

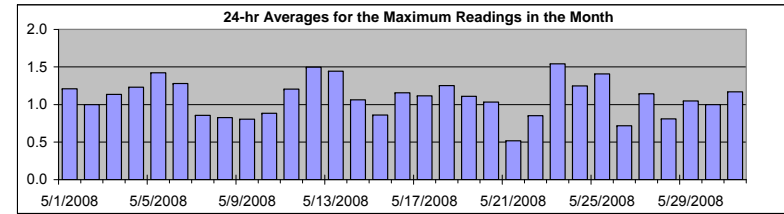
INSTANTANEOUS (30 Second) MAXIMUM TABLE

Sulphur Dioxide (SO₂)

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Maximum 1-hr Value:	9.7	ppb	13-May	16:00 17:00
Maximum 24-hr Value:	1.5	ppb	23-May	



AIC Time:	33 hrs	Operational Time:	709 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	4.1	2.6	1.1	0.9	0.7	0.5	0.5	1.1 ppb	0.9 ppb

Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00			23:00 0:00
1-May-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	2	4	A	1	1	1	1	1.2	3.5
2-May-08	1	1	1	1	1	1	1	3	3	2	3	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.0	3.0
3-May-08	1	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	2	2	2	1.1	2.5
4-May-08	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	A	1	1	4	2	1	1	3	1.2	3.6
5-May-08	1	1	1	1	1	1	1	1	4	2	2	1	1	1	1	A	1	1	1	1	2	3	2	2	1.4	4.1	
6-May-08	1	1	1	1	1	1	1	2	3	4	2	1	1	1	1	A	1	1	1	1	1	1	1	1	1.3	4.1	
7-May-08	1	1	1	1	1	1	1	1	1	1	2	1	1	A	1	1	1	1	1	1	1	1	1	1	0.9	2.2	
8-May-08	1	1	1	1	0	1	1	1	1	1	1	1	A	1	2	2	2	2	1	1	1	1	1	1	0.8	2.3	
9-May-08	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3	
10-May-08	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2	
11-May-08	1	1	1	1	1	1	1	2	1	A	2	1	2	2	1	2	2	1	2	1	2	1	1	1	1.2	2.1	
12-May-08	1	1	1	1	1	1	1	1	A	3	2	3	1	9	4	1	1	1	1	1	1	1	1	1	1.5	8.5	
13-May-08	2	1	1	1	1	1	A	1	1	1	1	1	1	1	2	1	10	5	1	1	1	1	1	1	1.4	9.7	
14-May-08	1	1	1	1	1	1	A	1	1	1	1	1	1	1	3	1	1	1	1	1	2	1	1	1	1.1	2.9	
15-May-08	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4	
16-May-08	1	1	1	1	A	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1.2	2.1	
17-May-08	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1.1	1.6	
18-May-08	1	1	A	1	1	1	1	1	1	2	2	3	4	1	1	1	1	1	1	1	1	1	1	1	1.3	3.7	
19-May-08	1	A	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1.1	2.4	
20-May-08	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	1	A	1.0	4.9	
21-May-08	1	1	1	1	1	0	1	0	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	0.5	0.7	
22-May-08	1	A	2	0	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.1	
23-May-08	A	1	2	1	3	4	3	1	4	2	1	1	3	2	1	1	1	1	1	1	1	1	1	A	1.5	4.4	
24-May-08	1	1	1	1	3	2	2	1	1	1	1	1	2	2	3	1	1	1	1	1	1	1	A	1	1.2	3.0	
25-May-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	6	6	1	1	1	1	A	1	1	1.4	6.2	
26-May-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.4	
27-May-08	1	1	1	3	3	2	2	3	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.1	3.4	
28-May-08	1	1	1	1	1	1	1	1	1	C	C	A	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0	
29-May-08	1	A	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.2	
30-May-08	A	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	2	2	1	A	1.0	3.7
31-May-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	4	A	2	1.2	3.8
Hourly Avg	0.9	0.9	1.0	0.8	1.0	1.0	1.2	1.1	1.3	1.4	1.1	1.0	1.1	1.3	1.2	1.2	1.5	1.1	1.0	1.0	1.1	1.2	0.9	1.0			
Hourly Max	1.6	2.5	2.1	3.4	2.9	4.4	3.2	2.9	4.1	4.1	2.3	3.2	3.7	8.5	3.9	5.6	9.7	5.3	3.5	3.6	2.3	4.9	2.1	2.9			

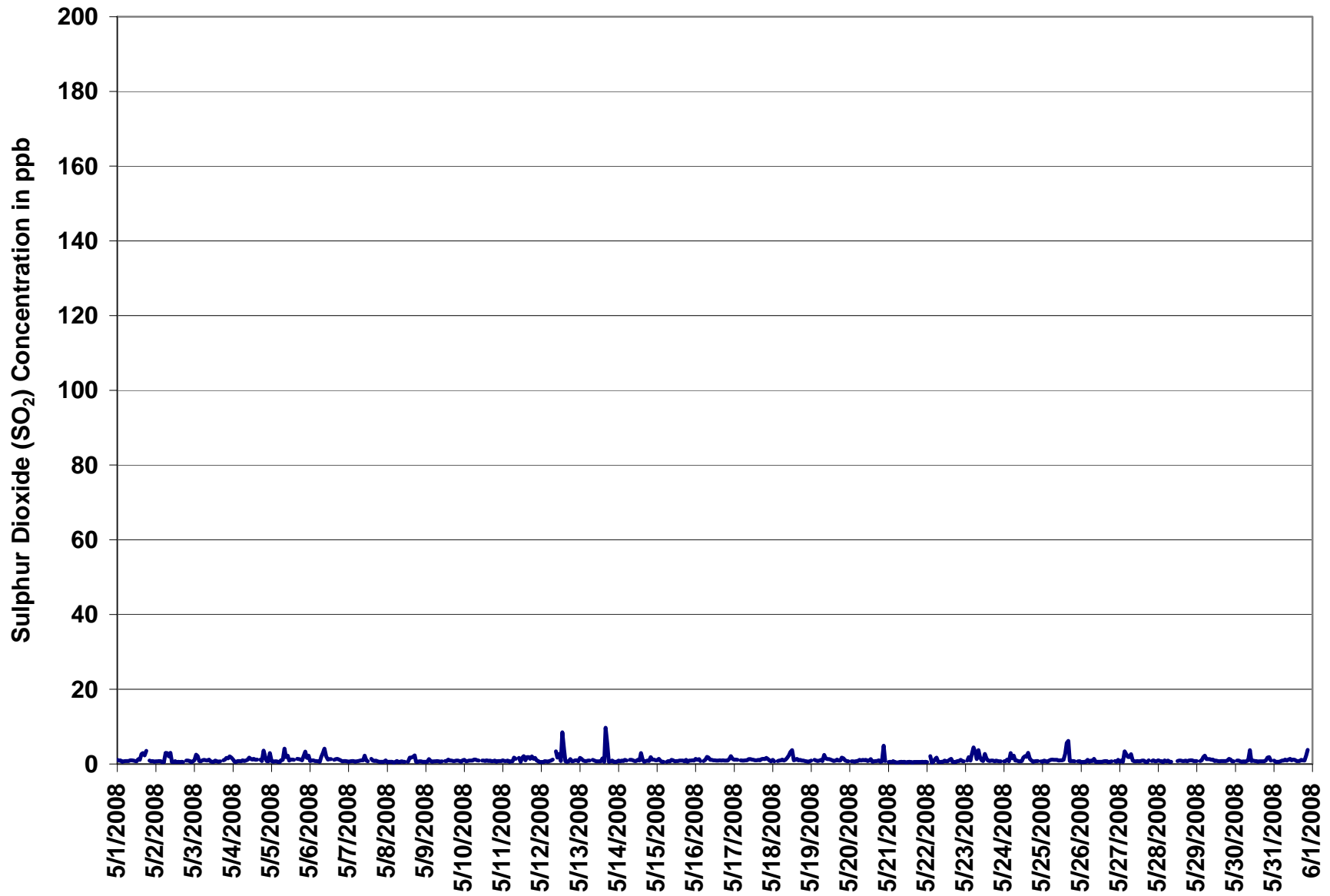
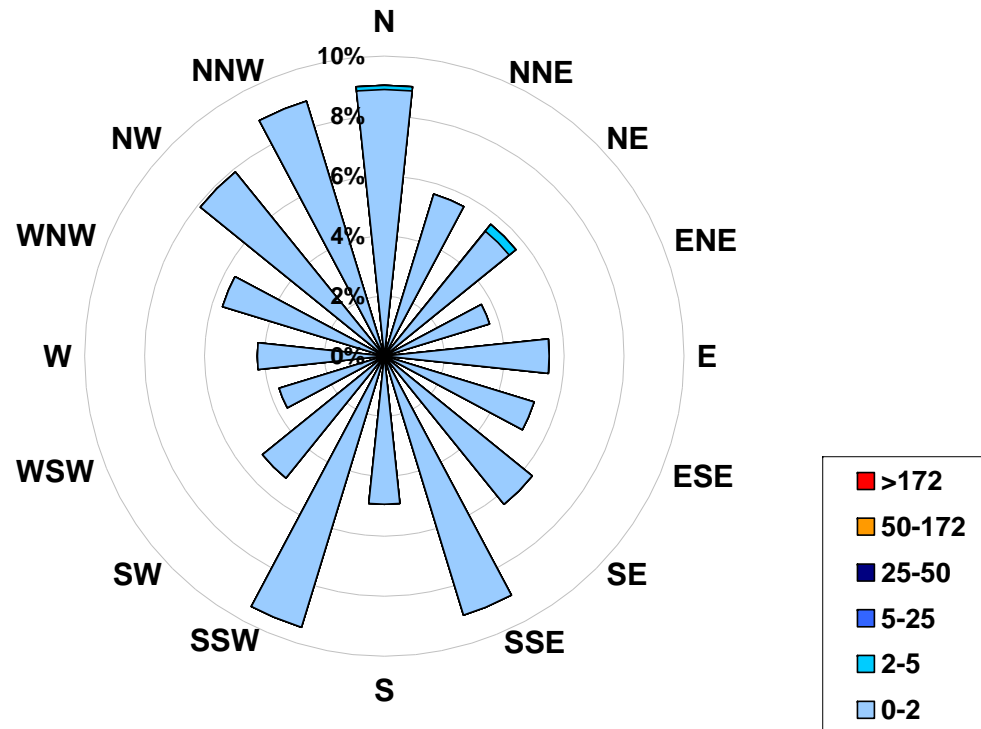


Figure 17. PAS – Brooks Sulphur Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend



1-hr Average Concentration Rose for Sulphur Dioxide (in ppb) Located at the Portable-Brooks Site for May 2008



Calms: 0%

Frequency Distribution of SO ₂ in ppb			
Range		Frequency (hrs)	
0.0	< 2	705	
2	to 5	3	
5	to 25	0	
25	to 50	0	
50	to 172	0	
	> 172	0	
Total Non-Zero Values		709	



PAS – Brooks Ozone Monthly Summary

Station: Portable-Brooks
 Station Owner: PAS

HOURLY AVERAGE TABLE

Ozone (O₃)

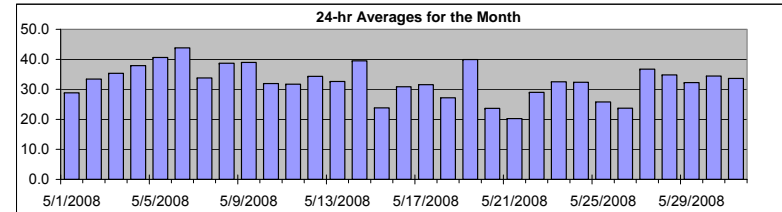
Monitoring Dates: May 1, 2008 to June 1, 2008

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

Summary

Number of 1-hr Exceedances:	0		
Maximum 1-hr Average:	62.7 ppb	6-May	12:00 13:00
Maximum 24-hr Average:	43.8 ppb	6-May	

AIC Time:	33 hrs	Operational Time:	709 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	60.1	55.6	43.7	32.0	21.8	11.7	4.2	32.8 ppb	32.0 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																								24-hour Average	Daily Maximum
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00		
1-May-08	19	11	9	13	18	20	27	29	32	34	36	40	43	40	41	37	34	34	30	A	30	31	30	29	28.9	43.2
2-May-08	25	20	14	19	21	14	12	21	28	30	36	40	44	48	50	50	51	52	A	43	37	39	41	35	33.4	51.6
3-May-08	31	26	23	18	22	11	15	24	28	30	36	48	53	55	55	57	57	A	56	49	46	32	29	12	35.3	57.4
4-May-08	22	20	15	19	20	16	11	25	37	47	56	60	60	59	59	A	59	52	42	35	33	30	36	37.9	59.7	
5-May-08	32	35	34	21	22	14	12	29	37	42	53	58	61	62	61	A	60	58	52	47	40	40	38	28	40.6	61.6
6-May-08	36	40	32	25	28	23	21	28	47	54	57	60	63	62	A	63	58	57	54	49	42	41	35	32	43.8	62.7
7-May-08	21	20	19	21	16	15	17	13	18	21	31	52	53	A	54	53	48	48	45	46	42	43	42	41	33.8	54.2
8-May-08	41	37	40	36	35	32	32	31	31	34	42	31	A	44	45	43	48	50	48	39	34	32	50	37	38.7	50.3
9-May-08	32	34	33	39	38	33	34	40	42	41	42	A	47	49	50	50	50	50	51	42	28	23	28	21	38.9	50.5
10-May-08	20	16	11	14	16	16	20	26	29	35	A	43	46	49	49	52	50	48	43	42	36	29	26	20	31.9	51.9
11-May-08	12	14	13	12	11	9	12	21	26	A	40	49	52	49	48	48	48	50	41	38	32	28	30	31.7	52.4	
12-May-08	28	28	27	25	22	21	23	30	A	42	45	45	46	47	47	49	47	47	46	43	31	28	13	11	34.3	49.3
13-May-08	27	19	11	12	10	11	14	A	25	29	38	47	51	52	52	54	53	52	44	36	33	30	27	25	32.6	54.1
14-May-08	27	30	32	35	38	30	A	36	42	46	51	50	50	51	51	54	55	56	52	36	28	29	17	14	39.5	55.5
15-May-08	12	24	19	20	14	A	14	19	25	31	32	34	36	37	38	42	42	36	33	17	5	4	6	10	23.8	42.1
16-May-08	6	5	12	11	A	9	12	22	28	32	35	39	43	48	53	56	58	60	56	24	26	34	27	14	30.8	60.1
17-May-08	4	9	12	A	2	4	10	20	22	28	42	51	54	58	60	58	56	53	46	38	37	32	17	13	31.5	59.9
18-May-08	14	8	A	4	6	8	8	14	15	25	35	39	40	41	43	46	43	39	37	33	32	35	34	27	27.2	46.3
19-May-08	23	A	32	23	21	22	25	33	37	43	47	49	50	51	52	56	55	53	49	42	39	40	41	39	39.9	55.6
20-May-08	A	24	15	13	12	12	15	21	25	27	30	33	39	43	42	32	25	24	22	20	15	14	19	A	23.7	43.1
21-May-08	20	19	21	18	18	18	17	21	20	20	24	25	25	23	C	C	A	24	23	21	19	17	12	19	20.2	25.4
22-May-08	23	A	16	14	15	12	27	33	33	31	32	33	32	35	39	39	36	34	32	36	35	29	25	25	29.0	39.2
23-May-08	A	19	27	27	25	22	24	28	31	35	38	42	44	45	41	41	41	42	38	28	27	28	23	A	32.5	44.5
24-May-08	21	18	22	29	27	28	26	25	25	24	22	23	34	52	52	49	45	47	46	36	33	37	A	25	32.3	51.7
25-May-08	21	25	18	17	22	22	23	26	28	31	31	32	33	34	32	28	30	30	28	25	23	A	19	18	25.8	34.1
26-May-08	16	14	14	13	9	17	17	17	17	23	26	29	30	32	31	32	35	37	39	33	A	26	19	22	23.7	38.6
27-May-08	13	4	20	23	20	17	27	35	36	42	52	54	56	58	57	57	55	52	48	A	31	27	31	30	36.7	57.7
28-May-08	26	19	15	13	27	30	37	42	44	44	45	46	47	47	46	46	46	47	46	39	27	22	18	17	34.8	47.0
29-May-08	13	A	3	4	8	9	15	16	22	29	35	43	48	48	49	51	50	51	53	44	31	41	42	37	32.3	53.0
30-May-08	A	37	27	24	15	15	23	29	27	40	41	46	49	48	49	46	44	44	43	34	29	26	22	A	34.4	49.0
31-May-08	22	25	18	14	17	16	19	25	29	35	43	47	47	48	50	52	53	55	50	34	28	28	A	21	33.7	54.5
Hourly Avg	21.6	21.4	20.1	19.1	19.1	17.4	19.6	25.9	29.5	34.1	39.1	42.8	45.8	47.1	48.1	48.2	47.3	46.2	43.6	36.5	31.2	30.1	27.2	24.6		
Hourly Max	40.5	40.0	39.9	38.5	37.8	33.1	37.4	41.9	46.5	54.4	56.8	59.9	62.7	62.0	61.2	62.5	60.1	60.1	56.4	49.2	45.5	43.2	49.7	40.9		

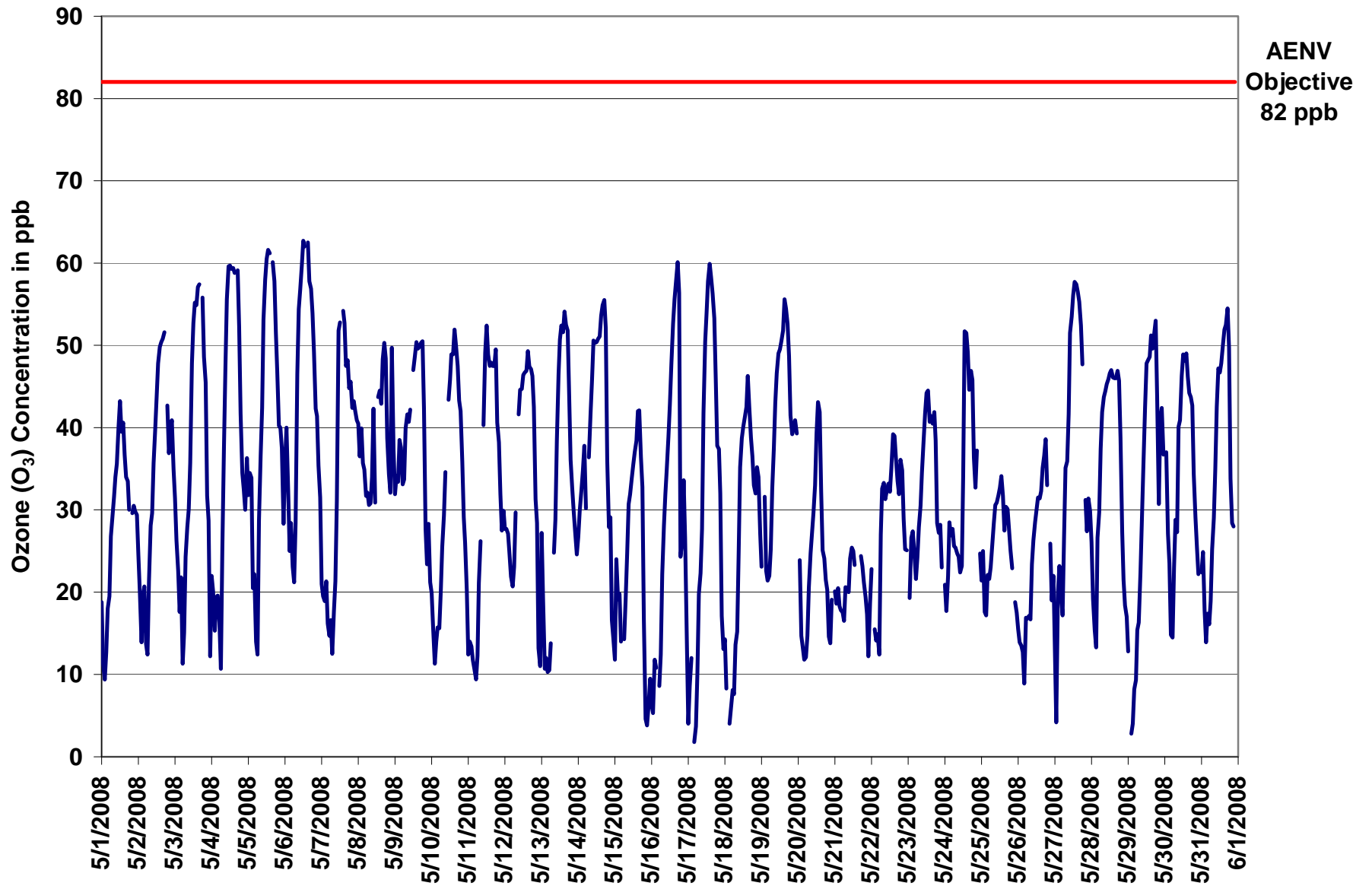


Figure 18. PAS – Brooks Ozone 1-hr Average Monthly Trend



Station: Portable-Brooks
 Station Owner: PAS

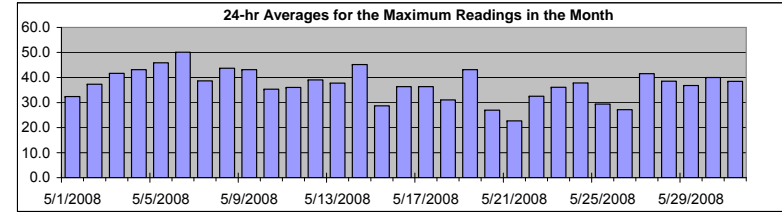
INSTANTANEOUS (30 Second) MAXIMUM TABLE

Ozone (O₃)

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Maximum 1-hr Value:	77.0	ppb	13-May	16:00 17:00
Maximum 24-hr Value:	50.1	ppb	6-May	



AIC Time:	33 hrs	Operational Time:	709 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	62.9	59.1	48.9	36.6	26.9	15.7	10.6	37.2 ppb	36.6 ppb

Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start	Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00			22:00
1-May-08	25	16	15	18	23	22	30	32	34	35	39	43	45	44	42	43	37	36	34	A	32	33	33	34	32.4	45.2	
2-May-08	30	27	20	23	24	19	21	27	32	32	39	44	46	51	51	52	53	54	A	48	41	41	43	41	37.3	53.6	
3-May-08	34	31	30	22	24	17	21	27	30	34	43	54	55	57	57	59	60	A	59	59	56	56	48	26	41.7	60.0	
4-May-08	35	25	19	28	31	23	16	30	44	53	60	61	62	61	62	62	A	62	59	50	38	37	34	41	43.1	62.2	
5-May-08	36	38	40	26	31	20	23	36	40	48	58	61	63	64	63	A	62	61	61	54	50	45	43	35	45.9	63.5	
6-May-08	54	45	51	32	35	29	26	37	54	60	61	64	66	66	A	66	65	63	58	52	47	44	41	36	50.1	66.3	
7-May-08	29	25	26	26	23	21	20	17	23	25	45	57	57	A	57	55	50	51	48	50	47	48	46	44	38.6	57.2	
8-May-08	45	41	43	42	39	34	35	32	33	46	47	33	A	51	46	47	48	54	54	43	38	45	58	49	43.7	58.3	
9-May-08	35	37	39	41	40	37	40	42	44	43	45	A	51	53	56	54	52	52	52	49	39	29	34	28	43.1	55.9	
10-May-08	28	21	14	17	18	18	24	29	32	41	A	46	50	50	51	55	52	50	47	45	42	32	29	24	35.3	54.5	
11-May-08	20	18	17	16	15	13	15	27	28	A	49	54	54	53	51	51	50	52	52	49	44	38	30	32	36.0	54.0	
12-May-08	30	30	29	28	24	24	26	39	A	45	47	48	48	53	50	52	50	49	50	47	40	35	35	20	39.0	53.4	
13-May-08	37	32	15	16	14	14	16	A	29	33	43	52	52	55	54	57	77	56	53	42	35	33	29	27	37.8	77.0	
14-May-08	30	32	36	38	41	35	A	41	44	50	52	52	53	53	56	58	57	58	56	49	38	38	34	39	45.2	58.0	
15-May-08	20	30	25	23	18	A	19	23	28	34	33	37	37	39	41	46	45	41	38	33	19	9	11	13	28.7	45.6	
16-May-08	11	11	16	14	A	13	16	27	32	34	37	41	45	52	55	58	61	63	63	50	38	40	32	27	36.3	62.9	
17-May-08	18	18	16	A	4	7	16	23	24	33	50	53	57	60	62	61	60	57	53	43	40	37	27	17	36.3	61.8	
18-May-08	18	12	A	8	10	12	14	15	19	34	39	41	42	44	47	49	45	43	39	37	39	39	32	32	31.0	49.4	
19-May-08	29	A	34	27	25	28	30	36	41	46	49	51	51	52	55	57	57	56	53	46	43	42	43	41	43.1	57.3	
20-May-08	A	29	20	16	14	15	19	23	28	29	32	36	42	46	44	36	33	28	24	22	17	20	21	A	27.0	45.7	
21-May-08	23	20	23	20	19	20	19	24	24	24	26	28	26	25	C	C	A	26	25	23	21	20	15	26	22.7	27.5	
22-May-08	25	A	17	17	17	16	35	34	37	37	35	36	36	40	43	42	40	37	36	41	38	34	27	27	32.5	43.2	
23-May-08	A	26	29	29	28	24	28	31	33	39	41	48	47	47	44	44	44	47	43	33	30	31	29	A	36.1	48.1	
24-May-08	25	29	30	31	30	31	29	28	27	27	25	29	52	54	55	53	49	56	50	44	41	44	A	33	37.9	56.1	
25-May-08	31	30	22	20	25	25	26	28	32	32	34	34	35	36	36	31	35	34	34	28	27	A	23	21	29.4	35.9	
26-May-08	19	16	15	15	12	20	19	20	19	29	30	30	32	34	33	35	38	39	41	39	A	34	26	30	27.1	41.1	
27-May-08	22	17	26	29	27	23	31	39	39	52	56	56	60	60	59	59	57	57	52	A	36	31	37	32	41.5	60.2	
28-May-08	30	24	20	19	33	37	42	45	46	46	47	49	50	49	49	48	49	50	49	45	33	24	22	20	38.6	50.2	
29-May-08	17	A	6	9	12	14	17	18	27	33	39	47	51	50	52	53	52	55	56	54	43	44	47	50	36.8	55.6	
30-May-08	A	49	35	29	20	18	29	31	29	45	46	49	53	53	54	49	48	47	47	43	35	36	35	A	40.0	54.3	
31-May-08	28	30	27	18	20	18	26	28	33	38	48	49	50	51	54	56	56	59	56	44	33	34	A	28	38.4	58.7	
Hourly Avg	28.0	27.0	25.1	23.2	23.1	21.4	24.2	29.6	32.8	38.6	43.2	46.0	48.9	49.9	51.0	51.4	51.3	49.7	48.1	43.5	37.3	35.7	33.4	31.1			
Hourly Max	54.0	49.0	51.0	41.6	40.9	37.2	41.6	44.9	54.0	59.9	60.8	63.5	66.0	66.1	62.6	66.3	77.0	62.8	62.9	58.7	55.9	55.9	58.3	50.0			

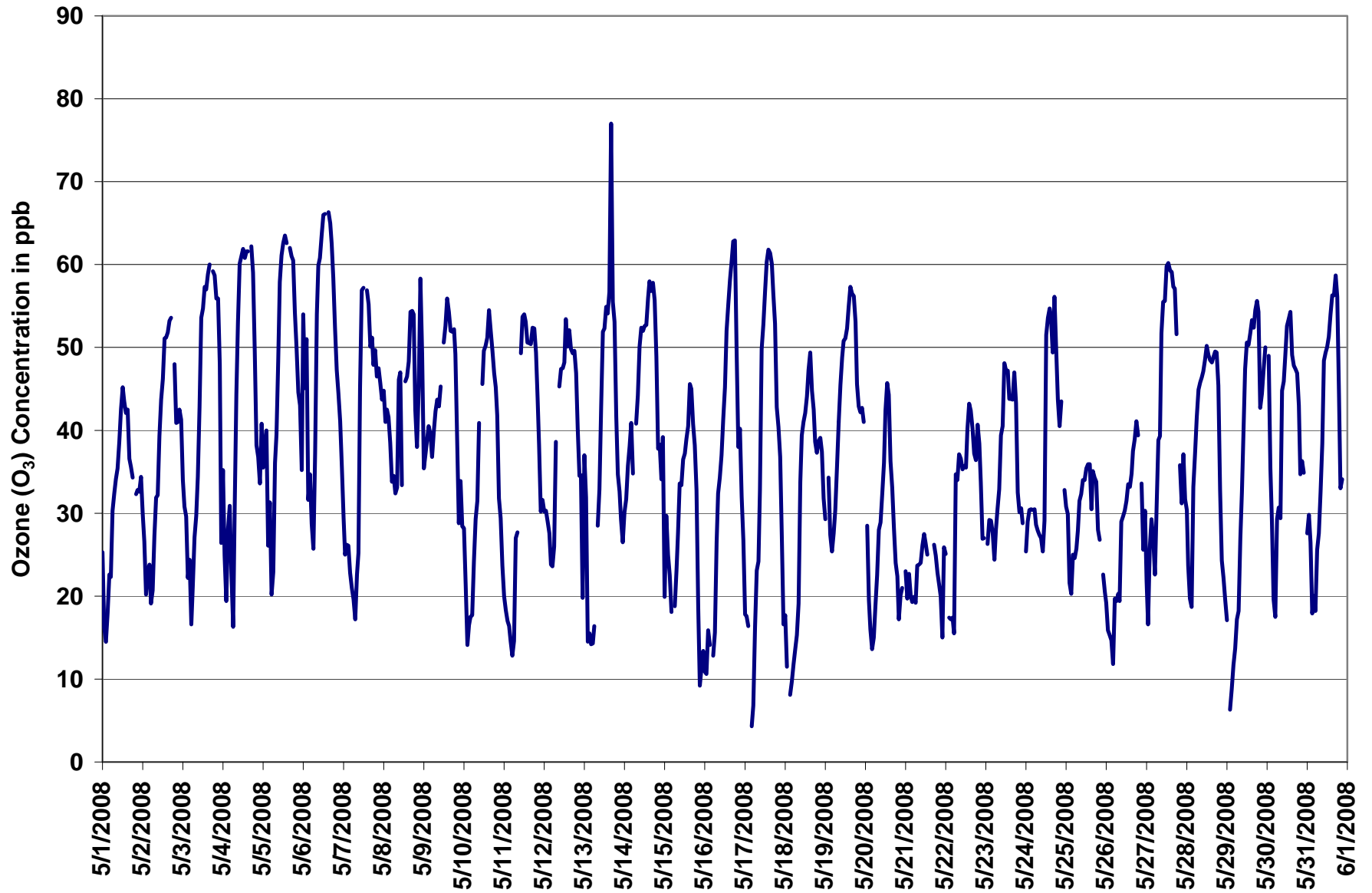
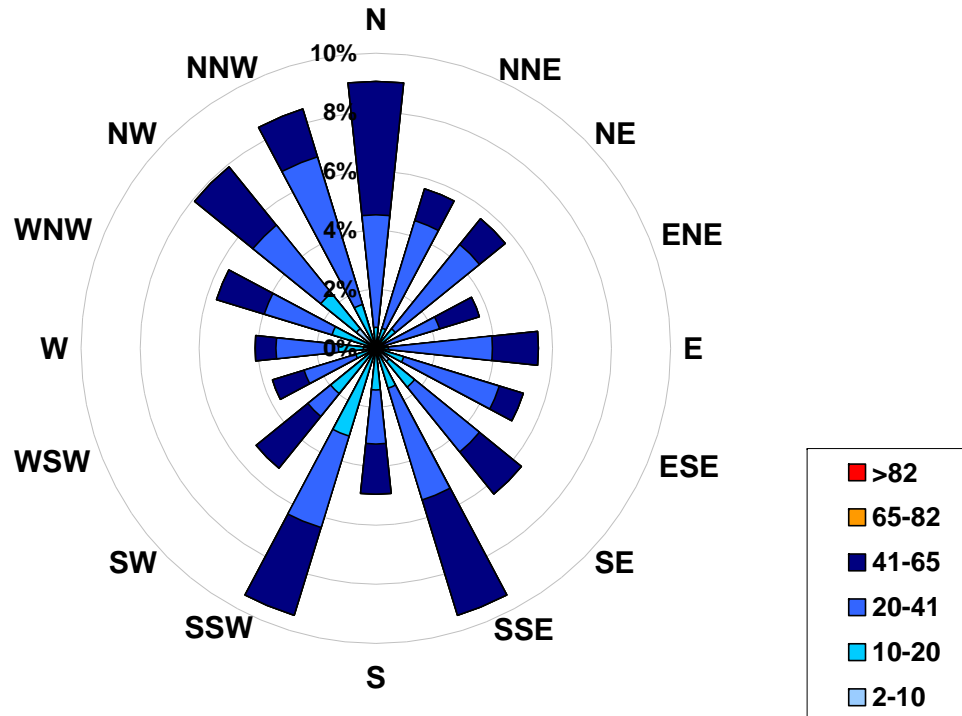


Figure 19. PAS – Brooks Ozone Instantaneous (30 Second) Maximum Value Monthly Trend



1-hr Average Concentration Rose for Ozone (in ppb) Located at the Portable-Brooks Site for May 2008



Calms: 0%

Frequency Distribution of O ₃ in ppb			
Range		Frequency (hrs)	
2.0	< 10	24	
10	to 20	126	
20	to 41	337	
41	to 65	222	
65	to 82	0	
	> 82	0	
Total Non-Zero Values			709



PAS – Brooks Ozone Eight Hour Average Summary

Station: Portable-Brooks
 Station Owner: PAS

EIGHT HOUR RUNNING AVERAGE TABLE

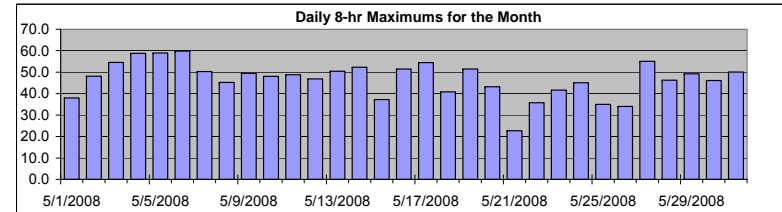
Ozone (O₃)

Monitoring Dates: May 1, 2008 to June 1, 2008

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

Summary

Number of 8-hr Exceedances:	0		
Maximum 8-hr Average:	59.8 ppb	6-May	17:00 18:00



Percentile	99	95	75	50	25	5	1
	57.8	51.2	42.0	32.4	23.9	14.7	8.9

Status Flag Characters

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

Day Mountain Standard Time

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	Daily Maximum
1-May-08	30	24	19	16	16	16	17	18	20	23	26	29	32	35	37	38	38	38	37	37	35	34	32	31	38.0
2-May-08	30	28	25	25	24	21	19	18	19	20	23	25	28	32	37	41	43	46	48	48	47	46	45	42	48.1
3-May-08	40	36	34	31	29	26	23	21	21	23	27	31	36	41	45	49	52	54	55	54	50	46	40	54.5	
4-May-08	35	33	28	24	21	19	17	19	21	24	29	34	39	44	50	55	57	59	58	56	52	48	44	41	58.8
5-May-08	40	37	34	32	30	28	26	25	25	26	29	33	38	44	50	53	57	59	59	57	54	51	48	45	58.9
6-May-08	42	40	38	35	33	31	29	29	31	32	35	40	44	49	53	58	59	60	59	58	55	52	50	46	59.8
7-May-08	41	37	32	29	26	22	20	18	17	17	19	23	27	29	34	40	44	48	50	49	48	47	46	44	50.3
8-May-08	43	42	41	40	39	38	37	35	34	34	34	33	33	35	37	38	41	43	44	45	44	42	43	42	45.3
9-May-08	40	38	36	36	37	37	35	35	36	37	38	38	40	42	44	46	47	48	49	49	46	43	40	37	49.4
10-May-08	33	29	24	20	19	18	17	17	18	21	22	26	31	35	39	43	46	48	47	47	46	44	41	37	48.1
11-May-08	32	28	24	20	17	15	13	13	15	15	19	24	30	36	41	45	48	48	49	48	46	44	41	39	48.8
12-May-08	37	34	31	29	27	26	25	25	25	27	29	32	36	40	43	46	46	47	47	47	45	42	38	33	46.9
13-May-08	31	27	23	19	16	14	14	15	14	16	20	25	31	36	42	43	47	50	50	49	47	44	41	37	50.5
14-May-08	34	31	30	30	30	30	31	33	35	37	40	42	44	47	47	49	51	52	52	51	48	45	41	36	52.3
15-May-08	30	26	22	20	19	17	17	17	19	20	22	24	27	28	31	34	36	37	37	35	31	27	23	19	37.3
16-May-08	15	11	8	7	8	8	9	11	14	18	21	25	28	32	37	42	45	49	51	50	48	46	43	37	51.5
17-May-08	31	24	19	18	14	10	8	9	11	14	18	22	29	35	42	47	51	54	54	53	51	48	42	37	54.5
18-May-08	31	26	23	18	14	10	9	9	9	11	14	19	23	27	31	35	39	41	41	40	39	38	37	35	40.8
19-May-08	32	32	31	29	28	26	25	26	28	29	31	35	38	42	45	48	50	51	52	51	49	48	47	45	51.5
20-May-08	43	39	34	30	26	22	19	16	17	17	19	22	25	29	32	34	34	34	33	31	28	24	21	20	43.2
21-May-08	19	18	18	18	18	19	18	19	19	19	19	20	21	22	23	N	N	N	N	N	N	N	N	19	22.7
22-May-08	20	19	18	17	17	16	18	20	21	23	25	27	29	32	34	34	35	35	35	35	36	35	33	31	35.8
23-May-08	31	29	28	27	25	24	24	25	25	27	29	30	33	36	38	39	41	42	42	40	38	36	34	33	41.7
24-May-08	30	26	24	24	24	24	24	24	25	26	26	25	26	29	32	35	38	40	43	45	45	43	42	38	45.0
25-May-08	35	32	28	25	24	21	22	22	23	23	25	27	28	30	31	31	31	31	31	30	29	28	26	25	35.0
26-May-08	23	20	18	16	14	15	14	14	15	16	17	19	22	24	26	28	30	31	33	34	34	33	32	30	34.1
27-May-08	27	22	20	18	18	17	18	20	23	27	31	35	40	45	49	51	54	55	55	55	51	47	43	39	55.1
28-May-08	35	30	26	24	24	24	25	26	28	32	35	39	42	44	45	46	46	46	46	45	43	40	36	33	46.3
29-May-08	29	26	20	15	12	10	10	10	11	13	17	22	27	32	36	41	44	47	49	49	47	46	45	44	49.2
30-May-08	43	41	37	34	32	28	25	24	25	25	27	29	34	38	41	43	45	46	46	45	42	39	36	35	46.1
31-May-08	31	29	25	22	21	19	19	20	20	22	25	29	33	37	40	44	47	49	50	48	46	44	43	38	50.1

Hourly Max 43.5 42.0 41.4 40.1 39.2 37.8 36.5 35.3 36.5 37.3 39.6 41.8 44.1 49.0 53.0 57.8 59.4 59.8 59.4 57.9 54.9 52.0 49.9 46.1



PAS – Brooks Hydrogen Sulphide Monthly Summary

HOURLY AVERAGE TABLE

Hydrogen Sulphide (H₂S)

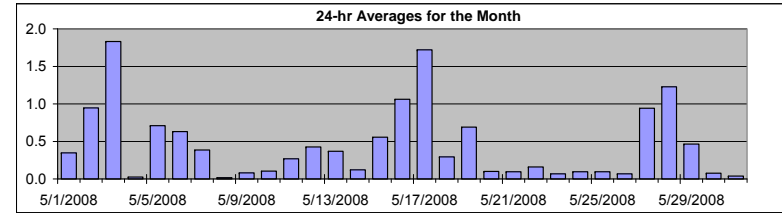
Station: Portable-Brooks
 Station Owner: PAS

Monitoring Dates: May 1, 2008 to June 1, 2008

Objective Limit: Alberta Environment: 1-hr 10 ppb 24-hr 3 ppb

Summary

Number of 1-hr Exceedances:	1
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	12.9 ppb 17-May 1:00 2:00
Maximum 24-hr Value:	1.8 ppb 3-May



AIC Time:	33 hrs	Operational Time:	709 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	6.0	2.6	0.3	0.1	0.0	0.0	0.0	0.5 ppb	0.1 ppb

Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-May-08	0	4	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	3.8
2-May-08	0	0	0	0	0	4	2	1	0	0	0	0	0	0	0	0	0	0	0	A	2	6	2	2	3	0.9	5.6
3-May-08	3	3	3	5	2	10	8	1	0	0	0	0	0	0	0	0	0	A	0	0	0	3	5	1	1.8	9.7	
4-May-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.2	
5-May-08	0	0	0	0	0	8	5	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	4	0.7	7.6	
6-May-08	0	2	10	3	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.6	10.0	
7-May-08	1	4	1	0	0	0	0	1	0	1	0	0	0	A	0	0	0	0	0	0	1	0	1	0	0.4	3.5	
8-May-08	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.4	
9-May-08	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
10-May-08	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
11-May-08	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4	
12-May-08	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1	0.4	1.2	
13-May-08	1	1	0	0	0	1	0	A	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0.4	0.9	
14-May-08	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.1	0.9	
15-May-08	0	0	0	2	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	2	2	0.6	2.5	
16-May-08	4	6	2	2	A	1	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1.1	6.0	
17-May-08	5	13	1	A	3	3	4	0	1	0	0	0	0	0	0	0	0	0	0	0	3	5	0	0	1.7	12.9	
18-May-08	0	1	A	2	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.2	
19-May-08	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	1	6	5	0.7	5.5	
20-May-08	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	0.1	1.3	
21-May-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4	
22-May-08	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
23-May-08	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0.1	0.6	
24-May-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.4	
25-May-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.4	
26-May-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.3	
27-May-08	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	8	3	6	0.9	8.3	
28-May-08	6	5	5	3	3	1	0	0	0	0	0	C	C	A	0	1	1	1	0	0	0	0	0	0	1.2	6.2	
29-May-08	0	A	0	0	5	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	4.6	
30-May-08	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.3	
31-May-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.3	
Hourly Avg	0.8	1.4	0.9	0.7	0.6	1.0	1.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.6	0.8	0.8	0.9		
Hourly Max	6.2	12.9	10.0	5.1	4.6	9.7	7.7	1.4	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.6	0.9	0.5	0.6	2.6	5.6	8.3	5.5	5.5			

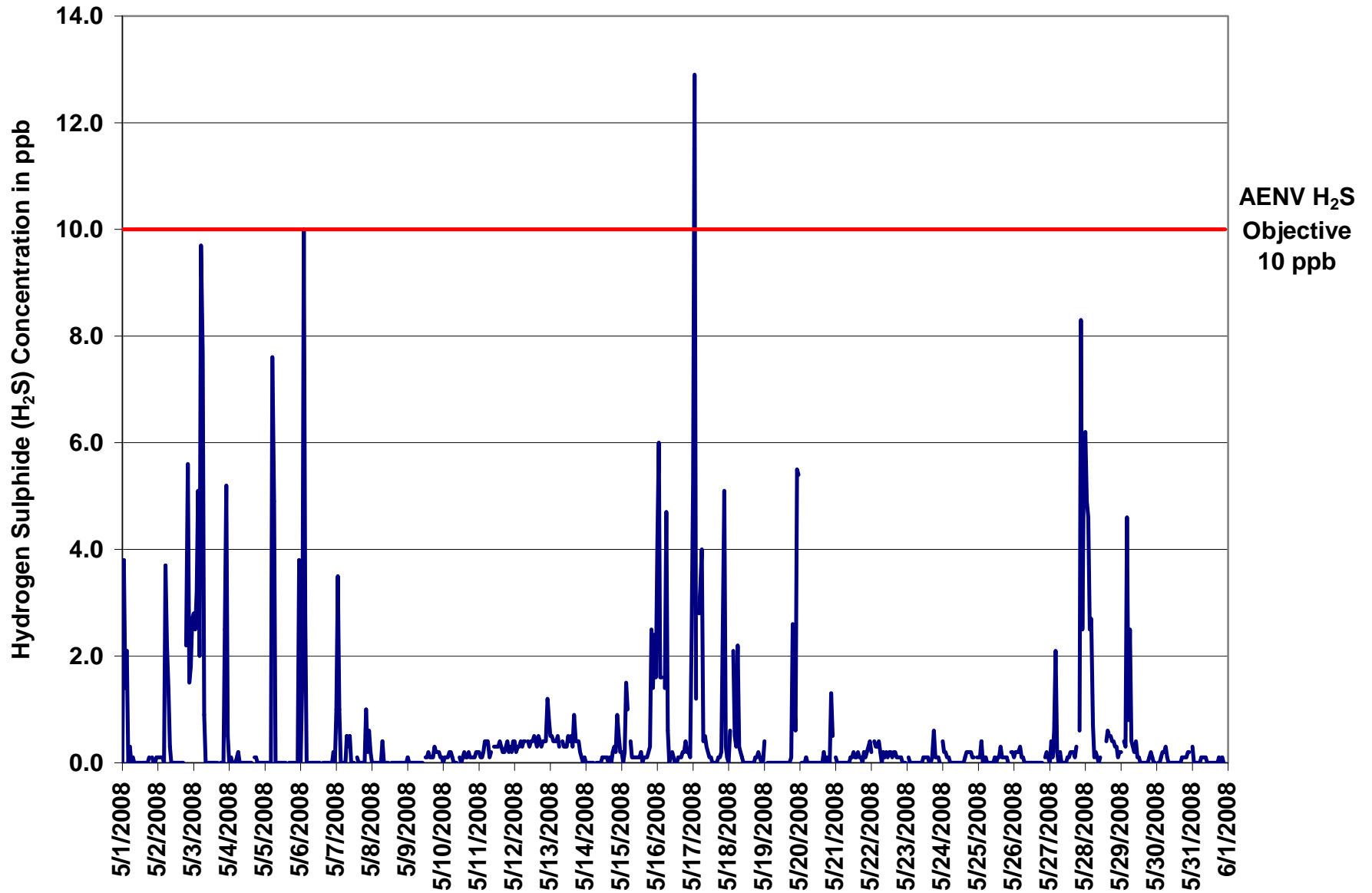


Figure 20. PAS – Brooks Hydrogen Sulphide 1-hr Average Monthly Trend



Station: Portable-Brooks
 Station Owner: PAS

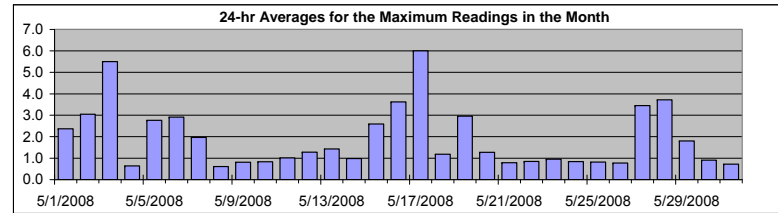
INSTANTANEOUS (30 Second) MAXIMUM TABLE

Hydrogen Sulphide (H₂S)

