



# Palliser Airshed Society

## Ambient Air Monitoring Network Summary

December 2006

Prepared By:  
**FOCUS**  
AIR QUALITY MONITORING

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January 18, 2007

Alberta Environment  
Environmental Service Response Centre  
#111 Twin Atria Building  
4999-98 Ave  
Edmonton Alberta T6B 2X3

**Attention: Director of Monitoring and Evaluation**

**RE: Palliser Airshed Society (PAS) Ambient Air Monitoring Report – December 2006**

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Enclosed is the PAS Ambient Monitoring Report for the month of **December 2006**.

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

**Continuous Monitoring – Crescent Heights**

Included in this report are; monthly sampling table, detailed hourly average reports and multipoint calibration reports of all instruments. The measured ambient air quality was within the Provincial and Federal guidelines with no exceedences recorded. Operational uptime of all instruments was 90% or greater for the month of December. There were no significant events leading to emergency response for the month of December.

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

- Monthly average concentrations of NO<sub>2</sub> was 10.0 ppb
- Monthly average concentrations for O<sub>3</sub> was 22.8 ppb
- Monthly average concentrations for CO was 0.2 ppm
- Monthly average concentrations for THC was 2.1 ppm
- Monthly average concentrations for PM<sub>2.5</sub> was 1.8 µg/m<sup>3</sup>

The Air Quality Index (AQI) recorded 703 hours of Good readings for the month of December.

**Passive Monitoring – Six Sites throughout the PAS zone:**

The following are the ranges for December 2006 recorded by the six passive stations located throughout the PAS zone.

- ◆ Monthly average concentrations for SO<sub>2</sub> passives were all ≤0.5 ppb.
- ◆ Monthly average concentrations for NO<sub>2</sub> passives ranged from 4.1 ppb to 9.8 ppb
- ◆ Monthly average concentrations for O<sub>3</sub> passives ranged from 24.8 ppb to 42.2 ppb

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

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AQM Environmental Specialist



# Continuous Monitoring

## Ambient Air Monitoring Network

### Crescent Heights Station

#### General Station Issues

Calibrations were performed on December 11<sup>th</sup> (NO<sub>x</sub>, THC, and CO) and 22<sup>nd</sup> (O<sub>3</sub> and TEOM). There were no outstanding issues for the month of December.

Parameter	Make	Model	Units	Notes
Ozone	Teledyne - API	400E	ppb	No operational issues observed.
Nitrogen Dioxide	Teledyne - API	200E	ppb	No operational issues observed.
Total Hydrocarbons	Bendix	400A	ppm	No operational issues observed.
Carbon Monoxide	TEI	49C	ppm	Changed span cylinder. No operational issues observed.
PM 2.5	R&P TEOM	1400ab	µg/m <sup>3</sup>	There were four (4) hours of excessive baseline drift flagged. No other operational issues observed.
Wind Speed	Met One	010C	kph	No operational issues observed.
Wind Direction	Met One	020C	Deg	No operational issues observed.
Ambient Temperature	Met One	083D	DegC	No operational issues observed.
Relative Humidity	Met One	083D	%	No operational issues observed.
Solar Radiation	Met One	096-1	W/m <sup>2</sup>	No operational issues observed.
Data Acquisition System	Titan Logix	AP1000		No operational issues observed.



## December 2006 Monthly Overall Summary Report Ambient Air Quality Data

Dec-2006		Palliser Airshed Society				Maximum Recorded Values							Operational Time (%)
Pollutant (units)	Objectives		Station	Monthly Average	Exceedence		1-hr			24-hr / 8-hr			
	1-hr	24-hr			1-hr	24-hr	Conc	Day	WSPD (km/hr)	WDIR (Sector)	Conc	Day	
NO (ppb)			Crescent Heights	5.0	-	-	78.4	Dec-19 23:00	5.2	SSE	17.3	Dec-10	100.0%
NO <sub>2</sub> (ppb)	212	106	Crescent Heights	10.0	0	0	40.5	Dec-03 23:00	3.1	ESE	26.8	Dec-02	100.0%
NO <sub>x</sub> (ppb)			Crescent Heights	14.7	-	-	115.3	Dec-19 23:00	5.2	SSE	40.8	Dec-02	100.0%
O <sub>3</sub> (ppb)	82		Crescent Heights	22.8	0	-	38.8	Dec-12 13:00	27.4	WSW	31.9	Dec-12	100.0%
O <sub>3</sub> (ppb) - 8-hr	65		Crescent Heights		0						36.6	Dec-12	
CO (ppm)	13		Crescent Heights	0.19	0	-	0.6	Dec-10 09:00	3.6	N	0.3	Dec-02	100.0%
CO (ppm) - 8-hr	5		Crescent Heights		0						0.4	Dec-01	
THC (ppm)			Crescent Heights	2.07	-	-	3.3	Dec-06 23:00	4.0	NNW	2.4	Dec-02	100.0%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )		30 <sup>a</sup>	Crescent Heights	1.8		0	10.7	Dec-08 08:00	8.2	SSW	5.4	Dec-02	99.5%
RH (%)			Crescent Heights	61.6	-	-	-	-	-	-	-	-	100.0%
SR (W/m <sup>2</sup> )			Crescent Heights	38.9	-	-	-	-	-	-	-	-	100.0%
Temp (°C)			Crescent Heights	-1.4	-	-	-	-	-	-	-	-	100.0%
WSPD v (km/hr)			Crescent Heights	9.7	-	-	37.7	Dec-15 10:00	37.7	SW	21.1	Dec-21	100.0%
WSPD s (km/hr)			Crescent Heights	14.2	-	-	37.9	Dec-15 10:00	37.9	SW	24.6	Dec-15	100.0%
WDIR			Crescent Heights	WSW	-	-	-	-	-	-	-	-	100.0%

Note: <sup>a</sup> the draft 24-hr Alberta Ambient Air Quality Objectives



# **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: December 1, 2006 to January 1, 2007

#### 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:	703
Number of 1-hr Fair Readings:	0
Number of 1-hr Poor Readings:	0
Number of 1-hr Very Poor Readings:	0

#### Status Flag Characters

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

#### Day Mountain Standard Time

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00
1-Dec-06	12	13	9	10	13	15	16	14	14	16	15	16	16	17	16	16	13	10	10	12	12	12	10	7
2-Dec-06	7	8	N	10	9	7	6	9	9	7	8	10	11	13	13	8	8	8	8	8	8	9	9	9
3-Dec-06	8	N	18	18	17	15	16	15	13	12	14	15	16	17	17	15	17	18	18	17	12	7	9	10
4-Dec-06	N	8	10	12	10	11	7	7	7	7	9	16	16	17	17	15	14	14	17	18	17	17	N	
5-Dec-06	7	11	14	15	14	12	10	8	11	11	11	12	13	11	10	9	6	6	5	8	7	6	N	8
6-Dec-06	6	5	5	6	8	7	6	6	5	14	16	17	16	16	16	16	15	13	6	10	8	N	9	8
7-Dec-06	7	12	13	16	15	14	13	12	11	13	13	14	15	15	13	12	11	12	12	13	N	13	13	13
8-Dec-06	15	17	18	15	15	14	11	7	9	10	13	13	14	12	12	13	13	12	13	N	13	13	13	14
9-Dec-06	12	14	12	10	10	9	8	9	6	6	11	13	13	13	12	10	10	9	N	7	5	5	5	6
10-Dec-06	6	5	4	4	5	5	6	8	6	6	6	5	7	13	13	9	6	N	8	11	11	12	13	13
11-Dec-06	13	13	12	12	11	13	11	11	11	13	14	15	15	15	15	14	N	N	15	15	16	16	17	17
12-Dec-06	17	16	N	14	14	14	14	13	N	N	N	15	17	19	19	18	19	17	19	18	14	13	15	12
13-Dec-06	11	13	N	14	15	N	10	6	7	14	17	17	15	15	16	16	17	16	16	15	16	17	17	17
14-Dec-06	17	N	17	18	18	18	16	16	12	16	15	14	16	17	16	13	6	6	8	7	8	11	17	16
15-Dec-06	N	N	17	16	15	14	13	14	15	16	16	16	17	16	18	16	17	17	15	8	9	8	10	N
16-Dec-06	13	15	15	15	14	15	15	16	17	17	17	17	17	18	18	17	16	11	12	13	11	11	N	10
17-Dec-06	6	9	9	9	8	5	5	6	6	6	10	15	14	12	12	13	7	6	7	6	4	N	9	9
18-Dec-06	8	10	N	12	12	13	13	14	14	15	16	15	15	16	16	15	13	13	14	14	14	15	16	16
19-Dec-06	17	N	17	17	17	17	17	16	17	16	18	17	17	14	10	12	8	8	7	7	5	7	7	9
20-Dec-06	N	6	5	6	8	12	12	12	11	12	12	16	16	15	15	14	13	13	11	15	15	15	14	N
21-Dec-06	14	15	16	17	15	16	13	9	7	10	15	17	16	15	15	14	17	16	16	15	14	15	N	13
22-Dec-06	12	13	12	11	13	11	10	8	7	9	13	13	15	15	14	15	16	15	11	9	10	N	10	11
23-Dec-06	10	8	9	11	12	12	10	11	10	14	16	N	17	16	15	16	14	11	15	13	N	15	16	17
24-Dec-06	16	16	14	12	13	13	14	12	11	11	12	12	13	16	16	14	13	12	12	N	12	12	11	15
25-Dec-06	16	16	N	17	16	16	16	15	15	15	14	14	12	14	14	13	12	15	N	17	17	16	14	13
26-Dec-06	13	13	13	13	13	13	12	11	12	12	11	14	14	16	15	14	6	N	8	5	6	6	7	6
27-Dec-06	5	5	4	5	4	4	3	3	3	5	5	6	4	5	4	3	N	5	4	5	6	10	11	12
28-Dec-06	12	14	15	15	14	13	11	13	12	11	11	13	14	14	14	N	13	11	10	9	6	6	7	9
29-Dec-06	9	9	6	6	9	11	5	8	8	7	8	11	15	17	N	18	17	18	17	18	18	18	18	18
30-Dec-06	18	18	17	16	15	15	13	13	11	12	11	11	11	N	12	12	9	8	8	6	8	8	8	6
31-Dec-06	10	15	13	12	10	7	8	8	6	6	6	6	N	8	6	10	6	7	7	6	8	8	6	10



# PAS - Crescent Heights - Nitrogen Dioxide Monthly Summary

Station: Crescent Heights  
 Station Owner: PAS

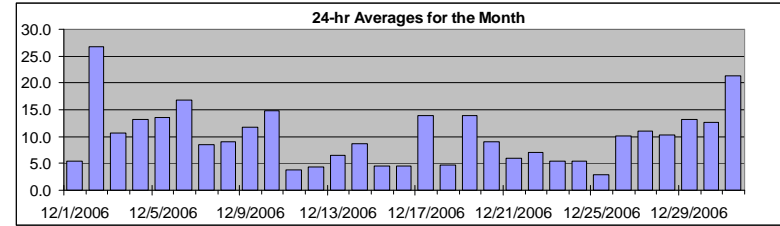
## HOURLY AVERAGE TABLE

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

Monitoring Dates: December 1, 2006 to January 1, 2007

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:	40.5	ppb	3-Dec	23:00 0:00
Maximum 24-hr Average:	26.8	ppb	2-Dec	



AIC Time:	33 hrs	Operational Time:	707 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	35.8	30.3	13.3	6.7	3.6	1.4	0.0	10.0 ppb	6.7 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																							24-hour Average	Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00		
1-Dec-06	0	0	8	6	0	0	0	0	1	0	0	0	0	0	0	2	6	15	14	11	12	13	18	25	5.5	25.2
2-Dec-06	29	23	A	19	20	25	26	36	37	27	19	17	13	10	12	21	32	35	33	36	33	39	39	38	26.8	39.0
3-Dec-06	33	A	3	1	2	4	2	3	7	10	7	6	6	5	9	6	5	4	7	16	28	39	41	10.7	40.5	
4-Dec-06	A	22	15	12	15	14	31	30	31	30	22	7	7	6	7	10	11	4	3	3	3	3	A	15	13.2	31.1
5-Dec-06	17	12	7	6	7	14	14	17	12	10	9	9	6	11	13	13	19	25	22	16	18	21	A	15	13.6	25.0
6-Dec-06	18	20	20	25	32	31	27	23	19	5	3	3	3	3	3	3	4	8	22	13	34	A	36	35	16.9	35.7
7-Dec-06	31	12	9	4	4	5	7	9	11	7	5	6	5	4	6	9	11	9	9	7	A	9	9	8	8.5	30.6
8-Dec-06	5	3	1	7	5	7	14	26	29	16	8	9	8	9	10	7	8	8	5	A	7	6	5	4	9.1	28.7
9-Dec-06	8	4	6	11	7	9	10	9	20	18	8	6	6	6	8	11	10	10	A	12	20	22	23	25	11.8	25.3
10-Dec-06	24	20	17	16	20	23	24	25	25	24	15	16	14	5	6	10	16	A	13	9	7	5	3	3	14.8	25.4
11-Dec-06	3	2	3	3	5	2	5	7	8	5	3	2	2	C	C	C	C	A	5	4	4	3	2	2	3.8	7.9
12-Dec-06	2	4	A	3	3	3	4	5	6	7	5	4	5	2	3	4	2	4	2	2	6	9	3	8	4.3	9.0
13-Dec-06	12	6	A	5	3	6	14	24	27	11	5	4	5	3	3	2	2	4	4	5	2	1	1	2	6.6	27.2
14-Dec-06	1	A	5	2	1	1	3	3	13	4	4	6	5	3	5	10	27	22	15	29	19	15	3	4	8.7	28.9
15-Dec-06	A	5	2	2	2	2	3	4	4	3	3	2	2	6	1	5	2	2	3	11	11	13	9	A	4.4	13.1
16-Dec-06	7	2	1	1	1	1	1	1	1	1	1	2	3	1	2	2	4	13	12	9	14	13	A	13	4.6	13.8
17-Dec-06	18	9	7	6	8	15	22	25	27	26	13	3	5	3	4	7	17	23	29	23	15	A	7	7	14.0	29.2
18-Dec-06	8	5	A	5	5	5	6	5	6	4	3	3	3	3	4	5	8	7	6	6	3	2	2	2	4.8	7.7
19-Dec-06	2	A	3	2	3	3	3	5	4	5	3	5	5	7	16	15	32	33	30	24	22	30	30	37	13.9	37.0
20-Dec-06	A	25	23	17	13	6	7	8	9	8	9	5	6	7	7	8	10	7	10	5	4	3	4	A	9.1	25.2
21-Dec-06	5	3	2	3	6	3	5	13	20	17	6	3	4	4	5	6	4	5	4	3	5	4	A	7	5.9	20.5
22-Dec-06	7	6	6	7	4	7	8	11	12	9	5	3	4	5	6	5	4	4	10	10	9	A	9	8	7.0	12.4
23-Dec-06	10	12	8	5	2	4	8	6	9	4	3	2	2	3	4	3	4	7	4	9	A	10	4	3	5.5	12.4
24-Dec-06	3	4	5	8	5	6	4	8	10	7	4	3	3	2	2	4	6	7	5	A	9	9	8	4	5.4	10.1
25-Dec-06	2	2	2	1	1	1	1	1	1	1	2	2	4	4	5	4	7	3	A	4	3	3	4	5	2.8	6.8
26-Dec-06	5	5	2	2	3	2	3	5	4	4	6	4	7	3	2	7	27	A	19	22	24	24	28	25	10.2	27.8
27-Dec-06	23	23	16	20	11	10	13	11	13	9	7	6	8	7	10	11	A	9	12	10	10	5	3	4	11.0	23.0
28-Dec-06	5	3	3	3	5	6	10	6	8	9	8	6	5	6	7	A	11	10	12	14	25	23	26	22	10.2	26.4
29-Dec-06	21	26	27	23	13	10	22	32	32	28	18	12	9	4	A	4	6	3	5	2	2	2	2	1	13.2	31.9
30-Dec-06	2	2	4	7	6	4	8	7	9	8	8	8	9	A	8	8	13	14	17	22	34	33	32	27	12.6	34.0
31-Dec-06	15	4	9	9	11	21	33	32	24	26	18	21	A	18	25	11	24	30	31	26	32	34	27	10	21.4	33.6
Hourly Avg	11.3	9.4	7.9	7.8	7.3	8.1	10.9	12.9	14.2	11.0	7.4	6.0	5.4	5.2	6.5	7.4	11.4	12.0	12.4	12.2	13.9	13.6	13.6	13.8		
Hourly Max	32.7	25.9	26.6	25.0	32.3	31.5	33.3	35.8	37.1	29.7	22.2	21.1	13.9	17.9	25.0	21.1	32.0	34.6	33.0	35.5	34.0	38.6	39.0	40.5		

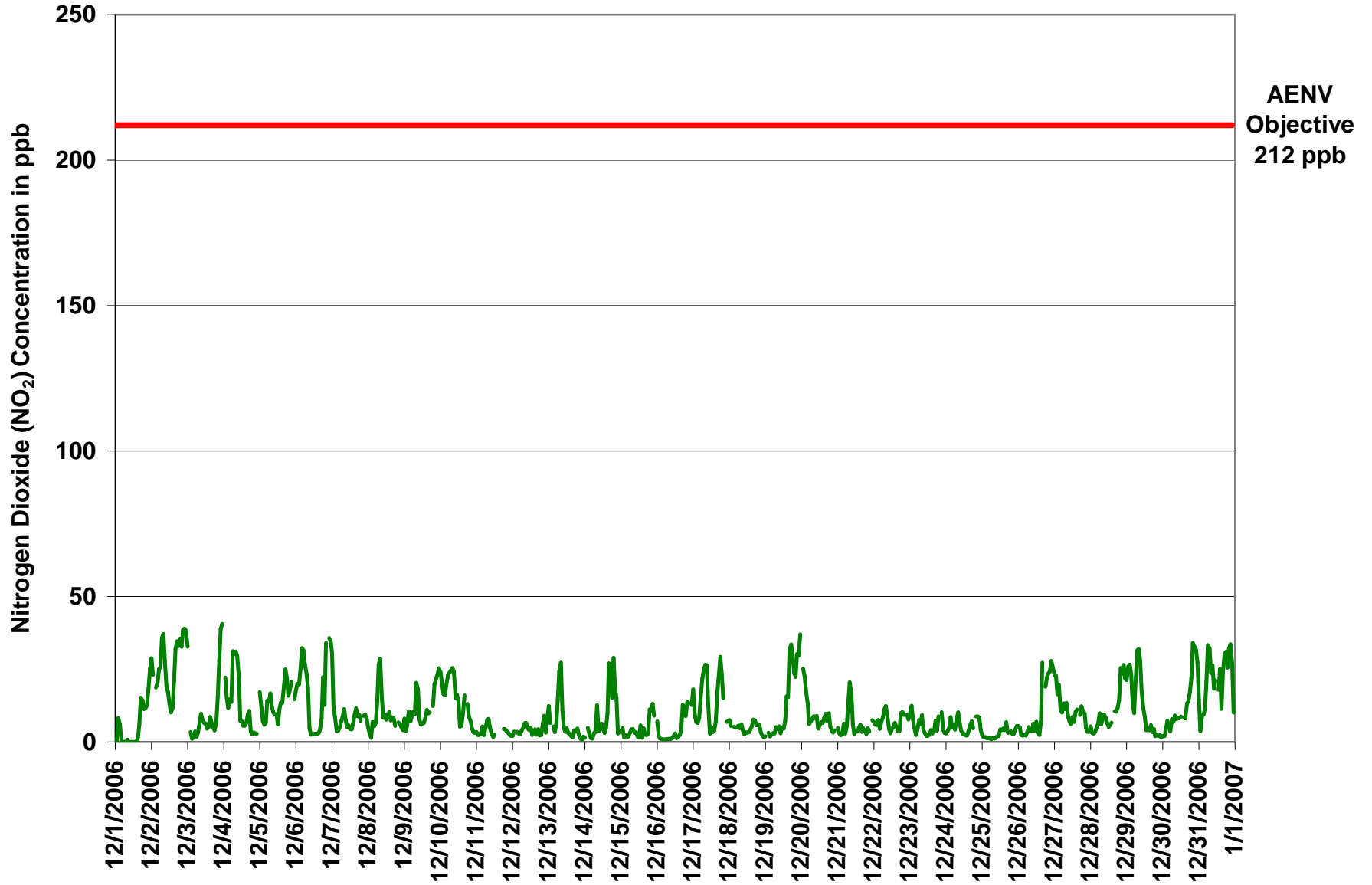


Figure 1. PAS - Crescent Heights Nitrogen Dioxide 1-hr Average Monthly Trend





Station: Crescent Heights  
 Station Owner: PAS

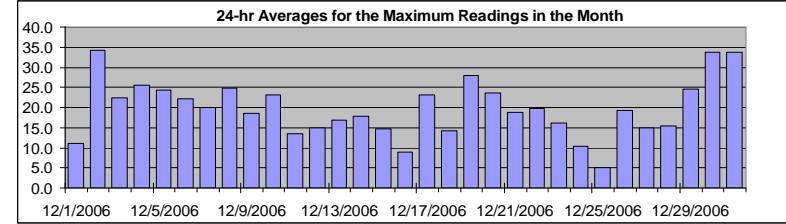
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: December 1, 2006 to January 1, 2007

**Summary**

Maximum 1-hr Value:	162.2	ppb	30-Dec	20:00 21:00
Maximum 24-hr Value:	34.3	ppb	2-Dec	



AIC Time:	33 hrs	Operational Time:	707 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	58.7	45.6	29.3	16.8	8.1	3.3	1.6	19.8 ppb	16.8 ppb

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Dec-06	15	1	21	11	7	4	0	7	8	0	1	0	0	0	2	5	16	20	18	15	16	32	26	36	11.0	36.3
2-Dec-06	36	30	A	39	30	28	48	44	54	43	24	26	18	12	14	28	34	37	37	37	36	42	42	49	34.3	54.5
3-Dec-06	40	A	28	3	22	25	16	44	34	44	12	13	8	7	10	15	11	10	8	13	22	37	41	53	22.5	53.0
4-Dec-06	A	34	22	17	21	21	46	38	41	54	45	11	31	7	8	9	52	45	8	5	20	8	20	A	25.6	53.5
5-Dec-06	25	23	10	23	21	24	21	24	17	13	25	29	10	26	27	24	32	30	30	31	40	37	A	19	24.4	40.4
6-Dec-06	22	30	31	30	46	38	32	32	27	7	4	4	4	4	5	5	6	14	33	26	37	A	40	37	22.3	46.5
7-Dec-06	34	19	27	8	25	7	26	30	42	9	7	30	18	11	9	27	20	11	18	9	A	16	44	12	20.0	44.3
8-Dec-06	8	55	11	33	10	10	22	55	49	38	20	27	36	36	16	29	26	14	7	A	11	20	29	9	24.8	54.6
9-Dec-06	21	9	36	33	11	11	13	14	30	27	11	9	8	9	10	15	16	15	A	21	28	25	26	31	18.6	35.8
10-Dec-06	26	24	20	26	30	47	35	35	29	28	20	24	30	24	8	21	26	A	18	13	32	8	6	6	23.2	47.0
11-Dec-06	18	8	11	13	11	9	22	9	10	10	16	10	25	C	C	C	C	A	10	21	27	16	4	4	13.4	27.3
12-Dec-06	12	58	A	12	4	9	31	23	10	9	7	10	15	4	20	16	5	16	4	4	8	22	6	38	14.9	57.5
13-Dec-06	32	46	A	25	5	9	56	33	42	17	16	6	23	6	7	10	3	10	6	21	9	3	2	5	16.9	56.2
14-Dec-06	4	A	15	8	3	2	13	6	26	5	7	18	26	6	28	21	42	30	27	32	29	40	16	7	17.8	41.7
15-Dec-06	A	10	2	34	17	3	12	17	5	14	33	9	6	25	4	28	12	9	10	14	22	18	17	A	14.7	34.3
16-Dec-06	19	4	2	3	3	2	2	3	2	3	3	7	7	3	3	4	6	22	17	13	25	35	A	16	8.9	35.4
17-Dec-06	25	44	11	8	18	28	24	33	37	37	23	4	20	6	7	11	27	28	49	33	20	A	12	24	23.1	49.4
18-Dec-06	25	31	A	7	23	24	29	7	7	6	4	12	16	14	7	21	10	10	8	28	25	6	3	3	14.2	31.2
19-Dec-06	9	A	5	4	33	37	20	46	7	7	5	15	6	13	22	31	49	46	55	33	31	68	48	50	27.9	68.1
20-Dec-06	A	37	30	25	39	29	34	31	12	34	38	7	21	15	21	49	14	13	15	26	13	5	12	A	23.7	49.3
21-Dec-06	7	5	6	12	59	6	19	31	34	35	26	19	26	19	10	27	6	26	7	5	7	8	A	31	18.8	59.0
22-Dec-06	31	33	31	27	10	35	19	19	14	15	8	4	18	24	31	9	5	5	39	30	14	A	13	18	19.7	39.1
23-Dec-06	13	20	24	14	4	20	29	24	24	8	20	3	4	13	36	6	26	17	9	20	A	26	7	4	16.1	35.9
24-Dec-06	4	11	16	16	7	9	11	14	18	20	7	4	4	4	3	5	9	11	6	A	14	24	10	9	10.4	24.0
25-Dec-06	4	3	3	2	2	3	2	2	2	2	3	4	7	7	7	6	9	8	A	6	4	7	7	14	5.0	14.0
26-Dec-06	20	11	5	5	4	4	4	7	5	5	9	6	39	59	4	16	42	A	43	29	31	34	30	28	19.3	58.8
27-Dec-06	26	27	22	22	20	23	15	15	15	13	9	8	11	10	17	14	A	13	15	12	15	9	5	5	14.8	27.2
28-Dec-06	9	5	4	5	6	12	13	10	10	17	11	9	7	18	12	A	22	13	16	25	32	32	42	24	15.3	42.5
29-Dec-06	27	31	29	27	17	13	42	37	38	35	23	19	25	51	A	6	46	5	27	10	24	29	4	2	24.6	50.7
30-Dec-06	7	6	32	32	33	7	34	11	29	32	25	11	20	A	22	11	46	29	31	48	162	68	43	34	33.6	162.2
31-Dec-06	30	5	33	13	15	66	47	40	32	32	32	31	A	24	61	15	34	33	39	32	62	39	35	28	33.8	65.6
Hourly Avg	19.6	22.1	18.1	17.3	17.9	18.2	23.8	23.9	23.0	19.9	16.0	12.5	16.3	15.7	14.9	16.7	22.5	19.4	21.0	21.1	28.2	25.5	21.2	21.4		
Hourly Max	39.9	57.5	35.8	38.7	59.0	65.6	56.2	54.6	54.5	53.5	45.2	30.9	38.9	58.8	61.4	49.3	52.4	45.9	55.0	47.6	162.2	68.3	48.3	53.0		

