



# Palliser Airshed Society

## Ambient Air Monitoring Network Summary

### January 2008

Prepared By:



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February 19, 2008

**Alberta Environment**  
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9820-106 Street  
Edmonton Alberta T6B 2X3

**Attention:** Director of Monitoring and Evaluation

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

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Enclosed is the PAS Ambient Monitoring Report for the month of **January 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 the month of January
- ◆ The measured ambient air quality was within the Provincial 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 NO<sub>2</sub> was 9.4 ppb
  - Monthly average concentrations for O<sub>3</sub> was 22.2 ppb
  - Monthly average concentrations for CO was 0.20 ppm
  - Monthly average concentrations for THC was 2.12 ppm
  - Monthly average concentrations for PM<sub>2.5</sub> was 2.2 µg/m<sup>3</sup>
- ◆ The Air Quality Index (AQI) recorded 705 hours of Good readings for the month of January.

**Portable-Brooks:**

- ◆ All pollutant analyzers at the Portable Brooks Station were 100% operational for the month of January, however the wind sensors were less than 90% operational. **Alberta Environment reference # 197728...**
- ◆ There was one exceedences of the Alberta Objective (10 ppb) for H<sub>2</sub>S in January:
  1. Janaury 9<sup>th</sup> (7:00-8:00): H<sub>2</sub>S 14.8 ppb: **Alberta Environment reference # 196889.**
- ◆ The following is a summary of the monthly averages recorded during sampling:
  - Monthly average concentrations of SO<sub>2</sub> was 0.5 ppb
  - Monthly average concentrations for H<sub>2</sub>S was 0.2 ppb
  - Monthly average concentrations for O<sub>3</sub> was 21.8 ppb



### Passive Monitoring – Twenty Sites throughout the PAS zone:

The passive sample analyses were performed by MAXXAM Analytics Inc. There are no results for Site 1 as the samples were not collected due to road closure. There are no results for Site 14 as passive shelter and samples were removed from operation by a disgruntled land owner, the site was relocated at the end of January. The following are the ranges for January 2008 recorded by the twenty passive stations located throughout the PAS zone.

- ◆ Average concentrations for SO<sub>2</sub> passives ranged from 0.3 to 0.7 ppb with a mean of 0.5 ppb.
- ◆ Average concentrations for NO<sub>2</sub> passives ranged from 0.4 to 5.7 ppb with a mean of 2.3 ppb.
- ◆ Average concentrations for O<sub>3</sub> passives ranged from 24.5 to 45.5 ppb with a mean of 32.8 ppb.

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

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# Continuous Monitoring

## Ambient Air Monitoring Network

### Crescent Heights Station

#### General Station Issues

Routine monthly calibrations were performed on January 29<sup>th</sup> (NO<sub>x</sub> and THC), and January 30<sup>th</sup> (O<sub>3</sub> and CO).

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	No operational problems observed.
Carbon Monoxide	TEI	49C	ppm	No operational problems observed.
PM <sub>2.5</sub>	R&P TEOM	1400ab	µg/m <sup>3</sup>	Six (6) hours were flagged for excessive baseline drift. No other operational problems observed.
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 <sup>2</sup>	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 January 17<sup>th</sup> (O<sub>3</sub>, SO<sub>2</sub> and H<sub>2</sub>S).

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	There was one exceedences of the Alberta Objective (10 ppb) for H <sub>2</sub> S: January 9 <sup>th</sup> H <sub>2</sub> S 14.8 ppb: <b>Alberta Environment reference # 196889</b> . No operational problems observed.
Wind Speed	Blue Sky		kph	Due to bearings failing and the wind system falling upside down (January 15 <sup>th</sup> to Janaury 17 <sup>th</sup> ) – a total of one hundred and five (105) hours were flagged invalid. <b>Alberta Environment reference #197728</b>
Wind Direction	Blue Sky		Deg	Due to bearings failing and the wind system falling upside down (January 15 <sup>th</sup> to Janaury 17 <sup>th</sup> ) – a total of one hundred and five (105) hours were flagged invalid. <b>Alberta Environment reference #197728</b>
Data Acquisition System	Titan Logix	AP1000		No operational problems observed.



# January 2008 Monthly Overall Summary Report

## Ambient Air Quality Data

Jan-2008		Palliser Airshed Society					Maximum Recorded Values								
							1-hr		24-hr / 8-hr		Conc	Day	WSPD (km/hr)	WDIR (Sector)	
Pollutant (units)	Objectives	Station	Monthly Average	Exceedence		1-hr	24-hr	Conc	Day	WSPD (km/hr)	WDIR (Sector)	Conc	Day	Operational Time (%)	
NO (ppb)		Crescent Heights	4.7	-	-	82.3	Jan-11 19:00	4.3	SSE	22.7	Jan-11	100.0%			
NO <sub>2</sub> (ppb)	212	106	Crescent Heights	9.4	0	0	39.0	Jan-18 20:00	5.4	SE	17.2	Jan-18	100.0%		
NO <sub>x</sub> (ppb)		Crescent Heights	13.8	-	-	105.7	Jan-11 19:00	4.3	SSE	39.4	Jan-11	100.0%			
O <sub>3</sub> (ppb)	82	Crescent Heights	22.2	0	-	38.4	Jan-02 03:00	31.6	S	34.7	Jan-26	100.0%			
O <sub>3</sub> (ppb) - 8-hr	65	Crescent Heights		0						37.0	Jan-02				
CO (ppm)	13	Crescent Heights	0.20	0	-	0.9	Jan-11 19:00	4	SSE	0.4	Jan-11	100.0%			
CO (ppm) - 8-hr	5	Crescent Heights		0						0.5	Jan-11				
THC (ppm)		Crescent Heights	2.12	-	-	3.3	Jan-11 08:00	4.8	NNE	2.6	Jan-11	100.0%			
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	30 <sup>a</sup>	Crescent Heights	2.2	0	0	11.3	Jan-19 01:00	3.2	NE	5.3	Jan-11	99.2%			
RH (%)		Crescent Heights	62.5	-	-	-	-	-	-	-	-	100.0%			
SR (W/m <sup>2</sup> )		Crescent Heights	63.3	-	-	-	-	-	-	-	-	100.0%			
Temp (°C)		Crescent Heights	-7.6	-	-	-	-	-	-	-	-	100.0%			
WSPD v (km/hr)		Crescent Heights	14.0	-	-	41.1	Jan-14 15:00	41.1	SW	28.2	Jan-05	100.0%			
WSPD s (km/hr)		Crescent Heights	14.4	-	-	41.3	Jan-14 15:00	41.3	SW	28.3	Jan-05	100.0%			
WDIR		Crescent Heights	WSW	-	-	-	-	-	-	-	-	100.0%			
SO <sub>2</sub> (ppb)	172	57	Portable-Brooks	0.5	0	0	6.9	Jan-31 21:00	15.8	N	2.3	Jan-29	100.0%		
O <sub>3</sub> (ppb)	82		Portable-Brooks	21.8	0	-	40.5	Jan-26 15:00	16.3	WSW	33.9	Jan-26	100.0%		
O <sub>3</sub> (ppb) - 8-hr	65		Portable-Brooks		0						38.0	Jan-26			
H <sub>2</sub> S (ppb)	10	3	Portable-Brooks	0.25	1	0	14.8	Jan-09 07:00	N	N	1.8	Jan-09	100.0%		
WSPD v (km/hr)			Portable-Brooks	13.7	-	-	36.9	Jan-02 06:00	36.9	SSW	24.9	Jan-05	85.9%		
WSPD s (km/hr)			Portable-Brooks	13.8	-	-	36.9	Jan-02 06:00	36.9	SSW	25.0	Jan-02	85.9%		
WDIR			Portable-Brooks	SSW	-	-	-	-	-	-	-	-	85.9%		

Note:

<sup>a</sup> the draft 24-hr Alberta Ambient Air Quality Objective



# **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: January 1, 2008 to February 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:	705
Number of 1-hr Fair Readings:	0
Number of 1-hr Poor Readings:	0
Number of 1-hr Very Poor Readings:	0

#### Status Flag Characters

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

#### Day Mountain Standard Time

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



## PAS - Crescent Heights Nitrogen Dioxide Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: January 1, 2008 to February 1, 2008

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

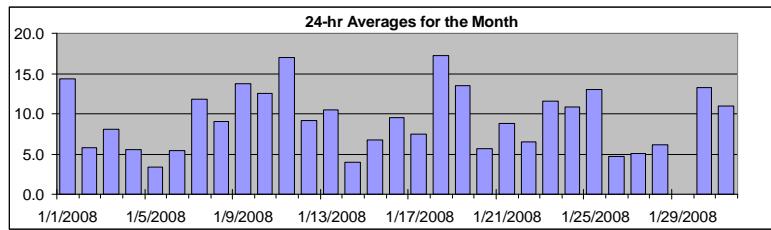
Number of 1-hr Exceedances:	0		
Number of 24-hr Exceedances:	0		
Maximum 1-hr Average:	39.0 ppb	18-Jan	20:00 21:00
Maximum 24-hr Average:	17.2 ppb	18-Jan	

AIC Time:	33 hrs	Operational Time:	705 hrs						
Calibration Time:	6 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	31.7	24.2	12.7	6.9	4.3	2.2	1.4	9.4 ppb	6.9 ppb

Day	Mountain Standard Time																									24-hour Average	Daily Maximum
	Hour Start 1:00	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-Jan-08	16	16	17	21	17	17	23	26	A	4	2	3	3	5	9	15	19	19	21	21	26	11	16	5	14.3	25.9	
2-Jan-08	14	4	1	2	2	2	2	A	5	4	5	5	7	4	6	9	9	16	9	6	6	4	6	3	5.7	16.0	
3-Jan-08	2	5	8	3	4	8	A	16	24	18	7	7	3	6	7	10	11	9	8	7	6	6	5	5	8.1	24.5	
4-Jan-08	2	2	3	5	1	A	6	5	6	9	9	6	7	6	7	8	12	8	3	3	5	3	3	6	5.5	11.8	
5-Jan-08	3	2	5	2	A	4	3	4	4	5	4	3	4	2	2	3	3	4	3	4	3	4	3	3	3.4	5.4	
6-Jan-08	2	2	3	A	6	4	6	4	5	4	6	5	4	3	6	6	8	5	7	12	10	7	4	5	5.4	12.0	
7-Jan-08	4	4	A	5	5	5	10	18	16	15	13	7	8	7	5	7	14	27	29	24	19	11	9	8	11.8	28.6	
8-Jan-08	10	A	7	9	15	10	11	10	13	12	9	8	7	4	7	6	7	9	8	8	8	13	12	6	9.0	15.3	
9-Jan-08	A	6	6	8	8	12	17	17	18	12	9	8	10	9	10	13	18	22	24	21	17	18	22	A	13.8	23.6	
10-Jan-08	25	20	19	10	7	6	11	21	22	10	4	2	3	1	3	3	6	9	18	23	23	34	A	11	12.5	33.8	
11-Jan-08	17	18	17	19	17	17	18	19	16	12	8	10	11	13	14	14	21	22	23	24	23	A	20	16	16.9	23.7	
12-Jan-08	12	13	15	13	6	4	7	3	4	7	4	4	1	1	4	5	11	14	16	17	A	13	18	18	9.1	18.3	
13-Jan-08	10	6	7	6	9	13	22	23	24	17	8	4	5	4	5	5	12	16	12	A	12	9	7	10.5	23.6		
14-Jan-08	3	2	3	4	2	4	5	5	7	5	3	6	4	5	2	5	5	4	A	4	5	5	3	2	3.9	6.8	
15-Jan-08	5	5	3	6	4	4	2	9	10	8	9	11	5	4	4	3	3	A	19	5	13	5	8	8	6.8	19.1	
16-Jan-08	15	18	14	14	19	20	12	15	12	11	8	3	5	3	5	5	A	7	7	9	6	5	3	4	9.5	20.3	
17-Jan-08	5	4	4	6	2	2	5	5	9	5	6	4	3	2	5	A	6	11	10	16	10	8	17	28	7.5	28.0	
18-Jan-08	26	9	7	4	5	9	17	20	23	26	18	10	5	6	A	8	10	21	17	24	39	36	32	26	17.2	39.0	
19-Jan-08	29	37	28	25	26	12	11	13	19	14	13	10	10	A	9	7	6	5	7	7	8	5	4	4	13.5	37.3	
20-Jan-08	5	5	3	3	4	4	4	5	5	6	8	4	A	4	5	7	7	8	8	7	7	6	6	7	5.6	7.7	
21-Jan-08	9	10	8	7	7	6	9	7	7	4	3	A	17	12	16	15	7	6	7	7	9	13	8	8	8.8	17.0	
22-Jan-08	6	9	6	9	9	14	16	11	11	9	A	9	5	2	2	6	6	2	3	1	2	3	6	3	6.5	15.6	
23-Jan-08	6	14	22	18	25	27	30	26	30	A	17	5	2	2	2	4	5	6	8	5	4	6	2	1	11.6	29.9	
24-Jan-08	3	1	4	7	8	13	19	30	A	29	18	18	20	13	7	10	12	11	8	4	4	3	3	3	10.8	29.7	
25-Jan-08	7	8	5	9	9	11	24	A	21	23	15	18	17	6	4	8	14	30	33	22	5	4	3	4	13.0	32.8	
26-Jan-08	2	6	2	4	6	5	A	12	8	5	4	6	3	3	3	4	5	5	3	4	5	4	3	4	4.6	11.8	
27-Jan-08	3	3	7	10	2	A	6	3	6	7	5	4	6	3	2	2	2	3	3	4	6	9	3	5	5.1	9.9	
28-Jan-08	3	4	5	6	A	4	6	6	5	4	3	2	2	2	2	3	4	6	9	15	16	12	12	12	6.2	15.6	
29-Jan-08	15	14	14	A	20	19	23	26	20	14	5	0	0	0	0	C	C	C	C	C	A	5	7	N	25.7		
30-Jan-08	8	9	A	9	6	9	11	18	20	13	10	11	10	7	5	5	5	8	15	13	22	30	29	31	13.3	30.8	
31-Jan-08	35	37	A	23	27	15	7	13	12	4	2	3	3	3	3	9	9	9	10	9	7	6	6	5	11.0	37.2	
Hourly Avg	10.0	9.8	8.8	9.2	9.5	9.6	11.8	13.4	13.3	10.5	7.8	6.5	6.3	5.0	5.5	7.3	9.0	11.2	12.0	11.1	11.1	9.9	9.3	8.3			
Hourly Max	35.1	37.3	28.4	24.7	26.9	26.7	29.7	29.7	29.9	28.8	18.2	17.8	20.4	13.4	15.8	15.0	20.8	29.6	32.8	24.2	39.0	36.2	31.7	30.8			

### HOURLY AVERAGE TABLE

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



### 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

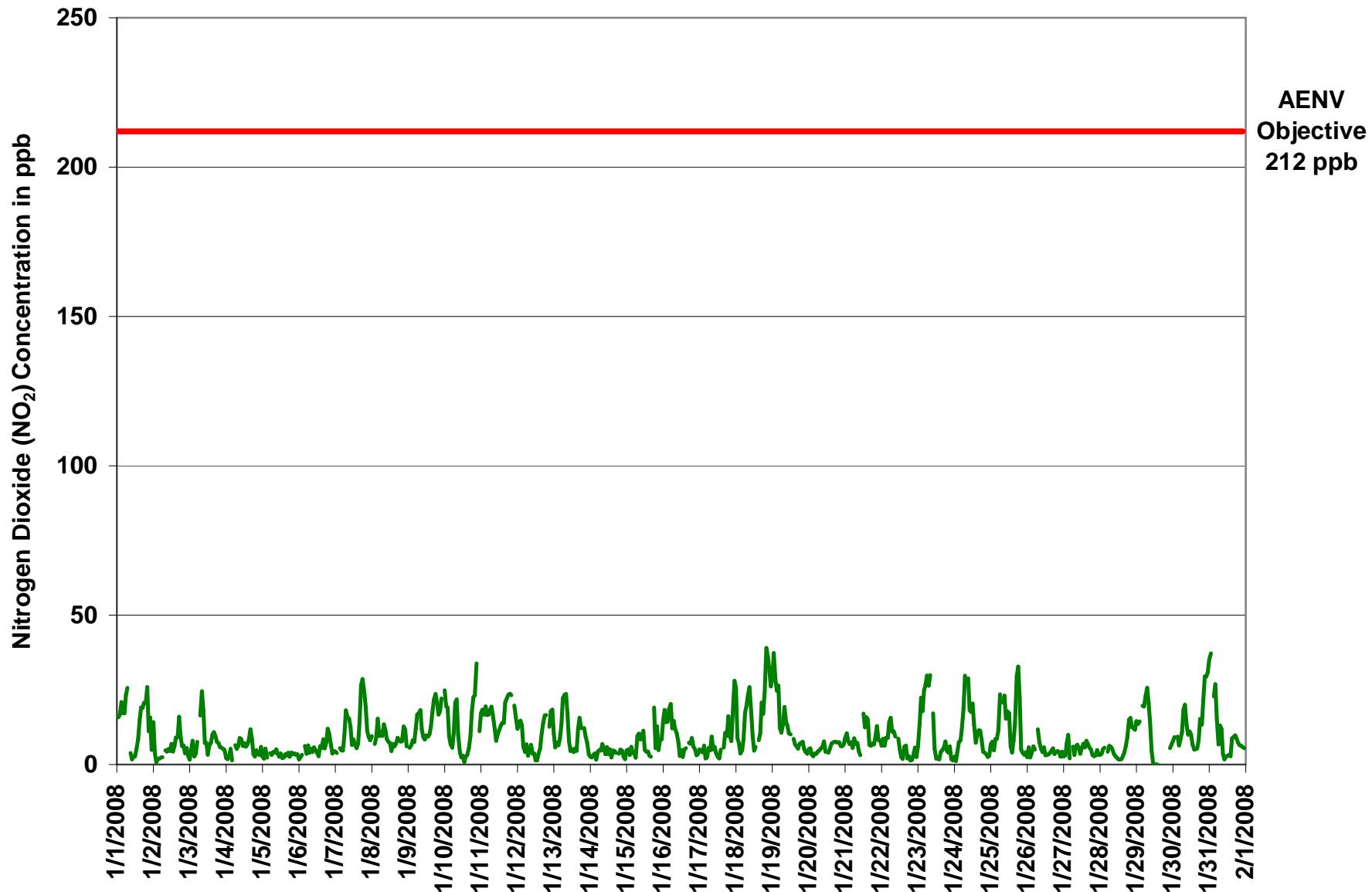


Figure 1. PAS - Crescent Heights Nitrogen Dioxide 1-hr Average Monthly Trend



Station: Crescent Heights  
Station Owner: PAS

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

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

Monitoring Dates: January 1, 2008 to February 1, 2008

#### Summary

Maximum 1-hr Value:	83.6 ppb	2-Jan	10:00 11:00
Maximum 24-hr Value:	27.3 ppb	18-Jan	

AIC Time:	33 hrs	Operational Time:	705 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	Median
	55.6 42.9 26.8 17.2 8.3 3.4 2.2	19.1 ppb	17.2 ppb

#### Day Mountain Standard Time

	Hour Start Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	Daily Average	Daily Maximum
1-Jan-08	20 1:00	21 2:00	33 3:00	24 4:00	23 5:00	21 6:00	25 7:00	54 8:00	A 9:00	17 10:00	3 11:00	7 12:00	5 13:00	8 14:00	10 15:00	24 16:00	26 17:00	28 18:00	25 19:00	34 20:00	34 21:00	17 22:00	25 23:00	13 0:00	21.4	54.0		
2-Jan-08	21 1:00	48 2:00	2 3:00	17 4:00	15 5:00	16 6:00	13 7:00	A 8:00	21 9:00	36 10:00	84 11:00	19 12:00	24 13:00	14 14:00	26 15:00	34 16:00	16 17:00	47 18:00	22 19:00	27 20:00	30 21:00	10 22:00	25 23:00	4 0:00	24.8	83.6		
3-Jan-08	3 1:00	31 2:00	66 3:00	5 4:00	8 5:00	28 6:00	A 7:00	23 8:00	40 9:00	47 10:00	9 11:00	10 12:00	5 13:00	9 14:00	27 15:00	42 16:00	31 17:00	22 18:00	40 19:00	9 20:00	10 21:00	11 22:00	8 23:00	8 0:00	21.4	66.3		
4-Jan-08	4 1:00	3 2:00	5 3:00	32 4:00	2 5:00	A 6:00	22 7:00	8 8:00	8 9:00	31 10:00	32 11:00	8 12:00	36 13:00	15 14:00	10 15:00	29 16:00	38 17:00	11 18:00	5 19:00	3 20:00	3 21:00	30 22:00	5 23:00	5 0:00	16.5	38.1		
5-Jan-08	5 1:00	3 2:00	43 3:00	12 4:00	A 5:00	26 6:00	18 7:00	32 8:00	12 9:00	19 10:00	5 11:00	4 12:00	24 13:00	3 14:00	4 15:00	14 16:00	4 17:00	19 18:00	3 19:00	14 20:00	36 21:00	43 22:00	19 23:00	19 0:00	16.5	43.0		
6-Jan-08	3 1:00	12 2:00	40 3:00	A 4:00	56 5:00	16 6:00	31 7:00	13 8:00	33 9:00	6 10:00	47 11:00	36 12:00	31 13:00	4 14:00	34 15:00	8 16:00	27 17:00	8 18:00	10 19:00	38 20:00	24 21:00	24 22:00	7 23:00	6 0:00	22.4	55.7		
7-Jan-08	7 1:00	8 2:00	A 3:00	39 4:00	7 5:00	7 6:00	32 7:00	38 8:00	38 9:00	18 10:00	17 11:00	10 12:00	20 13:00	20 14:00	7 15:00	10 16:00	32 17:00	54 18:00	35 19:00	27 20:00	25 21:00	20 22:00	21 23:00	19 0:00	21.8	54.0		
8-Jan-08	27 1:00	A 2:00	14 3:00	17 4:00	29 5:00	15 6:00	32 7:00	16 8:00	19 9:00	16 10:00	12 11:00	33 12:00	28 13:00	16 14:00	28 15:00	9 16:00	10 17:00	40 18:00	13 19:00	47 20:00	15 21:00	21 22:00	12 23:00	12 0:00	21.1	46.9		
9-Jan-08	A 1:00	7 2:00	22 3:00	9 4:00	12 5:00	17 6:00	29 7:00	24 8:00	24 9:00	15 10:00	26 11:00	17 12:00	11 13:00	11 14:00	11 15:00	15 16:00	20 17:00	24 18:00	36 19:00	22 20:00	19 21:00	22 23:00	52 0:00	A 1:00	20.2	51.7		
10-Jan-08	54 1:00	26 2:00	24 3:00	18 4:00	10 5:00	8 6:00	33 7:00	27 8:00	35 9:00	46 10:00	9 11:00	3 12:00	17 13:00	9 14:00	11 15:00	32 16:00	11 17:00	18 18:00	23 19:00	30 30:00	35 35:00	44 44:00	A A:00	37 37:00	24.4	53.9		
11-Jan-08	27 1:00	21 2:00	19 3:00	21 4:00	18 5:00	23 6:00	21 7:00	23 8:00	20 9:00	17 10:00	10 11:00	22 12:00	14 13:00	21 21:00	19 19:00	16 16:00	27 27:00	50 50:00	33 33:00	30 30:00	A A:00	27 27:00	21 21:00	21 21:00	21 21:00	22.8	50.5	
12-Jan-08	18 1:00	24 2:00	20 3:00	34 4:00	13 5:00	7 6:00	26 7:00	5 8:00	6 9:00	28 10:00	11 11:00	24 12:00	2 13:00	3 14:00	24 15:00	12 16:00	28 17:00	19 18:00	24 19:00	25 20:00	A A:00	17 17:00	24 24:00	25 0:00	18.2	34.2		
13-Jan-08	51 1:00	20 2:00	26 3:00	9 4:00	24 5:00	18 6:00	25 7:00	30 8:00	30 9:00	42 10:00	28 11:00	7 12:00	53 13:00	7 14:00	17 15:00	24 16:00	39 17:00	A A:00	38 38:00	12 12:00	28 28:00	5 5:00	24.7	53.4				
14-Jan-08	4 1:00	3 2:00	4 3:00	16 4:00	3 5:00	21 6:00	19 7:00	17 8:00	20 9:00	27 10:00	42 11:00	61 12:00	21 13:00	24 14:00	3 15:00	28 16:00	6 17:00	6 18:00	A A:00	5 5:00	36 36:00	22 22:00	8 8:00	2 2:00	17.4	61.2		
15-Jan-08	43 1:00	25 2:00	5 3:00	11 4:00	11 5:00	15 6:00	4 7:00	21 8:00	24 9:00	14 10:00	17 11:00	15 12:00	9 13:00	14 14:00	12 15:00	4 16:00	A A:00	32 32:00	11 11:00	27 27:00	7 7:00	23 23:00	12 12:00	12 12:00	12 12:00	16.1	42.7	
16-Jan-08	21 1:00	23 2:00	21 3:00	27 4:00	26 5:00	37 6:00	36 7:00	25 8:00	14 9:00	13 10:00	20 11:00	4 12:00	4 13:00	3 14:00	14 15:00	7 16:00	7 17:00	A A:00	9 9:00	32 32:00	43 43:00	14 14:00	4 4:00	28 28:00	28 0:00	19.5	43.1	
17-Jan-08	30 1:00	31 2:00	8 3:00	22 4:00	3 5:00	3 6:00	24 7:00	7 8:00	19 9:00	9 10:00	14 11:00	6 12:00	5 13:00	3 14:00	18 15:00	A A:00	9 9:00	13 13:00	21 21:00	23 23:00	19 19:00	16 16:00	29 29:00	31 0:00	15.8	31.4		
18-Jan-08	28 1:00	26 2:00	10 3:00	6 4:00	8 5:00	13 6:00	23 7:00	36 8:00	38 9:00	34 10:00	26 11:00	13 12:00	6 13:00	17 14:00	A A:00	44 44:00	18 18:00	33 33:00	38 38:00	45 45:00	50 50:00	41 41:00	43 43:00	32 32:00	27.3	49.6		
19-Jan-08	32 1:00	62 2:00	35 3:00	35 4:00	16 5:00	12 6:00	19 7:00	23 8:00	19 9:00	16 10:00	16 11:00	13 12:00	A A:00	15 16:00	9 17:00	7 18:00	7 19:00	8 20:00	8 21:00	12 22:00	12 23:00	6 0:00	18.2	62.0				
20-Jan-08	7 1:00	8 2:00	6 3:00	4 4:00	5 5:00	5 6:00	7 7:00	6 8:00	8 9:00	13 10:00	11 11:00	7 12:00	A A:00	6 13:00	7 14:00	7 15:00	10 16:00	8 17:00	12 18:00	10 19:00	23 20:00	39 21:00	7 22:00	8 23:00	8 0:00	9.8	38.9	
21-Jan-08	23 1:00	29 2:00	9 3:00	11 4:00	16 5:00	6 6:00	26 7:00	9 8:00	8 9:00	5 10:00	46 11:00	33 12:00	33 13:00	32 14:00	23 15:00	8 16:00	10 17:00	8 18:00	10 19:00	8 20:00	30 21:00	40 22:00	15 23:00	36 0:00	20.8	46.2		
22-Jan-08	8 1:00	25 2:00	23 3:00	44 4:00	28 5:00	17 6:00	37 7:00	14 8:00	14 9:00	18 10:00	A A:00	14 11:00	14 12:00	5 13:00	7 14:00	13 15:00	4 16:00	2 17:00	5 18:00	2 19:00	2 20:00	3 21:00	3 22:00	5 23:00	5 0:00	14.2	43.6	
23-Jan-08	13 1:00	18 2:00	33 3:00	29 4:00	39 5:00	34 6:00	65 7:00	39 8:00	47 9:00	A A:00	25 26:00	18 19:00	17 18:00	17 19:00	17 18:00	16 17:00	3 18:00	8 19:00	8 20:00	8 21:00	8 22:00	7 23:00	3 0:00	22.5	64.8			
24-Jan-08	31 1:00	3 2:00	22 3:00	27 4:00	26 5:00	60 6:00	26 7:00	36 8:00	A A:00	32 33:00	34 35:00	20 21:00	55 56:00	20 21:00	13 14:00	12 15:00	13 16:00	14 17:00	10 18:00	8 19:00	8 20:00	5 21:00	4 22:00	4 0:00	20.9	60.5		
25-Jan-08	23 1:00	19 2:00	25 3:00	17 4:00	17 5:00	19 6:00	36 7:00	A A:00	23 24:00	25 26:00	21 22:00	28 29:00	20 21:00	16 17:00	7 18:00	23 24:00	33 25:00	44 36:00	37 37:00	7 28 28:00	5 29 29:00	6 0:00	21.4	43.9				
26-Jan-08	3 1:00	28 2:00	3 3:00	7 4:00	20 5:00	8 6:00	8 7:00	8 8:00	A A:00	64 65:00	21 22:00	8 9:00	5 6:00	5 5:00	5 6:00	23 24:00	15 16:00	30 30:00	13 14:00	5 19 19:00	22 22:00	28 28:00	4 0:00	16.5	63.9			
27-Jan-08	4 1:00	5 2:00	18 3:00	13 4:00	A 5:00	48 49:00	4 5:00	35 36:00	25 26:00	10 11:00	6 7:00	10 11:00	7 8:00	11 12:00	7 8:00	7 8:00	10 11:00	9 10:00	8 9:00	4 5:00	5 6:00	8 8:00	6 6:00	6 6:00	6 6:00	6 6:00	11.5	47.8
28-Jan-08	5 1:00	7 2:00	8 3:00	9 4:00	A 5:00	8 6:00	10 7:00	16 17:00	8 9:00	6 5:00	4 3:00	4 2:00	2 1:00	3 2:00	3 4:00	5 5:00	9 											

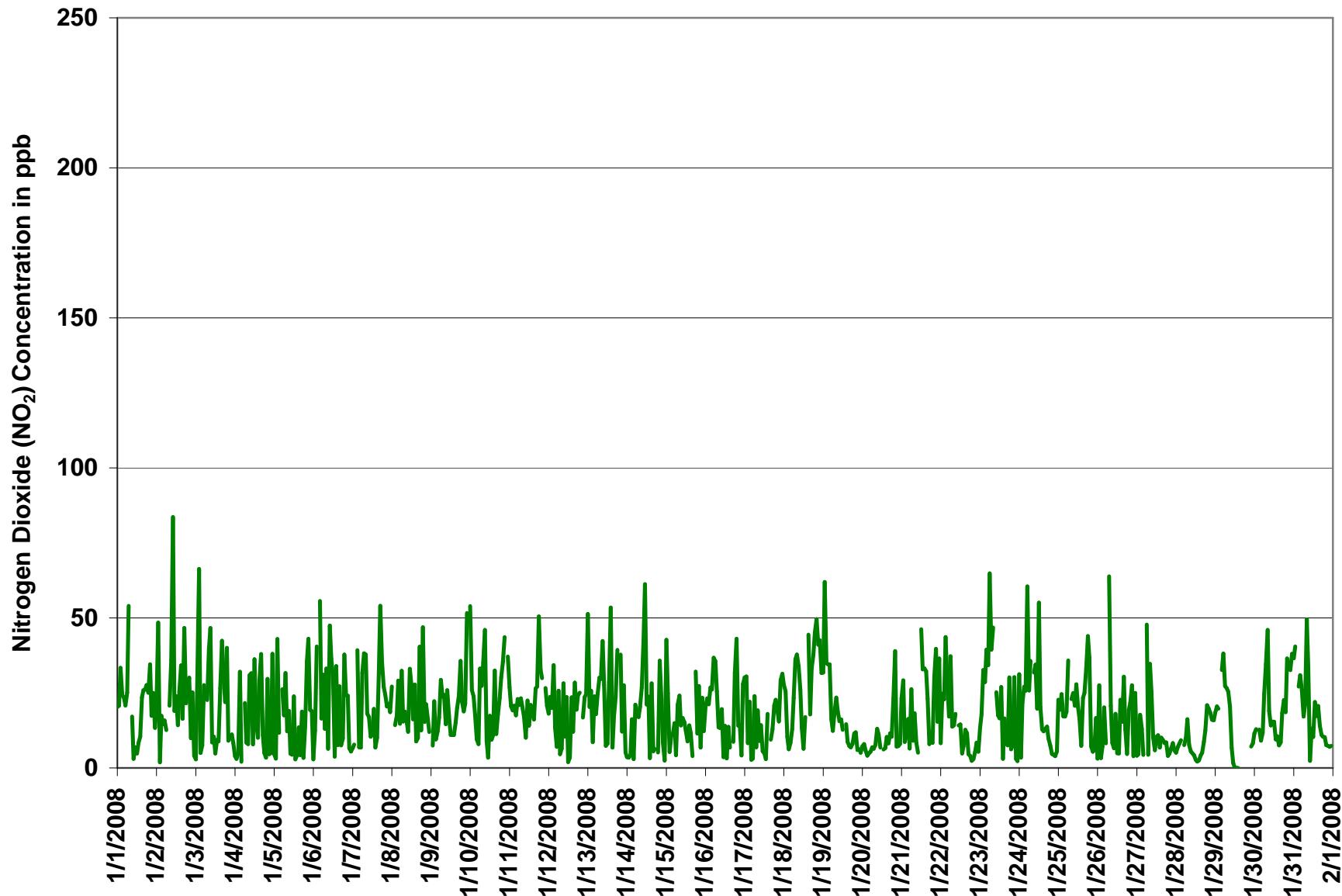
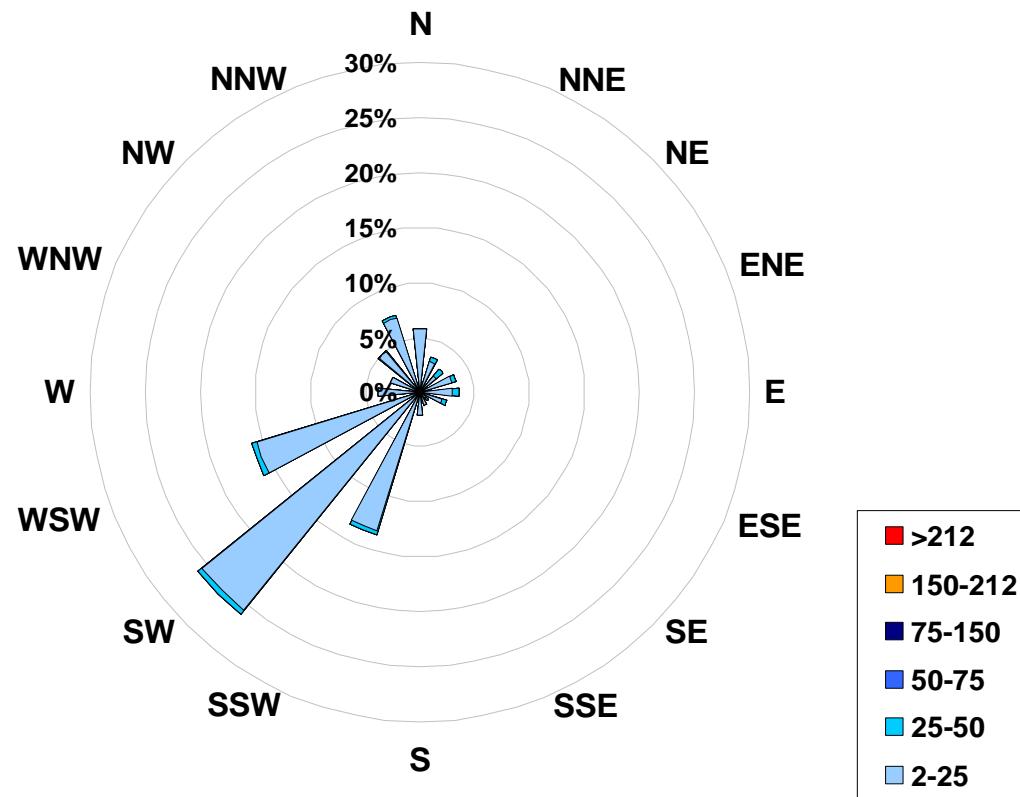


Figure 2. PAS - Crescent Heights Nitrogen Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend



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



Calms:	0%
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Frequency Distribution of NO <sub>2</sub> in ppb			Frequency (hrs)
Range		Frequency	
2.0	<	25	681
25	to	50	17
50	to	75	5
75	to	150	2
150	to	212	0
> 212			0
Total Non-Zero Values			705



## PAS - Crescent Heights Nitric Oxide Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: January 1, 2008 to February 1, 2008

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

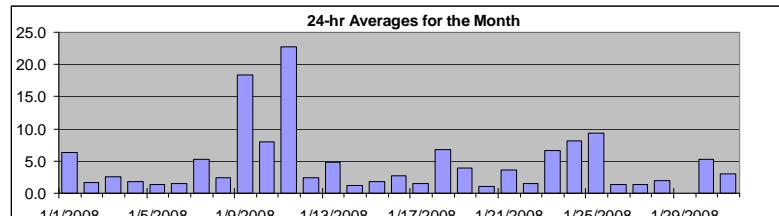
Maximum 1-hr Average:	82.3	ppb	11-Jan	19:00 20:00
Maximum 24-hr Average:	22.7	ppb	11-Jan	

AIC Time:	33 hrs	Operational Time:	705 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	Median
	44.5 20.3 3.7 1.9 0.9 0.2 0.0	4.7 ppb	1.9 ppb

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start 1:00	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	
1-Jan-08	3	4	11	11	5	3	10	39	A	1	1	2	2	4	6	6	4	4	7	3	16	0	1	0	6.3	38.9	
2-Jan-08	2	3	0	0	1	1	1	A	1	2	2	2	3	2	3	4	2	3	2	1	1	1	1	2	0	1.7	3.9
3-Jan-08	0	1	6	0	1	3	A	1	7	11	3	3	2	2	3	3	3	3	2	3	1	1	1	1	0	2.6	11.2
4-Jan-08	0	0	1	3	0	A	2	1	1	3	4	3	3	3	2	2	5	1	1	1	1	1	1	1	3	1.9	5.5
5-Jan-08	1	1	4	1	A	1	1	2	1	2	1	1	2	1	1	1	1	1	1	1	1	2	2	1	1	1.4	3.7
6-Jan-08	0	0	1	A	2	1	2	1	1	1	3	2	1	1	1	3	1	2	1	1	3	2	2	1	0	1.5	3.4
7-Jan-08	0	1	A	3	0	1	2	11	8	5	5	3	5	3	2	2	5	13	24	12	7	2	3	2	5.2	24.3	
8-Jan-08	4	A	1	2	6	1	4	2	3	4	4	4	3	2	3	2	2	3	1	2	1	1	2	1	1	2.4	6.3
9-Jan-08	A	0	1	0	1	2	10	13	29	13	12	11	14	12	9	8	9	24	60	58	29	29	62	A	18.4	61.6	
10-Jan-08	45	18	27	3	0	0	3	3	7	2	1	0	1	0	1	1	1	1	1	1	6	13	43	A	7	8.0	44.6
11-Jan-08	14	5	2	12	6	12	25	40	25	21	9	18	18	20	18	11	14	21	52	82	77	A	18	3	22.7	82.3	
12-Jan-08	0	2	3	11	0	0	4	0	0	5	2	3	1	1	2	1	4	2	1	4	A	1	3	4	2.4	11.3	
13-Jan-08	4	2	2	0	2	1	10	17	20	18	7	3	3	2	3	1	2	3	2	A	6	1	2	1	4.9	20.1	
14-Jan-08	0	0	0	2	0	1	1	1	1	2	1	3	1	3	1	2	1	1	A	1	1	2	1	0	1.2	2.8	
15-Jan-08	2	2	0	1	0	1	0	3	3	2	3	5	2	2	2	1	1	1	A	5	1	3	1	2	1	1.8	5.4
16-Jan-08	1	1	2	2	3	11	4	7	3	4	3	2	3	1	2	1	A	1	3	5	1	1	1	2	2.8	10.9	
17-Jan-08	3	2	0	2	0	1	1	1	1	2	2	1	1	1	2	A	1	1	1	1	1	0	1	7.1	1.5		
18-Jan-08	5	1	1	0	0	2	4	6	10	31	20	10	4	4	A	3	2	4	4	8	17	8	9	2	6.8	30.7	
19-Jan-08	2	23	9	3	4	1	3	2	4	6	8	8	7	A	3	1	0	0	1	1	1	1	0	0	3.9	23.0	
20-Jan-08	1	1	1	1	2	2	1	0	0	1	3	2	A	2	2	2	1	1	0	1	1	0	0	0	1.1	2.6	
21-Jan-08	2	2	1	0	1	0	3	1	2	2	2	A	17	12	13	12	2	1	1	1	1	3	4	0	3.7	16.8	
22-Jan-08	0	3	1	2	2	1	6	2	2	2	A	2	2	1	1	2	1	1	1	0	0	1	1	0	1.6	6.0	
23-Jan-08	0	1	9	4	10	9	34	23	27	A	17	5	1	2	1	1	0	0	2	0	0	4	0	0	6.6	33.9	
24-Jan-08	1	0	1	2	2	6	1	14	A	50	23	24	32	18	6	5	2	1	0	0	0	0	0	0	8.1	50.0	
25-Jan-08	0	0	2	1	0	1	16	A	15	39	23	29	21	3	1	4	3	16	28	9	0	0	1	1	9.3	38.8	
26-Jan-08	0	2	0	0	1	1	A	4	2	1	1	2	1	1	2	3	2	1	1	1	1	2	1	2	1.4	4.4	
27-Jan-08	1	0	1	1	0	A	2	0	2	2	3	2	3	4	2	2	2	1	1	1	1	1	1	2	1.4	3.6	
28-Jan-08	1	1	2	1	A	1	2	2	2	2	3	2	2	2	3	2	2	2	3	3	2	2	2	2	2.0	3.1	
29-Jan-08	2	2	2	A	4	12	6	11	14	20	9	4	0	0	0	C	C	C	C	C	A	0	1	N	20.3		
30-Jan-08	1	2	A	2	1	1	3	5	10	11	10	15	16	9	5	3	2	1	1	1	4	7	5	5	5.2	15.6	
31-Jan-08	10	20	A	1	2	3	1	2	6	2	1	2	2	3	2	5	3	1	1	1	1	1	1	1	3.1	19.6	
Hourly Avg	3.5	3.4	3.2	2.5	2.0	2.7	5.5	7.5	7.2	8.8	6.1	5.9	5.8	4.0	3.4	3.3	2.8	3.8	7.2	7.3	6.8	4.1	4.0	1.6			
Hourly Max	44.6	23.0	27.3	11.8	10.2	12.3	33.9	39.8	28.7	50.0	22.9	29.2	32.1	20.0	17.6	11.9	13.8	23.6	59.6	82.3	77.3	42.7	61.6	7.1			

**HOURLY AVERAGE TABLE**

**Nitric Oxide (NO)**



**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



## PAS - Crescent Heights Oxides of Nitrogen Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

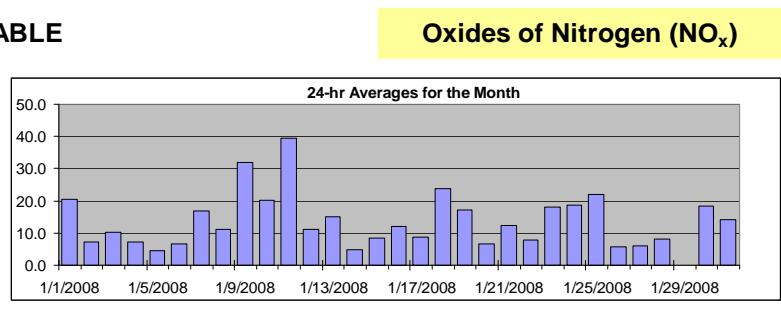
Monitoring Dates: January 1, 2008 to February 1, 2008

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

Maximum 1-hr Average:	105.7	ppb	11-Jan	19:00 20:00
Maximum 24-hr Average:	39.4	ppb	11-Jan	

AIC Time:	33 hrs	Operational Time:	705 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	Median
	75.2 41.9 16.8 8.5 5.3 2.6 1.1	13.8 ppb	8.5 ppb

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
	Hour Start 1:00	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
1-Jan-08	19	19	28	32	22	20	33	64	A	5	2	5	5	9	14	21	23	22	27	24	42	11	17	4	20.3	64.3
2-Jan-08	16	7	1	2	2	2	3	A	5	6	7	6	10	6	9	13	11	19	11	7	8	4	7	3	7.1	18.8
3-Jan-08	2	6	13	3	4	11	A	17	31	29	10	10	5	8	9	13	14	12	9	10	6	6	6	5	10.4	30.7
4-Jan-08	2	2	3	8	2	A	8	6	7	12	12	9	10	8	9	10	17	10	4	3	6	4	4	8	7.1	17.1
5-Jan-08	3	2	9	3	A	5	4	6	5	7	5	4	6	3	3	4	4	5	3	5	5	6	4	4	4.5	8.9
6-Jan-08	2	3	4	A	8	4	8	4	6	5	8	7	5	4	9	7	10	6	8	15	12	8	4	5	6.6	14.7
7-Jan-08	4	4	A	9	5	5	12	29	23	20	18	10	13	10	7	9	19	39	53	36	26	13	12	10	16.7	52.7
8-Jan-08	13	A	8	11	21	11	14	11	16	15	12	11	10	6	9	7	8	11	9	10	8	14	12	7	11.2	21.4
9-Jan-08	A	6	7	8	8	14	26	30	47	24	21	19	23	21	19	20	27	45	83	78	45	46	83	A	31.9	83.4
10-Jan-08	69	37	46	12	6	5	13	24	29	12	4	2	4	1	3	4	6	10	19	28	36	76	A	18	20.2	76.2
11-Jan-08	31	23	18	31	23	28	44	59	41	33	16	28	29	33	31	25	34	43	75	106	100	A	37	18	39.4	105.7
12-Jan-08	11	16	17	24	5	3	10	2	4	11	5	6	2	2	5	6	15	15	17	21	A	13	20	22	11.0	24.1
13-Jan-08	14	7	9	7	10	14	32	40	43	35	14	7	8	6	8	6	14	18	14	A	18	10	9	15.1	43.5	
14-Jan-08	3	2	3	5	2	6	6	6	8	7	5	9	5	8	3	6	5	4	A	4	7	6	3	2	4.9	8.5
15-Jan-08	6	7	3	6	4	4	3	12	13	10	12	16	7	6	6	4	3	A	24	6	16	6	10	9	8.5	24.4
16-Jan-08	16	20	16	16	22	31	16	22	14	14	11	4	7	4	6	7	A	8	10	14	7	6	4	5	12.1	31.1
17-Jan-08	7	6	4	8	2	3	7	6	11	6	7	6	3	3	7	A	6	11	10	17	10	8	18	35	8.8	34.8
18-Jan-08	31	9	8	4	5	10	21	25	33	56	38	19	8	9	A	10	12	24	20	32	56	44	40	28	23.7	56.4
19-Jan-08	30	60	37	27	30	13	13	15	23	20	21	18	17	A	12	8	6	5	8	8	8	6	4	4	17.1	59.9
20-Jan-08	6	6	4	4	5	6	5	5	6	7	10	6	A	5	7	9	8	8	8	8	9	6	6	7	6.6	10.1
21-Jan-08	10	12	8	7	9	6	11	8	9	6	5	A	34	24	29	27	9	7	8	7	12	17	8	11	12.2	33.6
22-Jan-08	6	12	7	11	10	15	21	12	13	11	A	11	7	3	3	8	8	3	4	2	2	4	6	2	7.9	21.4
23-Jan-08	6	14	31	21	35	36	64	50	57	A	34	10	3	4	3	5	5	6	9	4	4	10	1	1	17.9	63.5
24-Jan-08	4	1	5	9	10	19	19	44	A	79	41	41	52	31	13	15	13	12	8	4	4	3	2	2	18.7	78.5
25-Jan-08	7	7	6	9	9	12	39	A	36	62	38	47	38	9	5	11	17	45	61	31	5	4	4	4	22.0	61.6
26-Jan-08	3	8	2	4	7	5	A	16	9	6	5	8	4	4	5	6	7	6	4	5	6	6	3	6	5.8	15.9
27-Jan-08	3	3	8	11	2	A	8	3	8	8	5	8	10	7	10	8	6	6	3	3	4	6	4	6.2	10.8	
28-Jan-08	4	4	6	7	A	5	8	8	7	5	5	5	4	4	4	5	6	8	11	18	18	15	14	13	8.0	18.2
29-Jan-08	17	16	16	A	24	31	28	37	35	34	13	4	0	0	0	C	C	C	C	C	A	4	7	N	36.8	
30-Jan-08	9	11	A	11	7	10	13	23	30	24	21	26	25	16	10	8	7	9	17	14	26	37	34	36	18.4	36.6
31-Jan-08	45	57	A	24	29	18	7	15	18	5	3	5	5	6	5	14	12	11	9	8	7	7	7	6	14.1	56.9
Hourly Avg	13.3	12.9	11.7	11.5	11.3	12.1	17.1	20.6	20.2	19.1	13.6	12.1	11.9	8.8	8.8	10.3	11.5	14.8	18.9	18.2	17.7	13.7	13.0	9.6		
Hourly Max	69.1	59.9	45.9	31.8	35.0	35.5	63.5	64.3	56.9	78.5	40.9	46.7	52.3	32.7	31.3	26.7	34.4	45.1	82.9	105.7	100.2	76.2	83.4	35.6		



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

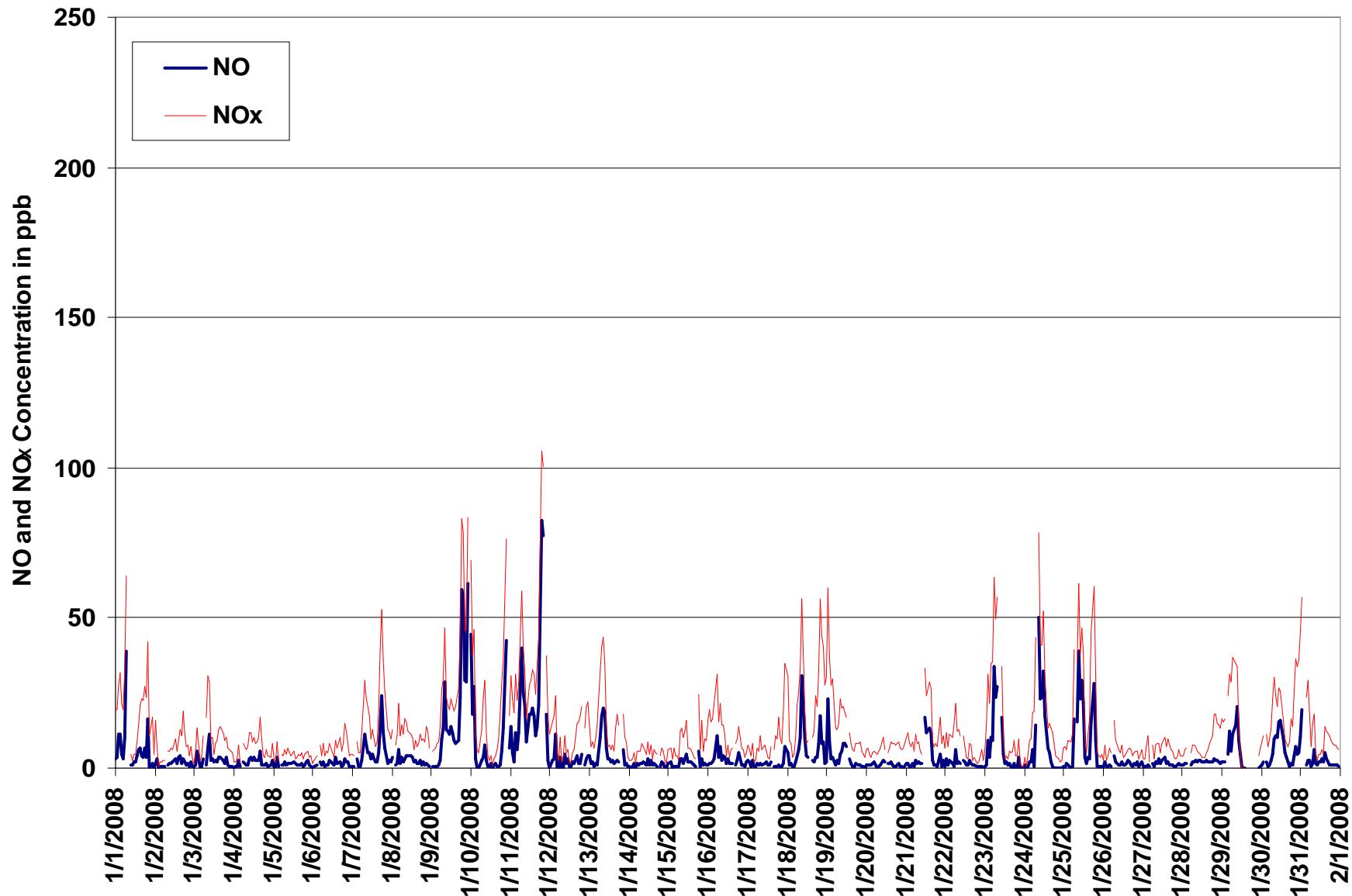


Figure 3. PAS - Crescent Heights Oxides of Nitrogen 1-hr Average Monthly Trend



Station: Crescent Heights  
Station Owner: PAS

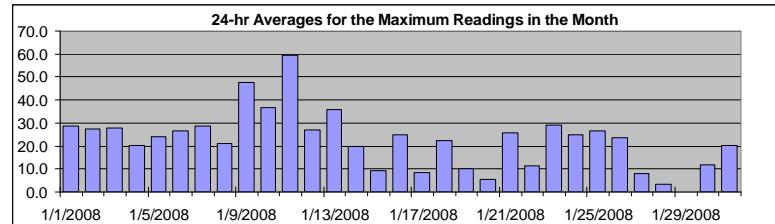
### INSTANTANEOUS (30 Second) MAXIMUM TABLE

### Nitric Oxide (NO)

Monitoring Dates: January 1, 2008 to February 1, 2008

#### Summary

Maximum 1-hr Value:	324.9 ppb	11-Jan 18:00 19:00
Maximum 24-hr Value:	59.3 ppb	11-Jan



AIC Time:	33 hrs	Operational Time:	705 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	Median
	142.3 87.6 34.3 8.1 2.5 1.0 0.5	23.1 ppb	8.1 ppb