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Maximum 1-hr Value:	41.6	ppb	17-May	1:00 2:00
Maximum 24-hr Value:	6.0	ppb	17-May	



AIC Time:	33 hrs	Operational Time:	709 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	20.3	10.0	1.1	0.8	0.7	0.4	0.3	1.9 ppb	0.8 ppb

Status Flag Characters

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

Day Mountain Standard Time

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-May-08	1	11	10	17	1	1	1	2	1	1	1	0	1	1	1	1	1	1	1	A	1	1	1	1	2.4	17.4
2-May-08	1	1	1	1	1	15	11	4	1	1	1	1	0	0	1	1	1	1	A	8	14	2	3	4	3.1	14.9
3-May-08	6	4	18	13	10	20	16	3	1	1	0	0	0	1	1	1	1	A	1	1	1	13	15	1	5.5	20.3
4-May-08	1	1	0	0	1	1	1	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	0.6	1.0
5-May-08	1	1	0	1	1	15	16	0	0	0	0	0	0	0	0	A	1	1	1	1	0	0	1	23	2.8	23.3
6-May-08	2	10	22	20	1	1	0	1	1	0	1	0	1	0	A	1	1	1	1	1	1	1	3	1	2.9	22.1
7-May-08	3	10	8	1	1	1	1	2	1	2	1	1	1	A	1	1	1	1	1	1	6	2	3	1	2.0	10.3
8-May-08	0	1	0	1	0	0	1	1	1	1	1	0	A	0	1	1	1	1	1	1	1	1	1	1	0.6	1.3
9-May-08	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
10-May-08	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
11-May-08	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.2
12-May-08	1	1	1	1	1	1	1	1	A	1	1	1	1	2	2	1	1	1	1	1	1	1	4	2	1.3	3.5
13-May-08	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	7	4	1	1	1	1	1	1	1	1.4	7.2
14-May-08	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	1	1	5	2	1	1.0	4.9
15-May-08	1	1	2	9	5	A	3	1	1	1	1	1	1	1	1	1	1	1	1	1	6	2	8	12	2.6	12.1
16-May-08	13	18	5	10	A	5	10	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	3.6	17.5	
17-May-08	24	42	8	A	6	8	12	1	1	1	1	1	1	1	1	1	1	1	1	1	8	17	1	1	6.0	41.6
18-May-08	1	2	A	6	1	1	4	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1.2	5.6
19-May-08	1	A	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	22	10	4	9	10	3.0	21.6
20-May-08	A	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	3	1	1	1	1	5	8	A	1.3	8.0
21-May-08	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4
22-May-08	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3
23-May-08	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	4	1	1	1	1	A	1.0	4.2
24-May-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	A	1	0.8	1.6
25-May-08	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.6
26-May-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.3
27-May-08	1	1	1	4	5	3	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	28	8	15	3.4	28.4
28-May-08	19	23	10	4	6	2	1	1	1	1	1	C	C	A	1	1	1	1	1	2	1	1	1	1	3.7	23.0
29-May-08	1	A	1	1	13	3	8	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.8	12.5
30-May-08	A	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	3.3
31-May-08	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	A	1	0.7	1.1
Hourly Avg	3.0	4.8	3.3	3.3	2.1	3.0	3.3	1.2	0.8	0.8	0.7	0.7	0.7	0.7	0.8	0.8	1.1	0.9	1.0	1.9	2.2	3.2	2.7	3.3		
Hourly Max	24.0	41.6	22.1	20.0	12.5	20.3	16.1	3.6	1.2	1.8	1.3	1.4	1.2	1.7	1.5	1.4	7.2	3.8	4.2	21.6	13.5	28.4	15.0	23.3		

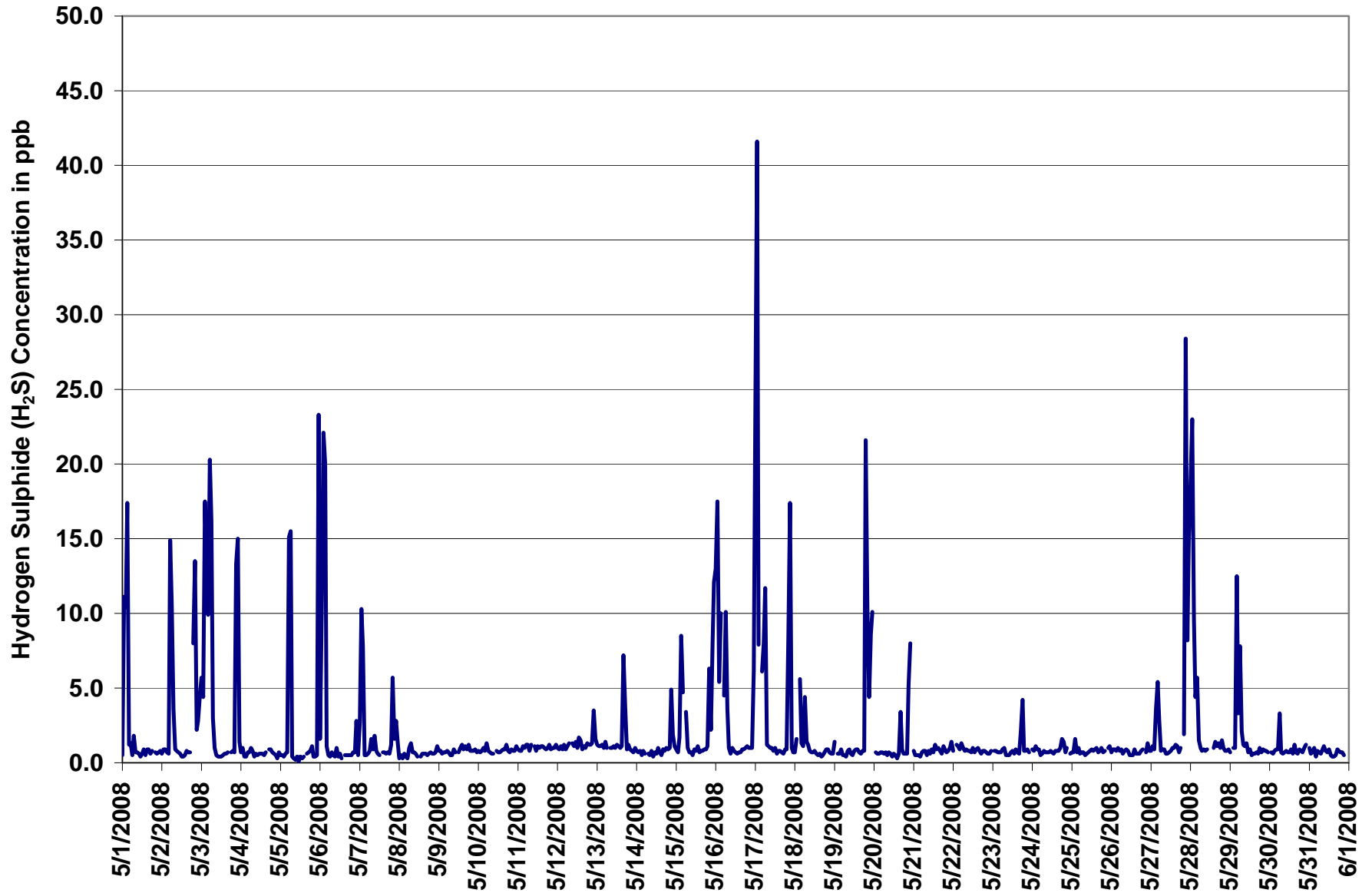
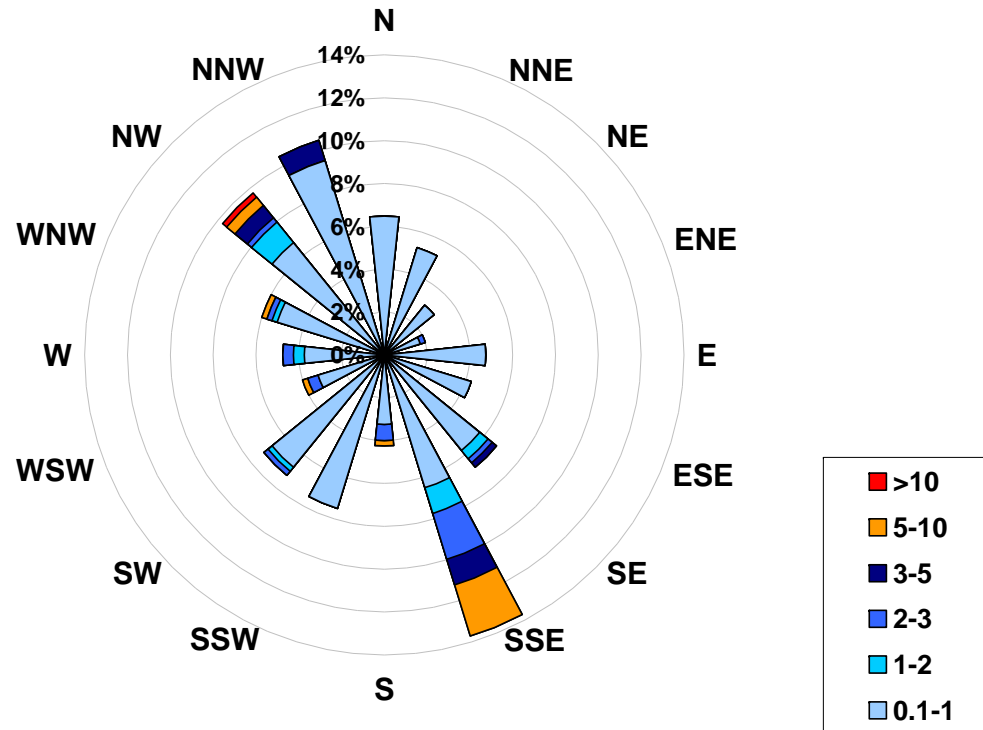


Figure 21. PAS – Brooks Hydrogen Sulphide Instantaneous (30 Second) Maximum Value Monthly Trend



1-hr Average Concentration Rose for Hydrogen Sulphide (in ppb) Located at the Portable-Brooks Site for May 2008



Calms: 0%

Frequency Distribution of H ₂ S in ppb			Frequency (hrs)
Range			
0.1	<	1	639
1	to	2	16
2	to	3	21
3	to	5	13
5	to	10	15
	>	10	1
Total Non-Zero Values			709



PAS – Brooks Scalar Wind Speed Monthly Summary

Station: Portable-Brooks
 Station Owner: PAS

HOURLY AVERAGE TABLE

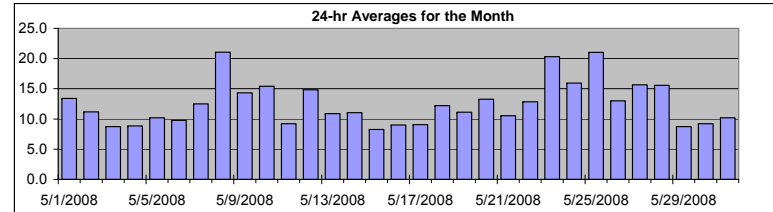
Wind Speed (WSs)

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Maximum 1-hr Average:	36.6	km/hr	23-May	13:00 14:00
Maximum 24-hr Value:	21.0	km/hr	8-May	

Calm Time:	0 hrs	0% calms	Operational Time:	744 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageS
	29.6	25.0	16.4	11.3	7.9	4.5	3.5	12.5 km/hr



Status Flag Characters

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

Day	Mountain Standard Time																								24-hr Scalar Average	Daily Max	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-May-08	5	4	4	6	5	7	8	10	14	14	16	19	18	19	18	22	23	23	20	18	16	13	11	9	13.4	23.3	
2-May-08	4	3	8	8	10	8	7	9	11	13	11	12	13	13	12	14	14	14	15	13	15	17	16	11	11.2	16.6	
3-May-08	9	14	15	13	12	7	9	9	6	8	9	10	10	9	12	12	11	8	6	2	4	5	4	7	8.7	14.7	
4-May-08	5	5	6	5	6	5	6	6	6	7	8	11	10	11	11	9	9	10	10	17	13	14	11	13	8.9	17.1	
5-May-08	8	7	9	6	6	8	5	3	5	9	14	15	18	18	17	12	11	16	12	8	13	10	8	10	10.2	18.2	
6-May-08	9	12	7	5	4	5	8	9	15	17	18	15	14	15	10	9	9	10	8	8	7	7	7	6	9.8	18.0	
7-May-08	4	4	4	4	4	4	4	5	4	4	6	18	15	19	25	28	17	17	18	17	22	23	16	20	12.5	28.0	
8-May-08	22	24	25	23	20	19	21	23	20	15	12	27	29	29	30	26	26	24	23	20	17	12	8	10	21.0	29.9	
9-May-08	14	19	15	25	22	17	21	19	19	17	15	18	11	13	8	10	10	12	18	10	9	8	9	9	14.3	24.6	
10-May-08	9	11	11	11	13	16	16	20	25	26	26	28	20	17	19	16	16	13	10	11	10	8	9	8	15.4	27.7	
11-May-08	8	9	7	11	12	9	7	5	7	9	15	16	14	12	5	6	5	12	17	8	7	5	7	12	9.2	16.6	
12-May-08	12	11	11	14	11	9	11	12	22	25	26	24	26	17	21	21	22	21	16	8	5	4	4	6	14.8	26.2	
13-May-08	8	11	10	10	13	14	16	18	17	14	13	11	10	9	10	11	9	8	7	9	10	10	8	8	10.9	18.3	
14-May-08	9	12	11	13	17	12	11	14	15	17	12	11	10	11	12	11	12	12	9	11	6	8	6	7	11.0	16.6	
15-May-08	6	6	6	7	8	9	7	7	9	10	14	12	11	11	13	12	11	8	7	5	5	4	5	7	8.3	14.4	
16-May-08	7	6	8	7	6	8	8	12	16	18	14	12	11	12	11	11	10	8	5	5	6	7	4	5	9.0	17.9	
17-May-08	4	6	5	5	8	5	6	6	7	5	7	12	11	9	8	11	13	14	16	17	18	13	9	5	9.1	18.0	
18-May-08	7	5	4	4	8	5	4	6	7	13	19	20	18	16	17	15	20	31	20	8	16	15	8	7	12.2	31.2	
19-May-08	7	11	11	5	5	5	5	8	7	6	7	12	13	11	12	11	11	12	12	12	16	19	25	27	11.1	26.8	
20-May-08	23	18	14	11	14	12	10	13	12	9	9	11	12	10	10	12	7	13	12	13	14	22	24	15	13.3	23.8	
21-May-08	13	10	12	7	5	6	9	14	8	11	13	14	13	12	13	13	12	13	12	11	10	6	6	11	10.5	13.9	
22-May-08	10	10	11	11	10	8	16	20	17	21	22	19	20	23	14	5	8	8	9	11	10	11	8	7	12.9	23.2	
23-May-08	8	9	15	25	22	20	20	28	27	27	32	34	33	37	28	26	17	21	9	9	12	14	10	8	20.3	36.6	
24-May-08	9	11	10	18	17	18	18	22	21	20	18	22	25	31	30	22	15	16	9	5	5	10	6	7	16.0	31.4	
25-May-08	5	4	6	11	16	20	23	28	28	28	27	26	27	27	25	25	29	24	19	23	19	21	22	25	21.0	28.8	
26-May-08	23	20	16	11	7	10	15	14	15	15	17	17	15	14	16	17	15	12	13	6	5	4	5	9	13.0	23.0	
27-May-08	14	14	15	15	10	12	13	18	16	15	16	18	18	18	19	19	19	19	17	13	12	13	16	17	15.7	19.3	
28-May-08	13	12	12	10	18	18	21	24	24	23	23	23	20	18	16	13	13	11	9	12	10	9	10	12	15.6	24.1	
29-May-08	12	13	7	10	4	7	11	9	7	9	9	7	8	8	7	6	6	5	3	2	10	24	11	14	8.7	23.8	
30-May-08	9	7	8	3	3	4	7	9	9	12	13	10	8	8	9	18	18	17	17	12	6	4	6	6	9.2	18.1	
31-May-08	8	6	8	9	8	9	9	8	7	8	12	15	17	17	14	11	13	12	15	11	8	5	6	9	10.2	17.4	
1-hr Average	9.7	10.1	9.9	10.4	10.3	10.1	11.4	13.1	13.5	14.3	15.1	16.6	16.0	16.0	15.1	14.6	13.9	14.3	12.6	10.8	10.8	11.1	9.8	10.4			
Hourly Max	23.0	23.5	25.2	25.1	21.9	19.7	23.3	27.7	27.8	28.1	31.7	34.1	32.6	36.6	29.9	28.0	28.8	31.2	22.7	22.6	21.6	23.8	25.4	26.8			



PAS – Brooks Vector Wind Speed Monthly Summary

Station: Portable-Brooks
Station Owner: PAS

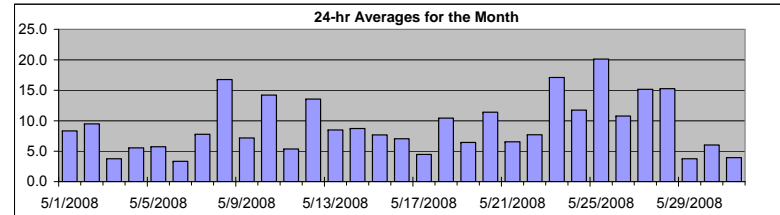
HOURLY AVERAGE TABLE

Wind Speed (WSv)

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Maximum 1-hr Average:	36.2	km/hr	23-May	13:00 14:00
Maximum 24-hr Value:	20.1	km/hr	25-May	



Calm Time:	0 hrs	0% calms	Operational Time:	744 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageV
	29.4	24.6	16.0	10.7	7.2	3.4	1.6	4.1 km/hr

Status Flag Characters

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

Day	Mountain Standard Time																								24-hr Vector Average	Daily Max	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-May-08	5	4	4	6	5	7	8	10	14	14	15	18	18	18	22	22	23	19	17	16	13	10	8			8.3	22.8
2-May-08	1	3	8	8	9	7	7	8	10	13	11	11	12	12	11	13	13	14	15	13	15	17	16	11		9.5	16.6
3-May-08	9	14	15	13	12	7	9	9	1	8	7	9	7	6	10	11	10	8	6	0	2	3	3	6		3.8	14.5
4-May-08	5	4	6	4	5	5	6	6	5	6	7	9	10	10	10	9	9	9	10	17	13	14	11	13		5.6	16.8
5-May-08	8	7	9	3	5	8	4	3	2	9	13	14	17	17	16	11	11	15	12	5	12	10	6	9		5.7	17.4
6-May-08	9	11	7	2	3	5	7	8	15	17	17	14	13	14	7	6	8	10	8	8	7	7	7	6		3.3	17.3
7-May-08	4	4	4	4	3	3	2	3	3	2	3	15	12	16	24	26	17	16	18	17	22	23	16	20		7.8	26.2
8-May-08	22	23	25	23	20	19	21	23	19	14	8	27	28	29	30	26	25	24	23	20	17	6	6	9		16.8	29.7
9-May-08	13	19	14	25	22	16	21	18	18	17	14	16	9	10	3	9	9	11	16	9	9	8	9	9		7.2	24.5
10-May-08	9	11	11	11	13	16	16	20	25	26	25	28	20	16	18	16	16	13	9	11	9	8	9	8		14.2	27.6
11-May-08	8	9	7	11	12	9	7	5	7	8	14	15	13	7	3	5	3	10	17	4	5	4	7	12		5.4	16.6
12-May-08	12	10	11	14	11	9	11	12	21	25	25	23	26	16	20	20	22	21	16	8	5	3	4	6		13.5	25.9
13-May-08	7	11	10	10	13	14	16	18	17	13	12	8	8	8	9	10	9	8	6	8	10	10	8	8		8.5	18.2
14-May-08	9	12	11	13	16	12	11	14	15	16	12	10	9	10	11	10	11	11	8	11	6	5	6	7		8.7	16.4
15-May-08	6	5	6	7	7	9	6	7	9	9	14	11	10	11	12	12	11	8	7	4	5	3	5	7		7.7	14.1
16-May-08	7	6	8	6	6	8	8	12	16	18	13	11	10	11	11	11	10	8	4	5	5	7	2	5		7.0	17.5
17-May-08	3	6	4	5	7	3	5	5	6	3	6	11	10	9	5	11	13	14	16	17	18	12	8	4		4.5	17.8
18-May-08	6	5	3	4	8	5	3	5	6	13	18	20	18	15	16	14	19	31	20	8	16	15	8	7		10.4	31.0
19-May-08	7	10	10	4	4	4	5	7	6	4	6	11	12	11	10	10	10	12	12	12	16	19	25	27		6.4	26.7
20-May-08	23	18	14	11	14	12	10	12	12	9	8	10	11	10	10	11	3	13	12	13	14	22	23	15		11.4	23.4
21-May-08	13	10	12	7	5	6	9	14	8	10	13	14	13	12	13	12	12	13	12	11	10	6	5	11		6.6	13.8
22-May-08	10	10	10	11	10	8	16	20	17	21	22	19	20	23	14	3	8	8	9	11	10	11	8	6		7.7	23.0
23-May-08	8	9	14	25	22	20	20	28	27	27	31	34	32	36	27	26	16	19	7	9	12	14	10	5		17.1	36.2
24-May-08	9	10	9	18	17	18	18	22	20	19	18	22	23	31	30	22	14	14	8	5	3	8	6	7		11.7	31.2
25-May-08	5	4	5	11	15	20	23	28	28	28	27	26	27	27	24	25	29	23	18	23	19	21	22	25		20.1	28.7
26-May-08	23	20	16	11	7	10	15	14	15	15	17	17	14	14	16	17	15	12	13	6	5	4	5	9		10.8	23.0
27-May-08	14	14	15	14	10	12	13	18	16	15	15	17	17	17	18	19	19	19	17	13	12	13	16	17		15.1	19.1
28-May-08	13	12	12	10	17	18	20	24	24	23	23	22	19	17	16	12	12	10	9	12	10	9	10	12		15.2	24.0
29-May-08	12	13	7	10	4	7	11	9	7	9	8	4	5	5	6	2	4	0	1	2	7	20	10	13		3.8	20.3
30-May-08	7	5	7	0	1	3	6	9	9	11	13	9	8	6	7	18	18	17	17	12	5	3	3	6		6.0	17.7
31-May-08	8	6	8	9	8	9	9	8	5	7	11	14	17	17	13	10	13	12	14	11	8	5	5	9		3.9	17.1
1-hr Vector	1.0	1.0	1.6	2.5	1.9	1.7	2.3	2.1	2.3	2.8	2.7	3.3	3.0	4.1	3.5	2.1	2.5	3.4	3.3	2.4	3.1	3.1	2.9	1.4			
Hourly Max	23.0	23.4	25.1	25.1	21.8	19.6	23.3	27.6	27.6	27.9	31.0	33.7	32.3	36.2	29.7	26.2	28.7	31.0	22.6	22.6	21.6	22.9	25.4	26.7			