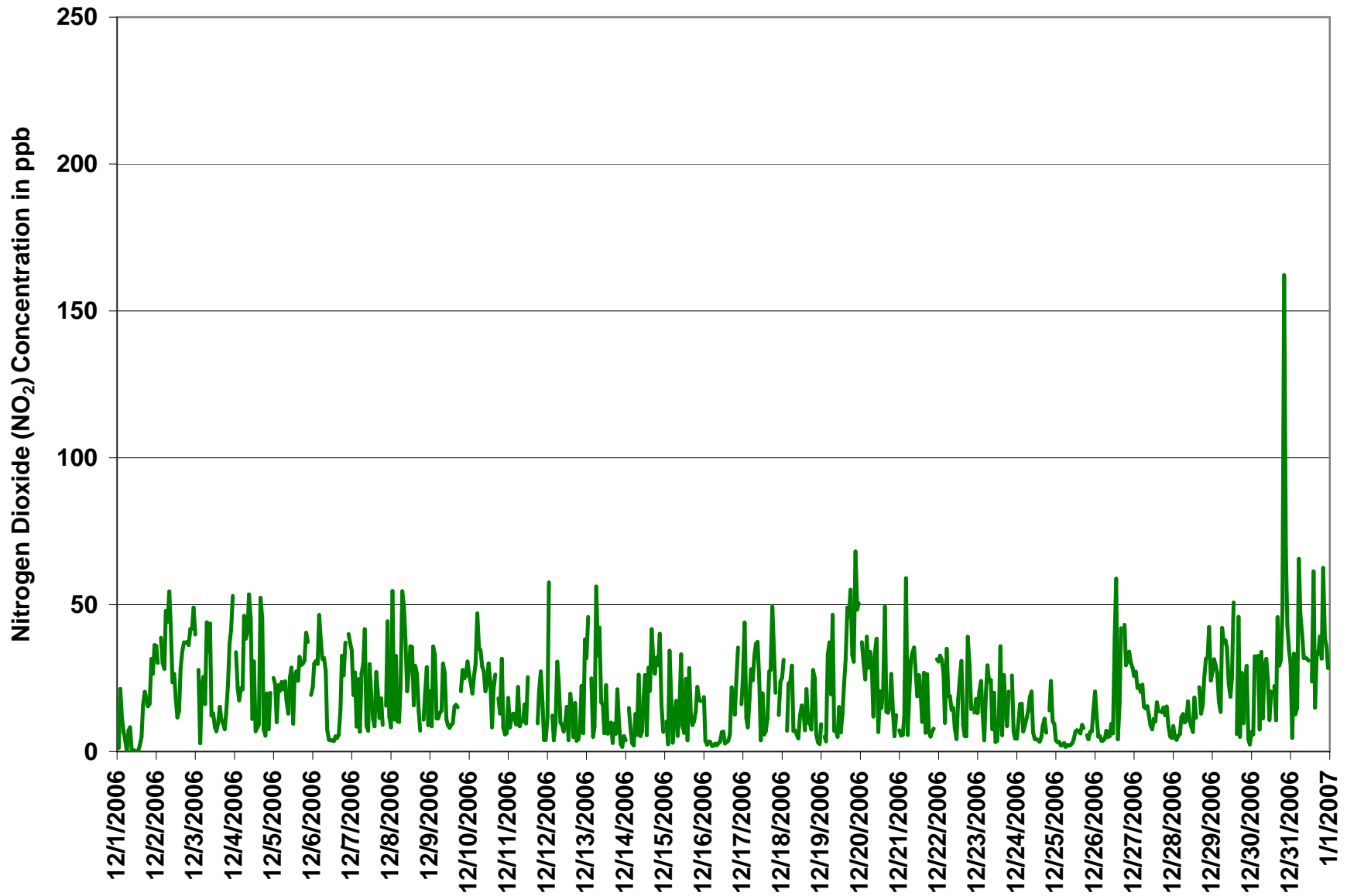
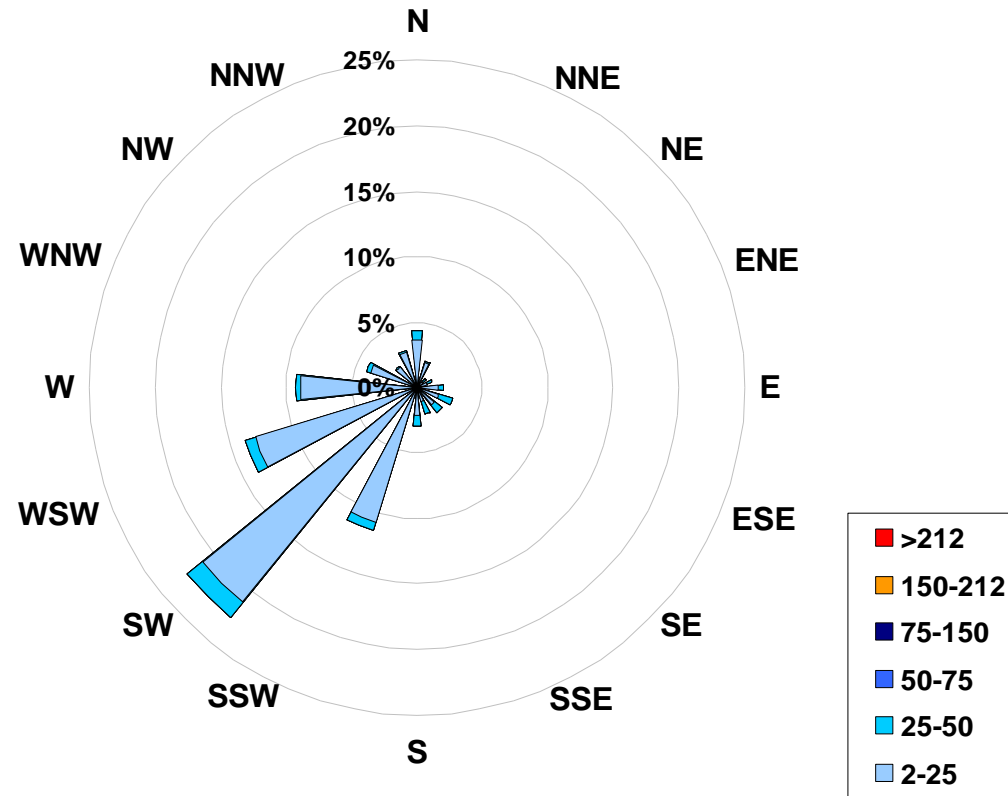


Figure 2. PAS - Crescent Heights Nitrogen Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend



1-hr Average Concentration Rose for Nitrogen Dioxide (in ppb) Located at the Crescent Heights Site for December 2006



Calms: 0%

Frequency Distribution of NO <sub>2</sub> in ppb			
Range		Frequency (hrs)	
2.0	< 25	678	
25	to 50	24	
50	to 75	4	
75	to 150	1	
150	to 212	0	
	> 212	0	
Total Non-Zero Values		707	



# PAS - Crescent Heights - Nitric Oxide Monthly Summary

Station: Crescent Heights  
 Station Owner: PAS

## HOURLY AVERAGE TABLE

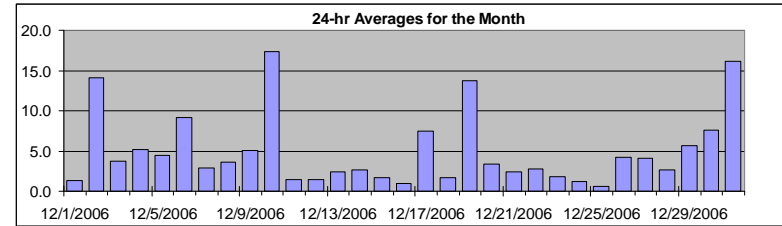
## Nitric Oxide (NO)

Monitoring Dates: December 1, 2006 to January 1, 2007

Guideline Limit:  
 Summary

1-hr	na	ppb	24-hr	na	ppb
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Maximum 1-hr Average:	78.4	ppb	19-Dec	23:00 0:00
Maximum 24-hr Average:	17.3	ppb	10-Dec	



AIC Time:	33 hrs	Operational Time:	707 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	42.6	22.2	4.4	1.9	0.9	0.3	0.1	5.0 ppb	1.9 ppb

### Status Flag Characters

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

Day	Mountain Standard Time																							24-hour Average	Daily Maximum	
Hour Start	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-Dec-06	1	0	1	0	0	0	0	1	2	1	2	2	2	2	2	1	1	2	1	2	1	2	2	6	1.4	6.4
2-Dec-06	4	2	A	4	2	2	10	27	54	31	23	22	14	9	8	10	11	6	8	19	5	15	23	18	14.1	54.3
3-Dec-06	12	A	0	0	1	4	0	2	3	6	2	2	2	2	1	2	1	1	0	1	3	14	21	3.7	21.0	
4-Dec-06	A	1	1	1	1	1	8	7	20	23	24	3	4	2	2	5	5	1	1	2	1	1	A	5.2	23.8	
5-Dec-06	3	2	1	1	1	2	2	3	3	3	4	7	3	7	9	6	14	8	6	3	7	7	A	1	4.5	14.5
6-Dec-06	1	4	4	3	28	33	21	18	10	1	0	1	1	1	1	0	0	5	0	16	A	32	30	9.1	33.2	
7-Dec-06	10	1	1	0	4	1	3	3	5	2	3	5	3	2	3	3	4	2	1	1	A	1	5	1	2.9	10.1
8-Dec-06	1	2	1	2	0	0	1	16	13	10	5	5	5	5	4	4	2	2	1	A	1	1	2	1	3.6	16.0
9-Dec-06	1	1	5	5	1	1	2	1	8	10	4	3	3	4	3	2	1	1	A	1	11	9	7	36	5.1	35.7
10-Dec-06	13	26	19	20	44	58	31	33	21	39	21	34	19	5	2	3	4	A	2	1	2	1	0	0	17.3	58.0
11-Dec-06	1	0	1	1	2	0	4	1	2	3	2	2	2	C	C	C	C	A	1	3	1	1	0	0	1.4	3.6
12-Dec-06	0	3	A	3	1	0	2	2	1	2	2	2	3	1	1	1	0	1	0	0	1	2	1	6	1.4	6.1
13-Dec-06	6	3	A	2	1	1	6	4	11	2	2	2	3	2	1	1	1	1	1	2	1	0	0	0	2.4	10.7
14-Dec-06	0	A	1	1	1	0	1	1	3	1	1	2	2	1	3	2	16	6	1	8	4	5	1	1	2.7	15.9
15-Dec-06	A	0	0	3	1	0	2	4	1	1	3	2	2	3	1	4	1	1	1	1	2	3	2	A	1.7	4.0
16-Dec-06	1	0	1	1	0	0	0	0	1	1	1	1	2	1	1	1	1	2	2	1	1	4	A	1	1.0	3.8
17-Dec-06	3	3	1	1	1	5	9	21	19	28	5	1	2	1	2	2	4	5	35	14	5	A	1	4	7.4	35.0
18-Dec-06	4	3	A	1	2	2	2	1	1	1	1	2	3	2	2	3	2	1	1	3	2	1	1	0	1.7	3.5
19-Dec-06	1	A	1	0	1	1	1	2	1	1	1	2	1	2	5	5	17	33	22	19	21	63	38	78	13.8	78.4
20-Dec-06	A	20	6	2	5	5	3	3	2	4	4	2	2	2	2	2	2	1	2	3	1	1	1	A	3.4	20.1
21-Dec-06	0	0	1	1	4	0	3	3	6	8	4	3	5	2	2	2	1	4	1	1	1	1	A	2	2.4	7.9
22-Dec-06	6	2	3	4	0	8	3	3	3	3	2	2	2	3	4	2	1	1	5	5	2	A	1	1	2.8	7.9
23-Dec-06	1	1	2	1	0	2	4	5	2	1	3	1	1	1	4	1	3	2	1	2	A	2	1	1	1.8	4.7
24-Dec-06	1	1	1	1	1	1	1	1	2	2	2	2	2	1	1	1	1	1	1	A	1	2	1	1	1.2	2.3
25-Dec-06	0	0	0	0	0	0	0	0	0	0	1	1	1	2	1	1	1	1	A	1	1	1	1	0	0.6	1.5
26-Dec-06	1	1	0	0	0	0	0	1	1	1	2	2	8	4	1	1	16	A	7	4	6	16	17	8	4.2	17.2
27-Dec-06	9	18	3	5	3	2	2	3	5	3	5	4	4	4	8	6	A	2	3	2	1	0	0	1	4.1	18.4
28-Dec-06	1	0	0	1	0	0	0	0	1	4	3	3	2	3	3	A	3	1	1	1	6	7	16	4	2.7	16.3
29-Dec-06	4	10	7	3	1	1	6	10	12	25	17	10	7	4	A	1	4	1	5	1	1	1	1	0	5.7	25.1
30-Dec-06	1	1	3	4	3	0	4	0	2	3	5	4	6	A	5	2	4	4	3	6	43	46	19	6	7.6	46.4
31-Dec-06	2	0	4	1	1	14	18	23	5	26	14	22	A	12	36	3	12	18	23	7	66	33	26	4	16.2	66.5
Hourly Avg	3.1	3.8	2.5	2.2	3.6	4.8	4.8	6.4	7.1	7.9	5.4	5.0	3.9	3.0	4.0	2.6	4.6	4.0	4.9	3.8	7.4	8.2	7.6	8.3		
Hourly Max	13.0	26.0	19.5	20.5	44.4	58.0	30.6	33.1	54.3	38.6	23.8	34.1	18.5	12.4	35.8	10.4	16.9	32.5	35.0	18.9	66.5	63.5	38.0	78.4		



# PAS - Crescent Heights - Oxides of Nitrogen Monthly Summary

Station: Crescent Heights  
 Station Owner: PAS

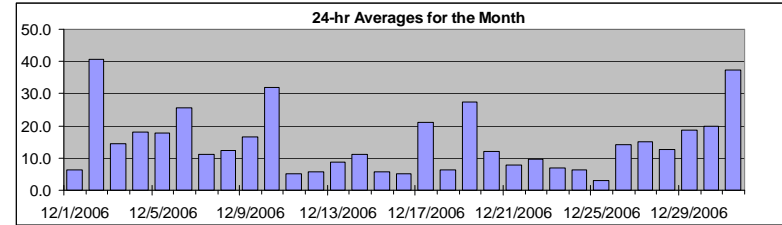
## HOURLY AVERAGE TABLE

## Oxides of Nitrogen (NO<sub>x</sub>)

Monitoring Dates: December 1, 2006 to January 1, 2007

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

Maximum 1-hr Average:	115.3	ppb	19-Dec	23:00 0:00
Maximum 24-hr Average:	40.8	ppb	2-Dec	



AIC Time:	33 hrs	Operational Time:	707 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	67.4	51.9	16.3	8.6	4.6	1.6	0.0	14.7 ppb	8.6 ppb

### Status Flag Characters

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

Day	Mountain Standard Time																							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-Dec-06	0	0	8	6	0	0	0	0	2	0	0	0	0	0	1	2	7	17	15	13	12	14	19	31	6.2	31.3
2-Dec-06	32	24	A	22	23	27	35	63	91	58	41	39	27	19	19	31	43	40	41	54	37	53	62	56	40.8	91.2
3-Dec-06	44	A	4	1	2	8	2	6	10	16	10	9	9	6	6	10	8	6	5	7	16	31	53	61	14.3	61.2
4-Dec-06	A	23	16	12	15	14	39	37	50	52	46	10	11	7	8	8	14	15	4	4	5	3	4	A	18.1	52.1
5-Dec-06	20	13	7	7	7	15	16	20	15	13	13	16	9	18	22	19	34	33	28	19	25	27	A	16	17.8	33.5
6-Dec-06	18	24	23	28	59	64	47	41	28	5	3	3	3	3	3	3	4	8	27	13	50	A	67	64	25.5	66.8
7-Dec-06	40	13	9	4	7	5	9	11	16	9	7	11	7	7	9	12	15	10	10	8	A	10	14	9	11.0	40.2
8-Dec-06	5	5	2	8	6	7	14	42	25	13	14	12	14	14	11	11	9	6	A	7	7	7	5	5	12.4	42.2
9-Dec-06	9	4	11	15	7	10	12	10	28	27	12	9	10	10	11	13	10	11	A	13	31	30	30	61	16.6	60.8
10-Dec-06	36	46	36	36	64	81	54	57	47	63	36	50	32	10	7	13	20	A	15	10	9	5	4	3	31.9	80.7
11-Dec-06	4	3	3	4	7	3	9	9	10	7	5	4	5	C	C	C	C	A	5	7	5	4	3	2	5.1	9.6
12-Dec-06	2	6	A	6	3	3	5	6	8	8	7	6	8	3	4	6	3	5	2	3	7	11	4	14	5.6	14.4
13-Dec-06	19	9	A	7	4	6	21	28	38	12	7	5	7	4	4	3	2	5	4	6	3	1	1	2	8.6	37.5
14-Dec-06	1	A	6	3	1	1	4	4	16	4	5	9	7	4	8	12	43	28	16	36	23	19	3	4	11.1	42.7
15-Dec-06	A	5	2	5	2	2	5	8	5	4	5	3	3	8	2	8	3	3	3	12	12	16	10	A	5.7	15.7
16-Dec-06	8	2	1	1	1	1	1	1	1	1	2	3	4	2	2	3	4	14	13	10	15	17	A	13	5.1	16.7
17-Dec-06	20	12	8	7	9	20	30	45	45	54	18	3	7	4	5	8	21	28	64	36	20	A	8	11	21.0	63.8
18-Dec-06	11	8	A	6	7	6	7	6	7	5	4	5	6	5	6	8	9	8	6	8	7	4	2	2	6.2	10.8
19-Dec-06	3	A	3	2	4	4	3	7	5	6	4	6	6	9	21	20	48	66	51	42	43	93	67	115	27.4	115.3
20-Dec-06	A	45	28	19	18	11	10	10	11	12	13	6	7	9	8	10	11	8	11	8	5	3	5	A	12.2	45.1
21-Dec-06	5	3	3	3	10	3	8	16	26	24	10	5	9	5	6	8	4	8	5	3	5	4	A	9	8.0	26.3
22-Dec-06	12	7	8	11	5	15	11	14	15	12	7	5	6	8	11	7	4	4	15	15	11	A	11	9	9.7	15.4
23-Dec-06	10	13	10	5	3	6	11	11	11	5	6	3	3	4	8	4	6	9	5	10	A	12	5	3	7.0	13.2
24-Dec-06	3	4	5	9	5	6	5	9	12	9	6	4	4	3	3	5	6	8	5	A	10	10	8	4	6.2	11.8
25-Dec-06	2	2	2	1	1	1	1	1	1	1	2	2	5	5	6	5	8	3	A	4	3	3	5	6	3.1	7.6
26-Dec-06	6	5	2	2	3	2	3	6	4	4	8	5	15	8	3	8	43	A	26	26	29	40	45	33	14.3	44.9
27-Dec-06	32	41	20	24	14	13	15	14	18	12	12	10	13	11	19	17	A	12	15	13	11	5	4	4	15.1	41.2
28-Dec-06	6	3	3	4	5	7	10	6	9	14	12	9	7	8	9	A	14	11	12	15	31	30	42	25	12.7	42.3
29-Dec-06	25	35	33	26	14	11	28	41	44	53	34	22	15	7	A	5	9	4	9	2	3	3	3	2	18.6	52.7
30-Dec-06	2	3	7	11	9	4	11	7	11	10	13	12	15	A	13	10	17	18	20	27	74	79	50	34	19.9	79.0
31-Dec-06	16	4	13	10	12	34	51	54	28	52	32	43	A	30	61	14	36	48	54	32	99	67	53	13	37.2	98.5
Hourly Avg	14.1	12.9	10.1	9.8	10.6	12.6	15.4	19.0	21.0	18.7	12.6	10.7	9.1	8.0	10.2	9.8	15.8	15.7	17.0	15.8	20.9	21.5	21.0	21.8		
Hourly Max	44.3	45.9	35.7	36.2	63.8	80.7	54.1	62.6	91.2	62.7	45.7	50.3	32.3	30.1	60.6	31.3	48.3	65.7	63.8	54.4	98.5	93.5	67.5	115.3		

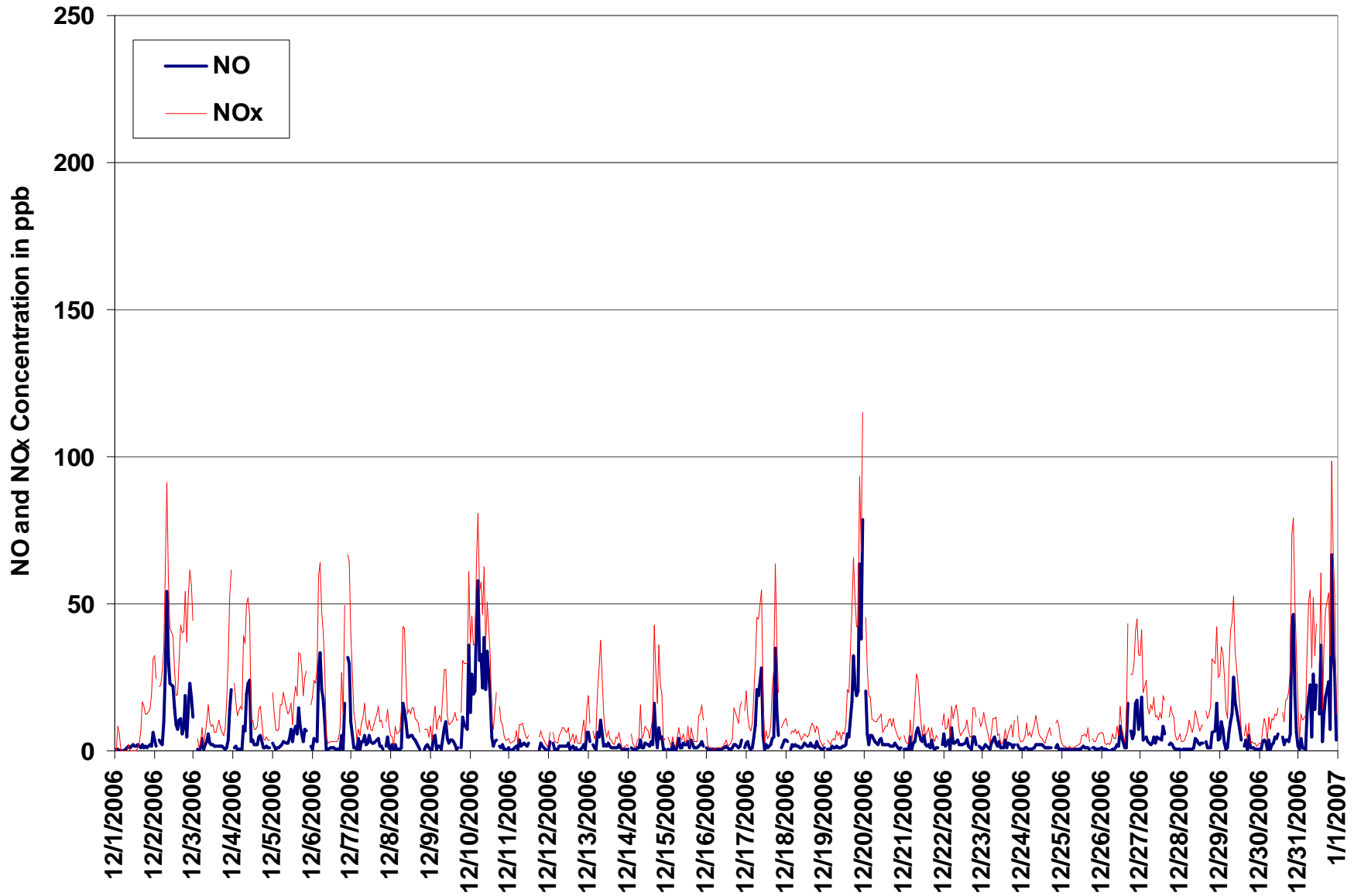


Figure 3. PAS - Crescent Heights Oxides of Nitrogen 1-hr Average Monthly Trend



Station: Crescent Heights  
Station Owner: PAS

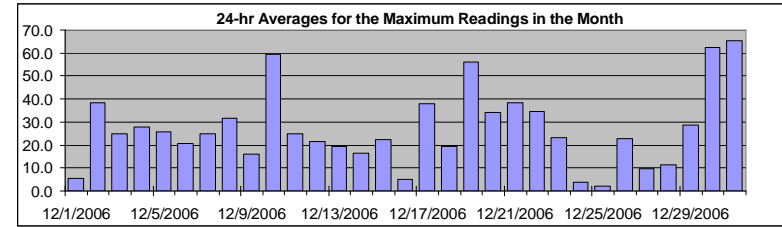
### INSTANTANEOUS (30 Second) MAXIMUM TABLE

### Nitric Oxide (NO)

Monitoring Dates: December 1, 2006 to January 1, 2007

#### Summary

Maximum 1-hr Value:	488.8	ppb	30-Dec	20:00 21:00
Maximum 24-hr Value:	65.4	ppb	31-Dec	



AIC Time:	33 hrs	Operational Time:	707 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	229.1	92.7	36.7	7.3	2.6	1.4	1.1	26.9 ppb	7.3 ppb