#### Status Flag Characters

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

#### Day Mountain Standard Time

	Hour Start Hour End	0:00	1:00	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-Jan-08	8 1:00	12	105	18	16	5	16	284	A	19	2	6	5	6	8	20	11	13	26	10	58	1	6	1	28.6	283.9	
2-Jan-08	20 1:00	106	1	13	20	12	13	A	24	29	43	21	50	15	27	49	6	49	41	25	41	4	19	1	27.3	106.2	
3-Jan-08	1 1:00	29	111	1	1	25	A	3	37	72	4	5	3	4	3	60	65	62	36	109	3	2	2	1	27.8	111.0	
4-Jan-08	1 1:00	1	1	50	1	A	40	3	3	33	42	4	44	16	4	32	101	2	2	2	30	2	2	52	20.3	100.8	
5-Jan-08	1 1:00	1	92	1	A	26	11	74	6	14	2	2	53	2	2	15	2	31	1	8	64	88	27	30	24.1	92.0	
6-Jan-08	1 1:00	8	38	A	58	17	27	10	27	2	58	44	41	2	89	3	42	1	2	67	44	25	2	1	26.5	88.9	
7-Jan-08	1 1:00	2	A	96	1	2	35	87	67	7	8	5	7	17	3	3	42	115	43	25	14	9	27	45	28.8	115.2	
8-Jan-08	52 1:00	A	4	5	55	4	39	5	5	18	6	46	44	18	37	3	4	67	2	51	5	11	4	2	21.1	67.0	
9-Jan-08	A 1:00	2	29	2	3	7	81	53	57	22	64	36	16	15	11	11	13	35	138	88	58	49	255	A	47.5	255.2	
10-Jan-08	158 1:00	36	43	30	1	2	78	10	62	53	2	1	19	3	34	59	2	3	3	23	48	76	A	100	36.8	158.2	
11-Jan-08	106 1:00	10	4	17	10	68	31	73	52	41	16	116	25	34	25	18	27	46	325	123	137	A	51	10	59.3	324.9	
12-Jan-08	3 1:00	66	12	151	2	0	60	0	1	99	5	41	2	2	47	12	74	13	3	12	A	3	6	8	27.1	150.9	
13-Jan-08	114 1:00	23	46	1	36	3	17	57	45	136	70	5	6	12	38	3	3	37	51	A	74	3	48	1	36.0	135.6	
14-Jan-08	1 1:00	1	1	50	1	17	16	28	24	34	28	59	24	38	2	40	2	1	A	2	46	37	1	1	19.7	58.7	
15-Jan-08	65 1:00	30	1	2	2	3	1	12	11	3	6	8	10	4	13	2	2	A	17	3	9	2	6	3	9.3	64.7	
16-Jan-08	2 1:00	3	3	9	8	131	74	36	4	6	30	2	11	2	9	2	A	3	76	93	6	6	1	55	25.0	131.0	
17-Jan-08	46 1:00	35	1	30	1	1	14	2	4	2	9	4	3	2	6	A	2	1	3	2	2	2	5	16	8.4	46.2	
18-Jan-08	10 1:00	3	4	1	3	5	8	24	46	59	33	15	6	25	A	12	7	42	38	52	62	23	35	5	22.5	62.1	
19-Jan-08	6 1:00	98	17	11	10	3	4	3	8	8	12	15	10	A	6	4	1	1	3	3	3	2	1	2	10.1	98.4	
20-Jan-08	3 1:00	2	3	2	3	4	2	1	1	4	4	5	A	3	2	3	2	1	1	29	48	1	2	1	5.5	47.7	
21-Jan-08	31 1:00	50	2	2	20	1	30	3	18	3	4	A	61	39	42	50	40	2	4	1	35	89	2	66	25.9	88.5	
22-Jan-08	1 1:00	35	35	69	25	2	53	3	4	5	A	5	5	2	4	5	2	2	2	1	2	2	1	11.5	69.0		
23-Jan-08	2 1:00	4	26	20	47	21	142	147	69	A	36	20	15	29	2	17	2	1	24	1	1	39	0	29.0	146.7		
24-Jan-08	43 1:00	1	13	25	17	135	3	47	A	66	72	27	61	29	12	10	3	2	1	1	0	1	0	24.8	135.0		
25-Jan-08	2 1:00	3	37	4	2	2	55	A	33	44	38	76	32	14	4	31	7	27	103	88	2	1	2	7	26.6	103.1	
26-Jan-08	1 1:00	43	1	2	16	1	A	50	17	2	2	29	3	2	31	89	59	11	1	33	18	60	1	72	23.6	89.2	
27-Jan-08	1 1:00	1	7	2	1	A	56	1	37	29	7	3	5	6	3	4	2	2	3	1	3	2	3	7.9	55.7		
28-Jan-08	2 1:00	3	3	3	A	3	4	5	3	3	4	4	3	3	3	4	3	2	3	5	4	5	3	3.4	5.3		
29-Jan-08	4 1:00	4	4	A	41	121	14	17	23	30	12	7	2	1	1	C	C	C	C	C	A	0	3	N	120.8		
30-Jan-08	3 1:00	4	5	A	5	2	5	14	23	36	17	15	27	27	13	9	7	10	3	6	4	14	12	10	12	12.0	35.5
31-Jan-08	16 1:00	36	A	4	5	18	19	7	167	39	2	31	13	44	19	28	7	2	2	2	3	2	1	20.3	167.0		

Hourly Avg	23.6	21.7	23.0	21.5	14.0	22.2	33.0	36.9	30.7	29.9	21.1	22.4	20.0	13.4	16.6	20.5	18.7	19.9	33.1	29.7	28.7	19.2	17.6	16.8
Hourly Max	158.2	106.2	111.0	150.9	58.4	135.0	142.4	283.9	167.0	135.6	72.0	116.2	61.0	43.8	88.9	89.2	100.8	115.2	324.9	122.5	136.6	88.5	255.2	100.0



Station: Crescent Heights  
Station Owner: PAS

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

Monitoring Dates: January 1, 2008 to February 1, 2008

#### Summary

Maximum 1-hr Value:	374.8 ppb	11-Jan 18:00 19:00
Maximum 24-hr Value:	80.1 ppb	11-Jan

AIC Time:	33 hrs	Operational Time:	705 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	Median
	180.7 116.3 57.1 24.9 10.1 4.4 2.5	40.6 ppb	24.9 ppb

#### Day Mountain Standard Time

	Hour Start Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
1-Jan-08	28 1:00	32 2:00	133 3:00	42 4:00	39 5:00	25 6:00	40 7:00	308 8:00	A 9:00	35 10:00	4 11:00	13 12:00	9 13:00	14 14:00	18 15:00	40 16:00	36 17:00	38 18:00	53 19:00	35 20:00	89 21:00	18 22:00	31 23:00	14 0:00	47.6	308.0	
2-Jan-08	40 1:00	146 2:00	2 3:00	29 4:00	35 5:00	28 6:00	22 7:00	A 8:00	42 9:00	61 10:00	126 11:00	39 12:00	69 13:00	26 14:00	50 15:00	83 16:00	21 17:00	88 18:00	63 19:00	52 20:00	63 21:00	13 22:00	44 23:00	5 0:00	49.9	146.2	
3-Jan-08	3 1:00	57 2:00	170 3:00	5 4:00	9 5:00	49 6:00	A 7:00	25 8:00	73 9:00	117 10:00	12 11:00	15 12:00	8 13:00	12 14:00	11 15:00	83 16:00	91 17:00	92 18:00	53 19:00	142 20:00	12 21:00	11 22:00	13 23:00	9 0:00	46.5	169.6	
4-Jan-08	4 1:00	3 2:00	5 3:00	81 4:00	2 5:00	A 6:00	60 7:00	11 8:00	9 9:00	64 10:00	73 11:00	11 12:00	80 13:00	31 14:00	13 15:00	60 16:00	138 17:00	13 18:00	6 19:00	4 20:00	59 21:00	6 22:00	6 23:00	90 0:00	36.1	137.7	
5-Jan-08	5 1:00	4 2:00	135 3:00	12 4:00	A 5:00	52 6:00	28 7:00	105 8:00	17 9:00	33 10:00	6 11:00	6 12:00	76 13:00	5 14:00	6 15:00	27 16:00	6 17:00	50 18:00	4 19:00	19 20:00	98 21:00	131 22:00	44 23:00	48 0:00	39.8	135.0	
6-Jan-08	3 1:00	19 2:00	78 3:00	A 4:00	84 5:00	33 6:00	58 7:00	19 8:00	57 9:00	8 10:00	100 11:00	78 12:00	71 13:00	5 14:00	119 15:00	10 16:00	65 17:00	8 18:00	11 19:00	104 20:00	65 21:00	48 22:00	8 23:00	6 0:00	46.0	119.2	
7-Jan-08	7 1:00	10 2:00	A 3:00	129 4:00	7 5:00	66 6:00	124 7:00	102 8:00	22 9:00	24 10:00	15 11:00	17 12:00	36 13:00	17 14:00	10 15:00	12 16:00	72 17:00	74 18:00	52 19:00	39 20:00	28 21:00	48 22:00	56 0:00	48.7	162.1		
8-Jan-08	79 1:00	A 2:00	18 3:00	21 4:00	82 5:00	17 6:00	69 7:00	18 8:00	23 9:00	33 10:00	16 11:00	79 12:00	26 13:00	63 14:00	10 15:00	14 16:00	107 17:00	14 18:00	98 19:00	19 20:00	32 21:00	20 22:00	13 0:00	40.8	107.4		
9-Jan-08	A 1:00	8 2:00	45 3:00	10 4:00	14 5:00	23 6:00	107 7:00	73 8:00	30 9:00	35 10:00	50 11:00	51 12:00	26 13:00	25 14:00	22 15:00	24 16:00	32 17:00	55 18:00	170 19:00	105 20:00	76 21:00	69 22:00	296 0:00	A 1:00	65.4	296.2	
10-Jan-08	212 1:00	62 2:00	63 3:00	47 4:00	9 5:00	10 6:00	109 7:00	36 8:00	97 9:00	98 10:00	4 11:00	36 12:00	10 13:00	43 14:00	91 15:00	13 16:00	20 17:00	26 18:00	53 19:00	81 20:00	115 21:00	A 22:00	132 0:00	59.8	211.9		
11-Jan-08	130 1:00	30 2:00	23 3:00	37 4:00	27 5:00	91 6:00	51 7:00	93 8:00	71 9:00	56 10:00	26 11:00	133 12:00	37 13:00	51 14:00	44 15:00	33 16:00	50 17:00	72 18:00	375 19:00	149 20:00	155 21:00	A 22:00	77 0:00	80.1	374.8		
12-Jan-08	21 1:00	89 2:00	31 3:00	181 4:00	15 5:00	6 6:00	79 7:00	4 8:00	7 9:00	126 10:00	15 11:00	65 12:00	3 13:00	3 14:00	69 15:00	20 16:00	102 17:00	31 18:00	25 19:00	36 20:00	A 21:00	20 22:00	32 0:00	43.8	180.8		
13-Jan-08	165 1:00	43 2:00	69 3:00	9 4:00	59 5:00	19 6:00	38 7:00	86 8:00	74 9:00	178 10:00	97 11:00	11 12:00	40 13:00	91 14:00	9 15:00	18 16:00	60 17:00	89 18:00	A 19:00	112 20:00	14 21:00	75 22:00	6 0:00	59.8	177.8		
14-Jan-08	4 1:00	4 2:00	4 3:00	63 4:00	3 5:00	37 6:00	31 7:00	42 8:00	44 9:00	61 10:00	70 11:00	102 12:00	40 13:00	59 14:00	5 15:00	69 16:00	6 17:00	7 18:00	A 19:00	80 20:00	51 21:00	9 22:00	3 0:00	34.8	102.0		
15-Jan-08	107 1:00	55 2:00	5 3:00	13 4:00	13 5:00	17 6:00	4 7:00	33 8:00	35 9:00	17 10:00	23 11:00	22 12:00	20 13:00	13 14:00	25 15:00	12 16:00	5 17:00	A 18:00	46 19:00	15 20:00	36 21:00	8 22:00	15 0:00	24.6	107.1		
16-Jan-08	22 1:00	24 2:00	24 3:00	35 4:00	33 5:00	168 6:00	109 7:00	61 8:00	17 9:00	17 10:00	48 11:00	5 12:00	23 13:00	5 14:00	20 15:00	9 16:00	A 17:00	12 18:00	106 19:00	133 20:00	19 21:00	20 22:00	5 0:00	43.3	168.0		
17-Jan-08	75 1:00	65 2:00	9 3:00	51 4:00	4 5:00	4 6:00	38 7:00	8 8:00	23 9:00	10 10:00	19 11:00	8 12:00	4 13:00	7 14:00	24 15:00	A 16:00	11 17:00	23 18:00	23 19:00	21 20:00	16 21:00	34 22:00	46 0:00	23.2	75.2		
18-Jan-08	38 1:00	28 2:00	14 3:00	7 4:00	10 5:00	17 6:00	31 7:00	54 8:00	78 9:00	93 10:00	28 11:00	12 12:00	39 13:00	A 14:00	56 15:00	24 16:00	74 17:00	70 18:00	91 19:00	108 20:00	63 21:00	76 22:00	35 0:00	48.0	107.8		
19-Jan-08	37 1:00	160 2:00	51 3:00	44 4:00	44 5:00	17 6:00	15 7:00	20 8:00	31 9:00	25 10:00	27 11:00	31 12:00	23 13:00	A 14:00	21 15:00	12 16:00	8 17:00	8 18:00	8 19:00	10 20:00	14 21:00	14 22:00	6 0:00	27.4	160.2		
20-Jan-08	9 1:00	10 2:00	9 3:00	6 4:00	7 5:00	8 6:00	8 7:00	7 8:00	8 9:00	17 10:00	14 11:00	12 12:00	A 13:00	8 14:00	9 15:00	13 16:00	10 17:00	12 18:00	10 19:00	51 20:00	85 21:00	8 22:00	8 0:00	14.6	84.9		
21-Jan-08	50 1:00	79 2:00	10 3:00	12 4:00	34 5:00	7 6:00	53 7:00	11 8:00	35 9:00	10 10:00	7 11:00	A 12:00	57 13:00	57 14:00	78 15:00	56 16:00	9 17:00	13 18:00	9 19:00	13 20:00	9 21:00	65 22:00	112 0:00	42.7	112.2		
22-Jan-08	8 1:00	54 2:00	58 3:00	112 4:00	54 5:00	19 6:00	90 7:00	16 8:00	17 9:00	23 10:00	A 11:00	18 12:00	19 13:00	6 14:00	11 15:00	17 16:00	14 17:00	5 18:00	5 19:00	3 20:00	3 21:00	7 22:00	9 0:00	24.9	112.0		
23-Jan-08	15 1:00	21 2:00	56 3:00	48 4:00	84 5:00	55 6:00	207 7:00	173 8:00	112 9:00	A 10:00	60 11:00	39 12:00	31 13:00	55 14:00	5 15:00	31 16:00	10 17:00	8 18:00	55 19:00	7 20:00	67 21:00	2 22:00	2 0:00	49.9	206.9		
24-Jan-08	67 1:00	4 2:00	35 3:00	51 4:00	43 5:00	195 6:00	28 7:00	82 8:00	A 9:00	97 10:00	47 11:00	90 12:00	48 13:00	24 14:00	21 15:00	15 16:00	10 17:00	5 18:00	10 19:00	7 20:00	5 21:00	4 22:00	4 0:00	43.5	195.3		
25-Jan-08	25 1:00	20 2:00	61 3:00	20 4:00	18 5:00	19 6:00	90 7:00	A 8:00	56 9:00	68 10:00	58 11:00	103 12:00	51 13:00	31 14:00	10 15:00	52 16:00	31 17:00	59 18:00	139 19:00	111 20:00	7 21:00	6 22:00	7 0:00	46.2	138.7		
26-Jan-08	3 1:00	69 2:00	3 3:00	8 4:00	35 5:00	8 6:00	A 7:00	98 8:00	38 9:00	10 10:00	7 11:00	46 12:00	6 13:00	5 14:00	53 15:00	97 16:00	89 17:00	22 18:00	5 19:00	48 20:00	38 21:00	85 22:00	5 0:00	38.0	97.8		
27-Jan-08	4 1:00	5 2:00	24 3:00	14 4:00	5 5:00	A 6:00	104 7:00	5 8:00	71 9:00	54 10:00	14 11:00	8 12:00	16 13:00	9 14:00	12 15:00	10 16:00	10 17:00	11 18:00	5 19:00	6 20:00	8 21:00	11 22:00	7 0:00	18.5	104.2		
28-Jan-08	6 1:00	8 2:00	10 3:00	11 4:00	A 5:00	10 6:00	13 7:00	18 8:00	10 9:00	8 10:00	7 11:00	7 12:00	5 13:00	4 14:00	5 15:00	7 16:00	7 17:00	7 18:00	11 19:00	25 20:00	24 21:00	23 22:00	19 0:00	12.0	25.3		
29-Jan-08	21 1:00	24 2:00	23 3:00	A 4:00	73 5:00	156 6:00	40 7:00	43 8:00	42 9:00	50 10:00	18 11:00	8 12:00	8 13:00	0 14:00	0 15:00	C 16:00	C 17:00	C 18:00	C 19:00	C 20:00	C 21:00	A 22:00	6 0:00	N 1:00	155.6		
30-Jan-08	14 1:00	15 2:00	A 3:00	18 4:00	11 5:00	14 6:00	38 7:00	52 8:00	81 9:00	36 10:00	29 11:00	42 12:00	21 13:00	19 14:00	18 15:00	21 16:00	28 17:00	22 18:00	50 19:00	45 20:00	42 21:00	50 22:00	31.3 0:00	80.7	31.3		
31-Jan-08	51 1:00	76 2:00	A 3:00	31 4:00	35 5:00	38 6:00	36 7:00																				

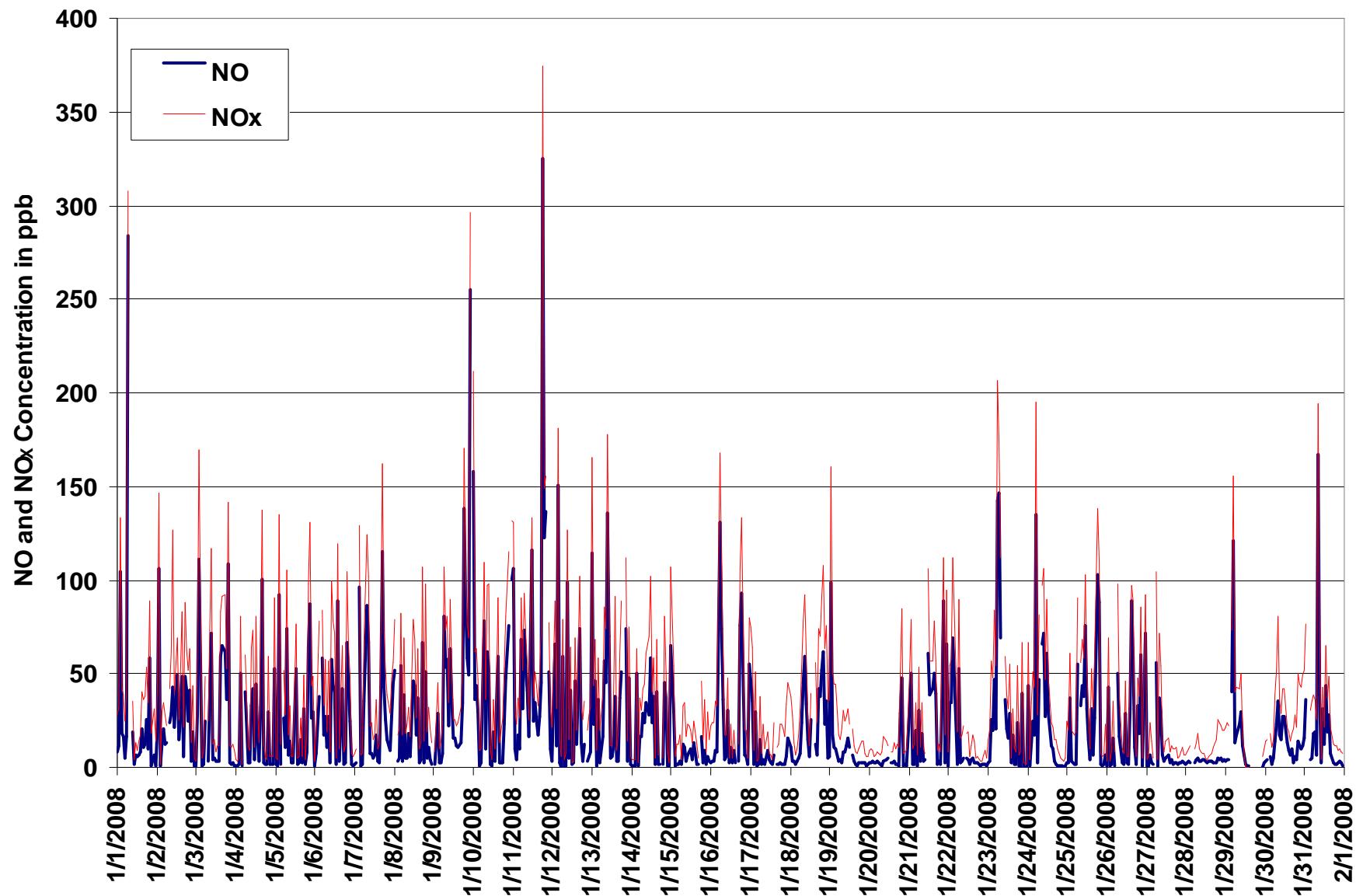


Figure 4. PAS - Crescent Heights Oxides of Nitrogen Instantaneous (30 Second) Maximum Value Monthly Trend



## PAS - Crescent Heights Ozone Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

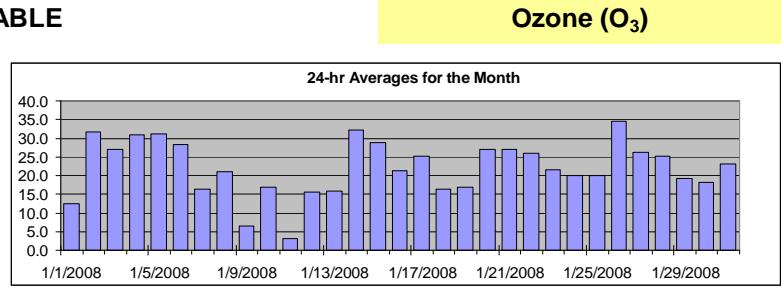
Monitoring Dates: January 1, 2008 to February 1, 2008

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

Number of 1-hr Exceedances: 0  
Maximum 1-hr Average: 38.4 ppb 2-Jan 3:00 4:00  
Maximum 24-hr Average: 34.7 ppb 26-Jan

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
	36.9	34.7	30.0	25.1	15.9	1.3	0.0	22.2 ppb	25.1 ppb

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-Jan-08	4	6	7	3	6	6	1	2	A	26	28	26	27	25	20	14	9	7	6	4	3	16	15	27	12.5	27.7	
2-Jan-08	21	35	38	38	38	37	37	A	35	34	34	32	31	32	29	26	24	17	26	31	31	33	33	33	33	31.6	38.4
3-Jan-08	34	32	30	32	29	26	A	18	12	20	28	30	35	32	29	25	25	24	26	25	27	28	29	26	26	27.0	34.6
4-Jan-08	27	29	29	32	33	A	32	30	31	30	31	32	33	34	32	30	25	28	34	33	32	32	31	31	31	30.9	33.9
5-Jan-08	32	33	31	30	A	28	31	31	30	28	30	32	33	33	33	32	31	31	31	29	32	30	30	32	31	31.1	33.3
6-Jan-08	33	34	34	A	32	31	30	30	29	30	31	32	33	33	31	29	24	22	20	16	19	25	28	25	25	28.4	34.4
7-Jan-08	26	26	A	23	21	21	17	10	11	12	16	26	25	27	28	23	15	3	1	1	4	12	15	15	15	16.4	27.5
8-Jan-08	17	A	20	18	13	18	17	18	14	17	21	26	30	31	28	27	26	22	20	23	23	16	17	23	23	21.1	30.8
9-Jan-08	A	21	18	15	14	8	2	0	1	5	8	10	10	11	11	8	3	0	0	0	0	0	0	0	0	6.6	21.3
10-Jan-08	0	1	2	15	21	22	17	7	7	21	27	29	34	36	33	30	24	22	13	7	7	0	A	12	12	16.9	36.3
11-Jan-08	3	1	1	0	0	0	0	0	0	5	10	9	8	9	8	8	2	0	1	1	1	A	1	5	3.2	9.9	
12-Jan-08	7	6	5	8	15	16	16	17	16	16	20	23	27	28	26	25	20	15	12	10	A	14	9	7	15.7	28.0	
13-Jan-08	16	22	20	18	14	7	0	1	1	8	18	22	25	27	26	24	15	12	13	A	14	15	19	23	15.7	27.0	
14-Jan-08	25	26	27	28	32	30	30	29	29	30	33	34	37	36	37	36	34	35	A	35	34	34	35	33	32.1	37.2	
15-Jan-08	29	32	32	26	31	32	33	26	26	29	27	27	33	33	33	33	34	33	A	18	30	23	28	25	22	28.8	34.2
16-Jan-08	15	12	15	13	7	5	14	12	15	18	26	31	29	31	29	29	A	27	27	23	26	26	30	29	21.2	31.0	
17-Jan-08	28	28	27	26	31	30	27	29	25	29	27	26	32	33	31	A	28	22	22	17	23	23	11	1	25.2	33.0	
18-Jan-08	0	18	20	27	28	26	16	13	10	9	15	22	27	29	A	28	25	15	17	11	1	2	6	9	16.3	28.7	
19-Jan-08	6	6	5	7	7	19	19	15	10	15	17	20	22	A	25	24	22	22	18	21	21	21	23	24	24	16.9	25.0
20-Jan-08	23	23	27	30	29	30	31	31	30	30	27	30	A	31	29	26	25	25	25	24	24	24	23	23	27.1	31.2	
21-Jan-08	20	19	21	23	24	25	24	28	29	33	34	A	32	33	33	32	32	31	29	28	24	19	24	24	27.0	34.0	
22-Jan-08	25	23	25	23	22	16	17	21	20	25	A	29	32	35	34	30	30	32	29	29	28	26	24	26	26.1	34.9	
23-Jan-08	22	14	5	8	2	1	1	4	5	A	18	31	35	36	36	34	32	30	28	30	30	28	32	32	21.6	36.5	
24-Jan-08	31	31	28	25	24	18	11	1	A	5	13	14	13	18	22	20	17	16	20	26	25	26	28	28	20.1	31.2	
25-Jan-08	23	23	28	23	21	15	2	A	2	5	11	12	17	34	34	30	20	2	3	17	34	35	36	36	20.1	36.3	
26-Jan-08	37	33	36	34	32	33	A	31	33	35	36	36	37	36	38	38	37	35	35	34	35	34	34	31	34.7	37.9	
27-Jan-08	31	31	26	23	32	A	29	30	28	27	27	30	28	20	22	19	21	23	24	26	27	25	27	27	26.1	32.1	
28-Jan-08	27	27	25	25	A	27	25	26	26	28	29	30	30	30	29	27	25	22	16	16	19	19	19	19	25.1	30.1	
29-Jan-08	15	16	15	A	6	6	1	0	5	12	19	24	29	30	28	26	27	26	26	26	26	27	26	26	19.2	29.7	
30-Jan-08	24	23	A	23	24	22	20	14	12	18	21	C	C	A	27	27	26	23	17	19	12	3	4	4	18.1	26.8	
31-Jan-08	0	0	A	10	9	22	30	24	26	33	35	34	35	35	36	26	21	20	21	23	23	23	23	23	23	23.1	36.0
Hourly Avg	20.1	21.0	21.4	20.9	20.6	20.0	18.3	17.2	17.9	21.1	24.0	26.2	28.3	29.6	28.6	26.3	23.4	20.4	19.5	20.6	20.8	21.5	21.8	22.5			
Hourly Max	36.8	35.1	38.0	38.4	37.8	36.8	37.3	30.9	35.4	34.7	36.0	35.6	37.2	36.4	37.8	37.9	36.8	35.2	34.7	34.8	34.8	35.1	36.3	36.0			



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

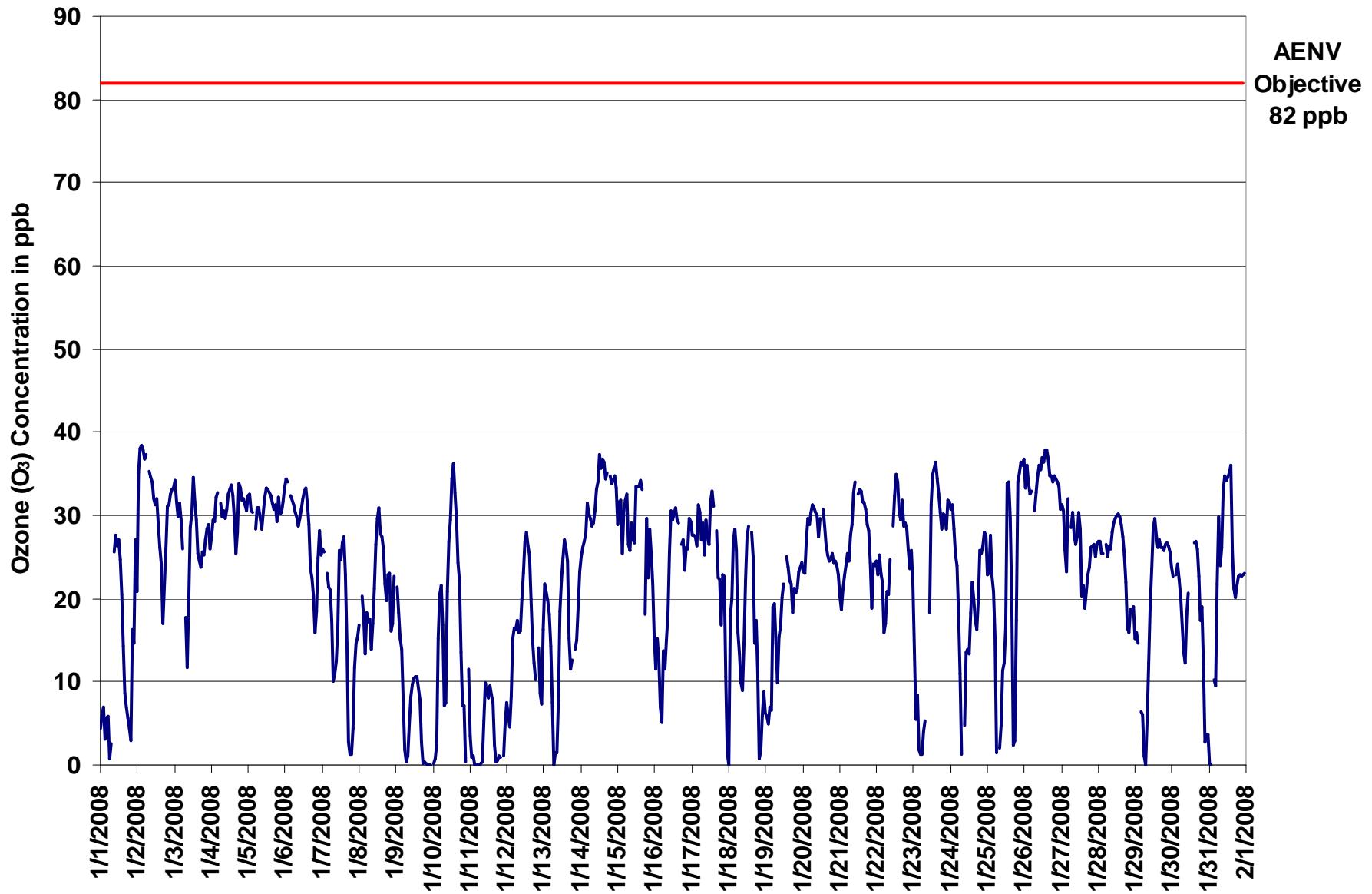


Figure 5. PAS - Crescent Heights Ozone 1-hr Average Monthly Trend



Station: Crescent Heights  
Station Owner: PAS

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

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

Monitoring Dates: January 1, 2008 to February 1, 2008

#### Summary

Maximum 1-hr Value:	39.6 ppb	26-Jan 15:00	16:00
Maximum 24-hr Value:	36.7 ppb	26-Jan	

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
	38.5 36.6 32.7 27.7 20.8 5.7 0.5	25.5 ppb	27.7 ppb

#### Day Mountain Standard Time

	Hour Start Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
1-Jan-08	9 1:00	10 2:00	12 3:00	9 4:00	10 5:00	12 6:00	7 7:00	8 8:00	A 9:00	27 10:00	29 11:00	29 12:00	28 13:00	26 14:00	23 15:00	21 16:00	13 17:00	15 18:00	14 19:00	10 20:00	12 21:00	23 22:00	25 23:00	31	17.6	31.0	
2-Jan-08	34 1:00	37 2:00	39 3:00	39 4:00	38 5:00	38 6:00	A 7:00	38 8:00	A 9:00	36 10:00	36 11:00	35 12:00	34 13:00	33 14:00	32 15:00	30 16:00	28 17:00	21 18:00	33 19:00	33 20:00	36 21:00	35 22:00	36 23:00	35	34.4	39.2	
3-Jan-08	36 1:00	35 2:00	34 3:00	33 4:00	32 5:00	A 6:00	30 7:00	A 8:00	28 9:00	24 10:00	31 11:00	31 12:00	35 13:00	36 14:00	33 15:00	31 16:00	30 17:00	27 18:00	28 19:00	29 20:00	31 21:00	32 22:00	28 23:00	31.1	36.0		
4-Jan-08	29 1:00	31 2:00	31 3:00	34 4:00	34 5:00	A 6:00	34 7:00	32 8:00	33 9:00	33 10:00	33 11:00	34 12:00	36 13:00	36 14:00	36 15:00	33 16:00	30 17:00	34 18:00	35 19:00	35 20:00	34 21:00	33 22:00	33 23:00	33.3	35.8		
5-Jan-08	34 1:00	34 2:00	33 3:00	32 4:00	A 5:00	30 6:00	33 7:00	33 8:00	31 9:00	31 10:00	32 11:00	34 12:00	35 13:00	34 14:00	34 15:00	33 16:00	33 17:00	32 18:00	32 19:00	34 20:00	33 21:00	32 22:00	33 23:00	32.8	34.9		
6-Jan-08	34 1:00	35 2:00	35 3:00	A 4:00	34 5:00	33 6:00	34 7:00	34 8:00	31 9:00	32 10:00	34 11:00	34 12:00	35 13:00	35 14:00	33 15:00	33 16:00	26 17:00	25 18:00	24 19:00	19 20:00	25 21:00	29 22:00	31 23:00	31.0	35.4		
7-Jan-08	27 1:00	28 2:00	A 3:00	26 4:00	23 5:00	22 6:00	21 7:00	21 8:00	16 9:00	15 10:00	22 11:00	28 12:00	27 13:00	29 14:00	29 15:00	28 16:00	22 17:00	9 18:00	7 19:00	7 20:00	9 21:00	17 22:00	18 23:00	18 0:00	20.4	29.2	
8-Jan-08	23 1:00	A 2:00	23 3:00	23 4:00	22 5:00	22 6:00	22 7:00	18 8:00	22 9:00	27 10:00	30 11:00	33 12:00	33 13:00	33 14:00	31 15:00	30 16:00	28 17:00	23 18:00	27 19:00	26 20:00	22 21:00	21 22:00	26 23:00	25.4	33.3		
9-Jan-08	A 1:00	23 2:00	21 3:00	19 4:00	19 5:00	13 6:00	5 7:00	2 8:00	8 9:00	10 10:00	11 11:00	12 12:00	12 13:00	10 14:00	12 15:00	10 16:00	6 17:00	1 18:00	2 19:00	0 20:00	0 21:00	0 22:00	0 23:00	0:00	8.8	23.2	
10-Jan-08	2 1:00	4 2:00	10 3:00	21 4:00	24 5:00	25 6:00	23 7:00	13 8:00	15 9:00	25 10:00	30 11:00	33 12:00	37 13:00	38 14:00	35 15:00	32 16:00	29 17:00	26 18:00	24 19:00	14 20:00	22 21:00	2 A 22:00	20 23:00	20 0:00	21.9	37.8	
11-Jan-08	9 1:00	4 2:00	0 3:00	0 4:00	0 5:00	1 6:00	1 7:00	1 8:00	13 9:00	12 10:00	11 11:00	9 12:00	11 13:00	10 14:00	9 15:00	7 16:00	1 17:00	2 18:00	2 19:00	1 20:00	1 21:00	4 22:00	10 23:00	10 0:00	5.2	12.9	
12-Jan-08	14 1:00	9 2:00	11 3:00	16 4:00	19 5:00	19 6:00	19 7:00	18 8:00	18 9:00	20 10:00	22 11:00	27 12:00	28 13:00	28 14:00	28 15:00	29 16:00	24 17:00	21 18:00	17 19:00	17 20:00	20 21:00	16 22:00	13 23:00	13 0:00	19.7	29.1	
13-Jan-08	21 1:00	25 2:00	22 3:00	21 4:00	17 5:00	13 6:00	3 7:00	4 8:00	14 9:00	23 10:00	24 11:00	24 12:00	27 13:00	29 14:00	29 15:00	27 16:00	22 17:00	16 18:00	15 19:00	A 20:00	19 21:00	24 22:00	25 23:00	25 0:00	19.4	28.8	
14-Jan-08	27 1:00	28 2:00	29 3:00	31 4:00	33 5:00	32 6:00	31 7:00	32 8:00	35 9:00	37 10:00	38 11:00	38 12:00	38 13:00	38 14:00	36 15:00	38 16:00	36 17:00	38 18:00	37 19:00	36 20:00	36 21:00	37 22:00	36 23:00	36 0:00	34.2	38.5	
15-Jan-08	31 1:00	36 2:00	36 3:00	28 4:00	34 5:00	35 6:00	33 7:00	34 8:00	34 9:00	34 10:00	34 11:00	35 12:00	36 13:00	36 14:00	35 15:00	34 16:00	A 17:00	31 18:00	32 19:00	30 20:00	30 21:00	29 22:00	30 23:00	28 0:00	33.0	36.2	
16-Jan-08	20 1:00	17 2:00	20 3:00	19 4:00	19 5:00	11 6:00	17 7:00	16 8:00	17 9:00	21 10:00	21 11:00	31 12:00	32 13:00	32 14:00	31 15:00	31 16:00	29 17:00	28 18:00	28 19:00	29 20:00	29 21:00	31 22:00	31 23:00	31 0:00	24.8	31.9	
17-Jan-08	31 1:00	30 2:00	29 3:00	31 4:00	33 5:00	31 6:00	30 7:00	29 8:00	32 9:00	30 10:00	35 11:00	34 12:00	33 13:00	33 14:00	33 15:00	A 16:00	31 17:00	26 18:00	27 19:00	24 20:00	26 21:00	27 22:00	18 23:00	7 0:00	28.6	35.3	
18-Jan-08	2 1:00	22 2:00	26 3:00	30 4:00	30 5:00	26 6:00	19 7:00	21 8:00	16 9:00	18 10:00	26 11:00	30 12:00	30 13:00	32 14:00	A 15:00	30 16:00	29 17:00	22 18:00	24 19:00	21 20:00	4 21:00	14 22:00	15 23:00	14 0:00	21.4	31.6	
19-Jan-08	12 1:00	15 2:00	13 3:00	19 4:00	21 5:00	24 6:00	19 7:00	12 8:00	17 9:00	22 10:00	23 11:00	25 12:00	25 13:00	29 14:00	A 15:00	29 16:00	24 17:00	27 18:00	21 19:00	25 20:00	23 21:00	22 22:00	25 23:00	25 0:00	21.4	28.6	
20-Jan-08	25 1:00	25 2:00	31 3:00	31 4:00	33 5:00	33 6:00	33 7:00	33 8:00	30 9:00	31 10:00	A 11:00	31 12:00	31 13:00	31 14:00	31 15:00	29 16:00	27 17:00	27 18:00	26 19:00	27 20:00	27 21:00	26 22:00	25 23:00	24 0:00	29.2	33.6	
21-Jan-08	23 1:00	22 2:00	23 3:00	25 4:00	27 5:00	27 6:00	29 7:00	31 8:00	34 9:00	35 10:00	A 11:00	36 12:00	36 13:00	36 14:00	35 15:00	34 16:00	33 17:00	34 18:00	33 19:00	34 20:00	33 21:00	34 22:00	36 23:00	36 0:00	29.7	36.2	
22-Jan-08	26 1:00	26 2:00	27 3:00	27 4:00	25 5:00	18 6:00	24 7:00	24 8:00	25 9:00	30 10:00	A 11:00	32 12:00	35 13:00	36 14:00	36 15:00	35 16:00	34 17:00	34 18:00	35 19:00	30 20:00	32 21:00	37 22:00	36 23:00	36 0:00	29.2	36.4	
23-Jan-08	27 1:00	18 2:00	16 3:00	16 4:00	9 5:00	8 6:00	8 7:00	14 8:00	A 9:00	25 10:00	36 11:00	37 12:00	37 13:00	38 14:00	38 15:00	37 16:00	35 17:00	33 18:00	35 19:00	33 20:00	32 21:00	32 22:00	33 23:00	33 0:00	26.2	38.1	
24-Jan-08	33 1:00	33 2:00	32 3:00	31 4:00	30 5:00	26 6:00	17 7:00	4 8:00	A 9:00	12 10:00	19 11:00	17 12:00	15 13:00	25 14:00	22 15:00	22 16:00	19 17:00	19 18:00	23 19:00	27 20:00	26 21:00	27 22:00	29 23:00	29 0:00	23.4	33.0	
25-Jan-08	28 1:00	30 2:00	31 3:00	27 4:00	24 5:00	20 6:00	5 7:00	A 8:00	3 9:00	7 10:00	16 11:00	15 12:00	24 13:00	37 14:00	36 15:00	32 16:00	30 17:00	17 18:00	14 19:00	34 20:00	35 21:00	37 22:00	38 23:00	38 0:00	25.1	38.2	
26-Jan-08	38 1:00	37 2:00	38 3:00	37 4:00	36 5:00	A 6:00	35 7:00	37 8:00	36 9:00	37 10:00	36 11:00	32 12:00	31 13:00	25 14:00	39 15:00	40 16:00	39 17:00	36 18:00	36 19:00	35 20:00	35 21:00	35 22:00	35 23:00	32 0:00	36.7	39.6	
27-Jan-08	32 1:00	32 2:00	31 3:00	34 4:00	A 5:00	30 6:00	31 7:00	30 8:00	31 9:00	32 10:00	31 11:00	32 12:00	25 13:00	23 14:00	21 15:00	22 16:00	25 17:00	26 18:00	27 19:00	27 20:00	28 21:00	28 22:00	28 23:00	28 0:00	28.6	33.9	
28-Jan-08	28 1:00	28 2:00	28 3:00	A 4:00	29 5:00	28 6:00	28 7:00	29 8:00	29 9:00	30 10:00	31 11:00	31 12:00	31 13:00	30 14:00	30 15:00	29 16:00	29 17:00	27 18:00	25 19:00	20 20:00	21 21:00	22 22:00	23 23:00	23 0:00	27.2	31.1	
29-Jan-08	20 1:00	20 2:00	19 3:00	A 4:00	11 5:00	9 6:00	7 7:00	1 8:00	10 9:00	17 10:00	22 11:00	27 12:00	30 13:00	29 14:00	29 15:00	27 16:00	28 17:00	27 18:00	27 19:00	27 20:00	27 21:00	27 22:00	27 23:00	27 0:00	21.8	30.5	
30-Jan-08																											

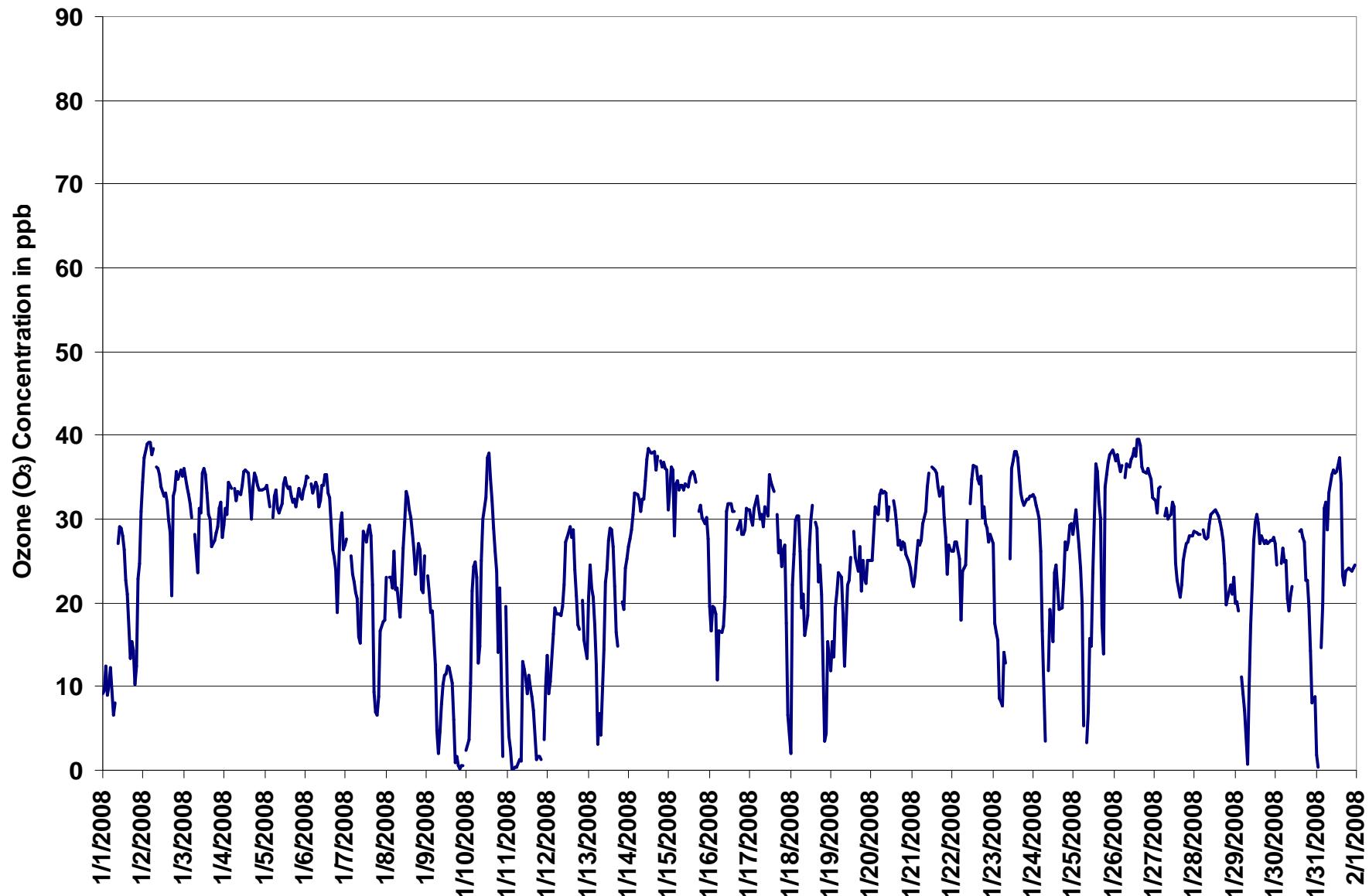
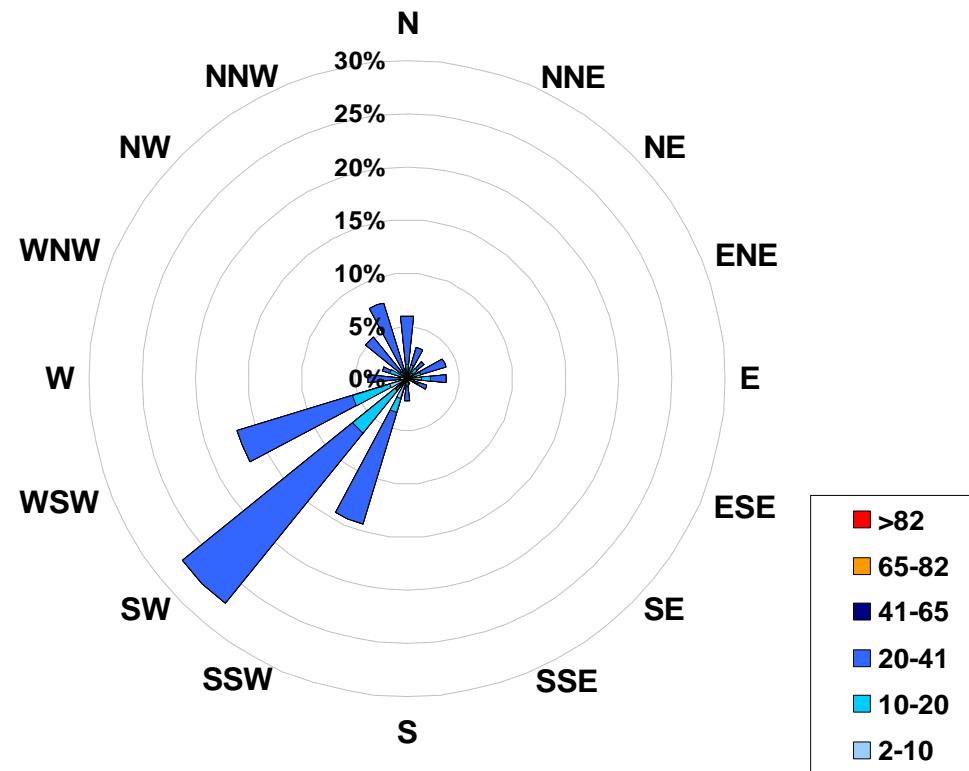


Figure 6. PAS - Crescent Heights Ozone Instantaneous (30 Second) Maximum Value Monthly Trend



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



Calms:		Frequency Distribution of O <sub>3</sub> in ppb		
		Range	Frequency (hrs)	
2.0	<	10	115	
10	to	20	126	
20	to	41	468	
41	to	65	0	
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

Monitoring Dates: January 1, 2008 to February 1, 2008

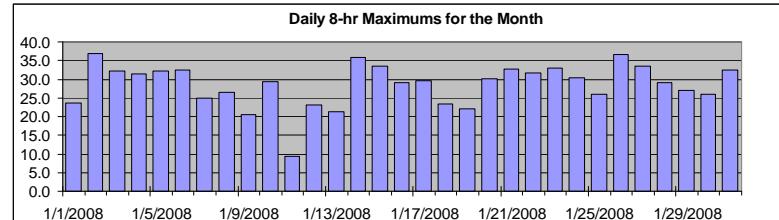
Objective Limit: Alberta Environment: 8-hr 65 ppb  
Summary

Number of 8-hr Exceedances: 0

Maximum 8-hr Average: 37.0 ppb 2-Jan 8:00 9:00

### EIGHT HOUR RUNNING AVERAGE TABLE

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



### 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 1:00	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	32:00	33:00	34:00	35:00	36:00	37:00	38:00	39:00	40:00	41:00	42:00	43:00	44:00	45:00	46:00	47:00	48:00	49:00	50:00	51:00	52:00	53:00	54:00	55:00	56:00	57:00	58:00	59:00	60:00	61:00	62:00	63:00	64:00	65:00	66:00	67:00	68:00	69:00	70:00	71:00	72:00	73:00	74:00	75:00	76:00	77:00	78:00	79:00	80:00	81:00	82:00	83:00	84:00	85:00	86:00	87:00	88:00	89:00	90:00	91:00	92:00	93:00	94:00	95:00	96:00	97:00	98:00	99:00	100:00	101:00	102:00	103:00	104:00	105:00	106:00	107:00	108:00	109:00	110:00	111:00	112:00	113:00	114:00	115:00	116:00	117:00	118:00	119:00	120:00	121:00	122:00	123:00	124:00	125:00	126:00	127:00	128:00	129:00	130:00	131:00	132:00	133:00	134:00	135:00	136:00	137:00	138:00	139:00	140:00	141:00	142:00	143:00	144:00	145:00	146:00	147:00	148:00	149:00	150:00	151:00	152:00	153:00	154:00	155:00	156:00	157:00	158:00	159:00	160:00	161:00	162:00	163:00	164:00	165:00	166:00	167:00	168:00	169:00	170:00	171:00	172:00	173:00	174:00	175:00	176:00	177:00	178:00	179:00	180:00	181:00	182:00	183:00	184:00	185:00	186:00	187:00	188:00	189:00	190:00	191:00	192:00	193:00	194:00	195:00	196:00	197:00	198:00	199:00	200:00	201:00	202:00	203:00	204:00	205:00	206:00	207:00	208:00	209:00	210:00	211:00	212:00	213:00	214:00	215:00	216:00	217:00	218:00	219:00	220:00	221:00	222:00	223:00	224:00	225:00	226:00	227:00	228:00	229:00	230:00	231:00	232:00	233:00	234:00	235:00	236:00	237:00	238:00	239:00	240:00	241:00	242:00	243:00	244:00	245:00	246:00	247:00	248:00	249:00	250:00	251:00	252:00	253:00	254:00	255:00	256:00	257:00	258:00	259:00	260:00	261:00	262:00	263:00	264:00	265:00	266:00	267:00	268:00	269:00	270:00	271:00	272:00	273:00	274:00	275:00	276:00	277:00	278:00	279:00	280:00	281:00	282:00	283:00	284:00	285:00	286:00	287:00	288:00	289:00	290:00	291:00	292:00	293:00	294:00	295:00	296:00	297:00	298:00	299:00	300:00	301:00	302:00	303:00	304:00	305:00	306:00	307:00	308:00	309:00	310:00	311:00	312:00	313:00	314:00	315:00	316:00	317:00	318:00	319:00	320:00	321:00	322:00	323:00	324:00	325:00	326:00	327:00	328:00	329:00	330:00	331:00	332:00	333:00	334:00	335:00	336:00	337:00	338:00	339:00	340:00	341:00	342:00	343:00	344:00	345:00	346:00	347:00	348:00	349:00	350:00	351:00	352:00	353:00	354:00	355:00	356:00	357:00	358:00	359:00	360:00	361:00	362:00	363:00	364:00	365:00	366:00	367:00	368:00	369:00	370:00	371:00	372:00	373:00	374:00	375:00	376:00	377:00	378:00	379:00	380:00	381:00	382:00	383:00	384:00	385:00	386:00	387:00	388:00	389:00	390:00	391:00	392:00	393:00	394:00	395:00	396:00	397:00	398:00	399:00	400:00	401:00	402:00	403:00	404:00	405:00	406:00	407:00	408:00	409:00	410:00	411:00	412:00	413:00	414:00	415:00	416:00	417:00	418:00	419:00	420:00	421:00	422:00	423:00	424:00	425:00	426:00	427:00	428:00	429:00	430:00	431:00	432:00	433:00	434:00	435:00	436:00	437:00	438:00	439:00	440:00	441:00	442:00	443:00	444:00	445:00	446:00	447:00	448:00	449:00	450:00	451:00	452:00	453:00	454:00	455:00	456:00	457:00	458:00	459:00	460:00	461:00	462:00	463:00	464:00	465:00	466:00	467:00	468:00	469:00	470:00	471:00	472:00	473:00	474:00	475:00	476:00	477:00	478:00	479:00	480:00	481:00	482:00	483:00	484:00	485:00	486:00	487:00	488:00	489:00	490:00	491:00	492:00	493:00	494:00	495:00	496:00	497:00	498:00	499:00	500:00	501:00	502:00	503:00	504:00	505:00	506:00	507:00	508:00	509:00	510:00	511:00	512:00	513:00	514:00	515:00	516:00	517:00	518:00	519:00	520:00	521:00	522:00	523:00	524:00	525:00	526:00	527:00	528:00	529:00	530:00	531:00	532:00	533:00	534:00	535:00	536:00	537:00	538:00	539:00	540:00	541:00	542:00	543:00	544:00	545:00	546:00	547:00	548:00	549:00	550:00	551:00	552:00	553:00	554:00	555:00	556:00	557:00	558:00	559:00	560:00	561:00	562:00	563:00	564:00	565:00	566:00	567:00	568:00	569:00	570:00	571:00	572:00	573:00	574:00	575:00	576:00	577:00	578:00	579:00	580:00	581:00	582:00	583:00	584:00	585:00	586:00	587:00	588:00	589:00	590:00	591:00	592:00	593:00	594:00	595:00	596:00	597:00	598:00	599:00	600:00	601:00	602:00	603:00	604:00	605:00	606:00	607:00	608:00	609:00	610:00	611:00	612:00	613:00	614:00	615:00	616:00	617:00	618:00	619:00	620:00	621:00	622:00	623:00	624:00	625:00	626:00	627:00	628:00	629:00	630:00	631:00	632:00	633:00	634:00	635:00	636:00	637:00	638:00	639:00	640:00	641:00	642:00	643:00	644:00	645:00	646:00	647:00	648:00	649:00	650:00	651:00	652:00	653:00	654:00	655:00	656:00	657:00	658:00	659:00	660:00	661:00	662:00	663:00	664:00	665:00	666:00	667:00	668:00	669:00	670:00	671:00	672:00	673:00	674:00	675:00	676:00	677:00	678:00	679:00	680:00	681:00	682:00	683:00	684:00	685:00	686:00	687:00	688:00	689:00	690:00	691:00	692:00	693:00	694:00	695:00	696:00	697:00	698:00	699:00	700:00	701:00	702:00	703:00	704:00	705:00	706:00	707:00	708:00	709:00	710:00	711:00	712:00	713:00	714:00	715:00	716:00	717:00	718:00	719:00	720:00	721:00	722:00	723:00	724:00	725:00	726:00	727:00	728:00	729:00	730:00	731:00	732:00	733:00	734:00	735:00	736:00	737:00	738:00	739:00	740:00	741:00	742:00	743:00	744:00	745:00	746:00	747:00	748:00	749:00	750:00	751:00	752:00	753:00	754:00	755:00	756:00	757:00	758:00	759:00	760:00	761:00	762:00	763:00	764:00	765:00	766:00	767:00	768:00	769:00	770:00	771:00	772:00	773:00	774:00	775:00	776:00	777:00	778:00	779:00	780:00	781:00	782:00	783:00	784:00	785:00	786:00	787:00	788:00	789:00	790:00	791:00	792:00	793:00	794:00	795:00	796:00	797:00	798:00	799:00	800:00	801:00	802:00	803:00	804:00	805:00	806:00	807:00	808:00	809:00	810:00	811:00	812:00	813:00	814:00	815:00	816:00	817:00	818:00	819:00	820:00	821:00	822:00	823:00	824:00	825:00	826:00	827:00	828:00	829:00	830:00	831:00	832:00	833:00	834:00	835:00	836:00	837:00	838:00	839:00	840:00	841:00	842:00	843:00	844:00	845:00	846:00	847:00	848:00	849:00	850:00	851:00	852:00	853:00	854:00	855:00	856:00	857:00	858:00	859:00	860:00	861:00	862:00	863:00	864:00	865:00	866:00	867:00	