PAS – Brooks Wind Direction Monthly Summary

Station: Portable-Brooks
Station Owner: PAS

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Calm Time:	0 hrs	0% calms	Operational Time:	744 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	Average
	357.5	343.0	290.4	183.3	98.5	10.8	3.4	84 deg

Status Flag Characters

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

Day	Mountain Standard Time																							24-hour Average	WD Sector	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00		
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-May-08	256	310	266	313	312	299	301	316	339	340	350	360	359	26	19	34	38	48	68	87	95	103	120	134	25	NNE
2-May-08	178	272	56	105	128	148	171	147	149	177	201	212	216	214	209	187	179	174	168	159	160	156	160	172	172	S
3-May-08	186	159	149	146	161	156	155	155	84	32	49	91	113	42	37	10	10	16	8	115	117	168	242	262	108	ESE
4-May-08	278	286	245	266	270	293	249	290	301	305	313	304	302	312	318	309	320	337	1	43	49	34	47	53	333	NNW
5-May-08	34	35	36	251	288	304	334	350	75	149	142	138	155	162	171	136	118	110	210	59	74	152	135	131	SE	
6-May-08	108	134	156	244	357	353	1	17	58	66	74	78	36	9	35	256	266	257	286	290	282	297	316	311	20	NNE
7-May-08	301	329	348	334	356	340	344	350	166	289	148	155	129	76	111	124	204	203	189	172	152	147	151	136	146	SSE
8-May-08	128	124	131	127	119	119	135	145	165	176	177	99	97	96	85	84	78	75	54	43	37	89	181	14	105	ESE
9-May-08	47	55	69	69	47	25	33	46	40	34	38	68	30	93	78	234	200	207	146	199	197	210	214	210	66	ENE
10-May-08	213	203	200	196	179	176	184	184	181	189	204	209	216	233	236	240	243	226	228	244	239	232	249	226	210	SSW
11-May-08	211	218	218	208	207	206	216	296	270	258	226	219	228	303	240	233	307	4	11	301	307	304	325	339	258	WSW
12-May-08	337	343	343	340	338	326	335	343	4	13	13	15	14	355	9	1	5	9	9	345	332	283	227	231	358	N
13-May-08	204	201	210	207	189	190	195	204	203	216	216	244	257	314	281	305	295	298	274	259	265	265	263	264	234	SW
14-May-08	298	317	324	329	347	336	338	337	353	16	346	323	318	305	312	324	331	341	340	20	80	160	220	225	334	NNW
15-May-08	224	270	300	307	306	315	297	267	268	299	332	322	298	295	306	304	309	312	306	303	249	279	300	306	300	WNW
16-May-08	304	303	317	311	301	310	312	335	344	352	344	320	301	304	318	332	337	341	341	40	85	115	138	222	329	NNW
17-May-08	312	319	296	292	272	328	326	341	333	267	234	210	217	211	183	193	174	140	142	140	161	175	229	295	200	SSW
18-May-08	301	313	307	281	215	231	68	9	338	357	7	7	6	6	359	355	7	19	13	355	5	4	339	321	358	N
19-May-08	312	333	331	268	265	257	287	300	307	311	234	210	209	217	204	199	207	196	195	165	147	149	158	160	201	SSW
20-May-08	174	193	193	196	198	196	190	196	200	199	194	213	213	220	196	213	180	120	107	112	129	146	180	185	180	S
21-May-08	212	238	238	231	232	193	202	203	241	310	322	322	323	330	328	331	331	332	329	324	325	327	354	18	301	WNW
22-May-08	25	75	86	117	114	93	107	121	110	98	121	117	105	104	97	52	346	346	334	334	329	327	326	331	86	E
23-May-08	358	37	85	95	84	76	74	88	81	75	59	60	79	87	99	97	99	129	148	1	359	8	358	322	76	ENE
24-May-08	350	32	57	98	85	83	64	50	57	53	17	25	31	74	83	82	95	89	138	249	276	192	202	199	67	ENE
25-May-08	241	253	330	0	5	8	9	19	19	16	10	10	15	15	14	1	12	25	27	23	28	30	29	28	15	NNE
26-May-08	30	37	43	45	60	116	113	119	100	110	103	98	99	97	120	141	136	121	109	106	102	51	37	100	93	E
27-May-08	133	126	127	148	158	138	139	165	181	183	164	154	164	161	161	143	163	172	170	167	169	164	151	157	157	SSE
28-May-08	166	156	153	143	151	144	145	154	154	163	155	147	144	144	148	148	146	152	156	122	125	117	121	124	147	SSE
29-May-08	124	132	125	135	155	141	156	174	186	201	194	159	150	195	221	332	7	274	279	148	84	38	208	30	142	SE
30-May-08	56	265	246	80	301	270	330	337	338	360	359	357	327	305	322	356	3	5	24	46	99	256	142	202	353	N
31-May-08	217	208	203	200	196	188	200	233	272	325	352	350	1	4	357	353	7	6	29	40	70	55	62	29	357	N
Hourly Avg	162	132	128	131	134	128	114	114	75	45	44	69	61	56	68	45	27	53	65	68	93	110	169	141		



PAS – Brooks Standard Deviation of Wind Direction Monthly Summary

Station: Portable-Brooks
Station Owner: PAS

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: May 1, 2008 to June 1, 2008

Summary

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	744 hrs			
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%			
Percentile	99	95	75	50	25	5	1
	83.8	58.4	23.0	12.7	7.4	3.5	2.4

Status Flag Characters

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

Day Mountain Standard Time

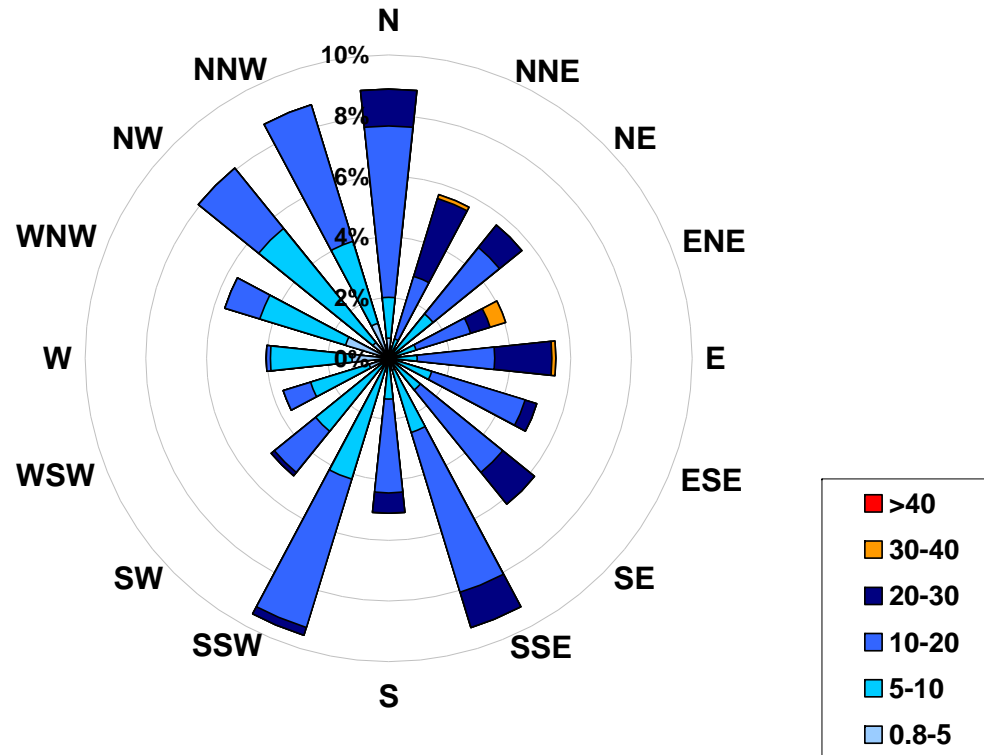
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	0:00
1-May-08	17	11	16	12	25	14	10	10	9	11	12	10	14	16	13	14	12	12	10	6	3	7	10	6	6	6
2-May-08	79	37	15	6	12	34	18	22	12	13	18	20	17	18	25	21	19	15	10	6	2	1	2	8	8	8
3-May-08	5	11	8	8	6	11	12	15	85	25	47	36	59	73	37	39	29	26	17	88	68	54	19	8	8	8
4-May-08	25	36	16	29	27	21	10	12	24	30	33	28	20	19	21	22	16	16	14	11	9	7	6	16	16	16
5-May-08	10	16	7	73	12	5	23	25	61	19	16	20	18	15	19	30	18	11	15	64	9	24	68	23	23	23
6-May-08	22	25	17	76	45	20	26	32	11	13	17	26	28	27	67	62	32	11	15	13	10	11	6	9	9	9
7-May-08	10	22	15	27	39	36	55	51	68	72	79	30	39	39	18	25	8	15	12	8	6	5	6	8	8	8
8-May-08	2	3	4	4	6	5	10	5	12	22	42	10	8	6	7	7	16	9	6	4	2	56	51	28	28	28
9-May-08	19	4	9	7	11	4	7	8	7	9	13	23	31	41	86	21	20	18	27	15	10	11	7	8	8	8
10-May-08	7	4	2	11	3	4	5	5	6	8	8	6	12	11	11	11	9	12	27	5	7	14	8	15	15	15
11-May-08	11	7	5	6	5	7	24	22	20	19	19	16	17	65	83	36	56	36	6	55	36	43	10	5	5	5
12-May-08	7	14	8	5	7	12	9	10	8	10	9	14	8	21	19	13	6	7	8	8	24	26	18	9	9	9
13-May-08	9	6	3	3	5	4	4	6	6	13	18	47	42	29	36	18	23	17	33	24	7	7	5	8	8	8
14-May-08	15	5	7	7	9	7	8	6	13	10	20	24	27	18	17	24	23	18	17	15	18	49	15	9	9	9
15-May-08	11	29	6	6	12	5	11	13	13	25	12	22	26	19	14	13	16	9	18	28	11	20	15	6	6	6
16-May-08	7	8	9	8	12	12	7	12	9	13	15	20	26	23	18	18	17	22	36	12	25	7	59	33	33	33
17-May-08	28	17	22	22	21	64	25	25	26	56	45	21	29	26	58	21	17	3	5	7	8	19	33	26	26	26
18-May-08	9	16	40	24	45	20	55	50	43	14	8	7	10	17	17	17	11	6	5	15	16	7	9	15	15	15
19-May-08	9	10	32	26	27	45	30	23	32	54	45	44	14	27	32	24	22	16	12	9	3	6	2	3	3	3
20-May-08	7	5	4	4	3	3	5	11	9	16	15	20	25	24	15	22	80	11	3	3	7	5	10	8	8	8
21-May-08	15	10	8	18	20	23	6	6	18	25	10	8	8	10	9	8	9	9	9	9	12	15	15	14	14	14
22-May-08	8	11	23	6	5	18	15	3	9	8	8	6	11	8	13	65	21	13	16	13	11	10	21	25	25	25
23-May-08	13	24	10	3	4	7	8	5	6	6	12	9	7	8	7	7	5	25	80	8	7	4	7	48	48	48
24-May-08	16	19	23	3	7	4	10	5	6	11	6	4	20	6	8	6	12	25	35	27	69	36	21	18	18	18
25-May-08	25	30	24	10	6	5	4	4	5	7	5	7	7	8	10	6	6	17	18	4	4	5	5	4	4	4
26-May-08	4	5	6	7	17	9	6	9	11	12	12	10	11	12	11	11	9	9	9	6	7	25	23	23	23	23
27-May-08	3	1	4	24	14	8	6	10	9	12	21	20	20	17	16	12	14	8	7	3	3	4	5	5	5	5
28-May-08	4	7	7	6	4	3	6	7	10	9	12	13	17	23	18	24	22	21	21	8	2	2	3	3	3	3
29-May-08	3	3	12	8	35	24	8	14	20	19	31	72	61	71	46	93	60	93	93	53	40	61	28	41	41	41
30-May-08	71	44	44	99	90	53	20	16	16	16	11	27	25	50	41	11	12	8	10	10	24	58	72	25	25	25
31-May-08	6	15	5	3	4	3	10	17	41	28	17	17	12	15	21	22	22	15	15	7	17	31	22	13	13	13

Daily Maximum
24.5
79.3
87.7
36.3
73.1
75.8
79.2
56.1
86.3
26.6
82.9
26.3
47.1
49.3
29.3
59.4
64.1
54.9
53.8
80.0
25.4
64.7
79.6
69.1
30.4
25.3
23.8
23.5
92.7
98.5
41.3

Hourly Max	79	44	44	99	90	64	55	51	85	72	79	72	61	73	86	93	80	93	93	88	69	61	72	48
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1-hr Average Wind Rose (in km/hr) Located at the Portable-Brooks Site for May 2008



Calms: 0%

Frequency Distribution of Wind in km/hr			Frequency (hrs)
Range			
0.8	<	5	53
5	to	10	247
10	to	20	348
20	to	30	85
30	to	40	6
	>	40	0
Total Non-Zero Values			744



Palliser Airshed Society

Passive Monitoring – May 2008



Palliser Airshed Society - Palliser Passive Stations for May 2008 Palliser Passive Monitoring Expansion

Station Number	Station	SO2 ppb	O3 ppb	NO2 ppb	Location		Elevation meter
	Name				Easting	Northing	
Duplicates							
9a	Site 9	0.4	42.8	1.0			
9b	Site 9	0.3	46.2	0.7			
19a	Site 19 - Monitoring Station	0.2	42.1	3.7			
19b	Site 19 - Monitoring Station	0.3	45.1	3.3			
1	Site 1	0.2	45.4	0.2	562434	5583139	719
2	Site 2	0.4	47.9	0.4	565416	5616277	
3	Site 3	0.4	45.4	BDL	533794	5675379	779
4	Site 4	0.2	44.7	0.2	554771	5717338	718
5	Site 5	0.5	45.2	0.3	494218	5715862	735
6	Site 6	0.4	42.8	0.4	433039	5673766	818
7	Site 7	0.3	36.7	1.2	400808	5620907	780
8	Site 8	0.5	46.2	0.3	498530	5621839	747
9	Site 9	0.3	44.5	0.9	487701	5591707	763
10	Site 10	0.4	44.7	1.3	478223	5613583	774
11	Site 11 - Brooks	0.4	40.3	2.9	439773	5604548	736
12	Site 12	0.3	12.4	1.5	450287	5587201	726
13	Site 13	0.2	40.6	0.4	464279	5548934	
14	Site 14	0.2	36.7	0.9	493206	5521201	870
15	Site 15	0.2	43.3	0.3	465824	5485742	874
16	Site 16	0.2	49.0	BDL	503827	5446942	903
17	Site 17	0.2	48.6	BDL	557668	5452307	942
18	Site 18 - Christian School Park	0.2	36.8	3.6	526575	5538135	709
19	Site 19 - Monitoring Station	0.3	43.6	3.5	522813	5544137	714
20	Site 20 - Redcliff	0.3	41.1	2.5	517479	5546059	725