#### Status Flag Characters

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

#### Day Mountain Standard Time

Day	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
1-Dec-06	Hour End	6	1	2	1	1	2	1	14	6	2	4	4	3	3	5	3	2	4	3	3	2	35	3	22	5.6	35.4
2-Dec-06		7	3	A	20	6	4	95	77	229	88	37	40	23	10	10	15	20	10	17	32	11	41	41	46	38.3	229.3
3-Dec-06		20	A	24	1	28	95	47	63	69	71	5	6	3	3	4	5	5	4	3	1	2	20	24	70	24.8	94.6
4-Dec-06		A	3	3	2	1	2	55	24	63	84	150	5	29	4	5	3	75	64	4	3	31	2	7	A	28.0	150.0
5-Dec-06		12	11	2	13	4	4	4	6	5	4	25	40	6	35	38	28	54	23	12	14	171	75	A	8	25.9	171.2
6-Dec-06		2	15	15	8	77	47	41	48	31	2	1	13	2	2	2	2	1	2	15	2	36	A	61	48	20.6	77.2
7-Dec-06		22	3	24	5	85	1	45	38	57	3	5	32	28	6	4	47	54	4	5	2	A	4	92	3	24.8	92.2
8-Dec-06		2	73	8	48	1	1	2	85	40	105	25	35	83	76	8	35	23	5	1	A	3	19	28	18	31.5	105.1
9-Dec-06		3	3	68	51	2	3	3	2	21	21	7	4	6	5	5	4	2	2	A	3	33	19	25	76	16.0	75.9
10-Dec-06		20	56	28	68	105	444	125	85	30	60	40	61	70	66	3	19	21	A	9	2	50	3	2	3	59.5	443.8
11-Dec-06		31	2	3	9	6	3	57	3	3	50	30	14	30	C	C	C	C	A	22	116	58	34	2	1	24.9	116.1
12-Dec-06		12	111	A	75	1	7	45	40	9	3	3	13	37	2	12	9	3	4	1	1	2	7	1	93	21.3	111.1
13-Dec-06		37	90	A	65	2	2	66	16	51	3	20	4	32	4	2	11	2	3	3	20	6	1	1	1	19.2	89.6
14-Dec-06		2	A	5	3	2	1	5	2	9	2	2	20	27	3	36	4	94	16	4	20	41	57	21	2	16.3	94.0
15-Dec-06		A	2	1	53	24	1	33	105	2	14	80	29	55	23	2	29	5	3	2	3	10	7	4	A	22.2	105.0
16-Dec-06		4	1	2	3	2	1	1	1	1	2	2	3	4	2	2	2	2	4	4	3	4	66	A	3	5.2	65.8
17-Dec-06		15	96	6	2	3	57	15	66	57	92	14	2	19	3	3	3	8	8	266	59	15	A	3	61	37.9	266.3
18-Dec-06		85	88	A	2	29	25	37	2	3	2	2	12	39	11	3	34	3	3	2	38	21	2	1	1	19.4	88.3
19-Dec-06		25	A	1	2	52	39	19	43	3	2	2	5	3	4	10	49	95	108	163	51	72	261	132	148	56.0	261.3
20-Dec-06		A	82	28	9	77	108	56	40	4	64	44	5	31	15	39	43	4	4	5	36	26	3	27	A	34.0	107.8
21-Dec-06		2	3	6	15	68	3	78	30	36	133	58	74	171	29	11	29	3	81	2	2	2	7	A	36	38.2	170.6
22-Dec-06		84	30	64	69	2	121	17	13	5	7	4	4	15	59	55	10	2	2	66	136	6	A	3	21	34.6	136.1
23-Dec-06		2	3	36	13	2	37	63	78	25	4	65	2	2	17	80	7	76	6	2	6	A	7	2	2	23.3	80.1
24-Dec-06		2	3	5	4	1	2	2	2	6	16	4	3	4	3	2	2	2	2	2	A	6	14	2	1	3.8	16.3
25-Dec-06		2	2	2	1	1	1	1	1	1	1	2	3	4	3	3	2	2	1	A	2	2	1	2	4	2.0	4.1
26-Dec-06		26	2	2	3	1	1	1	2	2	2	4	3	66	121	2	4	112	A	59	21	14	37	25	14	22.8	121.4
27-Dec-06		19	29	11	12	12	24	3	6	7	4	7	6	7	7	34	12	A	4	6	3	6	3	1	2	9.8	33.9
28-Dec-06		2	1	2	2	2	2	1	2	2	16	8	5	4	7	15	A	32	2	2	3	18	21	114	6	11.6	113.7
29-Dec-06		10	29	13	5	2	4	78	18	36	42	31	21	49	67	A	2	73	2	117	8	14	36	2	2	28.8	117.4
30-Dec-06		11	3	59	42	38	3	64	2	54	46	34	7	42	A	37	4	65	47	13	42	489	230	80	27	62.5	488.8
31-Dec-06		4	2	55	2	2	226	91	71	15	50	44	48	A	22	236	6	30	35	44	17	326	68	68	41	65.4	325.6
Hourly Avg		16.7	26.7	17.7	19.6	20.6	41.0	37.2	31.7	28.4	32.1	24.4	16.9	29.8	21.1	23.0	14.6	30.0	16.1	29.5	22.3	50.9	38.6	27.6	27.1		
Hourly Max		84.6	111.1	68.3	74.9	105.5	443.8	124.8	105.0	229.3	133.0	150.0	74.4	170.6	121.4	236.5	48.6	112.4	107.7	266.3	136.1	488.8	261.3	132.0	148.1		



Station: Crescent Heights  
 Station Owner: PAS

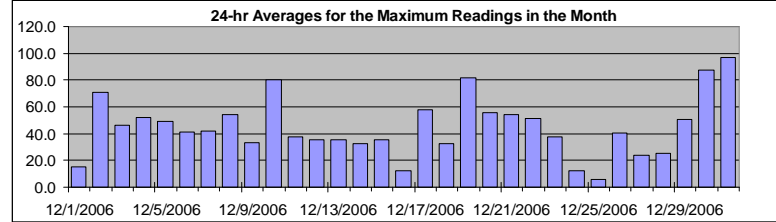
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

**Oxides of Nitrogen (NO<sub>x</sub>)**

Monitoring Dates: December 1, 2006 to January 1, 2007

**Summary**

Maximum 1-hr Value:	502.2	ppb	30-Dec	20:00 21:00
Maximum 24-hr Value:	97.1	ppb	31-Dec	



AIC Time:	33 hrs	Operational Time:	707 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	290.2	128.6	63.3	24.4	10.1	3.4	1.7	44.7 ppb	24.4 ppb

**Status Flag Characters**

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Dec-06	20	1	23	11	6	3	0	18	14	0	2	3	1	2	7	6	17	23	20	17	18	62	29	57	15.0	62.1	
2-Dec-06	42	32	A	58	36	31	136	117	274	130	61	63	39	21	23	41	52	46	54	68	46	81	81	92	70.7	274.0	
3-Dec-06	57	A	48	2	51	117	64	107	99	114	17	18	11	9	12	17	16	11	10	14	24	56	65	120	46.1	120.4	
4-Dec-06	A	35	24	19	22	22	100	60	100	136	196	15	58	10	11	11	126	104	11	7	45	8	28	A	52.1	195.6	
5-Dec-06	37	33	11	34	24	26	24	28	22	16	50	69	14	59	64	48	81	51	43	44	211	109	A	25	48.8	210.9	
6-Dec-06	23	43	45	36	123	82	71	79	57	8	4	15	4	4	7	4	6	15	47	27	72	A	96	77	41.1	123.1	
7-Dec-06	54	20	45	12	107	7	66	67	89	10	11	60	45	17	12	75	73	14	22	10	A	19	123	13	42.3	123.3	
8-Dec-06	9	128	19	78	10	10	24	136	78	135	44	62	112	107	24	64	45	18	8	A	12	38	57	28	54.1	135.9	
9-Dec-06	23	12	95	84	12	14	15	15	48	47	16	12	12	14	13	17	16	15	A	23	58	44	48	104	33.0	104.5	
10-Dec-06	44	75	46	92	129	475	153	114	57	84	61	83	93	89	10	40	48	A	26	14	81	11	7	8	80.0	474.8	
11-Dec-06	48	10	13	21	16	12	73	11	13	59	47	24	56	C	C	C	C	A	29	136	84	50	6	3	37.4	136.5	
12-Dec-06	24	169	A	82	4	16	67	64	19	11	9	24	53	5	32	22	5	21	4	5	10	29	7	127	35.1	169.3	
13-Dec-06	68	135	A	90	6	9	117	49	92	19	37	8	55	8	7	20	3	12	7	39	14	3	2	5	35.1	135.1	
14-Dec-06	4	A	19	9	3	2	17	7	34	6	8	36	52	7	64	24	129	44	30	51	70	88	38	7	32.7	129.1	
15-Dec-06	A	10	3	88	41	3	43	116	6	26	113	34	60	47	4	53	16	12	12	15	30	25	20	A	35.2	116.2	
16-Dec-06	21	3	3	3	3	2	2	2	2	3	4	8	9	3	3	4	6	24	20	14	29	100	A	17	12.5	100.1	
17-Dec-06	40	124	17	9	20	82	39	89	79	125	36	4	38	8	8	13	34	34	312	90	34	A	14	81	57.7	311.9	
18-Dec-06	108	119	A	8	52	45	67	9	9	7	5	24	52	24	9	55	12	12	8	63	46	7	4	3	32.5	118.8	
19-Dec-06	33	A	5	4	85	76	36	90	9	8	6	19	8	17	32	80	131	147	217	80	98	319	179	195	81.5	319.0	
20-Dec-06	A	117	58	33	116	133	89	70	14	98	77	10	52	29	61	92	15	14	16	54	38	6	39	A	55.9	132.5	
21-Dec-06	8	7	10	25	121	5	91	60	59	161	84	86	194	43	20	57	8	100	7	5	7	15	A	67	53.9	193.5	
22-Dec-06	102	63	92	85	11	143	35	29	19	20	11	8	33	84	85	19	7	6	99	162	19	A	16	38	51.6	162.4	
23-Dec-06	14	23	56	27	5	56	92	100	49	10	78	4	5	29	105	13	102	22	11	25	A	32	7	5	37.8	104.8	
24-Dec-06	5	11	19	17	7	10	12	14	24	32	9	6	6	5	4	6	9	12	7	A	16	38	10	10	12.6	38.5	
25-Dec-06	4	3	3	2	2	3	2	2	3	2	3	4	9	10	9	7	10	8	A	6	6	8	8	17	5.7	17.1	
26-Dec-06	46	12	5	5	4	4	5	8	6	6	13	8	103	179	5	20	155	A	99	45	44	70	53	42	40.6	178.8	
27-Dec-06	44	54	31	32	32	47	17	20	21	17	14	13	18	17	51	24	A	15	20	15	21	11	6	5	23.7	53.7	
28-Dec-06	10	5	5	5	6	13	13	10	12	32	18	13	9	25	25	A	51	14	17	28	49	53	149	27	25.6	149.5	
29-Dec-06	35	60	42	31	18	16	117	55	73	72	53	39	74	118	A	7	101	6	121	17	37	65	5	3	50.7	120.6	
30-Dec-06	17	9	92	74	71	10	97	12	76	78	57	18	62	A	59	13	104	69	43	82	502	292	110	59	87.1	502.2	
31-Dec-06	31	5	83	14	16	291	135	108	46	81	71	78	A	45	291	20	63	68	82	48	375	107	103	68	97.1	375.1	
Hourly Avg	34.8	47.1	33.8	35.2	37.4	56.9	58.7	53.8	48.5	50.1	39.2	28.1	44.6	35.6	36.4	30.1	49.7	33.5	48.3	41.5	72.3	62.3	46.8	46.5			
Hourly Max	108.4	169.3	95.4	92.2	128.9	474.8	153.3	135.9	274.0	160.8	195.6	85.8	193.5	178.8	291.2	91.6	155.1	146.6	311.9	162.4	502.2	319.0	179.4	194.7			



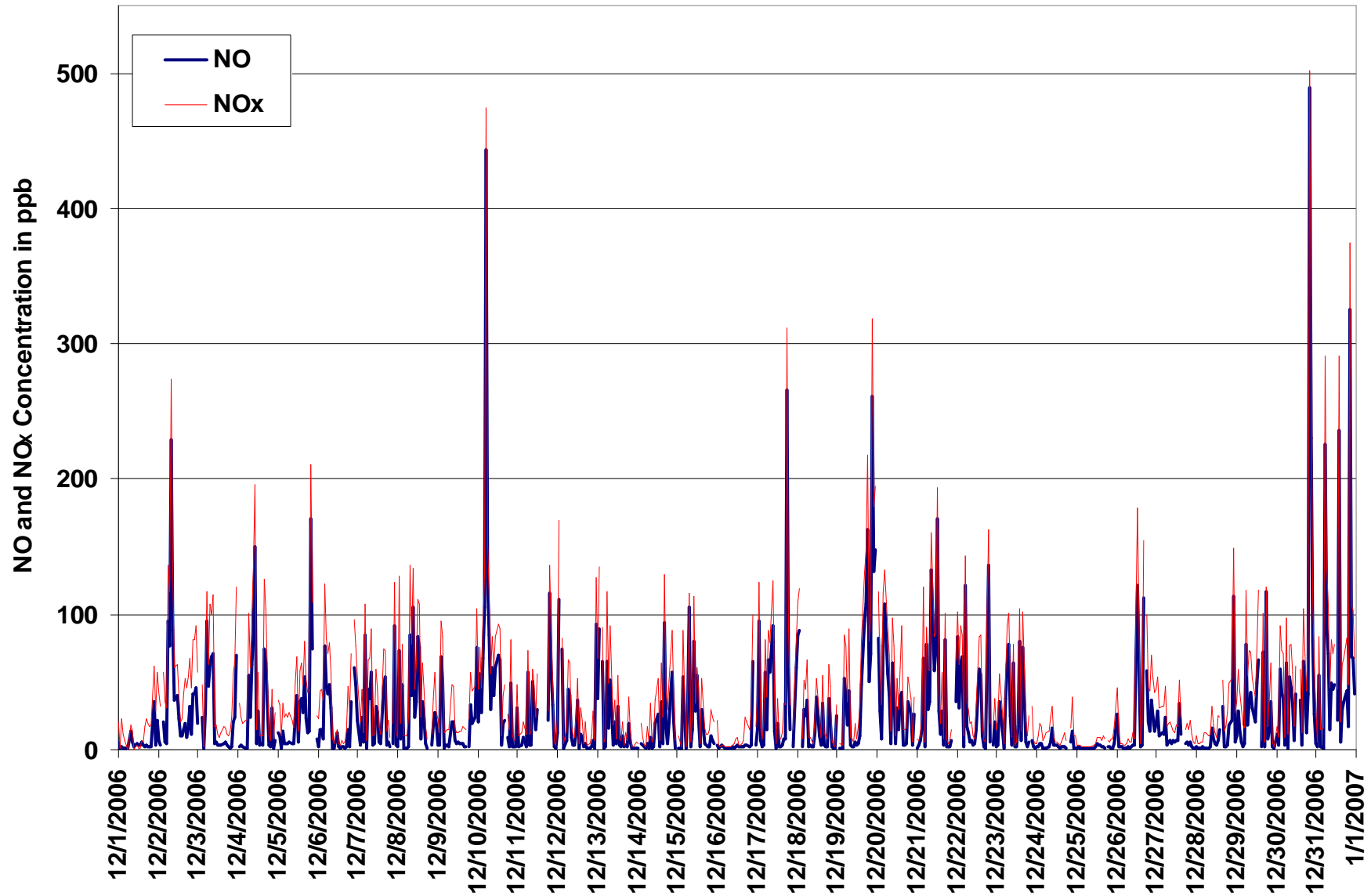


Figure 4. PAS - Crescent Heights Oxides of Nitrogen Instantaneous (30 Second) Maximum Value Monthly Trend



# PAS - Crescent Heights - Ozone Monthly Summary

Station: Crescent Heights  
 Station Owner: PAS

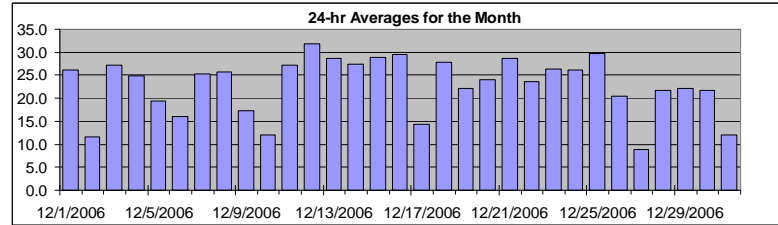
## HOURLY AVERAGE TABLE

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

Monitoring Dates: December 1, 2006 to January 1, 2007

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

Number of 1-hr Exceedances:	0		
Maximum 1-hr Average:	38.8 ppb	12-Dec	13:00 14:00
Maximum 24-hr Average:	31.9 ppb	12-Dec	



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
	36.4	34.5	30.7	25.4	17.2	3.0	1.2	22.8 ppb	25.4 ppb

### Status Flag Characters

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

Day	Mountain Standard Time																							24-hour Average	Daily Maximum		
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Dec-06	25	25	17	20	25	29	32	29	27	31	31	32	33	33	33	31	27	20	21	23	24	23	20	14	26.1	33.5	
2-Dec-06	11	15	A	21	18	13	12	2	4	11	17	20	23	25	25	16	5	4	6	3	6	4	2	4	11.7	25.4	
3-Dec-06	9	A	36	35	33	31	31	30	26	24	28	30	31	34	34	30	34	36	37	33	25	13	3	3	27.2	36.5	
4-Dec-06	A	16	20	24	21	22	9	9	8	13	19	32	32	34	33	30	28	27	34	35	34	35	33	A	24.9	35.3	
5-Dec-06	14	22	29	30	28	23	20	17	21	23	23	24	26	22	21	18	13	6	10	16	14	11	A	15	19.4	30.0	
6-Dec-06	11	9	10	5	1	1	3	4	10	29	33	33	33	32	32	31	30	25	11	20	2	A	2	1	16.0	33.1	
7-Dec-06	7	24	26	31	29	28	26	24	22	25	27	28	30	30	27	24	23	24	24	26	A	27	26	26	25.4	31.0	
8-Dec-06	30	34	36	31	30	29	21	13	10	21	26	26	28	25	24	26	25	24	26	A	26	26	27	28	25.7	35.6	
9-Dec-06	24	27	23	20	20	18	17	18	11	13	22	26	26	25	23	20	20	19	A	14	6	4	2	1	17.4	27.3	
10-Dec-06	1	1	1	1	1	2	2	4	3	4	12	9	15	25	26	19	12	A	16	22	22	24	26	26	11.9	26.2	
11-Dec-06	25	26	25	24	23	26	22	21	21	26	28	29	30	30	29	28	23	27	31	29	31	32	34	34	27.3	34.2	
12-Dec-06	34	32	A	28	28	28	28	26	C	C	A	31	34	39	38	36	38	35	37	36	28	26	31	24	31.9	38.8	
13-Dec-06	23	26	A	27	29	27	21	12	13	28	35	33	31	30	32	33	33	31	31	31	33	34	35	34	28.8	35.0	
14-Dec-06	35	A	35	36	36	35	33	32	24	32	31	29	33	34	33	26	9	11	17	5	15	22	34	32	27.4	36.1	
15-Dec-06	A	34	34	31	29	27	26	27	31	32	32	33	34	33	35	33	34	33	30	15	18	16	20	A	29.0	35.4	
16-Dec-06	26	30	30	30	29	29	31	32	34	34	34	34	34	36	36	34	32	23	24	27	22	21	A	21	29.6	35.7	
17-Dec-06	11	17	18	17	16	11	2	2	3	5	20	31	27	25	25	13	10	3	4	7	A	18	18	14.3	30.7		
18-Dec-06	17	20	A	24	24	26	26	28	28	31	32	31	30	32	32	29	25	26	27	28	31	32	33	33	27.8	32.8	
19-Dec-06	33	A	35	34	34	34	34	32	34	33	36	34	34	29	21	24	7	3	2	5	4	2	2	2	22.1	35.7	
20-Dec-06	A	6	6	11	16	24	24	23	22	24	25	33	32	30	30	29	26	27	22	29	30	31	29	A	24.0	32.5	
21-Dec-06	28	30	32	34	31	33	26	19	13	20	31	33	32	31	29	28	33	32	32	31	28	29	A	25	28.6	33.5	
22-Dec-06	24	25	24	23	25	22	19	15	14	18	25	27	29	30	29	30	32	30	23	18	19	A	21	22	23.7	31.7	
23-Dec-06	19	17	19	22	24	24	20	21	20	28	32	34	33	31	30	31	29	22	30	26	A	29	33	33	26.4	34.2	
24-Dec-06	33	31	28	23	27	27	29	24	22	23	25	24	26	31	31	27	25	24	25	A	24	23	23	30	26.2	32.7	
25-Dec-06	31	31	33	33	32	32	33	31	30	29	27	27	25	27	27	27	24	31	A	34	33	31	28	27	29.8	33.5	
26-Dec-06	27	26	27	26	25	26	24	22	24	24	23	27	28	31	31	28	9	A	17	9	7	5	1	2	20.4	31.2	
27-Dec-06	1	2	4	2	7	8	4	5	4	10	11	11	9	10	7	5	A	10	7	10	12	19	21	24	8.8	23.5	
28-Dec-06	24	28	31	30	28	26	22	26	24	22	22	25	27	27	27	A	25	23	20	18	8	7	4	5	21.7	30.7	
29-Dec-06	5	2	2	6	19	22	11	5	6	10	16	22	30	34	A	35	34	36	35	36	36	37	36	37	22.1	36.8	
30-Dec-06	36	36	34	31	30	30	26	25	23	23	23	22	21	A	24	24	19	17	15	12	7	6	5	10	21.8	36.4	
31-Dec-06	21	30	25	23	20	13	4	4	6	6	13	13	A	16	11	20	9	3	3	4	3	2	6	19	12.0	30.1	
Hourly Avg	20.9	22.2	23.6	23.6	23.9	23.4	20.6	18.7	18.0	21.7	25.2	27.3	28.5	29.0	27.9	26.7	23.2	22.0	21.3	20.7	19.1	20.5	19.7	19.5			
Hourly Max	36.3	36.4	35.6	35.7	36.1	35.4	34.3	32.3	34.0	33.7	35.7	34.3	34.0	38.8	37.9	36.2	37.6	36.2	37.2	36.1	35.7	36.8	36.0	36.7			

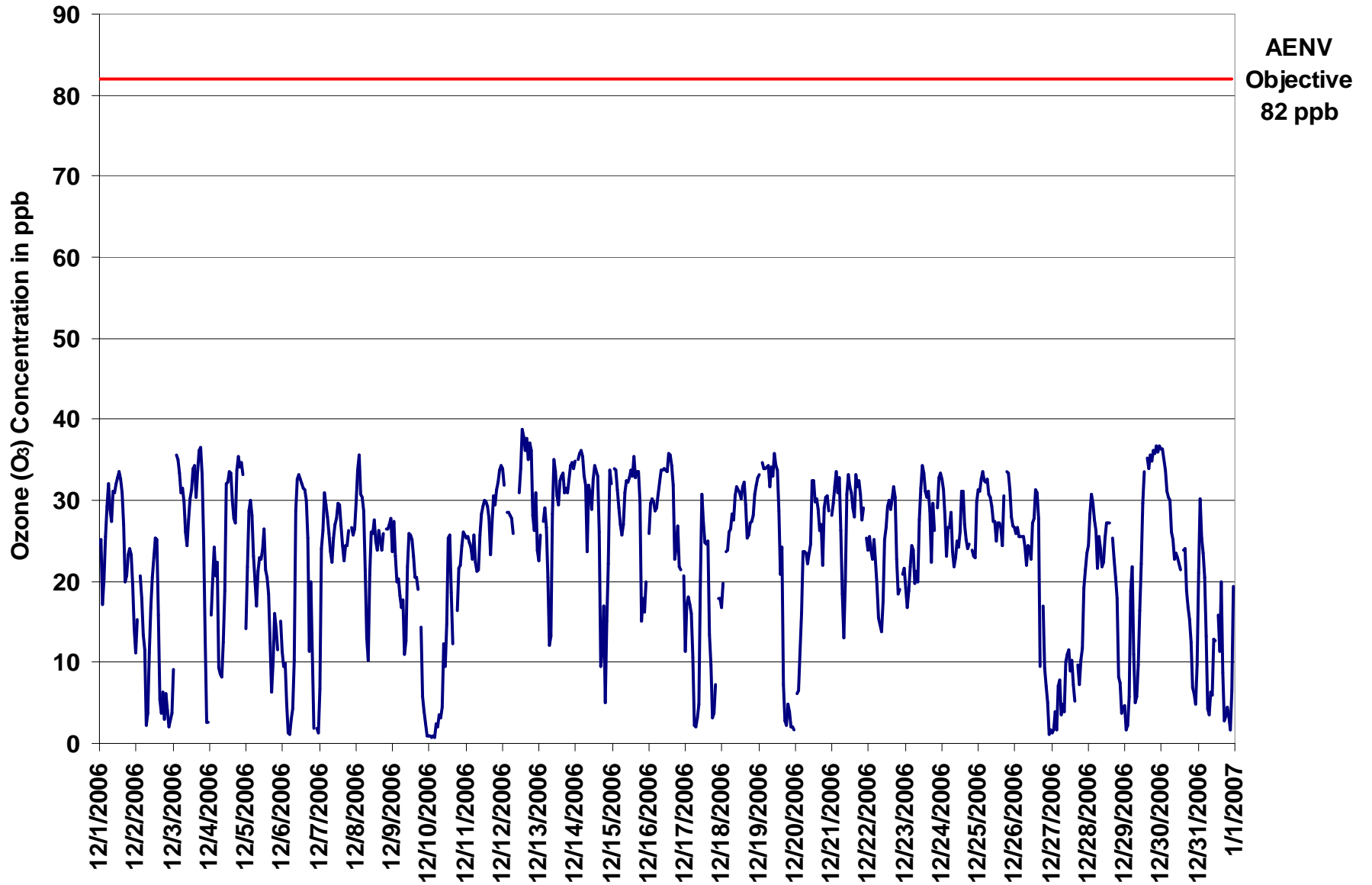


Figure 5. PAS - Crescent Heights Ozone 1-hr Average Monthly Trend



Station: Crescent Heights  
 Station Owner: PAS

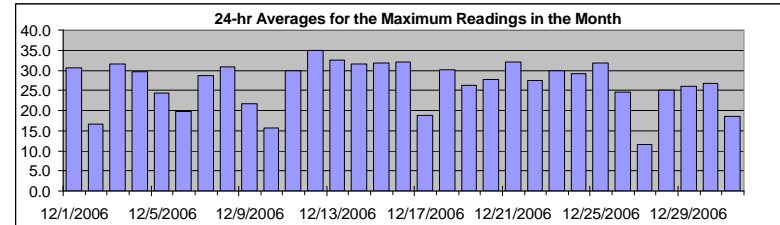
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: December 1, 2006 to January 1, 2007