## PAS - Crescent Heights Carbon Monoxide Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: January 1, 2008 to February 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: 0.9 ppm 11-Jan 19:00 20:00  
Maximum 24-hr Value: 0.4 ppm 11-Jan

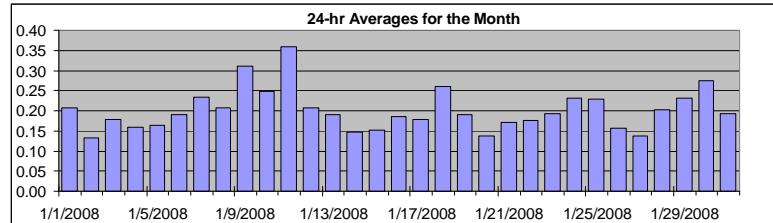
AIC Time:	32 hrs		Operational Time:	708 hrs					
Calibration Time:	4 hrs		AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average	Median
	0.6	0.4	0.2	0.2	0.1	0.1	0.1	0.2 ppm	0.2 ppm

Day Mountain Standard Time

	Hour Start 0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum		
Hour End 1:00		2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
1-Jan-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.21	0.27		
2-Jan-08	0.2	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.21		
3-Jan-08	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.2	0.4	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.18	0.44		
4-Jan-08	0.1	0.1	0.1	0.1	0.1	0.1	A	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	0.16	0.21		
5-Jan-08	0.1	0.1	0.1	0.1	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	0.1	0.2	0.1	0.2	0.16	0.19	
6-Jan-08	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	0.2	0.2	0.2	0.19	0.22	
7-Jan-08	0.2	0.2	A	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.23	0.44	
8-Jan-08	0.2	A	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.31	
9-Jan-08	A	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.6	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.7	0.5	0.3	0.3	0.3	A	0.31	0.69
10-Jan-08	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.5	A	0.2	0.48		
11-Jan-08	0.2	0.2	0.2	0.3	0.2	0.3	0.4	0.5	0.6	0.4	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.6	0.9	0.6	A	0.3	0.2	0.36	0.85	
12-Jan-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	0.3	0.3	0.3	A	0.2	0.2	0.2	0.21	0.26	
13-Jan-08	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.19	0.29		
14-Jan-08	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.15	0.17		
15-Jan-08	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15	0.21		
16-Jan-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	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.19	0.27		
17-Jan-08	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.33		
18-Jan-08	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.5	0.4	0.5	0.3	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.4	0.26	0.50		
19-Jan-08	0.3	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.19	0.35		
20-Jan-08	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.18		
21-Jan-08	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.23		
22-Jan-08	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.18	0.29		
23-Jan-08	0.1	0.1	0.2	0.1	0.2	0.2	0.3	0.4	0.6	A	0.4	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.19	0.57		
24-Jan-08	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.5	A	0.8	0.4	0.4	0.4	0.4	0.3	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.23	0.82		
25-Jan-08	0.1	0.1	0.1	0.1	0.1	0.2	0.3	A	0.4	0.6	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.2	0.4	0.4	0.3	0.1	0.1	0.1	0.23	0.59		
26-Jan-08	0.1	0.1	0.1	0.2	0.2	0.2	A	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	0.16	0.18		
27-Jan-08	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.19		
28-Jan-08	0.1	0.1	0.2	0.1	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.26		
29-Jan-08	0.2	0.2	0.2	A	0.3	0.3	0.4	0.5	0.5	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.23	0.50		
30-Jan-08	0.1	0.1	A	0.1	0.1	0.2	0.2	0.3	C	C	C	C	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.27	0.41		
31-Jan-08	0.3	0.4	A	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	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	0.19	0.35		
Hourly Avg	0.17	0.17	0.17	0.16	0.17	0.18	0.21	0.27	0.29	0.27	0.22	0.20	0.20	0.19	0.19	0.19	0.19	0.21	0.22	0.21	0.19	0.18	0.18	0.17				
Hourly Max	0.33	0.35	0.35	0.25	0.27	0.27	0.40	0.55	0.57	0.82	0.38	0.40	0.39	0.41	0.40	0.31	0.35	0.46	0.69	0.85	0.61	0.48	0.42	0.33				

### HOURLY AVERAGE TABLE

### Carbon Monoxide (CO)



### 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

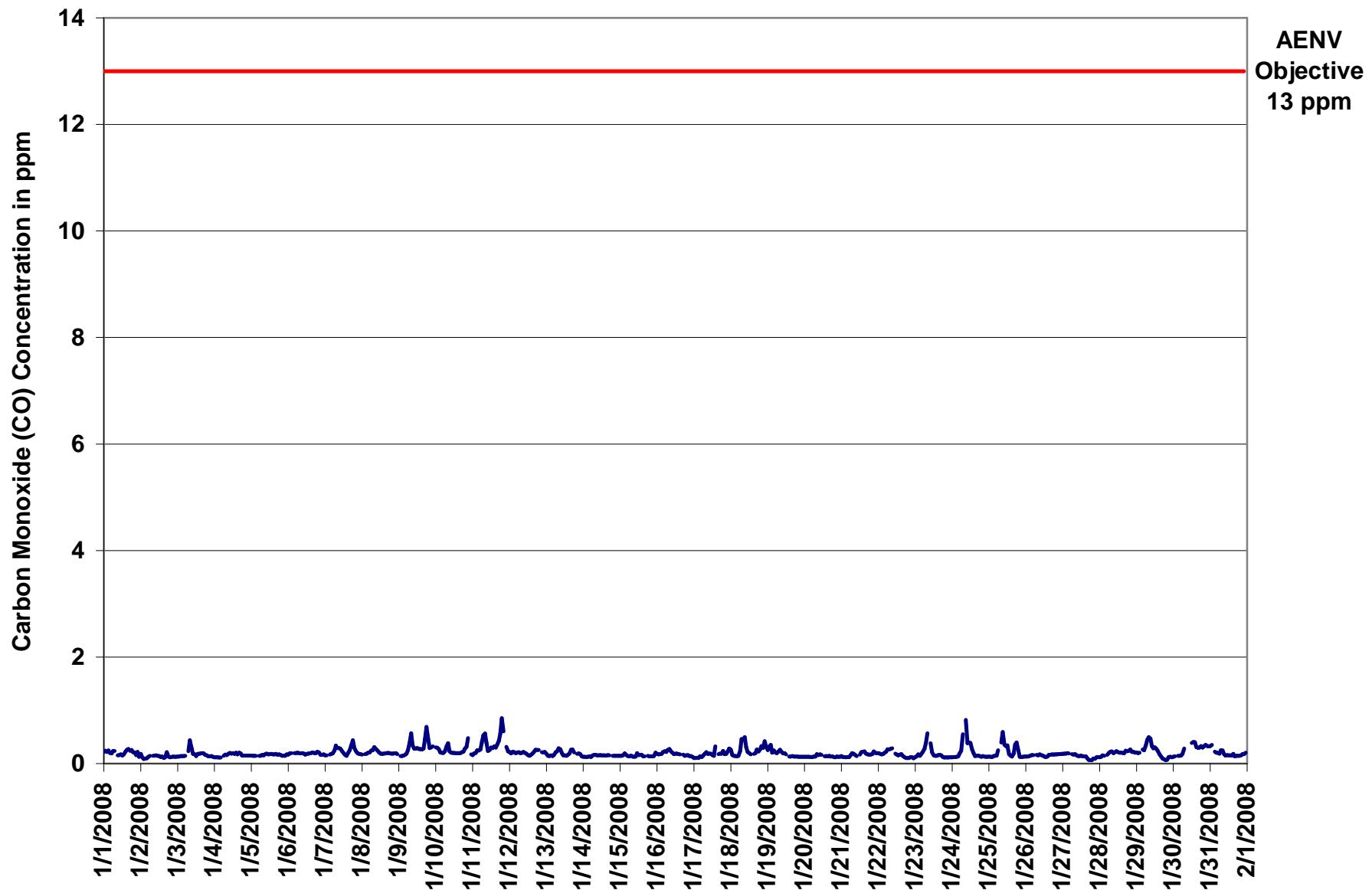


Figure 7. PAS - Crescent Heights Carbon Monoxide 1-hr Average Monthly Trend



Station: Crescent Heights  
Station Owner: PAS

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

### Carbon Monoxide (CO)

Monitoring Dates: January 1, 2008 to February 1, 2008

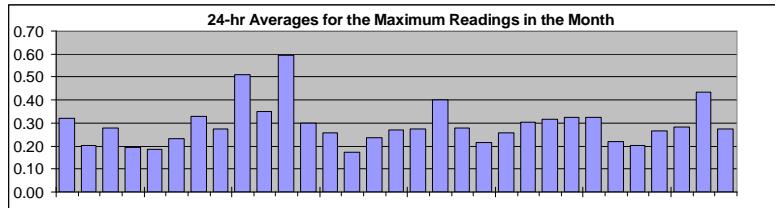
#### Summary

Maximum 1-hr Value:	1.5	ppm	30-Jan	14:00	15:00
Maximum 24-hr Value:	0.6	ppm	11-Jan		

AIC Time:	32 hrs	Operational Time:	708 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	Median
	1.2 0.7 0.3 0.2 0.2 0.1 0.1	0.3 ppm	0.2 ppm

#### Day Mountain Standard Time

Day	Hour Start 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum	
	Hour End 1:00	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-Jan-08	0.2	0.4	0.3	0.3	0.2	0.2	0.3	0.2	A	0.2	0.2	0.4	0.2	0.3	0.4	0.6	0.6	0.6	0.5	0.4	0.3	0.2	0.4	0.2	0.32	0.59		
2-Jan-08	0.5	0.1	0.1	0.1	0.1	0.1	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	0.5	0.2	0.2	0.1	0.4	0.1	0.20	0.52	
3-Jan-08	0.1	0.1	0.2	0.1	0.1	0.2	A	0.4	1.3	0.7	0.3	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	0.28	1.26	
4-Jan-08	0.1	0.1	0.1	0.1	0.2	A	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.30	
5-Jan-08	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.22	
6-Jan-08	0.2	0.2	0.2	A	0.2	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.23	0.37	
7-Jan-08	0.2	0.2	A	0.2	0.2	0.2	0.4	0.6	0.4	0.4	0.3	0.4	0.3	0.4	0.3	0.2	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.33	0.66	
8-Jan-08	0.2	A	0.3	0.3	0.3	0.3	0.4	0.3	0.6	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.28	0.58	
9-Jan-08	A	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.9	1.0	1.2	0.5	0.4	0.3	0.3	0.5	0.4	0.4	1.1	1.4	0.5	0.4	0.4	0.4	0.4	A	0.51	1.42
10-Jan-08	0.5	0.4	0.3	0.3	0.2	0.3	0.3	0.6	0.6	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.6	0.6	0.7	A	0.2	0.2	0.35	0.68	
11-Jan-08	0.2	0.2	0.2	0.3	0.3	0.7	0.7	1.1	1.2	0.6	0.3	0.3	0.4	0.4	0.4	0.9	0.6	0.7	1.3	1.2	0.8	A	0.5	0.3	0.59	1.26		
12-Jan-08	0.7	0.2	0.4	0.3	0.3	0.4	0.4	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.4	A	0.3	0.3	0.3	0.3	0.30	0.67	
13-Jan-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.3	0.2	A	0.2	0.3	0.2	0.2	0.26	0.48	
14-Jan-08	0.1	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	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.17	0.22	
15-Jan-08	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.5	0.3	0.4	0.3	0.2	0.2	0.2	A	0.3	0.2	0.2	0.2	0.2	0.23	0.48		
16-Jan-08	0.2	0.2	0.4	0.2	0.4	0.3	0.3	0.4	0.8	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.27	0.79	
17-Jan-08	0.1	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	0.2	1.2	A	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.4	0.27	1.22	
18-Jan-08	0.3	0.2	0.2	0.1	0.1	0.2	0.5	1.2	0.8	0.8	0.4	0.3	0.4	0.2	A	0.2	0.3	0.4	0.3	0.4	0.4	0.4	0.7	0.6	0.40	1.20		
19-Jan-08	0.7	0.5	0.7	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.2	0.3	0.3	0.3	A	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.28	0.74		
20-Jan-08	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.6	0.4	0.3	0.2	A	0.3	0.4	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.21	0.57		
21-Jan-08	0.2	0.2	0.2	0.1	0.2	0.2	0.4	0.6	0.4	0.2	0.2	A	0.2	0.3	0.3	0.2	0.2	0.5	0.2	0.2	0.3	0.2	0.2	0.2	0.26	0.59		
22-Jan-08	0.2	0.2	0.2	0.2	0.2	0.4	1.1	0.4	0.4	1.2	A	0.3	0.3	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.30	1.17		
23-Jan-08	0.2	0.2	0.4	0.2	0.2	0.3	0.4	0.7	1.4	A	0.5	0.5	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.31	1.35		
24-Jan-08	0.1	0.1	0.1	0.1	0.2	0.4	0.3	1.2	A	1.1	0.5	0.4	0.5	0.4	0.4	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.32	1.17			
25-Jan-08	0.2	0.2	0.2	0.2	0.2	0.2	0.4	A	0.6	0.7	0.5	0.4	0.4	0.3	0.3	0.2	0.3	0.7	0.7	0.5	0.2	0.1	0.2	0.2	0.32	0.69		
26-Jan-08	0.2	0.1	0.1	0.2	0.2	0.2	A	0.3	0.2	0.9	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.85		
27-Jan-08	0.2	0.2	0.2	0.3	0.2	A	0.2	0.2	0.6	0.2	0.2	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.20	0.57	
28-Jan-08	0.1	0.2	0.2	0.2	A	0.2	0.3	0.5	0.4	0.3	0.4	0.3	0.4	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.4	0.3	0.4	0.3	0.27	0.47		
29-Jan-08	0.3	0.2	0.3	A	0.3	0.3	0.4	0.5	0.6	0.6	0.4	0.3	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.28	0.61		
30-Jan-08	0.2	0.1	A	0.2	0.2	0.2	0.2	0.7	C	C	C	C	0.4	0.6	1.5	0.6	0.3	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.43	1.54		
31-Jan-08	0.5	0.4	A	0.3	0.3	0.3	0.2	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.27	0.48		



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

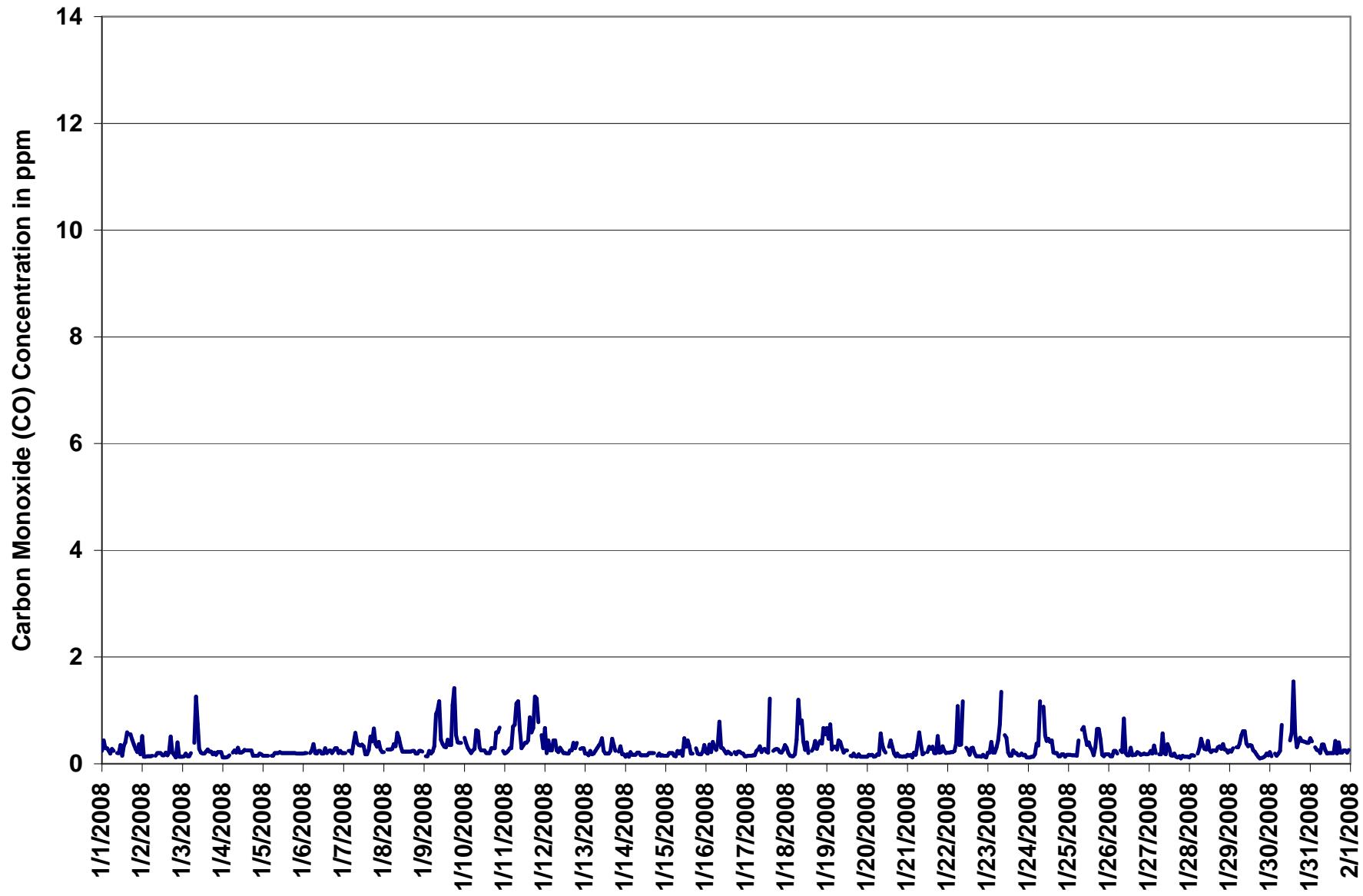
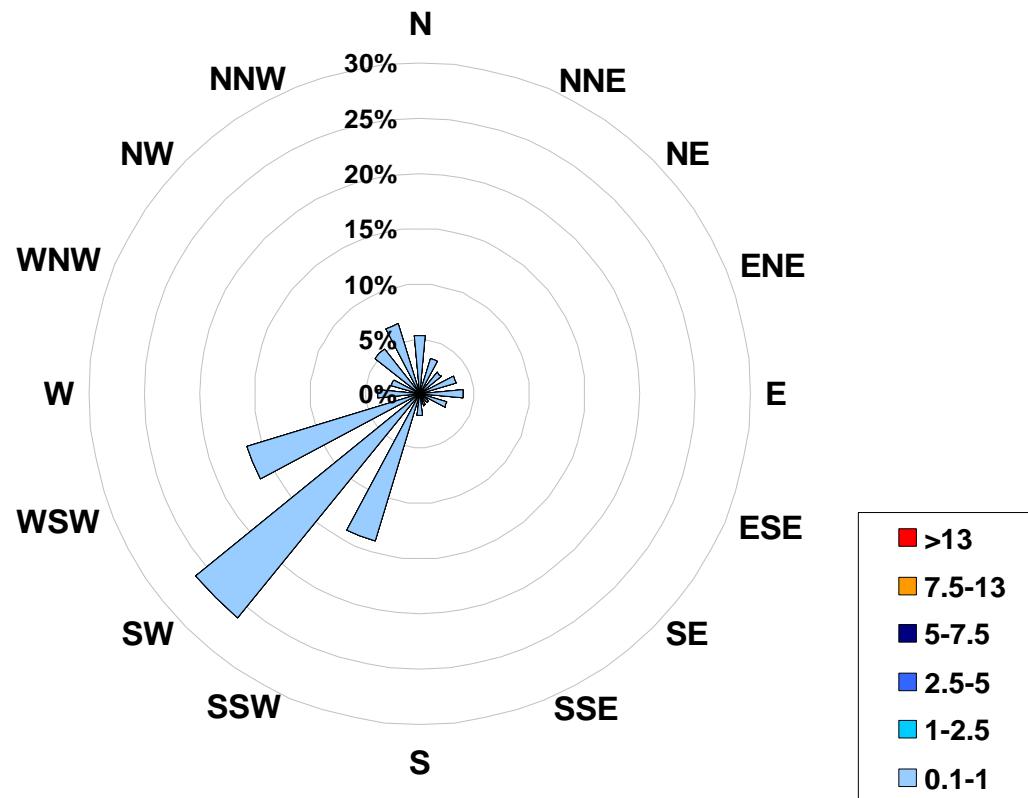


Figure 8. PAS - Crescent Heights Carbon Monoxide Instantaneous (30 Second) Maximum Value Monthly Trend



**1-hr Average Concentration Rose for Carbon Monoxide (in ppm) Located at the Crescent Heights Site for January 2008**



Calms: 0%

Frequency Distribution of CO in ppm		
Range	Frequency (hrs)	
0.1 < 1	708	
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	708	



## PAS - Crescent Heights Carbon Monoxide Eight Hour Average Summary

Station: Crescent Heights  
Station Owner: PAS

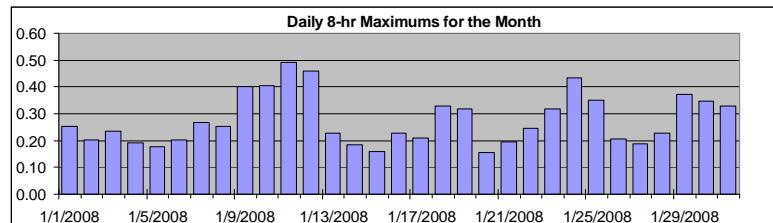
Monitoring Dates: January 1, 2008 to February 1, 2008

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

Number of 8-hr Exceedances: 0  
Maximum 8-hr Average: 0.5 ppm 11-Jan 21:00 22:00

### EIGHT HOUR RUNNING AVERAGE TABLE

### Carbon Monoxide (CO)



### 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 1:00	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	Daily Maximum
1-Jan-08	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25	
2-Jan-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	0.1	0.20	
3-Jan-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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24	
4-Jan-08	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	
5-Jan-08	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	
6-Jan-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	0.2	0.20	
7-Jan-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.27	
8-Jan-08	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25	
9-Jan-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.40	
10-Jan-08	0.4	0.4	0.3	0.3	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	0.2	0.2	0.3	0.3	0.3	0.3	0.40	
11-Jan-08	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.49	
12-Jan-08	0.5	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.46	
13-Jan-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	0.2	0.23	
14-Jan-08	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	
15-Jan-08	0.1	0.1	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	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.16	
16-Jan-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	0.2	0.23	
17-Jan-08	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	
18-Jan-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.33	
19-Jan-08	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	0.1	0.1	0.1	0.1	0.1	0.1	0.32	
20-Jan-08	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16	
21-Jan-08	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	
22-Jan-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	0.1	0.1	0.1	0.1	0.1	0.1	0.24	
23-Jan-08	0.1	0.1	0.1	0.1	0.1	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	0.1	0.1	0.1	0.1	0.1	0.1	0.32	
24-Jan-08	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.43	
25-Jan-08	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.35	
26-Jan-08	0.2	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	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.20	
27-Jan-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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.19	
28-Jan-08	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23	
29-Jan-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.37	
30-Jan-08	0.1	0.1	0.1	0.1	0.1	0.1	0.2	N	N	N	N	N	N	N	N	N	N	N	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.35	
31-Jan-08	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	0.2	0.2	0.2	0.2	0.33	

Hourly Max 0.46 0.42 0.38 0.32 0.30 0.29 0.26 0.28 0.33 0.36 0.37 0.39 0.43 0.43 0.37 0.34 0.31 0.35 0.43 0.46 0.49 0.49 0.48



## PAS - Crescent Heights Total Hydrocarbons Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: January 1, 2008 to February 1, 2008

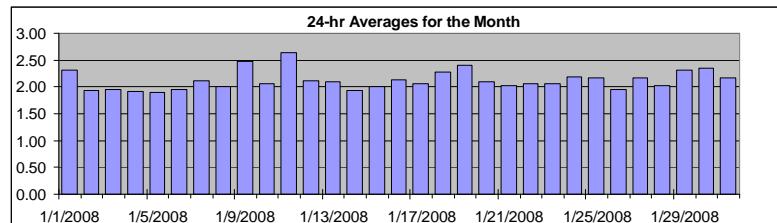
Objective Limit: Alberta Environment: 1-hr na ppm 24-hr na ppm  
Summary

Maximum 1-hr Average:	3.3	ppm	11-Jan	8:00 9:00
Maximum 24-hr Value:	2.6	ppm	11-Jan	

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
	2.9 2.6 2.2 2.1 1.9 1.9 1.8	2.1 ppm	2.1 ppm

### HOURLY AVERAGE TABLE

### Total Hydrocarbons (THC)



### 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-Jan-08	2.5	2.4	2.4	2.4	2.3	2.4	2.3	A	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.4	2.5	2.6	2.7	2.4	2.3	2.3	2.3	2.3	2.1	2.32	2.66		
2-Jan-08	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.94	2.11	
3-Jan-08	1.9	1.9	1.9	2.0	2.0	2.0	2.0	A	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.96	2.07	
4-Jan-08	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.97
5-Jan-08	1.8	1.8	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.94	
6-Jan-08	1.9	1.9	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.96	2.04	
7-Jan-08	2.0	2.0	A	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.2	2.4	2.5	2.3	2.2	2.1	2.1	2.1	2.12	2.48	
8-Jan-08	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	2.0	2.0	1.9	2.0	2.1	2.0	2.0	2.01	2.09	
9-Jan-08	A	2.0	2.0	2.1	2.1	2.2	2.3	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.9	2.9	2.6	2.5	2.4	A	2.47	2.88		
10-Jan-08	2.4	2.4	2.4	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.2	2.3	A	2.2	2.06	2.44	
11-Jan-08	2.3	2.5	2.7	2.8	2.9	2.8	3.0	3.1	3.3	3.3	2.7	2.2	2.2	2.3	2.3	2.4	2.4	2.8	2.9	3.1	2.8	A	2.6	2.3	2.64	3.26			
12-Jan-08	2.2	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	A	2.1	2.2	2.11	2.29			
13-Jan-08	2.1	2.0	2.0	2.1	2.1	2.1	2.2	2.3	2.3	2.3	2.1	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.0	A	2.1	2.0	2.10	2.33				
14-Jan-08	2.0	2.0	2.0	2.0	1.9	2.0	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	A	1.9	1.9	1.9	1.8	1.8	1.93	2.00		
15-Jan-08	1.8	1.8	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	A	2.2	2.1	2.2	2.2	2.2	2.3	2.01	2.26	
16-Jan-08	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.9	1.9	1.9	2.13	2.41	
17-Jan-08	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.0	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.6	2.4	2.05	2.57	
18-Jan-08	2.5	2.5	2.3	2.3	2.2	2.2	2.3	2.7	2.5	2.5	2.4	2.3	2.1	2.1	2.1	A	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.28	2.69		
19-Jan-08	2.4	2.3	2.7	2.4	2.6	2.3	2.2	2.2	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	A	2.2	2.1	2.2	2.2	2.5	2.8	2.9	2.6	2.4	2.40	2.92	
20-Jan-08	2.3	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.10	2.35		
21-Jan-08	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.02	2.11		
22-Jan-08	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.07	2.17		
23-Jan-08	2.2	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	A	2.1	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.05	2.38
24-Jan-08	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.2	A	2.4	2.2	2.4	2.4	2.3	2.2	2.2	2.3	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.19	2.42	
25-Jan-08	2.2	2.2	2.1	2.1	2.1	2.2	2.4	A	2.5	2.6	2.6	2.4	2.2	1.9	1.9	2.0	2.0	2.3	2.3	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.16	2.60
26-Jan-08	1.9	1.9	1.9	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.95	1.98	
27-Jan-08	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	2.1	2.2	2.4	2.2	2.0	3.0	2.9	2.8	3.1	2.0	1.9	2.17	3.08	
28-Jan-08	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.03	2.13	
29-Jan-08	2.1	2.1	2.1	A	2.3	2.4	2.7	2.5	2.5	2.5	2.5	2.5	2.4	2.3	2.3	C	C	A	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.31	2.71
30-Jan-08	2.2	2.2	A	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.3	2.3	2.4	2.6	2.5	2.3	2.3	2.4	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.35	2.94		
31-Jan-08	2.6	2.6	A	2.5	2.3	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	2.1	2.2	2.2	2.3	2.3	2.3	2.4	2.3	2.3	2.16	2.64		
Hourly Avg	2.13	2.12	2.12	2.13	2.13	2.12	2.14	2.16	2.17	2.14	2.11	2.10	2.07	2.05	2.04	2.07	2.09	2.12	2.20	2.20	2.17	2.14	2.12	2.11					
Hourly Max	2.62	2.64	2.65	2.81	2.87	2.85	3.01	3.12	3.26	2.73	2.58	2.60	2.60	2.64	2.60	2.59	2.61	2.82	3.04	3.07	2.92	3.08	2.57	2.94					

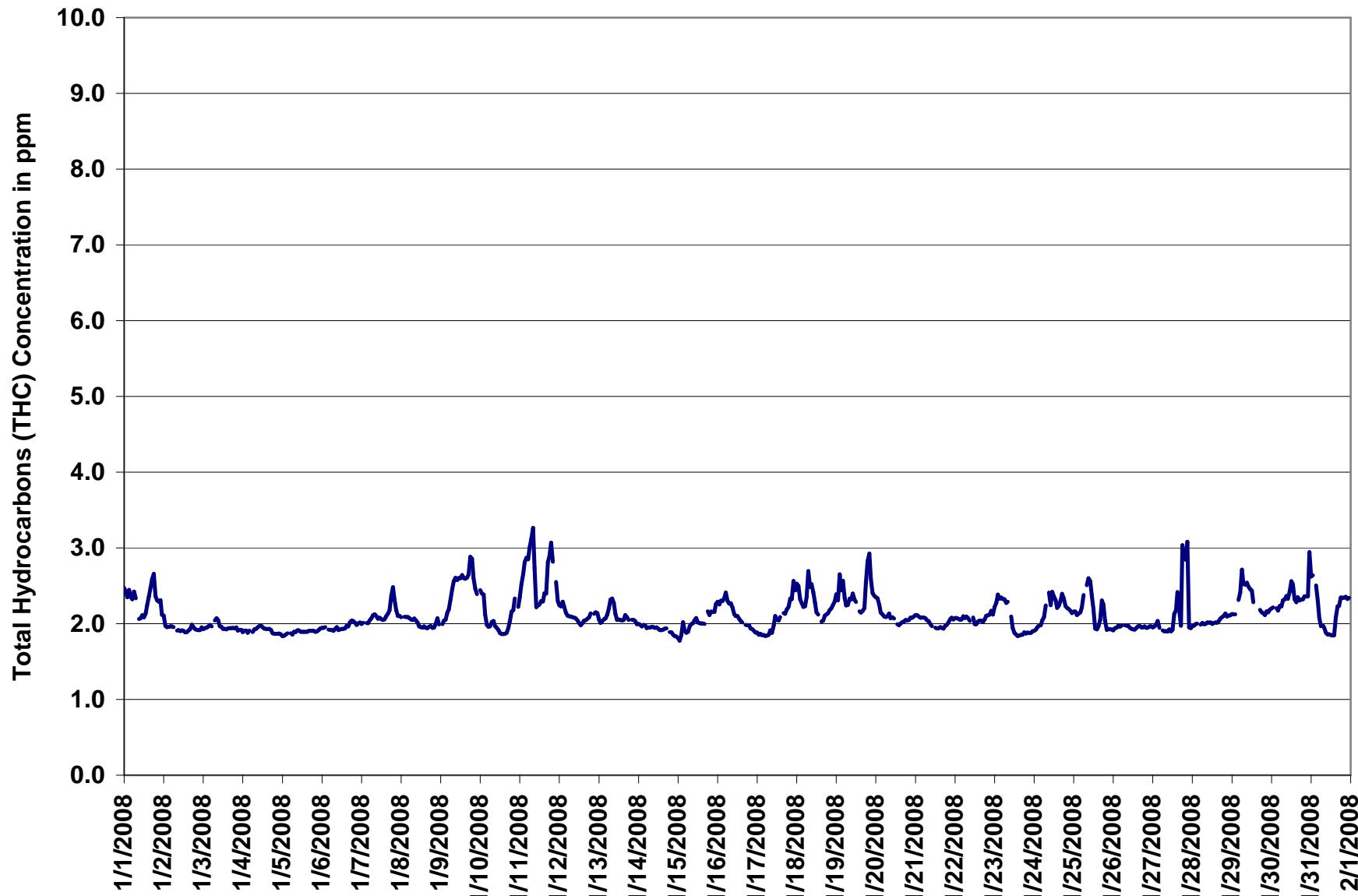


Figure 9. PAS - Crescent Heights Total Hydrocarbons 1-hr Average Monthly Trend



Station: Crescent Heights  
Station Owner: PAS

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

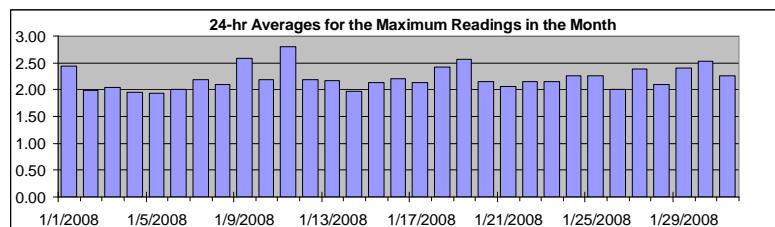
### Total Hydrocarbons (THC)

Monitoring Dates: January 1, 2008 to February 1, 2008

#### Summary

Maximum 1-hr Value:	4.7	ppm	27-Jan	21:00 22:00
Maximum 24-hr Value:	2.8	ppm	11-Jan	

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
	3.4 2.8 2.4 2.1 2.0 1.9 1.9	2.2 ppm	2.1 ppm



#### Status Flag Characters

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

#### Day Mountain Standard Time

	Hour Start Hour End	0:00	1:00	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-Jan-08	2.6	2.5	2.5	2.7	2.5	2.4	2.5	2.4	A	2.1	2.1	2.3	2.1	2.2	2.5	2.5	2.6	2.8	2.7	2.7	2.4	2.4	2.5	2.2	2.44	2.75	
2-Jan-08	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	1.9	2.0	2.0	2.0	1.9	2.0	1.9	2.0	2.1	2.0	2.0	2.0	2.0	2.00	2.29	
3-Jan-08	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.2	2.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.04	2.51	
4-Jan-08	1.9	2.0	2.0	1.9	1.9	A	1.9	2.0	2.0	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.96	2.10
5-Jan-08	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	1.9	1.9	2.0	2.0	1.93	1.97	
6-Jan-08	2.0	2.0	2.0	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	2.1	2.2	2.1	2.1	2.0	2.1	2.01	2.20	
7-Jan-08	2.0	2.1	A	2.1	2.0	2.1	2.1	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.6	2.5	2.3	2.2	2.2	2.19	2.59	
8-Jan-08	2.2	A	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.0	2.10	2.59	
9-Jan-08	A	2.0	2.1	2.1	2.2	2.3	2.4	2.7	2.8	2.8	2.7	2.8	2.7	2.7	2.7	2.6	2.7	2.8	3.3	2.9	2.9	2.5	2.5	A	2.59	3.27	
10-Jan-08	2.5	2.5	3.0	2.8	2.0	2.0	2.0	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.1	2.3	2.4	2.4	A	2.3	2.18	3.02
11-Jan-08	2.5	2.6	2.7	3.0	2.9	3.0	3.1	3.4	3.4	3.4	2.3	2.3	2.3	2.3	2.3	2.3	2.5	2.5	3.1	3.2	3.2	2.9	A	2.7	2.5	2.79	3.43
12-Jan-08	2.4	2.3	2.4	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.2	2.1	2.2	2.2	2.3	2.3	A	2.2	2.2	2.2	2.18	2.37
13-Jan-08	2.1	2.0	2.1	2.1	2.1	2.2	2.3	2.4	2.5	2.4	2.2	2.1	2.2	2.1	2.1	2.1	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.16	2.45	
14-Jan-08	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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	1.9	1.9	1.9	1.98	2.03	
15-Jan-08	1.9	1.8	2.1	2.1	2.0	2.1	1.9	2.1	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.0	A	2.4	2.3	2.3	2.2	2.3	2.4	2.13	2.44	
16-Jan-08	2.4	2.3	2.4	2.5	2.5	2.6	2.4	2.3	2.5	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.20	2.59	
17-Jan-08	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.1	2.2	2.1	2.1	2.2	2.2	A	2.2	2.2	2.5	2.3	2.5	2.4	3.0	2.14	2.95	
18-Jan-08	2.8	2.8	2.4	2.5	2.4	2.4	2.7	3.1	2.8	2.8	2.5	2.4	2.2	2.2	2.2	A	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.4	2.43	3.13	
19-Jan-08	2.6	2.6	3.2	2.5	2.9	2.6	2.4	2.3	2.4	2.4	2.6	2.4	2.4	2.4	2.4	2.3	2.2	2.2	2.4	2.8	3.1	2.8	2.5	2.4	2.56	3.16	
20-Jan-08	2.4	2.4	2.4	2.2	2.2	2.1	2.1	2.2	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.15	2.39	
21-Jan-08	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.06	2.26	
22-Jan-08	2.1	2.1	2.1	2.1	2.1	2.1	2.5	2.2	2.2	2.2	A	2.2	2.2	2.0	2.0	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.15	2.47	
23-Jan-08	2.4	2.4	2.6	2.5	2.4	2.4	2.4	2.5	2.6	A	2.4	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.15	2.58		
24-Jan-08	1.9	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.4	A	2.5	2.5	2.5	2.5	2.4	2.3	2.4	2.5	2.4	2.3	2.3	2.3	2.2	2.26	2.52		
25-Jan-08	2.3	2.2	2.2	2.2	2.2	2.3	2.5	A	2.6	2.7	2.7	2.6	2.3	2.1	2.0	2.0	2.3	2.4	2.5	2.3	2.0	2.0	2.0	2.0	2.27	2.71	
26-Jan-08	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.10		
27-Jan-08	2.0	2.0	2.1	2.2	2.0	A	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.5	2.6	2.2	3.7	3.2	3.4	4.7	2.0	2.38	4.68	
28-Jan-08	2.0	2.0	2.1	2.1	A	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.2	2.1	2.2	2.1	2.10	2.22	
29-Jan-08	2.2	2.2	2.2	A	2.4	2.5	3.0	2.7	2.6	2.6	2.6	2.6	2.6	2.5	C	C	A	2.3	2.2	2.2	2.1	2.2	2.2	2.2	2.40	2.96	
30-Jan-08	2.3	2.3	A	2.3	2.2	2.3	2.3	2.5	2.4	2.7	2.4	2.5	2.5	2.5	2.4	2.4	2.4	2.5	2.5	2.5	2.4	3.4	3.9	2.53	3.87		
31-Jan-08	2.8	2.9	A	2.6	2.5	2.2	2.0	2.0	2.1	1.9	1.9	1.9	1.9	1.9	1.9	2.3	2.4	2.4	2.5	2.4	2.4	2.4	2.4	2.26	2.88		

Hourly Avg 2.20 2.19 2.23 2.23 2.20 2.24 2.28 2.28 2.26 2.19 2.18 2.14 2.12 2.10 2.13 2.16 2.21 2.34 2.30 2.27 2.27 2.24 2.21

Hourly Max 2.76 2.88 3.16 3.01 2.92 2.98 3.12 3.41 3.43 3.43 2.71 2.78 2.75 2.73 2.72 2.64 2.66 3.11 3.65 3.22 3.37 4.68 3.36 3.87

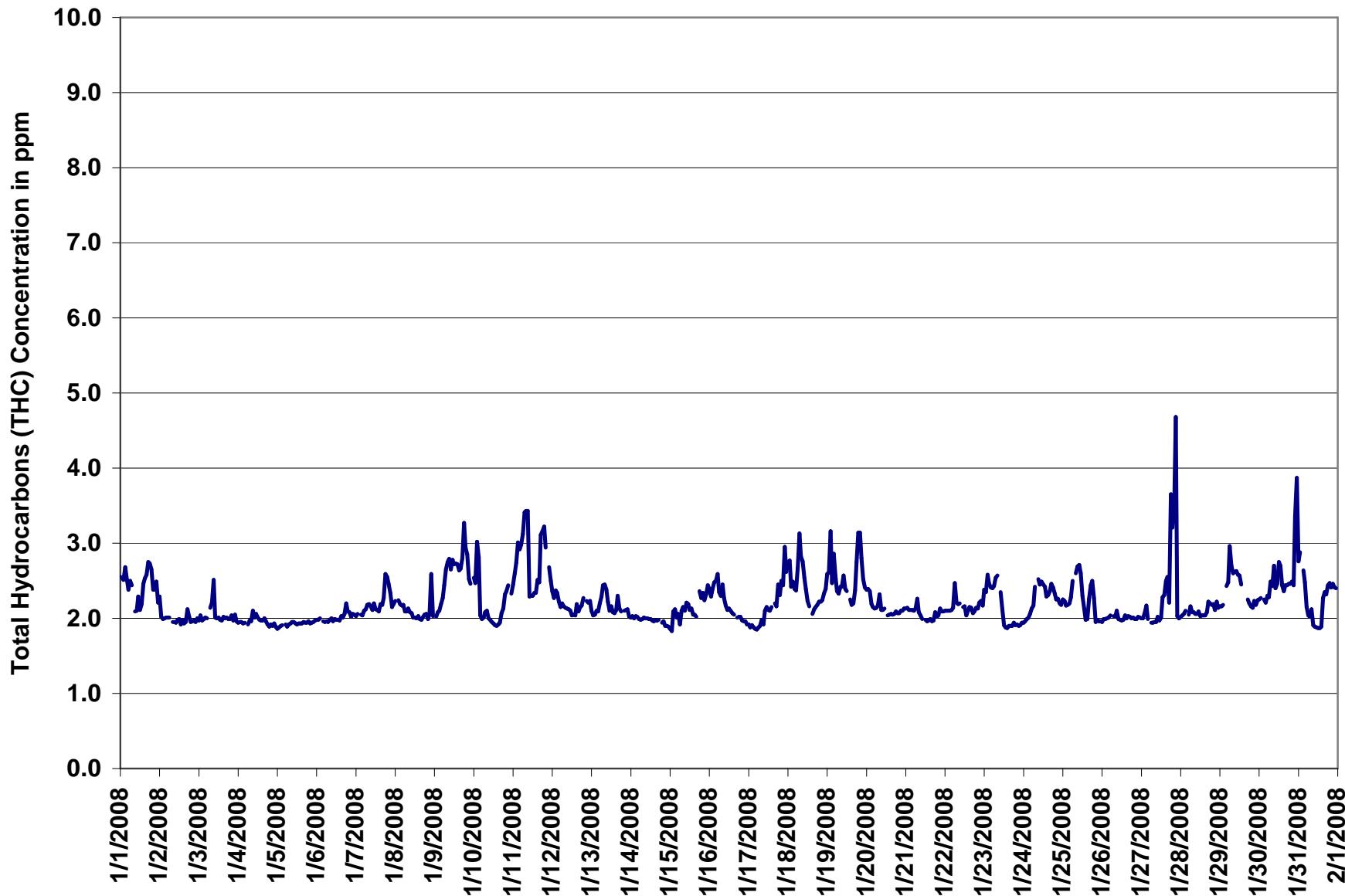
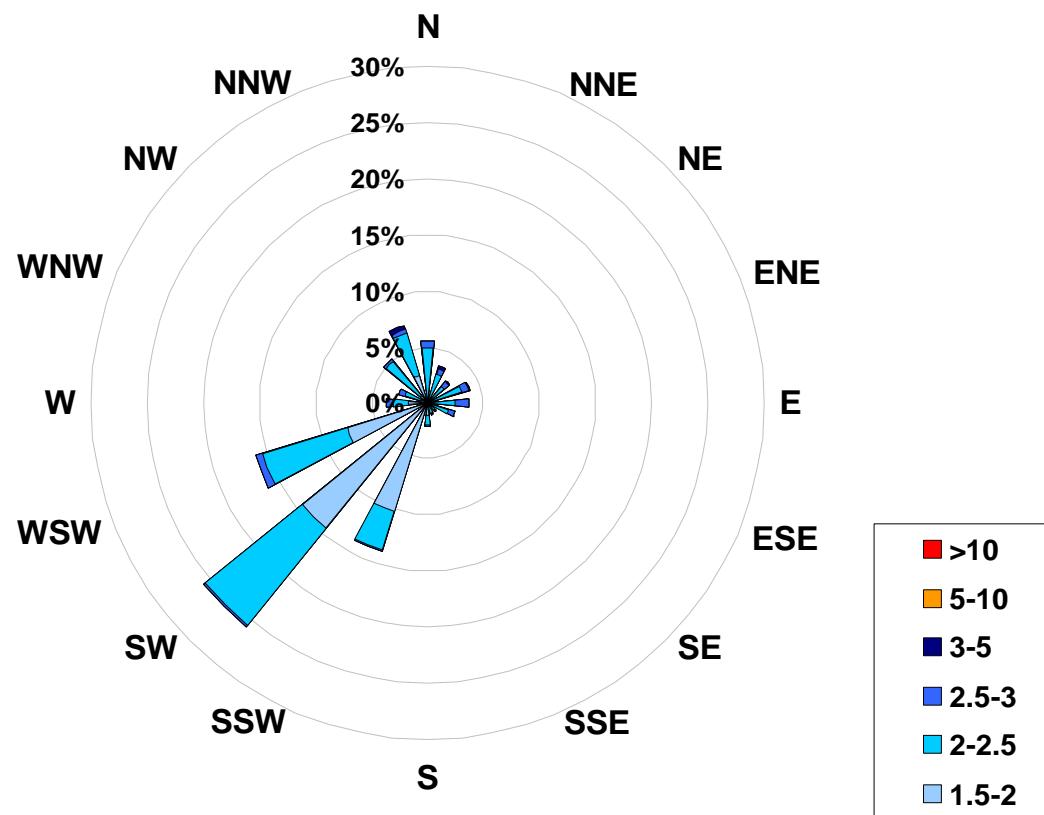


Figure 10. PAS - Crescent Heights Total Hydrocarbons Instantaneous (30 Second) Maximum Value Monthly Trend

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



Calms:	0%	Frequency Distribution of THC in ppm		
		Range	Frequency (hrs)	
1.5	<	2	275	
2	to	2.5	377	
2.5	to	3	50	
3	to	5	6	
5	to	10	0	
	>	10	0	
Total Non-Zero Values			709	



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

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: January 1, 2008 to February 1, 2008

Draft Objective Limit: Alberta Environment: 1-hr -  $\mu\text{g}/\text{m}^3$  24-hr 30  $\mu\text{g}/\text{m}^3$   
Summary

Number of 24-hr Exceedances (draft):	0
Maximum 1-hr Average:	11.3 $\mu\text{g}/\text{m}^3$
Maximum 24-hr Value:	5.3 $\mu\text{g}/\text{m}^3$
19-Jan	1:00 2:00
11-Jan	

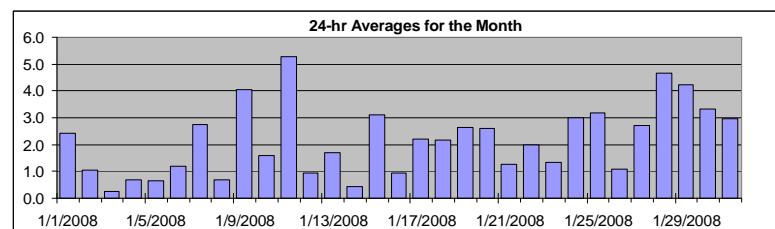
AIC Time:	0 hrs	Operational Time:	738 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	99.2%						
Percentile	99	95	75	50	25	5	1	Average / Median	Geomean
	9.3	6.8	3.2	1.6	0.4	0.0	0.0	2.2	2 $\mu\text{g}/\text{m}^3$
									1.7 $\mu\text{g}/\text{m}^3$

### Day Mountain Standard Time

	Hour Start 1:00	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-Jan-08	9	8	5	5	3	3	3	4	2	2	1	D	0	0	1	1	2	0	0	1	1	0	0	0	D	2.4	9.4	
2-Jan-08	0	D	D	0	0	0	0	0	0	0	2	2	1	1	3	1	2	2	2	3	1	1	2	1		1.0	2.6	
3-Jan-08	0	0	1	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0.3	3.2	
4-Jan-08	1	1	3	3	1	0	2	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	1	1	0.7	3.1	
5-Jan-08	1	2	2	3	2	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.7	2.6	
6-Jan-08	0	0	0	0	0	1	2	0	0	2	2	2	1	1	2	2	2	0	2	2	1	2	1		1.2	2.4		
7-Jan-08	1	1	1	1	0	1	4	2	3	4	3	2	3	2	2	2	4	3	5	8	7	4	2	1	1	2.7	7.9	
8-Jan-08	1	1	0	0	1	1	4	0	0	1	0	0	0	0	0	0	1	1	1	1	1	2	1	1		0.7	4.0	
9-Jan-08	1	1	2	2	2	2	8	3	6	4	2	4	6	5	4	4	4	7	8	6	3	4	5	2		4.1	8.4	
10-Jan-08	4	3	3	1	0	0	0	0	1	1	0	0	0	0	0	0	0	1	2	1	3	3	3	7	4	1	1.6	6.8
11-Jan-08	4	4	3	3	4	2	3	6	4	3	3	4	5	8	7	7	7	8	10	10	9	4	2		5.3	10.5		
12-Jan-08	0	1	1	2	1	1	2	0	1	2	2	1	1	0	1	1	1	1	0	1	0	0	0	0		0.9	2.1	
13-Jan-08	1	1	2	0	1	1	2	4	3	6	3	2	1	2	2	2	5	2	0	0	0	0	0	0		1.7	5.6	
14-Jan-08	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	2	0	2	0	0	0	1		0.4	2.5	
15-Jan-08	2	3	6	9	4	2	4	5	7	7	4	2	1	2	2	2	2	2	1	3	1	2	1	1		3.1	9.1	
16-Jan-08	1	1	1	2	2	0	0	3	2	2	1	0	0	0	0	1	2	1	1	1	0	1	1	0		1.0	2.8	
17-Jan-08	1	1	0	2	1	0	3	3	5	5	2	2	1	1	1	2	3	3	2	2	4	2	0	2	5	2.2	5.3	
18-Jan-08	4	3	3	1	2	2	1	2	4	7	7	2	1	0	1	0	0	1	0	1	2	3	3	2		2.2	7.0	
19-Jan-08	3	11	1	0	0	0	0	1	2	3	2	1	1	2	2	4	4	4	4	3	2	5	4	4		2.6	11.3	
20-Jan-08	4	4	2	1	1	0	0	1	1	2	3	2	2	2	3	4	4	4	4	5	4	4	3	4		2.6	4.8	
21-Jan-08	5	5	3	2	1	1	1	0	1	1	0	0	0	0	0	1	1	0	1	1	2	2	2	2		1.3	4.8	
22-Jan-08	1	2	3	2	1	2	4	5	4	1	2	1	3	3	3	2	3	2	1	1	1	0	0	0		2.0	4.5	
23-Jan-08	0	1	1	0	0	1	2	5	6	6	1	0	0	0	0	1	0	1	1	1	1	1	1	1		1.3	6.3	
24-Jan-08	1	1	1	1	1	2	2	3	4	7	5	5	8	5	3	4	3	3	2	2	2	3	4	1		3.0	8.2	
25-Jan-08	3	2	2	2	0	2	6	5	7	9	4	4	3	0	1	3	2	7	9	2	1	0	1	2		3.2	9.0	
26-Jan-08	1	1	2	1	1	1	2	3	3	2	2	2	1	0	1	0	2	1	1	0	0	0	0	0		1.1	2.8	
27-Jan-08	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	5	5	6	7	7	9	8	8	8		2.7	8.5	
28-Jan-08	7	7	7	7	4	6	5	5	4	5	4	3	4	4	4	4	4	4	4	6	5	4	4	5		4.7	7.2	
29-Jan-08	3	3	3	4	5	5	5	6	10	10	6	6	5	0	D	0	2	4	2	3	2	4	3	4		4.2	10.3	
30-Jan-08	3	2	2	3	2	3	2	3	3	7	7	10	8	2	1	3	2	1	2	1	3	3	3	6		3.3	9.7	
31-Jan-08	2	5	4	3	8	6	1	1	D	0	0	0	0	0	1	0	1	3	5	5	7	7	7		2.9	8.2		
Hourly Avg	2.0	2.5	2.2	1.9	1.6	1.6	2.2	2.2	2.9	3.4	2.3	1.9	1.8	1.3	1.6	2.0	2.1	2.2	2.6	2.5	2.3	2.4	2.2	2.2				
Hourly Max	9.4	11.3	7.2	9.1	8.2	6.4	7.6	5.7	10.2	10.3	6.8	9.7	8.2	7.7	6.6	7.3	6.7	6.7	8.7	10.4	10.5	9.4	8.1	8.2				