BDL = Below Detection Limit



Alberta Ambient Air Quality Objective - Annual SO₂ Objective is 11 ppb

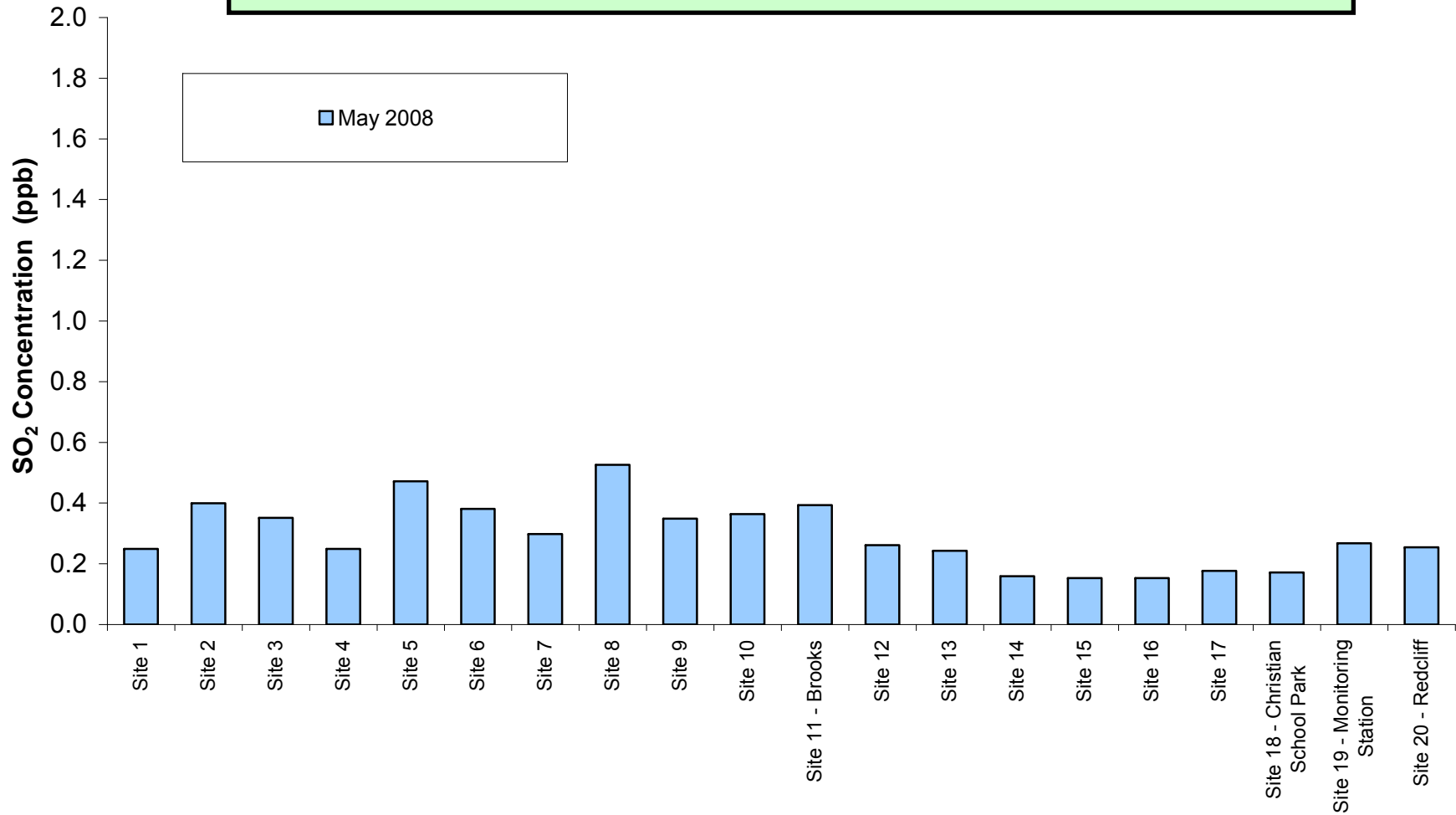


Figure 24. PAS – Sulphur Dioxide Passive Summary Chart

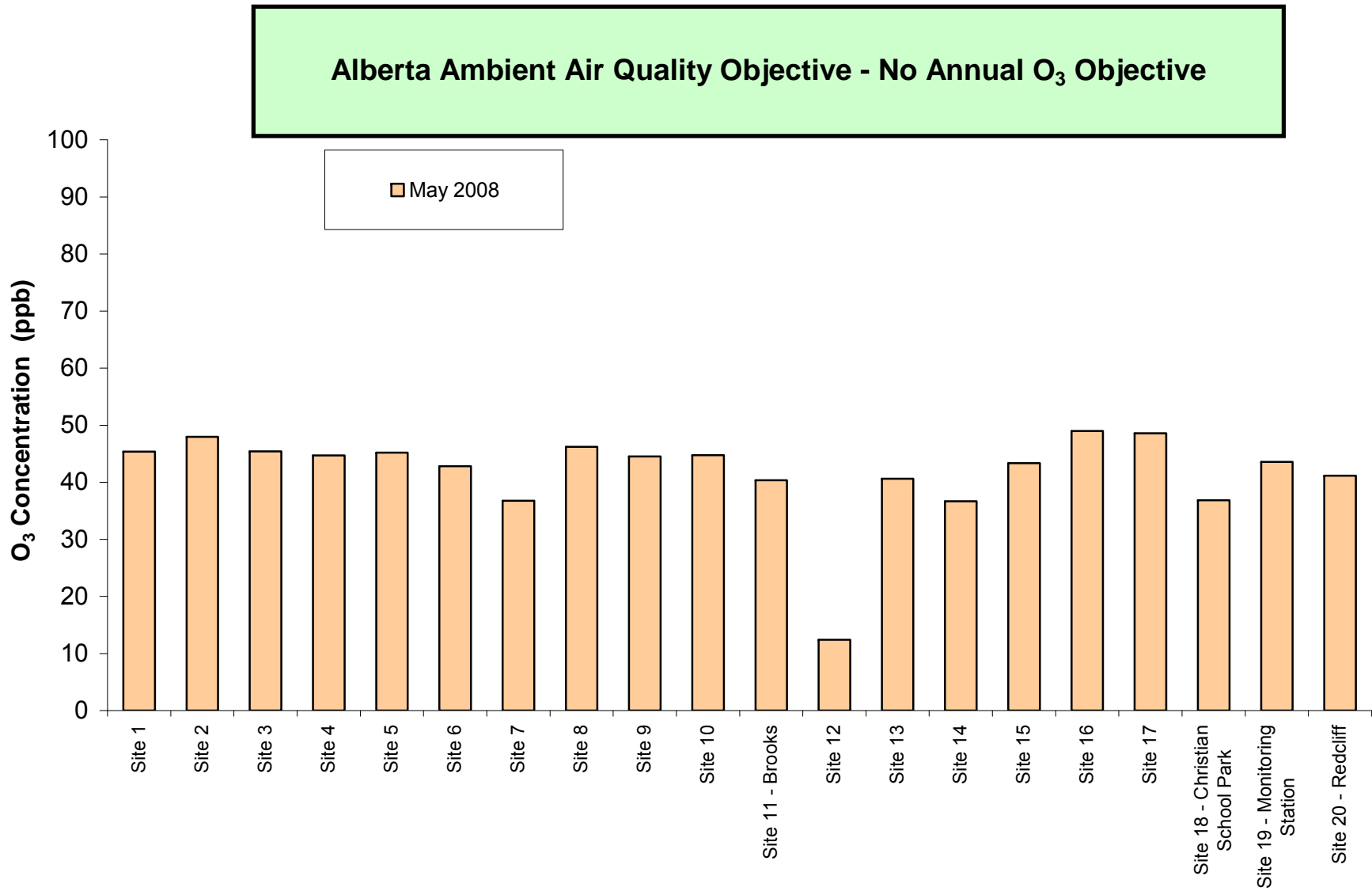


Figure 26. PAS – Ozone Passive Summary Chart

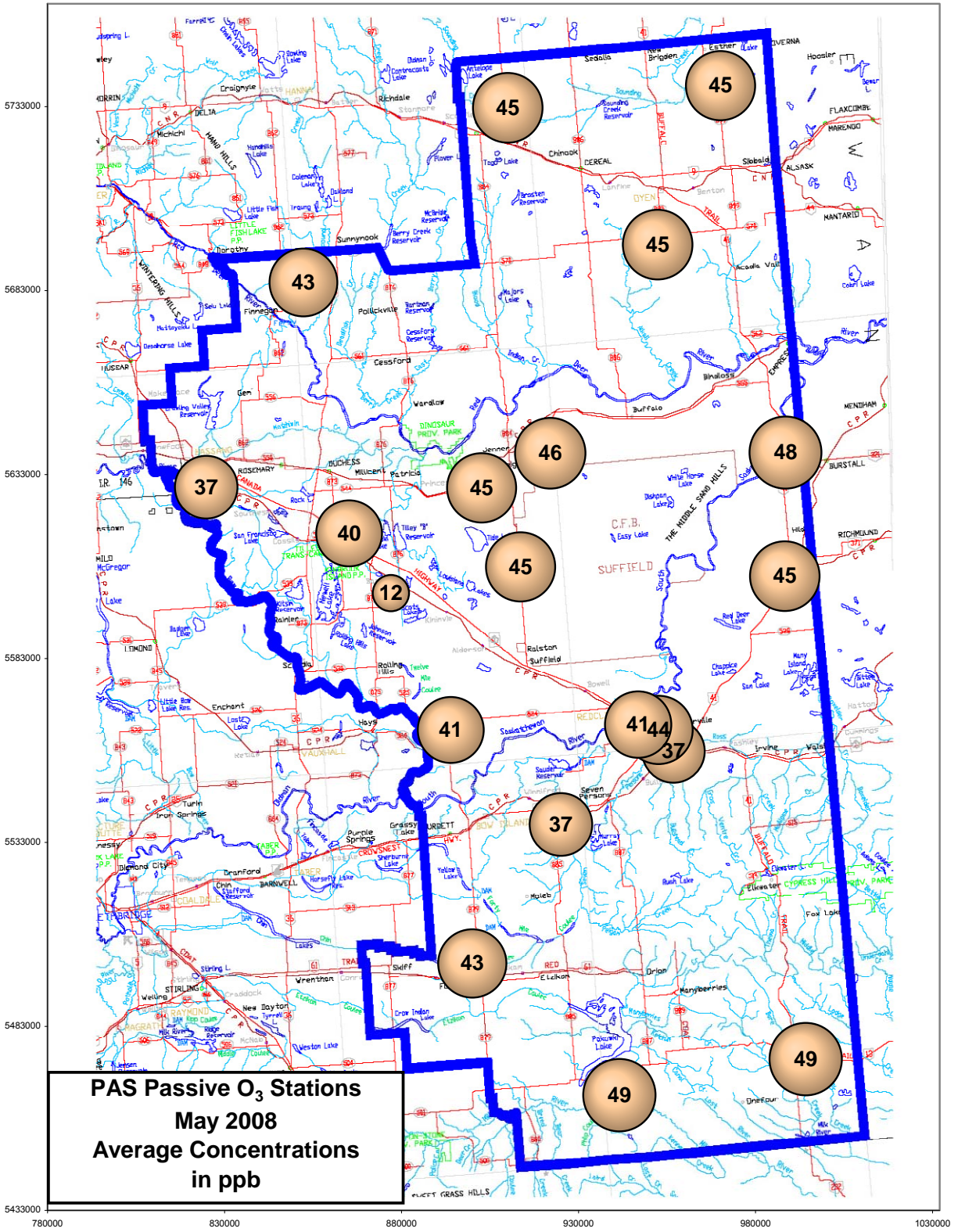


Figure 27. PAS – Ozone Passive Summary Bubble Chart



Alberta Ambient Air Quality Objective - Annual NO₂ Objective is 32 ppb

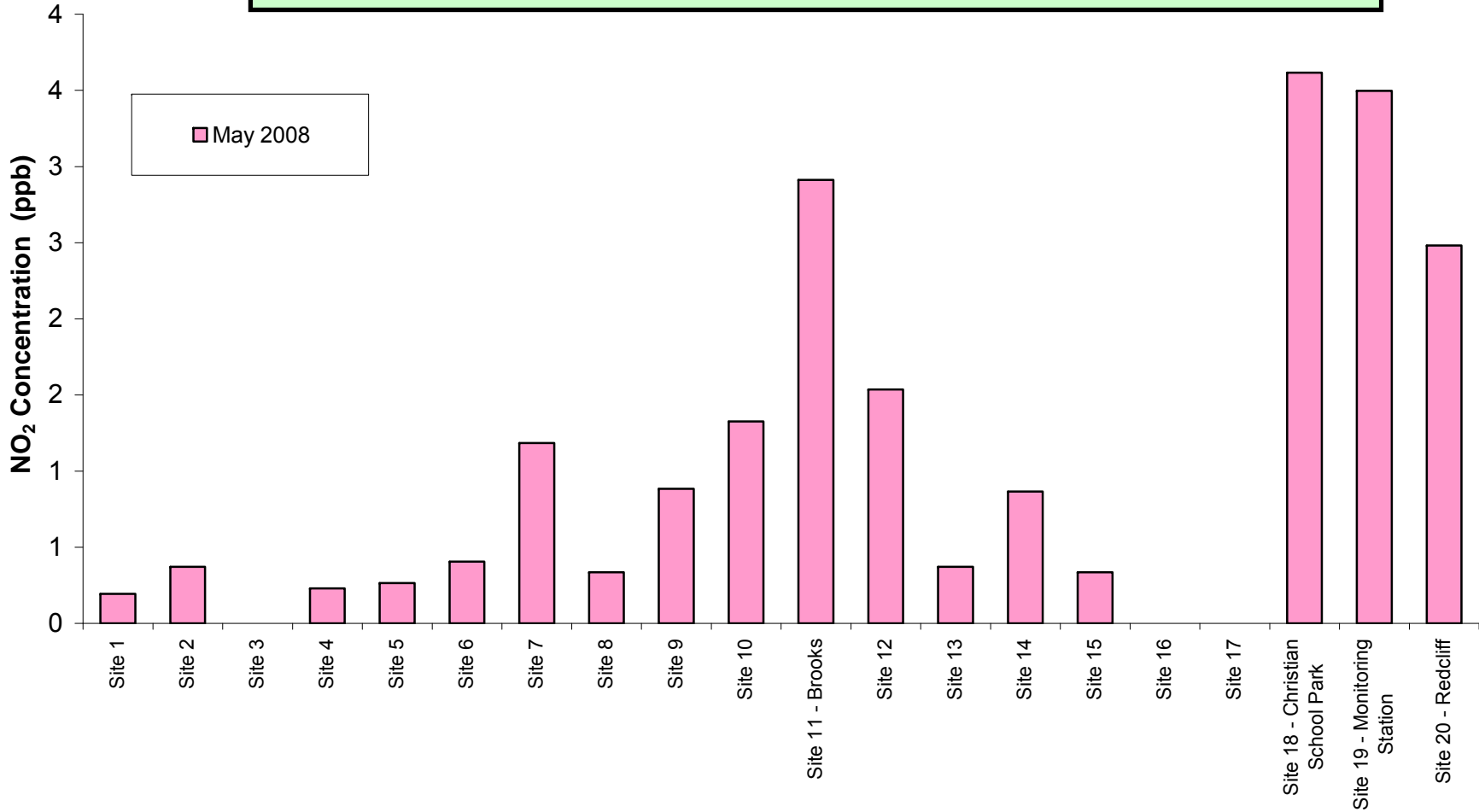


Figure 28. PAS – Nitrogen Dioxide Passive Summary Chart

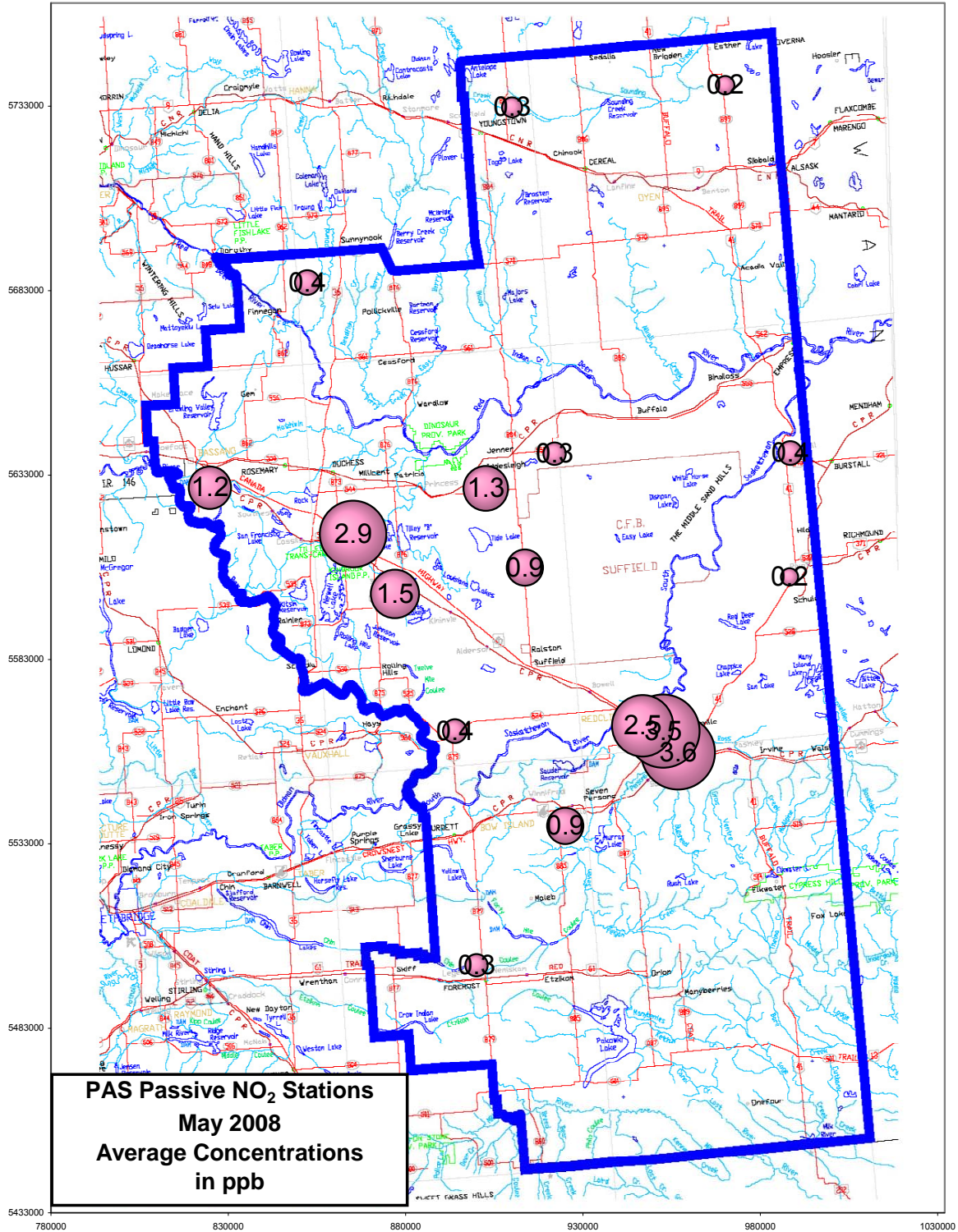


Figure 29. PAS – Nitrogen Dioxide Passive Summary Bubble Chart

Palliser Airshed Society

May 2008 - Calibration Reports

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

Portable-Brooks: O₃, SO₂, and H₂S

Calibration Report

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

Station Information

Calibration Date	May 21, 2008	Previous Calibration	April 18, 2008
Station Number	101	Station Location	Crescent Heights
Reason:	Routine	Calibration	Removal
			Other:
Start Time (MST)	11:30	End Time (MST)	14:00
Barometric Pressure	27.4 inches Hg	Station Temperature	20.0 Deg C
Calibrator	Envionics 6103	Serial Number	2844
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	45270
DACS voltage range	0 - 10 volt	DACS channel #	5
	Before		After
Calculated slope	0.981692	Calculated slope	1.030015
Calculated intercept	-1.418883	Calculated intercept	1.037075
Analyzer make	TEI 49i	Analyzer serial #	713021144

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
O3 Background	0.5	ppb	0.5	ppb
O3 Coeff	1.004		1.033	
CellA	74419.0	Hz	69634	Hz
CellB	105907.0	Hz	104582	Hz
Pressure	692.1	mmHg	686.1	mmHg
Cell A Flow	725.0	ccm	716	ccm
Cell B Flow	709	ccm	698	ccm
Bench	29.2	Deg C	33.2	Deg C

Calibration Data

Dilution air flow rate (cc/min)	Ozone Set Point	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5000	0.0	0.0	0.3	N/A
5000	300.0	288.8	280.5	1.0296
5000	200.0	197.1	189.5	1.0400
5000	100.0	104.6	99.0	1.0569
5000	0.0	0.0	0.3	0.0000
5000	300.0	288.8	280.5	1.0296
Average Correction Factor				1.0422

Calculated value of As Found Response: 273.7 ppm Percent Change of As Found: -5.2%

	before calibration		after calibration	
Auto zero	1.5	ppb	0.0	ppb
Auto span	277.8	ppb	155.1	ppb

Notes: No adjustments were done...

Calibration Performed By: Lenin Flores

Calibration Summary

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

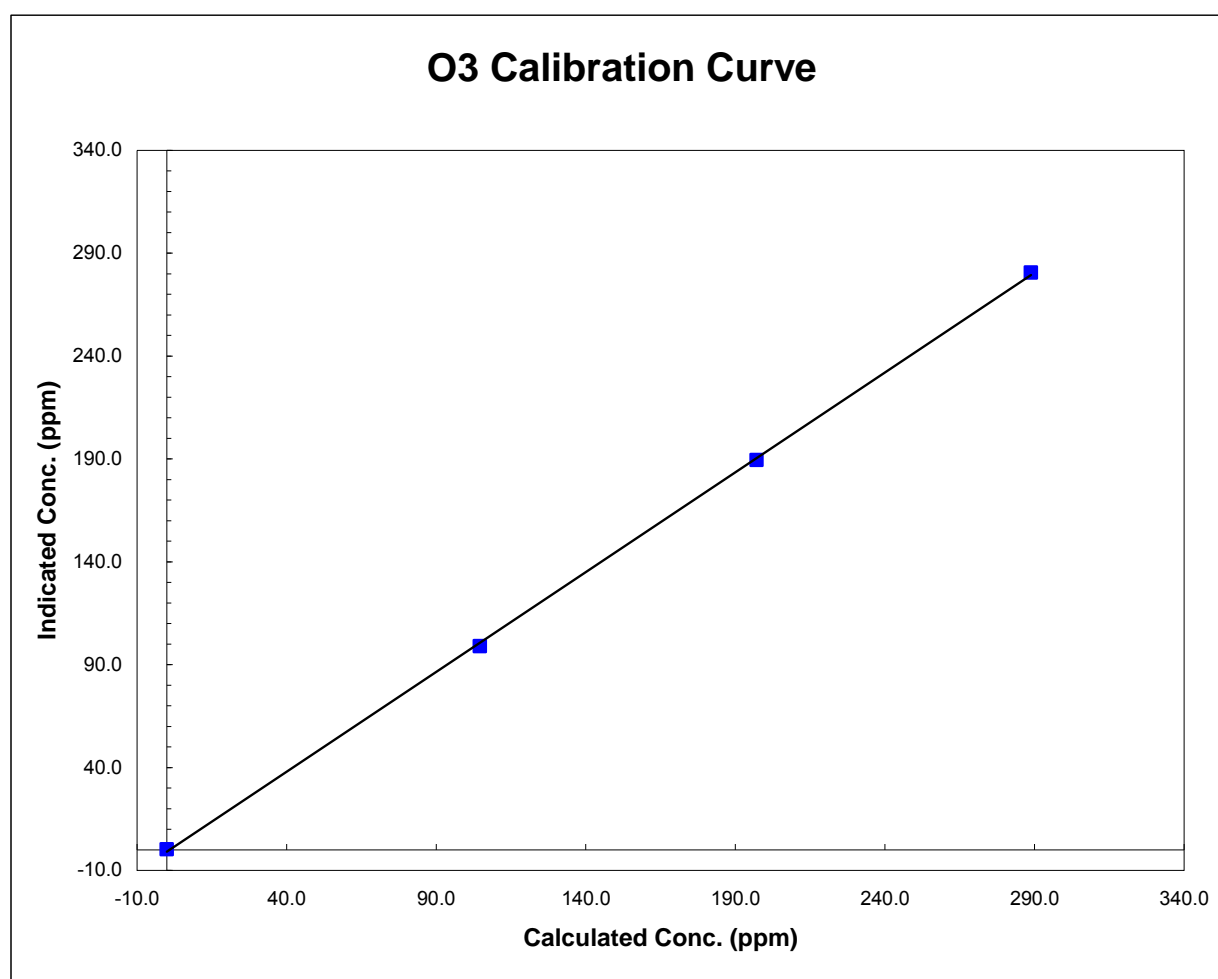


Station Information

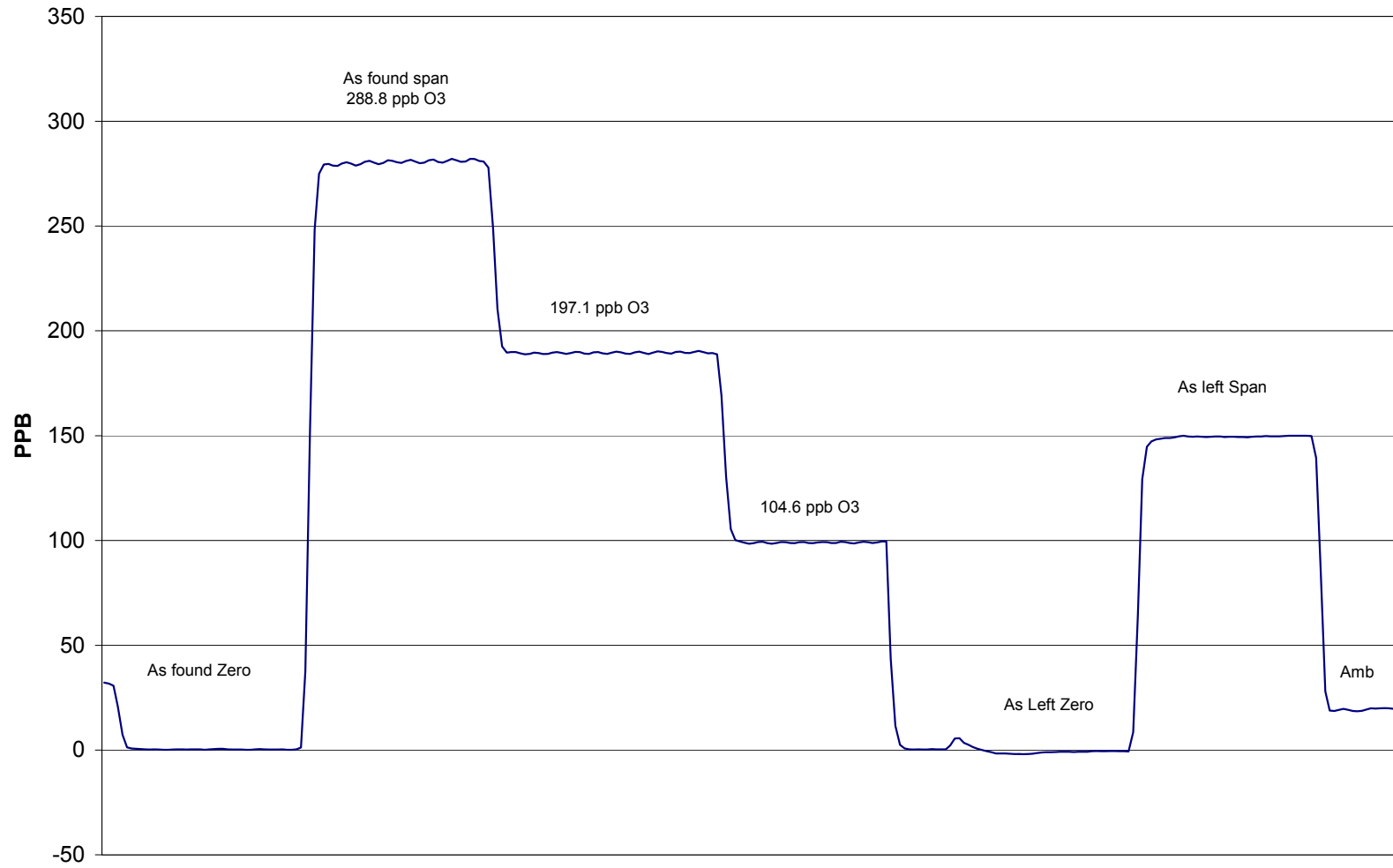
Calibration Date	May 21, 2008	Previous Calibration	April 18, 2008
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	11:30	End Time (MST)	14:00
Analyzer make/model	TEI 49i	Analyzer serial #	713021144