**Summary**

Maximum 1-hr Value:	40.2	ppb	12-Dec	14:00 15:00
Maximum 24-hr Value:	35.0	ppb	12-Dec	



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
	38.6	37.0	33.3	28.8	22.8	7.3	2.0	26.7 ppb	28.8 ppb

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Dec-06	31	28	23	28	31	37	34	33	32	33	33	33	34	35	35	33	32	25	24	27	32	30	27	22	30.5	36.6
2-Dec-06	19	21	A	29	25	18	17	7	6	15	20	25	27	27	28	29	9	8	12	8	11	7	3	11	16.6	29.0
3-Dec-06	25	A	37	36	35	34	33	33	29	29	30	32	33	38	37	35	36	38	39	39	33	25	10	9	31.6	38.8
4-Dec-06	A	21	27	28	26	28	20	19	13	16	31	34	35	35	35	34	31	34	36	38	36	37	37	A	29.7	37.9
5-Dec-06	19	27	31	32	32	29	25	24	25	26	26	28	29	25	25	23	21	14	19	24	20	19	A	19	24.4	32.0
6-Dec-06	15	14	15	11	3	2	6	9	25	31	34	34	34	33	33	33	32	29	23	26	7	A	4	2	19.8	34.2
7-Dec-06	19	29	29	33	32	30	29	27	25	27	28	30	31	32	30	28	26	27	29	29	A	30	31	30	28.7	33.0
8-Dec-06	34	37	38	37	34	32	28	25	23	33	31	30	31	29	30	30	30	29	28	A	29	29	30	30	30.8	37.5
9-Dec-06	29	30	30	27	23	21	20	20	23	20	27	28	28	28	26	26	25	21	A	18	16	7	5	2	21.8	30.0
10-Dec-06	2	2	2	2	2	8	5	13	7	7	20	16	22	29	30	23	18	A	19	25	26	28	28	27	15.6	29.8
11-Dec-06	28	28	27	28	28	28	27	23	24	29	30	31	32	32	31	31	25	31	33	33	33	34	35	36	29.9	36.0
12-Dec-06	36	34	A	31	30	29	31	28	C	C	A	33	39	40	40	40	39	38	39	38	33	36	35	29	35.0	40.2
13-Dec-06	32	29	A	30	31	29	27	20	24	37	38	36	33	34	35	34	35	34	34	34	35	36	36	36	32.5	38.4
14-Dec-06	37	A	38	38	38	37	35	34	31	34	34	33	36	37	36	34	16	18	22	11	21	33	36	35	31.5	38.1
15-Dec-06	A	36	36	33	32	29	29	31	32	34	34	34	37	36	37	37	36	36	35	19	23	20	23	A	31.7	37.1
16-Dec-06	29	31	31	32	30	31	32	34	35	35	35	36	36	37	37	36	33	30	28	29	27	29	A	24	32.1	37.1
17-Dec-06	18	20	21	20	21	17	5	4	11	12	31	32	30	27	29	29	18	16	10	9	12	A	21	21	18.9	31.8
18-Dec-06	19	21	A	26	25	29	28	30	30	32	34	33	32	35	34	33	29	28	30	30	31	32	33	34	30.0	35.2
19-Dec-06	34	A	36	35	36	36	36	34	36	36	37	37	37	34	29	34	18	10	6	13	13	6	7	3	26.3	37.5
20-Dec-06	A	14	13	16	22	28	26	28	28	26	30	34	35	32	33	32	30	31	26	33	32	32	30	A	27.8	35.2
21-Dec-06	30	31	34	35	34	35	31	24	21	32	35	36	34	33	31	31	36	35	35	35	31	31	A	29	32.1	35.9
22-Dec-06	28	28	27	27	27	27	26	22	16	23	29	28	33	33	33	33	33	32	32	22	23	A	25	24	27.4	33.4
23-Dec-06	25	25	22	24	26	27	24	26	25	31	36	36	36	33	33	34	31	27	33	32	A	34	34	35	29.9	35.8
24-Dec-06	34	35	30	28	28	29	31	27	26	25	26	26	30	33	33	29	28	27	27	A	28	28	28	33	29.1	34.7
25-Dec-06	33	32	34	35	34	34	34	33	32	31	29	29	28	30	29	29	28	35	A	35	35	34	31	29	31.8	35.2
26-Dec-06	29	30	28	28	27	27	26	24	27	26	25	29	35	35	33	32	23	A	26	20	16	13	3	4	24.6	35.5
27-Dec-06	2	7	10	4	10	12	5	7	6	13	12	13	12	12	11	8	A	12	10	12	15	22	23	25	11.4	25.0
28-Dec-06	27	30	32	31	30	30	24	28	27	25	25	28	29	29	31	A	29	26	24	22	16	14	10	7	25.0	32.4
29-Dec-06	10	3	7	17	21	24	21	9	15	20	21	27	35	36	A	37	37	37	38	38	37	38	37	38	26.1	38.2
30-Dec-06	38	38	38	36	35	33	29	27	26	27	26	25	24	A	26	26	23	21	23	22	17	20	15	18	26.7	38.2
31-Dec-06	31	31	32	27	25	20	15	11	12	9	17	16	A	20	20	24	24	8	13	12	8	7	21	24	18.6	31.6
Hourly Avg	25.5	25.5	27.0	27.2	26.8	26.8	24.5	23.1	23.1	25.8	28.8	29.8	31.6	31.7	31.1	30.6	27.7	26.1	26.0	25.1	24.0	25.4	23.6	22.8		
Hourly Max	38.0	38.2	38.1	37.7	37.9	36.7	36.2	34.3	36.4	37.3	38.4	37.5	39.0	40.1	40.2	39.7	38.9	38.3	38.7	38.8	37.0	38.2	37.4	38.0		

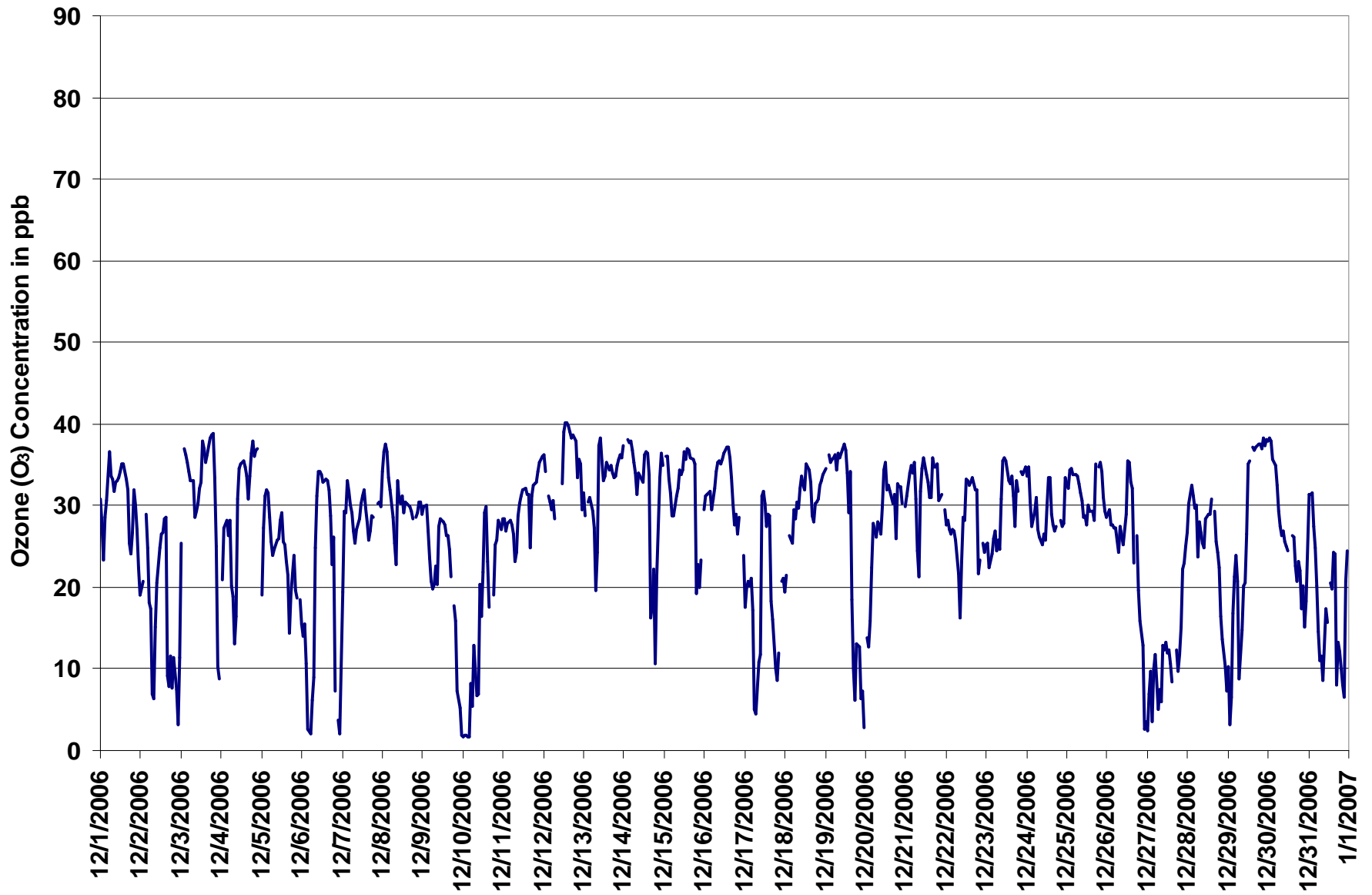
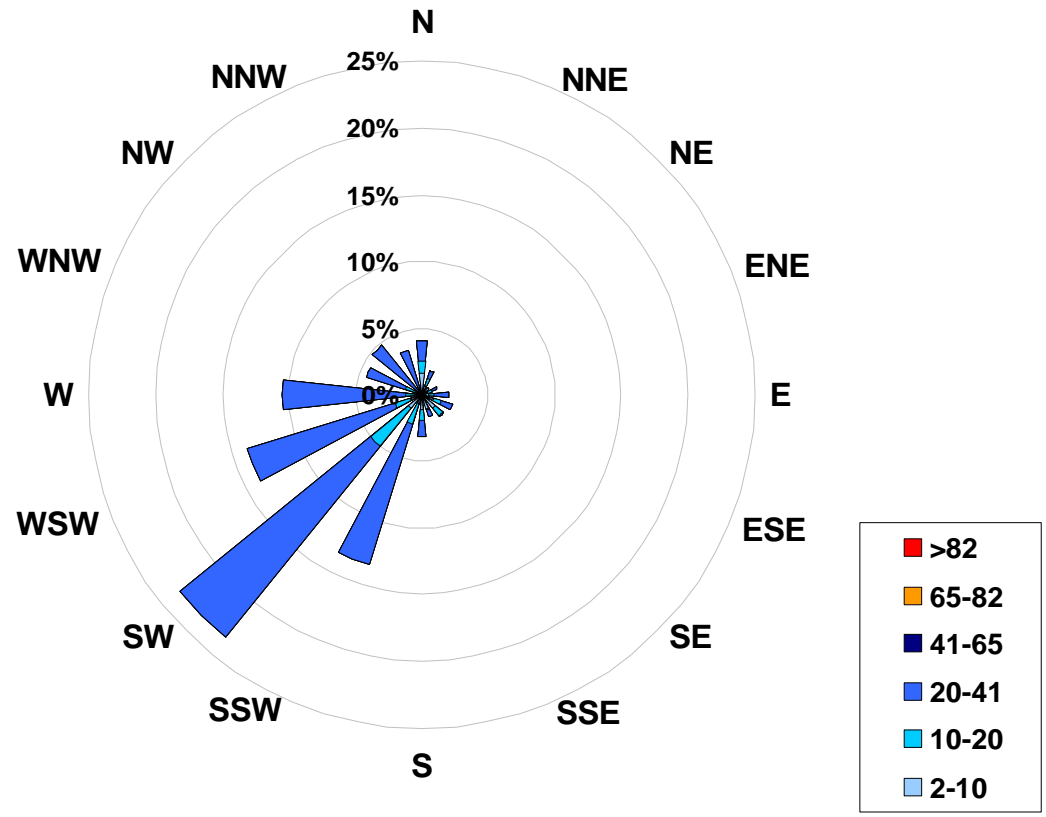


Figure 6. PAS - Crescent Heights Ozone Instantaneous (30 Second) Maximum Value Monthly Trend



**1-hr Average Concentration Rose for Ozone (in ppb) Located at the Crescent Heights Site for December 2006**



**Calms: 0%**

Frequency Distribution of O <sub>3</sub> in ppb			
Range		Frequency (hrs)	
2.0	< 10	109	
10	to 20	102	
20	to 41	498	
41	to 65	0	
65	to 82	0	
	> 82	0	
Total Non-Zero Values			709



# PAS - Crescent Heights - Ozone Monthly Summary

Station: Crescent Heights  
 Station Owner: PAS

## EIGHT HOUR RUNNING AVERAGE TABLE

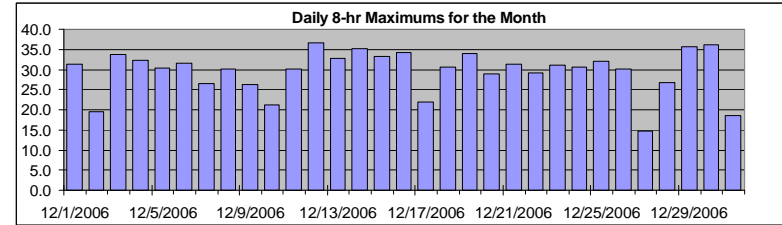
Ozone (O<sub>3</sub>)

Monitoring Dates: December 1, 2006 to January 1, 2007

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

Number of 8-hr Exceedances:	0						
Maximum 8-hr Average:	36.6	ppb	12-Dec	19:00	20:00		

Percentile	99	95	75	50	25	5	1
	35.6	33.3	29.1	25.1	17.4	6.3	2.8



### Status Flag Characters

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

Day	Mountain Standard Time																							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-Dec-06	12	14	14	15	17	20	23	25	26	26	28	30	31	31	31	31	31	31	30	29	28	27	25	24	21	31.4
2-Dec-06	20	19	19	18	17	16	15	13	12	12	12	12	13	14	16	18	18	17	16	13	11	9	6	4	19.5	
3-Dec-06	5	5	9	14	18	21	26	29	32	31	30	29	29	30	30	31	32	33	34	33	30	26	23	33.7		
4-Dec-06	21	18	16	15	14	16	16	17	16	16	16	17	18	19	22	25	28	29	31	32	32	32	32	32	32.3	
5-Dec-06	30	30	29	28	27	26	24	23	24	24	23	22	22	22	22	22	21	19	17	16	15	14	13	12	30.3	
6-Dec-06	12	13	13	11	9	8	7	6	6	8	11	14	18	22	26	29	31	31	28	27	23	22	17	13	31.5	
7-Dec-06	10	10	12	13	17	19	22	24	26	27	27	26	26	26	27	27	27	27	26	26	25	25	25	25	26.6	
8-Dec-06	26	28	29	30	30	30	30	28	25	24	23	22	22	21	22	23	25	25	25	25	25	25	26	26	30.1	
9-Dec-06	26	26	26	25	24	23	22	21	19	17	17	18	19	20	20	21	22	23	23	21	18	15	12	10	26.3	
10-Dec-06	7	4	4	2	1	1	1	2	2	2	4	5	7	9	12	14	15	17	18	19	20	20	20	21	21.2	
11-Dec-06	23	23	24	25	25	25	25	24	23	24	24	25	25	26	27	28	28	28	28	28	29	29	29	30	30.2	
12-Dec-06	32	32	32	32	32	31	30	29	N	N	N	N	N	N	N	N	N	N	36	36	37	36	34	33	32	36.6
13-Dec-06	30	29	28	26	27	27	25	23	22	22	24	25	25	25	27	29	32	32	32	32	32	32	33	33	32.8	
14-Dec-06	33	33	34	34	35	35	35	35	33	33	32	31	31	31	31	30	28	26	24	21	19	17	18	18	35.1	
15-Dec-06	20	23	25	29	31	32	30	30	30	30	29	30	30	31	32	33	33	33	33	31	29	27	25	24	33.3	
16-Dec-06	23	22	22	24	26	28	29	30	31	31	32	32	33	33	34	34	34	33	31	31	29	27	26	24	34.3	
17-Dec-06	21	20	20	18	17	16	14	12	11	9	9	11	13	14	17	20	21	22	20	16	14	12	11	10	21.9	
18-Dec-06	11	12	N	N	N	21	22	24	25	27	27	28	29	30	30	31	30	30	29	29	28	28	28	29	30.5	
19-Dec-06	30	30	31	32	33	34	34	34	34	34	34	34	34	33	32	31	27	23	19	16	12	9	6	3	33.9	
20-Dec-06	3	3	4	5	7	10	13	16	17	19	21	24	26	27	27	28	29	29	29	28	28	28	28	28	29.0	
21-Dec-06	28	28	30	30	30	31	30	29	27	26	26	26	26	26	26	27	30	31	31	31	30	30	30	30	31.3	
22-Dec-06	29	28	27	25	25	24	24	22	21	20	20	21	21	22	23	25	27	29	29	28	26	26	25	24	29.0	
23-Dec-06	22	20	19	20	20	21	21	21	21	22	24	25	26	27	29	30	31	30	30	29	28	28	29	29	31.0	
24-Dec-06	29	31	31	30	30	29	29	28	26	25	25	25	25	25	26	26	27	27	27	27	27	26	24	25	30.7	
25-Dec-06	26	27	28	29	30	31	32	32	32	32	31	30	29	29	28	28	27	27	27	28	29	30	30	30	32.1	
26-Dec-06	30	29	29	28	27	26	26	25	25	25	24	24	25	25	26	27	25	25	24	22	19	15	11	7	30.0	
27-Dec-06	6	6	4	3	3	3	4	4	4	5	6	7	8	8	8	8	9	9	9	8	9	10	12	15	14.7	
28-Dec-06	16	18	21	24	26	26	26	27	27	26	25	24	24	24	25	25	25	25	25	24	21	18	15	14	26.8	
29-Dec-06	11	9	6	5	6	8	9	9	9	10	12	14	15	17	17	22	26	29	32	34	35	35	36	36	35.7	
30-Dec-06	36	36	36	35	35	34	33	31	29	28	26	25	24	23	23	23	22	21	20	19	17	16	13	11	36.1	
31-Dec-06	12	13	15	16	18	19	18	18	16	13	11	10	8	9	10	12	13	12	11	10	9	7	6	6	18.5	

Hourly Max 36.0 36.1 36.0 35.4 34.9 35.1 34.9 34.6 33.8 33.7 33.8 33.9 33.9 33.4 34.1 34.3 34.1 35.8 35.9 36.6 35.8 35.4 35.5 35.7



# PAS - Crescent Heights - Carbon Monoxide Monthly Summary

Station: Crescent Heights  
 Station Owner: PAS

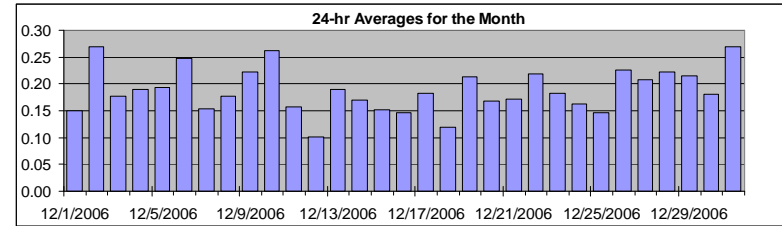
## HOURLY AVERAGE TABLE

## Carbon Monoxide (CO)

Monitoring Dates: December 1, 2006 to January 1, 2007

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

Number of 1-hr Exceedances:	0			
Maximum 1-hr Average:	0.6	ppm	10-Dec	9:00 10:00
Maximum 24-hr Value:	0.3	ppm	2-Dec	



AIC Time:	35 hrs	Operational Time:	706 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	0.5	0.4	0.2	0.2	0.1	0.1	0.1	0.2 ppm	0.2 ppm

### Status Flag Characters

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

Day	Mountain Standard Time																							24-hour Average	Daily Maximum		
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00		
1-Dec-06	0.1	0.1	0.1	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	0.2	0.2	0.2	0.2	0.2	0.15	0.22
2-Dec-06	0.2	0.2	A	0.2	0.2	0.2	0.2	0.3	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.18	0.39	
3-Dec-06	0.3	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.19	0.53	
4-Dec-06	A	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.5	0.4	0.3	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.19	0.27	
5-Dec-06	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	A	0.2	0.19	0.27	
6-Dec-06	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.3	A	0.5	0.5	0.25	0.47	
7-Dec-06	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	0.1	0.1	A	0.1	0.1	0.1	0.15	0.24	
8-Dec-06	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.4	0.3	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	A	A	0.1	0.1	0.1	0.1	0.18	0.43	
9-Dec-06	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.4	0.3	0.3	0.5	0.22	0.48	
10-Dec-06	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.6	0.4	0.4	0.4	0.2	0.2	0.2	0.2	A	0.2	0.1	0.1	0.1	0.1	0.1	0.26	0.55	
11-Dec-06	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	C	C	C	A	0.2	0.2	0.2	0.2	0.16	0.21	
12-Dec-06	0.1	0.1	A	0.1	0.1	0.1	0.1	0.2	A	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.10	0.15	
13-Dec-06	0.1	0.1	A	0.1	0.1	0.2	0.2	0.3	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.19	0.45	
14-Dec-06	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.3	0.2	0.1	0.1	0.17	0.28	
15-Dec-06	A	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	A	0.15	0.20	
16-Dec-06	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	A	0.15	0.20	
17-Dec-06	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.3	0.2	A	0.1	0.1	0.18	0.41	
18-Dec-06	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12	0.15	
19-Dec-06	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.21	0.49	
20-Dec-06	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	0.1	0.1	0.1	0.1	A	0.17	0.20	
21-Dec-06	0.1	0.1	0.1	0.1	0.1	0.1	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	A	0.17	0.31	
22-Dec-06	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.22	0.31	
23-Dec-06	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.1	0.1	0.1	0.18	0.22	
24-Dec-06	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.16	0.20	
25-Dec-06	0.1	0.1	0.1	0.1	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	0.1	A	0.1	0.1	0.1	0.1	0.1	0.15	0.17	
26-Dec-06	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.3	0.3	0.4	0.4	0.3	0.23	0.44	
27-Dec-06	0.3	0.3	0.3	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	A	0.1	0.1	0.1	0.2	0.1	0.1	0.21	0.35	
28-Dec-06	0.2	0.2	0.2	0.2	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	0.4	0.3	0.2	0.22	0.35	
29-Dec-06	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.3	0.2	0.2	0.2	A	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.21	0.49	
30-Dec-06	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	A	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.18	0.30	
31-Dec-06	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	A	0.3	0.3	0.3	0.2	0.3	0.5	0.5	0.4	0.3	0.5	0.3	0.27	0.52	
Hourly Avg	0.17	0.16	0.16	0.15	0.15	0.16	0.18	0.22	0.26	0.24	0.20	0.19	0.17	0.16	0.17	0.17	0.17	0.19	0.20	0.20	0.19	0.21	0.21	0.21			
Hourly Max	0.32	0.35	0.27	0.27	0.28	0.41	0.42	0.40	0.53	0.55	0.36	0.44	0.36	0.26	0.30	0.26	0.36	0.52	0.49	0.36	0.46	0.46	0.46	0.49			