### HOURLY AVERAGE TABLE

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



### 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

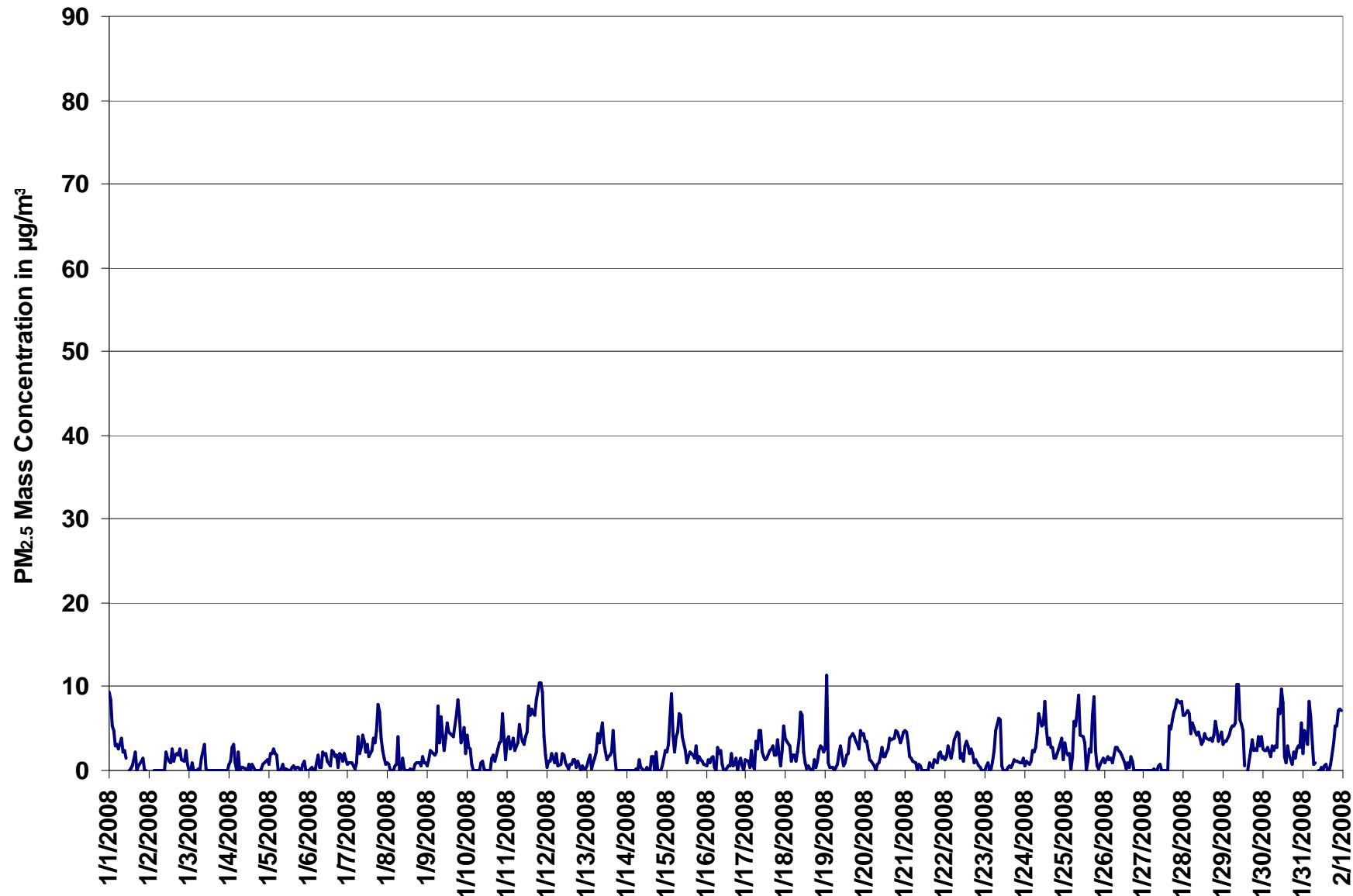


Figure 11. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend



Station: Crescent Heights  
Station Owner: PAS

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

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

Monitoring Dates: January 1, 2008 to February 1, 2008

#### Summary

Maximum 1-hr Average:	34.4	µg/m <sup>3</sup>	19-Jan	1:00 2:00
Maximum 24-hr Value:	8.8	µg/m <sup>3</sup>	11-Jan	

AIC Time:	0 hrs	Operational Time:	744 hrs							
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%							
Percentile	99 16.4	95 11.5	75 6.1	50 4.2	25 2.6	5 1.2	1 0.1	Average / Median 5.0	4 µg/m <sup>3</sup>	Geomean 4.7 µg/m <sup>3</sup>

#### Day Mountain Standard Time

	Hour Start Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
1-Jan-08	12 1:00	11 2:00	8 3:00	7 4:00	6 5:00	5 6:00	4 7:00	6 8:00	4 9:00	4 10:00	4 11:00	2 12:00	1 13:00	2 14:00	2 15:00	5 16:00	2 17:00	2 18:00	5 19:00	4 20:00	1 21:00	1 22:00	1 23:00	0 0:00	4.2	12.2	
2-Jan-08	0 0:00	0 1:00	0 2:00	1 3:00	1 4:00	0 5:00	0 6:00	2 7:00	1 8:00	2 9:00	6 10:00	10 11:00	4 12:00	5 13:00	5 14:00	4 15:00	5 16:00	7 17:00	4 18:00	5 19:00	5 20:00	4 21:00	4 22:00	9 23:00	3.4	9.8	
3-Jan-08	1 1:00	2 2:00	3 3:00	2 4:00	2 5:00	3 6:00	1 7:00	5 8:00	9 9:00	2 10:00	2 11:00	2 12:00	1 13:00	1 14:00	2 15:00	2 16:00	1 17:00	2 18:00	2 19:00	2 20:00	3 21:00	3 22:00	1 23:00	2.5	9.1		
4-Jan-08	3 1:00	6 2:00	6 3:00	6 4:00	3 5:00	2 6:00	11 7:00	2 8:00	3 9:00	4 10:00	4 11:00	4 12:00	3 13:00	3 14:00	2 15:00	1 16:00	1 17:00	1 18:00	3 19:00	3 20:00	3 21:00	3 22:00	3 23:00	3.6	11.4		
5-Jan-08	4 1:00	5 2:00	5 3:00	6 4:00	6 5:00	5 6:00	3 7:00	5 8:00	4 9:00	4 10:00	3 11:00	2 12:00	2 13:00	2 14:00	2 15:00	3 16:00	2 17:00	2 18:00	3 19:00	3 20:00	3 21:00	4 22:00	3 23:00	3.4	5.7		
6-Jan-08	1 1:00	3 2:00	0 3:00	2 4:00	3 5:00	8 6:00	4 7:00	2 8:00	5 9:00	3 10:00	3 11:00	5 12:00	4 13:00	4 14:00	6 15:00	4 16:00	4 17:00	2 18:00	4 19:00	2 20:00	5 21:00	3 22:00	6 23:00	3.7	7.9		
7-Jan-08	2 1:00	3 2:00	3 3:00	4 4:00	3 5:00	12 6:00	3 7:00	5 8:00	5 9:00	5 10:00	6 11:00	6 12:00	5 13:00	3 14:00	9 15:00	7 16:00	6 17:00	9 18:00	12 19:00	10 20:00	8 21:00	5 22:00	3 23:00	5.7	12.3		
8-Jan-08	2 1:00	3 2:00	2 3:00	2 4:00	3 5:00	17 6:00	1 7:00	2 8:00	3 9:00	2 10:00	1 11:00	1 12:00	1 13:00	1 14:00	2 15:00	2 16:00	3 17:00	3 18:00	4 19:00	4 20:00	3 21:00	4 22:00	4 23:00	3.2	17.0		
9-Jan-08	3 1:00	4 2:00	6 3:00	5 4:00	6 5:00	22 22	7 7:00	8 8:00	7 9:00	5 10:00	5 11:00	8 12:00	8 13:00	6 14:00	6 15:00	6 16:00	11 17:00	14 18:00	8 19:00	6 20:00	7 21:00	8 22:00	4 23:00	7.5	22.3		
10-Jan-08	11 1:00	7 2:00	6 3:00	5 4:00	0 5:00	1 6:00	0 7:00	2 8:00	3 9:00	3 10:00	5 11:00	2 12:00	1 13:00	1 14:00	4 15:00	3 16:00	7 17:00	6 18:00	7 19:00	6 20:00	9 21:00	7 22:00	7 23:00	4.2	11.2		
11-Jan-08	6 1:00	6 2:00	5 3:00	6 4:00	6 5:00	6 6:00	4 7:00	12 8:00	6 9:00	7 10:00	7 11:00	7 12:00	7 13:00	14 14:00	12 15:00	11 16:00	11 17:00	12 18:00	13 19:00	13 20:00	15 21:00	8 22:00	8 23:00	8.8	14.7		
12-Jan-08	2 1:00	3 2:00	3 3:00	5 4:00	6 5:00	2 6:00	12 7:00	7 8:00	2 9:00	4 10:00	3 11:00	3 12:00	2 13:00	3 14:00	3 15:00	2 16:00	3 17:00	4 18:00	2 19:00	2 20:00	2 21:00	2 22:00	1 23:00	3.4	11.6		
13-Jan-08	2 1:00	3 2:00	3 3:00	5 4:00	3 5:00	3 6:00	12 7:00	8 8:00	9 9:00	6 10:00	4 11:00	4 12:00	4 13:00	4 14:00	5 15:00	5 16:00	8 17:00	6 18:00	1 19:00	1 20:00	2 21:00	2 22:00	2 23:00	4.4	12.3		
14-Jan-08	2 1:00	2 2:00	0 3:00	1 4:00	2 5:00	2 6:00	2 7:00	3 8:00	3 9:00	1 10:00	2 11:00	3 12:00	3 13:00	3 14:00	2 15:00	5 16:00	3 17:00	3 18:00	5 19:00	3 20:00	3 21:00	4 22:00	5 23:00	2.6	5.2		
15-Jan-08	5 1:00	6 2:00	14 3:00	14 4:00	11 5:00	5 6:00	8 7:00	9 8:00	29 9:00	24 10:00	7 11:00	6 12:00	3 13:00	4 14:00	5 15:00	5 16:00	4 17:00	3 18:00	3 19:00	4 20:00	3 21:00	3 22:00	3 23:00	7.5	28.6		
16-Jan-08	2 1:00	3 2:00	4 3:00	4 4:00	8 5:00	2 6:00	2 7:00	8 8:00	6 9:00	4 10:00	3 11:00	1 12:00	2 13:00	1 14:00	5 15:00	5 16:00	3 17:00	3 18:00	5 19:00	1 20:00	2 21:00	3 22:00	5 23:00	3.6	7.7		
17-Jan-08	4 1:00	5 2:00	2 3:00	4 4:00	2 5:00	16 6:00	5 7:00	7 8:00	11 9:00	10 10:00	4 11:00	3 12:00	3 13:00	3 14:00	5 15:00	6 16:00	4 17:00	5 18:00	5 19:00	4 20:00	3 21:00	6 22:00	8 23:00	5.6	15.9		
18-Jan-08	7 1:00	7 2:00	5 3:00	6 4:00	4 5:00	4 6:00	4 7:00	11 8:00	12 9:00	11 10:00	6 11:00	6 12:00	3 13:00	2 14:00	3 15:00	2 16:00	1 17:00	3 18:00	2 19:00	3 20:00	1 21:00	2 22:00	2 23:00	5.1	12.0		
19-Jan-08	5 1:00	34 2:00	5 3:00	3 4:00	1 5:00	2 6:00	3 7:00	3 8:00	5 9:00	4 10:00	3 11:00	4 12:00	4 13:00	4 14:00	5 15:00	6 16:00	6 17:00	6 18:00	5 19:00	5 20:00	5 21:00	6 22:00	6 23:00	5.6	34.4		
20-Jan-08	5 1:00	5 2:00	5 3:00	3 4:00	2 5:00	2 6:00	2 7:00	2 8:00	4 9:00	5 10:00	5 11:00	4 12:00	3 13:00	3 14:00	4 15:00	6 16:00	6 17:00	6 18:00	6 19:00	6 20:00	6 21:00	6 22:00	6 23:00	4.3	6.4		
21-Jan-08	7 1:00	6 2:00	5 3:00	3 4:00	3 5:00	1 6:00	3 7:00	3 8:00	2 9:00	2 10:00	2 11:00	2 12:00	2 13:00	2 14:00	2 15:00	3 16:00	3 17:00	2 18:00	4 19:00	2 20:00	4 21:00	2 22:00	6 23:00	3.3	6.8		
22-Jan-08	3 1:00	3 2:00	4 3:00	4 4:00	4 5:00	12 6:00	7 7:00	6 8:00	4 9:00	6 10:00	4 11:00	7 12:00	6 13:00	2 14:00	6 15:00	5 16:00	5 17:00	2 18:00	4 19:00	2 20:00	3 21:00	2 22:00	1 23:00	4.4	11.9		
23-Jan-08	1 1:00	4 2:00	5 3:00	3 4:00	5 5:00	23 6:00	13 7:00	8 8:00	5 9:00	3 10:00	2 11:00	2 12:00	1 13:00	3 14:00	3 15:00	2 16:00	3 17:00	2 18:00	3 19:00	2 20:00	2 21:00	2 22:00	2 23:00	4.4	22.9		
24-Jan-08	2 1:00	2 2:00	2 3:00	2 4:00	6 5:00	4 6:00	6 7:00	10 8:00	8 9:00	8 10:00	11 11:00	9 12:00	9 13:00	4 14:00	7 15:00	4 16:00	4 17:00	4 18:00	4 19:00	4 20:00	5 21:00	5 22:00	5 23:00	5.2	11.3		
25-Jan-08	7 1:00	7 2:00	5 3:00	5 4:00	4 5:00	10 6:00	8 7:00	9 8:00	13 9:00	9 10:00	10 11:00	10 12:00	3 13:00	3 14:00	3 15:00	6 16:00	9 17:00	16 18:00	4 19:00	3 20:00	3 21:00	3 22:00	3 23:00	6.5	16.2		
26-Jan-08	2 1:00	2 2:00	3 3:00	3 4:00	3 5:00	3 6:00	3 7:00	17 8:00	11 9:00	4 10:00	3 11:00	4 12:00	3 13:00	4 14:00	4 15:00	3 16:00	9 17:00	4 18:00	2 19:00	1 20:00	1 21:00	1 22:00	0 23:00	3.9	16.6		
27-Jan-08	0 1:00	2 2:00	2 3:00	4 4:00	1 5:00	4 6:00	2 7:00	1 8:00	1 9:00	5 10:00	7 11:00	7 12:00	7 13:00	7 14:00	7 15:00	3 16:00	9 17:00	10 18:00	12 19:00	12 20:00	11 21:00	10 22:00	11 23:00	5.8	11.7		
28-Jan-08	11 1:00	10 2:00	10 3:00	12 4:00	9 5:00	11 6:00	9 7:00	13 8:00	9 9:00	11 10:00	11 11:00	7 12:00	7 13:00	7 14:00	7 15:00	6 16:00	6 17:00	6 18:00	6 19:00	6 20:00	6 21:00	6 22:00	6 23:00	8.3	13.0		
29-Jan-08	5 1:00	5 2:00	5 3:00	7 4:00	9 5:00	8 6:00	8 7:00	15 8:00	17 9:00	11 10:00	12 11:00	13 12:00	13 13:00	4 14:00	3 15:00	5 16:00	5 17:00	5 18:00	7 19:00	4 20:00	6 21:00	6 22:00	8 23:00	7.2	17.0		
30-Jan-08	5 1:00	4 2:00	4 3:00	5 4:00	5 5:00	5 6:00	11 7:00	12 8:00	15 9:00	17 10:00	11 11:00	12 12:00															

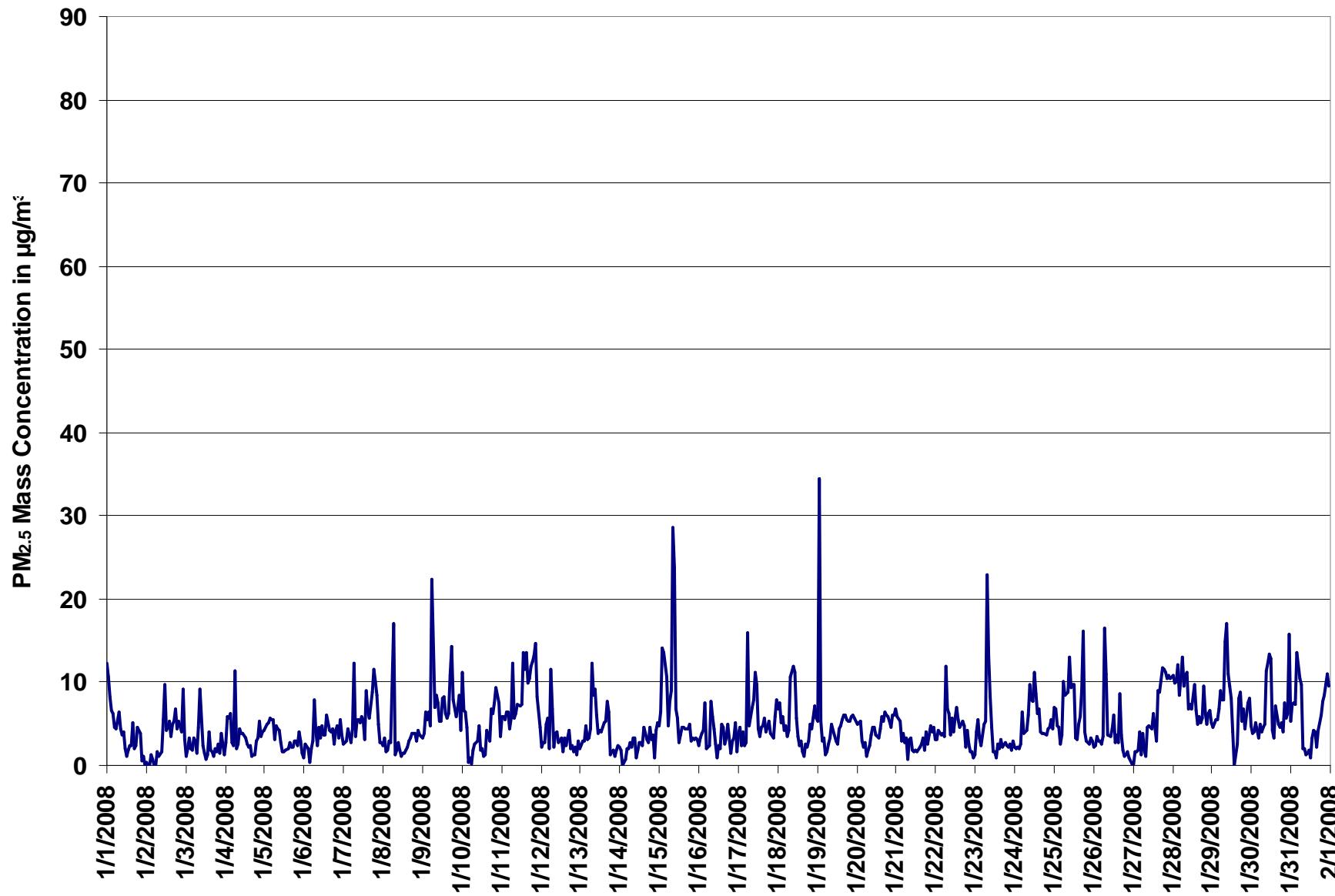
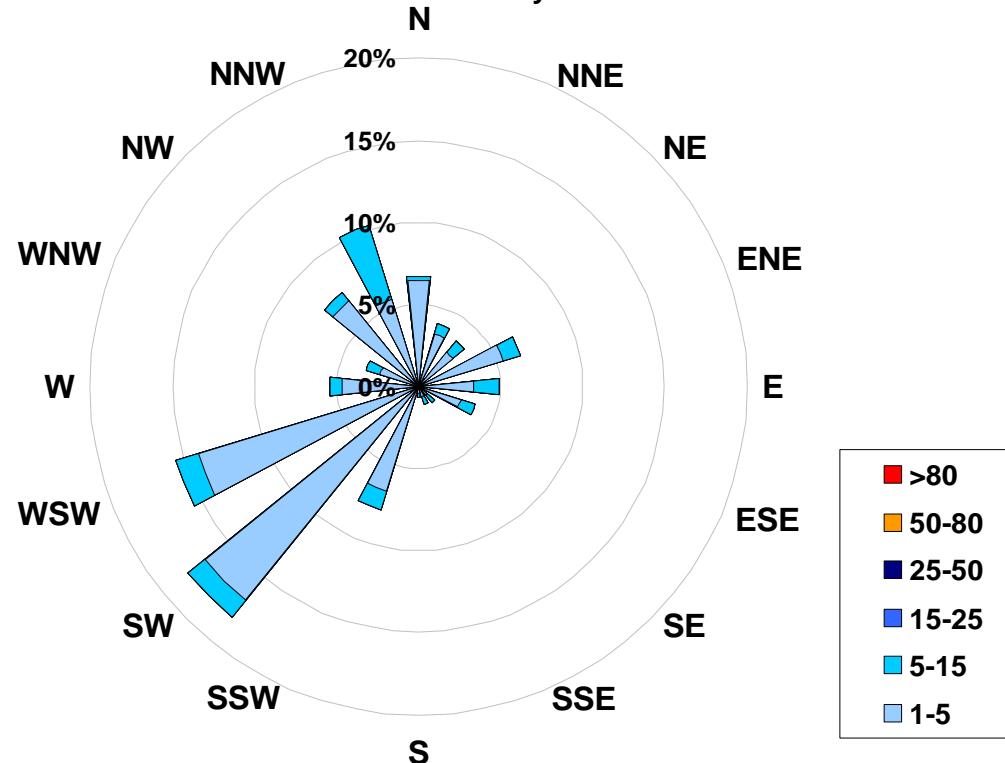


Figure 12. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) Instantaneous (30 Second) Maximum Value Monthly Trend



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 January 2008



Calms: 0%

Frequency Distribution of PM <sub>2.5</sub> in $\mu\text{g}/\text{m}^3$			
Range			Frequency (hrs)
1.0	<	5	660
5	to	15	78
15	to	25	0
25	to	50	0
50	to	80	0
>	80		0
Total Non-Zero Values			738



## PAS - Crescent Heights Relative Humidity Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: January 1, 2008 to February 1, 2008

### Summary

Maximum 1-hr Average:	89.6	%	17-Jan	9:00 10:00
Maximum 24-hr Value:	79.1	%	17-Jan	

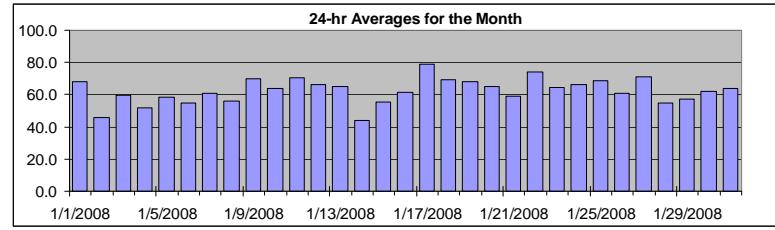
AIC Time:	0 hrs	Operational Time:	744 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99 81.7	95 78.3	75 70.2	50 63.3	25 55.5	5 42.9	1 33.4	Average 62.5 %	Median 63.3 %

### Day Mountain Standard Time

	Hour Start 0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
	Hour End 1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00		
1-Jan-08	75	75	75	74	74	73	74	75	75	69	61	58	52	53	58	67	72	72	71	71	69	63	56	68.2	75.3	
2-Jan-08	53	39	32	28	31	35	33	34	37	38	39	42	41	43	47	51	54	58	55	58	62	62	60	62	45.6	62.3
3-Jan-08	63	64	67	66	69	72	73	74	72	68	61	51	49	51	53	54	54	55	54	56	53	50	49	56	59.8	74.0
4-Jan-08	55	52	58	64	67	67	66	66	60	55	49	47	45	43	44	47	48	45	39	43	47	47	47	49	52.0	67.3
5-Jan-08	50	50	52	56	61	68	69	65	68	65	61	56	55	54	52	51	54	58	58	62	55	61	63	61	58.5	68.6
6-Jan-08	58	57	59	61	59	61	52	58	58	51	47	45	44	41	41	46	55	62	64	64	63	54	53	59	54.6	63.9
7-Jan-08	58	61	67	67	69	68	68	67	67	61	56	44	43	43	45	49	54	60	65	71	71	71	70	71	61.1	71.1
8-Jan-08	69	65	64	66	67	66	66	66	66	61	56	50	44	42	44	42	44	50	53	49	49	54	57	59	56.2	68.9
9-Jan-08	60	64	68	70	72	75	77	79	79	74	71	68	62	58	57	58	64	70	75	76	76	74	73	73	69.7	79.2
10-Jan-08	74	74	74	69	66	65	67	67	65	58	66	65	59	50	51	53	59	58	59	64	66	69	70	71	64.1	74.0
11-Jan-08	72	74	79	81	80	79	79	80	78	76	69	62	58	52	51	53	59	65	70	75	76	77	76	74	70.7	81.1
12-Jan-08	73	73	75	77	77	75	74	75	73	68	65	60	55	51	51	50	53	60	64	67	69	70	69	71	66.4	76.9
13-Jan-08	70	68	69	73	76	78	81	81	79	69	60	55	46	43	44	47	53	58	66	69	71	73	69	65	65.1	81.1
14-Jan-08	65	63	61	60	55	53	55	56	48	47	42	39	33	34	33	32	33	33	36	37	38	33	34	38	44.1	64.9
15-Jan-08	49	53	60	73	77	72	81	77	61	51	46	44	42	38	37	38	44	51	54	55	56	57	56	63	55.6	80.8
16-Jan-08	65	63	63	65	70	70	66	67	66	63	58	53	52	50	51	54	57	61	63	64	62	63	63	60	61.2	70.0
17-Jan-08	62	77	79	83	79	76	82	87	89	90	85	77	73	71	71	73	78	80	81	80	80	82	82	81	79.1	89.6
18-Jan-08	80	80	80	74	71	71	73	73	71	69	68	66	63	62	61	63	67	67	67	64	63	66	68	69.2	80.5	
19-Jan-08	69	69	70	68	69	68	68	69	68	67	66	61	61	63	62	70	74	73	71	69	69	67	67	67.8	74.4	
20-Jan-08	68	69	70	69	69	68	64	63	63	62	62	58	56	56	59	62	64	66	67	69	69	68	68	68.4	69.7	
21-Jan-08	70	70	69	66	66	65	63	62	60	55	53	51	50	48	47	47	51	53	56	60	62	66	66	67	59.2	70.2
22-Jan-08	68	71	76	79	80	79	77	75	83	79	69	59	64	72	74	72	75	77	76	75	75	76	74	74.2	83.4	
23-Jan-08	76	79	79	77	76	75	77	76	76	68	54	48	45	45	47	50	56	60	62	64	63	62	61	64.7	79.4	
24-Jan-08	61	61	61	62	64	68	70	73	72	63	58	56	50	53	58	61	67	72	75	78	77	78	78	66.5	78.4	
25-Jan-08	77	76	76	75	74	74	74	74	75	76	78	72	53	54	57	60	67	71	66	60	62	61	61	68.8	78.0	
26-Jan-08	61	63	63	65	65	64	63	63	61	60	59	56	54	54	52	52	57	62	63	64	63	65	64	67	60.8	67.4
27-Jan-08	68	70	73	76	70	73	75	74	76	74	71	65	62	74	76	76	73	70	68	68	66	66	65	65	71.1	76.5
28-Jan-08	63	62	62	61	60	59	56	58	56	54	50	49	45	44	46	47	51	52	55	59	58	54	55	55	54.7	63.4
29-Jan-08	56	57	58	59	60	59	58	58	58	57	55	50	49	52	53	56	58	60	60	61	62	63	64	57.4	64.1	
30-Jan-08	65	65	65	65	64	64	64	64	63	61	61	59	57	54	53	56	61	62	62	63	65	65	66	61.9	65.7	
31-Jan-08	67	68	68	68	76	71	62	60	58	57	55	55	56	55	56	63	67	66	66	66	66	67	68	63.7	76.2	
Hourly Avg	65.2	65.6	66.8	67.6	68.1	68.1	68.0	68.2	67.2	63.9	60.5	56.3	53.4	51.7	52.4	54.1	58.0	61.3	62.9	64.0	64.0	64.1	63.8	64.4		
Hourly Max	80.5	80.2	80.1	83.2	80.1	79.4	82.1	87.2	89.0	89.6	84.8	78.0	72.8	74.2	75.9	75.9	77.5	80.1	81.0	80.5	80.1	81.6	81.7	81.2		

### HOURLY AVERAGE TABLE

### Relative Humidity (RH)



### 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

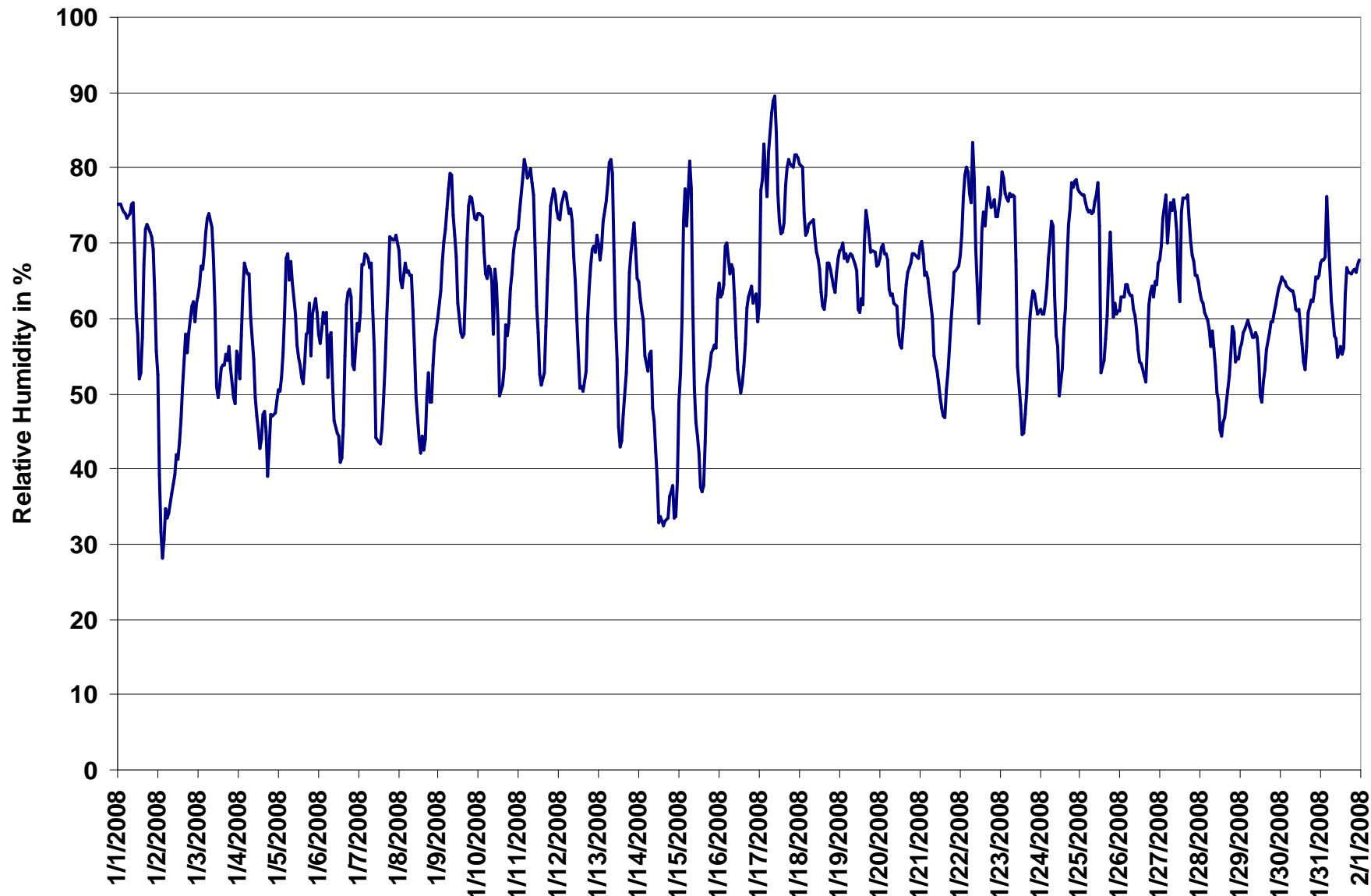


Figure 13. PAS - Crescent Heights Relative Humidity 1-hr Average Monthly Trend



## PAS - Crescent Heights Temperature Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

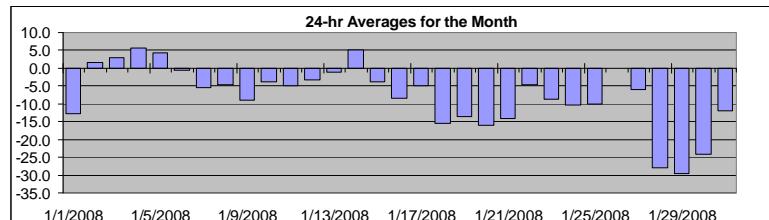
Monitoring Dates: January 1, 2008 to February 1, 2008

### Summary

Maximum 1-hr Average:	8.8	°C	4-Jan	18:00 19:00
Maximum 24-hr Value:	5.7	°C	4-Jan	

### HOURLY AVERAGE TABLE

### Ambient Temperature (T)



### 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	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
	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-Jan-08	-16	-16	-16	-17	-18	-18	-18	-18	-16	-14	-11	-10	-9	-7	-7	-9	-11	-13	-13	-12	-11	-10	-8	-6	-12.7	-6.0
2-Jan-08	-5	-2	0	1	0	0	1	2	2	2	3	3	4	5	4	3	2	1	1	2	2	2	3	2	1.6	4.5
3-Jan-08	2	2	1	1	0	0	0	0	1	2	4	6	7	7	6	5	5	4	3	2	3	3	3	1	2.8	6.8
4-Jan-08	1	3	3	4	3	3	3	3	3	4	6	7	8	8	8	7	7	7	9	8	8	8	8	7	5.7	8.8
5-Jan-08	7	8	7	7	6	4	4	4	3	3	4	6	6	6	7	6	4	3	3	2	2	1	0	0	4.3	7.7
6-Jan-08	-1	-1	-1	-2	-2	-2	-1	-2	-3	-1	1	3	3	4	5	3	0	-2	-3	-3	-4	-3	-3	-4	-0.7	4.6
7-Jan-08	-4	-5	-7	-8	-9	-9	-8	-8	-9	-6	-4	-2	0	0	0	0	-2	-3	-4	-6	-7	-8	-8	-9	-5.4	0.2
8-Jan-08	-9	-8	-8	-9	-9	-8	-9	-8	-8	-6	-3	-2	0	0	0	0	-1	-2	-3	-2	-2	-3	-4	-4	-4.5	0.3
9-Jan-08	-4	-6	-7	-8	-9	-10	-11	-12	-11	-11	-10	-8	-7	-6	-5	-5	-6	-8	-9	-11	-12	-12	-13	-8.8	-4.4	
10-Jan-08	-13	-11	-11	-7	-5	-6	-7	-7	-6	-3	-3	-2	1	2	2	2	1	0	-2	-3	-3	-4	-4	-5	-3.9	2.5
11-Jan-08	-5	-5	-6	-7	-7	-7	-7	-7	-7	-5	-3	-1	1	1	1	-1	-3	-4	-6	-7	-8	-9	-9	-5.0	1.4	
12-Jan-08	-9	-9	-10	-9	-7	-7	-6	-7	-7	-5	-3	0	2	4	5	5	3	1	-1	-2	-3	-4	-4	-5	-3.2	4.7
13-Jan-08	-4	-3	-3	-4	-5	-6	-7	-7	-7	-4	-1	2	4	5	6	6	5	3	0	-1	-2	-2	-1	-1.2	6.3	
14-Jan-08	-1	0	1	1	2	2	3	3	5	6	6	7	9	8	8	8	8	8	8	7	6	6	6	5.1	8.6	
15-Jan-08	4	6	5	0	-1	-2	-3	-4	-4	-4	-5	-5	-4	-4	-4	-4	-5	-6	-6	-8	-8	-9	-9	-11	-3.7	5.8
16-Jan-08	-12	-12	-12	-13	-14	-15	-14	-15	-15	-13	-10	-8	-7	-6	-5	-5	-5	-5	-5	-4	-3	-2	-2	-2	-8.5	-2.1
17-Jan-08	-2	-3	-3	-2	-2	-2	-2	-2	0	1	1	-3	-4	-5	-6	-7	-7	-9	-10	-9	-9	-10	-11	-4.9	0.7	
18-Jan-08	-11	-11	-11	-13	-14	-16	-19	-20	-20	-18	-18	-16	-15	-14	-13	-14	-15	-17	-16	-16	-17	-17	-17	-15.5	-10.8	
19-Jan-08	-17	-17	-16	-16	-14	-14	-14	-14	-13	-12	-11	-10	-10	-9	-9	-10	-10	-10	-11	-14	-15	-16	-16	-17	-13.5	-9.1
20-Jan-08	-18	-17	-17	-17	-17	-17	-17	-17	-17	-17	-16	-15	-15	-15	-15	-15	-15	-16	-16	-15	-15	-15	-15	-15	-16.1	-14.7
21-Jan-08	-16	-17	-18	-19	-20	-20	-20	-20	-19	-17	-15	-14	-13	-11	-11	-10	-11	-11	-11	-11	-10	-9	-8	-8	-14.1	-7.6
22-Jan-08	-7	-6	-5	-4	-4	-3	-2	-2	-1	0	0	-1	-2	-3	-4	-4	-4	-5	-6	-8	-8	-9	-9	-10	-4.6	0.4
23-Jan-08	-12	-13	-14	-16	-17	-17	-16	-16	-15	-12	-7	-4	-2	0	0	-1	-2	-4	-6	-6	-7	-7	-7	-8.6	-0.2	
24-Jan-08	-6	-7	-8	-9	-10	-11	-12	-13	-14	-12	-10	-9	-5	-6	-7	-7	-9	-11	-12	-14	-14	-14	-13	-10.2	-5.2	
25-Jan-08	-14	-15	-15	-16	-17	-17	-17	-17	-17	-17	-15	-13	-11	-7	-2	-3	-3	-4	-7	-8	-6	-4	-5	-5	-10.1	-2.0
26-Jan-08	-5	-5	-5	-5	-5	-4	-4	-4	-3	-2	0	2	3	3	4	4	4	4	3	3	3	3	3	2	-0.1	4.1
27-Jan-08	2	2	1	1	3	2	1	1	0	1	2	4	5	-2	-6	-8	-11	-15	-18	-20	-21	-22	-23	-23	-6.1	4.9
28-Jan-08	-24	-24	-25	-26	-26	-27	-27	-27	-28	-28	-28	-28	-28	-28	-28	-28	-29	-29	-30	-30	-30	-30	-31	-31	-27.9	-23.8
29-Jan-08	-31	-31	-32	-32	-33	-33	-34	-35	-34	-31	-30	-29	-28	-27	-27	-28	-27	-27	-27	-27	-27	-27	-26	-26	-29.5	-25.0
30-Jan-08	-25	-25	-26	-26	-26	-27	-27	-27	-28	-25	-23	-21	-19	-20	-20	-20	-21	-23	-24	-24	-25	-26	-25	-25	-24.1	-19.3
31-Jan-08	-25	-25	-25	-23	-16	-9	-4	-3	-2	-2	-1	0	1	2	-3	-11	-17	-20	-20	-21	-22	-22	-22	-22	-12.1	1.7
Hourly Avg	-9.0	-8.9	-9.2	-9.5	-9.4	-9.5	-9.6	-9.7	-9.4	-8.0	-6.5	-5.2	-4.0	-3.4	-3.6	-4.1	-5.4	-6.9	-7.7	-8.2	-8.4	-8.7	-8.8	-9.1		
Hourly Max	7.3	7.7	7.4	6.9	5.9	4.4	4.1	3.6	5.2	5.6	6.4	7.4	8.6	8.5	8.5	8.4	8.3	8.2	8.8	8.4	8.0	7.8	7.6	7.2		

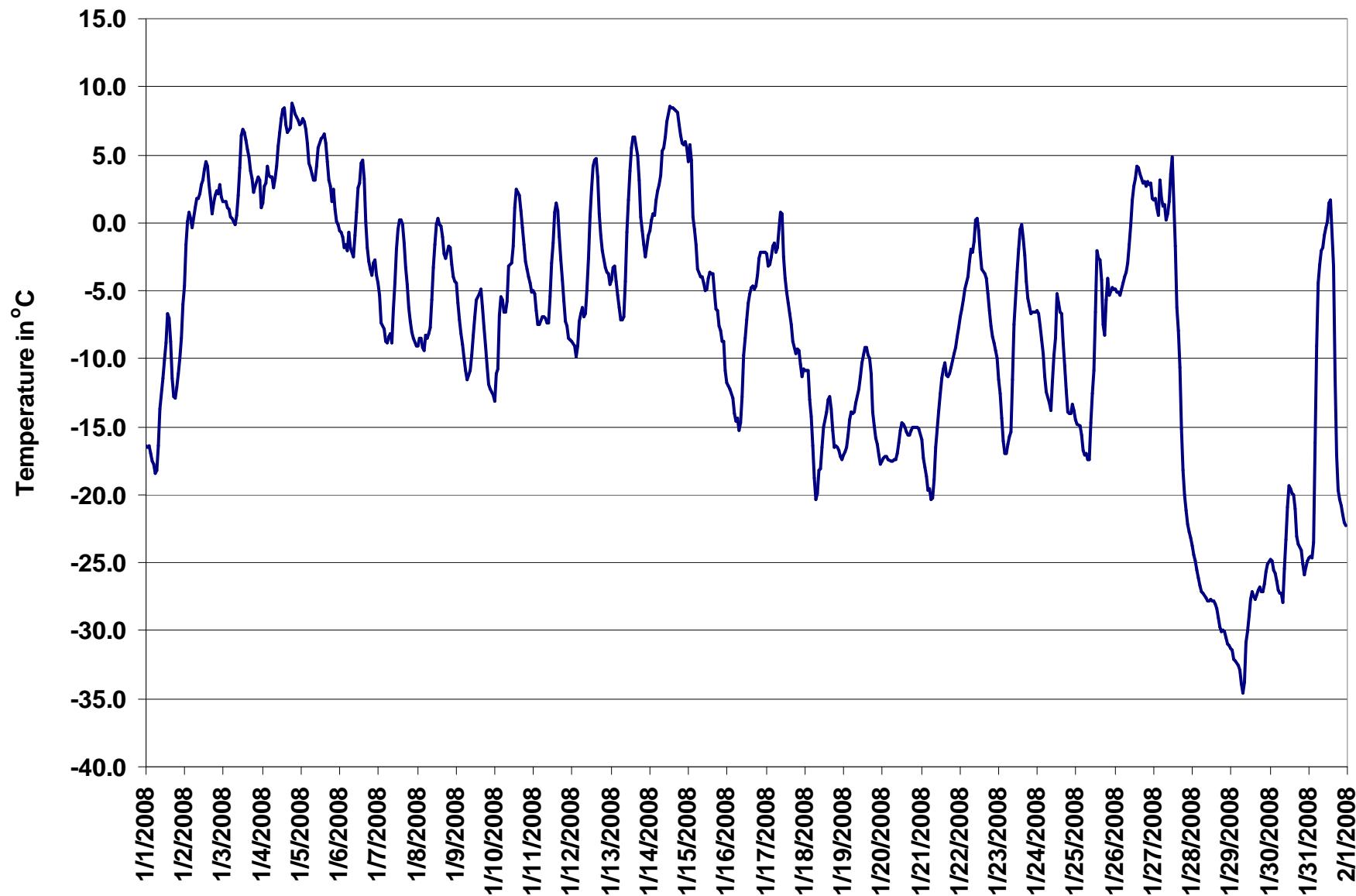


Figure 14. PAS - Crescent Heights Temperature 1-hr Average Monthly Trend



## PAS - Crescent Heights Solar Radiation Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: January 1, 2008 to February 1, 2008

### Summary

Maximum 1-hr Average:	457.0	W/m <sup>2</sup>	31-Jan	13:00 14:00
Maximum 24-hr Value:	98.2	W/m <sup>2</sup>	30-Jan	

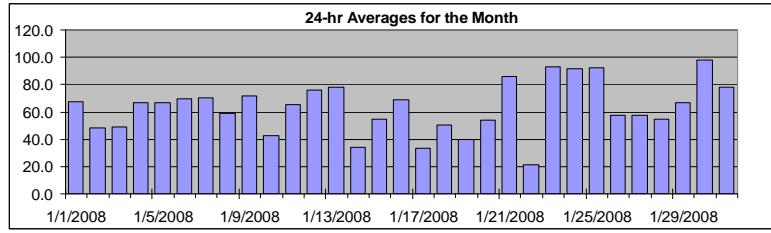
AIC Time:	0 hrs	Operational Time:	744 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	390.1	325.1	80.9	0.0	0.0	0.0	0.0	63.3 W/m <sup>2</sup>	0.0 W/m <sup>2</sup>

### Day Mountain Standard Time

	Hour Start 1:00 2:00	1:00 2:00 3:00	2:00 3:00 4:00	3:00 4:00 5:00	4:00 5:00 6:00	5:00 6:00 7:00	6:00 7:00 8:00	7:00 8:00 9:00	8:00 9:00 10:00	9:00 10:00 11:00	10:00 11:00 12:00	11:00 12:00 13:00	12:00 13:00 14:00	13:00 14:00 15:00	14:00 15:00 16:00	15:00 16:00 17:00	16:00 17:00 18:00	17:00 18:00 19:00	18:00 19:00 20:00	19:00 20:00 21:00	20:00 21:00 22:00	21:00 22:00 23:00	22:00 23:00 24:00	23:00 24:00 0:00	24-hour Average	Daily Maximum	
1-Jan-08	0	0	0	0	0	0	0	0	17	132	216	296	325	319	234	76	9	0	0	0	0	0	0	0	0	67.7	325.1
2-Jan-08	0	0	0	0	0	0	0	0	4	33	90	205	286	274	192	60	8	0	0	0	0	0	0	0	0	48.0	285.7
3-Jan-08	0	0	0	0	0	0	0	0	11	110	197	245	259	162	127	47	11	0	0	0	0	0	0	0	0	48.7	259.4
4-Jan-08	0	0	0	0	0	0	0	0	7	131	249	313	333	295	216	39	13	0	0	0	0	0	0	0	0	66.6	333.1
5-Jan-08	0	0	0	0	0	0	0	0	6	84	193	333	297	303	242	119	20	0	0	0	0	0	0	0	0	66.5	333.2
6-Jan-08	0	0	0	0	0	0	0	0	24	140	179	364	315	338	246	53	6	0	0	0	0	0	0	0	0	69.4	364.0
7-Jan-08	0	0	0	0	0	0	0	0	28	157	118	305	361	322	238	123	30	0	0	0	0	0	0	0	0	70.0	360.9
8-Jan-08	0	0	0	0	0	0	0	0	24	137	234	238	332	238	128	69	9	0	0	0	0	0	0	0	0	58.7	332.4
9-Jan-08	0	0	0	0	0	0	0	0	21	125	243	298	333	322	237	111	25	0	0	0	0	0	0	0	0	71.5	332.9
10-Jan-08	0	0	0	0	0	0	0	0	9	30	61	105	322	297	106	71	12	0	0	0	0	0	0	0	0	42.3	322.0
11-Jan-08	0	0	0	0	0	0	0	0	10	44	238	298	282	325	242	108	19	0	0	0	0	0	0	0	0	65.2	325.1
12-Jan-08	0	0	0	0	0	0	0	0	21	146	255	333	352	338	244	106	30	0	0	0	0	0	0	0	0	76.1	352.4
13-Jan-08	0	0	0	0	0	0	0	0	16	161	257	335	354	347	260	118	35	0	0	0	0	0	0	0	0	78.5	354.5
14-Jan-08	0	0	0	0	0	0	0	0	11	43	87	201	222	155	78	20	7	0	0	0	0	0	0	0	0	34.3	222.4
15-Jan-08	0	0	0	0	0	0	0	0	5	29	85	165	326	326	217	129	33	0	0	0	0	0	0	0	0	54.8	325.8
16-Jan-08	0	0	0	0	0	0	0	0	18	145	237	325	355	341	163	64	13	0	0	0	0	0	0	0	0	69.2	354.6
17-Jan-08	0	0	0	0	0	0	0	0	7	38	80	176	214	146	87	45	11	0	0	0	0	0	0	0	0	33.5	213.8
18-Jan-08	0	0	0	0	0	0	0	0	24	90	150	204	227	229	175	79	33	0	0	0	0	0	0	0	0	50.5	228.9
19-Jan-08	0	0	0	0	0	0	0	0	14	61	133	216	203	186	96	32	16	0	0	0	0	0	0	0	0	39.9	215.7
20-Jan-08	0	0	0	0	0	0	0	0	11	58	132	277	286	277	153	83	20	0	0	0	0	0	0	0	0	54.0	285.5
21-Jan-08	0	0	0	0	0	0	0	0	39	169	297	361	361	352	268	154	58	0	0	0	0	0	0	0	0	85.8	360.9
22-Jan-08	0	0	0	0	0	0	0	0	9	48	76	98	105	62	58	44	12	0	0	0	0	0	0	0	0	21.3	104.8
23-Jan-08	0	0	0	0	0	0	0	0	40	189	284	386	404	388	307	166	63	1	0	0	0	0	0	0	0	92.9	403.6
24-Jan-08	0	0	0	0	0	0	0	0	47	179	283	306	410	391	333	195	52	1	0	0	0	0	0	0	0	91.6	410.3
25-Jan-08	0	0	0	0	0	0	0	0	30	164	295	369	409	396	309	180	70	2	0	0	0	0	0	0	0	92.7	409.5
26-Jan-08	0	0	0	0	0	0	0	1	22	54	113	199	208	230	291	194	62	1	0	0	0	0	0	0	0	57.3	291.2
27-Jan-08	0	0	0	0	0	0	0	0	21	80	298	370	303	183	87	28	8	0	0	0	0	0	0	0	0	57.4	369.9
28-Jan-08	0	0	0	0	0	0	0	0	26	71	98	195	244	272	232	129	37	2	0	0	0	0	0	0	0	54.4	272.0
29-Jan-08	0	0	0	0	0	0	0	0	54	176	223	270	316	250	167	97	40	3	0	0	0	0	0	0	0	66.5	315.5
30-Jan-08	0	0	0	0	0	0	0	1	42	193	254	347	449	430	338	202	98	3	0	0	0	0	0	0	0	98.2	449.0
31-Jan-08	0	0	0	0	0	0	0	0	23	151	185	219	246	457	356	179	62	3	0	0	0	0	0	0	0	78.4	457.0

### HOURLY AVERAGE TABLE

### Solar Radiation (SR)



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

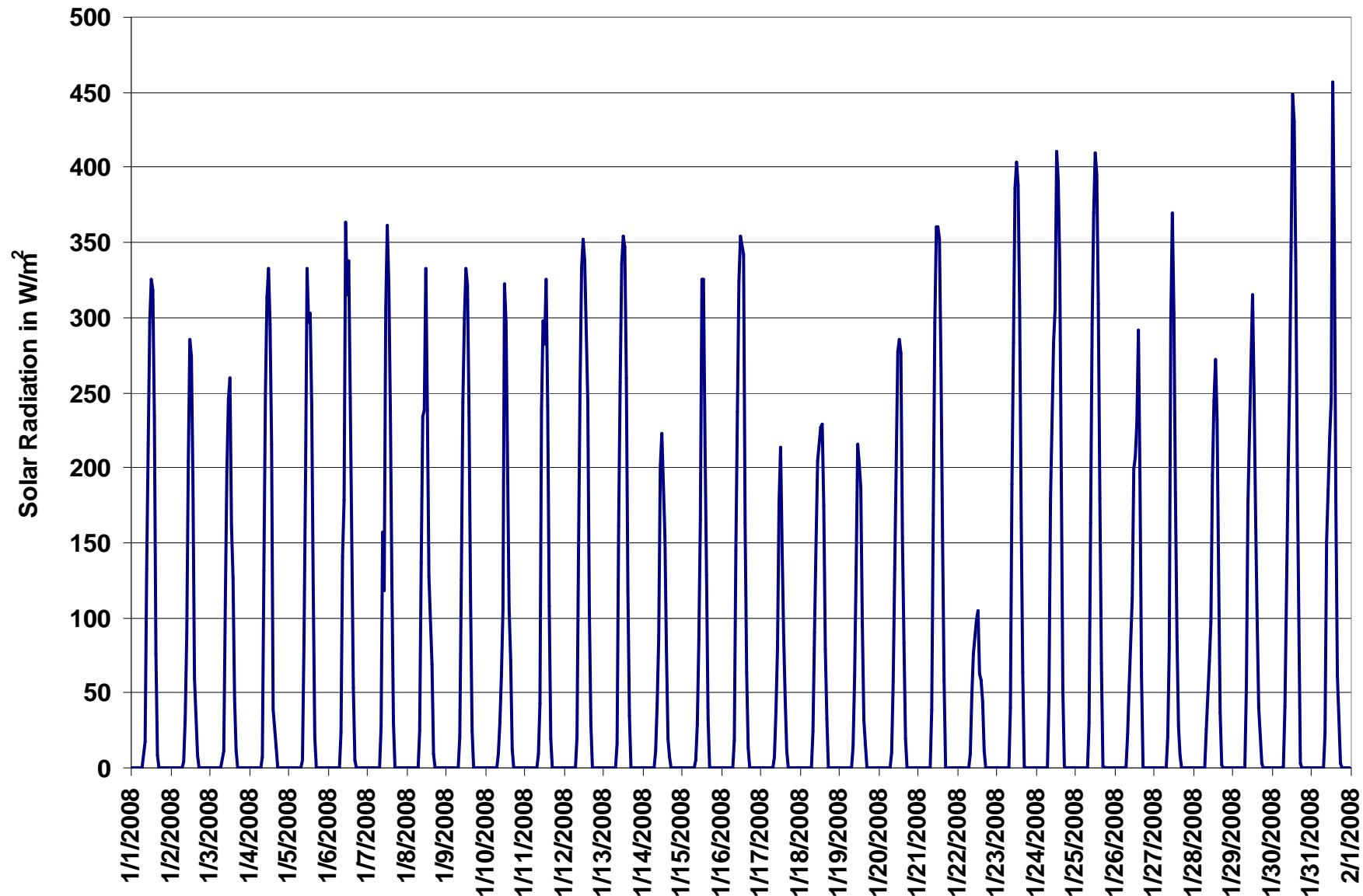


Figure 15. PAS - Crescent Heights Solar Radiation 1-hr Average Monthly Trend



## PAS - Crescent Heights Scalar Wind Speed Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: January 1, 2008 to February 1, 2008

### Summary

Maximum 1-hr Average:	41.3	km/hr	14-Jan	15:00 16:00
Maximum 24-hr Value:	28.3	km/hr	5-Jan	

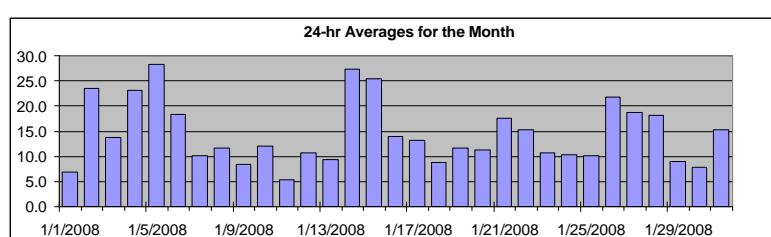
Calm Time:	0 hrs	0% calms	Operational Time:	744 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageS
	34.7	30.2	19.7	12.5	7.8	4.4	3.5	14.4 km/hr