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
288.8	280.5	1.0296	Correlation Coefficient	0.999860
197.1	189.5	1.0400		
104.6	99.0	1.0569		
0.0	0.3	N/A	Slope	1.030015
			Intercept	1.037075



Crescent Heights O₃ Calibration



May 21, 2008

Calibration Report

Parameter

NO_x-NO-NO₂

Air Monitoring Network

Palliser Airshed



Station Information

Calibration Date: May 21, 2008

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	4987	0.00	0.0	0.0	0.0	-2.3	-1.9	-3.6	N/A	N/A
1	4987	39.93	388.4	388.4	0.0	382.6	379.9	0.1	1.0152	1.0224
2	4987	19.96	194.9	194.9	0.0	191.7	189.9	-1.3	1.0166	1.0261
3	4987	9.97	97.6	97.6	0.0	93.9	91.6	-0.8	1.0385	1.0652
AFZ	4987	0.00	0.0	0.0	0.0	-2.3	-1.9	-3.6	0.0000	0.0000
AFS	4987	39.93	388.4	388.4	0.0	366.5	359.7	4.1	1.0599	1.0800
Average Correction Factor									1.0234	1.0379

As Found Concentrations: NO_x= 369.3 NO= 362.6 As Found Percent Change NO_x= -4.9% NO= -6.6%

GPT Calibration Data

Dilution Flow 4996 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop 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	-1.9	-1.9	0.0	-2.3	-1.9	-3.6	N/A	N/A	N/A	N/A
NO point	383.9	383.9	0.0	388.9	383.9	2.3	0.9874	1.0000	N/A	N/A
300	383.9	95.1	288.8	385.7	95.1	287.4	0.9954	1.0000	1.0050	99.5%
200	383.9	186.8	197.1	387.7	186.8	198.0	0.9904	1.0000	0.9957	100.4%
100	383.9	279.4	104.6	387.6	279.4	105.3	0.9906	1.0000	0.9930	100.7%
Average Correction Factor							0.9921	1.0000	0.9979	100.2%

AIC Data

Parameter	Previous calibration				Current calibration			
	NO _x	NO ₂	NO		NO _x	NO ₂	NO	
Auto zero				ppb	0.4	-2.8	1.9	ppb
Auto span				ppb	293.0	281.0	6.3	ppb

Calibration Performed By: Jorge Lenin Flores

Calibration Summary

Parameter **NO₂**
 Air Monitoring Network **Palliser Airshed**

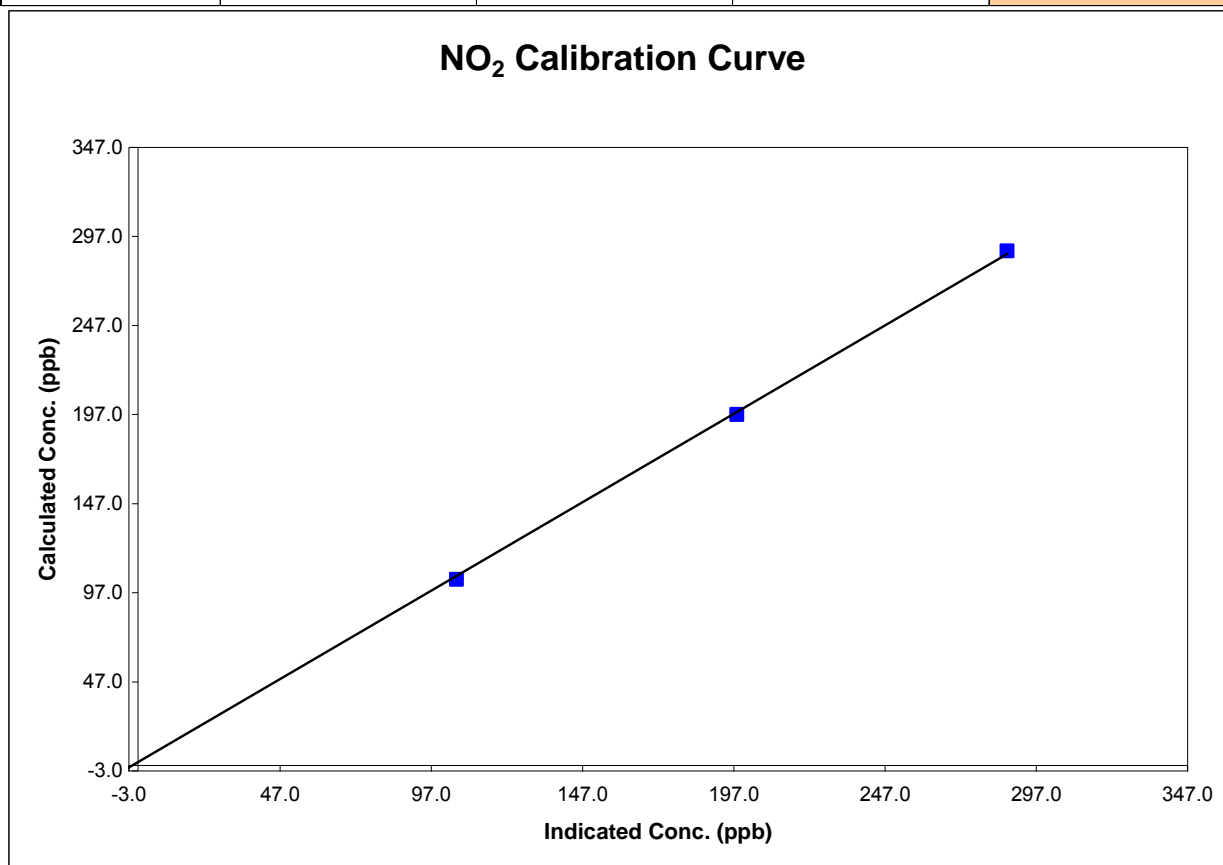


Station Information

Calibration Date	May 21, 2008	Previous Calibration	April 18, 2008
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	7:45	End Time (MST)	12:25
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	-3.6	N/A		
288.8	287.4	1.0050	Correlation Coefficient	0.999772
197.1	198.0	0.9957		
104.6	105.3	0.9930	Slope	0.992614
			Intercept	1.935014



Calibration Summary

Parameter

NO_x

Air Monitoring Network

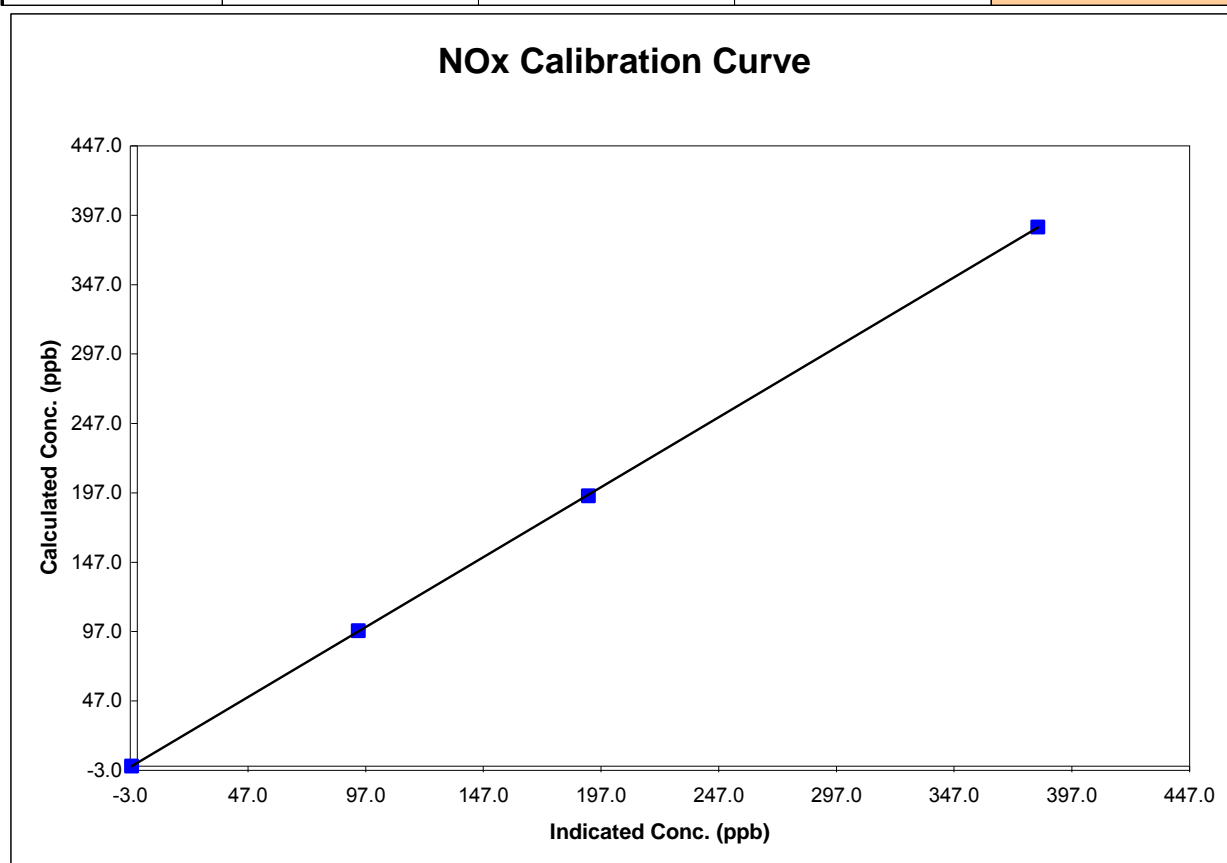
Palliser Airshed

Station Information

Calibration Date	May 21, 2008	Previous Calibration	April 18, 2008
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	7:45	End Time (MST)	12:25
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	-2.3	N/A		
388.4	382.6	1.0152	Correlation Coefficient	0.999989
194.9	191.7	1.0166		
97.6	93.9	1.0385	Slope	1.008401
			Intercept	2.341284



Calibration Summary

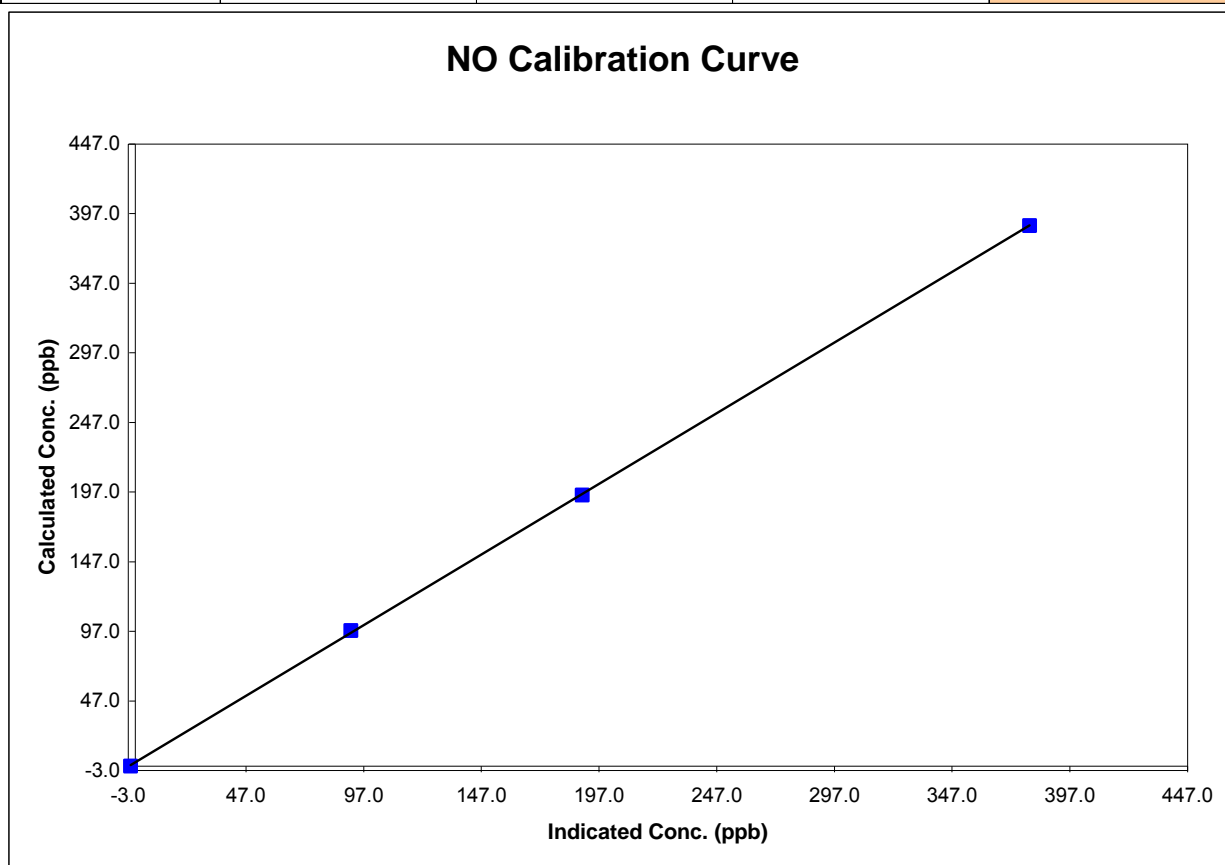
Parameter **NO**Air Monitoring Network **Palliser Airshed**

Station Information

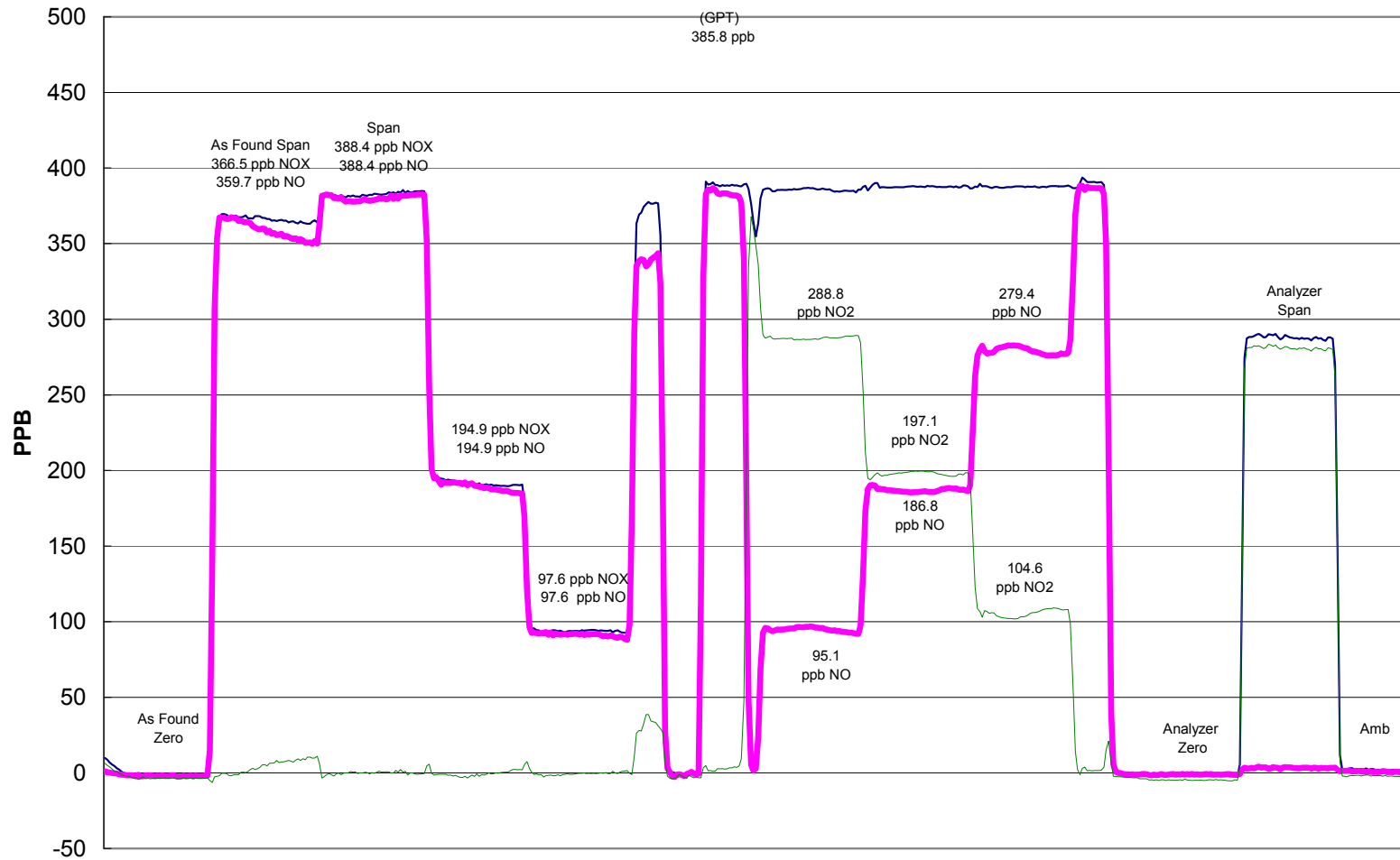
Calibration Date	May 21, 2008	Previous Calibration	April 18, 2008
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	7:45	End Time (MST)	12:25
Analyzer make	API Model 200E	Analyzer serial #	219

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-1.9	N/A		
388.4	379.9	1.0224	Correlation Coefficient	0.999947
194.9	189.9	1.0261		
97.6	91.6	1.0652	Slope	1.014930
			Intercept	2.885782



Crescent Heights NOx Calibration



May 21, 2008

Calibration Report

Parameter **THC**
Air Monitoring Network **Palliser Airshed**



Station Information

Calibration Date	May 29, 2008	Previous Calibration	April 30, 2008
Station Number	101	Station Location	Crescent Heights
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	10:00	End Time (MST)	15:35
Barometric Pressure	27.1 inches Hg	Station Temperature	20.0 Deg C
Calibrator	API700	Serial Number	
Cal Gas Concentration	708 ppm CH ₄ / 299 ppm C ₃ H ₈	Cal Gas Expiry Date	1/25/2009
Cal Gas CH ₄ equiv	1530.25 ppm	Cal Gas Cylinder #	LL-41839
DACS make	Focus AP1000	DACS serial No.	45270
DACS voltage range	0 - 10 volt	DACS channel #	9
	Before		After
Calculated slope	0.985243	Calculated slope	0.999296
Calculated intercept	0.060439	Calculated intercept	0.121693
Analyzer make	TEI 51C-LT	Analyzer serial #	0407505596

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
THC sample pressure	5.75	PSI	5.75	PSI
THC span counts	12558	raw	12033	raw
THC zero counts	1591	raw	1282	raw
V Bias	-327	Volts	-326	Volts

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)
2995	0.00	0.00	0.00	N/A
2995	79.86	39.74	39.72	1.0006
2995	39.93	20.13	19.90	1.0115
2995	9.96	5.07	4.88	1.0392
2995	0.00	0.00	0.06	As Found Zero
2995	79.86	39.74	40.84	As Found Span
Average Correction Factor				1.0171

Calculated value of As Found Response: 40.238 ppm Percent Change of As Found: -1.2%

	before calibration		after calibration	
Auto zero	0.00	ppm	0.05	ppm
Auto span	21.07	ppm	19.20	ppm

Notes: No adjustments made...