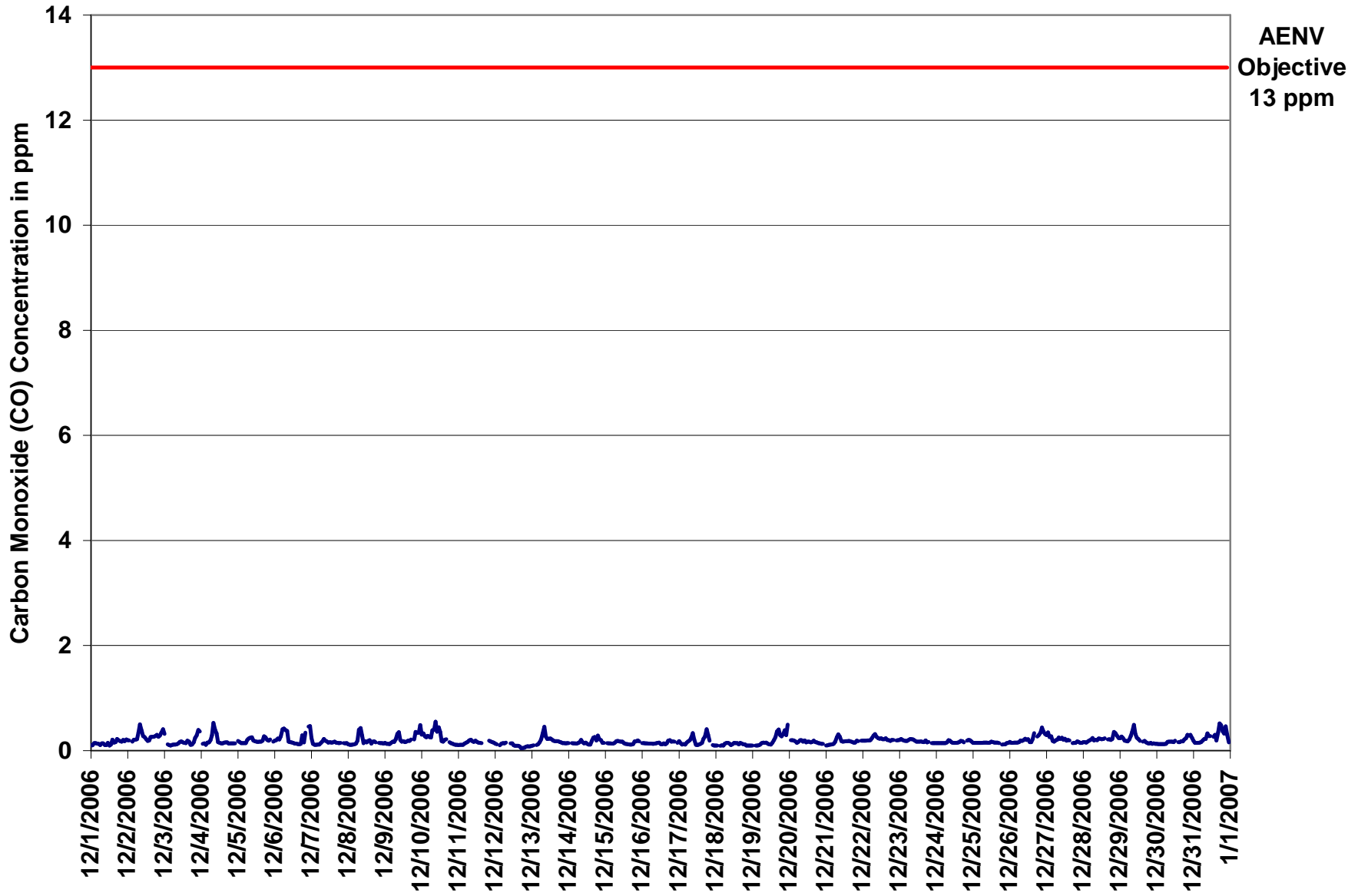


Figure 7. PAS - Crescent Heights Carbon Monoxide 1-hr Average Monthly Trend



Station: Crescent Heights  
 Station Owner: PAS

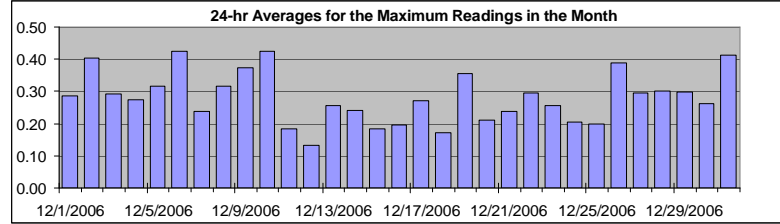
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

**Carbon Monoxide (CO)**

Monitoring Dates: December 1, 2006 to January 1, 2007

**Summary**

Maximum 1-hr Value:	1.8	ppm	8-Dec	7:00 8:00
Maximum 24-hr Value:	0.4	ppm	6-Dec	



AIC Time:	35 hrs	Operational Time:	706 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	1.0	0.6	0.3	0.2	0.2	0.1	0.1	0.3 ppm	0.2 ppm

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start 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-Dec-06	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.1	0.5	0.1	0.3	1.3	0.2	0.3	0.3	0.2	0.2	0.2	0.4	0.2	0.3	0.29	1.33
2-Dec-06	0.4	0.2	A	0.3	0.3	0.3	0.3	0.8	0.7	0.6	0.3	0.4	0.3	0.2	0.2	0.3	0.4	0.3	0.4	0.4	0.3	0.6	0.5	0.7	0.40	0.75
3-Dec-06	0.8	A	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.2	0.4	0.2	0.3	0.3	0.2	0.2	0.4	0.5	0.5	0.5	0.4	0.29	0.77
4-Dec-06	A	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.8	0.6	0.6	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	A	0.28	0.76
5-Dec-06	0.2	0.2	0.1	0.1	0.1	0.2	0.6	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.2	0.3	0.4	0.4	0.8	0.2	0.3	A	0.2	0.31	0.78
6-Dec-06	0.2	0.3	0.4	0.3	0.5	1.1	0.7	0.8	0.7	0.2	0.2	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.5	0.3	0.6	A	0.8	0.8	0.43	1.10
7-Dec-06	0.3	0.2	0.2	0.1	0.2	0.1	0.3	0.3	0.6	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.24	0.62
8-Dec-06	0.2	0.1	0.1	0.2	0.2	0.2	0.3	1.8	0.8	0.7	0.2	0.2	0.2	0.3	0.3	0.1	0.2	0.2	0.2	A	0.2	0.2	0.2	0.1	0.32	1.78
9-Dec-06	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.4	0.6	0.8	0.3	0.3	0.4	0.3	0.2	0.2	0.5	0.3	A	0.3	0.9	0.6	0.6	0.6	0.37	0.95
10-Dec-06	0.4	0.4	0.3	0.3	0.3	0.4	0.3	1.0	1.2	0.7	0.6	0.7	0.6	0.3	0.3	0.5	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.43	1.18
11-Dec-06	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	0.2	0.2	0.2	C	C	C	A	0.2	0.2	0.2	0.2	0.18	0.26
12-Dec-06	0.2	0.2	A	0.1	0.1	0.1	0.1	0.2	A	A	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.13	0.19
13-Dec-06	0.1	0.1	A	0.1	0.2	0.2	0.4	0.4	1.0	0.4	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26	1.05
14-Dec-06	0.1	A	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.4	0.3	0.2	0.2	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.24	0.37
15-Dec-06	A	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.19	0.25
16-Dec-06	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.2	0.3	0.3	0.3	0.3	0.2	A	0.2	0.20	0.36
17-Dec-06	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.6	0.4	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.6	0.6	0.2	A	0.1	0.1	0.27	0.63
18-Dec-06	0.1	0.1	A	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.6	0.1	0.1	0.1	0.1	0.17	0.60
19-Dec-06	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.4	0.5	1.1	0.7	0.5	0.6	0.7	0.5	0.4	0.6	0.36	1.06
20-Dec-06	A	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	A	A	0.21	0.27
21-Dec-06	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.6	0.2	A	0.2	0.24	0.61
22-Dec-06	0.2	0.2	0.2	0.3	0.2	0.2	0.4	0.4	0.5	0.3	0.3	0.3	0.4	0.3	0.3	0.5	0.3	0.3	0.2	0.3	0.3	A	0.2	0.2	0.30	0.55
23-Dec-06	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.9	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	A	0.2	0.2	0.1	0.26	0.86
24-Dec-06	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	A	0.2	0.4	0.3	0.2	0.20	0.38
25-Dec-06	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.5	A	0.3	0.1	0.1	0.2	0.2	0.20	0.54
26-Dec-06	0.7	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.5	0.2	0.3	0.4	0.4	A	0.6	0.5	0.5	1.6	0.5	0.39	1.60
27-Dec-06	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.3	0.3	0.3	0.3	0.2	A	0.1	0.2	0.2	0.4	0.2	0.2	0.2	0.29	0.57
28-Dec-06	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	0.4	A	0.3	0.3	0.2	0.3	0.5	0.7	0.4	0.3	0.30	0.72
29-Dec-06	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.6	1.0	0.4	0.4	0.3	0.2	A	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.30	1.00
30-Dec-06	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	A	0.2	0.2	0.3	0.2	0.3	0.4	0.6	0.4	0.4	0.3	0.26	0.59
31-Dec-06	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.4	A	0.4	0.5	0.2	0.7	1.1	0.7	0.6	0.5	0.8	0.6	0.2	0.41	1.07
Hourly Avg	0.25	0.20	0.19	0.18	0.19	0.22	0.26	0.40	0.42	0.38	0.28	0.27	0.25	0.24	0.29	0.25	0.30	0.30	0.29	0.33	0.34	0.36	0.30	0.28		
Hourly Max	0.77	0.43	0.43	0.37	0.52	1.10	0.70	1.78	1.18	1.00	0.65	0.67	0.56	0.43	1.33	0.55	1.06	1.07	0.68	0.78	0.95	1.60	0.85	0.78		

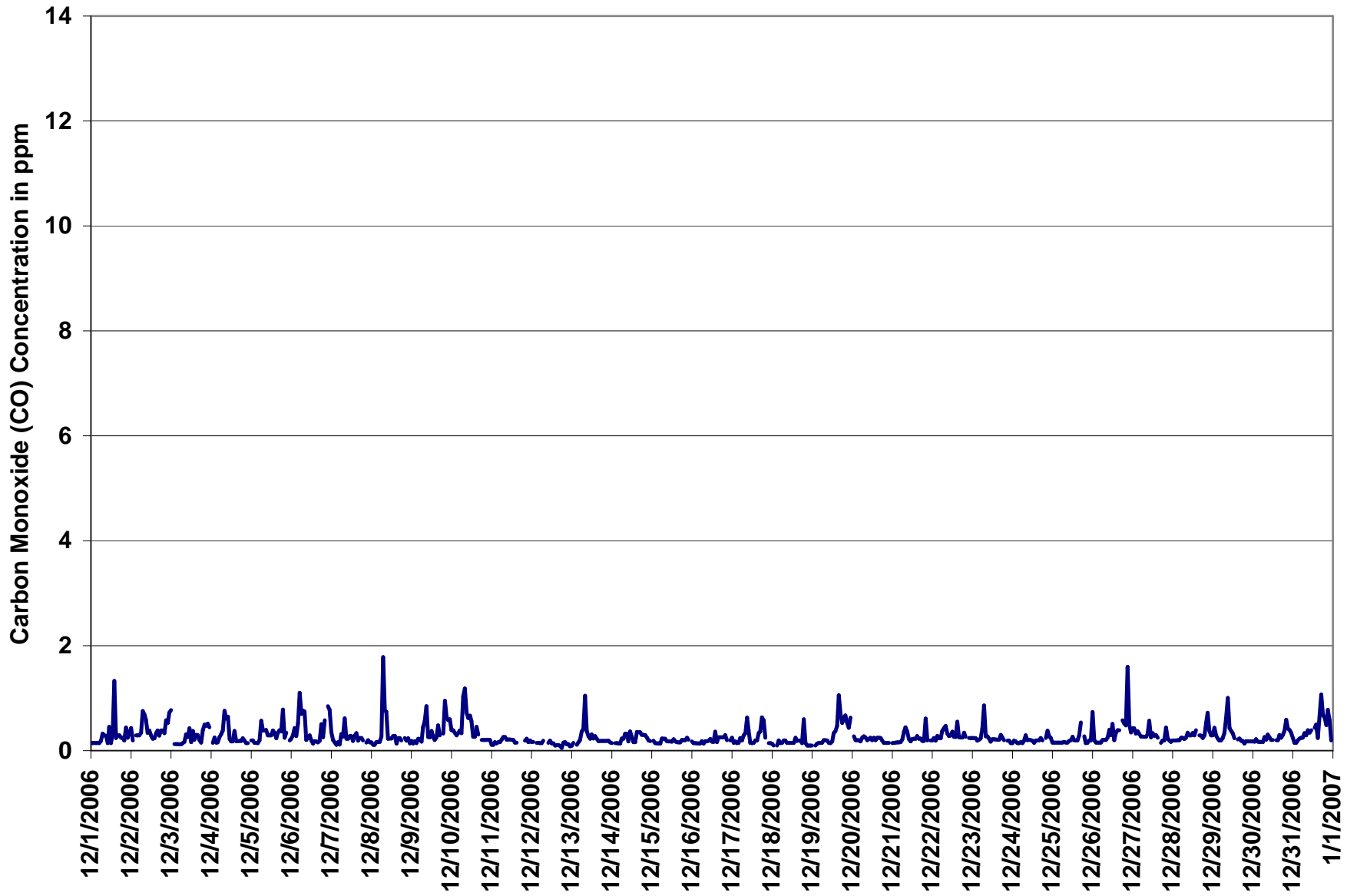
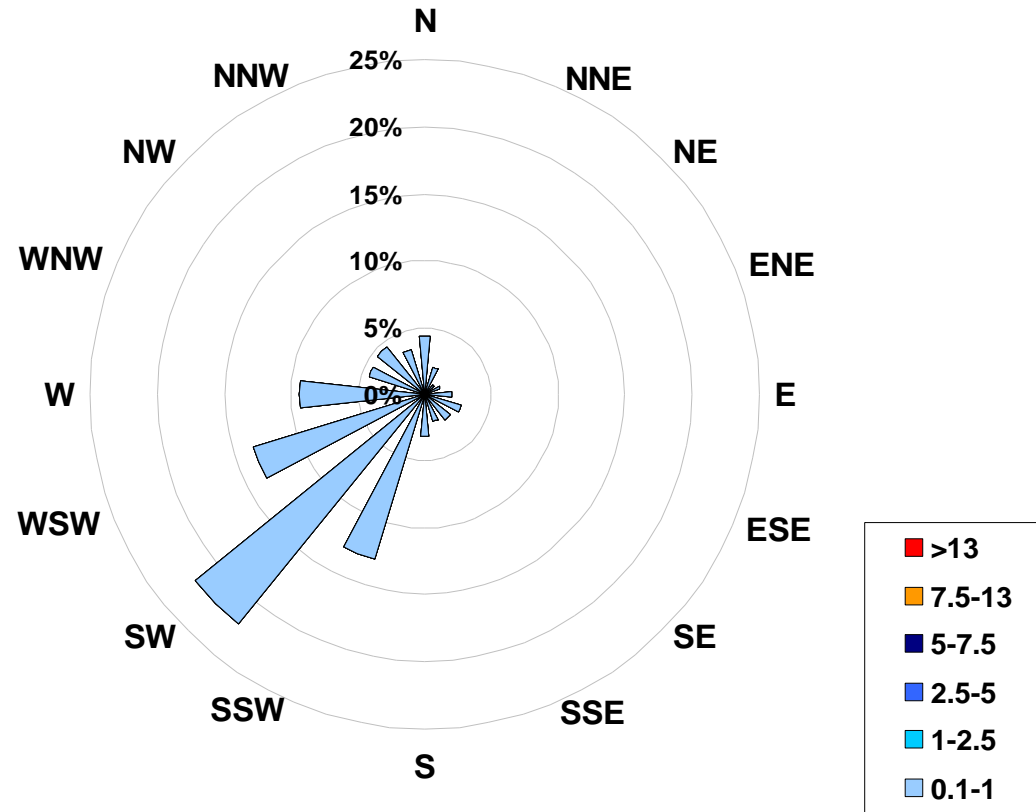


Figure 8. PAS - Crescent Heights Carbon Monoxide Instantaneous (30 Second) Maximum Value Monthly Trend



**1-hr Average Concentration Rose for Carbon Monoxide (in ppm) Located at the Crescent Heights Site for December 2006**



**Calms: 0%**

Frequency Distribution of CO in ppm			Frequency (hrs)
Range			
0.1	<	1	706
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			706



# PAS - Crescent Heights - Carbon Monoxide Monthly Summary

Station: Crescent Heights  
 Station Owner: PAS

## EIGHT HOUR RUNNING AVERAGE TABLE

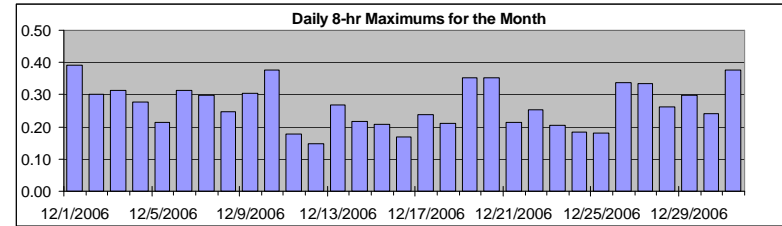
## Carbon Monoxide (CO)

Monitoring Dates: December 1, 2006 to January 1, 2007

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

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

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



### Status Flag Characters

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

Day	Mountain Standard Time																							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-Dec-06	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.39
2-Dec-06	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	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.30
3-Dec-06	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.31
4-Dec-06	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.28
5-Dec-06	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
6-Dec-06	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.31
7-Dec-06	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.30
8-Dec-06	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	0.25
9-Dec-06	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.30
10-Dec-06	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	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.38
11-Dec-06	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	N	N	N	N	N	N	N	N	0.18
12-Dec-06	N	N	N	0.1	0.1	0.1	0.1	0.1	0.1	N	N	N	N	N	N	N	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
13-Dec-06	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27
14-Dec-06	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
15-Dec-06	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	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.21
16-Dec-06	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.17
17-Dec-06	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
18-Dec-06	0.2	0.2	N	N	N	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.21
19-Dec-06	0.1	0.1	0.1	0.1	0.1	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	0.3	0.3	0.3	0.3	0.4	0.35
20-Dec-06	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.35
21-Dec-06	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	0.22
22-Dec-06	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
23-Dec-06	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
24-Dec-06	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
25-Dec-06	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.18
26-Dec-06	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	0.3	0.3	0.3	0.3	0.34
27-Dec-06	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.33
28-Dec-06	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.26
29-Dec-06	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.30
30-Dec-06	0.1	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
31-Dec-06	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.38
Hourly Max	0.39	0.35	0.33	0.33	0.33	0.32	0.30	0.29	0.31	0.33	0.34	0.37	0.38	0.37	0.36	0.33	0.31	0.31	0.34	0.35	0.35	0.37	0.38	0.37		



## PAS - Crescent Heights - Total Hydrocarbons Monthly Summary

Station: Crescent Heights  
 Station Owner: PAS

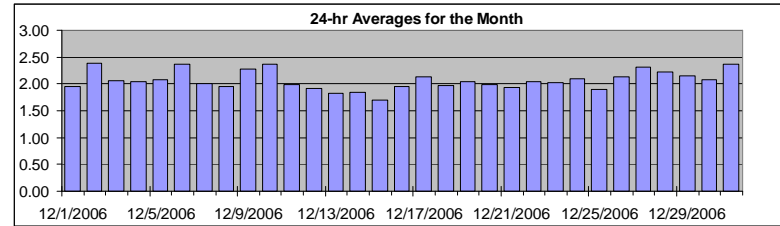
### HOURLY AVERAGE TABLE

### Total Hydrocarbons (THC)

Monitoring Dates: December 1, 2006 to January 1, 2007

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

Maximum 1-hr Average:	3.3	ppm	6-Dec	23:00 0:00
Maximum 24-hr Value:	2.4	ppm	2-Dec	



AIC Time:	29 hrs	Operational Time:	713 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	2.8	2.5	2.2	2.0	1.9	1.8	1.6	2.1 ppm	2.0 ppm

#### Status Flag Characters

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

Day	Mountain Standard Time																								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-Dec-06	1.8	1.8	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.5	2.2	1.96	2.48	
2-Dec-06	2.2	2.2	A	2.2	2.3	2.3	2.3	2.4	2.7	2.7	2.6	2.4	2.5	2.3	2.3	2.3	2.5	2.4	2.3	2.3	2.3	2.4	2.6	2.6	2.39	2.72	
3-Dec-06	2.5	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.4	2.06	2.49	
4-Dec-06	A	2.3	2.2	2.2	2.4	2.2	2.2	2.1	2.2	2.3	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	A	2.04	2.37	
5-Dec-06	2.4	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.3	A	2.1	2.07	2.36	
6-Dec-06	2.2	2.4	2.3	2.3	2.5	2.7	2.8	2.9	2.6	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.4	A	2.7	3.3	2.38	3.26	
7-Dec-06	2.4	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.01	2.42	
8-Dec-06	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	1.9	1.9	1.9	1.9	1.94	2.07	
9-Dec-06	1.9	1.9	1.9	1.9	2.0	2.1	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	A	2.4	2.6	2.7	2.8	2.9	1.94	2.07	
10-Dec-06	2.8	2.9	2.9	2.7	2.7	2.5	2.4	2.4	2.5	2.7	2.5	3.0	2.5	2.0	1.9	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.36	2.99	
11-Dec-06	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	C	C	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.00	2.11	
12-Dec-06	2.0	1.9	A	2.0	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.0	2.0	2.0	1.91	1.99	
13-Dec-06	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.83	2.02	
14-Dec-06	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	2.0	1.9	2.0	1.9	2.0	1.9	1.8	1.7	1.85	2.02
15-Dec-06	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	2.0	2.0	1.9	2.0	1.70	1.97	
16-Dec-06	1.9	1.8	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	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	1.95	2.12	
17-Dec-06	2.2	2.1	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.4	2.3	2.2	A	A	2.1	2.13	2.37	
18-Dec-06	2.0	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.96	2.07	
19-Dec-06	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	2.0	2.1	2.3	2.3	2.4	2.4	2.5	2.3	2.4	2.05	2.51	
20-Dec-06	A	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.0	A	2.00	2.24	
21-Dec-06	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	1.94	2.05
22-Dec-06	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	A	2.0	2.1	2.04	2.20		
23-Dec-06	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	A	2.0	2.0	2.02	2.14	
24-Dec-06	2.0	2.0	2.0	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.1	2.0	2.0	A	2.0	2.0	1.9	2.09	2.22		
25-Dec-06	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.8	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.0	1.90	2.03		
26-Dec-06	2.1	2.1	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.5	2.5	2.4	2.3	2.13	2.52
27-Dec-06	2.3	2.4	2.5	2.8	2.5	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.3	A	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.31	2.81
28-Dec-06	2.3	2.2	2.2	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	A	2.2	2.1	2.1	2.2	2.4	2.3	2.6	2.6	2.22	2.61	
29-Dec-06	2.6	2.8	2.5	2.5	2.2	2.2	2.2	2.3	2.3	2.4	2.3	2.3	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.15	2.80	
30-Dec-06	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.0	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.3	2.3	2.3	2.3	2.2	2.07	2.33	
31-Dec-06	2.1	2.0	2.0	2.1	2.1	2.1	2.3	2.2	2.3	2.3	2.2	2.2	A	2.3	2.6	2.3	3.1	2.8	2.8	2.8	2.8	2.8	2.4	2.1	2.37	3.08	
Hourly Avg	2.09	2.10	2.08	2.08	2.06	2.06	2.07	2.09	2.11	2.10	2.05	2.04	2.00	1.98	1.98	1.98	2.03	2.04	2.04	2.09	2.12	2.11	2.15	2.15			
Hourly Max	2.76	2.86	2.94	2.81	2.66	2.65	2.78	2.85	2.72	2.68	2.58	2.99	2.50	2.34	2.61	2.32	3.08	2.79	2.76	2.78	2.78	2.81	2.76	3.26			

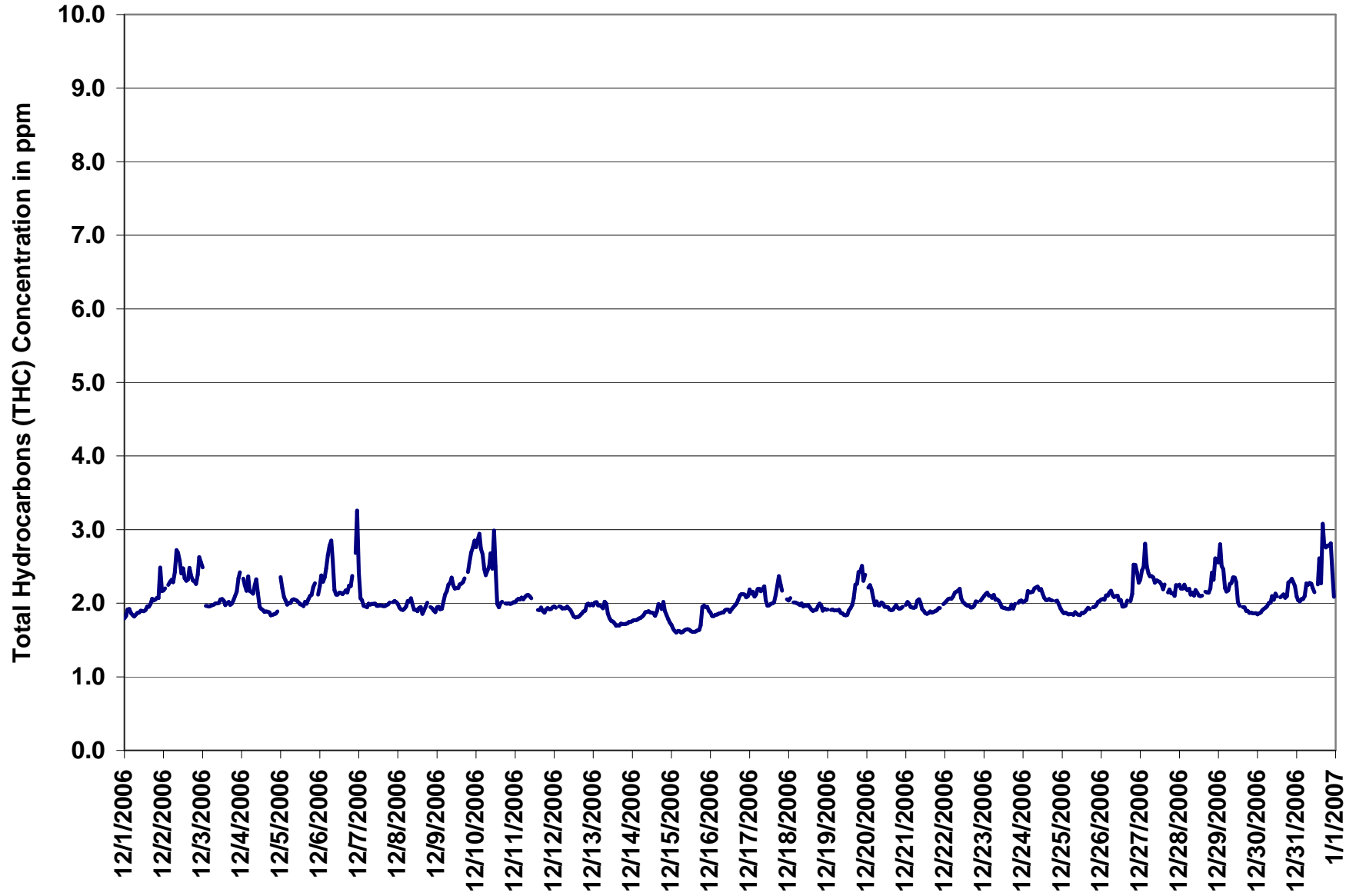


Figure 9. PAS - Crescent Heights Total Hydrocarbons 1-hr Average Monthly Trend



Station: Crescent Heights  
 Station Owner: PAS

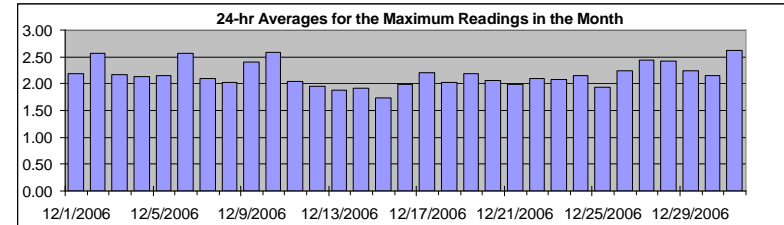
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