### 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	Daily Max
	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	24:00	Scalar Average	
1-Jan-08	8	8	7	7	5	4	7	10	12	12	9	8	4	5	4	5	6	5	5	5	5	8	7	8	6.8	11.9	
2-Jan-08	7	16	26	32	35	37	34	33	38	32	34	24	29	30	18	13	12	10	15	19	20	15	19	15	23.4	38.1	
3-Jan-08	15	11	13	17	10	9	7	6	5	14	11	10	20	17	14	11	17	21	21	21	18	20	14	11	13.8	21.3	
4-Jan-08	22	33	25	29	31	34	29	27	27	22	21	25	24	21	19	14	12	15	23	25	22	19	18	21	23.2	33.8	
5-Jan-08	27	30	27	29	32	32	30	26	24	15	27	33	34	33	31	30	29	27	27	22	30	31	27	28	28.3	33.9	
6-Jan-08	29	31	28	27	27	18	16	17	22	18	16	19	21	17	15	13	14	16	13	11	13	12	13	14	18.3	30.6	
7-Jan-08	13	15	17	15	13	15	11	9	12	8	6	9	8	9	9	11	7	4	6	7	8	10	10	10	10.1	16.9	
8-Jan-08	10	8	10	8	6	11	12	13	11	9	9	18	21	20	15	15	16	15	11	12	9	6	5	9	11.7	20.8	
9-Jan-08	15	17	12	9	9	8	9	5	6	8	10	12	10	9	10	9	6	4	5	5	7	6	5	7	8.4	17.1	
10-Jan-08	6	7	10	12	7	8	6	6	11	20	18	17	22	30	26	20	15	11	9	6	4	4	7	7	12.0	30.2	
11-Jan-08	6	5	6	5	5	4	4	4	5	7	6	5	5	5	5	4	7	5	4	5	6	7	7	5.3	7.5		
12-Jan-08	9	8	8	11	10	14	17	13	13	12	11	11	16	15	14	13	13	7	7	9	7	6	7	7	10.8	16.8	
13-Jan-08	12	12	12	9	8	5	3	4	6	9	11	10	8	11	11	10	7	9	11	12	11	7	11	13	9.3	13.3	
14-Jan-08	14	17	15	16	17	16	17	29	30	32	33	33	33	30	36	41	35	32	40	30	27	30	28	24	27.3	41.3	
15-Jan-08	19	25	31	27	25	30	28	33	36	32	32	28	30	31	29	24	19	21	26	19	19	18	18	10	25.5	35.5	
16-Jan-08	7	7	8	6	6	9	12	11	9	11	16	23	25	21	16	18	21	23	20	14	12	14	14	13	14.0	24.9	
17-Jan-08	14	15	14	14	15	16	14	17	19	20	27	21	20	18	15	12	10	7	5	4	6	4	4	4	13.2	26.7	
18-Jan-08	4	10	10	15	9	10	9	8	3	6	9	11	14	14	13	11	9	11	9	6	5	4	5	5	8.8	15.3	
19-Jan-08	3	3	3	3	5	7	9	7	6	10	10	7	9	11	11	13	15	20	24	22	25	22	18	16	11.7	24.8	
20-Jan-08	13	12	13	15	13	14	9	5	7	7	10	12	10	10	10	10	9	10	14	13	15	13	15	13	11.3	15.1	
21-Jan-08	12	14	12	15	12	16	14	19	19	22	26	29	29	23	26	22	19	16	17	15	11	10	11	12	17.6	29.1	
22-Jan-08	13	14	12	10	10	9	8	12	10	9	14	23	29	35	29	23	20	22	19	14	10	8	8	15.3	34.8		
23-Jan-08	4	5	6	6	6	7	7	8	6	5	9	12	12	11	19	20	17	14	10	11	13	14	17	15	10.7	20.0	
24-Jan-08	16	14	12	10	7	7	4	4	5	5	5	4	4	9	13	9	15	14	17	17	16	16	12	11	10.2	16.9	
25-Jan-08	4	6	7	4	5	4	5	6	3	4	4	5	7	24	27	17	8	6	7	14	21	18	19	17	10.1	27.4	
26-Jan-08	20	22	22	18	17	17	17	17	13	14	21	24	20	30	29	28	26	27	29	28	25	24	16	21.7	29.9		
27-Jan-08	14	12	7	9	21	15	19	23	13	10	13	7	6	21	27	26	22	26	25	28	27	28	28	23	18.7	28.0	
28-Jan-08	23	24	24	24	25	24	23	23	24	22	22	21	22	21	19	19	19	15	11	9	8	10	7	10	18.2	24.7	
29-Jan-08	6	5	4	6	5	5	4	6	5	6	7	8	11	14	13	13	14	13	13	14	13	11	10	11	9.0	13.9	
30-Jan-08	10	13	15	11	8	9	8	6	8	4	5	4	6	7	10	10	10	9	8	7	7	6	5	3	7.9	14.9	
31-Jan-08	4	3	4	4	9	15	24	19	20	24	29	27	29	26	21	18	16	14	12	11	12	9	9	10	15.4	29.4	
	1-hr Average	12.2	13.6	13.5	13.7	13.4	13.9	13.3	13.6	13.9	13.7	15.3	16.2	17.5	18.3	17.9	16.3	14.9	14.4	14.9	13.9	14.0	13.2	13.1	12.1		
	Hourly Max	29.3	33.2	31.3	31.6	34.7	36.9	33.7	33.2	38.1	32.3	33.7	33.4	33.9	34.8	35.8	41.3	34.9	32.3	39.8	30.0	30.2	31.5	27.9	27.5		

### HOURLY AVERAGE TABLE

### Wind Speed (WSs)



### 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



## PAS - Crescent Heights Vector Wind Speed Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: January 1, 2008 to February 1, 2008

### Summary

Maximum 1-hr Average:	41.1	km/hr	14-Jan	15:00 16:00
Maximum 24-hr Value:	28.2	km/hr	5-Jan	

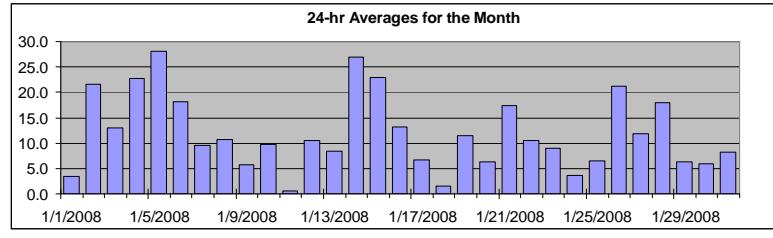
Calm Time:	0 hrs	0% calms	Operational Time:	744 hrs					
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	AverageV	
	34.6	30.0	19.5	12.2	7.3	3.2	1.8		49.0 km/hr

### Day Mountain Standard Time

	Hour Start 1:00 Hour End 2:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hr Vector Average	Daily Max	
1-Jan-08	8	8	7	6	7	4	4	6	10	12	12	8	7	1	3	3	5	5	5	4	4	4	7	6	6	3.4	11.7
2-Jan-08	2	15	25	31	34	37	33	33	38	32	34	23	29	30	17	13	11	9	15	19	20	15	19	15	21.6	38.0	
3-Jan-08	15	11	12	17	9	8	6	4	3	13	10	7	19	17	14	11	17	21	21	21	18	19	14	11	13.0	21.2	
4-Jan-08	22	33	25	29	31	34	29	27	27	22	21	25	23	21	18	13	12	14	23	25	22	19	19	18	21	22.8	33.7
5-Jan-08	27	30	26	29	32	32	30	25	24	15	27	33	34	33	31	30	29	27	27	22	30	31	27	27	28.2	33.7	
6-Jan-08	29	31	28	26	27	18	16	17	22	18	16	19	21	17	15	13	14	15	12	10	12	12	13	13	18.1	30.6	
7-Jan-08	13	15	17	15	13	15	11	9	12	8	6	9	7	9	9	10	7	2	6	7	8	10	10	10	9.6	16.6	
8-Jan-08	10	7	8	7	5	10	11	12	10	8	8	18	21	20	15	15	16	14	10	12	9	5	4	8	10.8	20.5	
9-Jan-08	15	17	12	9	9	7	9	3	6	7	9	11	9	8	10	8	5	2	4	5	7	5	5	5	5.8	17.1	
10-Jan-08	6	6	9	11	5	6	4	3	10	20	18	17	21	30	25	20	14	10	9	5	1	3	6	7	9.8	30.0	
11-Jan-08	6	5	5	4	5	2	2	4	5	5	4	3	3	0	5	5	4	7	1	2	4	4	7	5	0.5	7.3	
12-Jan-08	9	8	8	11	9	14	17	13	13	11	11	11	16	15	14	13	13	6	5	9	7	5	6	6	10.5	16.7	
13-Jan-08	12	11	12	9	8	4	3	2	4	8	11	10	8	10	11	10	6	9	11	11	11	6	10	13	8.5	12.8	
14-Jan-08	13	17	15	16	17	15	16	28	29	32	33	33	33	30	36	41	35	32	40	30	27	30	28	24	26.9	41.1	
15-Jan-08	18	25	25	27	24	30	28	33	35	32	32	28	30	31	28	24	19	21	26	19	19	18	18	9	22.9	35.3	
16-Jan-08	7	6	8	5	6	8	12	11	8	11	16	23	25	20	16	17	21	23	20	14	11	14	14	13	13.1	24.6	
17-Jan-08	14	15	14	14	15	16	14	17	19	20	25	21	19	18	15	12	9	7	4	1	6	4	4	2	6.7	25.4	
18-Jan-08	3	10	10	15	9	10	9	8	3	4	9	10	13	14	13	11	9	11	8	5	5	4	5	5	1.5	15.2	
19-Jan-08	3	3	2	4	7	9	7	6	9	10	7	9	11	11	13	15	20	24	22	25	22	18	16	11.4	24.7		
20-Jan-08	13	12	13	15	13	14	9	5	7	7	10	11	9	9	9	10	9	10	14	13	14	12	15	13	6.3	15.0	
21-Jan-08	11	14	12	15	11	16	14	19	18	22	26	29	28	23	26	22	19	15	17	15	11	10	11	12	17.4	28.9	
22-Jan-08	12	14	12	10	10	9	8	12	10	9	14	23	29	35	28	23	20	22	19	14	10	8	7	4	10.5	34.7	
23-Jan-08	3	3	5	4	5	6	7	6	6	3	9	12	12	11	19	20	17	14	10	10	13	14	16	15	9.0	19.9	
24-Jan-08	16	14	12	10	5	7	2	4	4	3	1	4	2	9	13	9	15	14	17	17	16	15	12	10	3.7	16.7	
25-Jan-08	4	6	7	4	5	4	4	5	3	3	3	4	5	24	27	17	7	5	5	13	21	17	19	17	6.4	27.2	
26-Jan-08	20	22	22	18	17	17	16	17	16	13	14	21	23	20	30	29	28	26	26	29	28	25	24	16	21.1	29.7	
27-Jan-08	14	11	3	6	20	15	18	23	12	7	10	6	4	21	27	26	21	25	24	28	27	28	28	23	11.9	27.9	
28-Jan-08	23	23	24	23	25	24	23	23	24	22	21	21	22	21	19	18	15	11	9	8	8	10	7	9	18.0	24.6	
29-Jan-08	5	5	2	4	3	4	3	6	5	5	7	7	11	13	12	14	13	12	14	13	11	10	10	6.4	13.8		
30-Jan-08	10	13	15	11	8	9	8	6	8	4	4	4	4	6	10	10	9	7	7	5	5	3	3	6.0	14.9		
31-Jan-08	3	3	4	3	8	15	24	19	19	24	29	27	29	26	20	16	16	14	12	11	12	9	9	10	8.2	29.3	
1-hr Vector	8.0	9.4	8.4	8.0	8.7	9.0	7.8	8.1	8.1	8.4	8.8	9.2	9.9	10.2	9.3	7.7	6.5	5.4	6.0	5.6	5.7	5.6	5.3	6.2			
Hourly Max	29.2	33.0	27.8	31.3	34.5	36.8	33.4	33.0	38.0	32.2	33.5	33.3	33.7	34.7	35.8	41.1	34.8	31.7	39.7	29.9	30.1	31.1	27.8	27.4			

### HOURLY AVERAGE TABLE

### Wind Speed (WSv)



### 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



## PAS - Crescent Heights Wind Direction Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: January 1, 2008 to February 1, 2008

### HOURLY AVERAGE TABLE

### Wind Direction (WD)

#### Summary

Wind Data 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
	353.7	335.5	248.0	224.3
	25	5	1	Average
	192.9	17.9	2.9	241 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	24:00
1-Jan-08	210	221	192	195	205	204	155	202	210	223	237	251	225	173	61	52	94	98	92	89	105	93	48	140	183	S
2-Jan-08	314	212	192	190	193	200	193	189	193	200	225	212	220	267	246	244	239	225	221	225	235	241	244	211	SSW	
3-Jan-08	238	231	221	238	252	246	176	151	282	221	216	180	200	202	207	202	219	209	208	207	205	210	214	221	214	SW
4-Jan-08	212	213	208	213	216	215	212	212	213	207	205	211	207	212	206	198	188	181	178	188	198	194	196	203	205	SSW
5-Jan-08	213	214	217	223	219	220	217	217	202	195	208	212	216	213	221	223	220	221	228	221	230	219	219	220	218	SW
6-Jan-08	215	217	216	214	222	234	236	227	225	221	229	219	232	238	231	215	225	236	246	231	229	248	242	239	227	SW
7-Jan-08	244	230	229	237	223	236	235	212	219	212	243	278	301	229	228	228	248	258	242	215	218	224	213	216	232	SW
8-Jan-08	224	243	236	220	222	237	235	241	238	257	239	216	206	204	203	196	197	191	196	189	225	241	291	257	219	SW
9-Jan-08	237	240	235	241	253	245	245	280	272	262	240	261	290	262	247	228	254	301	107	115	119	137	132	123	239	WSW
10-Jan-08	148	202	188	235	261	299	242	188	207	211	197	204	216	218	227	240	275	297	298	105	345	272	243	224	SW	
11-Jan-08	269	314	303	285	258	324	66	51	29	200	214	192	74	268	110	51	58	15	179	151	130	197	115	190	187	S
12-Jan-08	235	225	210	219	234	241	236	239	240	236	228	223	230	235	223	214	207	230	212	213	233	217	196	195	226	SW
13-Jan-08	226	248	229	227	228	253	43	88	198	243	240	235	275	233	228	235	230	216	228	231	233	252	228	247	234	SW
14-Jan-08	253	230	215	226	240	237	235	226	218	220	221	225	223	230	230	218	211	210	218	219	215	210	209	215	221	SW
15-Jan-08	229	239	267	330	322	324	325	336	334	337	333	333	327	328	326	320	311	321	332	323	323	327	322	343	321	NW
16-Jan-08	295	304	290	293	237	227	229	239	227	233	226	230	224	228	216	226	222	231	239	239	250	259	259	238	WSW	
17-Jan-08	255	256	248	250	263	261	261	270	289	308	347	5	18	18	25	35	34	60	69	39	53	83	100	322	NW	
18-Jan-08	54	18	13	51	30	2	351	340	339	257	234	228	235	221	216	210	200	220	208	167	125	122	98	234	SW	
19-Jan-08	60	53	31	16	51	18	7	355	356	5	15	354	354	1	7	8	28	16	5	8	7	11	18	10	11	N
20-Jan-08	9	6	355	357	2	360	8	5	339	325	315	335	311	326	273	275	271	242	232	238	225	218	227	228	302	WNW
21-Jan-08	233	242	247	234	244	236	239	231	239	233	225	223	227	231	226	227	237	245	240	239	247	225	242	240	234	SW
22-Jan-08	240	239	244	242	244	243	258	281	276	262	304	332	345	344	341	335	334	2	4	24	22	11	19	55	324	NW
23-Jan-08	33	257	164	174	158	140	212	215	210	240	191	193	194	189	211	214	221	228	256	256	252	248	244	250	219	SW
24-Jan-08	245	255	256	253	260	223	65	52	77	128	285	16	91	12	34	71	56	65	69	77	80	78	92	109	68	ENE
25-Jan-08	99	96	110	118	113	100	165	193	88	92	91	119	213	227	235	252	293	339	219	226	229	227	228	239	219	SW
26-Jan-08	237	235	231	231	228	224	224	219	242	263	247	235	232	237	235	219	212	208	212	207	206	214	215	216	224	SW
27-Jan-08	219	222	300	254	215	227	218	220	238	300	348	7	330	337	351	1	350	336	333	329	327	328	339	315	NW	
28-Jan-08	335	334	334	338	341	329	334	328	328	323	323	323	318	320	316	318	318	312	288	310	317	325	327	326	326	NW
29-Jan-08	334	312	326	301	240	253	61	97	86	97	103	88	79	103	81	79	72	78	71	69	63	63	44	7	67	ENE
30-Jan-08	2	357	360	351	348	353	1	6	1	15	69	73	62	31	59	73	86	101	66	65	111	102	90	50	36	NE
31-Jan-08	25	61	63	74	231	217	204	212	200	195	195	204	215	220	224	324	321	317	324	326	337	336	339	321	236	SW
Hourly Avg	242	241	239	242	239	245	237	238	239	239	240	239	238	244	246	245	243	248	243	233	235	238	239	241		



## PAS - Crescent Heights Standard Deviation of Wind Direction Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: January 1, 2008 to February 1, 2008

### HOURLY AVERAGE TABLE

### Wind Direction (WD)

#### 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									
	77.9	53.4	19.4	10.4	7.0	4.6	3.6									

Determined by the Yamartino 15-min interval calculation

#### 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

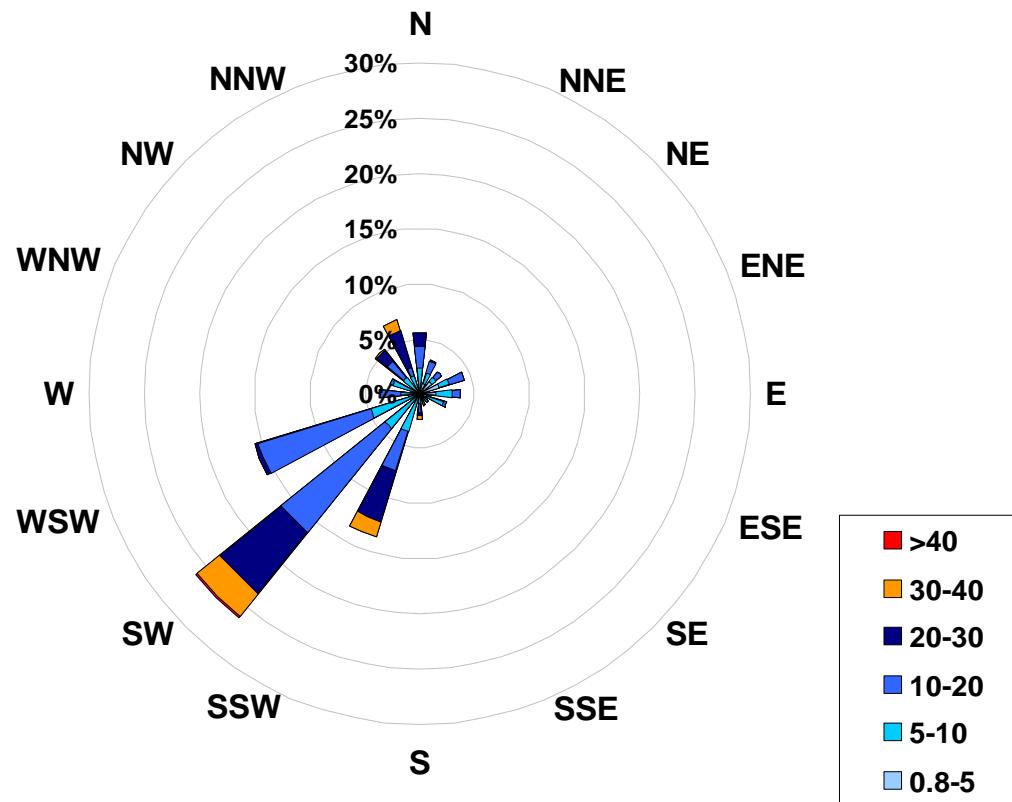
#### Day Mountain Standard Time

	Hour Start 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-Jan-08	10	9	9	20	12	34	30	12	9	8	12	42	25	93	49	46	19	21	20	36	37	23	31	33	92.8
2-Jan-08	78	32	14	8	6	5	8	5	5	5	5	21	5	8	17	11	15	32	17	6	7	11	6	7	78.4
3-Jan-08	9	12	15	9	10	15	37	67	58	27	53	66	8	7	9	11	12	6	3	3	8	10	17	13	66.7
4-Jan-08	7	7	5	8	4	5	4	4	4	5	5	5	6	6	6	12	10	8	8	6	7	6	7	8	11.7
5-Jan-08	6	6	6	6	4	4	5	12	9	13	6	6	5	5	6	5	4	5	6	7	4	9	7	5	13.0
6-Jan-08	4	4	4	6	5	9	9	14	6	11	8	6	7	6	8	10	10	9	22	19	18	13	12	12	22.5
7-Jan-08	7	11	11	9	8	5	13	24	13	22	22	16	29	18	16	9	21	67	37	15	14	12	12	14	67.3
8-Jan-08	15	36	37	25	55	34	14	20	13	25	34	10	9	8	11	7	6	9	17	9	29	33	50	24	55.1
9-Jan-08	11	5	8	10	9	17	13	48	35	22	16	27	19	22	21	21	46	58	36	17	14	37	35	11	58.3
10-Jan-08	19	21	35	28	47	39	62	76	38	8	12	9	10	6	6	6	11	15	10	24	77	38	25	17	77.3
11-Jan-08	32	33	34	37	41	65	64	28	20	53	79	63	59	96	25	16	14	13	85	62	50	68	15	43	96.5
12-Jan-08	12	8	21	12	48	5	6	10	8	8	13	18	9	8	9	10	4	44	72	13	39	37	31	40	72.1
13-Jan-08	10	10	10	12	7	67	21	69	47	9	10	13	21	14	12	11	37	12	8	10	11	36	33	17	69.2
14-Jan-08	17	9	10	14	12	9	12	7	5	5	4	5	4	6	4	6	4	10	5	6	11	5	5	9	17.4
15-Jan-08	9	10	37	11	7	6	8	7	6	5	6	6	5	5	6	6	5	9	6	7	7	5	10	20	37.0
16-Jan-08	14	14	9	45	20	17	10	10	27	9	8	9	8	11	12	8	8	4	10	6	10	7	6	6	44.8
17-Jan-08	6	6	8	8	7	6	6	8	8	10	18	4	13	11	11	15	16	13	46	76	12	22	21	78	78.5
18-Jan-08	32	8	14	8	15	8	12	4	0	53	7	16	10	11	13	13	10	11	24	23	15	24	1	9	52.9
19-Jan-08	14	1	27	26	17	13	5	6	13	4	8	11	14	8	12	6	8	7	4	7	5	8	11	6	27.5
20-Jan-08	7	6	6	5	5	4	10	18	14	17	13	17	27	19	27	18	17	32	9	8	8	9	7	7	32.0
21-Jan-08	9	6	10	8	14	8	9	6	10	7	8	6	7	10	7	8	9	10	6	4	8	15	18	8	17.9
22-Jan-08	14	7	12	10	9	7	13	10	10	19	11	10	4	4	5	6	6	12	5	10	10	9	19	14	19.2
23-Jan-08	25	68	43	54	41	29	13	49	21	80	14	14	16	15	15	6	7	11	13	16	13	11	8	8	79.7
24-Jan-08	7	9	8	14	51	22	63	21	26	59	88	20	65	11	17	15	8	7	10	6	9	8	9	10	87.5
25-Jan-08	19	11	15	23	22	17	37	16	34	33	32	44	65	10	8	12	34	40	73	14	7	9	11	7	73.4
26-Jan-08	6	4	6	5	5	6	12	5	16	9	12	7	7	6	6	6	5	5	5	6	8	5	5	6	16.1
27-Jan-08	7	25	62	52	10	13	11	5	26	40	38	31	45	15	7	5	15	7	8	5	5	5	6	8	62.1
28-Jan-08	8	7	8	8	7	6	7	6	5	6	7	8	8	9	8	7	7	7	9	17	14	9	20	13	20.0
29-Jan-08	24	32	55	42	71	48	22	19	13	19	13	17	15	14	13	12	8	9	9	10	8	14	10	10	70.6
30-Jan-08	13	6	4	8	9	5	8	8	8	19	26	28	36	22	11	14	8	12	28	26	17	25	26	35	36.3
31-Jan-08	33	31	22	46	16	23	6	5	10	6	6	7	5	6	10	33	10	9	8	10	13	15	14	9	46.3

Hourly Max 78 68 62 54 71 67 64 76 58 80 88 66 65 96 49 46 46 67 85 76 77 68 50 78



1-hr Average Wind Rose (in km/hr) Located at the Crescent Heights Site  
for January 2008



Calms:	0%
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Frequency Distribution of Wind in km/hr			
Range		Frequency (hrs)	
0.8	<	5	65
5	to	10	212
10	to	20	285
20	to	30	139
30	to	40	42
	>	40	1
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

Monitoring Dates: January 1, 2008 to February 1, 2008

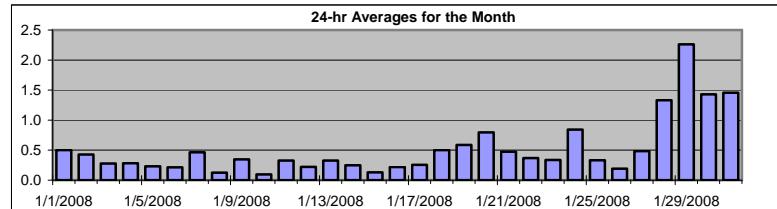
Objective Limit: Alberta Environment: 1-hr 172 ppb 24-hr 57 ppb

Number of 1-hr Exceedances: 0  
Number of 24-hr Exceedances: 0  
Maximum 1-hr Average: 6.9 ppb 31-Jan 21:00 22:00  
Maximum 24-hr Average: 2.3 ppb 29-Jan

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  
3.4 1.6 0.6 0.3 0.2 0.0 0.0 0.5 ppb 0.3 ppb

### HOURLY AVERAGE TABLE

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



### 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-Jan-08	1:00	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	1	A	1	0	0	0	0	1	0	0.5	1.5
2-Jan-08	0:00	0	0	0	1	0	0	0	1	1	1	1	1	1	0	1	0	A	1	0	0	0	0	0	0	0.4	1.0	
3-Jan-08	0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0.3	0.5	
4-Jan-08	0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0.3	0.5	
5-Jan-08	0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.4	
6-Jan-08	0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.5	
7-Jan-08	0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	0.5	0.9	
8-Jan-08	0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.3	
9-Jan-08	0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	1	1	1	1	0	0.3	0.9	
10-Jan-08	1:00	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5	
11-Jan-08	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	0	0.3	0.6	
12-Jan-08	0:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5	
13-Jan-08	0:00	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0.3	0.7	
14-Jan-08	0:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6	
15-Jan-08	0:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8	
16-Jan-08	0:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5	
17-Jan-08	0:00	0	0	0	0	0	0	0	0	1	C	C	C	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5	
18-Jan-08	0:00	A	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0.5	0.8	
19-Jan-08	A	1	0	0	0	1	1	1	1	0	0	0	0	0	1	2	1	1	1	1	1	0	0	0	0	0.6	1.6	
20-Jan-08	0:00	0	0	0	0	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	0	0	0	0	0	0.8	2.3	
21-Jan-08	1:00	0	0	0	1	1	0	0	0	0	0	0	1	1	1	0	0	1	1	1	0	0	0	0	0	0.5	0.8	
22-Jan-08	0:00	A	1	1	1	0	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.1	
23-Jan-08	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0.3	0.6	
24-Jan-08	1:00	0	1	0	1	1	0	0	1	1	1	1	1	2	2	1	1	1	1	1	1	1	0	0	0	0.8	1.8	
25-Jan-08	0:00	1	1	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.8	
26-Jan-08	0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
27-Jan-08	0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	1	1	1	1	0	A	0	0	1	0.5	2.6	
28-Jan-08	1:00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	A	2	2	2	2	1.3	2.3	
29-Jan-08	3:00	2	2	1	1	1	2	2	3	3	3	5	4	4	6	2	1	A	1	1	1	1	1	1	1	2.3	5.6	
30-Jan-08	2:00	2	2	1	2	2	1	1	1	1	2	1	2	2	3	2	A	1	1	1	1	1	1	1	1.4	3.4		
31-Jan-08	1:00	2	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	3	1	1	1	1	7	1.5	6.9		

Hourly Avg	0.4	0.5	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.9	0.6	0.6	0.6	0.6	0.6	0.5	0.4	0.6	0.6	0.5
Hourly Max	2.5	2.4	1.6	1.4	1.5	1.7	2.1	1.8	2.6	2.7	3.1	4.9	3.5	3.6	5.6	2.1	2.0	2.5	1.8	2.2	2.0	6.9	5.3	3.6		

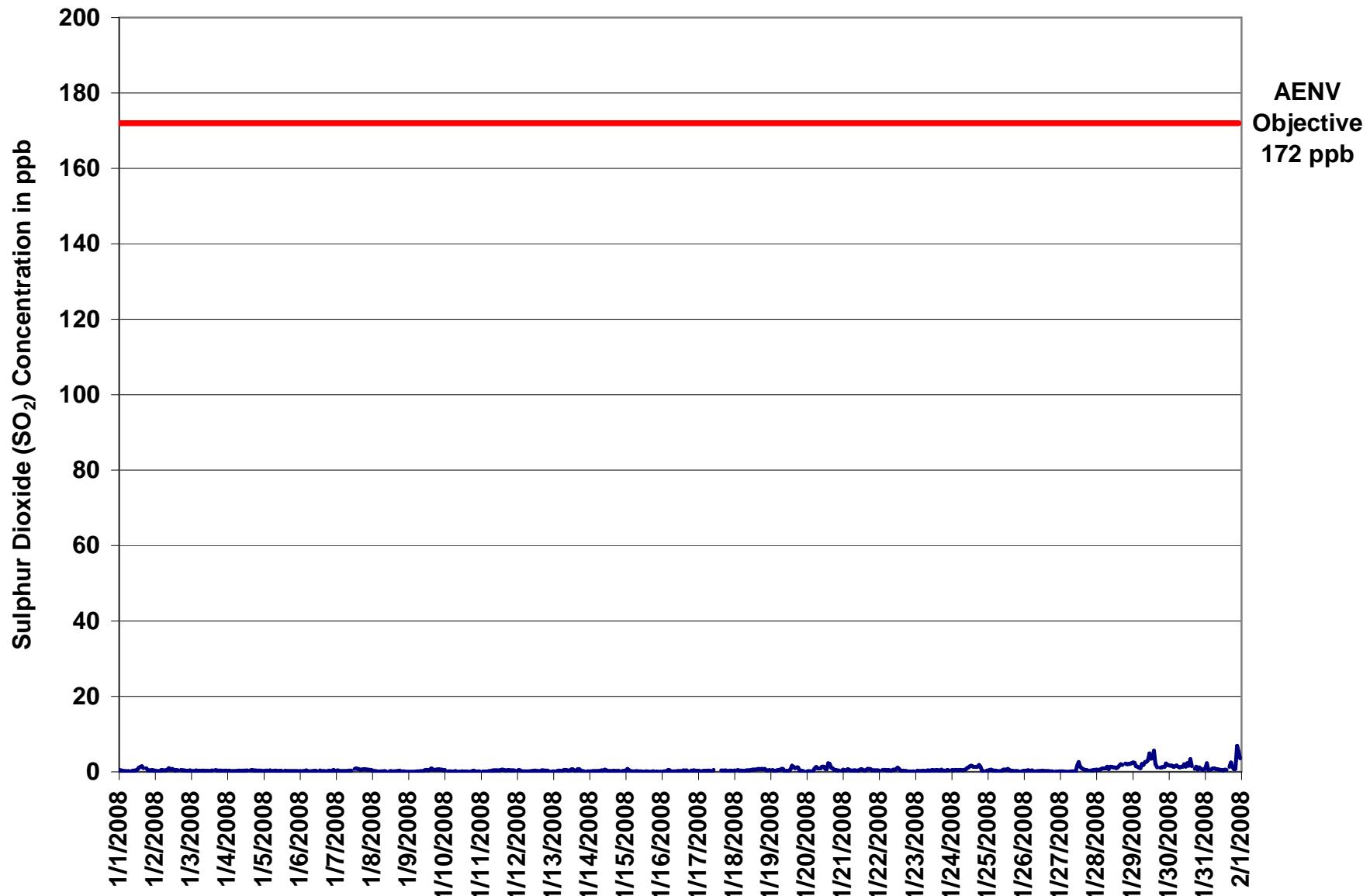


Figure 16. PAS – Brooks Sulphur Dioxide 1-hr Average Monthly Trend



Station: Portable-Brooks  
Station Owner: PAS

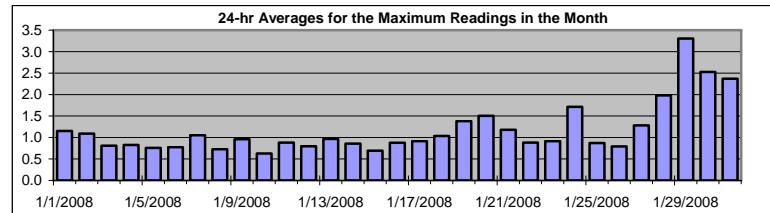
### INSTANTANEOUS (30 Second) MAXIMUM TABLE

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

Monitoring Dates: January 1, 2008 to February 1, 2008

#### Summary

Maximum 1-hr Value:	8.5 ppb	31-Jan	21:00 22:00
Maximum 24-hr Value:	3.3 ppb	29-Jan	



AIC Time:	32 hrs	Operational Time:	709 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99 5.1	95 3.1	75 1.2	50 0.9	25 0.7	5 0.5	1 0.5	Average 1.2 ppb	Median 0.9 ppb

#### Status Flag Characters

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

#### Day Mountain Standard Time

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum	
1-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	3	2	3	2	A	2	1	1	1	1	1	1	1.2	2.8
2-Jan-08	1	1	1	1	1	1	1	1	2	2	1	2	2	1	1	1	A	1	1	1	1	1	1	1	1.1	2.0	
3-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.1		
4-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.3		
5-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	0.9		
6-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.3		
7-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	2	1	1	1	1	1	1.1	1.5		
8-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	1.4		
9-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	2	2	1	1	1	1.0	1.6	
10-Jan-08	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0.6	1.1
11-Jan-08	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.2
12-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	A	0.8	2.0
13-Jan-08	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	A	1	1.0	2.2
14-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.3
15-Jan-08	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.7	1.7
16-Jan-08	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	2.0
17-Jan-08	1	1	1	1	1	1	1	1	1	2	C	C	C	A	1	1	1	1	2	1	1	1	1	1	A	0.9	2.1
18-Jan-08	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	A	1.0	1.9
19-Jan-08	A	1	1	1	1	2	1	3	2	1	1	1	1	2	3	2	1	2	2	1	1	1	1	1	A	1.4	2.9
20-Jan-08	1	1	1	1	1	3	3	1	1	2	2	2	1	1	3	3	2	2	2	1	1	1	1	1	A	1.5	3.4
21-Jan-08	2	1	1	3	2	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	A	1.2	3.1
22-Jan-08	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	A	0.9	1.7
23-Jan-08	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.4
24-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	3	4	5	4	1	1	4.9
25-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.4
26-Jan-08	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.9
27-Jan-08	1	1	1	1	0	1	1	1	1	1	5	7	2	2	2	1	1	1	1	1	1	1	1	1	A	1.3	7.0
28-Jan-08	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	A	3	2	3	3	2.0	3.1
29-Jan-08	3	3	2	2	2	2	3	3	3	3	4	7	4	6	8	3	2	A	2	2	2	2	4	3	3.3	8.4	
30-Jan-08	3	3	2	2	2	2	2	2	2	2	4	2	3	3	5	4	A	1	4	1	2	2	2	1	2.5	5.1	
31-Jan-08	3	4	1	1	1	2	2	1	1	1	1	1	1	1	1	1	3	3	2	1	3	9	6	5	2.4	8.5	

Hourly Avg 1.1 1.1 0.9 1.0 0.9 1.0 1.0 1.1 1.0 1.3 1.4 1.4 1.4 1.6 1.4 1.4 1.4 1.2 1.3 1.1 1.1 1.3 1.2 1.1  
Hourly Max 3.2 3.9 2.4 3.1 2.3 2.7 2.8 2.9 3.3 3.3 4.2 7.2 7.0 6.2 8.4 4.3 3.2 3.7 4.9 3.8 3.2 8.5 6.3 5.3

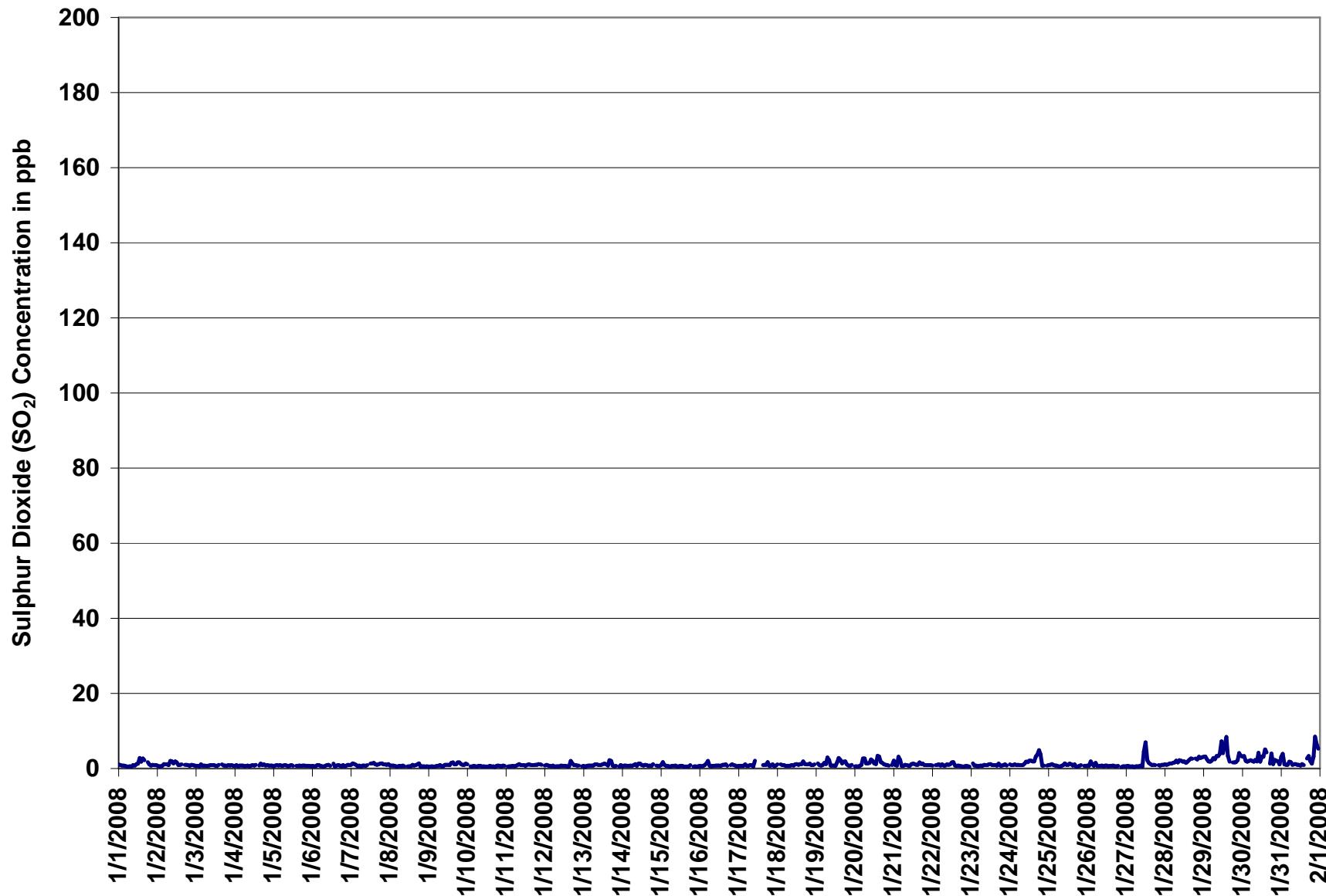
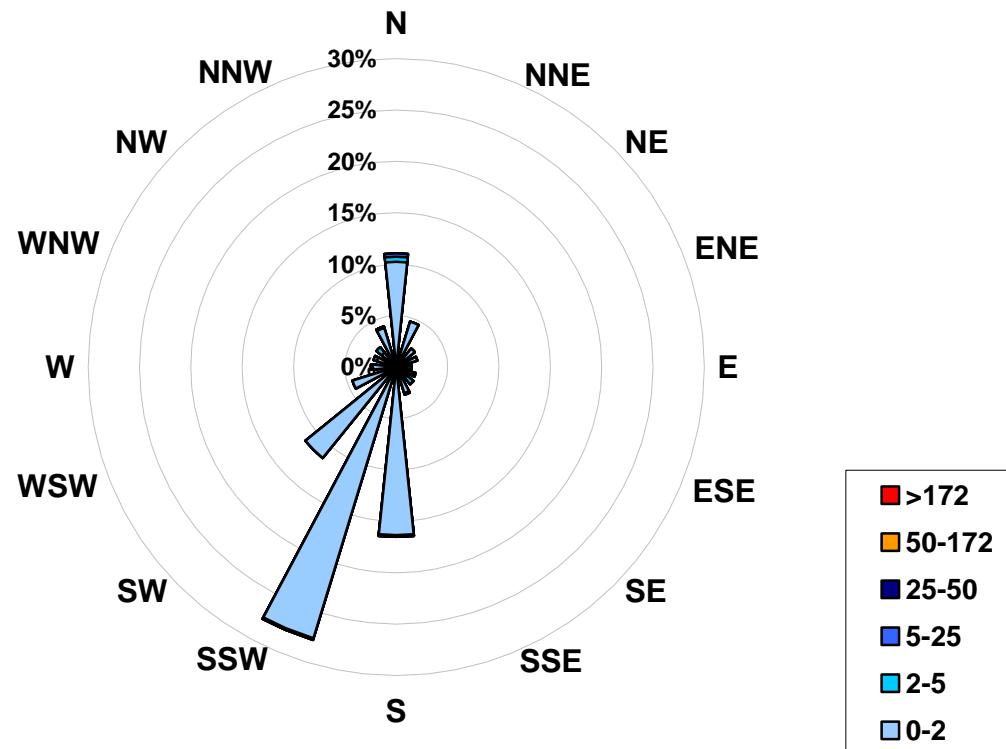


Figure 17. PAS – Brooks Sulphur Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

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



Calms:	0%
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Frequency Distribution of SO <sub>2</sub> in ppb		
Range		Frequency (hrs)
0.0	< 2	680
2	to 5	23
5	to 25	3
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

Monitoring Dates: January 1, 2008 to February 1, 2008

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

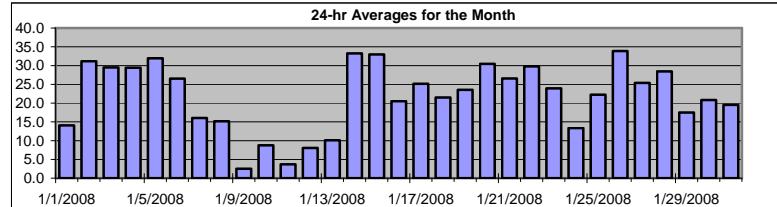
Number of 1-hr Exceedances: 0

Maximum 1-hr Average: 40.5 ppb 26-Jan 15:00 16:00  
Maximum 24-hr Average: 33.9 ppb 26-Jan

AIC Time:	32 hrs	Operational Time:	710 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	38.2	35.9	30.6	24.3	13.7	0.1	0.0		

### HOURLY AVERAGE TABLE

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



### 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	
1-Jan-08	0:00	0	4	10	8	12	11	11	12	6	12	15	19	20	20	18	7	A	11	19	21	23	27	28	14.1	28.4	
2-Jan-08	1:00	27	27	29	30	30	32	31	30	30	29	29	30	34	39	38	36	A	34	32	34	31	27	30	31.2	39.2	
3-Jan-08	2:00	27	27	28	26	26	27	27	32	33	33	33	34	30	31	A	28	31	29	30	30	27	29	30	29.5	33.6	
4-Jan-08	3:00	29	29	29	31	32	31	32	31	30	32	34	36	36	35	A	30	27	26	25	24	24	26	25	24	29.4	35.7
5-Jan-08	4:00	28	28	28	28	27	29	30	31	31	31	34	34	34	34	A	36	35	34	33	33	34	35	36	31.9	35.8	
6-Jan-08	5:00	35	34	34	34	31	31	33	30	29	30	31	31	A	32	30	27	19	21	14	10	17	15	19	23	26.5	35.2
7-Jan-08	6:00	23	25	23	18	19	16	12	9	5	10	10	A	29	30	31	26	14	5	6	7	9	14	15	13	16.0	30.9
8-Jan-08	7:00	13	9	5	11	12	10	10	11	10	15	A	22	25	26	26	25	21	19	20	18	15	15	9	3	15.2	26.1
9-Jan-08	8:00	0	0	3	3	1	1	0	0	0	3	5	7	10	10	9	7	1	0	0	0	0	0	0	2.5	10.2	
10-Jan-08	9:00	0	A	0	0	1	0	0	0	10	21	23	27	30	33	22	7	0	0	0	0	0	0	0	8.7	32.8	
11-Jan-08	10:00	A	0	0	0	0	0	0	0	0	2	6	9	12	14	17	13	6	2	0	0	1	1	0	A	3.7	16.6
12-Jan-08	11:00	0	0	0	0	0	0	1	3	2	5	11	16	18	21	21	18	12	9	11	11	13	10	A	3	8.1	20.9
13-Jan-08	12:00	6	2	0	0	0	1	5	11	6	4	11	15	18	22	22	20	13	11	14	11	12	A	12	16	10.1	21.8
14-Jan-08	13:00	15	19	23	29	31	34	35	31	34	36	36	38	38	37	37	37	38	38	A	37	33	36	33.2	38.1		
15-Jan-08	14:00	37	31	34	36	35	35	35	35	34	35	36	36	36	36	34	31	27	A	30	32	25	19	33.0	36.7		
16-Jan-08	15:00	17	21	18	17	12	12	13	10	14	16	22	24	26	30	31	30	26	25	A	25	22	22	22	21	20.5	31.1
17-Jan-08	16:00	21	24	28	29	22	23	24	28	28	28	27	32	33	33	C	C	A	21	24	26	21	14	16	25.2	32.9	
18-Jan-08	17:00	15	A	29	25	21	23	19	8	2	7	20	28	30	29	29	28	24	23	24	21	22	22	21.5	30.4		
19-Jan-08	18:00	A	25	27	28	26	20	22	18	12	17	17	20	23	21	19	23	24	23	26	30	32	33	A	23.5	33.7	
20-Jan-08	19:00	36	36	36	34	32	32	29	27	25	29	31	31	32	27	27	27	25	29	29	31	31	A	33	30.4	36.0	
21-Jan-08	20:00	34	34	33	30	31	29	29	27	26	26	27	29	30	29	31	30	27	22	20	13	15	23	23	26.6	34.0	
22-Jan-08	21:00	10	A	21	19	20	22	21	21	26	31	35	37	36	34	35	37	37	37	36	35	35	33	31	29.8	37.4	
23-Jan-08	22:00	A	23	27	29	28	28	27	27	29	32	33	34	35	35	33	24	6	5	7	12	12	14	A	23.9	35.0	
24-Jan-08	23:00	2	2	0	1	1	0	0	3	8	14	18	20	21	20	23	17	15	19	27	30	30	A	35	13.4	34.5	
25-Jan-08	0:00	34	32	32	31	29	25	24	22	20	21	21	20	20	20	18	14	4	7	11	16	A	34	38	22.2	37.5	
26-Jan-08	1:00	39	38	39	35	31	31	26	26	27	28	31	35	37	40	39	41	40	35	36	37	A	33	29	33.9	40.5	
27-Jan-08	2:00	28	24	19	23	26	22	24	22	23	17	23	23	24	26	27	29	29	30	A	31	30	31	31	25.4	31.1	
28-Jan-08	3:00	31	30	30	31	31	31	32	31	30	31	32	32	32	31	31	29	28	A	24	23	20	17	18	28.5	32.3	
29-Jan-08	4:00	16	10	0	0	0	0	2	1	14	15	19	22	24	27	27	27	27	A	29	29	29	29	29	17.5	29.3	
30-Jan-08	5:00	29	29	28	23	24	25	24	22	20	26	26	27	26	27	27	26	27	A	14	8	9	6	13	12	20.8	29.0
31-Jan-08	6:00	7	10	6	9	11	15	13	21	31	32	33	20	21	23	23	A	23	19	20	20	24	22	22	19.5	33.4	

Hourly Avg 19.9 20.4 19.9 20.0 19.4 19.2 19.1 18.7 19.2 20.8 23.7 25.8 27.1 27.9 28.0 26.7 22.4 20.2 19.5 19.8 20.4 21.9 21.3 21.9

Hourly Max 39.3 37.6 38.5 35.9 34.9 34.9 35.2 34.9 34.8 35.7 35.6 37.4 37.5 39.5 38.9 40.5 40.1 37.2 37.7 38.1 35.2 37.2 35.3 37.5

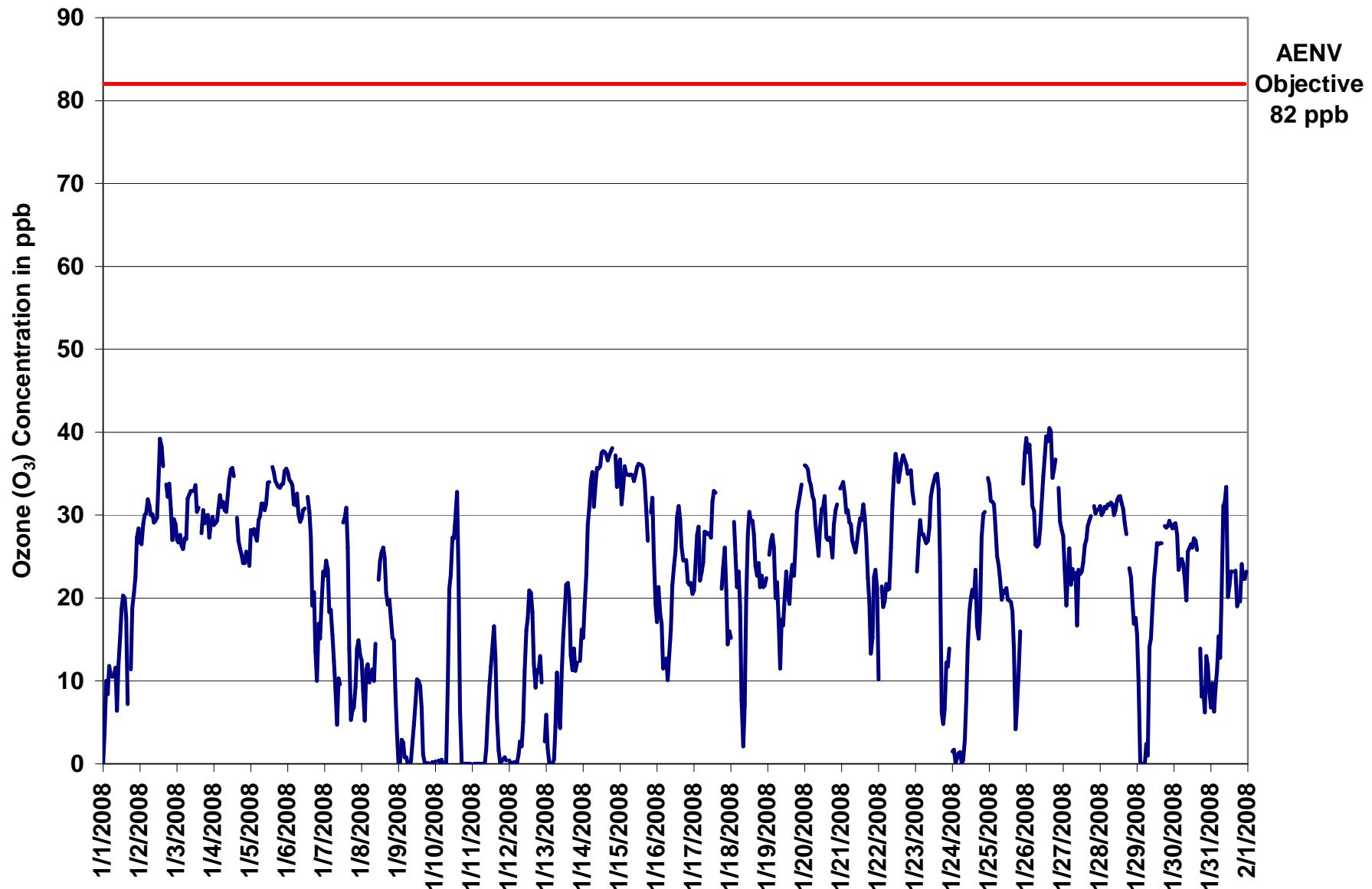


Figure 18. PAS – Brooks Ozone 1-hr Average Monthly Trend



Station: Portable-Brooks  
Station Owner: PAS

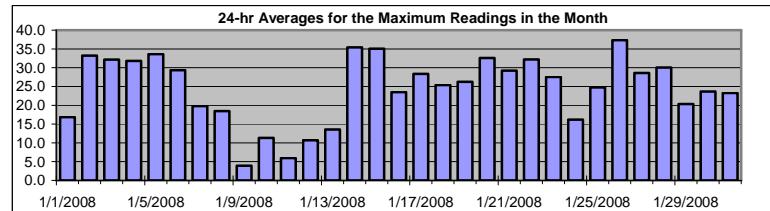
### INSTANTANEOUS (30 Second) MAXIMUM TABLE

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

Monitoring Dates: January 1, 2008 to February 1, 2008

#### Summary

Maximum 1-hr Value:	43.2 ppb	26-Jan	15:00 16:00
Maximum 24-hr Value:	37.3 ppb	26-Jan	



AIC Time:	32 hrs	Operational Time:	710 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	