Calibration Performed By: Lenin Flores

Calibration Summary

Parameter **THC**
 Air Monitoring Network **Palliser Airshed**

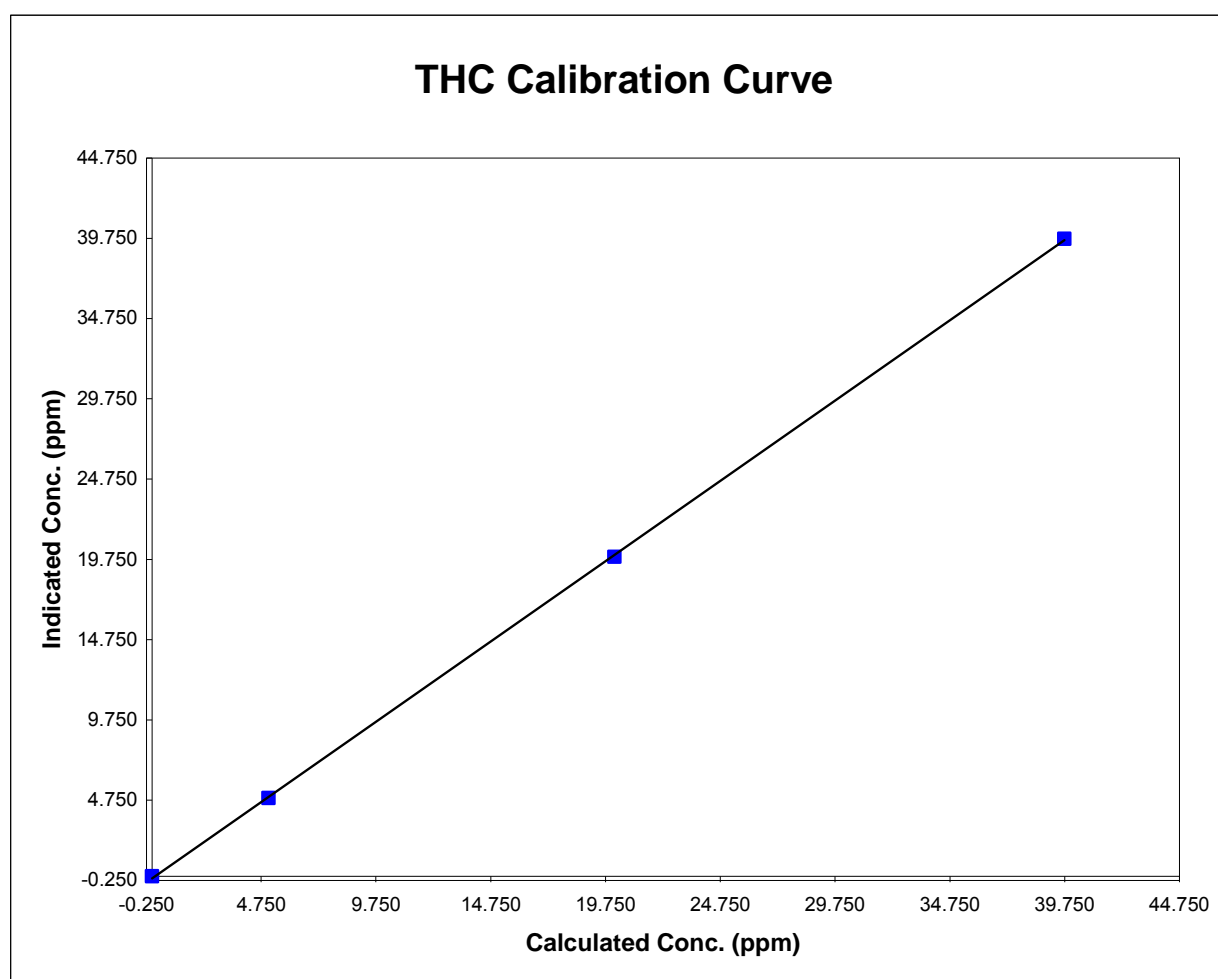


Station Information

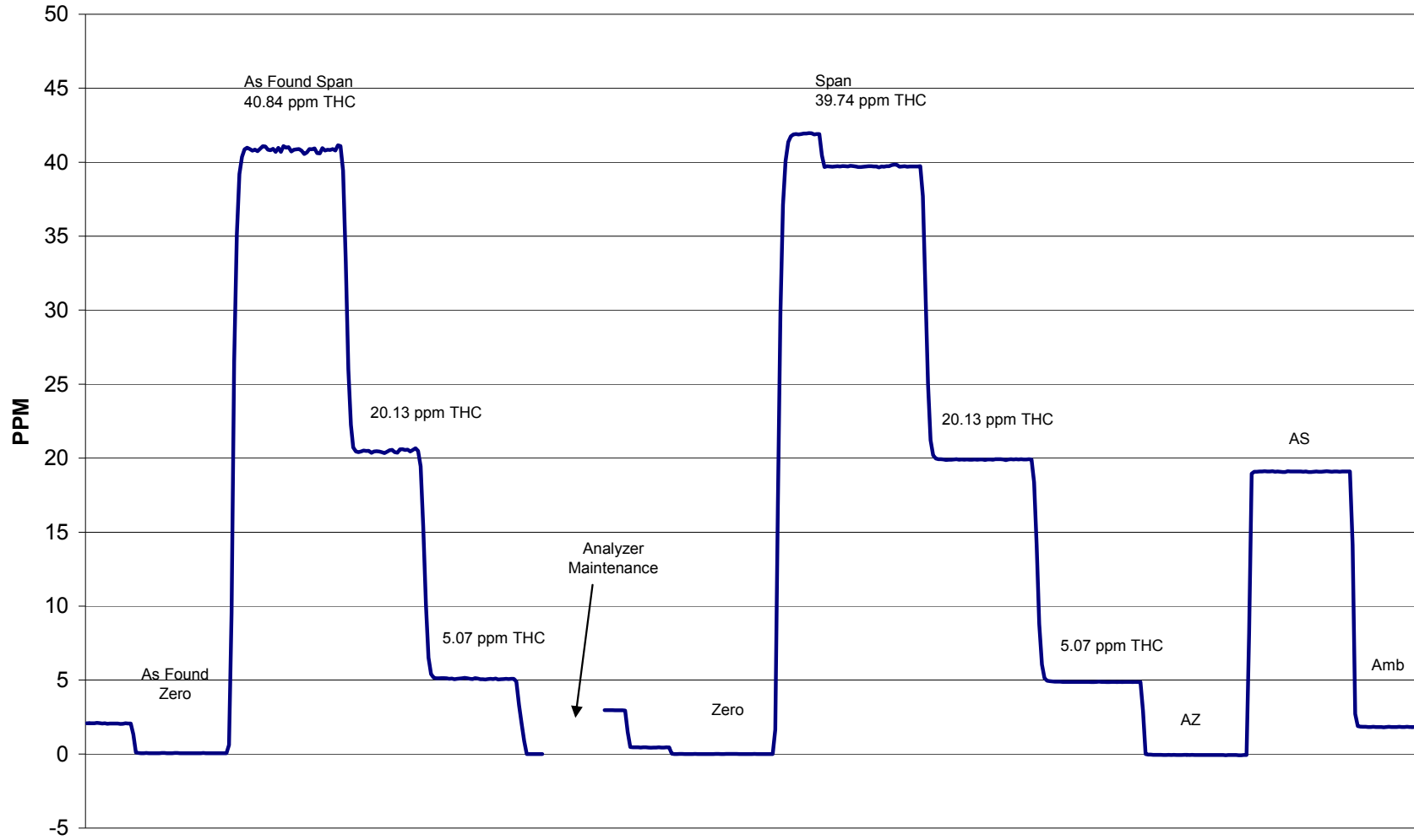
Calibration Date	May 29, 2008	Previous Calibration	April 30, 2008
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	10:00	End Time (MST)	15:35
Analyzer make/model	TEI 51C-LT	Analyzer serial #	0407505596

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.003	N/A		
39.745	39.721	1.0006	Correlation Coefficient	0.999957
20.133	19.903	1.0115		
5.074	4.883	1.0392	Slope	0.999296
			Intercept	0.121693



Crescent Heights THC Calibration



May 29, 2008

Calibration Report



Parameter **CO**
 Air Monitoring Network **Palliser**

Station Information

Calibration Date	May 29, 2008	Previous Calibration	April 30, 2008
Station Number	101	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	11:25	End Time (MST)	13:45
Barometric Pressure	27.05 in Hg	Station Temperature	20.0 Deg C
Calibrator	Envionics 6103	Serial Number	2844
Cal Gas Conc	2998 ppm	Cal Gas Expiry Date	3/14/2008
		Cal Gas Cylinder #	BLM002248
DACS make	Focus AP1000	DACS serial No.	45270
DACS voltage range	0 - 1 volt	DACS channel #	11
	<u>Before</u>		<u>After</u>
Calculated slope	0.997177	Calculated slope	0.998091
Calculated intercept	-0.020049	Calculated intercept	0.032414
Analyzer make	TEI Model 48C	Analyzer serial #	436609887

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO coefficient	1.106		1.106	
CO bkg setting	3.56		4.070	
Lamp ratio	1.138325		1.137516	
Lamp intensity	1999456	Hz	199566	Hz
Sample Flow	1.008	LPM	1.005	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)
2995	0.00	0.00	0.00	N/A
2995	39.93	39.45	39.50	0.9986
2995	19.95	19.84	19.84	1.0000
2995	9.96	9.93	9.89	1.0049
2995	0.00	0.00	0.00	0.0000
2995	39.93	39.44	39.50	0.9986
Average Correction Factor				1.0012

Calculated value of As Found Response: 39.373 ppm Percent Change of As Found: 0.2%

	before calibration		after calibration	
Auto zero	-0.11	ppm	0.03	ppm
Auto span	19.35	ppm	19.77	ppm

Notes: Changed the Span cylinder and adjusted the excess flow to 450ccm...

Calibration Performed By: Lenin Flores

Calibration Summary



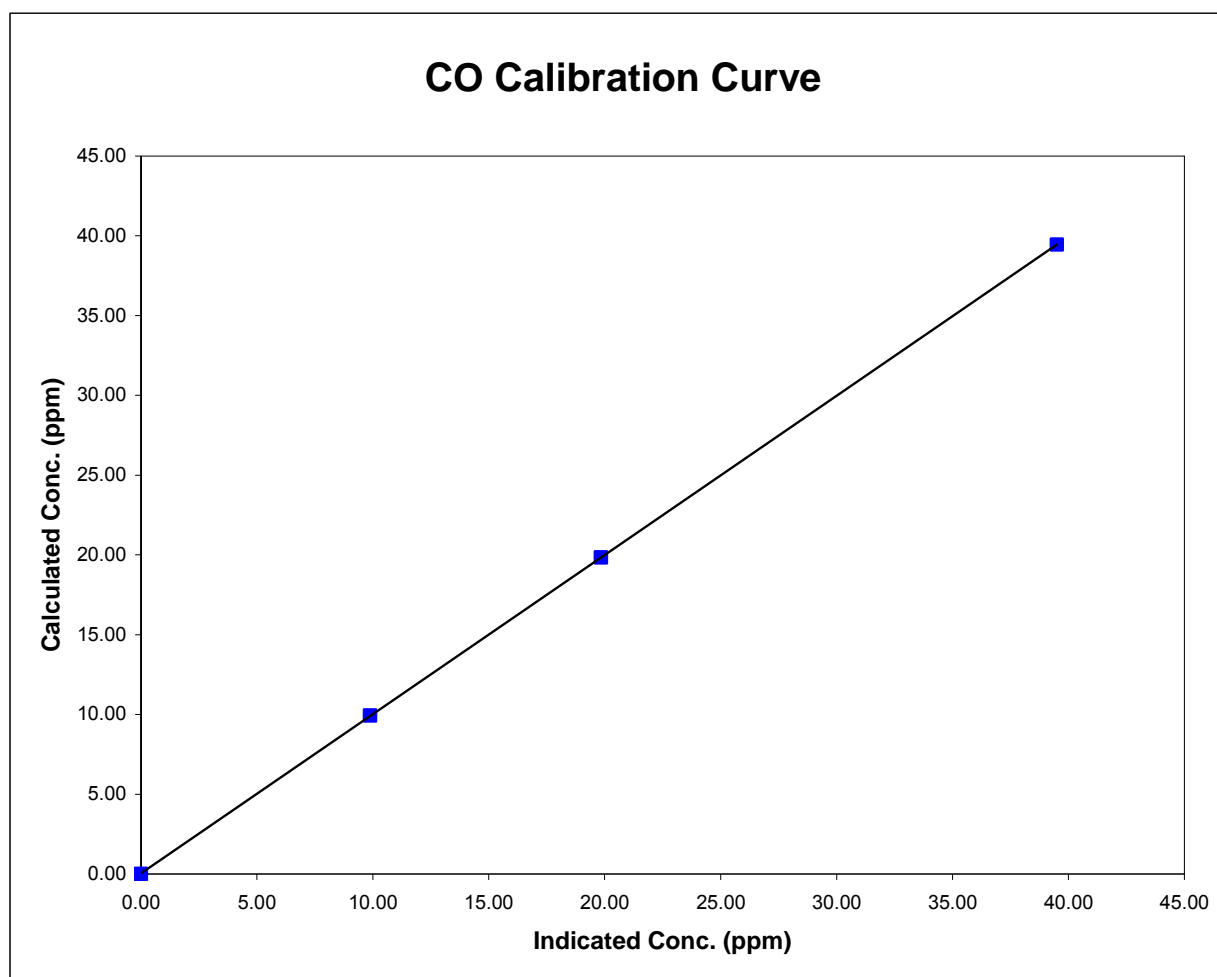
Parameter **CO**
 Air Monitoring Network **Palliser**

Station Information

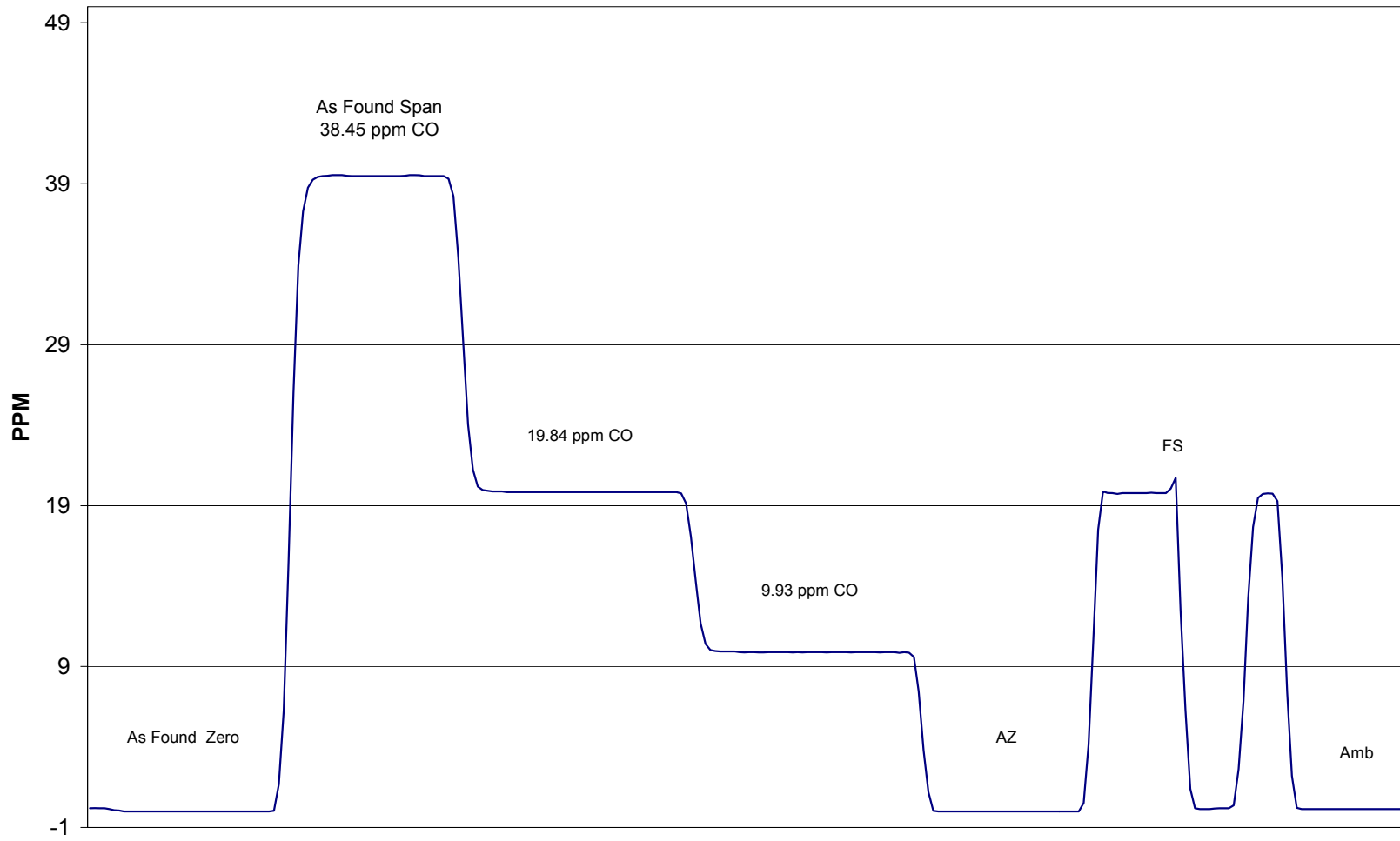
Calibration Date	May 29, 2008	Previous Calibration	April 30, 2008
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	11:25	End Time (MST)	13:45
Analyzer make/model	TEI Model 48C	Analyzer serial #	436609887

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.00	0.00	N/A		
39.45	39.50	0.9986	Correlation Coefficient	0.999997
19.84	19.84	1.0000		
9.93	9.89	1.0049	Slope	0.998091
			Intercept	0.032414



Crescent Heights CO Calibration



May 29, 2008

Calibration Report

Parameter **PM2.5**
 Air Monitoring Network **Palliser Airshed**



Station Information

Calibration Date	May 29, 2008	Previous Calibration	April 30, 2008
Station Number	101	Station Location	Crescent Heights
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	7:35	End Time (MST)	9:00
Barometric Pressure	0.886 ATM	Station Temperature	20.0 Deg C
Flow Calibrator	BIOS Drycal Definer 220	Serial Number	111860
DACS make	AP 1000	DACS serial No.	45269
DACS voltage range	0 - 1 V	DACS channel #	15
	Before		After
DACS Scale High	450	DACS slope	450
DACS Scale Low	-50	DACS intercept	-50

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	13.67	SLPM	13.67	SLPM
Filter Load	33%	%	31%	%
Ko Factor	NA		NA	
Temperature	6.5	Deg C	6.3	Deg C
Pressure	0.886	ATM	0.886	ATM

Calibration Data

Parameter	Set Point	TEOM Reading (as found)	Tolerance	TEOM Reading (after adjustments)
zero flow - main	0.0	0.01	0.00	0.01
zero flow - auxillary	0.0	-0.01	0.01	-0.01
flow recovery - main	45 - 60 Seconds	47	45 - 60 Seconds	41
flow recovery - aux	46 - 60 Seconds	52	46 - 60 Seconds	45
Temperature	measured	6.3	+/- 1.0 Deg C	6.3
Pressure	measured	0.886	+/- 1.5% ΔATM	0.886
Total Flow	16.67 SLPM	16.39		16.59
Auxiliary flow	13.67 SLPM	13.32	+/- 1.0 SLPM	13.55
Main flow	3.0 SLPM	2.930	+/- 0.2 SLPM	2.980
Leak Check - main	0.0	0.01	<0.15 SLPM	0.01
Leak Check - aux	0.0	-0.01	<0.15 SLPM	-0.01
Ko Factor (w/o filter)	measured	NA	filter weight (g)	NA
Ko Factor (w/ filter)	measured	NA	% Ko difference	NA

Notes: Adjusted both flows after replacing the pump...

Calibration Performed By: Lenin Flores

Calibration Report



Parameter **03**
 Air Monitoring Network **PAS**

Station Information

Calibration Date	May 21, 2008	Previous Calibration	April 18, 2008
Station Number	110	Station Location	Portable - Brooks
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			Other: <input type="text"/>
Start Time (MST)	14:20	End Time (MST)	16:50
Barometric Pressure	27.3 inches Hg	Station Temperature	20.0 Deg C
Calibrator	Envionics 6103	Serial Number	2844
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	45265
DACS voltage range	0 - 1 volt	DACS channel #	7
	Before		After
Calculated slope	0.942306	Calculated slope	1.025051
Calculated intercept	-3.213895	Calculated intercept	-0.011084
Analyzer make	API Model 400E	Analyzer serial #	331

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Offset	-10.5	ppb	-10.5	ppb
Slope	0.988		0.988	
Lamp measure	4276.6	mV	4246.7	mV
Lamp Reference	4277.0	mV	4250.7	mV
Pressure	26.6	inches Hg	26.6	inches Hg
Sample Flow	609	ccm	609	ccm
Sample temp	35.8	Deg C	36.2	Deg C

Calibration Data

Dilution air flow rate (cc/min)	Ozone Set Point	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4996	0.0	0.0	1.7	N/A
4996	300.0	288.8	283.2	1.0197
4996	200.0	197.1	191.2	1.0311
4996	100.0	104.6	100.1	1.0452
4996	0.0	0.0	1.7	As Found Zero
4996	300.0	288.8	283.2	As Found Span
Average Correction Factor				1.0320

Calculated value of As Found Response: 262.1 ppm Percent Change of As Found: -7.5%

	before calibration		after calibration	
Auto zero	-0.2	ppb	2.6	ppb
Auto span	393.0	ppb	219.8	ppb

Notes: No adjustments were made...

Calibration Performed By: Lenin Flores

Calibration Summary



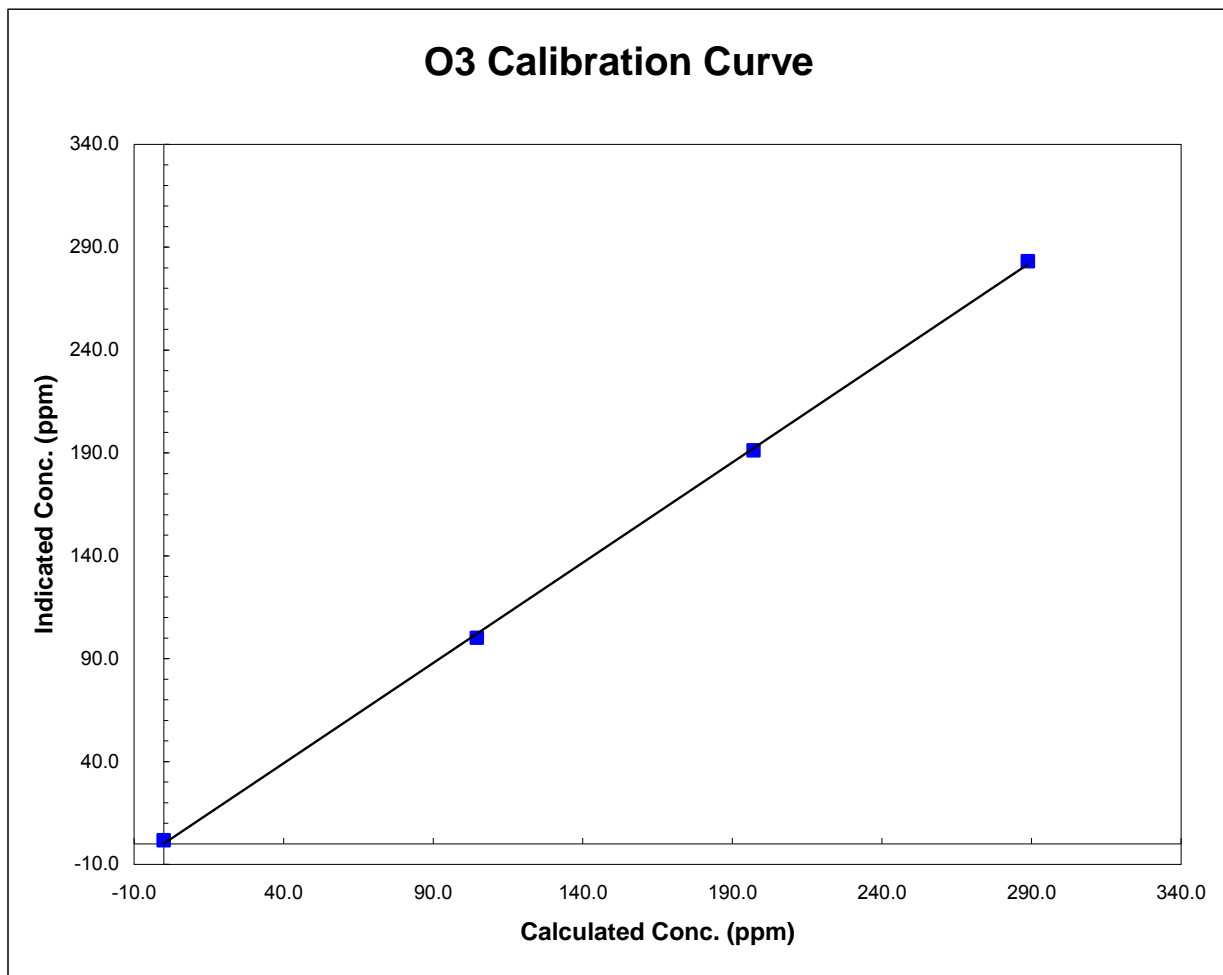
Parameter **O3**
 Air Monitoring Network **PAS**