**Total Hydrocarbons (THC)**

Monitoring Dates: December 1, 2006 to January 1, 2007

**Summary**

Maximum 1-hr Value:	6.2	ppm	1-Dec	22:00 23:00
Maximum 24-hr Value:	2.6	ppm	31-Dec	



AIC Time:	29 hrs	Operational Time:	713 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	3.3	2.9	2.3	2.1	2.0	1.8	1.6	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	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	24-hour Average	Daily Maximum
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Dec-06	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	2.0	2.1	2.1	2.1	2.1	2.2	2.1	6.2	2.2	2.19	6.18	
2-Dec-06	2.2	2.3	A	2.7	2.4	2.5	2.4	2.5	2.9	2.9	2.7	2.6	2.6	2.4	2.4	2.4	2.6	2.4	2.4	2.3	2.4	2.8	2.9	3.1	2.56	3.11	
3-Dec-06	3.3	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.3	2.0	2.1	2.1	2.0	2.0	2.1	2.2	2.3	2.5	2.6	2.17	3.27	
4-Dec-06	A	2.5	2.4	2.3	2.5	2.3	2.3	2.3	2.5	2.5	2.4	2.0	2.0	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	A	2.14	2.53	
5-Dec-06	2.4	2.3	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.4	2.4	2.3	2.4	A	2.2	2.16	2.43	
6-Dec-06	2.4	2.6	2.5	2.6	2.9	3.0	3.0	3.2	2.9	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.5	A	3.0	4.3	2.57	4.30	
7-Dec-06	3.4	2.2	2.1	2.0	2.0	2.0	2.3	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	A	2.1	2.1	2.1	2.10	3.35	
8-Dec-06	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.3	2.3	2.2	1.9	2.0	1.9	2.0	2.0	1.9	2.0	2.0	2.1	A	2.0	2.0	2.0	1.9	2.03	2.35	
9-Dec-06	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.5	2.4	2.7	2.4	2.2	2.3	2.3	2.4	2.3	2.4	2.5	A	2.5	2.9	2.8	3.0	2.9	2.40	3.02	
10-Dec-06	3.0	3.0	3.1	3.0	2.8	2.7	2.5	2.8	3.3	2.9	2.9	3.6	3.1	2.2	2.0	2.2	2.1	A	2.1	2.0	2.0	2.0	2.0	2.0	2.58	3.60	
11-Dec-06	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	C	C	A	1.9	1.9	2.0	1.9	1.9	2.0	2.0	1.9	2.0	2.0	2.04	2.18	
12-Dec-06	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	2.0	2.1	2.0	2.0	1.95	2.11	
13-Dec-06	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.2	1.9	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.8	1.7	1.7	1.7	1.8	1.8	1.8	1.88	2.22	
14-Dec-06	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.8	2.0	2.2	2.1	2.0	2.1	2.0	1.9	1.8	1.8	1.91	2.21	
15-Dec-06	1.7	1.7	1.6	1.6	1.6	1.7	1.6	1.6	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.9	2.0	2.0	2.0	2.0	1.9	1.74	2.04	
16-Dec-06	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.2	2.2	2.2	2.2	2.2	2.1	2.1	1.99	2.21	
17-Dec-06	2.3	2.2	2.3	2.1	2.2	2.3	2.3	2.2	2.2	2.3	2.3	2.0	2.0	2.0	2.0	2.1	2.3	2.3	2.5	2.4	2.3	A	A	2.1	2.21	2.51	
18-Dec-06	2.1	2.1	A	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.1	2.2	2.1	1.9	2.0	1.9	2.02	2.15	
19-Dec-06	1.9	A	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.8	1.9	1.9	2.0	2.0	2.1	2.3	2.7	2.5	2.9	2.8	2.7	2.4	2.5	2.18	2.89	
20-Dec-06	A	2.3	2.4	2.3	2.2	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	A	2.05	2.36	
21-Dec-06	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	2.0	1.98	2.17	
22-Dec-06	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.4	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	A	2.1	2.1	2.09	2.37	
23-Dec-06	2.1	2.2	2.3	2.2	2.2	2.1	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.1	2.0	2.1	A	2.1	2.1	2.1	2.07	2.26	
24-Dec-06	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	A	A	2.1	2.1	2.0	2.0	2.15	2.34	
25-Dec-06	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	2.0	2.0	2.0	2.1	2.0	1.93	2.06	
26-Dec-06	2.2	2.1	2.1	2.2	2.1	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.3	2.0	2.0	2.0	2.1	A	2.3	2.4	3.0	2.7	2.6	2.4	2.25	3.02	
27-Dec-06	2.4	2.7	2.7	2.9	2.9	2.5	2.7	2.5	2.5	2.3	2.4	2.4	2.4	2.4	2.3	2.3	A	2.2	2.3	2.2	2.2	2.2	2.5	2.3	2.44	2.92	
28-Dec-06	2.3	2.3	2.2	2.3	2.2	2.2	2.2	2.1	2.2	2.2	2.5	2.2	2.2	2.1	2.2	A	2.4	2.2	2.2	2.6	3.9	2.7	3.3	2.7	2.42	3.92	
29-Dec-06	3.0	3.0	2.6	2.6	2.3	2.2	2.2	2.3	2.4	2.5	2.4	2.5	2.1	2.0	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.24	3.05	
30-Dec-06	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.2	2.1	2.3	2.1	A	2.1	2.2	2.2	2.1	2.2	2.4	2.5	2.5	2.4	2.3	2.14	2.54	
31-Dec-06	2.2	2.1	2.1	2.1	2.1	2.3	2.4	2.3	2.3	2.4	2.3	2.2	A	2.8	2.9	3.5	3.8	3.3	3.1	3.0	3.0	3.0	2.8	2.2	2.62	3.78	
Hourly Avg	2.24	2.18	2.15	2.15	2.15	2.13	2.15	2.18	2.22	2.20	2.15	2.11	2.07	2.05	2.05	2.08	2.13	2.13	2.13	2.19	2.28	2.21	2.41	2.26			
Hourly Max	3.35	3.05	3.08	2.99	2.92	2.97	2.99	3.17	3.26	2.95	2.93	3.60	3.08	2.78	2.93	3.48	3.78	3.32	3.06	3.01	3.92	2.97	6.18	4.30			



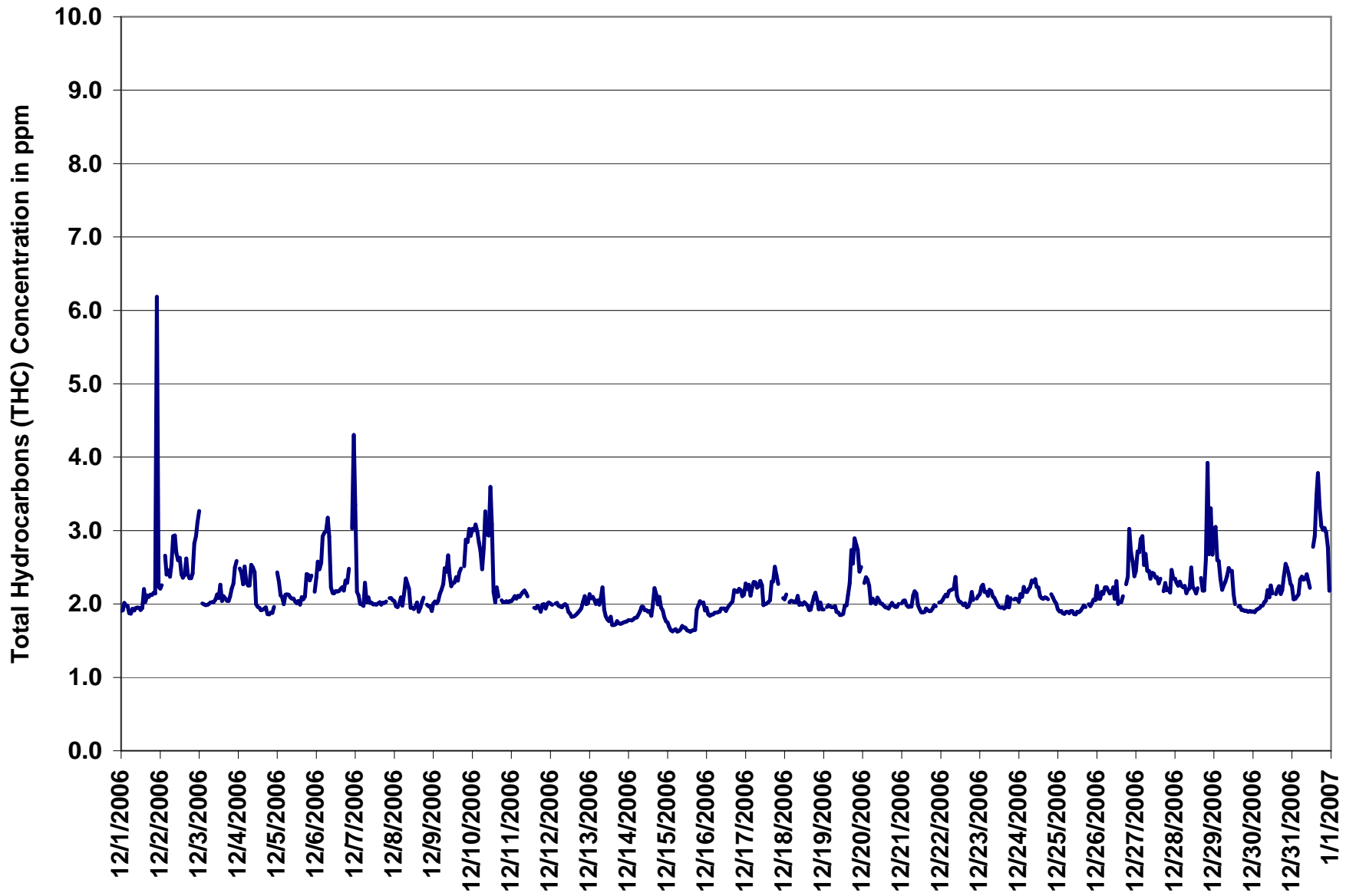
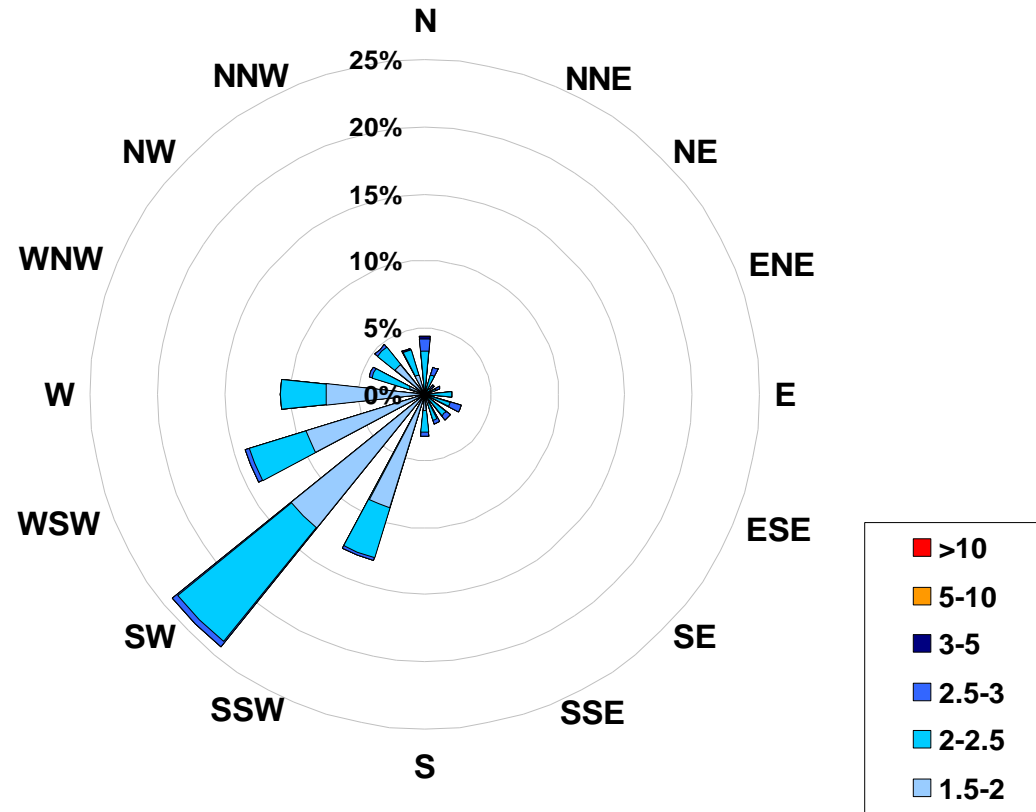


Figure 10. PAS - Crescent Heights Total Hydrocarbons Instantaneous (30 Second) Maximum Value Monthly Trend



**1-hr Average Concentration Rose for Total Hydrocarbons (in ppm)  
 Located at the Crescent Heights Site for December 2006**



**Calms: 0%**

Frequency Distribution of THC in ppm			Frequency (hrs)
Range			
1.5	<	2	343
2	to	2.5	329
2.5	to	3	39
3	to	5	2
5	to	10	0
	>	10	0
Total Non-Zero Values			713



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

Station: Crescent Heights  
 Station Owner: PAS

### HOURLY AVERAGE TABLE

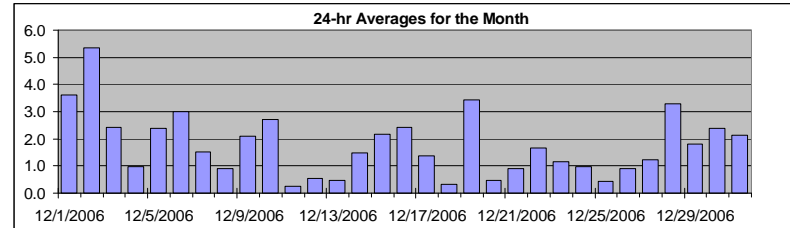
### Particulate Matter (PM<sub>2.5</sub>)

Monitoring Dates: December 1, 2006 to January 1, 2007

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:	10.7 $\mu\text{g}/\text{m}^3$ 8-Dec 8:00 9:00
Maximum 24-hr Value:	5.4 $\mu\text{g}/\text{m}^3$ 2-Dec

AIC Time:	0 hrs	Operational Time:	738 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	99.5%
Percentile	99	95	75
	8.8	5.4	2.7
	5.0	1.3	0.0
	5	0.0	0.0
	1	0.0	0.0
Average / Median	1.8	1 $\mu\text{g}/\text{m}^3$	1.4 $\mu\text{g}/\text{m}^3$



#### Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00			23:00
1-Dec-06	1	2	4	3	3	3	3	3	3	4	4	4	2	3	3	4	4	4	5	5	5	4	3	5	6	3.6	6.3
2-Dec-06	6	4	4	3	5	4	4	8	11	9	7	6	6	4	4	4	5	4	3	5	3	8	5	6	5.4	10.7	
3-Dec-06	5	2	1	1	2	2	3	3	8	5	3	2	1	1	0	1	2	2	1	1	2	4	3	4	2.4	7.6	
4-Dec-06	2	0	0	0	0	0	2	3	1	3	4	0	0	0	0	0	0	0	0	0	0	0	2	4	1.0	4.3	
5-Dec-06	6	5	3	1	0	2	1	3	4	3	3	3	1	2	2	2	2	2	2	0	2	2	2	3	2.4	6.4	
6-Dec-06	3	3	3	3	4	4	3	5	5	4	2	2	2	3	3	2	2	2	2	1	3	5	3	4	3.0	5.3	
7-Dec-06	3	0	1	0	0	0	2	1	9	6	3	1	2	3	1	2	1	2	0	0	1	0	0	0	1.5	8.7	
8-Dec-06	0	0	0	1	0	0	0	1	11	6	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0.9	10.7	
9-Dec-06	1	0	2	1	2	1	2	1	3	2	3	1	2	1	2	3	2	1	1	3	4	3	4	5	2.1	4.7	
10-Dec-06	3	4	4	3	5	5	2	9	3	4	3	4	2	2	0	1	2	2	1	1	1	1	1	1	2.7	9.4	
11-Dec-06	1	1	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.6	
12-Dec-06	0	0	0	0	0	0	0	0	0	C	C	0	0	0	0	0	1	3	2	2	1	2	0	0	0.6	3.0	
13-Dec-06	0	0	0	0	0	0	D	0	0	0	0	0	0	0	0	0	1	1	1	0	1	1	1	2	0.5	1.8	
14-Dec-06	0	1	2	2	0	1	2	1	4	2	2	0	1	0	0	3	4	3	1	4	1	2	2	0	1.5	4.0	
15-Dec-06	0	D	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4	3	2	4	10	8	6	5	2.2	9.9	
16-Dec-06	3	3	4	3	4	3	2	2	3	3	3	1	1	2	1	1	2	3	2	3	3	2	2	1	2.4	4.3	
17-Dec-06	2	0	0	0	0	0	1	2	2	2	0	0	1	1	0	1	4	5	5	4	2	1	1	0	1.4	5.0	
18-Dec-06	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	1	0	0	0	0	0.3	1.3	
19-Dec-06	0	0	1	0	0	0	1	2	3	1	2	2	1	4	3	3	5	9	8	9	6	8	6	8	3.4	8.9	
20-Dec-06	3	3	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0.5	2.6	
21-Dec-06	0	0	0	0	0	0	0	0	3	2	1	0	1	2	3	3	0	1	1	2	0	1	1	1	0.9	2.9	
22-Dec-06	2	2	3	3	2	3	2	2	3	2	0	1	0	0	1	1	2	2	1	2	2	1	2	3	1.7	3.3	
23-Dec-06	2	1	1	0	0	0	0	0	0	0	0	0	D	0	0	0	0	0	2	1	3	2	3	4	6	1.1	5.6
24-Dec-06	3	3	2	1	2	3	2	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1.0	3.3	
25-Dec-06	0	0	D	0	0	0	0	0	2	2	2	1	1	1	0	0	0	0	0	0	0	0	1	0	0.4	2.0	
26-Dec-06	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	4	1	1	2	2	4	3	2	0.9	3.8	
27-Dec-06	3	3	2	2	0	0	0	0	1	2	0	1	0	0	0	2	1	1	1	1	2	2	3	2	1.2	2.6	
28-Dec-06	2	3	3	4	3	4	3	2	3	2	3	2	2	2	3	2	2	2	3	1	4	4	8	11	3.3	10.6	
29-Dec-06	10	11	7	3	0	0	1	2	3	4	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1.8	10.7	
30-Dec-06	0	2	4	4	2	3	3	4	2	3	2	2	2	5	1	1	1	0	2	2	4	4	2	1	2.4	4.9	
31-Dec-06	0	0	0	0	0	1	2	2	1	2	1	1	1	1	5	1	3	5	6	2	6	6	5	0	2.1	6.1	
Hourly Avg	2.0	1.7	1.8	1.3	1.2	1.3	1.4	1.8	2.9	2.5	1.6	1.1	1.0	1.1	1.2	1.6	1.8	1.9	1.8	2.1	2.2	2.3	2.3	2.5			
Hourly Max	10.3	10.7	6.5	3.8	5.1	4.9	4.5	9.4	10.7	8.5	7.3	5.9	5.9	4.9	5.4	4.4	5.4	8.9	8.0	9.9	8.4	8.3	8.1	10.6			

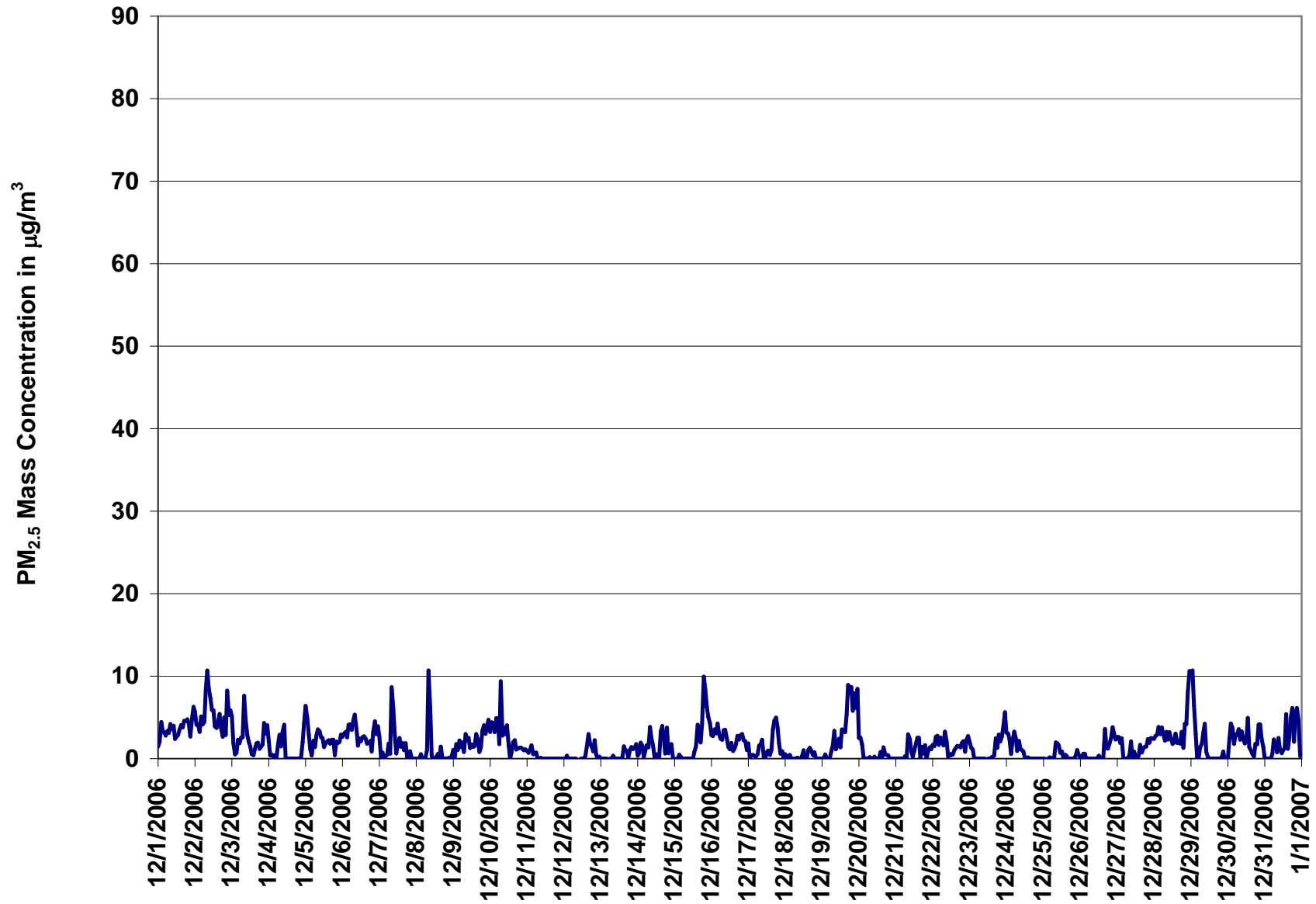


Figure 11. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend



Station: Crescent Heights  
 Station Owner: PAS

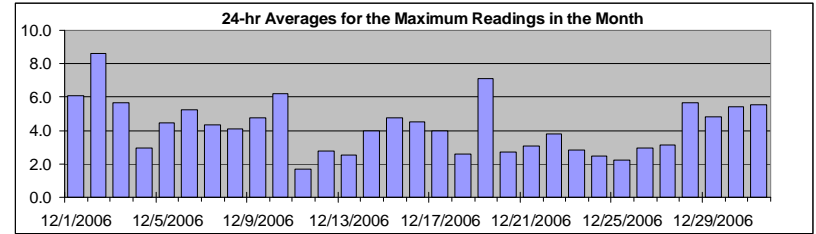
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: December 1, 2006 to January 1, 2007

**Summary**

Maximum 1-hr Average:	30.5	µg/m <sup>3</sup>	8-Dec	8:00 9:00
Maximum 24-hr Value:	8.6	µg/m <sup>3</sup>	2-Dec	



AIC Time:	0 hrs	Operational Time:	738 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	99.5%						
Percentile	99	95	75	50	25	5	1	Average / Median	Geomean
	15.3	9.6	5.3	3.7	2.2	0.7	0.0	4.2 4 µg/m <sup>3</sup>	3.9 µg/m <sup>3</sup>