#### 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	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-Jan-08	1:00	6	13	12	13	12	14	13	16	11	14	21	22	22	22	21	14	A	15	21	23	25	30	30	16.8	29.6	
2-Jan-08	28	28	30	31	32	33	33	31	31	31	32	40	41	40	38	A	35	35	37	34	32	32	31	33.2	40.6		
3-Jan-08	30	30	32	29	29	29	32	35	35	34	35	35	35	33	33	A	31	34	31	33	34	30	31	32	32.2	35.2	
4-Jan-08	30	31	31	35	36	32	33	33	33	35	35	36	37	37	37	A	33	30	29	27	26	27	27	27	30	31.8	37.4
5-Jan-08	30	30	30	29	28	31	32	33	33	33	34	35	35	36	A	37	37	36	35	35	34	35	35	37	36	33.6	36.9
6-Jan-08	36	36	36	35	33	34	34	32	31	32	32	32	32	A	34	32	31	24	24	18	15	23	23	22	28	29.4	36.4
7-Jan-08	27	29	26	23	22	18	17	14	9	16	16	A	31	31	32	32	19	8	9	11	14	17	20	17	19.8	32.3	
8-Jan-08	14	14	12	14	14	13	14	17	14	19	A	25	27	27	29	29	23	22	22	20	17	17	13	11	18.4	28.6	
9-Jan-08	1	2	6	5	2	2	1	1	2	4	6	9	12	11	11	9	3	2	1	1	1	1	1	1	3.9	12.4	
10-Jan-08	1	A	3	2	2	1	1	1	16	27	28	30	29	35	36	32	15	0	0	0	0	0	1	0	11.3	35.6	
11-Jan-08	A	0	0	0	1	1	0	0	1	4	11	13	14	19	22	19	12	7	1	2	2	2	1	A	6.0	21.9	
12-Jan-08	1	1	1	1	1	1	3	6	5	10	14	19	21	22	23	21	17	12	14	18	16	12	A	7	10.7	23.0	
13-Jan-08	13	7	0	0	1	3	11	13	14	9	14	18	21	24	23	22	18	18	19	15	14	A	16	19	13.5	23.8	
14-Jan-08	18	21	27	31	33	37	37	33	36	38	37	38	39	39	39	40	39	39	40	A	39	37	38	35.4	39.7		
15-Jan-08	38	36	36	38	37	36	36	36	35	36	38	37	37	37	37	36	34	29	A	33	33	32	23	35.0	38.1		
16-Jan-08	23	23	21	20	16	17	17	14	17	19	25	25	28	33	33	32	30	26	A	27	26	24	24	22	23.5	32.8	
17-Jan-08	23	28	29	30	29	25	27	31	30	30	31	34	35	35	C	C	A	27	26	30	31	16	19	28.4	35.3		
18-Jan-08	19	A	31	29	28	27	24	24	6	13	28	31	32	31	30	31	26	26	26	24	25	24	25	25.4	31.5		
19-Jan-08	A	27	29	31	31	23	25	22	17	19	19	24	26	23	21	26	27	24	31	32	32	34	34	A	26.2	34.4	
20-Jan-08	38	37	37	37	35	34	34	31	29	28	30	32	33	34	32	31	29	28	28	31	33	33	A	36	32.6	37.5	
21-Jan-08	36	36	35	32	32	31	31	29	28	28	29	31	31	33	34	32	26	23	18	21	26	26	24	29.2	36.1		
22-Jan-08	18	A	23	21	22	24	25	24	29	35	37	40	38	35	37	38	39	38	38	37	37	36	34	32.2	40.1		
23-Jan-08	A	30	30	31	31	29	29	30	28	32	34	35	36	37	37	35	32	17	14	12	16	14	17	A	27.5	36.6	
24-Jan-08	8	3	1	3	3	4	1	2	7	12	19	21	23	22	24	26	22	18	24	31	31	32	A	36	16.2	36.2	
25-Jan-08	35	34	34	33	31	28	25	25	22	22	22	21	21	21	21	17	10	11	13	24	A	38	41	24.7	40.7		
26-Jan-08	41	40	41	39	38	38	31	32	30	33	35	37	39	42	41	43	43	38	37	38	A	39	32	30	37.3	43.2	
27-Jan-08	29	26	22	28	28	27	30	33	30	23	26	25	26	28	28	29	30	31	31	A	32	32	32	28.6	33.0		
28-Jan-08	32	32	32	32	32	33	32	33	32	32	32	33	34	33	33	32	30	30	A	25	24	23	20	20	30.0	34.0	
29-Jan-08	19	17	4	0	1	4	7	7	17	17	22	25	27	29	29	31	A	30	30	30	31	30	31	20.3	31.4		
30-Jan-08	31	30	29	26	26	26	24	26	26	27	28	27	28	29	27	A	18	16	13	11	18	20	10	23.7	31.1		
31-Jan-08	9	13	11	12	15	18	18	32	33	34	36	34	24	24	25	26	26	25	25	25	25	25	25	23.3	35.9		

Hourly Avg	22.5	23.2	22.2	22.2	21.9	21.7	21.8	22.3	22.3	23.9	26.4	28.5	29.3	29.9	30.0	29.8	26.0	23.2	22.6	23.2	24.7	24.1	24.5	
Hourly Max	41.2	40.2	40.9	38.7	38.1	37.9	37.1	36.1	36.4	37.5	37.0	40.1	40.3	41.8	41.3	43.2	42.8	39.3	39.4	39.7	36.8	39.4	38.1	40.7

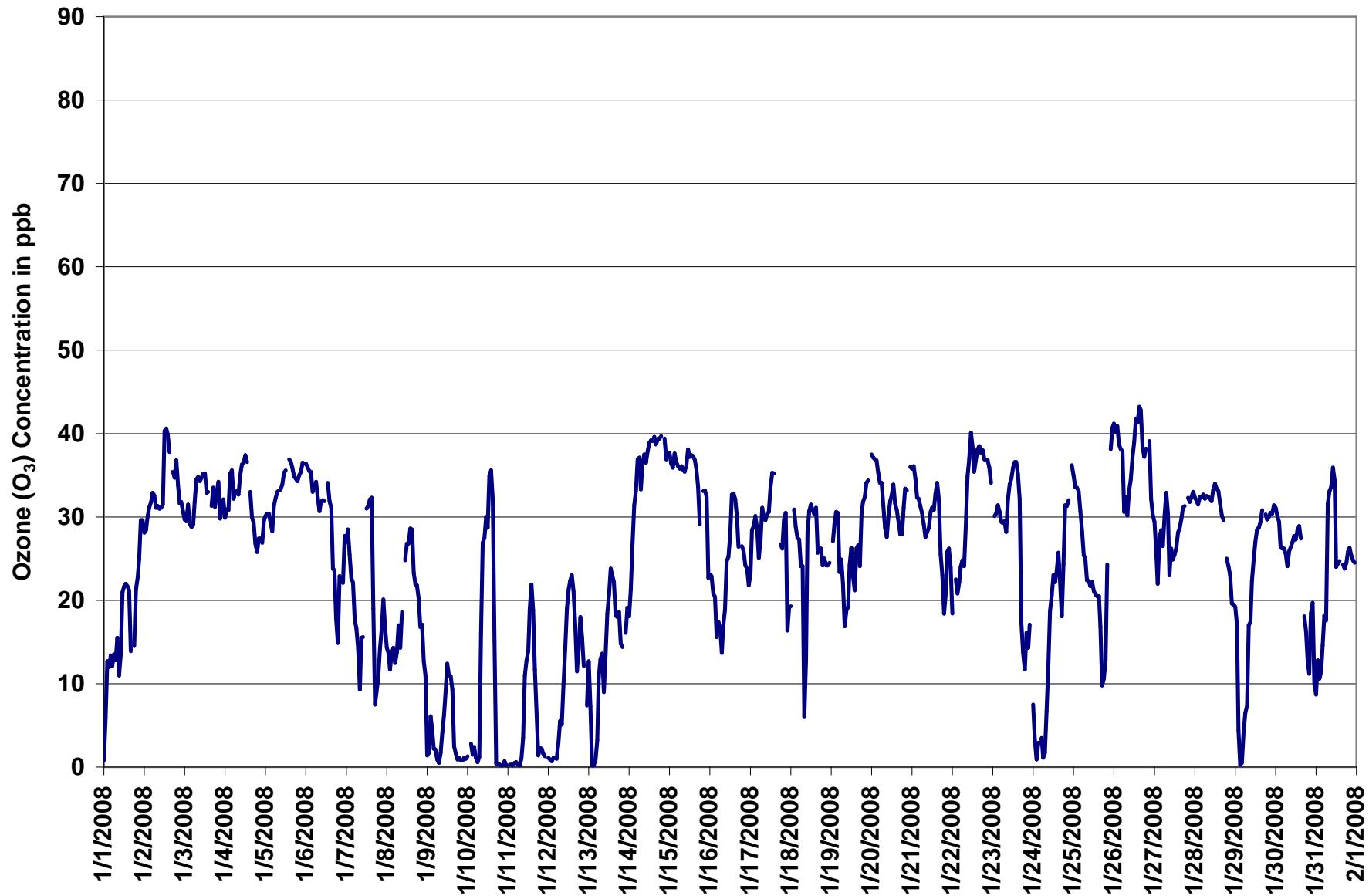
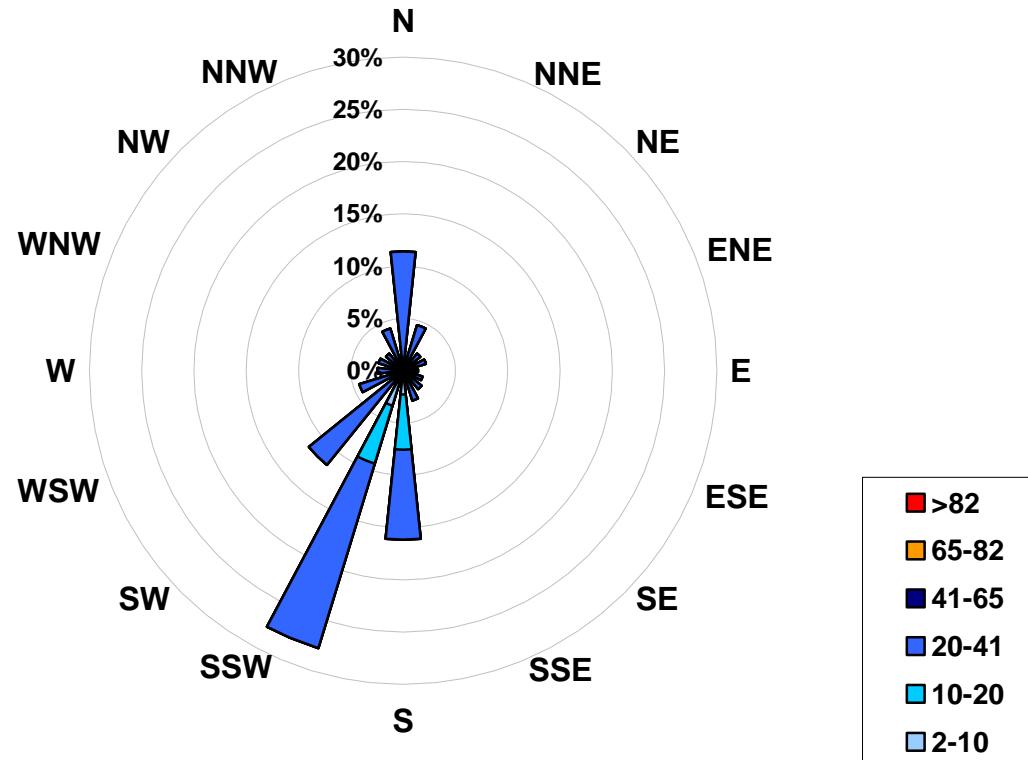


Figure 19. PAS – Brooks Ozone Instantaneous (30 Second) Maximum Value Monthly Trend

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



Calms: 0%

Frequency Distribution of O <sub>3</sub> in ppb			
Range		Frequency (hrs)	
2.0	<	10	126
10	to	20	128
20	to	41	451
41	to	65	0
65	to	82	0
> 82		0	
Total Non-Zero Values			710



## PAS – Brooks Ozone Eight Hour Average Summary

Station: Portable-Brooks  
Station Owner: PAS

Monitoring Dates: January 1, 2008 to February 1, 2008

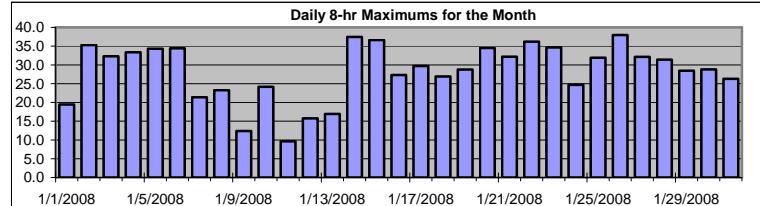
Objective Limit: Alberta Environment: 8-hr 65 ppb  
Summary

Number of 8-hr Exceedances: 0

Maximum 8-hr Average: 38.0 ppb 26-Jan 20:00 21:00

### EIGHT HOUR RUNNING AVERAGE TABLE

#### Ozone ( $O_3$ )



#### 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 1:00 | 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 | 25:00 | 26:00 | 27:00 | 28:00 | 29:00 | 30:00 | 31:00 | 32:00 | 33:00 | 34:00 | 35:00 | 36:00 | 37:00 | 38:00 | 39:00 | 40:00 | 41:00 | 42:00 | 43:00 | 44:00 | 45:00 | 46:00 | 47:00 | 48:00 | 49:00 | 50:00 | 51:00 | 52:00 | 53:00 | 54:00 | 55:00 | 56:00 | 57:00 | 58:00 | 59:00 | 60:00 | 61:00 | 62:00 | 63:00 | 64:00 | 65:00 | 66:00 | 67:00 | 68:00 | 69:00 | 70:00 | 71:00 | 72:00 | 73:00 | 74:00 | 75:00 | 76:00 | 77:00 | 78:00 | 79:00 | 80:00 | 81:00 | 82:00 | 83:00 | 84:00 | 85:00 | 86:00 | 87:00 | 88:00 | 89:00 | 90:00 | 91:00 | 92:00 | 93:00 | 94:00 | 95:00 | 96:00 | 97:00 | 98:00 | 99:00 | 00:00 | 01:00 | 02:00 | 03:00 | 04:00 | 05:00 | 06:00 | 07:00 | 08:00 | 09:00 | 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 | 25:00 | 26:00 | 27:00 | 28:00 | 29:00 | 30:00 | 31:00 | 32:00 | 33:00 | 34:00 | 35:00 | 36:00 | 37:00 | 38:00 | 39:00 | 40:00 | 41:00 | 42:00 | 43:00 | 44:00 | 45:00 | 46:00 | 47:00 | 48:00 | 49:00 | 50:00 | 51:00 | 52:00 | 53:00 | 54:00 | 55:00 | 56:00 | 57:00 | 58:00 | 59:00 | 60:00 | 61:00 | 62:00 | 63:00 | 64:00 | 65:00 | 66:00 | 67:00 | 68:00 | 69:00 | 70:00 | 71:00 | 72:00 | 73:00 | 74:00 | 75:00 | 76:00 | 77:00 | 78:00 | 79:00 | 80:00 | 81:00 | 82:00 | 83:00 | 84:00 | 85:00 | 86:00 | 87:00 | 88:00 | 89:00 | 90:00 | 91:00 | 92:00 | 93:00 | 94:00 | 95:00 | 96:00 | 97:00 | 98:00 | 99:00 | 00:00 | 01:00 | 02:00 | 03:00 | 04:00 | 05:00 | 06:00 | 07:00 | 08:00 | 09:00 | 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 | 25:00 | 26:00 | 27:00 | 28:00 | 29:00 | 30:00 | 31:00 | 32:00 | 33:00 | 34:00 | 35:00 | 36:00 | 37:00 | 38:00 | 39:00 | 40:00 | 41:00 | 42:00 | 43:00 | 44:00 | 45:00 | 46:00 | 47:00 | 48:00 | 49:00 | 50:00 | 51:00 | 52:00 | 53:00 | 54:00 | 55:00 | 56:00 | 57:00 | 58:00 | 59:00 | 60:00 | 61:00 | 62:00 | 63:00 | 64:00 | 65:00 | 66:00 | 67:00 | 68:00 | 69:00 | 70:00 | 71:00 | 72:00 | 73:00 | 74:00 | 75:00 | 76:00 | 77:00 | 78:00 | 79:00 | 80:00 | 81:00 | 82:00 | 83:00 | 84:00 | 85:00 | 86:00 | 87:00 | 88:00 | 89:00 | 90:00 | 91:00 | 92:00 | 93:00 | 94:00 | 95:00 | 96:00 | 97:00 | 98:00 | 99:00 | 00:00 | 01:00 | 02:00 | 03:00 | 04:00 | 05:00 | 06:00 | 07:00 | 08:00 | 09:00 | 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 | 25:00 | 26:00 | 27:00 | 28:00 | 29:00 | 30:00 | 31:00 | 32:00 | 33:00 | 34:00 | 35:00 | 36:00 | 37:00 | 38:00 | 39:00 | 40:00 | 41:00 | 42:00 | 43:00 | 44:00 | 45:00 | 46:00 | 47:00 | 48:00 | 49:00 | 50:00 | 51:00 | 52:00 | 53:00 | 54:00 | 55:00 | 56:00 | 57:00 | 58:00 | 59:00 | 60:00 | 61:00 | 62:00 | 63:00 | 64:00 | 65:00 | 66:00 | 67:00 | 68:00 | 69:00 | 70:00 | 71:00 | 72:00 | 73:00 | 74:00 | 75:00 | 76:00 | 77:00 | 78:00 | 79:00 | 80:00 | 81:00 | 82:00 | 83:00 | 84:00 | 85:00 | 86:00 | 87:00 | 88:00 | 89:00 | 90:00 | 91:00 | 92:00 | 93:00 | 94:00 | 95:00 | 96:00 | 97:00 | 98:00 | 99:00 | 00:00 | 01:00 | 02:00 | 03:00 | 04:00 | 05:00 | 06:00 | 07:00 | 08:00 | 09:00 | 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 | 25:00 | 26:00 | 27:00 | 28:00 | 29:00 | 30:00 | 31:00 | 32:00 | 33:00 | 34:00 | 35:00 | 36:00 | 37:00 | 38:00 | 39:00 | 40:00 | 41:00 | 42:00 | 43:00 | 44:00 | 45:00 | 46:00 | 47:00 | 48:00 | 49:00 | 50:00 | 51:00 | 52:00 | 53:00 | 54:00 | 55:00 | 56:00 | 57:00 | 58:00 | 59:00 | 60:00 | 61:00 | 62:00 | 63:00 | 64:00 | 65:00 | 66:00 | 67:00 | 68:00 | 69:00 | 70:00 | 71:00 | 72:00 | 73:00 | 74:00 | 75:00 | 76:00 | 77:00 | 78:00 | 79:00 | 80:00 | 81:00 | 82:00 | 83:00 | 84:00 | 85:00 | 86:00 | 87:00 | 88:00 | 89:00 | 90:00 | 91:00 | 92:00 | 93:00 | 94:00 | 95:00 | 96:00 | 97:00 | 98:00 | 99:00 | 00:00 | 01:00 | 02:00 | 03:00 | 04:00 | 05:00 | 06:00 | 07:00 | 08:00 | 09:00 | 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 | 25:00 | 26:00 | 27:00 | 28:00 | 29:00 | 30:00 | 31:00 | 32:00 | 33:00 | 34:00 | 35:00 | 36:00 | 37:00 | 38:00 | 39:00 | 40:00 | 41:00 | 42:00 | 43:00 | 44:00 | 45:00 | 46:00 | 47:00 | 48:00 | 49:00 | 50:00 | 51:00 | 52:00 | 53:00 | 54:00 | 55:00 | 56:00 | 57:00 | 58:00 | 59:00 | 60:00 | 61:00 | 62:00 | 63:00 | 64:00 | 65:00 | 66:00 | 67:00 | 68:00 | 69:00 | 70:00 | 71:00 | 72:00 | 73:00 | 74:00 | 75:00 | 76:00 | 77:00 | 78:00 | 79:00 | 80:00 | 81:00 | 82:00 | 83:00 | 84:00 | 85:00 | 86:00 | 87:00 | 88:00 | 89:00 | 90:00 | 91:00 | 92:00 | 93:00 | 94:00 | 95:00 | 96:00 | 97:00 | 98:00 | 99:00 | 00:00 | 01:00 | 02:00 | 03:00 | 04:00 | 05:00 | 06:00 | 07:00 | 08:00 | 09:00 | 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 | 25:00 | 26:00 | 27:00 | 28:00 | 29:00 | 30:00 | 31:00 | 32:00 | 33:00 | 34:00 | 35:00 | 36:00 | 37:00 | 38:00 | 39:00 | 40:00 | 41:00 | 42:00 | 43:00 | 44:00 | 45:00 | 46:00 | 47:00 | 48:00 | 49:00 | 50:00 | 51:00 | 52:00 | 53:00 | 54:00 | 55:00 | 56:00 | 57:00 | 58:00 | 59:00 | 60:00 | 61:00 | 62:00 | 63:00 | 64:00 | 65:00 | 66:00 | 67:00 | 68:00 | 69:00 | 70:00 | 71:00 | 72:00 | 73:00 | 74:00 | 75:00 | 76:00 | 77:00 | 78:00 | 79:00 | 80:00 | 81:00 | 82:00 | 83:00 | 84:00 | 85:00 | 86:00 | 87:00 | 88:00 | 89:00 | 90:00 | 91:00 | 92:00 | 93:00 | 94:00 | 95:00 | 96:00 | 97:00 | 98:00 | 99:00 | 00:00 | 01:00 | 02:00 | 03:00 | 04:00 | 05:00 | 06:00 | 07:00 | 08:00 | 09:00 | 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 | 25:00 | 26:00 | 27:00 | 28:00 | 29:00 | 30:00 | 31:00 | 32:00 | 33:00 | 34:00 | 35:00 | 36:00 | 37:00 | 38:00 | 39:00 | 40:00 | 41:00 | 42:00 | 43:00 | 44:00 | 45:00 | 46:00 | 47:00 | 48:00 | 49:00 | 50:00 | 51:00 | 52:00 | 53:00 | 54:00 | 55:00 | 56:00 | 57:00 | 58:00 | 59:00 | 60:00 | 61:00 | 62:00 | 63:00 | 64:00 | 65:00 | 66:00 | 67:00 | 68:00 | 69:00 | 70:00 | 71:00 | 72:00 | 73:00 | 74:00 | 75:00 | 76:00 | 77:00 | 78:00 | 79:00 | 80:00 | 81:00 | 82:00 | 83:00 | 84:00 | 85:00 | 86:00 | 87:00 | 88:00 | 89:00 | 90:00 | 91:00 | 92:00 | 93:00 | 94:00 | 95:00 | 96:00 | 97:00 | 98:00 | 99:00 | 00:00 | 01:00 | 02:00 | 03:00 | 04:00 | 05:00 | 06:00 | 07:00 | 08:00 | 09:00 | 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 | 25:00 | 26:00 | 27:00 | 28:00 | 29:00 | 30:00 | 31:00 | 32:00 | 33:00 | 34:00 | 35:00 | 36:00 | 37:00 | 38:00 | 39:00 | 40:00 | 41:00 | 42:00 | 43:00 | 44:00 | 45:00 | 46:00 | 47:00 | 48:00 | 49:00 | 50:00 | 51:00 | 52:00 | 53:00 | 54:00 | 55:00 | 56:00 | 57:00 | 58:00 | 59:00 | 60:00 | 61:00 | 62:00 | 63:00 | 64:00 | 65:00 | 66:00 | 67:00 | 68:00 | 69:00 | 70:00 | 71:00 | 72:00 | 73:00 | 74:00 | 75:00 | 76:00 | 77:00 | 78:00 | 79:00 | 80:00 | 81:00 | 82:00 | 83:00 | 84:00 | 85:00 | 86:00 | 87:00 | 88:00 | 89:00 | 90:00 | 91:00 | 92:00 | 93:00 | 94:00 | 95:00 | 96:00 | 97:00 | 98:00 | 99:00 | 00:00 | 01:00 | 02:00 | 03:00 | 04:00 | 05:00 | 06:00 | 07:00 | 08:00 | 09:00 | 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 | 25:00 | 26:00 | 27:00 | 28:00 | 29:00 | 30:00 | 31:00 | 32:00 | 33:00 | 34:00 | 35:00 | 36:00 | 37:00 | 38:00 | 39:00 | 40:00 | 41:00 | 42:00 | 43:00 | 44:00 | 45:00 | 46:00 | 47:00 |
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## PAS – Brooks Hydrogen Sulphide Monthly Summary

Station: Portable-Brooks  
Station Owner: PAS

Monitoring Dates: January 1, 2008 to February 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:	14.8 ppb
Maximum 24-hr Value:	1.8 ppb

9-Jan 7:00 8:00  
9-Jan

AIC Time:	32 hrs	Operational Time:	710 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99 3.5	95 1.0	75 0.2	50 0.1	25 0.0	5 0.0	1 0.0	Average 0.2 ppb	Median 0.1 ppb

**Day Mountain Standard Time**

	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	25:00	26:00	27:00	28:00	29:00	30:00	31:00	32:00	33:00	34:00	35:00	36:00	37:00	38:00	39:00	40:00	41:00	42:00	43:00	44:00	45:00	46:00	47:00	48:00	49:00	50:00	51:00	52:00	53:00	54:00	55:00	56:00	57:00	58:00	59:00	60:00	61:00	62:00	63:00	64:00	65:00	66:00	67:00	68:00	69:00	70:00	71:00	72:00	73:00	74:00	75:00	76:00	77:00	78:00	79:00	80:00	81:00	82:00	83:00	84:00	85:00	86:00	87:00	88:00	89:00	90:00	91:00	92:00	93:00	94:00	95:00	96:00	97:00	98:00	99:00	100:00	101:00	102:00	103:00	104:00	105:00	106:00	107:00	108:00	109:00	110:00	111:00	112:00	113:00	114:00	115:00	116:00	117:00	118:00	119:00	120:00	121:00	122:00	123:00	124:00	125:00	126:00	127:00	128:00	129:00	130:00	131:00	132:00	133:00	134:00	135:00	136:00	137:00	138:00	139:00	140:00	141:00	142:00	143:00	144:00	145:00	146:00	147:00	148:00	149:00	150:00	151:00	152:00	153:00	154:00	155:00	156:00	157:00	158:00	159:00	160:00	161:00	162:00	163:00	164:00	165:00	166:00	167:00	168:00	169:00	170:00	171:00	172:00	173:00	174:00	175:00	176:00	177:00	178:00	179:00	180:00	181:00	182:00	183:00	184:00	185:00	186:00	187:00	188:00	189:00	190:00	191:00	192:00	193:00	194:00	195:00	196:00	197:00	198:00	199:00	200:00	201:00	202:00	203:00	204:00	205:00	206:00	207:00	208:00	209:00	210:00	211:00	212:00	213:00	214:00	215:00	216:00	217:00	218:00	219:00	220:00	221:00	222:00	223:00	224:00	225:00	226:00	227:00	228:00	229:00	230:00	231:00	232:00	233:00	234:00	235:00	236:00	237:00	238:00	239:00	240:00	241:00	242:00	243:00	244:00	245:00	246:00	247:00	248:00	249:00	250:00	251:00	252:00	253:00	254:00	255:00	256:00	257:00	258:00	259:00	260:00	261:00	262:00	263:00	264:00	265:00	266:00	267:00	268:00	269:00	270:00	271:00	272:00	273:00	274:00	275:00	276:00	277:00	278:00	279:00	280:00	281:00	282:00	283:00	284:00	285:00	286:00	287:00	288:00	289:00	290:00	291:00	292:00	293:00	294:00	295:00	296:00	297:00	298:00	299:00	300:00	301:00	302:00	303:00	304:00	305:00	306:00	307:00	308:00	309:00	310:00	311:00	312:00	313:00	314:00	315:00	316:00	317:00	318:00	319:00	320:00	321:00	322:00	323:00	324:00	325:00	326:00	327:00	328:00	329:00	330:00	331:00	332:00	333:00	334:00	335:00	336:00	337:00	338:00	339:00	340:00	341:00	342:00	343:00	344:00	345:00	346:00	347:00	348:00	349:00	350:00	351:00	352:00	353:00	354:00	355:00	356:00	357:00	358:00	359:00	360:00	361:00	362:00	363:00	364:00	365:00	366:00	367:00	368:00	369:00	370:00	371:00	372:00	373:00	374:00	375:00	376:00	377:00	378:00	379:00	380:00	381:00	382:00	383:00	384:00	385:00	386:00	387:00	388:00	389:00	390:00	391:00	392:00	393:00	394:00	395:00	396:00	397:00	398:00	399:00	400:00	401:00	402:00	403:00	404:00	405:00	406:00	407:00	408:00	409:00	410:00	411:00	412:00	413:00	414:00	415:00	416:00	417:00	418:00	419:00	420:00	421:00	422:00	423:00	424:00	425:00	426:00	427:00	428:00	429:00	430:00	431:00	432:00	433:00	434:00	435:00	436:00	437:00	438:00	439:00	440:00	441:00	442:00	443:00	444:00	445:00	446:00	447:00	448:00	449:00	450:00	451:00	452:00	453:00	454:00	455:00	456:00	457:00	458:00	459:00	460:00	461:00	462:00	463:00	464:00	465:00	466:00	467:00	468:00	469:00	470:00	471:00	472:00	473:00	474:00	475:00	476:00	477:00	478:00	479:00	480:00	481:00	482:00	483:00	484:00	485:00	486:00	487:00	488:00	489:00	490:00	491:00	492:00	493:00	494:00	495:00	496:00	497:00	498:00	499:00	500:00	501:00	502:00	503:00	504:00	505:00	506:00	507:00	508:00	509:00	510:00	511:00	512:00	513:00	514:00	515:00	516:00	517:00	518:00	519:00	520:00	521:00	522:00	523:00	524:00	525:00	526:00	527:00	528:00	529:00	530:00	531:00	532:00	533:00	534:00	535:00	536:00	537:00	538:00	539:00	540:00	541:00	542:00	543:00	544:00	545:00	546:00	547:00	548:00	549:00	550:00	551:00	552:00	553:00	554:00	555:00	556:00	557:00	558:00	559:00	560:00	561:00	562:00	563:00	564:00	565:00	566:00	567:00	568:00	569:00	570:00	571:00	572:00	573:00	574:00	575:00	576:00	577:00	578:00	579:00	580:00	581:00	582:00	583:00	584:00	585:00	586:00	587:00	588:00	589:00	590:00	591:00	592:00	593:00	594:00	595:00	596:00	597:00	598:00	599:00	600:00	601:00	602:00	603:00	604:00	605:00	606:00	607:00	608:00	609:00	610:00	611:00	612:00	613:00	614:00	615:00	616:00	617:00	618:00	619:00	620:00	621:00	622:00	623:00	624:00	625:00	626:00	627:00	628:00	629:00	630:00	631:00	632:00	633:00	634:00	635:00	636:00	637:00	638:00	639:00	640:00	641:00	642:00	643:00	644:00	645:00	646:00	647:00	648:00	649:00	650:00	651:00	652:00	653:00	654:00	655:00	656:00	657:00	658:00	659:00	660:00	661:00	662:00	663:00	664:00	665:00	666:00	667:00	668:00	669:00	670:00	671:00	672:00	673:00	674:00	675:00	676:00	677:00	678:00	679:00	680:00	681:00	682:00	683:00	684:00	685:00	686:00	687:00	688:00	689:00	690:00	691:00	692:00	693:00	694:00	695:00	696:00	697:00	698:00	699:00	700:00	701:00	702:00	703:00	704:00	705:00	706:00	707:00	708:00	709:00	710:00	711:00	712:00	713:00	714:00	715:00	716:00	717:00	718:00	719:00	720:00	721:00	722:00	723:00	724:00	725:00	726:00	727:00	728:00	729:00	730:00	731:00	732:00	733:00	734:00	735:00	736:00	737:00	738:00	739:00	740:00	741:00	742:00	743:00	744:00	745:00	746:00	747:00	748:00	749:00	750:00	751:00	752:00	753:00	754:00	755:00	756:00	757:00	758:00	759:00	760:00	761:00	762:00	763:00	764:00	765:00	766:00	767:00	768:00	769:00	770:00	771:00	772:00	773:00	774:00	775:00	776:00	777:00	778:00	779:00	780:00	781:00	782:00	783:00	784:00	785:00	786:00	787:00	788:00	789:00	790:00	791:00	792:00	793:00	794:00	795:00	796:00	797:00	798:00	799:00	800:00	801:00	802:00	803:00	804:00	805:00	806:00	807:00	808:00	809:00	810:00	811:00	812:00	813:00	814:00	815:00	816:00	817:00	818:00	819:00	820:00	821:00	822:00	823:00	824:00	825:00	826:00	827:00	828:00	829:00	830:00	831:00	832:00	833:00	834:00	835:00	836:00	837:00	838:00	839:00	840:00	841:00	842:00	843:00	844:00	845:00	846:00	847:00	848:00	849:00	850:00	851:00	852:00	853:00	854:00	855:00	856:00	857:00	858:00	859:00	860:00	861:00	862:00	863:00	864:00	865:00	866:00	867:00	868:00	869:00	870:00	871:00	872:00	873:00	874:00	875:00	876:00	877:00	878:00	879:00	880:00	881:00	882:00	883:00	884:00	885:00	886:00	887:00	888:00	889:00	890:00	891:00	892:00	893:00	894:00	895:00	896:00	897:00	898:00	899:00	900:00	901:00	902:00	903:00	904:00	905:00	906:00	907:00	908:00	909:00	910:00	911:00	912:00	913:00	914:00	915:00	916:00	917:00	918:00	919:00	920:00	921:00	922:00	923:00	924:00	925:00	926:00	927:00	928:00	929:00	930:00	931:00	932:00	933:00	934:00	935:00	936:00	937:00	938:00	939:00	940:00	941:00	942:00	943:00	944:00

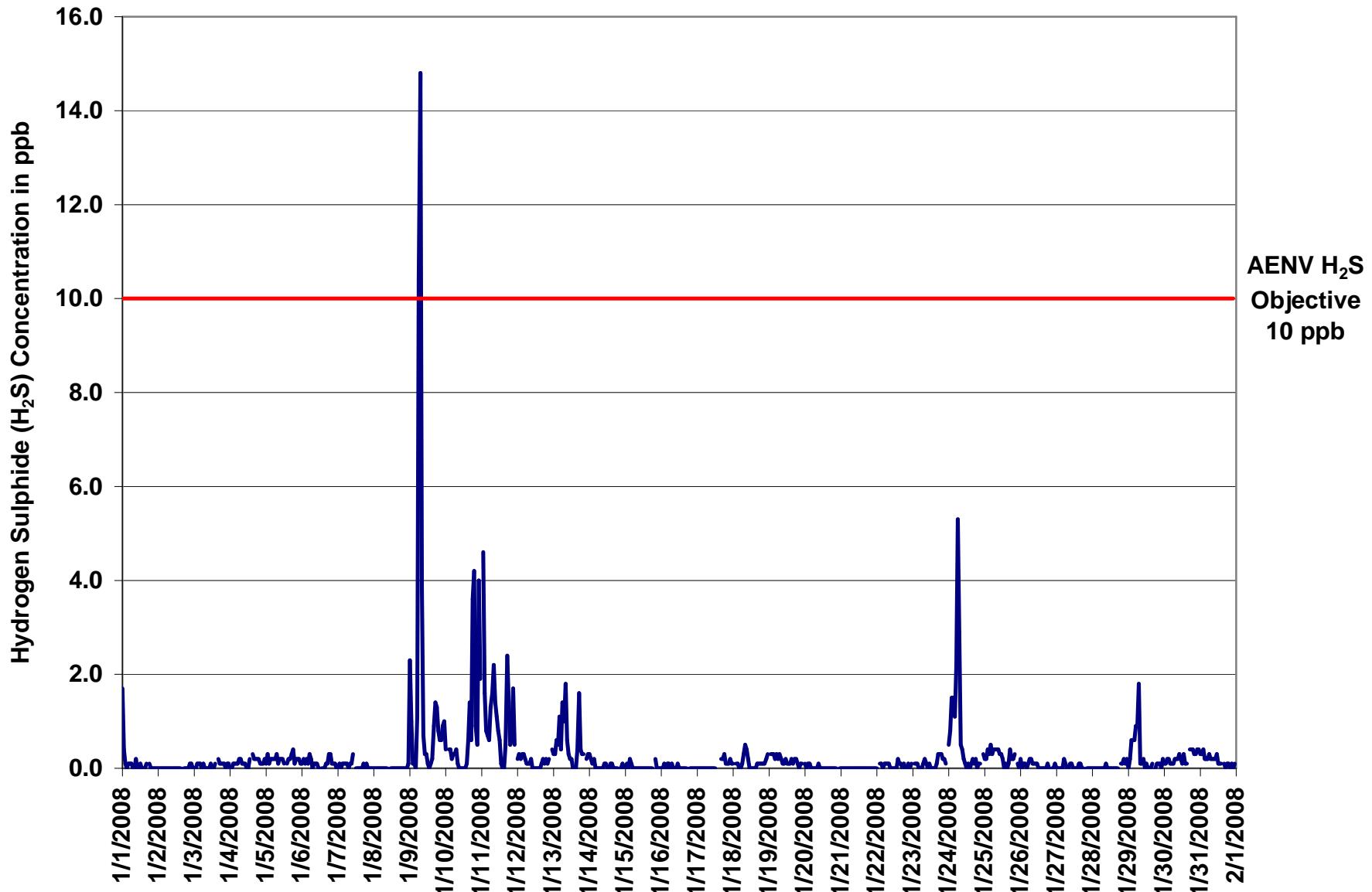


Figure 20. PAS – Brooks Hydrogen Sulphide 1-hr Average Monthly Trend

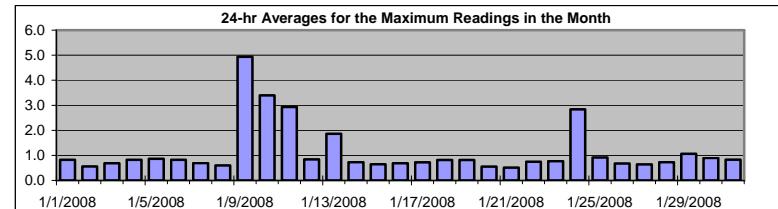


Station: Portable-Brooks  
Station Owner: PAS

Monitoring Dates: January 1, 2008 to February 1, 2008

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

### Hydrogen Sulphide (H<sub>2</sub>S)



#### Summary

Maximum 1-hr Value:	33.0	ppb	9-Jan	6:00 7:00
Maximum 24-hr Value:	4.9	ppb	9-Jan	

AIC Time:	32 hrs	Operational Time:	710 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	Median
	8.9 2.6 0.9 0.7 0.6 0.5 0.3	1.1 ppb	0.7 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	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum	
	Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Jan-08	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	2.6	
2-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	A	1	1	1	1	1	1	1	0.6	0.7
3-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.7	1.0	
4-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.8	1.2	
5-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.9	1.1	
6-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.8	1.1	
7-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	1	1	1	1	1	0.7	1.1	
8-Jan-08	1	1	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0	
9-Jan-08	6	6	1	1	1	5	33	26	9	2	1	1	1	1	1	1	2	5	5	2	2	2	2	4	3	4.9	33.0	
10-Jan-08	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	5	5	1	6	7	3	1	22	15	3.4	22.0	
11-Jan-08	A	8	3	1	2	2	2	3	4	2	2	2	1	1	1	0	8	9	7	1	2	4	1	A	2.9	8.7		
12-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	2	1	1	1	1	1	A	1	0.8	1.6		
13-Jan-08	1	1	1	1	3	1	6	3	5	2	1	1	1	1	1	3	7	1	1	1	A	1	1	1	1.9	6.5		
14-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.4		
15-Jan-08	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0	
16-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	1	1	1	1	0.7	1.3		
17-Jan-08	1	1	1	1	1	1	1	1	1	1	0	1	1	C	C	A	1	1	1	1	1	1	1	1	0.7	1.0		
18-Jan-08	1	A	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.6		
19-Jan-08	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1		
20-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1	0	1	1	A	0.6	0.8		
21-Jan-08	1	1	1	0	0	1	0	1	1	1	1	1	1	0	0	0	1	0	1	1	1	1	1	0	0.5	0.7		
22-Jan-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	0.7	1.0		
23-Jan-08	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	A	0.8	1.1	
24-Jan-08	1	3	3	2	2	12	14	16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2.8	16.2		
25-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.4		
26-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.7	0.9		
27-Jan-08	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.6	1.0		
28-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0		
29-Jan-08	1	1	1	1	1	1	2	2	3	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.1	3.0	
30-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.9	1.3	
31-Jan-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.1		

Hourly Avg 1.0 1.3 1.0 0.8 0.9 1.4 2.5 2.3 1.3 0.9 0.8 0.7 0.7 0.7 0.6 0.8 1.3 1.4 1.3 1.1 0.9 0.9 1.6 1.3  
Hourly Max 5.9 7.8 2.6 2.2 2.9 12.0 33.0 25.7 8.9 2.4 1.7 1.8 1.3 1.3 1.0 5.3 7.7 8.7 7.0 7.0 3.2 4.4 22.0 14.6

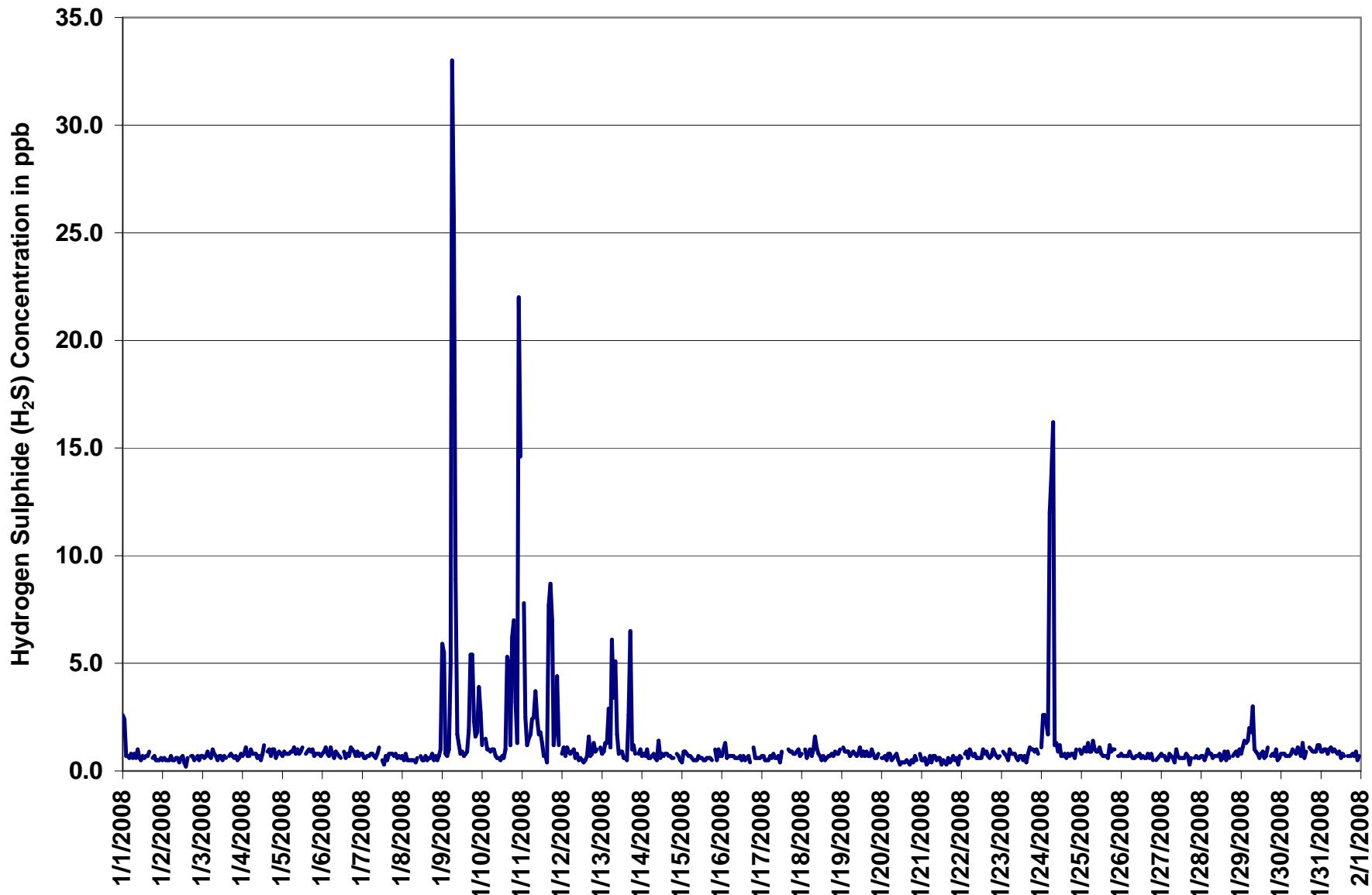
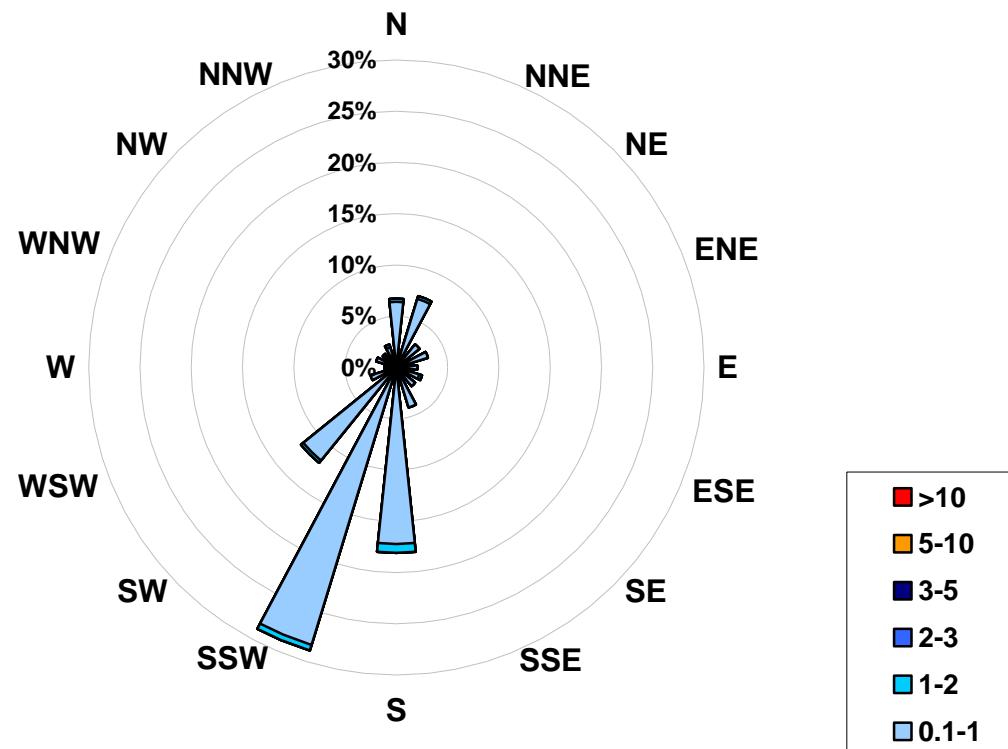


Figure 21. PAS – Brooks Hydrogen Sulphide Instantaneous (30 Second) Maximum Value Monthly Trend

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



Calms:	0%
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Frequency Distribution of H <sub>2</sub> S in ppb		
Range	Frequency (hrs)	
0.1 < 1	673	
1 to 2	21	
2 to 3	5	
3 to 5	5	
5 to 10	1	
> 10	2	
Total Non-Zero Values	710	



## PAS – Brooks Scalar Wind Speed Monthly Summary

Station: Portable-Brooks  
Station Owner: PAS

Monitoring Dates: January 1, 2008 to February 1, 2008

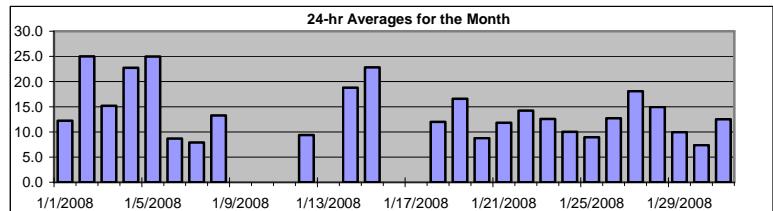
### Summary

Maximum 1-hr Average:	36.9	km/hr	2-Jan	6:00 7:00
Maximum 24-hr Value:	25.0	km/hr	2-Jan	

Calm Time:	0 hrs	0% calms	Operational Time:	635 hrs
Calibration Time:	4 hrs		AMD Operational Uptime:	85.9%
Percentile				AverageS
99	95	75	50	25 5 1
33.9	27.6	18.7	12.3	8.0 3.3 1.7
				13.8 km/hr

### HOURLY AVERAGE TABLE

### Wind Speed (WSs)



### 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 1:00	0:00 2:00	1:00 3:00	2:00 4:00	3:00 5:00	4:00 6:00	5:00 7:00	6:00 8:00	7:00 9:00	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-Jan-08	4	11	10	12	13	13	12	7	4	6	3	3	5	7	6	9	14	13	16	19	22	27	31	30	12.2	30.9	
2-Jan-08	34	30	33	31	32	37	37	36	36	34	34	31	27	24	19	13	22	21	15	16	9	13	9	10	25.0	36.9	
3-Jan-08	7	8	6	11	11	9	12	12	11	12	16	17	20	18	20	22	16	20	19	20	24	17	21	17	15.2	24.3	
4-Jan-08	22	19	23	19	23	16	22	30	33	36	28	30	23	22	19	17	21	19	17	17	17	18	19	21	22.7	36.4	
5-Jan-08	26	24	30	27	22	20	27	27	31	29	19	20	18	22	24	26	27	27	27	26	27	22	25	25.0	31.0		
6-Jan-08	22	16	14	9	11	10	15	15	13	10	9	9	9	4	2	2	N	N	3	2	2	8	3	3	8.7	21.7	
7-Jan-08	7	6	3	9	5	4	3	9	2	N	N	3	3	N	N	N	N	11	11	12	13	13	14	11	13	7.9	14.1
8-Jan-08	9	9	11	11	14	6	11	9	10	15	18	18	18	20	17	16	15	17	18	13	13	12	10	N	13.3	19.7	
9-Jan-08	N	N	6	4	7	N	N	N	N	N	N	N	N	N	N	N	N	N	9	12	11	10	10	12	9	N	11.9
10-Jan-08	6	11	8	N	N	N	N	N	N	14	12	12	19	17	10	7	N	N	N	N	N	N	N	N	N	19.0	
11-Jan-08	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	15.6		
12-Jan-08	11	14	13	5	N	9	12	9	2	N	11	7	9	9	8	10	9	10	15	7	14	9	6	N	9.4		
13-Jan-08	N	N	N	N	N	N	N	N	8	10	8	10	3	N	11	10	9	14	15	15	16	16	16	16	N	16.1	
14-Jan-08	13	14	16	10	10	17	22	12	17	18	22	23	23	22	22	20	22	28	23	18	23	20	16	22	18.8	28.3	
15-Jan-08	23	22	26	25	25	27	30	31	27	23	28	30	28	25	23	22	18	12	9	15	18	15	N	N	22.8	31.2	
16-Jan-08	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0		
17-Jan-08	N	N	N	N	N	N	N	N	N	N	C	C	C	C	13	10	8	6	7	7	10	7	5	N	13.3		
18-Jan-08	7	16	21	22	13	9	7	6	8	8	12	15	11	10	11	13	14	14	13	11	13	12	10	12	12.0	21.8	
19-Jan-08	12	9	10	9	8	7	12	8	7	8	9	11	16	21	23	25	28	26	26	26	27	27	24	21	16.6	27.5	
20-Jan-08	20	16	13	6	3	8	9	7	7	11	12	9	8	8	7	6	6	5	7	7	7	10	12	8.8	19.8		
21-Jan-08	16	17	12	12	15	17	20	16	14	14	20	18	18	13	8	7	7	5	5	5	6	7	5	5	11.8	20.3	
22-Jan-08	6	7	5	6	6	7	8	8	11	11	14	24	28	34	29	19	20	23	18	16	16	13	6	8	14.2	33.8	
23-Jan-08	8	12	16	15	17	16	16	16	17	18	19	17	15	14	12	9	9	7	8	10	10	11	6	3	12.6	19.3	
24-Jan-08	6	4	3	6	4	6	7	7	7	9	11	12	15	15	15	13	13	14	15	14	11	10	10	10	10.0	15.4	
25-Jan-08	10	10	8	10	10	10	7	4	5	5	4	4	4	4	6	7	6	9	10	15	17	12	11	13	18	9.0	17.6
26-Jan-08	14	14	17	11	12	8	8	6	6	8	10	11	9	13	13	16	19	16	13	15	18	23	17	11	12.7	22.8	
27-Jan-08	8	8	6	10	14	10	9	9	7	10	17	24	28	26	27	26	26	25	22	24	25	27	23	18.1	27.7		
28-Jan-08	24	26	25	21	20	21	22	22	21	16	19	21	19	17	13	15	8	6	6	6	3	3	3	3	14.9	25.7	
29-Jan-08	2	2	2	1	1	1	2	6	8	10	10	11	12	14	17	20	19	18	18	19	17	14	13	13	10.0	19.5	
30-Jan-08	15	12	10	8	7	7	8	7	4	4	3	3	3	7	7	7	5	8	13	9	9	8	6	7.4	15.0		
31-Jan-08	7	8	4	5	4	5	10	17	24	24	25	14	16	16	17	17	15	12	11	8	11	16	9	5	12.5	24.9	

1-hr Average 13.1 13.2 13.0 12.0 12.3 11.9 13.8 13.3 12.9 14.3 15.1 15.4 15.2 15.7 14.7 14.7 14.7 14.8 13.9 13.9 14.4 14.5 12.8 12.7  
Hourly Max 34.2 29.9 33.0 30.9 32.4 36.6 36.9 35.9 35.5 36.4 34.0 32.1 29.7 33.8 28.8 26.4 27.5 28.3 26.5 27.3 26.5 27.4 30.9 30.4



## PAS – Brooks Vector Wind Speed Monthly Summary

Station: Portable-Brooks  
Station Owner: PAS

Monitoring Dates: January 1, 2008 to February 1, 2008

### Summary

Maximum 1-hr Average:	36.9	km/hr	2-Jan	6:00 7:00
Maximum 24-hr Value:	24.9	km/hr	5-Jan	

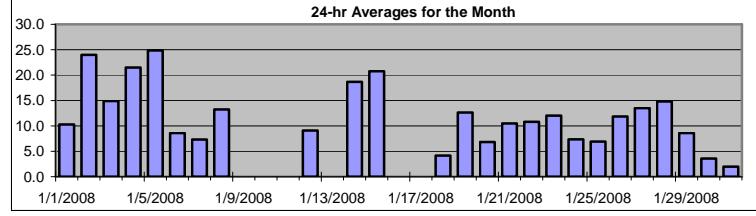
Calm Time:	0 hrs	0% calms	Operational Time:	635 hrs
Calibration Time:	4 hrs		AMD Operational Uptime:	85.9%
Percentile	99	95	75	50
	33.8	27.4	18.4	12.3
	25	5	1	
	3.1	1.4		AverageV
				11.2 km/hr