Station Information

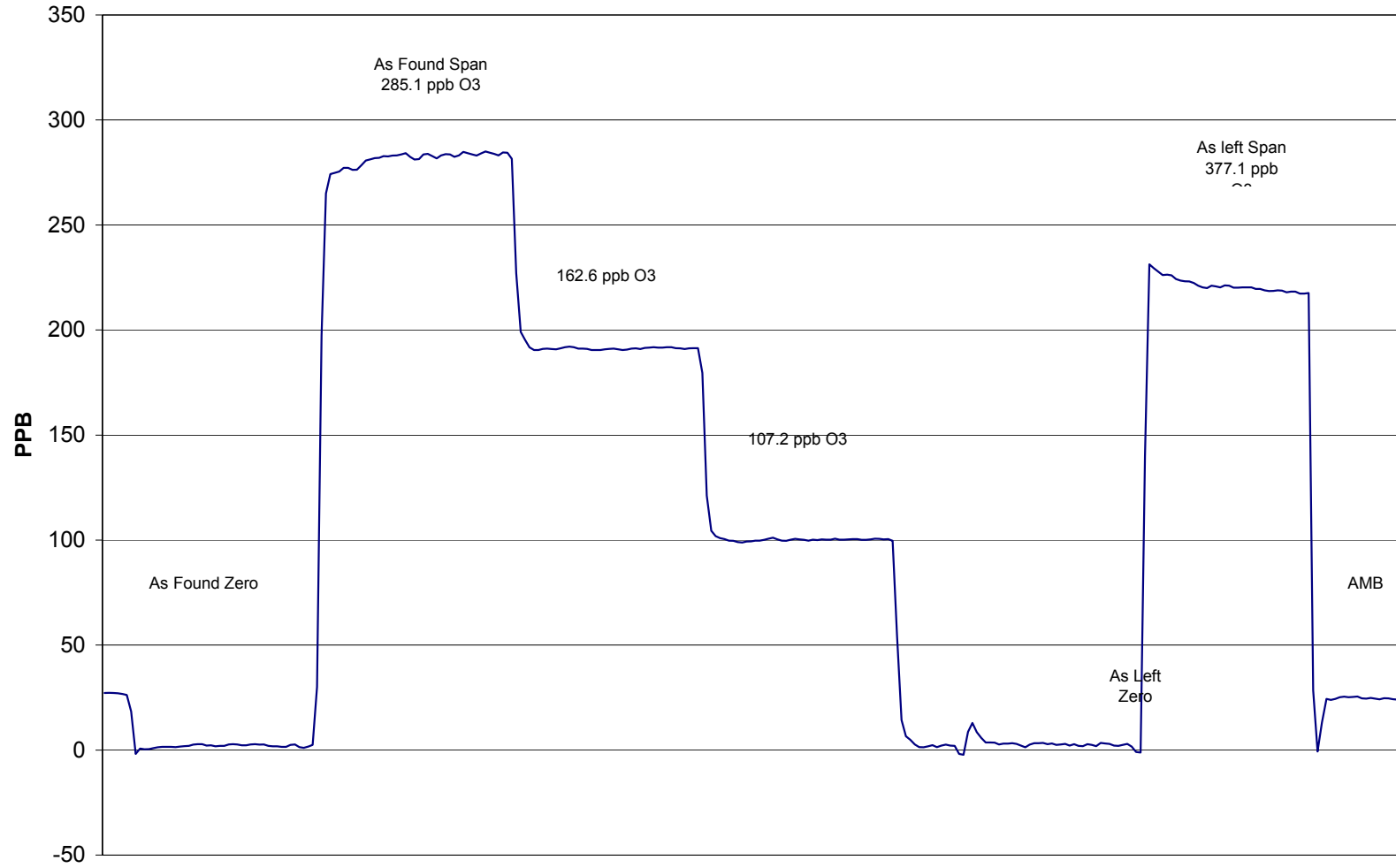
Calibration Date	May 21, 2008	Previous Calibration	April 18, 2008
Station Number	110	Station Location	Portable - Brooks
Start Time (MST)	14:20	End Time (MST)	16:50
Analyzer make/model	API Model 400E	Analyzer serial #	331

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
288.8	283.2	1.0197	Correlation Coefficient	0.999769
197.1	191.2	1.0311		
104.6	100.1	1.0452		
0.0	1.7	N/A		
			Slope	1.025051
			Intercept	-0.011084



Portable Brooks - O3 Calibration



May 21, 2008

Calibration Report



Parameter **SO2**
 Air Monitoring Network **PAS**

Station Information

Calibration Date	May 28, 2007	Previous Calibration	April 25, 2007
Station Number	110	Station Location	Portable - Brooks
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	8:45	End Time (MST)	11:50
Barometric Pressure	27.80 inches Hg	Station Temperature	22.0 Deg C
Calibrator	Dasibi 5008	Serial Number	723
Cal Gas Concentration	50.3 ppm	Cal Gas Expiry Date	27-Jul-09
Gas Cert Reference	LL-16136		
DACS make	Focus AP1000	DACS serial No.	45265
DACS voltage range	0 - 10 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.971832	Calculated slope	0.998424
Calculated intercept	-0.993946	Calculated intercept	3.397378
Analyzer make	TEI Model 43A	Analyzer serial #	NA

	before		after	
Concentration range	0-500	ppb	0-500	ppb
SO2 zero pot	1.5		1.5	
SO2 span pot	4.65		3.75	
Analyzer flow	4.75	LPM	3.96	LPM
UV Lamp voltage	859	V	858	V
Vacuum	23.5	in Hg	21.5	in Hg

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4996	0.00	0.0	-1.2	N/A
4996	39.93	398.8	397.5	1.0033
4996	19.96	200.1	194.7	1.0277
4996	9.99	100.4	95.8	1.0479
4996	0.00	0.0	-1.2	As found zero
4996	39.93	398.8	420.9	As found span
Average Correction Factor				1.0263

Calculated value of As Found Response: 409.225 ppm Percent Change of As Found: -2.6%

	before calibration		after calibration	
Auto zero	-7.0	ppm	-1.2	ppm
Auto span	203.9	ppm	191.7	ppm

Notes: Adjusted Span...

Calibration Performed By: Lenin Flores

Calibration Summary



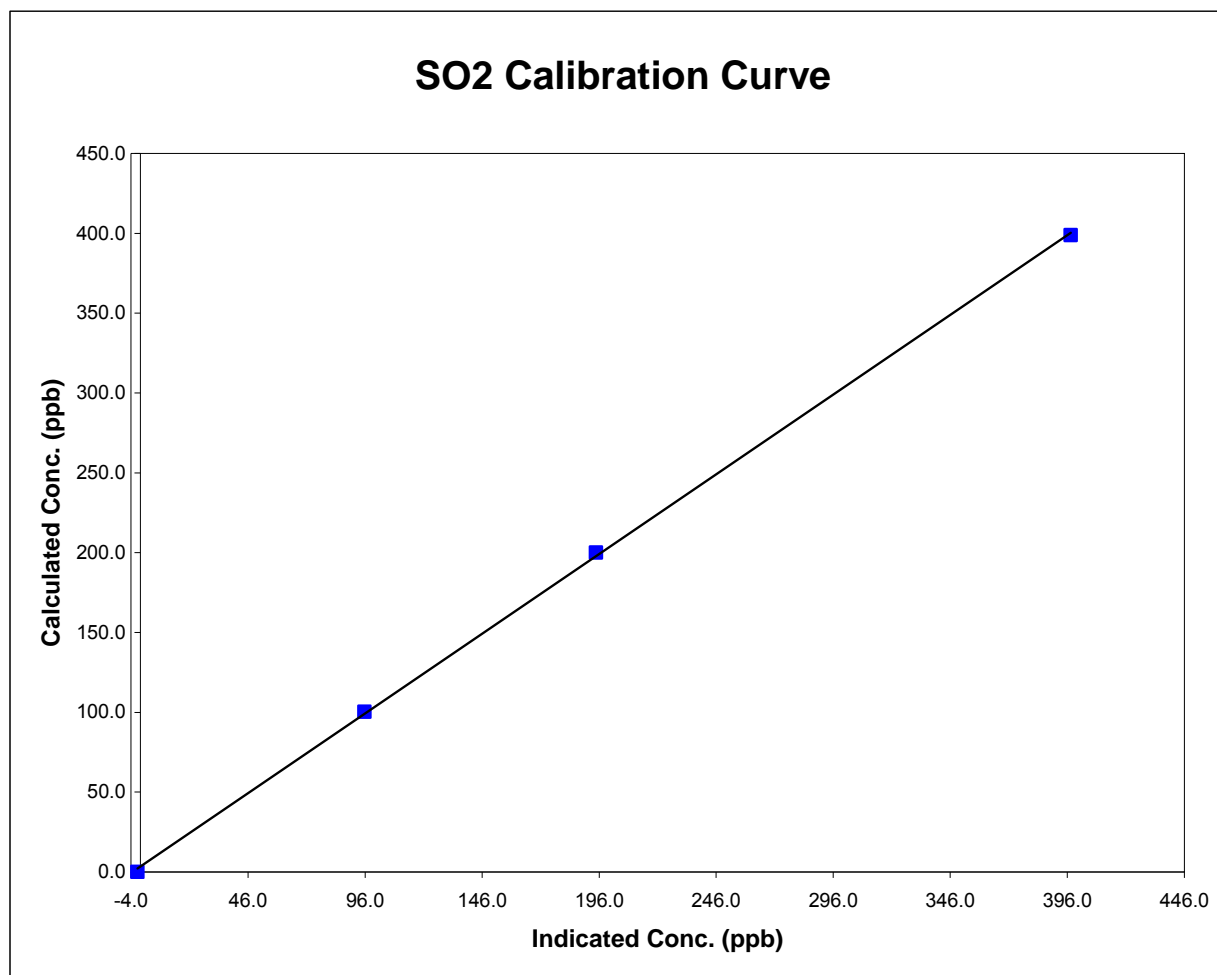
Parameter **SO2**
 Air Monitoring Network **PAS**

Station Information

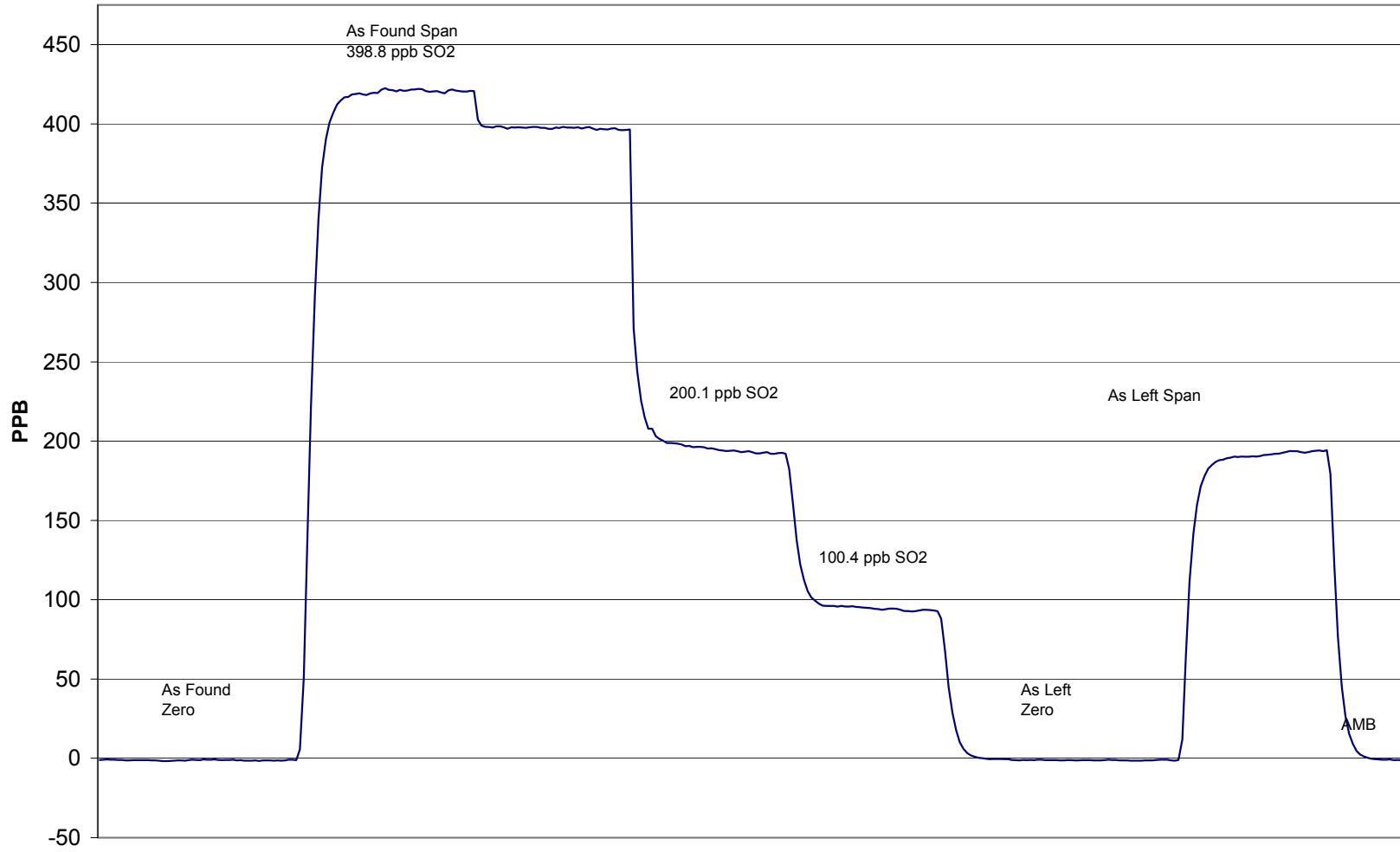
Calibration Date	May 28, 2007	Previous Calibration	April 25, 2007
Station Number	110	Station Location	Portable - Brooks
Start Time (MST)	8:45	End Time (MST)	11:50
Analyzer make/model	TEI Model 43A	Analyzer serial #	NA

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-1.2	N/A		
398.8	397.5	1.0033	Correlation Coefficient	0.999838
200.1	194.7	1.0277		
100.4	95.8	1.0479	Slope	0.998424
			Intercept	3.397378



Portable Brooks - SO₂ Calibration



May 28, 2007

Calibration Report



Parameter **H2S**
 Air Monitoring Network **PAS**

Station Information

Calibration Date	May 28, 2008	Previous Calibration	April 25, 2008
Station Number	110	Station Location	Brooks Rover
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			Other: <input type="text"/>
Start Time (MST)	10:40	End Time (MST)	13:20
Barometric Pressure	27.8 inches Hg	Station Temperature	22.0 Deg C
Calibrator	Envionics 6103	Serial Number	2844
Cal Gas Concentration	5.02 ppm	Cal Gas Expiry Date	15-Nov-05
Gas Cert Reference	BLM003489		
DACS make	Focus AP1000	DACS serial No.	45265
DACS voltage range	0 - 10 volt	DACS channel #	6
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.987932	Calculated slope	0.970332
Calculated intercept	-0.353006	Calculated intercept	-0.027800
Analyzer make	TEI Model 43A	Analyzer serial #	43A-25575-221

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
H2S zero pot	9.59		9.60	
H2S span pot	5.55		7.35	
Analyzer flow	0.900	LPM	0.900	LPM
UV Lamp voltage	935	V	933	V
Vacuum	21.5	in Hg	21.5	in Hg

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4000	0.00	0.0	0.8	N/A
4000	70.00	86.3	89.7	0.9630
4000	40.00	49.7	50.2	0.9908
4000	10.00	12.5	12.6	0.9959
4000	0.00	0.0	0.8	As found zero
4000	70.00	86.3	89.7	As found span
Average Correction Factor				0.9832

Calculated value of As Found Response: 87.41 ppm Percent Change of As Found: -1.2%

	before calibration		after calibration	
Auto zero	1.3	ppm	0.7	ppm
Auto span	36.1	ppm	43.4	ppm

Notes: No adjustments were performed...

Calibration Performed By: Lenin Flores

Calibration Summary



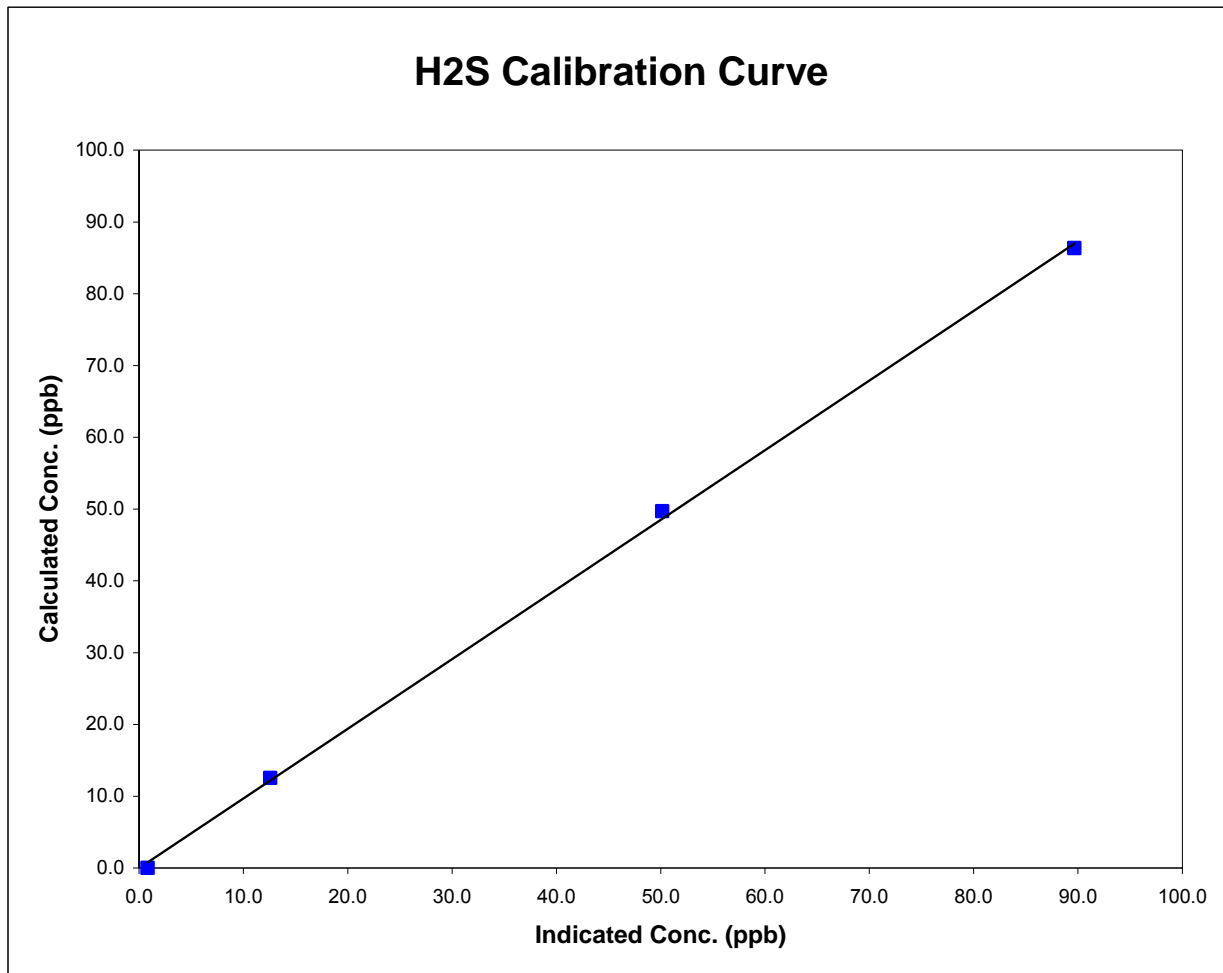
Parameter **H2S**
 Air Monitoring Network **PAS**

Station Information

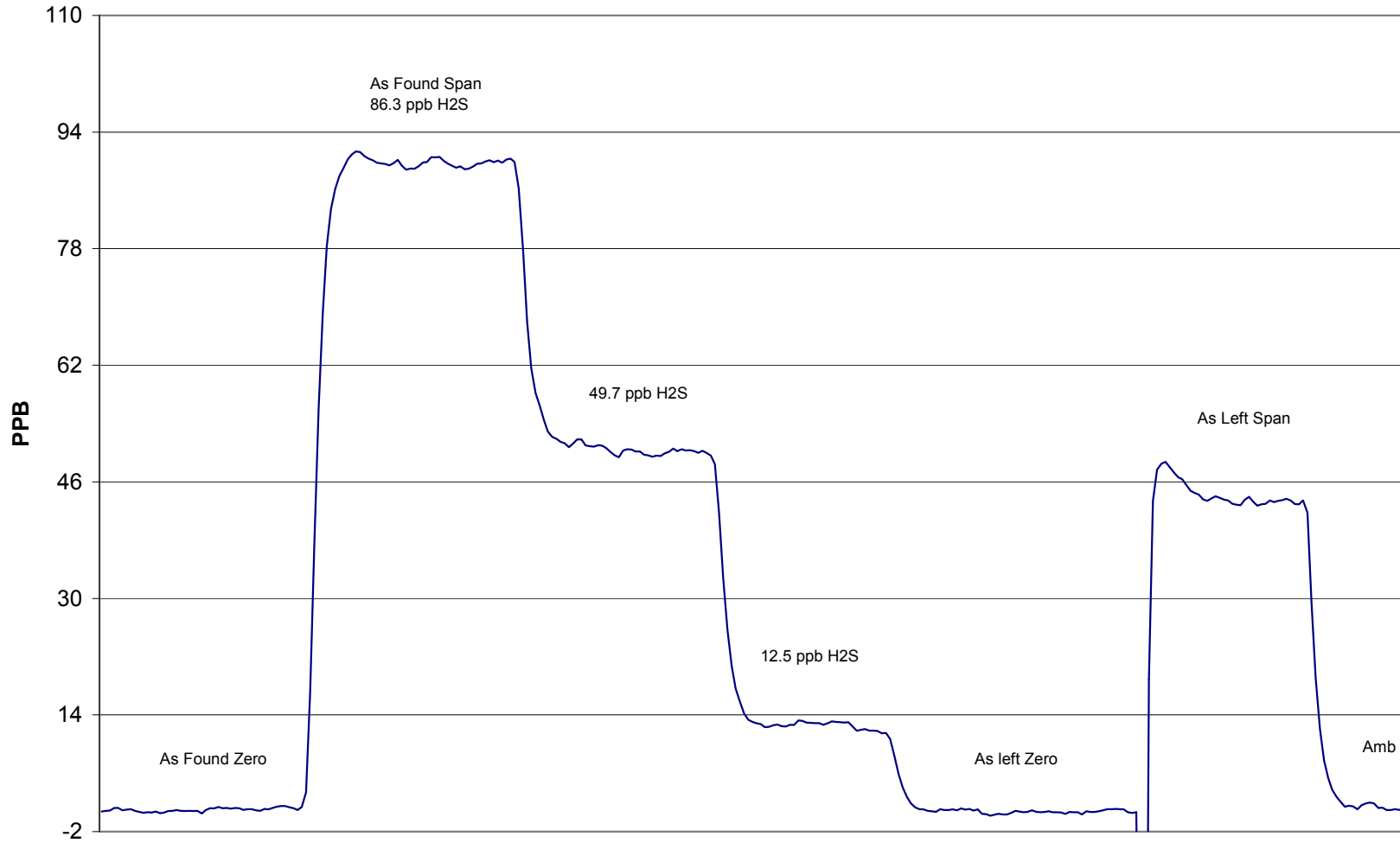
Calibration Date	May 28, 2008	Previous Calibration	April 25, 2008
Station Number	110	Station Location	Brooks Rover
Start Time (MST)	10:40	End Time (MST)	13:20
Analyzer make/model	TEI Model 43A	Analyzer serial #	43A-25575-221

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.8	N/A		
86.3	89.7	0.9630	Correlation Coefficient	0.999511
49.7	50.2	0.9908		
12.5	12.6	0.9959	Slope	0.970332
			Intercept	-0.027800



Portable Brooks - H₂S Calibration



May 28, 2008