**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-Dec-06	3	4	6	5	6	7	7	6	7	6	7	5	6	5	6	7	6	7	6	7	6	6	7	8	6.1	8.3
2-Dec-06	10	7	7	5	9	9	8	13	15	11	10	8	8	7	5	7	8	6	6	8	6	14	9	10	8.6	15.5
3-Dec-06	9	4	2	3	4	4	5	4	30	7	6	5	4	2	4	3	4	5	3	3	5	6	6	7	5.7	30.2
4-Dec-06	5	3	2	4	2	0	7	6	3	6	7	2	1	1	0	2	1	1	1	1	3	1	5	7	3.0	7.1
5-Dec-06	8	7	4	4	3	4	3	5	5	5	4	5	3	3	4	4	5	4	4	3	5	6	4	5	4.4	8.3
6-Dec-06	4	5	5	5	7	6	6	9	8	7	5	4	4	4	4	4	3	4	5	3	6	8	6	5	5.2	9.3
7-Dec-06	6	2	2	2	2	2	7	3	22	10	6	4	4	5	3	5	3	4	2	2	3	1	1	2	4.4	22.0
8-Dec-06	0	2	2	4	2	1	2	5	30	23	2	1	2	2	2	1	4	1	1	3	1	2	2	3	4.1	30.5
9-Dec-06	4	3	4	4	5	5	5	4	6	5	5	3	4	5	4	5	4	3	4	5	8	5	6	7	4.7	7.7
10-Dec-06	5	7	7	5	10	14	12	26	5	6	10	8	5	1	3	4	4	2	3	3	3	2	2	2	6.2	25.6
11-Dec-06	4	3	3	5	2	2	3	1	2	1	1	2	0	0	1	2	0	1	2	0	1	1	1	0	1.7	5.3
12-Dec-06	1	1	2	2	3	2	3	2	1	C	C	0	0	0	3	3	5	4	3	7	9	3	3	2	2.8	9.4
13-Dec-06	1	1	1	1	2	D	7	1	3	1	2	2	4	1	2	4	3	4	2	3	3	2	3	4	2.5	6.7
14-Dec-06	2	2	4	4	2	3	3	4	7	5	5	3	2	3	2	7	7	4	3	6	4	6	6	1	4.0	7.1
15-Dec-06	2	D	0	4	5	4	0	4	3	0	1	2	3	3	3	7	5	4	14	12	10	8	7	5	4.7	14.0
16-Dec-06	5	5	6	5	6	5	5	4	5	5	4	3	3	4	3	3	3	4	4	5	5	5	5	3	4.5	6.4
17-Dec-06	4	1	3	3	3	2	3	5	4	5	3	2	3	3	4	5	7	7	8	9	4	2	3	2	4.0	9.2
18-Dec-06	3	2	3	2	3	2	4	2	3	3	2	2	4	2	2	4	4	4	3	3	2	1	1	2	2.6	4.0
19-Dec-06	1	0	5	2	2	4	4	4	6	5	6	5	3	17	7	8	9	13	13	13	11	13	10	11	7.1	17.1
20-Dec-06	6	6	5	1	2	1	5	3	4	2	3	1	2	3	3	2	4	4	3	3	2	0	1	0	2.7	5.7
21-Dec-06	0	0	1	0	0	0	6	2	6	6	3	3	4	4	5	5	2	4	5	5	2	4	4	4	3.1	6.0
22-Dec-06	4	3	5	5	3	5	3	3	5	4	2	2	3	3	3	3	4	3	5	5	4	3	4	5	3.8	5.4
23-Dec-06	4	4	4	1	3	1	1	0	1	0	0	D	0	2	2	1	3	6	3	6	4	5	6	9	2.8	8.6
24-Dec-06	5	6	5	3	4	6	5	2	4	2	2	3	2	2	2	2	1	0	1	0	0	2	0	2	2.5	5.6
25-Dec-06	1	1	D	2	2	2	3	2	5	4	4	2	4	1	3	1	1	2	1	1	1	3	3	2	2.2	4.8
26-Dec-06	2	2	3	2	1	1	1	1	2	1	1	1	3	2	2	2	10	3	4	5	4	6	5	4	2.9	10.0
27-Dec-06	4	4	4	4	2	2	2	1	3	5	1	4	3	2	2	3	4	3	3	3	5	4	4	5	3.1	4.8
28-Dec-06	4	5	5	5	6	6	7	4	5	5	5	5	5	3	5	4	4	4	5	5	6	8	11	12	5.7	12.3
29-Dec-06	15	15	8	6	1	2	10	5	9	8	7	3	3	1	1	1	1	0	2	1	2	9	4	3	4.8	15.5
30-Dec-06	4	6	14	7	5	6	6	6	5	6	5	4	5	8	4	3	2	3	4	3	8	10	4	4	5.4	14.0
31-Dec-06	2	1	3	3	1	4	5	3	3	5	3	3	5	3	12	3	6	12	9	7	14	11	9	4	5.5	14.3
Hourly Avg	4.2	3.7	4.1	3.5	3.5	3.7	4.7	4.6	7.0	5.3	4.2	3.2	3.3	3.4	3.4	3.7	4.1	4.1	4.3	4.6	4.7	5.1	4.6	4.6		
Hourly Max	15.5	15.2	14.0	7.2	9.7	13.7	12.1	25.6	30.5	23.0	10.3	8.5	8.2	17.1	12.3	8.4	10.0	13.0	14.0	13.3	14.3	14.0	11.1	12.3		

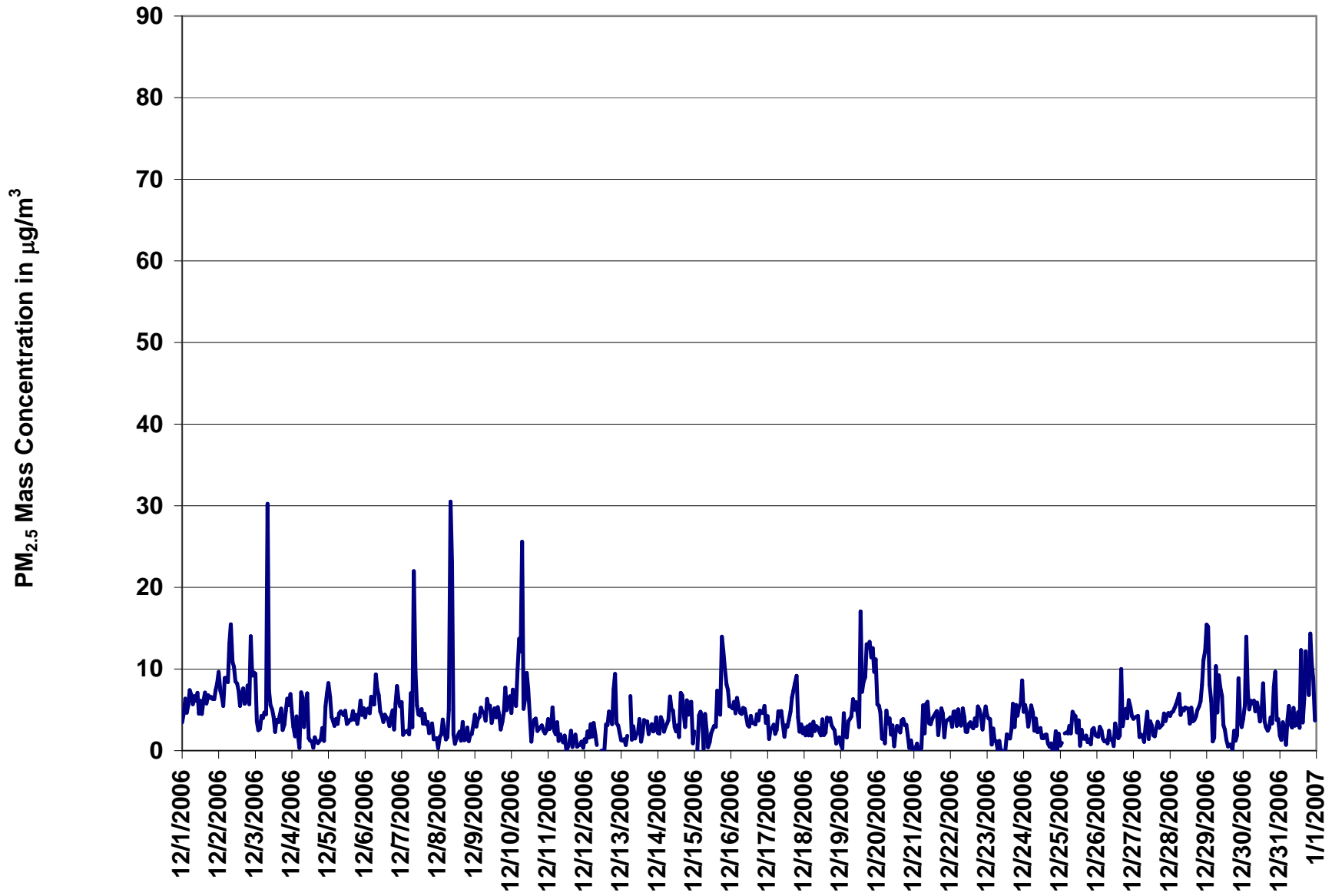
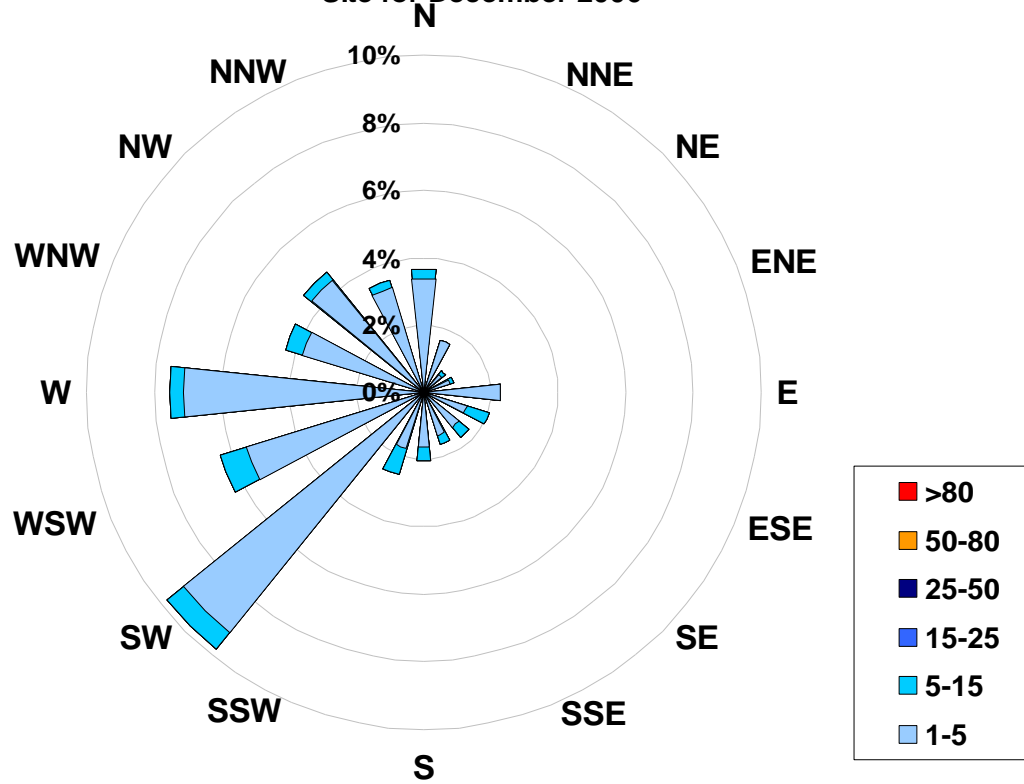


Figure 12. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) Instantaneous (30 Second) Maximum Value Monthly Trend



**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 December 2006**



**Calms: 0%**

Frequency Distribution of PM <sub>2.5</sub> in µg/m <sup>3</sup>			Frequency (hrs)
Range			
1.0	< 5		693
5	to 15		45
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

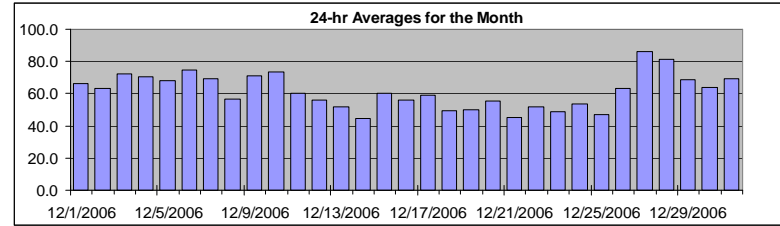
## HOURLY AVERAGE TABLE

## Relative Humidity (RH)

Monitoring Dates: December 1, 2006 to January 1, 2007

### Summary

Maximum 1-hr Average:	88.3	%	27-Dec	21:00 22:00
Maximum 24-hr Value:	86.0	%	27-Dec	



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
	87.7	84.2	70.7	62.4	52.2	39.3	31.5	61.6 %	62.4 %

### Status Flag Characters

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

Day	Mountain Standard Time																								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-Dec-06	55	61	66	69	71	72	66	64	67	70	69	66	64	63	60	62	63	64	64	70	73	70	67	69	66.1	73.2	
2-Dec-06	68	67	65	63	65	67	68	72	71	65	58	56	55	54	54	55	63	66	64	65	64	64	68	67	63.4	71.8	
3-Dec-06	70	64	59	61	63	65	68	70	72	75	75	74	70	68	68	70	72	76	80	81	79	81	85	86	72.1	85.6	
4-Dec-06	84	83	81	80	82	80	80	80	78	75	69	63	64	62	62	67	69	65	62	59	61	59	55	66	70.4	84.4	
5-Dec-06	75	80	76	74	69	66	67	69	71	71	71	68	64	64	63	62	64	68	66	63	62	65	67	69	68.1	80.3	
6-Dec-06	69	72	73	74	76	76	75	75	76	77	73	70	70	71	71	71	74	77	79	79	79	79	79	78	74.7	79.4	
7-Dec-06	79	78	78	76	76	76	75	75	74	72	67	63	60	60	65	67	67	67	65	66	65	67	66	67	69.5	79.2	
8-Dec-06	65	59	55	54	61	63	64	60	60	56	57	52	51	53	53	52	53	57	57	56	57	56	55	54	56.8	65.3	
9-Dec-06	56	56	58	56	63	69	74	76	73	75	70	65	66	67	70	70	73	76	78	80	82	83	84	86	71.0	86.0	
10-Dec-06	86	86	86	86	86	86	83	82	80	77	69	63	58	56	58	67	72	73	72	70	71	69	67	67	73.7	86.5	
11-Dec-06	67	68	70	71	70	70	69	67	65	60	56	55	52	51	51	53	56	56	55	58	56	56	56	55	60.0	71.1	
12-Dec-06	55	58	61	66	66	67	65	66	68	63	56	52	51	45	43	44	46	47	46	49	57	55	54	61	55.9	67.7	
13-Dec-06	60	62	63	63	61	63	61	61	58	54	48	49	52	53	44	42	41	44	45	44	44	42	43	43	51.8	63.4	
14-Dec-06	41	39	41	47	45	45	45	44	44	45	44	41	34	30	30	35	42	47	47	53	52	46	54	81	44.7	81.1	
15-Dec-06	74	71	67	66	69	71	75	69	61	53	49	45	42	40	40	40	41	42	49	70	82	81	79	75	60.5	81.6	
16-Dec-06	68	66	65	64	61	60	57	55	57	58	57	55	53	50	46	44	48	51	49	49	52	57	60	59	56.0	68.1	
17-Dec-06	66	66	65	68	68	70	72	71	67	67	52	39	42	48	44	38	46	49	55	61	66	65	65	64	58.9	72.0	
18-Dec-06	65	65	64	61	60	54	51	47	45	41	39	40	40	38	35	37	44	49	53	55	55	53	52	52	49.7	65.1	
19-Dec-06	51	52	49	52	52	49	46	46	41	40	37	36	37	41	40	33	43	53	59	63	67	69	68	69	49.8	69.0	
20-Dec-06	68	69	71	72	72	68	66	62	60	55	50	40	39	41	42	43	46	50	55	51	52	52	55	56	55.7	72.4	
21-Dec-06	57	53	50	45	44	42	50	54	51	39	31	31	32	35	40	44	39	40	41	48	51	50	55	58	45.0	58.1	
22-Dec-06	58	56	58	58	58	59	62	65	66	61	50	45	40	39	37	35	39	42	48	54	53	49	53	56	51.8	65.7	
23-Dec-06	57	57	59	58	54	54	58	57	57	47	34	28	31	37	39	39	44	50	42	45	55	51	53	69	49.1	68.6	
24-Dec-06	82	83	81	63	55	52	51	55	55	54	51	50	47	40	40	49	49	49	53	53	49	49	47	33	53.8	83.3	
25-Dec-06	32	35	31	29	34	39	42	45	49	55	59	59	60	57	56	54	54	49	45	44	43	49	56	58	47.2	59.5	
26-Dec-06	58	59	61	63	63	62	63	63	60	58	56	48	44	54	57	61	66	68	72	76	79	78	77	77	63.4	78.9	
27-Dec-06	82	85	87	88	88	88	88	88	88	87	86	84	84	85	85	84	84	85	84	86	88	88	88	87	86.0	88.3	
28-Dec-06	86	86	85	85	85	86	85	84	83	81	80	77	77	75	75	76	76	77	79	81	85	86	84	82	81.4	86.5	
29-Dec-06	81	82	82	82	81	79	78	78	78	79	80	78	68	62	60	59	59	56	55	57	57	53	56	54	68.9	82.1	
30-Dec-06	51	49	51	53	56	61	63	67	68	68	65	66	67	63	61	62	67	71	71	70	71	71	70	66	63.6	70.9	
31-Dec-06	65	61	62	64	68	69	73	74	76	73	69	64	61	62	62	65	69	75	76	76	76	78	75	75	69.5	77.7	
Hourly Avg	65.6	65.3	65.2	65.0	65.2	65.4	65.8	65.8	65.1	63.0	59.0	55.6	54.1	53.7	53.3	54.2	57.1	59.3	60.2	62.3	64.0	63.5	64.3	65.7			
Hourly Max	86.5	85.8	86.9	88.2	87.7	87.8	87.8	87.7	88.1	87.1	85.6	83.6	83.7	85.4	84.8	84.3	83.5	84.5	83.9	85.9	88.2	88.3	87.6	86.8			



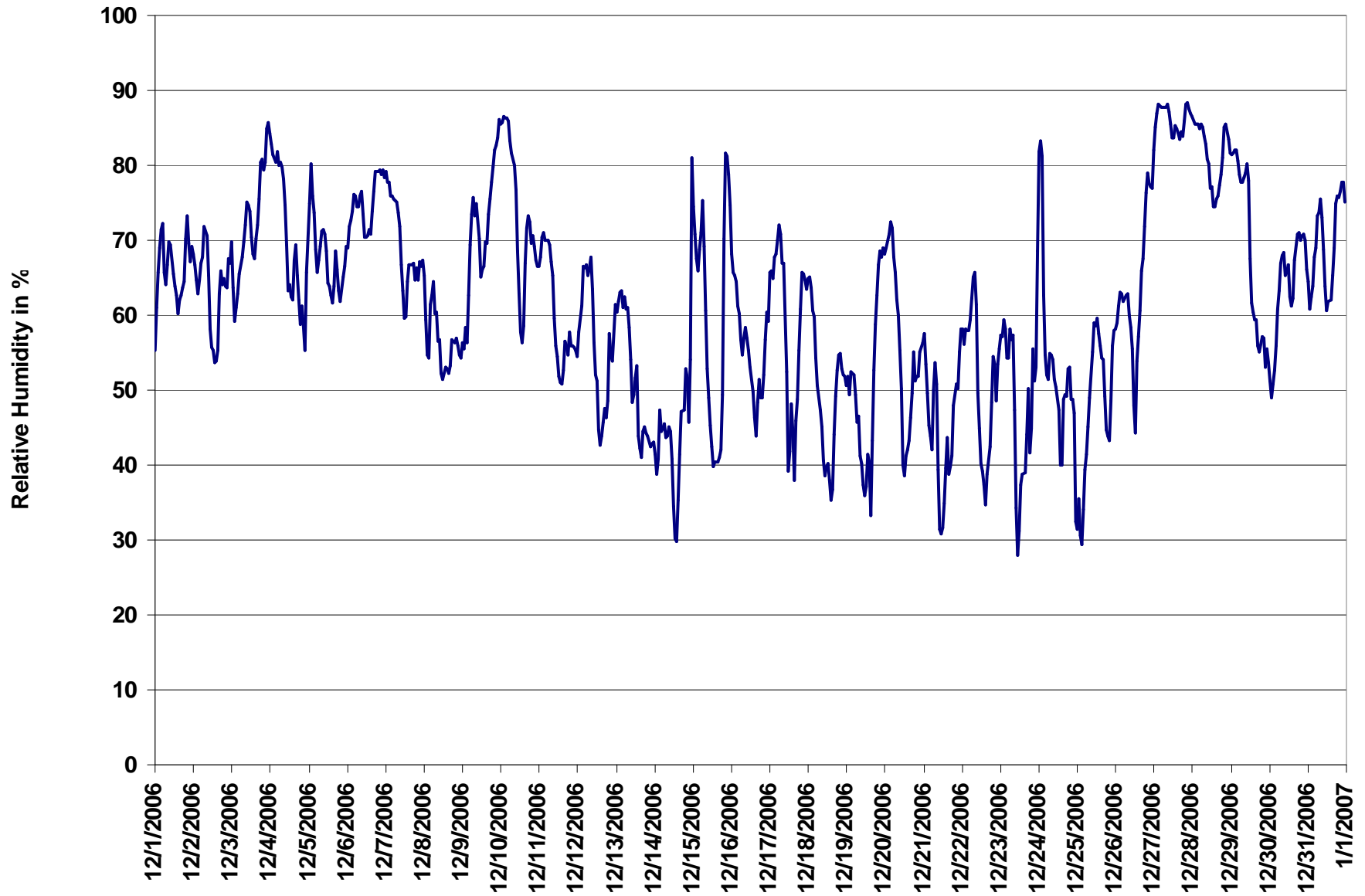


Figure 13. PAS - Crescent Heights Relative Humidity 1-hr Average Monthly Trend



# PAS - Crescent Heights - Temperature Monthly Summary

Station: Crescent Heights  
 Station Owner: PAS

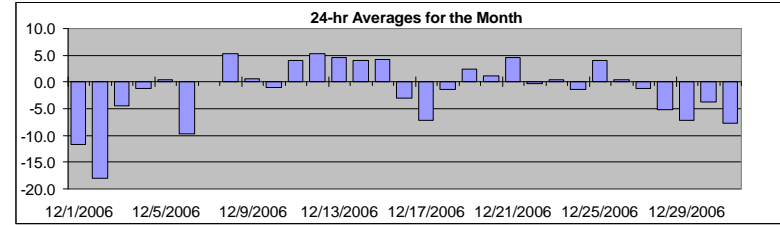
## HOURLY AVERAGE TABLE

## Ambient Temperature (T)

Monitoring Dates: December 1, 2006 to January 1, 2007

### Summary

Maximum 1-hr Average:	9.3 °C	13-Dec	14:00 15:00
Maximum 24-hr Value:	5.4 °C	8-Dec	



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
	8.3	6.9	3.6	-0.7	-4.8	-13.3	-20.1	-1.4 °C	-0.7 °C

### Status Flag Characters

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

Day	Mountain Standard Time																								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-Dec-06	-5	-7	-6	-6	-6	-8	-12	-13	-14	-14	-14	-14	-13	-13	-13	-13	-13	-13	-13	-13	-13	-14	-14	-15	-11.6	-4.9	
2-Dec-06	-15	-16	-16	-16	-17	-18	-19	-21	-21	-20	-17	-16	-15	-14	-13	-15	-19	-20	-21	-23	-22	-21	-20	-19	-18.1	-13.4	
3-Dec-06	-15	-9	-6	-6	-6	-7	-7	-7	-6	-3	0	0	1	0	0	-1	-1	-3	-4	-5	-5	-6	-7	-4.5	0.6		
4-Dec-06	-7	-7	-8	-7	-8	-9	-9	-9	-6	-6	-4	-1	2	3	3	4	3	3	3	4	4	3	4	3	-1.1	4.2	
5-Dec-06	-1	-1	2	3	3	3	2	1	1	2	2	3	4	4	4	4	1	-1	-1	-2	-3	-5	-7	-7	0.4	4.0	
6-Dec-06	-7	-8	-9	-9	-9	-9	-9	-9	-8	-8	-9	-9	-9	-8	-8	-8	-10	-11	-12	-13	-13	-13	-13	-9.7	-7.2		
7-Dec-06	-9	-6	-5	-3	-3	-3	-3	-2	-1	-1	1	3	4	4	3	3	3	3	2	3	2	2	2	0.1	4.2		
8-Dec-06	3	5	6	5	3	3	3	4	4	5	6	7	7	7	7	7	6	6	6	6	5	6	6	5.4	7.5		
9-Dec-06	5	6	5	5	4	3	2	1	0	0	1	2	2	2	1	1	0	-1	-2	-2	-3	-4	-5	-6	0.7	5.5	
10-Dec-06	-6	-7	-7	-7	-6	-5	-5	-4	-4	-3	1	3	6	6	5	3	2	1	1	1	0	0	1	1	-1.0	6.3	
11-Dec-06	1	1	0	0	1	1	1	2	2	4	6	6	7	8	8	7	6	6	5	5	5	5	6	4.1	8.0		
12-Dec-06	6	5	5	4	5	5	5	4	3	4	7	8	8	8	8	8	7	6	6	5	3	3	1	5.3	8.3		
13-Dec-06	1	0	-1	-1	-1	-1	0	0	2	4	6	7	7	8	9	9	9	8	8	7	7	7	7	4.5	9.3		
14-Dec-06	6	6	6	5	5	5	4	4	4	3	4	5	6	7	7	5	3	2	1	0	1	2	3	1	4.0	7.4	
15-Dec-06	3	4	6	6	6	6	6	5	5	5	5	7	7	6	6	6	5	5	4	1	-1	-1	-1	4.1	7.3		
16-Dec-06	-1	-2	-2	-2	-1	-1	-2	-2	-2	-2	-2	-2	-2	-1	-1	-1	-3	-4	-5	-5	-5	-7	-8	-8	-2.9	-0.9	
17-Dec-06	-9	-10	-10	-11	-11	-11	-12	-11	-10	-9	-4	-2	-2	-3	-1	0	-2	-4	-6	-7	-9	-9	-9	-9	-7.2	-0.2	
18-Dec-06	-9	-9	-9	-9	-8	-6	-5	-4	-3	-2	0	0	2	5	6	5	3	2	2	1	1	1	2	2	-1.3	5.8	
19-Dec-06	2	2	3	2	2	3	4	3	5	6	7	7	7	6	6	7	4	2	0	-2	-4	-5	-5	2.4	6.9		
20-Dec-06	-5	-4	-5	-5	-4	-3	-2	-2	-2	-1	1	5	6	5	6	6	6	5	3	5	4	4	3	1.2	6.3		
21-Dec-06	1	2	3	4	4	4	2	1	1	5	7	8	9	8	8	8	9	8	7	4	3	2	1	0	4.5	8.9	
22-Dec-06	-1	-1	-2	-2	-2	-2	-4	-5	-5	-4	0	3	5	4	5	6	4	3	1	-2	-2	-1	-3	-3	-0.3	5.7	
23-Dec-06	-3	-3	-4	-3	-3	-3	-4	-3	-3	-1	2	4	3	3	4	4	2	1	4	4	3	3	2	1	0.4	4.3	
24-Dec-06	0	0	0	0	-1	-2	-3	-4	-5	-4	-3	-2	0	2	2	1	-1	-1	-2	-3	-3	-2	-1	2	-1.3	2.2	
25-Dec-06	2	2	4	5	4	4	5	4	4	4	5	5	5	6	6	6	5	5	5	4	4	2	0	0	4.0	6.1	
26-Dec-06	-1	-1	-2	-3	-3	-2	-2	-2	-1	0	1	3	5	6	6	6	4	3	1	-1	-2	-1	-1	0.5	6.3		
27-Dec-06	-1	-1	-1	-1	-1	-1	-2	-2	-2	-1	0	1	0	1	0	0	0	-1	-1	-2	-2	-3	-3	-4	-1.2	0.7	
28-Dec-06	-4	-5	-5	-5	-4	-4	-4	-4	-4	-4	-4	-3	-3	-4	-4	-4	-4	-5	-5	-6	-7	-8	-10	-12	-5.1	-3.1	
29-Dec-06	-11	-11	-10	-11	-12	-14	-15	-15	-15	-12	-9	-8	-3	-2	-2	-2	-3	-3	-2	-3	-2	-1	-2	-2	-7.1	-1.2	
30-Dec-06	-1	-1	-1	-2	-3	-4	-5	-5	-5	-5	-4	-3	-3	-1	0	0	-2	-5	-6	-7	-7	-8	-8	-7	-3.8	0.3	
31-Dec-06	-6	-5	-5	-6	-8	-8	-10	-10	-11	-10	-9	-6	-5	-5	-4	-5	-6	-8	-9	-9	-10	-11	-10	-9	-7.7	-4.2	
Hourly Avg	-2.8	-2.5	-2.4	-2.4	-2.7	-2.8	-3.2	-3.4	-3.1	-2.1	-0.6	0.8	1.6	1.9	2.2	1.8	0.6	-0.4	-1.0	-1.8	-2.3	-2.5	-2.8	-3.0			
Hourly Max	6.4	6.5	6.1	6.2	5.5	6.2	5.5	5.3	5.3	6.0	7.4	8.4	8.9	8.5	9.3	8.9	8.8	8.1	7.7	7.4	7.2	7.4	7.1	6.6			