### Day Mountain Standard Time

	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	25:00	26:00	27:00	28:00	29:00	30:00	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	24:00	25:00	26:00	27:00	28:00	29:00	30:00	
	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	24:00	25:00	26:00	27:00	28:00	29:00	30:00		
1-Jan-08	4	11	10	12	13	13	12	6	3	6	2	2	4	7	5	9	13	13	15	19	22	27	31	30	10.3	30.9							
2-Jan-08	34	30	33	31	32	37	37	36	35	34	34	31	27	23	19	13	21	21	14	16	9	13	8	10	24.0	36.9							
3-Jan-08	6	7	5	9	10	9	11	12	11	12	16	17	20	17	20	22	15	20	19	20	24	17	21	17	14.9	24.1							
4-Jan-08	22	19	23	19	23	16	22	30	33	36	28	32	30	23	21	19	17	21	19	17	16	18	19	21	21.5	36.4							
5-Jan-08	26	24	30	27	22	20	26	27	31	28	19	20	18	21	24	26	26	26	26	27	26	27	22	25	24.9	30.7							
6-Jan-08	22	16	14	9	11	10	15	15	13	10	9	9	9	4	2	2	N	N	11	11	12	13	13	14	8.6	21.6							
7-Jan-08	7	6	3	9	5	4	3	9	2	N	N	3	3	N	N	N	N	3	2	2	8	3	3	7.3	14.1								
8-Jan-08	9	9	11	11	14	6	11	9	10	14	18	18	20	17	16	15	17	18	13	13	12	10	N	13.2	19.6								
9-Jan-08	N	N	6	4	7	N	N	N	N	N	N	N	N	N	N	N	N	N	9	12	11	10	10	12	9	6	N	11.9					
10-Jan-08	6	11	8	N	N	N	N	N	N	14	12	12	19	17	10	7	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	19.0	
11-Jan-08	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	15.6	
12-Jan-08	11	14	13	5	N	9	12	9	2	N	11	7	9	9	8	10	9	10	15	6	14	9	6	N	9.1	14.5							
13-Jan-08	N	N	N	N	N	N	N	N	8	10	8	10	3	N	11	10	9	14	15	15	16	16	16	16	N	16.1							
14-Jan-08	13	14	16	10	10	16	22	12	16	18	22	23	23	22	21	20	21	28	23	18	23	19	16	22	18.7	28.3							
15-Jan-08	23	16	26	25	24	27	30	31	27	23	28	30	28	25	23	22	18	12	9	15	18	15	N	N	20.8	30.9							
16-Jan-08	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0		
17-Jan-08	N	N	N	N	N	N	N	N	N	N	N	N	N	C	C	C	C	13	9	8	4	7	7	9	7	5	N	13.1					
18-Jan-08	6	16	21	22	13	9	7	6	8	8	12	15	11	9	11	13	14	13	13	11	13	12	10	12	4.1	21.7							
19-Jan-08	12	9	10	9	7	6	12	8	7	8	8	11	16	21	23	25	28	26	26	26	27	24	21	12.6	27.5								
20-Jan-08	20	16	12	6	3	8	9	7	7	10	12	8	7	8	8	7	6	6	4	7	7	7	10	6.8	19.6								
21-Jan-08	15	17	12	11	15	17	20	16	14	14	20	18	18	13	8	6	7	7	5	5	6	7	5	5	10.5	20.2							
22-Jan-08	6	6	5	6	6	7	8	7	11	11	14	24	27	34	29	18	20	21	18	16	16	13	5	8	10.8	33.6							
23-Jan-08	8	12	16	15	17	16	16	16	17	18	19	17	15	14	12	9	9	6	8	10	10	11	6	2	12.0	19.2							
24-Jan-08	6	1	1	5	4	5	7	7	7	9	11	12	14	14	15	15	13	13	14	15	14	11	10	10	7.3	15.3							
25-Jan-08	10	9	8	9	9	10	7	4	5	5	4	4	4	4	6	6	5	9	10	15	17	12	10	13	6.9	17.6							
26-Jan-08	14	14	17	10	12	7	7	6	6	8	10	11	9	13	13	16	19	15	13	14	18	22	17	11	11.9	22.2							
27-Jan-08	8	8	5	10	14	9	5	6	7	10	17	24	27	26	25	25	25	22	24	25	27	23	23	13.5	27.3								
28-Jan-08	24	26	25	21	19	20	22	22	21	16	19	21	19	17	13	14	8	6	6	6	3	3	3	3	14.8	25.6							
29-Jan-08	2	2	2	1	1	1	0	2	6	8	10	10	11	12	14	17	19	19	18	18	17	13	13	8.6	19.4								
30-Jan-08	15	12	10	8	7	7	8	7	4	4	2	1	2	6	7	7	5	8	13	9	9	8	6	3.6	14.9								
31-Jan-08	7	8	4	5	4	5	9	17	24	24	25	9	16	16	17	17	15	12	11	8	10	16	9	5	2.0	24.7							
1-hr Vector	6.8	5.3	4.8	4.6	5.8	5.5	6.4	6.5	6.8	7.3	6.9	5.1	3.9	3.1	2.8	2.3	3.3	4.6	4.9	4.8	5.2	6.0	5.9	6.4									
Hourly Max	34.2	29.8	32.9	30.8	32.3	36.5	36.9	35.9	35.4	36.4	33.9	32.0	29.6	33.6	28.7	26.3	27.5	28.3	26.4	27.2	26.4	27.3	30.9	30.4									

### HOURLY AVERAGE TABLE

### Wind Speed (WSv)



### 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



## PAS – Brooks Wind Direction Monthly Summary

Station: Portable-Brooks  
Station Owner: PAS

Monitoring Dates: January 1, 2008 to February 1, 2008

### HOURLY AVERAGE TABLE

### Wind Direction (WD)

#### Summary

Calm Time: 0 hrs 0% calms												Operational Time: 635 hrs											
Calibration Time: 4 hrs												AMD Operational Uptime: 85.9%											
Percentile												Average											
99 99 95 75 50 25 5 1												358.4 350.0 223.9 198.4 173.4 8.2 1.1 212 deg											

#### Day Mountain Standard Time

	Hour Start 1:00	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	WD Sector
1-Jan-08	233	211	212	211	204	212	212	204	201	220	269	356	64	58	127	151	178	161	166	173	164	160	172	176	179	S	
2-Jan-08	179	188	194	192	198	196	194	194	195	194	195	195	206	224	222	229	213	206	224	243	246	229	229	248	202	SSW	
3-Jan-08	229	220	174	187	210	198	189	224	236	222	219	217	212	206	212	208	207	214	224	213	211	218	200	224	212	SSW	
4-Jan-08	218	221	219	229	225	228	222	213	218	212	220	216	207	200	196	189	164	152	173	184	182	196	196	206	206	SSW	
5-Jan-08	211	217	211	215	220	223	218	218	213	214	235	223	212	214	209	210	211	211	211	212	211	212	210	211	214	SW	
6-Jan-08	212	209	206	202	197	208	211	211	212	220	221	216	223	228	225	221	N	N	225	210	193	197	204	205	211	SSW	
7-Jan-08	197	200	198	195	194	198	197	193	199	N	N	357	1	N	N	N	193	189	190	190	190	189	190	190	191	192	SSW
8-Jan-08	194	195	193	191	192	193	193	191	190	189	188	187	187	185	183	182	181	181	182	185	188	192	194	188	S		
9-Jan-08	N	N	359	1	3	N	N	N	N	N	N	N	N	N	N	N	N	175	177	176	183	173	175	184	187	N	-
10-Jan-08	196	197	201	N	N	N	N	N	196	198	188	183	184	193	211	N	N	N	N	N	N	N	N	N	N	N	N
11-Jan-08	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	201	202	204	N	-
12-Jan-08	204	203	205	221	N	209	206	214	232	N	208	205	192	188	186	186	181	170	173	180	185	190	185	N	194	SSW	
13-Jan-08	N	N	N	N	N	N	N	N	195	196	194	194	197	N	187	187	182	181	181	185	188	189	189	189	192	N	-
14-Jan-08	189	190	194	197	198	216	212	203	205	205	208	207	208	210	212	208	198	197	197	199	205	203	198	207	204	SSW	
15-Jan-08	209	343	359	357	358	360	360	1	2	3	3	3	3	3	4	3	4	4	3	2	6	5	N	N	N		
16-Jan-08	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
17-Jan-08	N	N	N	N	N	N	N	N	N	N	C	C	C	C	53	55	96	101	127	128	172	202	190	171	S		
18-Jan-08	59	45	33	31	6	0	28	224	214	209	210	204	218	215	201	174	171	181	188	182	180	177	150	168	25	NNE	
19-Jan-08	177	162	172	176	143	64	59	66	38	12	15	4	11	17	18	17	18	19	20	19	22	15	15	17	325	NW	
20-Jan-08	13	22	18	354	300	350	356	313	321	338	344	323	313	319	308	303	301	274	252	294	286	271	266	263	229	SW	
21-Jan-08	255	245	238	220	214	210	210	214	215	210	213	218	225	255	310	313	303	274	259	257	274	263	350	N	193	SSW	
22-Jan-08	235	251	262	258	280	290	293	289	295	325	333	343	353	1	359	351	348	5	7	24	47	40	57	118	103	ESE	
23-Jan-08	148	187	178	170	174	185	192	193	187	192	196	189	187	191	198	195	202	241	214	211	213	213	234	258	54	NE	
24-Jan-08	213	20	351	33	346	307	306	325	25	38	32	23	37	38	47	55	69	70	70	87	99	108	95	108	202	SSW	
25-Jan-08	111	142	144	151	170	164	188	178	176	194	216	237	251	263	285	246	211	204	198	204	209	220	242	246	228	SW	
26-Jan-08	265	263	256	240	216	229	219	215	212	217	216	216	238	240	240	241	210	220	240	241	204	189	184	354	N		
27-Jan-08	170	143	137	202	194	220	288	6	356	6	347	0	3	358	360	0	356	351	355	347	350	354	354	354	342	NNW	
28-Jan-08	353	342	343	353	351	347	344	344	338	334	338	339	341	341	333	339	337	337	337	302	312	316	325	115	ESE		
29-Jan-08	290	267	239	270	251	224	203	120	136	128	129	146	163	135	119	114	114	113	112	105	104	94	80	77	103	192	
30-Jan-08	69	62	49	38	30	25	29	25	47	44	86	166	88	113	97	195	195	182	171	156	187	178	160	164	319	NW	
31-Jan-08	166	181	179	188	193	187	189	194	190	193	201	1	2	351	348	350	356	357	359	355	7	9	11	349	Hourly Avg		

#### 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



## PAS – Brooks Standard Deviation of Wind Direction Monthly Summary

Station: Portable-Brooks  
Station Owner: PAS

Monitoring Dates: January 1, 2008 to February 1, 2008

### HOURLY AVERAGE TABLE

### Wind Direction (WD)

#### Summary

Calm Time: 0 hrs 0% calms							Operational Time: 635 hrs							
Calibration Time: 4 hrs							AMD Operational Uptime: 85.9%							
Percentile	99	95	75	50	25	5	1							
	58.9	30.8	10.9	6.8	4.7	2.2	1.5							

Determined by the Yamartino 15-min interval calculation

#### Status Flag Characters

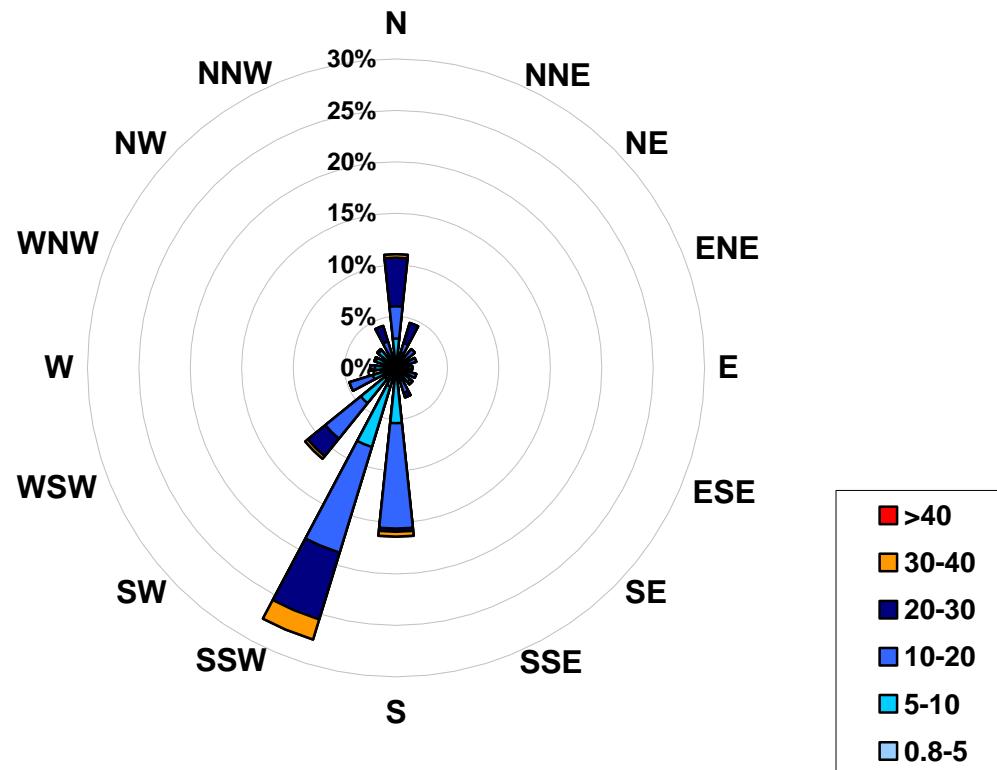
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

#### Day Mountain Standard Time

	Hour Start 1:00	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	Daily Maximum
1-Jan-08	25	5	9	3	3	2	2	59	52	12	30	44	27	16	23	13	10	6	6	4	5	4	4	4	3	58.8	
2-Jan-08	3	5	4	4	2	2	2	2	4	3	5	3	10	6	6	8	11	7	10	11	12	10	27	7	27.0		
3-Jan-08	36	12	38	30	13	8	18	12	10	9	6	7	5	14	8	7	11	10	7	10	8	11	5	11	38.1		
4-Jan-08	7	6	4	5	4	7	5	7	6	3	3	4	4	6	11	9	9	9	9	10	6	4	5	5	10.7		
5-Jan-08	5	3	3	5	5	4	6	4	8	9	8	11	7	6	5	5	5	5	5	5	5	5	5	5	11.2		
6-Jan-08	6	6	7	14	5	8	6	5	5	8	8	11	11	25	15	14	N	N	41	36	10	5	7	6	40.5		
7-Jan-08	8	7	6	6	8	6	4	3	10	N	N	67	8	N	N	N	2	2	2	1	1	2	2	2	67.3		
8-Jan-08	2	3	4	3	3	5	3	4	5	2	2	2	3	3	2	2	2	2	1	2	3	1	3	N	5.3		
9-Jan-08	N	N	6	9	20	N	N	N	N	N	N	N	N	N	N	N	3	3	6	6	6	3	4	6	20.4		
10-Jan-08	3	2	22	N	N	N	N	N	6	7	3	2	3	8	48	N	N	N	N	N	N	N	N	N	48.1		
11-Jan-08	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	7	2	2	6.9		
12-Jan-08	3	2	3	35	N	2	4	5	11	N	4	7	4	4	3	2	4	4	2	15	2	3	14	N	35.1		
13-Jan-08	N	N	N	N	N	N	N	N	58	3	1	3	7	N	3	2	4	4	5	2	1	2	2	2	57.9		
14-Jan-08	2	3	3	3	5	9	5	7	8	6	5	5	6	6	15	19	6	3	5	6	6	8	6	5	19.1		
15-Jan-08	6	52	5	6	6	7	7	7	6	6	6	7	6	6	6	6	5	5	5	5	5	N	N	51.8			
16-Jan-08	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0			
17-Jan-08	N	N	N	N	N	N	N	N	N	N	N	C	C	C	C	9	20	23	40	7	13	27	9	19	40.4		
18-Jan-08	48	6	7	8	5	8	20	12	5	6	7	7	13	14	7	3	6	5	7	5	10	9	4	47.8			
19-Jan-08	9	9	7	7	28	15	9	5	19	7	9	12	5	6	6	4	3	4	4	4	5	5	5	27.7			
20-Jan-08	8	8	7	15	27	30	22	9	8	9	9	11	16	13	11	11	9	18	38	15	12	10	3	5	37.6		
21-Jan-08	4	3	6	5	2	3	3	6	4	3	3	6	4	3	8	33	8	5	11	13	8	11	10	17	33.4		
22-Jan-08	10	12	11	8	10	6	8	13	5	12	7	6	11	7	7	8	6	19	12	14	9	8	33	14	33.2		
23-Jan-08	14	10	4	4	4	5	3	4	3	3	5	6	5	8	13	16	8	12	3	6	3	17	37	36.5			
24-Jan-08	23	88	78	12	29	18	4	17	10	5	7	10	6	8	8	6	9	4	8	9	7	8	10	12	87.5		
25-Jan-08	9	13	11	13	9	6	17	12	9	12	19	16	19	17	20	44	7	8	3	6	8	22	5	4	43.6		
26-Jan-08	5	6	4	19	14	26	16	14	21	7	9	11	12	8	6	7	5	17	9	11	4	15	3	8	26.1		
27-Jan-08	34	20	47	12	5	30	59	55	19	10	8	11	10	8	7	5	9	8	7	6	7	8	7	7	59.0		
28-Jan-08	8	6	5	8	7	8	7	6	5	6	6	6	8	8	7	5	8	6	9	7	27	13	25	16	26.6		
29-Jan-08	18	19	31	20	31	85	93	18	8	6	9	14	10	11	10	6	5	5	6	4	5	4	6	6	93.4		
30-Jan-08	6	6	6	6	9	8	5	9	13	15	45	66	45	21	11	29	12	13	12	21	9	12	9	8	65.8		
31-Jan-08	8	9	15	13	14	15	24	4	2	3	7	53	7	9	7	7	5	6	5	13	8	5	10	15	52.9		

Hourly Max 48 88 78 35 31 85 93 59 58 15 45 67 45 25 48 44 20 23 41 36 27 27 33 37

1-hr Average Wind Rose (in km/hr) Located at the Portable-Brooks Site for January 2008



Calms:	0%
--------	----

Frequency Distribution of Wind in km/hr			
Range			Frequency (hrs)
0.8	<	5	56
5	to	10	183
10	to	20	257
20	to	30	115
30	to	40	20
	>	40	0
Total Non-Zero Values			635



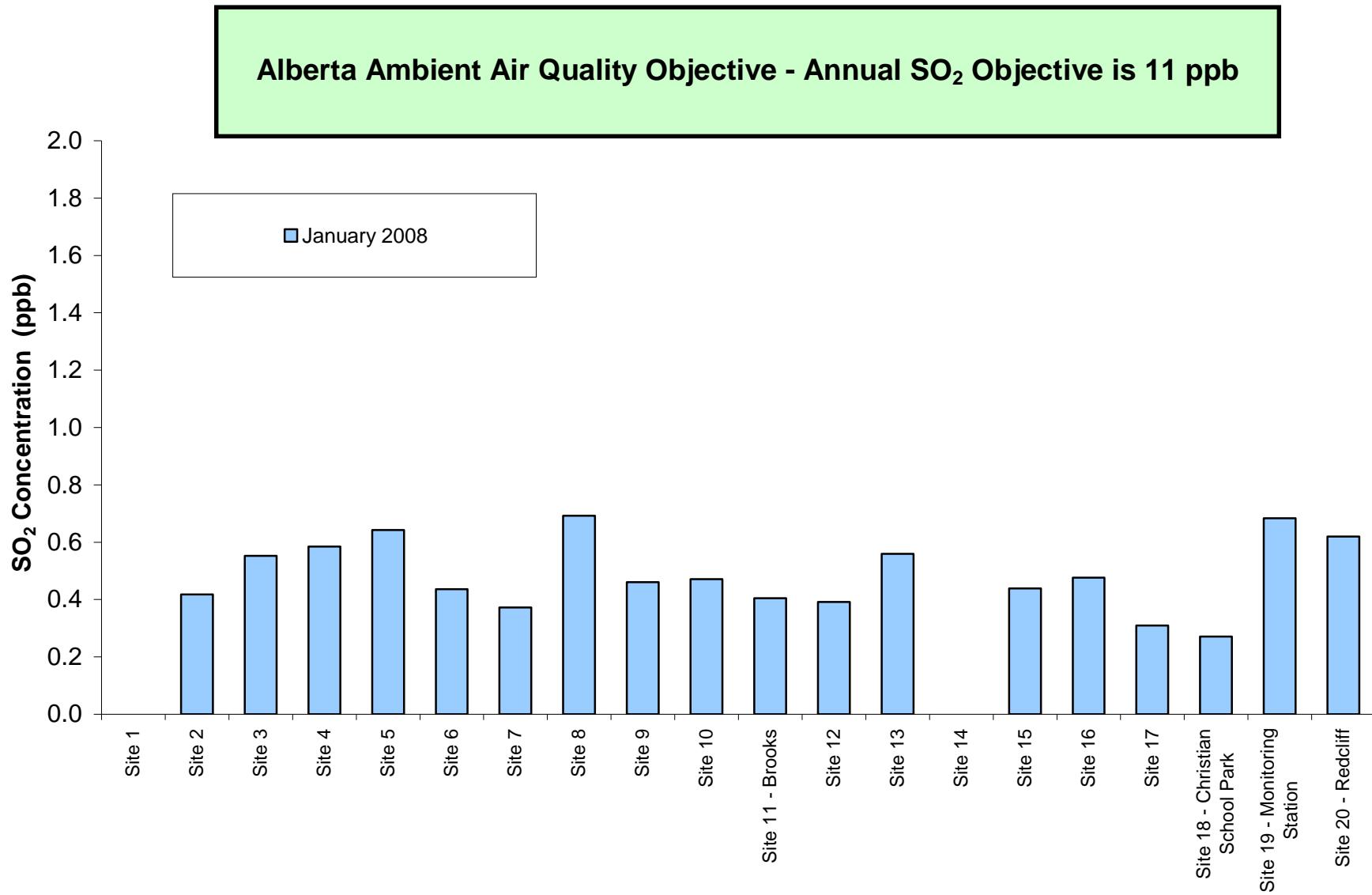
# **Palliser Airshed Society**

## **Passive Monitoring – January 2008**



**Palliser Airshed Society - Palliser Passive Stations for January 2008**  
**Palliser Passive Monitoring Expansion**

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Location Easting	Location Northing	Elevation meter
<b>Duplicates</b>							
5a	Site 5	0.5	29.9	2.0			
5b	Site 5	0.8	30.7	1.8			
15a	Site 15	0.5	42.3	0.6			
15b	Site 15	0.4	36.6	0.5			
1	Site 1	n/a	n/a	n/a	562434	5583139	719
2	Site 2	0.4	32.7	1.6	565416	5616277	
3	Site 3	0.6	35.1	1.5	533794	5675379	779
4	Site 4	0.6	32.2	1.5	554771	5717338	718
5	Site 5	0.6	30.3	1.9	494218	5715862	735
6	Site 6	0.4	29.3	2.7	433039	5673766	818
7	Site 7	0.4	28.3	2.4	400808	5620907	780
8	Site 8	0.7	35.4	2.5	498530	5621839	747
9	Site 9	0.5	32.7	2.0	487701	5591707	763
10	Site 10	0.5	31.3	2.9	478223	5613583	774
11	Site 11 - Brooks	0.4	28.3	5.3	439773	5604548	736
12	Site 12	0.4	29.2	1.6	450287	5587201	726
13	Site 13	0.6	33.7	1.0	464279	5548934	
14	Site 14	n/a	n/a	n/a	493206	5521201	870
15	Site 15	0.4	39.4	0.5	465824	5485742	874
16	Site 16	0.5	45.5	0.5	503827	5446942	903
17	Site 17	0.3	42.8	0.4	557668	5452307	942
18	Site 18 - Christian School Park	0.3	27.6	4.4	526575	5538135	709
19	Site 19 - Monitoring Station	0.7	31.8	5.7	522813	5544137	714
20	Site 20 - Redcliff	0.6	24.4	2.9	517479	5546059	725



**Figure 22. PAS – Sulphur Dioxide Passive Summary Chart**

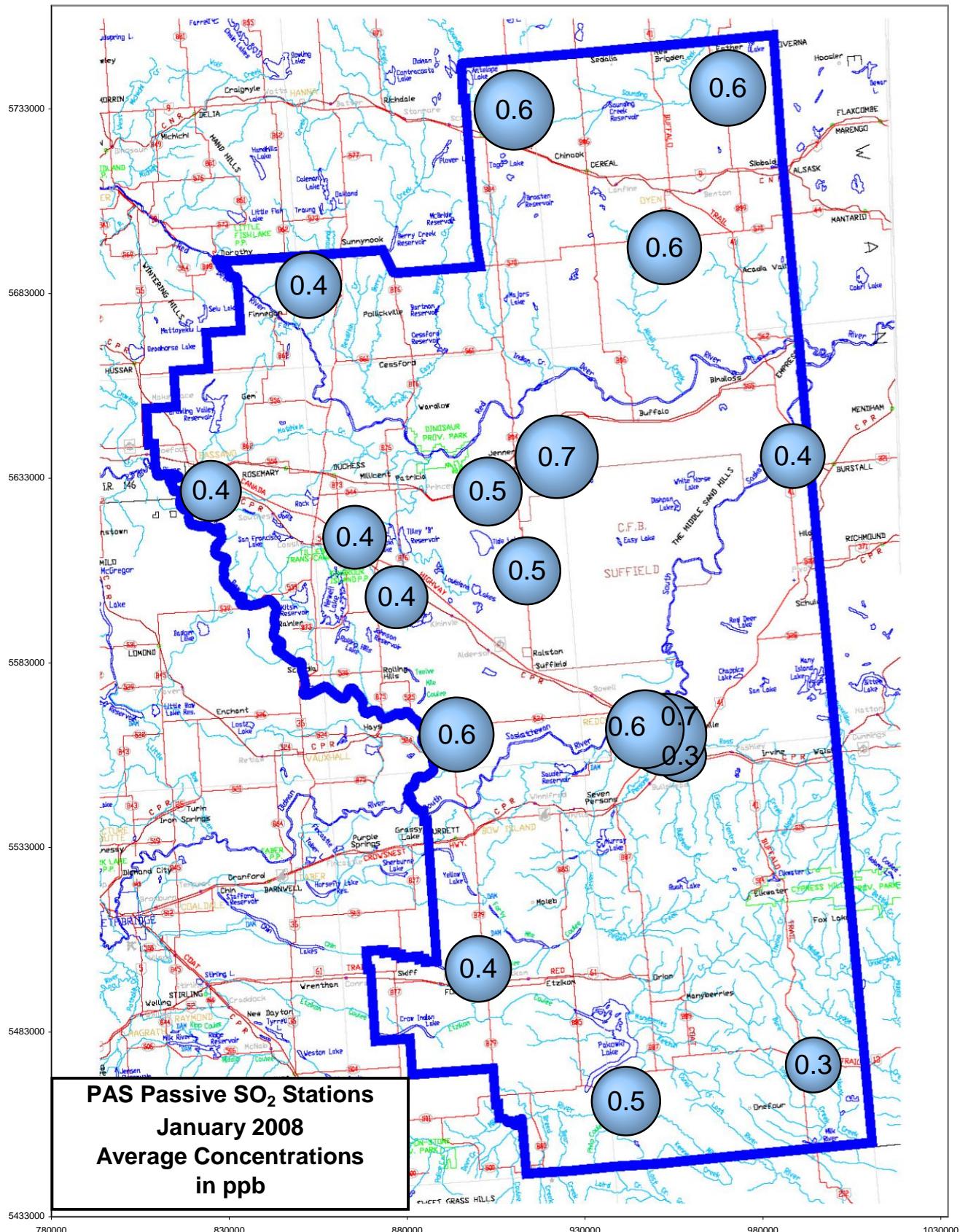
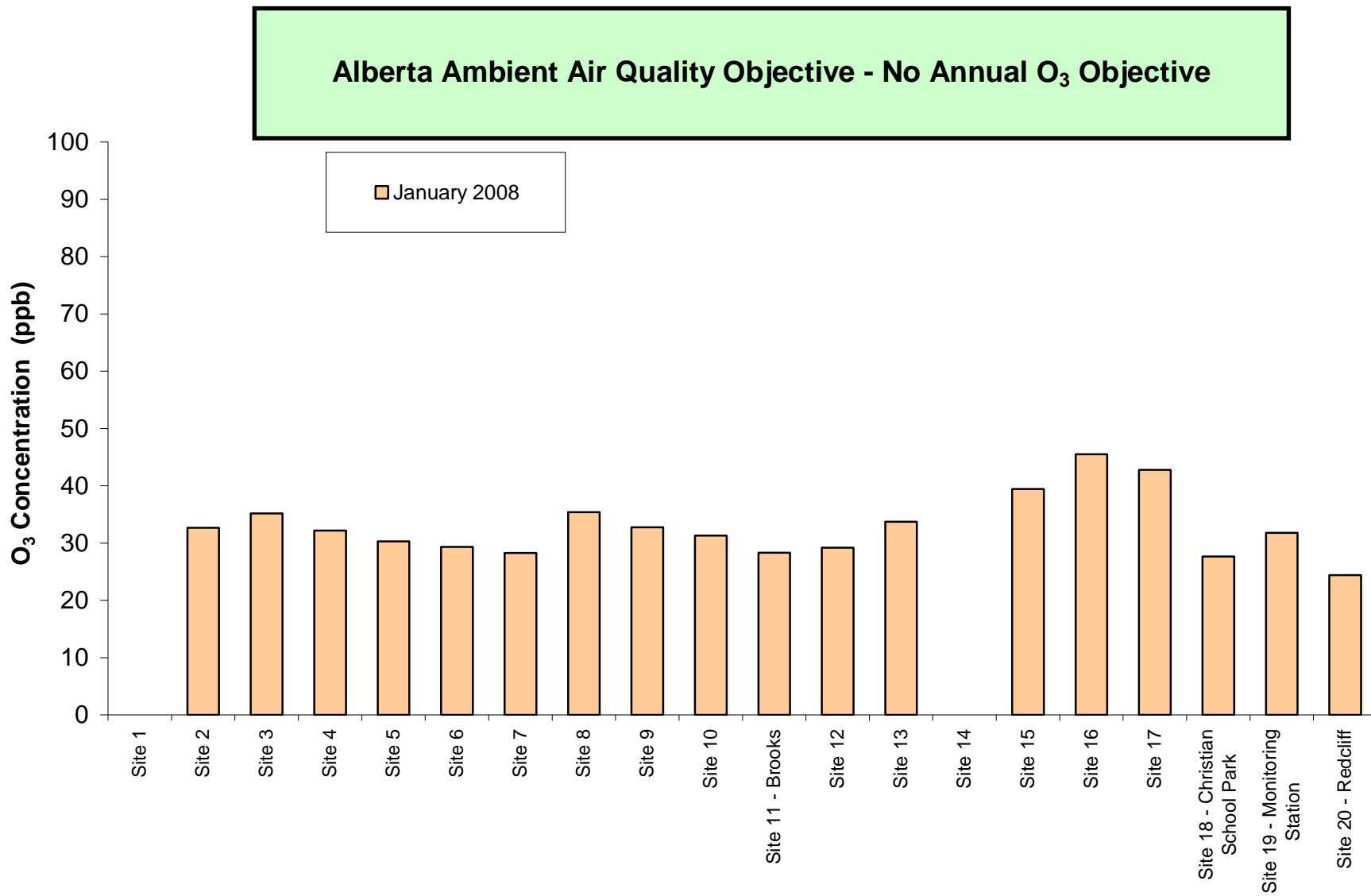


Figure 53. PAS – Sulphur Dioxide Passive Summary Bubble Chart



**Figure 54. PAS – Ozone Passive Summary Chart**

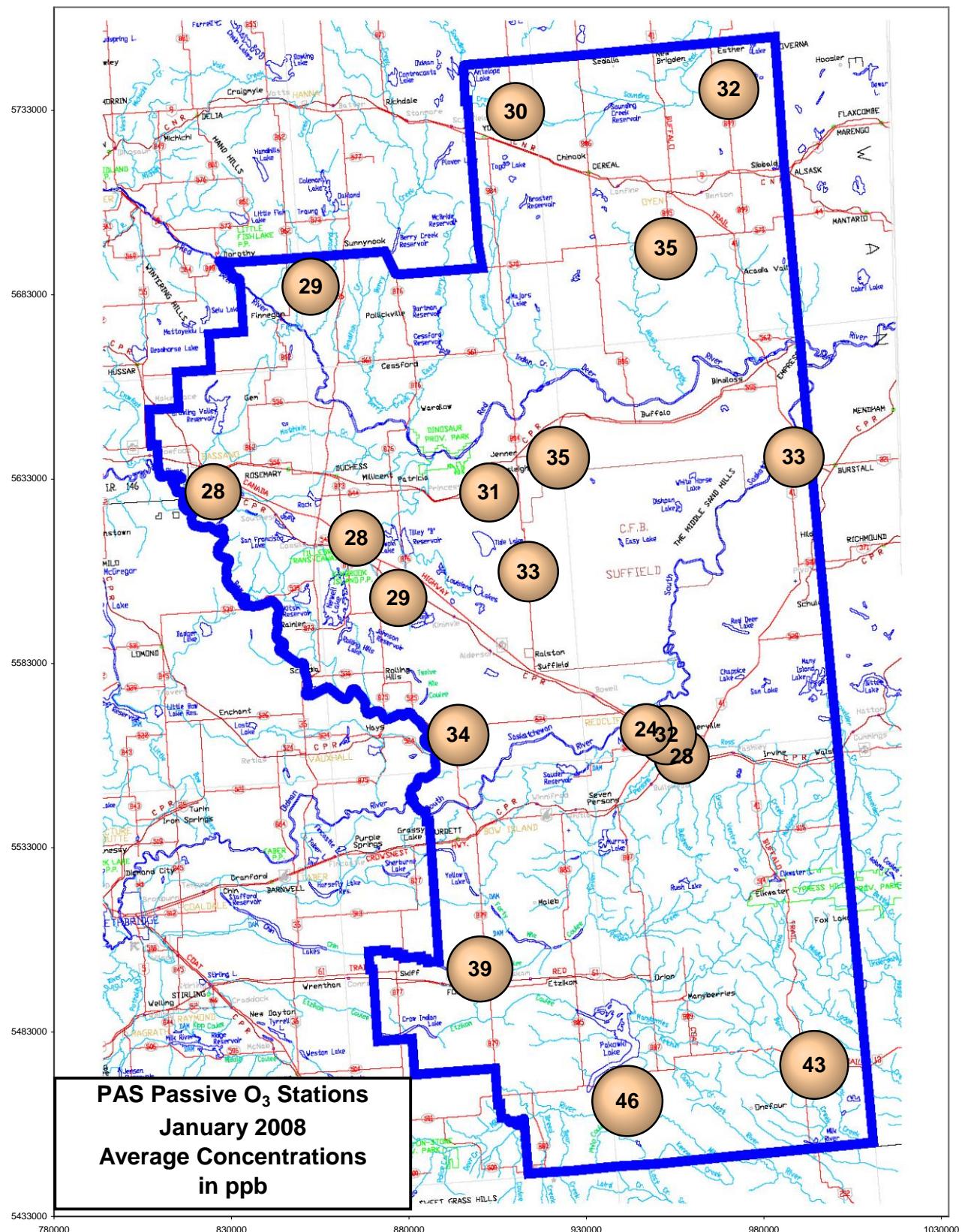


Figure 55. PAS – Ozone Passive Summary Bubble Chart

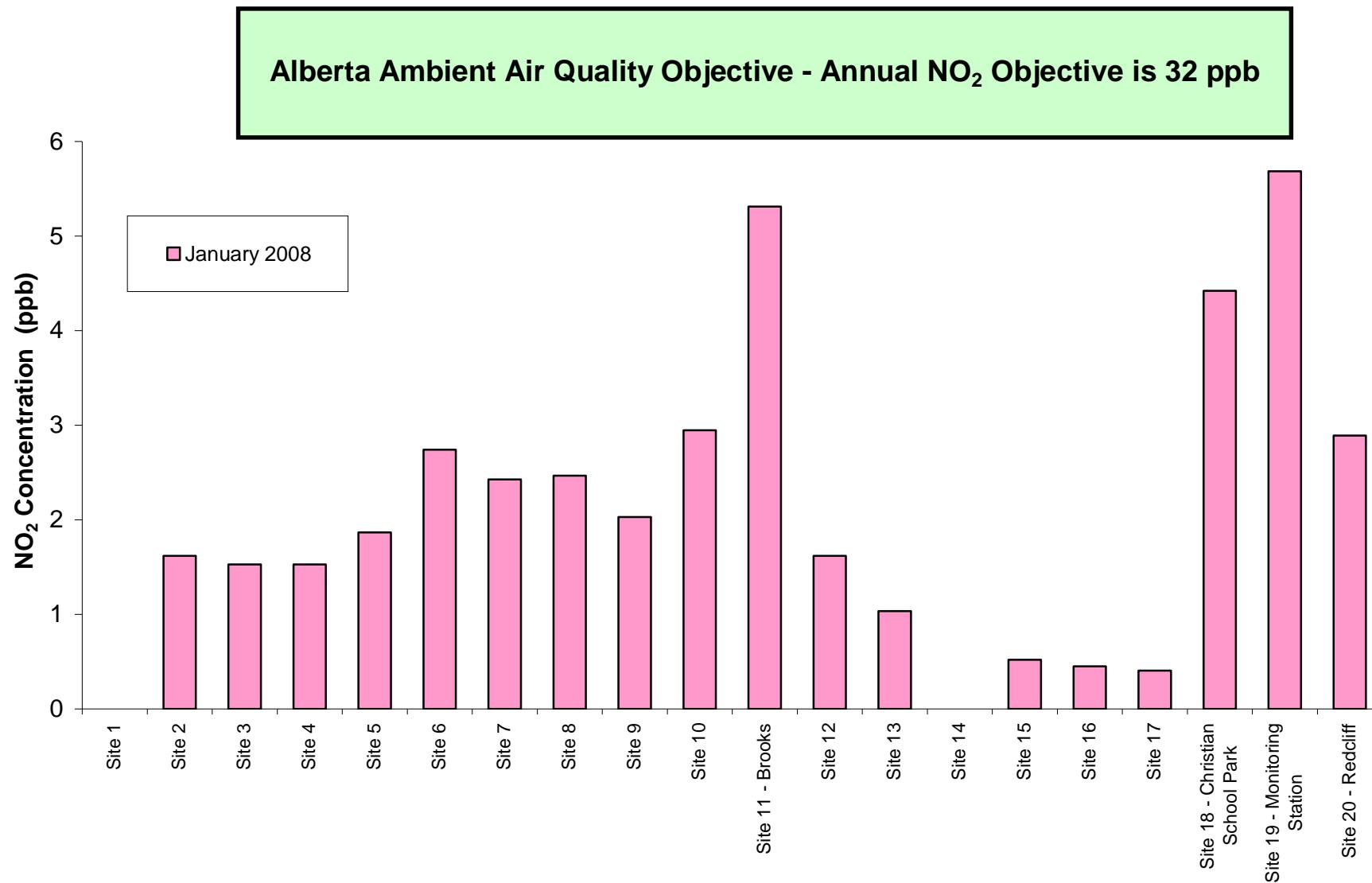


Figure 56. PAS – Nitrogen Dioxide Passive Summary Chart

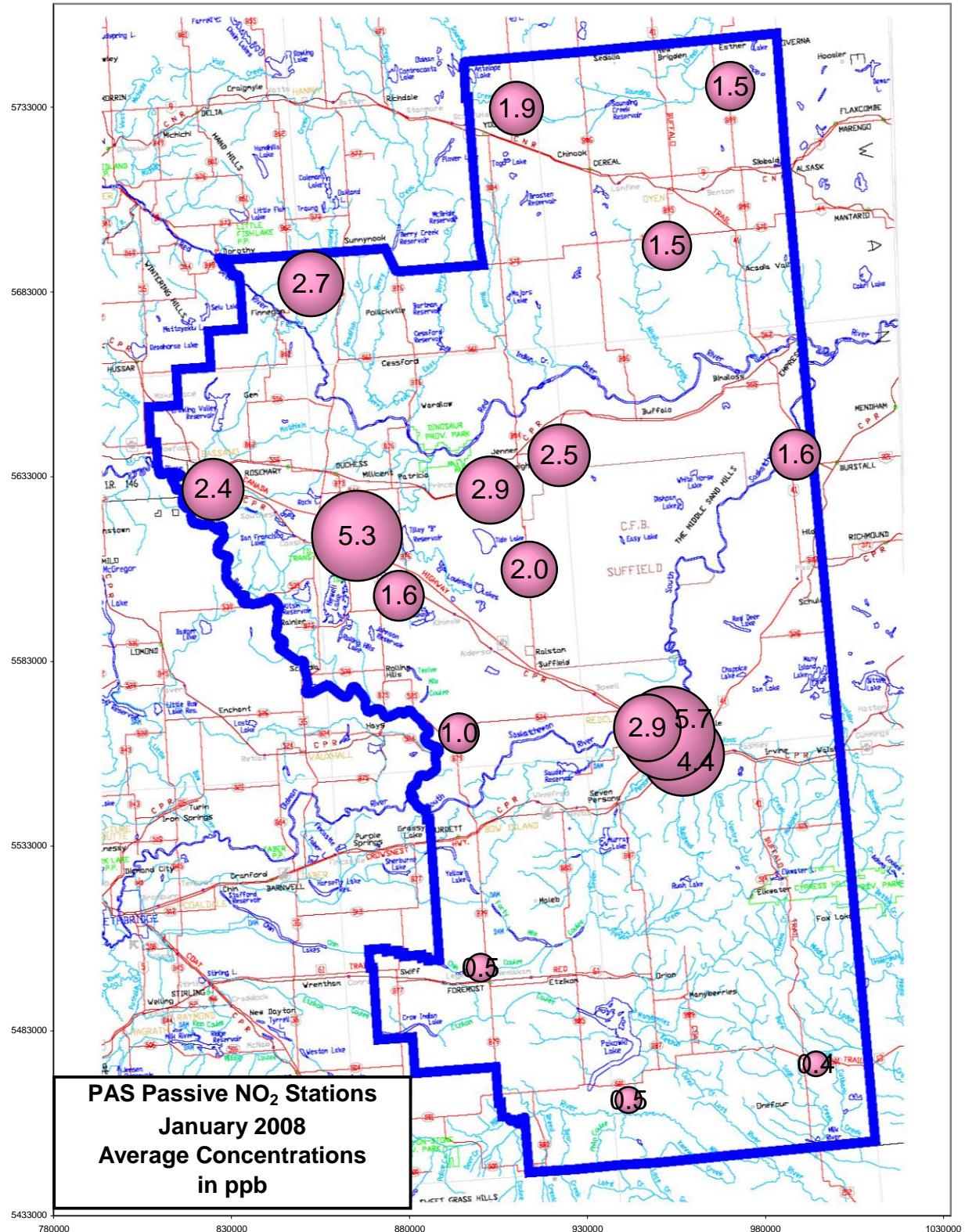


Figure 23. PAS – Nitrogen Dioxide Passive Summary Bubble Chart

# **Palliser Airshed Society January 2008 - Calibration Reports**

**Crescent Heights Station: O<sub>3</sub>, NO<sub>x</sub>, NO, NO<sub>2</sub>, THC and CO**

**Portable-Brooks: O<sub>3</sub>, SO<sub>2</sub>, and H<sub>2</sub>S**

# Calibration Report



## Parameter

03

Air Monitoring Network

Palliser Airshed

## **Station Information**

Calibration Date	January 30, 2008	Previous Calibration	December 14, 2007
Station Number	101	Station Location	Crescent Heights
Reason:	Routine	Calibration	Removal
Start Time (MST)	11:00	End Time (MST)	14:00
Barometric Pressure	27.3 inches Hg	Station Temperature	20.0 Deg C
Calibrator	Environics 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
	<u>Before</u>		<u>After</u>
Calculated slope	0.998458	Calculated slope	1.022171
Calculated intercept	-0.024060	Calculated intercept	-1.000474
Analyzer make	TEI 49i	Analyzer serial #	713021144
before			
Concentration range	0 - 500	ppb	0 - 500
O3 Background	0.6	ppb	0.5
O3 Coeff	1.099		1.004
CellA	86926.0	Hz	74419.0
CellB	116655.0	Hz	105907.0
Pressure	699.1	mmHg	692.1
Cell A Flow	724.0	ccm	725.0
Cell B Flow	714	ccm	709
Bench	32.2	Deg C	29.2

## **Calibration Data**

Dilution air flow rate (cc/min)	Ozone Set Point	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4997	0.0	0.0	0.1	N/A
4997	300.0	296.8	291.0	1.0199
4997	200.0	199.0	195.6	1.0175
4997	100.0	91.0	91.3	0.9971
4997	0.0	0.0	0.1	0.0000
4997	300.0	296.8	291.0	1.0199
Average Correction Factor				1.0115

Calculated value of As Found Response:

290.4 ppm

Percent Change of As Found: -2.2%

	before calibration		after calibration	
Auto zero	1.5	ppb	1.2	ppb
Auto span	277.8	ppb	288.3	ppb

Notes: No adjustments were done...

Calibration Performed By: Lenin Flores

## Calibration Summary

Parameter	O3	
Air Monitoring Network		Palliser Airshed



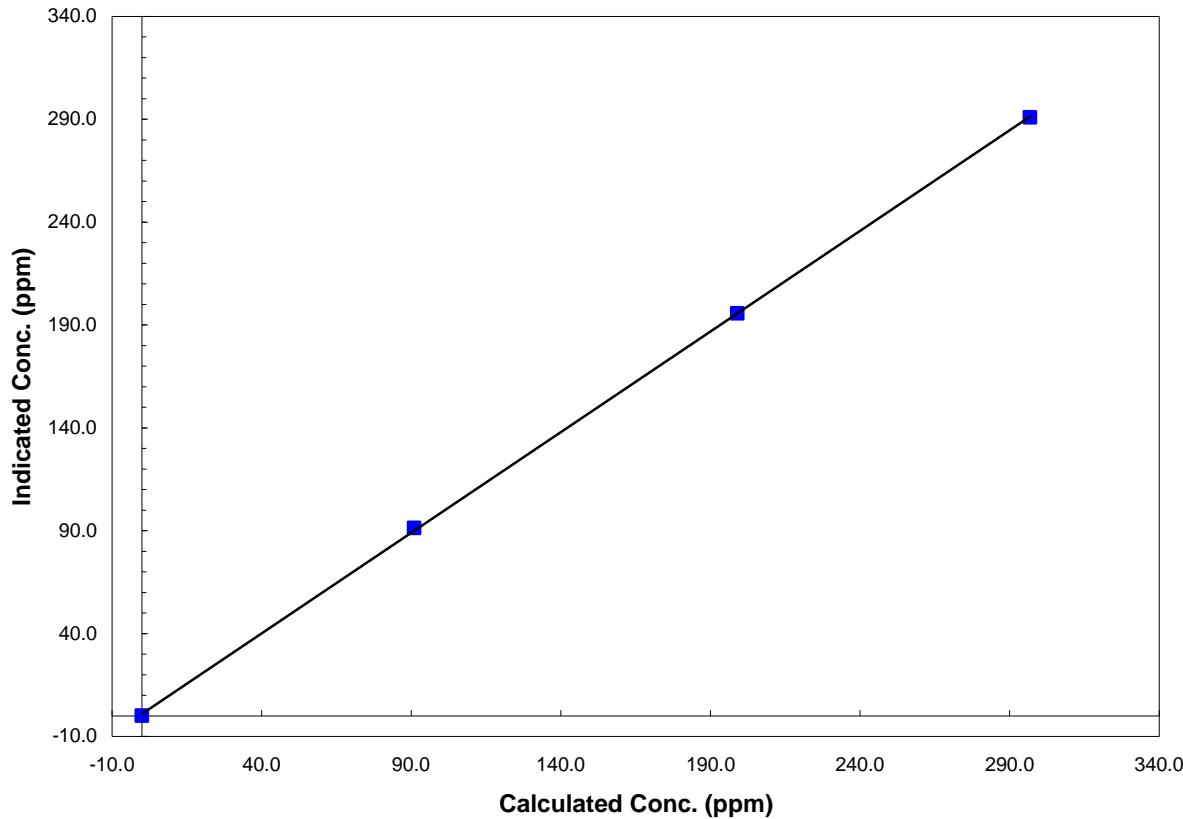
### Station Information

Calibration Date	January 30, 2008	Previous Calibration	December 14, 2007
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	11:00	End Time (MST)	14:00
Analyzer make/model	TEI 49i	Analyzer serial #	713021144

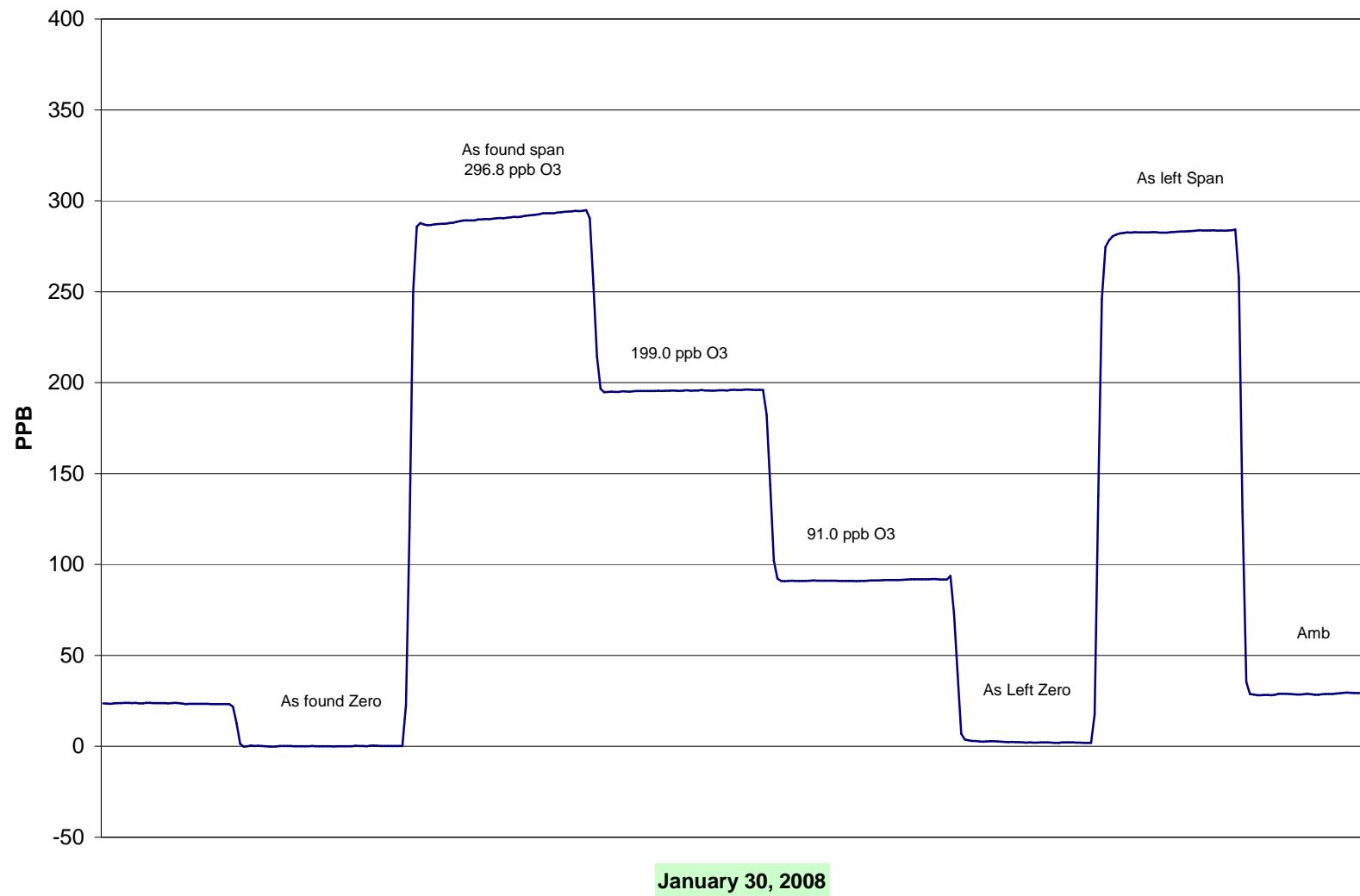
### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
296.8	291.0	1.0199		
199.0	195.6	1.0175	Correlation Coefficient	0.999949
91.0	91.3	0.9971	Slope	1.022171
0.0	0.1	N/A	Intercept	-1.000474

### O3 Calibration Curve



### Crescent Heights O3 Calibration



# Calibration Report

Parameter

Air Monitoring Network

NO<sub>x</sub>-NO-NO<sub>2</sub>

Palliser Airshed



## Station Information

Calibration Date	January 29, 2008	Previous Calibration	December 14, 2007
Station Number	101	Station Location	Crescent Heights
Reason:	Routine	Installation	Removal
			Other: _____
Start Time (MST)	15:41	End Time (MST)	21:30
Barometric Pressure	0.912	Station Temperature	20.0 Deg C
Calibrator	Environics 6103	Serial Number	2844
NO Cal Gas Conc	48.9 ppm	Cal Gas Expiry Date	January 29, 2008
NOx Cal Gas Conc	48.9 ppm	Cal Gas Serial #	LL-50114

## DACS Information

DACS make	FOCUS AP1000	DACS serial No.	45270
Parameter	NO2	NOx	NO
Before	Data Slope 0.997249	0.993289	0.993871
	Data Offset 1.273594	4.728337	3.981210
After	Data Slope 1.002923	1.007990	1.002682
	Data Offset 1.144071	2.047685	2.387717
Channel #	8	6	7
Voltage Range	0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

## Analyzer Information

Analyzer make/model	API Model 200E	Analyzer serial #	219	
Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	-0.1	mV	-9.0	mV
NOx offset	0.8	mV	-5.5	mV
NO slope	2.841		1.237	
NOx slope	2.852		1.227	
R Cell Temp	50.0	Deg C	49.6	Deg C
PMT Temp	7.0	Deg C	7.0	Deg C
Azero	44.1	mV	57.9	mV
IZS Temp	40.2	Deg C	37.1	Deg C
R Cell Press	3.9	in Hg	4.2	in Hg
Sample Press	27.4	in Hg	26.1	in Hg
O3 Flow	75.0	ccm	75.0	ccm
Sample Flow	457.0	ccm	450.0	ccm

Notes: Adjusted Zero and Span... The rest of the calibration went pretty good...

---

## Calibration Report



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

### Station Information

Calibration Date: **January 29, 2008**Station Location: **Crescent Heights**

### Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	-1.1	-1.1	-1.7	N/A	N/A
1	4995	39.95	388.0	388.0	0.0	383.2	385.2	-3.3	1.0125	1.0072
2	4995	19.96	194.6	194.6	0.0	191.0	191.0	-1.6	1.0187	1.0187
3	4995	9.99	97.6	97.6	0.0	93.5	93.8	-1.9	1.0435	1.0411
AFZ	4995	0.00	0.0	0.0	0.0	-15.3	-4.8	-12.2	0.0000	0.0000
AFS	4995	39.95	388.0	388.0	0.0	337.5	346.1	-9.9	1.1494	1.1211
						Average Correction Factor		1.0249	1.0223	

As Found Concentrations: NO<sub>x</sub>= 357.5      NO= 354.8      As Found Percent Change NO<sub>x</sub>= -7.9%      NO= -8.6%

### GPT Calibration Data

Dilution Flow **4996** ccm      Source Gas Flow **39.93** ccm

O <sub>3</sub> Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NOx Correction factor	NO Correction factor	NO <sub>2</sub> Correction factor	Converter Efficiency
0	-4.8	-4.8	0.0	-1.1	-1.1	-1.7	N/A	N/A	N/A	N/A
NO point	385.8	385.8	0.0	385.4	385.8	-1.6	1.0009	1.0000	N/A	N/A
300	385.8	89.0	296.8	385.2	89.0	294.1	1.0016	1.0000	1.0090	99.1%
200	385.8	186.8	199.0	386.4	186.8	198.0	0.9984	1.0000	1.0049	99.5%
100	385.8	294.8	91.0	386.2	294.8	90.0	0.9989	1.0000	1.0106	98.9%
				Average Correction Factor		0.9996	1.0000	1.0082	99.2%	

### AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO <sub>2</sub>	NO	ppb	NOx	NO <sub>2</sub>	NO	ppb
Auto zero					0.4	-0.9	0.6	
Auto span				ppb	284.6	277.3	5.3	ppb

Calibration Performed By: **Jorge Lenin Flores**

## Calibration Summary

Parameter **NO<sub>2</sub>**  
 Air Monitoring Network **Palliser Airshed**



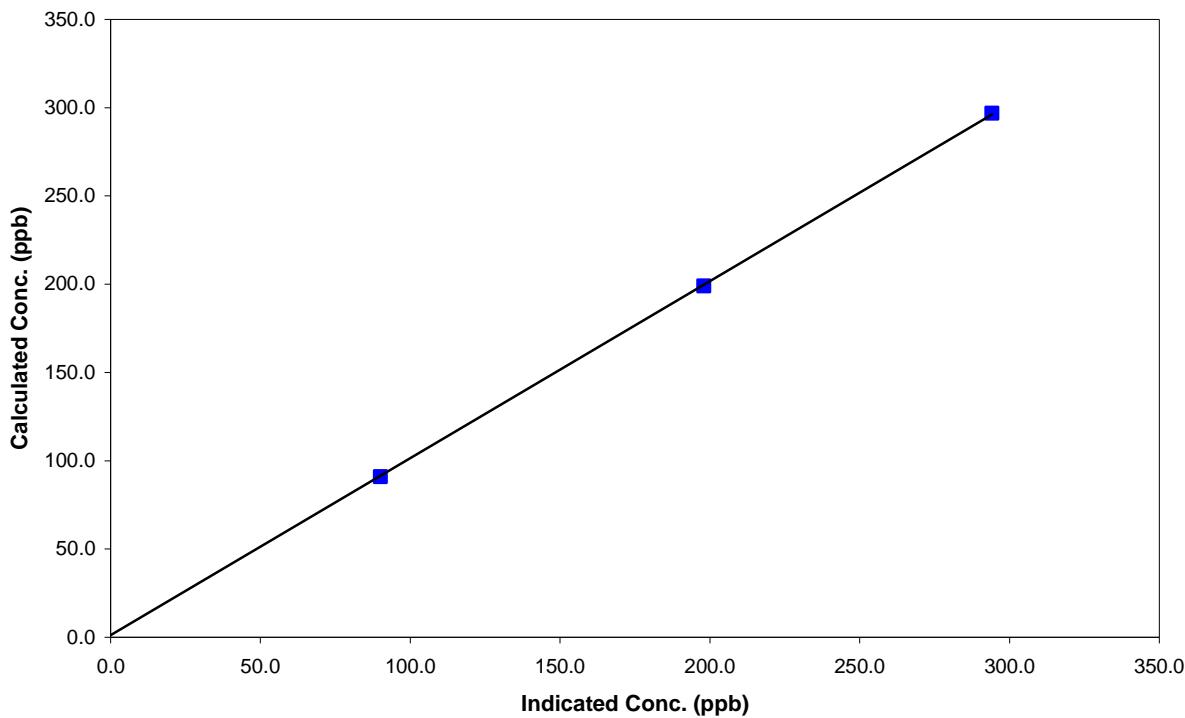
### Station Information

Calibration Date	January 29, 2008	Previous Calibration	December 14, 2007
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	15:41	End Time (MST)	21:30
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	-1.7	N/A		
296.8	294.1	1.0090	Correlation Coefficient	0.999970
199.0	198.0	1.0049	Slope	1.002923
91.0	90.0	1.0106	Intercept	1.144071

### NO<sub>2</sub> Calibration Curve



## Calibration Summary

Parameter **NO<sub>x</sub>**  
 Air Monitoring Network **Palliser Airshed**



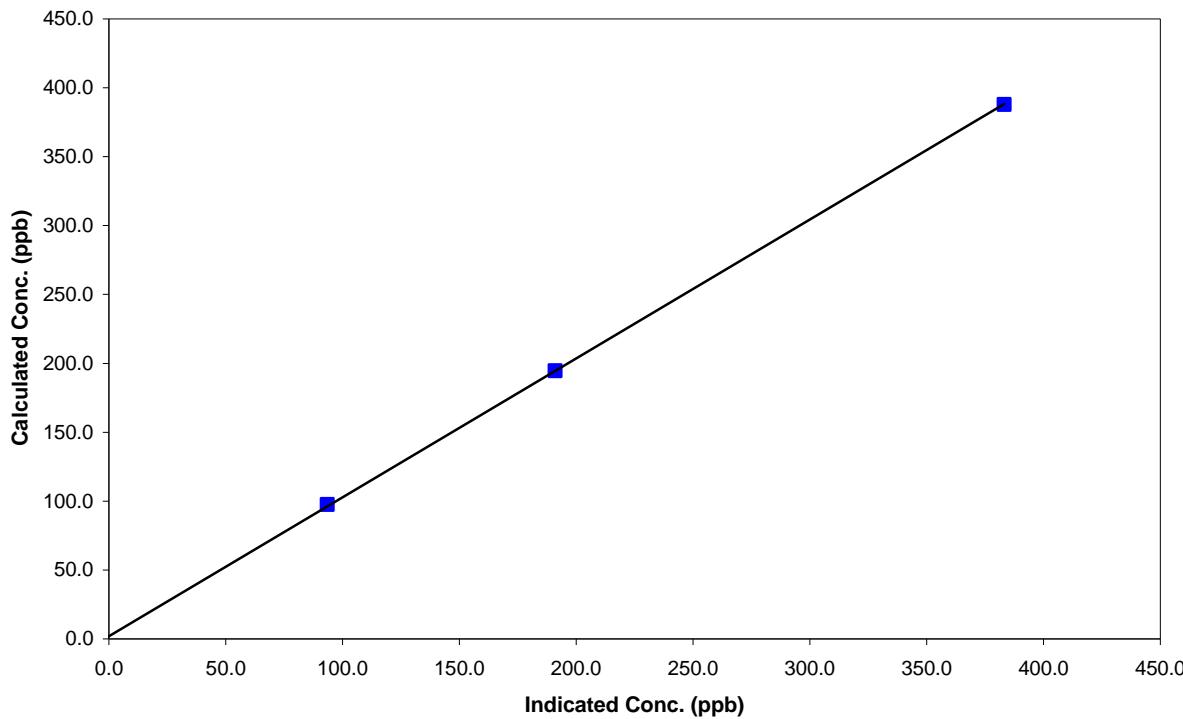
### Station Information

Calibration Date	January 29, 2008	Previous Calibration	December 14, 2007
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	15:41	End Time (MST)	21:30
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	-1.1	N/A	Correlation Coefficient	0.999968
388.0	383.2	1.0125		
194.6	191.0	1.0187		
97.6	93.5	1.0435		
			Slope	1.007990
			Intercept	2.047685

### NOx Calibration Curve



## Calibration Summary

## Parameter NO

## Air Monitoring Network

NO

Palliser Airshed



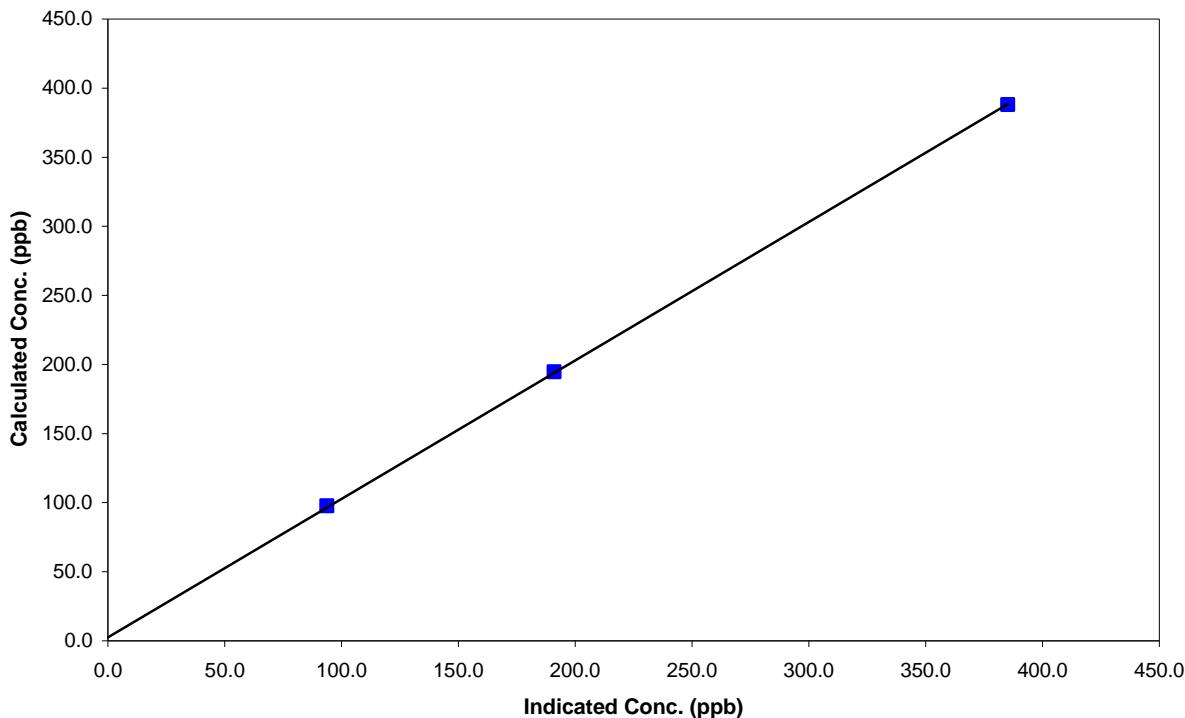
## **Station Information**

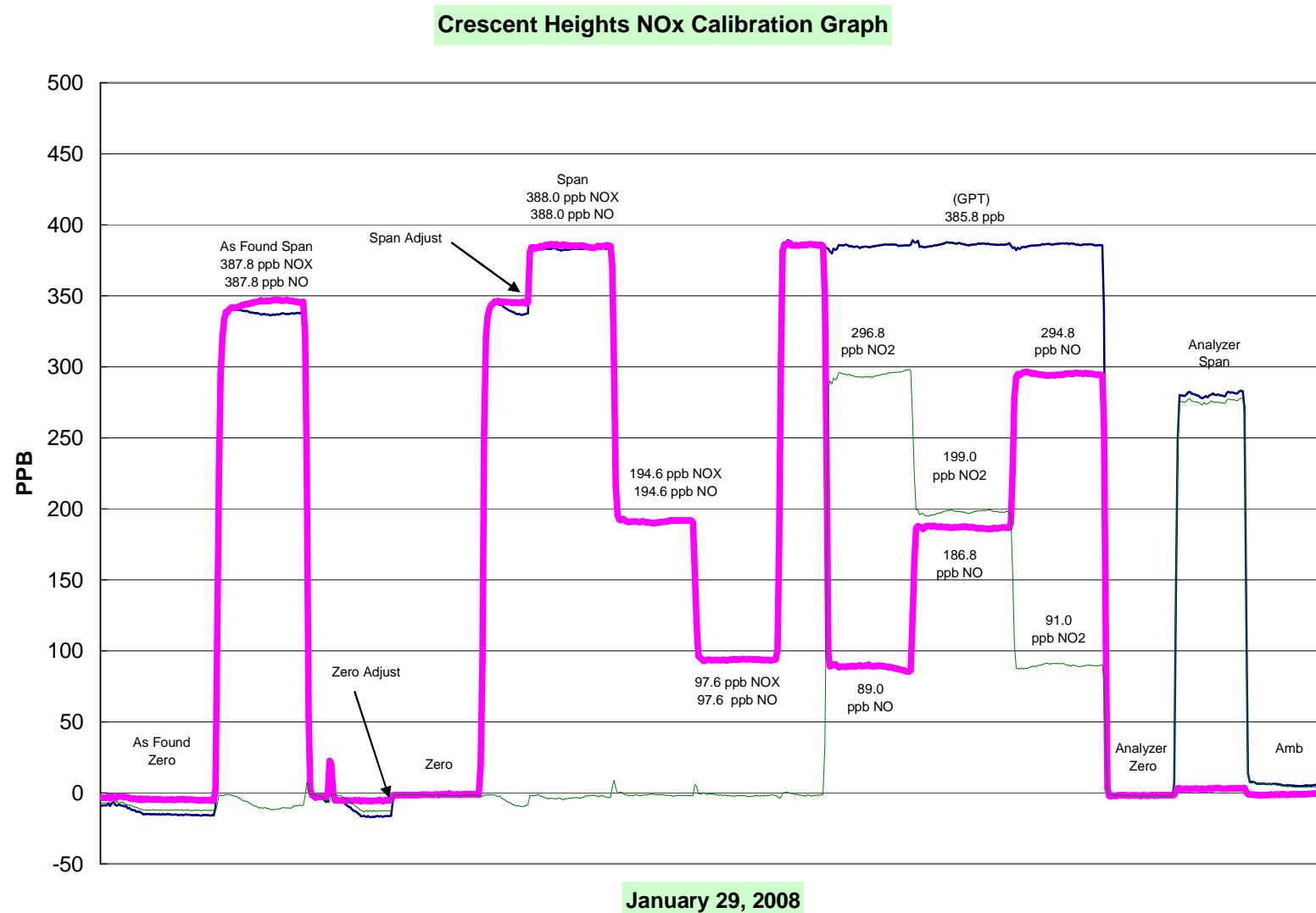
Calibration Date	January 29, 2008	Previous Calibration	December 14, 2007
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	15:41	End Time (MST)	21:30
Analyzer make	API Model 200E	Analyzer serial #	219

## **Calibration Data**

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-1.1	N/A		
388.0	385.2	1.0072	Correlation Coefficient	0.999953
194.6	191.0	1.0187	Slope	1.002682
97.6	93.8	1.0411		
			Intercept	2.387717

## NO Calibration Curve





## Calibration Report



Parameter	THC			
Air Monitoring Network	Palliser Airshed			
<b>Station Information</b>				
Calibration Date	January 29, 2008		Previous Calibration	
Station Number	101		Station Location	
Reason:	Routine	Install	Removal	
Start Time (MST)	14:00	End Time (MST)	16:30	
Barometric Pressure	27.6 inches Hg	Station Temperature	20.0 Deg C	
Calibrator	Environics 6103			
Cal Gas Concentrator	708 ppm CH <sub>4</sub> / 299 ppm C <sub>3</sub> H <sub>8</sub>			
Cal Gas CH4 equiv	1530.25 ppm			
DACS make	Focus AP1000			
DACS voltage range	0 - 10 volt			
	Before			
Calculated slope	0.999841			
Calculated intercept	-0.005392			
Analyzer make	TEI 51C-LT	Analyzer serial #	0407505596	
Concentration range	before		after	
	0 - 50	ppm	0 - 50	ppm
	5.74	PSI	5.75	PSI
	12558	raw	12558	raw
	1591	raw	1591	raw
V Bias	-327	Volts	-327	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)
4995	0.00	0.00	0.04	N/A
4995	79.94	24.10	23.46	1.0275
4995	39.95	12.14	11.78	1.0307
4995	9.97	3.05	2.83	1.0763
4995	0.00	0.00	0.04	As Found Zero
4995	79.86	24.08	23.46	As Found Span
Average Correction Factor				1.0448

Calculated value of As Found Response: 23.408 ppm      Percent Change of As Found: 2.8%

Auto zero	before calibration		after calibration	
	0.00	ppm	-0.09	ppm
	21.07	ppm	19.75	ppm

Notes: No adjustments made...

Calibration Performed By: Lenin Flores

## Calibration Summary



Parameter	THC	Palliser Airshed
Air Monitoring Network		

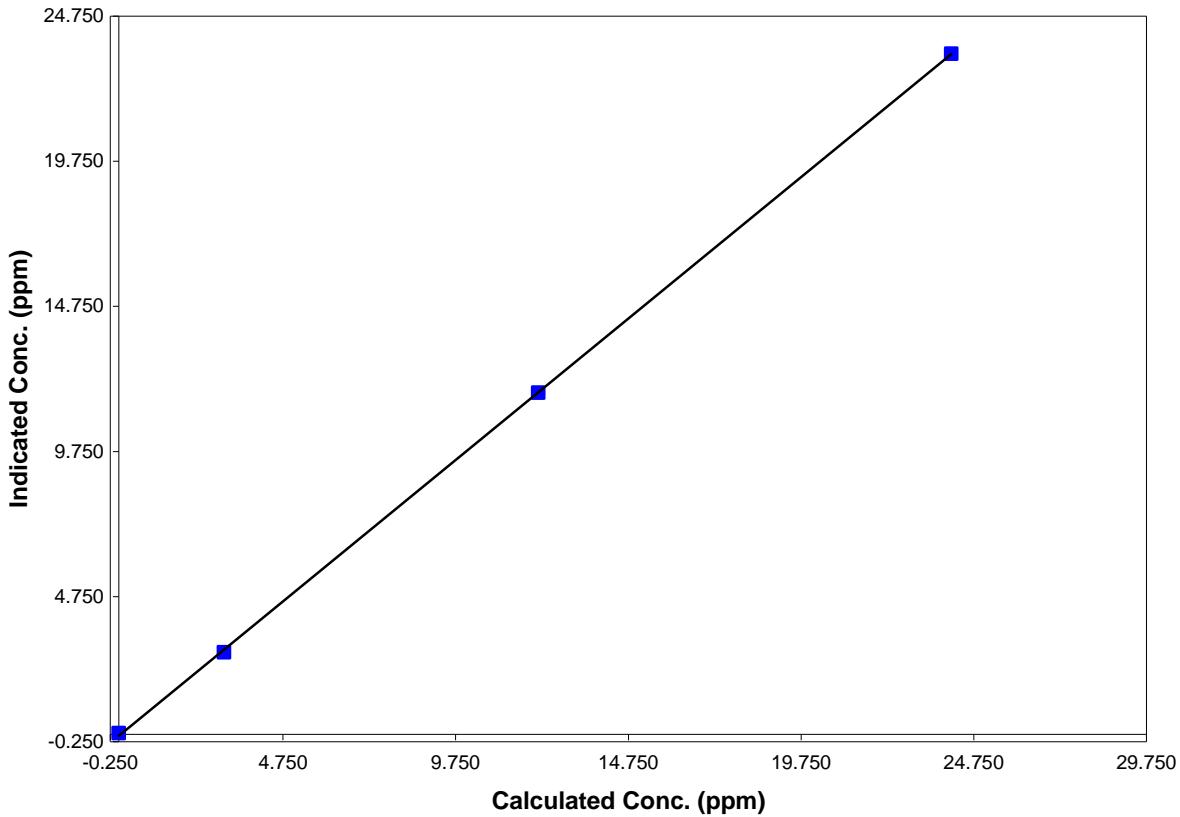
### Station Information

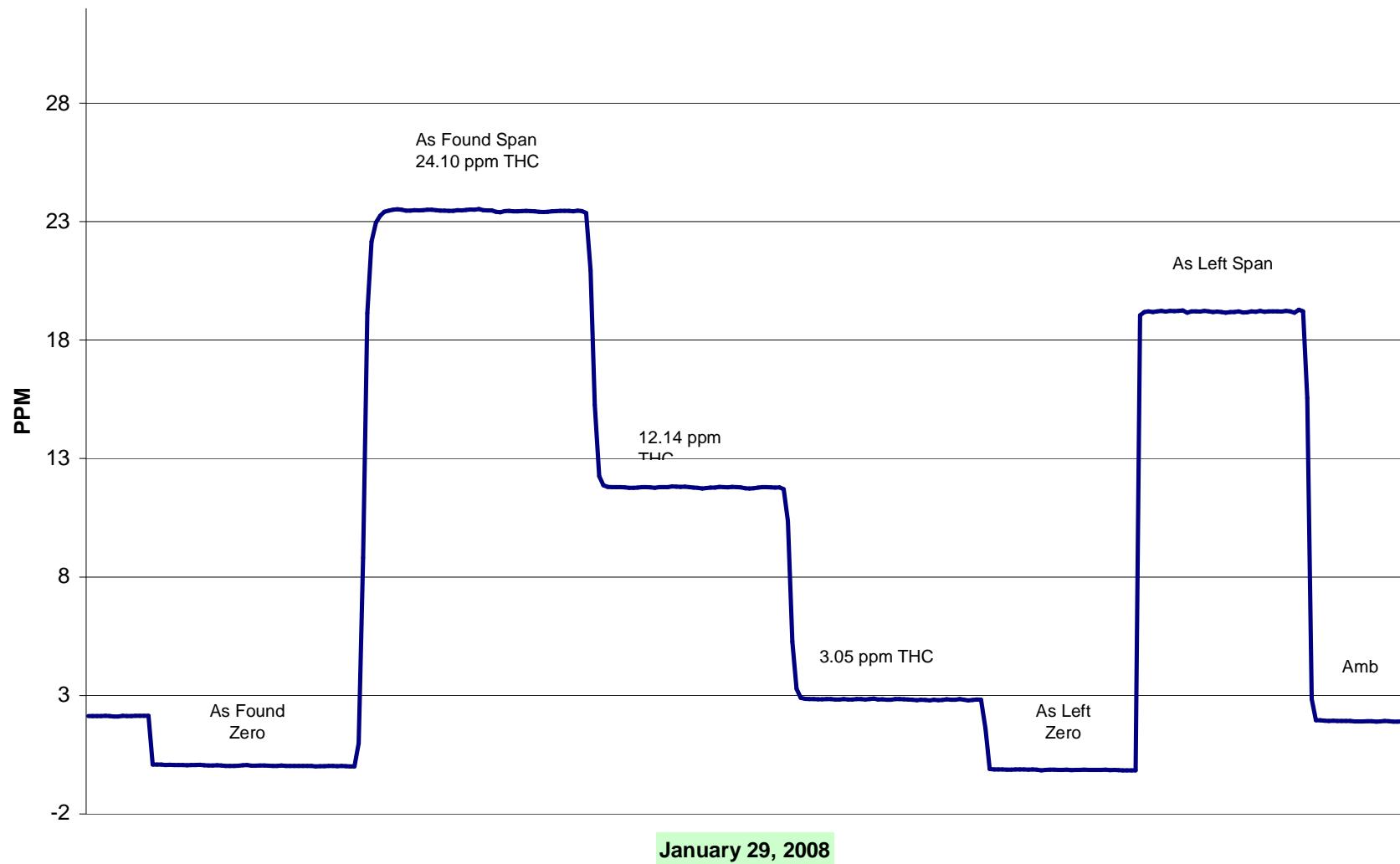
Calibration Date	January 29, 2008	Previous Calibration	December 13, 2007
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	14:00	End Time (MST)	16:30
Analyzer make/model	TEI 51C-LT	Analyzer serial #	0407505596

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.042	N/A		
24.104	23.459	1.0275	Correlation Coefficient	0.999950
12.142	11.780	1.0307	Slope	1.026208
3.048	2.832	1.0763	Intercept	0.045243

### THC Calibration Curve



**Crescent Heights THC Calibration**

## Calibration Report



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

### Station Information

Calibration Date	January 30, 2008	Previous Calibration	December 13, 2007
Station Number	101	Station Location	Crescent Heights
Reason:	Routine	Install	Removal
Other:			
Start Time (MST)	8:15	End Time (MST)	12:05
Barometric Pressure	27.28 in Hg	Station Temperature	20.0 Deg C
Calibrator	Environics 6103	Serial Number	2844
Cal Gas Conc	2998 ppm	Cal Gas Expiry Date	3/14/2008
DACS make	Focus AP1000	DACS serial No.	45270
DACS voltage range	0 - 1 volt	DACS channel #	11
	Before		After
Calculated slope	0.978722	Calculated slope	1.031211
Calculated intercept	-0.502874	Calculated intercept	-0.407186
Analyzer make	TEI Model 48C	Analyzer serial #	436609887
Concentration range	before	after	
CO coefficient	0 - 50 ppm	0 - 50 ppm	
CO bkg setting	1.080	1.106	
Lamp ratio	1.202	3.56	
Lamp intensity	1.141572	1.138325	
Sample Flow	199242 Hz	199960 Hz	
	1.011 LPM	1.008 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)
3996	0.00	0.00	0.94	N/A
3996	49.94	37.01	36.63	1.0102
3996	29.96	22.31	21.55	1.0353
3996	9.96	7.45	7.20	1.0348
3996	0.00	0.00	0.94	0.0000
3996	49.94	37.01	39.89	0.9276
Average Correction Factor				1.0268

Calculated value of As Found Response: **37.617 ppm** Percent Change of As Found: **-1.7%**

Auto zero	before calibration		after calibration	
			-0.61	ppm
	19.35	ppm	19.08	ppm

Notes: Adjusted Zero, no Span adjustment was necessary...

Calibration Performed By: Lenin Flores

## Calibration Summary



Parameter	CO
Air Monitoring Network	Palliser

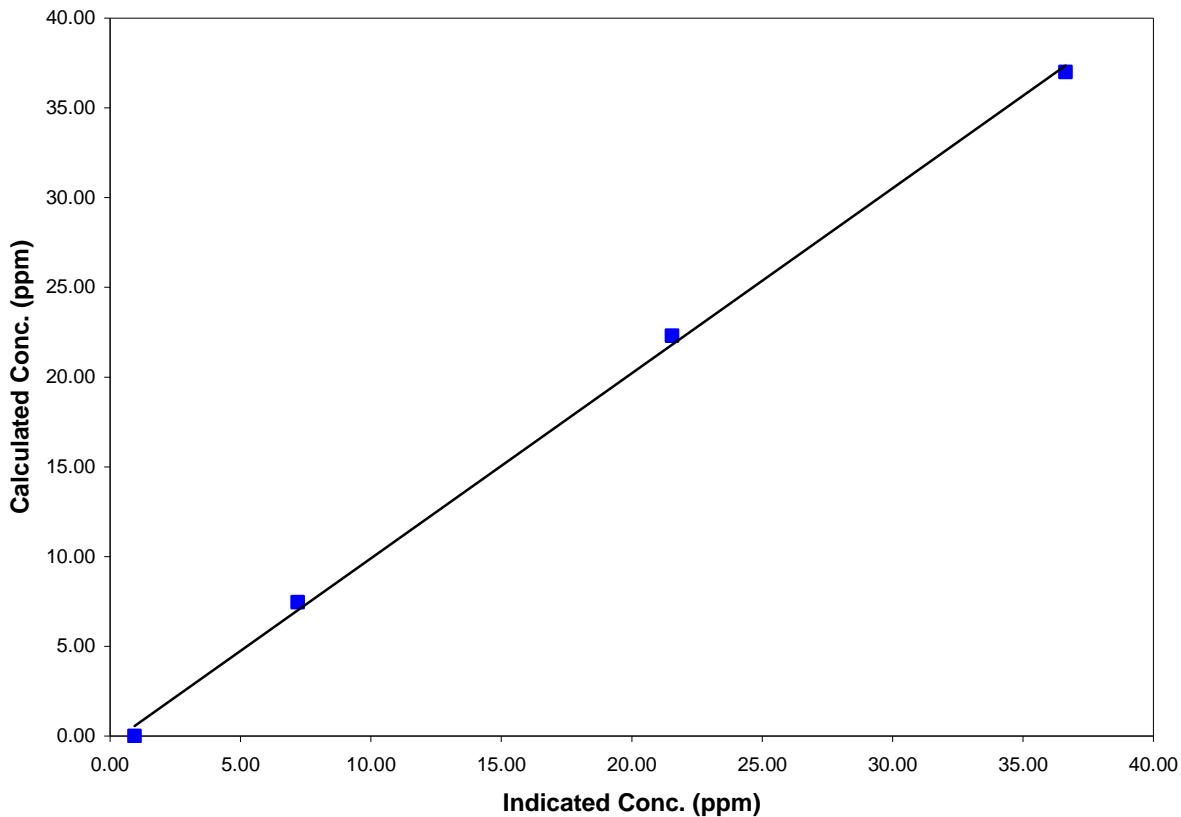
### Station Information

Calibration Date	January 30, 2008	Previous Calibration	December 13, 2007
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	8:15	End Time (MST)	12:05
Analyzer make/model	TEI Model 48C	Analyzer serial #	436609887

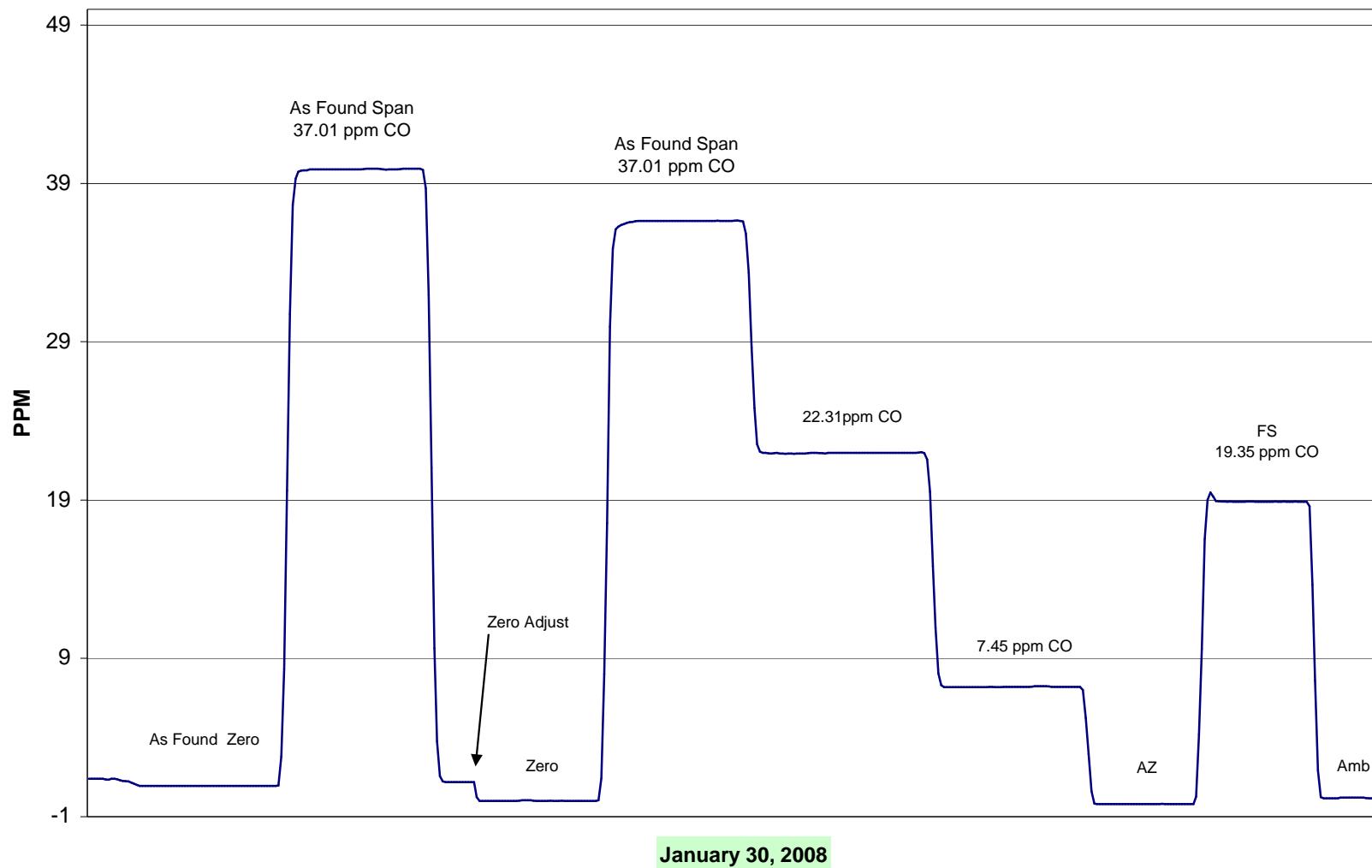
### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.00	0.94	N/A		
37.01	36.63	1.0102	Correlation Coefficient	0.998906
22.31	21.55	1.0353	Slope	1.031211
7.45	7.20	1.0348	Intercept	-0.407186

### CO Calibration Curve



### Crescent Heights CO Calibration



# Calibration Report



Parameter

O3

Air Monitoring Network

PAS

## Station Information

Calibration Date	January 17, 2008	Previous Calibration	December 17, 2007
Station Number	110	Station Location	Rover - Brooks
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	14:50	End Time (MST)	17:20
Barometric Pressure	27.5 inches Hg	Station Temperature	20.0 Deg C
Calibrator	Environics 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	0.940746	Calculated slope	0.966191
Calculated intercept	-0.992664	Calculated intercept	-1.769017
Analyzer make	API Model 400E	Analyzer serial #	331
Concentration range	before	after	
Offset	0 - 500 ppb	0 - 500 ppb	
Slope	-11	-11	
Lamp measure	1.038 mV	1.038 mV	
Lamp Reference	4479.1 mV	4383.0 mV	
Pressure	4478.9 mV	4385.1 mV	
Sample Flow	26.1 inches Hg	26.6 inches Hg	
Sample temp	670 ccm	637 ccm	
	34.8 Deg C	35.7 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	1.1	N/A
4996	300.0	296.8	308.4	0.9623
4996	200.0	199.0	208.3	0.9553
4996	100.0	91.0	96.8	0.9398
4996	0.0	0.0	1.1	As Found Zero
4996	300.0	296.8	308.4	As Found Span
		Average Correction Factor	0.9525	

Calculated value of As Found Response: 288.1 ppm Percent Change of As Found: -2.9%

Auto zero	before calibration		after calibration	
	-0.2 ppb		3.0 ppb	
	393.0 ppb		419.1 ppb	

Notes: No adjustents were made...

Calibration Performed By: Lenin Flores, Travis Mehrer

## Calibration Summary



Parameter **O3**

Air Monitoring Network

**PAS**

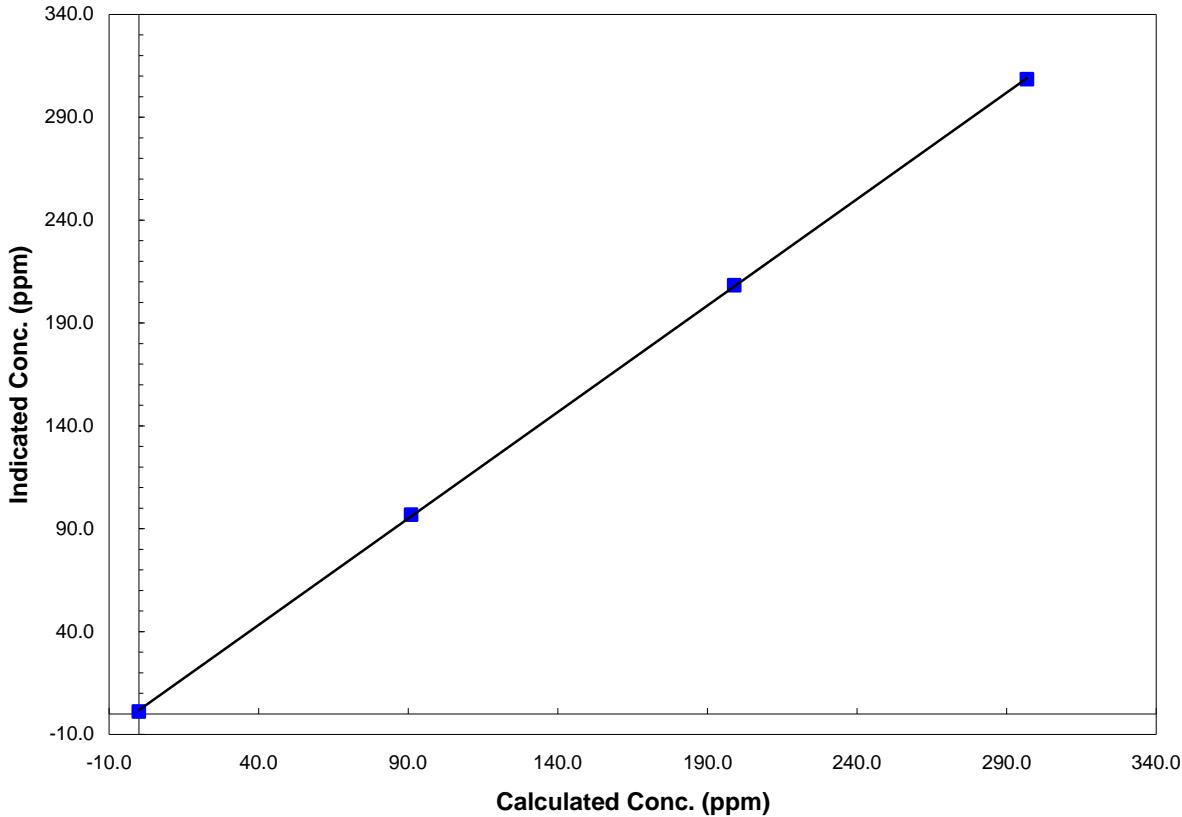
### Station Information

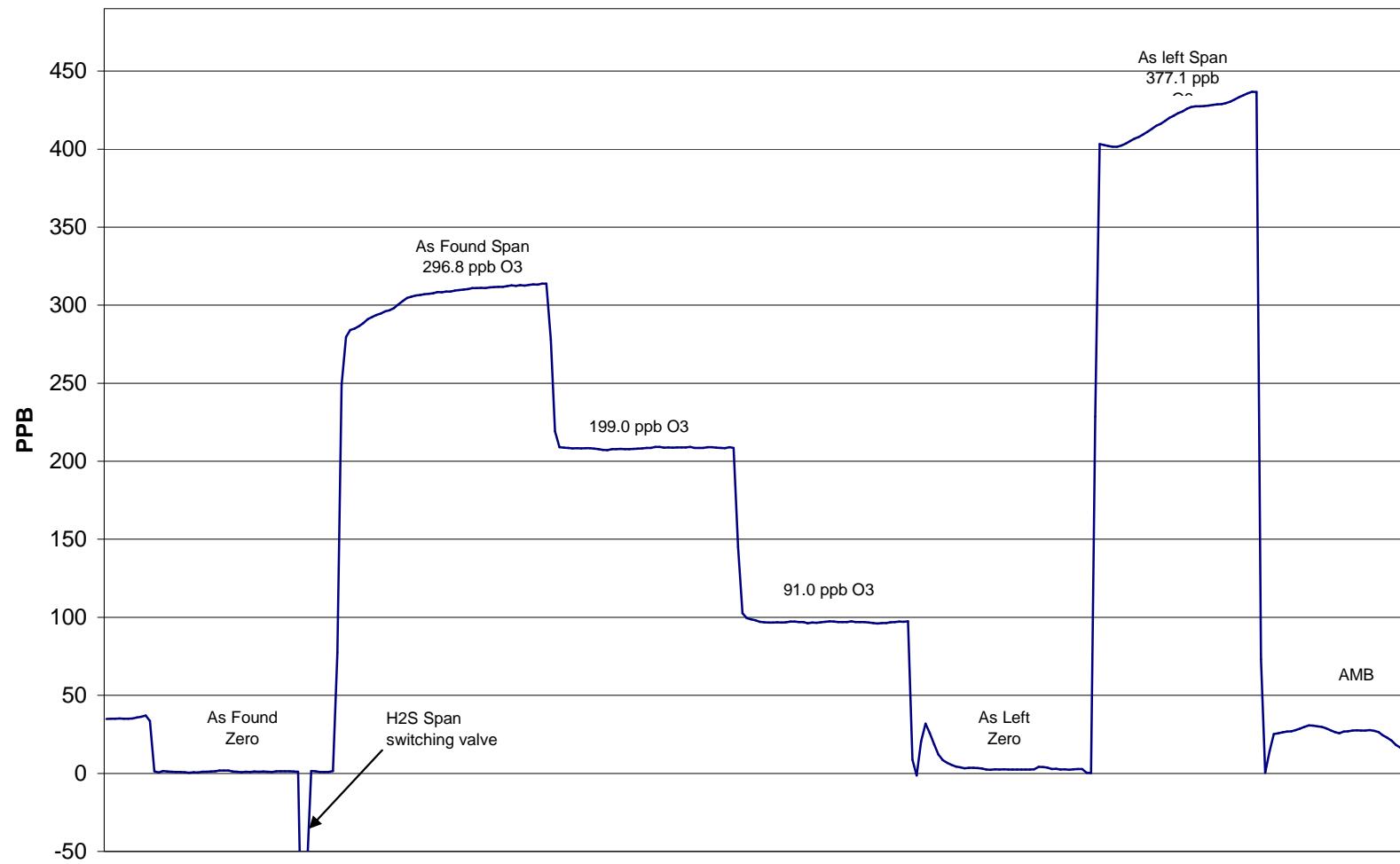
Calibration Date	January 17, 2008	Previous Calibration	December 17, 2007
Station Number	110	Station Location	Rover - Brooks
Start Time (MST)	14:50	End Time (MST)	17:20
Analyzer make/model	API Model 400E	Analyzer serial #	331

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
296.8	308.4	0.9623		
199.0	208.3	0.9553	Correlation Coefficient	0.999966
91.0	96.8	0.9398	Slope	0.966191
0.0	1.1	N/A	Intercept	-1.769017

### O3 Calibration Curve



**Portable- Brooks O3 Calibration**

January 17, 2008

## Calibration Report



Parameter

**SO2**

Air Monitoring Network

**PAS**

### Station Information

Calibration Date	January 17, 2007		Previous Calibration	December 17, 2007
Station Number	110		Station Location	Rover - Brooks
Reason:	Routine	Install	Removal	Other:
Start Time (MST)	10:37		End Time (MST)	14:20
Barometric Pressure	27.80	inches Hg	Station Temperature	28.0 Deg C
Calibrator	Environics 6103		Serial Number	2844
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	1.024419		Calculated slope	1.009239
Calculated intercept	2.784667		Calculated intercept	8.139377
Analyzer make	TEI Model 43A		Analyzer serial #	NA
Concentration range	before		after	
	0-500	ppb	0-500	ppb
	1.5		1.5	
	4.65		4.65	
	4.75	LPM	4.75	LPM
	860	V	859	V
	22	in Hg	23.5	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	-3.8	N/A
4996	39.95	399.0	388.7	1.0266
4996	19.94	200.0	189.8	1.0536
4996	9.98	100.2	85.9	1.1674
4996	0.00	0.0	-3.8	As found zero
4996	39.95	399.0	388.7	As found span
Average Correction Factor				1.0825

Calculated value of As Found Response: 404.789 ppm Percent Change of As Found: -1.4%

Auto zero	before calibration		after calibration	
	-7.0	ppm	-4.1	ppm
	203.9	ppm	193.9	ppm

Notes: No adjustments were made...

Calibration Performed By: Lenin Flores

## Calibration Summary



## Parameter

SO<sub>2</sub>

Air Monitoring Network

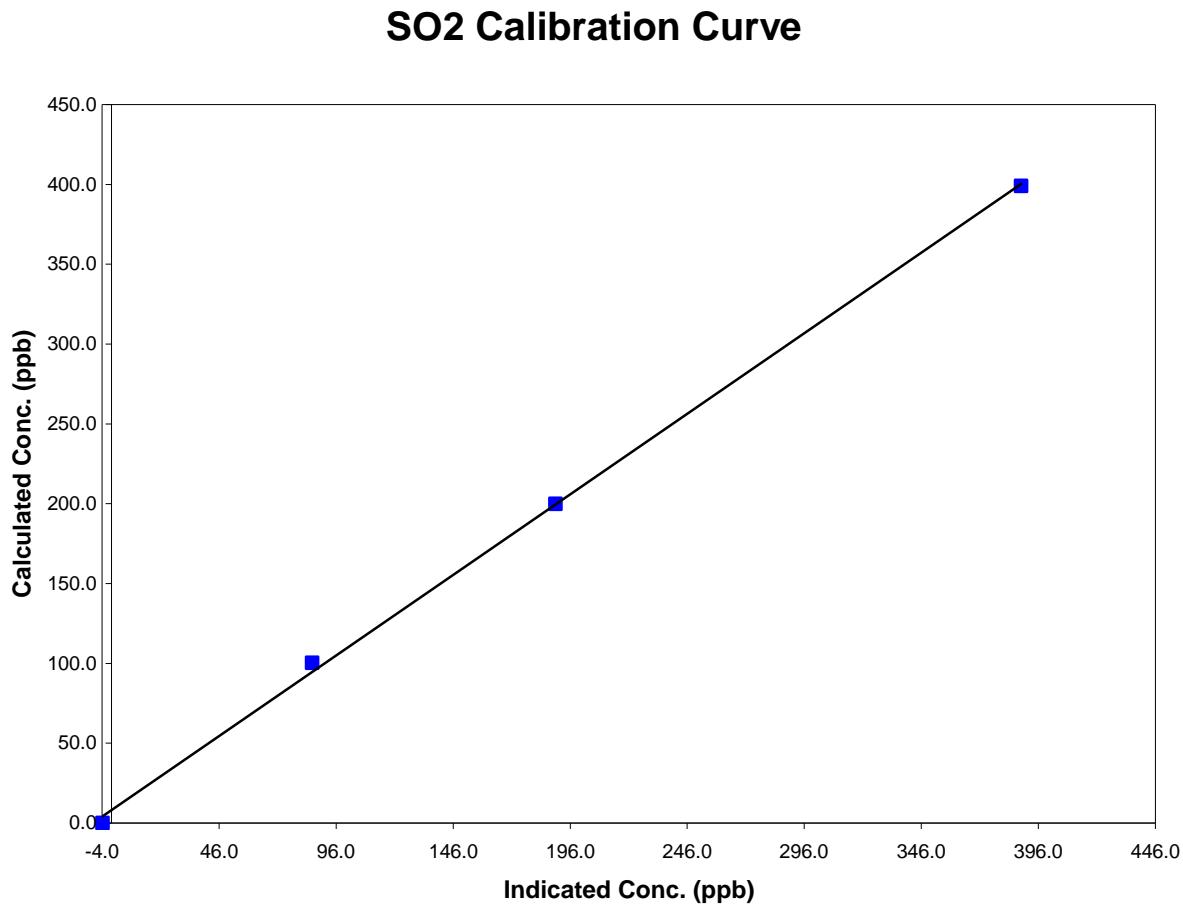
PAS

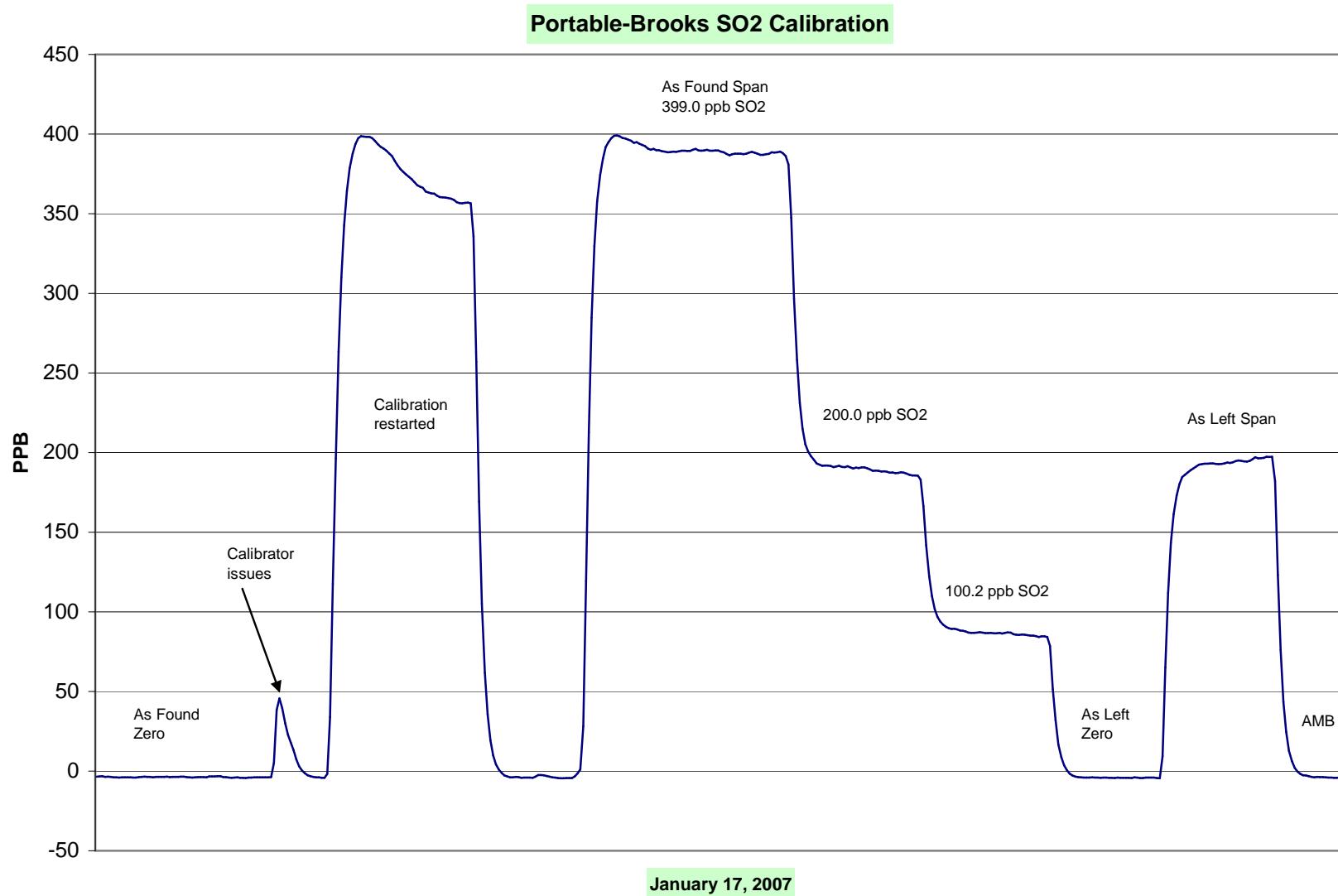
## ***Station Information***

Calibration Date	January 17, 2007	Previous Calibration	December 17, 2007
Station Number	110	Station Location	Rover - Brooks
Start Time (MST)	10:37	End Time (MST)	14:20
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	-3.8	N/A		
399.0	388.7	1.0266	Correlation Coefficient	0.999420
200.0	189.8	1.0536		
100.2	85.9	1.1674	Slope	1.009239
			Intercept	8.139377





## Calibration Report



Parameter

H2S

Air Monitoring Network

PAS

### Station Information

Calibration Date	January 17, 2008	Previous Calibration	December 17, 2007
Station Number	110	Station Location	Brooks Rover
Reason:	Routine	Install	Removal Other:
Start Time (MST)	13:00	End Time (MST)	15:45
Barometric Pressure	27.8 inches Hg	Station Temperature	28.0 Deg C
Calibrator	Environics 6103	Serial Number	2844
Cal Gas Concentration	5.02 ppm	Cal Gas Expiry Date	15-Nov-05
Gas Cert Reference	BLM003489	DACS serial No.	45265
DACS make	Focus AP1000	DACS channel #	6
DACS voltage range	0 - 10 volt		
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.978898	Calculated slope	0.973175
Calculated intercept	-0.792040	Calculated intercept	-0.482108
Analyzer make	TEI Model 43A	Analyzer serial #	43A-25575-221
Concentration range	0 - 100 ppb	before	after
H2S zero pot	910	0 - 100	ppb
H2S span pot	540	910	
Analyzer flow	0.900 LPM	540	
UV Lamp voltage	933 V	0.900	LPM
Vacuum	22.0 in Hg	939	V
	22.5 in Hg	22.5	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	0.6	N/A
4996	79.87	79.0	81.6	0.9680
4996	39.94	39.8	41.7	0.9556
4996	19.94	20.0	20.7	0.9626
4996	0.00	0.0	0.6	As found zero
4996	79.86	79.0	81.6	As found span
		Average Correction Factor	0.9621	

Calculated value of As Found Response:

78.53 ppm

Percent Change of As Found: 0.6%

Auto zero	before calibration		after calibration	
	1.3	ppm	0.7	ppm
	36.1	ppm	40.7	ppm

Notes: No adjustments were made...

Calibration Performed By: Lenin Flores

## Calibration Summary



Parameter	H2S
Air Monitoring Network	PAS

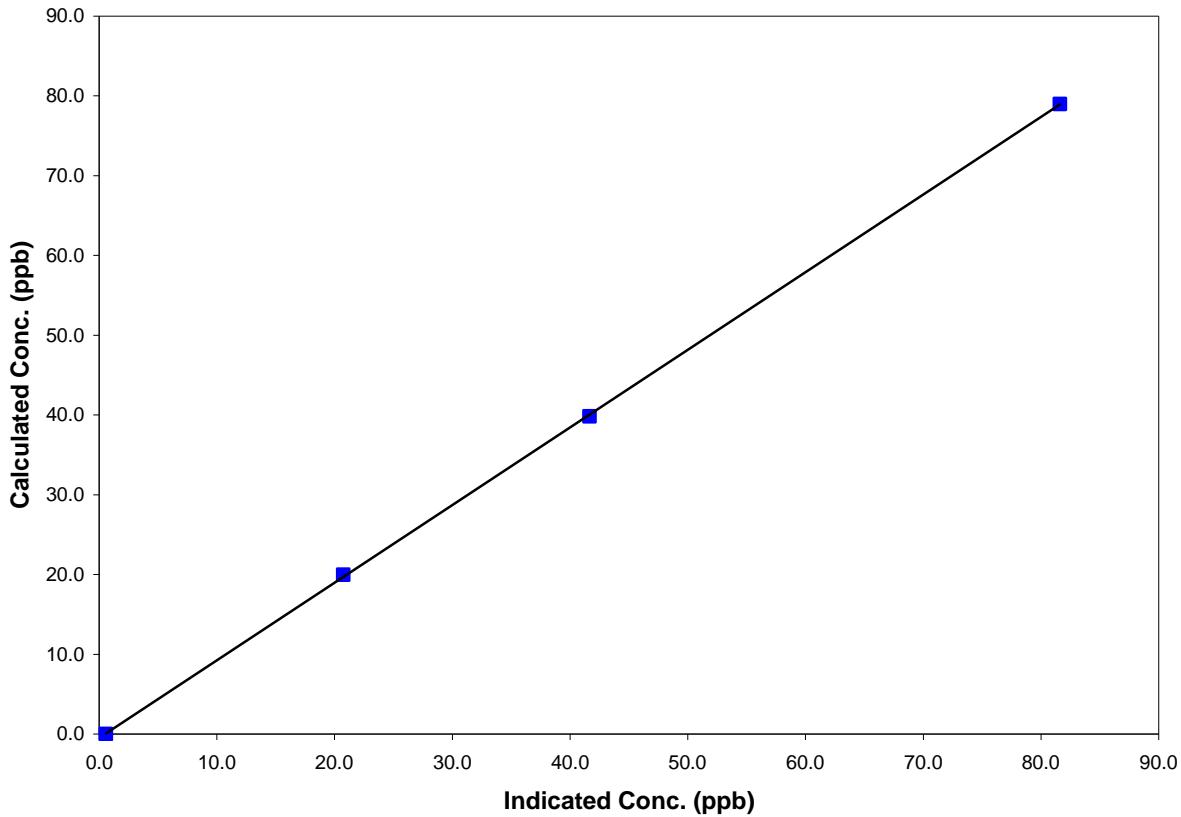
### Station Information

Calibration Date	January 17, 2008	Previous Calibration	December 17, 2007
Station Number	110	Station Location	Brooks Rover
Start Time (MST)	13:00	End Time (MST)	15:45
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	0.6	N/A		
79.0	81.6	0.9680	Correlation Coefficient	0.999959
39.8	41.7	0.9556	Slope	0.973175
20.0	20.7	0.9626	Intercept	-0.482108

### H2S Calibration Curve



**Portable-Brooks H2S Calibration**