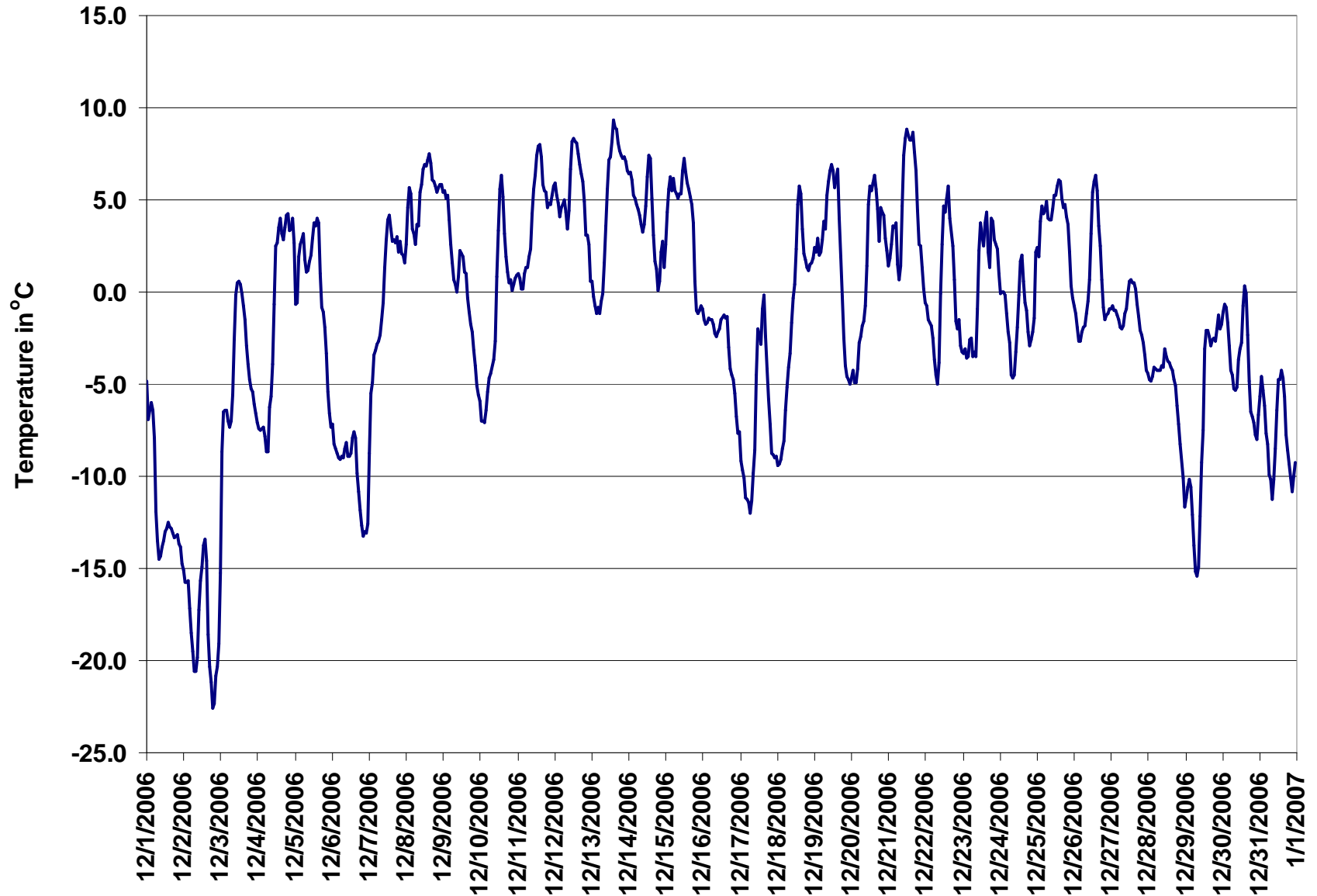


Figure 14. PAS - Crescent Heights Temperature 1-hr Average Monthly Trend



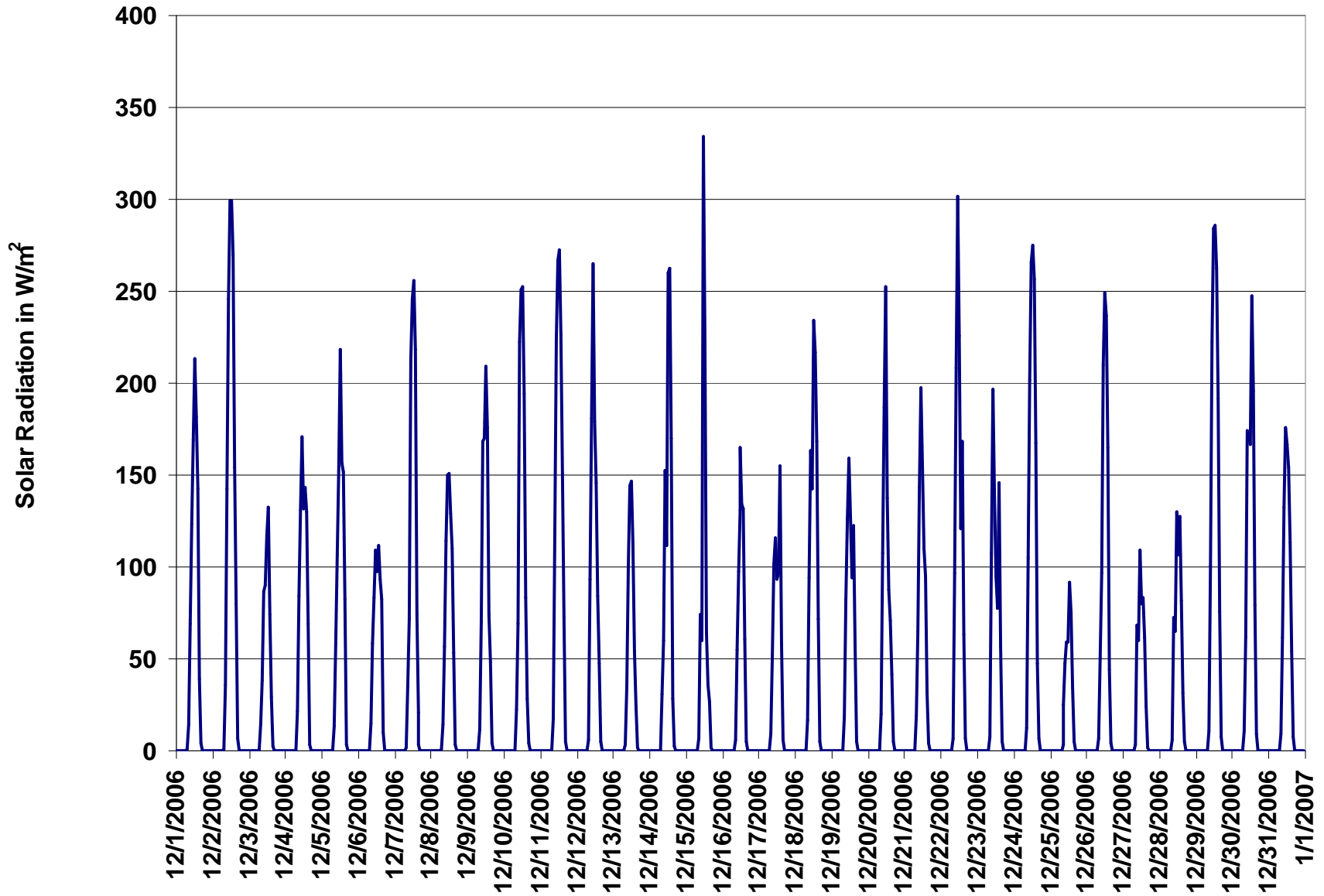


Figure 15. PAS - Crescent Heights Solar Radiation 1-hr Average Monthly Trend



# PAS - Crescent Heights - Scalar Wind Speed Monthly Summary

Station: Crescent Heights  
 Station Owner: PAS

## HOURLY AVERAGE TABLE

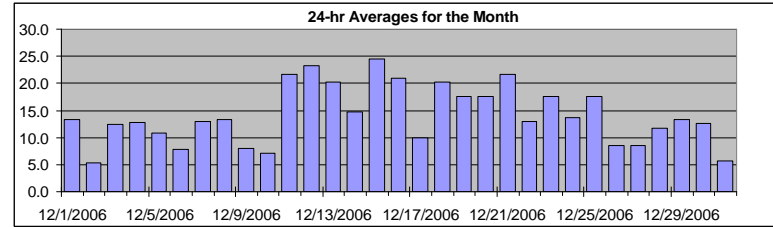
## Wind Speed (WSs)

Monitoring Dates: December 1, 2006 to January 1, 2007

### Summary

Maximum 1-hr Average:	37.9	km/hr	15-Dec	10:00 11:00
Maximum 24-hr Value:	24.6	km/hr	15-Dec	

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
	33.7	29.4	19.5	12.6	7.5	3.9	3.1	14.2 km/hr



### Status Flag Characters

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

Day	Mountain Standard Time																							24-hr Scalar Average	Daily Max	
Hour Start 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-Dec-06	11	9	7	10	11	19	26	21	22	19	19	20	18	18	16	12	9	9	8	8	8	7	7	7	13.3	26.0
2-Dec-06	8	8	7	5	4	4	4	4	3	6	4	5	7	6	6	7	7	7	8	5	4	2	3	4	5.4	8.2
3-Dec-06	9	14	25	26	24	21	22	18	13	11	10	10	11	12	11	6	14	12	10	5	4	4	3	3	12.4	26.0
4-Dec-06	4	5	5	5	5	6	5	7	5	6	13	15	14	17	17	14	19	15	23	26	21	20	25	19	12.8	25.8
5-Dec-06	17	18	14	13	12	11	10	11	10	8	8	9	11	9	10	11	8	9	9	9	10	11	13	9	10.9	17.7
6-Dec-06	7	5	4	4	4	4	5	6	8	14	16	15	15	13	12	12	12	8	6	5	3	3	2	4	7.8	16.4
7-Dec-06	8	6	8	16	23	17	15	12	16	17	12	17	18	15	14	14	21	14	8	7	10	9	9	6	13.0	23.5
8-Dec-06	14	21	19	11	9	6	8	8	8	12	20	13	18	13	11	18	14	15	14	14	12	15	11	12	13.3	21.4
9-Dec-06	9	14	10	10	12	12	11	7	4	9	7	6	9	11	9	6	6	12	9	6	4	4	3	3	8.0	14.5
10-Dec-06	4	5	6	6	5	5	5	4	3	4	5	4	7	13	8	6	8	8	10	11	13	9	9	11	7.0	13.2
11-Dec-06	18	10	11	13	10	15	19	19	23	26	26	26	24	25	24	23	21	23	28	25	26	27	28	30	21.6	30.4
12-Dec-06	29	25	27	26	28	27	27	27	18	23	31	29	30	27	29	27	24	22	20	15	11	16	11	9	23.2	30.5
13-Dec-06	10	9	12	20	11	5	7	9	11	14	21	32	30	29	30	29	28	29	27	25	25	24	22	22	20.3	31.6
14-Dec-06	21	21	23	22	20	18	17	16	15	15	12	10	14	13	12	10	7	8	8	7	10	14	21	19	14.7	23.0
15-Dec-06	10	16	23	25	24	27	31	35	33	37	38	37	31	31	30	28	24	22	21	14	15	13	11	13	24.6	37.9
16-Dec-06	15	17	21	24	29	26	30	31	34	32	33	33	31	24	22	20	12	12	13	13	11	8	7	7	21.0	33.9
17-Dec-06	7	10	10	10	8	7	6	5	5	4	10	24	15	13	15	11	7	6	5	7	8	10	15	16	9.9	24.2
18-Dec-06	15	14	19	19	18	13	22	25	23	28	31	27	25	25	20	17	15	17	16	15	17	20	23	22	20.3	31.0
19-Dec-06	27	28	32	30	29	33	35	29	30	26	21	18	17	11	3	5	3	7	7	8	6	4	6	5	17.6	35.2
20-Dec-06	5	6	4	5	11	16	20	20	19	19	17	26	24	23	24	18	21	22	21	25	22	20	20	18	17.7	25.6
21-Dec-06	17	21	22	22	16	25	21	13	16	20	27	37	35	32	26	21	22	22	23	17	14	18	16	15	21.6	37.4
22-Dec-06	14	10	12	9	13	13	10	10	12	15	15	18	17	16	14	12	16	15	13	13	11	12	12	9	12.9	18.2
23-Dec-06	6	6	9	14	12	15	8	13	10	23	30	30	29	26	23	27	19	12	17	16	18	21	18	20	17.6	30.1
24-Dec-06	14	13	10	14	16	17	13	9	9	12	17	16	17	21	22	19	15	13	14	10	6	7	8	16	13.6	21.8
25-Dec-06	16	19	22	27	29	25	29	27	29	26	19	15	8	10	11	12	10	13	16	16	15	12	9	7	17.6	29.4
26-Dec-06	7	10	15	14	12	11	10	12	12	9	8	7	12	15	9	4	4	6	6	5	5	4	6	7	8.6	15.0
27-Dec-06	4	3	3	3	5	7	6	6	7	9	8	5	4	9	8	8	12	13	14	12	10	14	18	17	8.6	18.4
28-Dec-06	16	20	20	18	17	15	16	18	16	16	10	11	14	14	11	9	7	6	7	4	4	5	5	5	11.8	20.0
29-Dec-06	4	3	4	6	7	7	5	5	3	3	3	4	15	19	19	24	19	20	22	26	28	26	25	22	13.2	27.6
30-Dec-06	26	27	26	16	19	17	16	14	11	12	9	10	9	10	10	11	9	10	6	6	6	6	6	6	12.5	26.6
31-Dec-06	8	10	10	7	4	5	4	6	6	5	6	5	4	5	4	6	4	4	5	3	4	4	7	12	5.7	11.8
1-hr Average	12.2	13.1	14.2	14.5	14.4	14.5	14.9	14.4	14.0	15.5	16.3	17.3	17.2	16.9	15.5	14.4	13.5	13.3	13.4	12.3	11.6	12.0	12.3	12.1		
Hourly Max	28.8	27.7	31.5	30.4	29.0	32.7	35.2	35.0	33.9	36.7	37.9	37.4	35.1	31.8	30.1	29.6	28.6	27.9	29.4	26.6	27.6	27.2	27.8	30.4		



# PAS - Crescent Heights - Vector Wind Speed Monthly Summary

Station: Crescent Heights  
 Station Owner: PAS

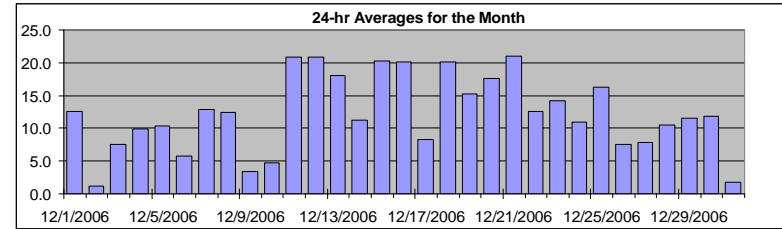
## HOURLY AVERAGE TABLE

## Wind Speed (WSv)

Monitoring Dates: December 1, 2006 to January 1, 2007

### Summary

Maximum 1-hr Average:	37.7	km/hr	15-Dec	10:00 11:00
Maximum 24-hr Value:	21.1	km/hr	21-Dec	



Calm Time:	1 hrs	0% calms	Operational Time:	743 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageV
	33.6	29.2	19.4	12.4	7.1	2.9	1.3	9.7 km/hr

### Status Flag Characters

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

Day	Mountain Standard Time																							24-hr Vector Average	Daily Max		
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Dec-06	11	9	7	10	11	17	26	21	22	19	18	19	18	18	16	12	9	9	7	8	8	6	7	7	12.6	25.9	
2-Dec-06	8	8	7	5	3	4	3	3	2	5	4	5	7	6	5	7	7	7	8	5	4	1	3	3	1.2	8.1	
3-Dec-06	8	14	25	26	23	21	22	18	13	11	10	10	10	12	10	6	14	12	10	3	3	3	2	3	7.5	25.8	
4-Dec-06	4	5	4	4	4	5	5	6	4	5	13	14	14	17	16	14	19	14	22	25	21	20	24	19	9.9	25.4	
5-Dec-06	17	18	14	13	12	11	10	11	10	8	8	9	11	9	10	11	8	8	9	9	10	11	13	9	10.4	17.6	
6-Dec-06	7	4	calm	3	2	4	3	5	7	14	16	15	15	13	12	11	12	8	6	5	2	3	2	3	5.7	16.2	
7-Dec-06	7	5	7	16	23	17	15	12	16	16	12	16	18	15	14	14	20	14	8	7	10	8	8	3	12.8	23.4	
8-Dec-06	14	21	19	10	8	4	6	7	6	12	19	13	18	13	10	18	14	14	14	13	12	14	11	11	12.4	21.2	
9-Dec-06	6	14	9	9	11	12	11	7	3	8	7	5	9	11	9	6	5	11	9	6	3	4	2	2	3.4	14.2	
10-Dec-06	1	5	6	5	2	5	4	2	3	1	4	1	6	13	7	6	7	8	10	10	13	8	8	10	4.8	13.1	
11-Dec-06	18	9	10	12	10	15	19	19	23	26	26	26	24	25	23	23	21	23	28	25	26	27	28	30	20.9	30.3	
12-Dec-06	29	25	27	25	28	27	27	27	18	23	30	29	30	27	29	26	24	21	20	14	11	15	11	9	20.8	30.4	
13-Dec-06	9	9	11	20	10	2	6	9	10	14	21	31	30	28	30	29	29	28	29	27	25	24	24	22	18.1	31.5	
14-Dec-06	21	21	23	21	20	18	17	16	14	15	12	10	14	13	11	10	6	8	7	7	10	13	20	19	11.3	22.9	
15-Dec-06	9	16	23	25	24	26	31	35	33	37	38	36	31	31	29	28	24	22	20	14	15	13	11	13	20.2	37.7	
16-Dec-06	15	17	21	24	29	26	30	30	34	32	33	33	31	23	22	19	12	12	13	13	10	7	7	6	20.1	33.8	
17-Dec-06	6	10	10	10	7	6	6	5	5	3	8	24	15	13	15	11	7	4	1	6	8	10	15	16	8.3	24.0	
18-Dec-06	15	14	19	19	18	13	21	25	23	28	31	27	25	25	20	17	15	17	16	15	16	20	23	22	20.1	30.8	
19-Dec-06	27	28	31	30	29	33	35	29	30	26	21	18	16	8	1	5	1	7	7	8	5	4	6	5	15.2	35.1	
20-Dec-06	4	6	3	3	10	16	20	20	19	19	16	25	24	23	24	18	21	22	20	24	22	20	20	18	17.6	25.5	
21-Dec-06	17	20	21	22	15	25	21	13	16	20	27	37	35	32	26	20	22	22	23	17	14	18	16	15	21.1	37.3	
22-Dec-06	13	10	12	8	12	13	10	9	12	15	14	18	17	16	14	12	16	15	13	13	11	12	12	7	12.5	18.0	
23-Dec-06	3	4	9	14	12	14	8	12	9	23	30	30	29	26	23	26	19	11	16	16	18	21	18	20	14.2	30.0	
24-Dec-06	14	12	10	14	16	17	12	9	8	12	17	16	17	20	22	19	15	12	14	10	4	6	8	16	10.9	21.7	
25-Dec-06	15	19	22	27	29	25	29	27	29	26	19	15	8	10	11	12	10	13	16	16	15	12	9	7	16.2	29.3	
26-Dec-06	6	9	15	13	12	11	10	11	11	8	7	7	11	15	9	4	3	5	5	3	4	1	6	7	7.5	14.7	
27-Dec-06	2	3	3	3	5	7	6	6	7	9	8	5	4	9	8	8	12	13	14	12	9	14	18	17	7.9	18.3	
28-Dec-06	16	20	20	17	17	15	16	18	16	16	10	11	14	14	10	9	7	6	7	3	4	5	5	4	10.5	20.0	
29-Dec-06	4	3	4	6	7	6	4	4	2	2	3	3	14	19	19	24	19	20	21	26	27	24	25	22	11.5	27.1	
30-Dec-06	26	26	25	16	19	17	16	14	11	12	9	10	9	9	10	11	9	10	6	5	6	6	5	5	11.8	26.4	
31-Dec-06	8	10	9	7	1	3	2	5	6	5	6	5	3	5	4	5	1	4	5	2	3	3	6	12	1.8	11.6	
1-hr Vector	8.8	8.8	10.6	10.5	10.2	9.3	9.3	9.4	8.7	9.9	11.1	12.1	12.0	11.3	10.8	9.9	9.2	9.1	9.2	8.4	8.0	9.2	8.8	8.7			
Hourly Max	28.7	27.6	31.4	30.3	28.9	32.6	35.1	34.9	33.8	36.6	37.7	37.3	35.0	31.7	29.9	29.4	28.5	27.8	29.3	26.5	27.1	27.1	27.7	30.3			



# PAS - Crescent Heights - Wind Direction Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

## HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: December 1, 2006 to January 1, 2007

### Summary


Calm Time:	0 hrs	0% calms	Operational Time:	744 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	Average
	355.3	328.9	260.9	229.1	205.9	37.4	3.2	238 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-hour Average	WD Sector
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-Dec-06	300	316	288	290	304	337	347	341	327	323	324	325	319	321	322	316	303	301	286	282	297	293	292	281	317	NW
2-Dec-06	297	299	306	333	330	313	270	254	144	207	186	215	204	235	204	125	120	109	131	124	112	35	356	314	219	SW
3-Dec-06	206	194	218	230	241	240	233	234	231	249	271	315	321	331	335	334	348	2	3	329	321	263	95	111	259	W
4-Dec-06	90	114	113	91	109	122	157	223	183	207	229	224	229	223	233	244	234	242	240	252	234	260	275	284	237	WSW
5-Dec-06	286	274	270	264	269	287	273	275	271	267	262	260	261	253	240	236	246	237	272	251	241	234	239	231	260	W
6-Dec-06	222	143	187	70	232	358	9	38	58	78	86	86	89	100	104	98	100	103	115	102	35	10	30	335	88	E
7-Dec-06	235	254	223	229	236	236	237	247	238	240	244	245	234	244	242	239	234	239	272	277	250	251	240	236	241	WSW
8-Dec-06	215	223	229	246	211	149	147	223	196	246	237	238	231	223	232	246	249	248	251	256	252	244	255	235	234	SW
9-Dec-06	204	226	245	268	337	0	6	31	17	11	16	84	25	29	57	108	66	62	93	100	43	17	18	252	24	NNE
10-Dec-06	146	120	123	130	134	164	212	332	39	9	232	215	226	222	216	235	219	232	222	241	231	231	263	261	221	SW
11-Dec-06	236	268	260	251	272	237	219	205	208	207	213	213	210	211	209	208	211	209	206	209	211	209	207	209	215	SW
12-Dec-06	209	206	215	219	216	219	224	226	231	214	211	211	225	243	260	264	270	270	270	269	332	271	264	245	235	SW
13-Dec-06	246	239	222	228	257	194	203	199	187	186	198	207	208	231	261	265	265	259	261	261	266	266	264	262	242	WSW
14-Dec-06	264	269	265	263	261	265	263	264	279	271	268	260	253	257	241	232	244	231	204	134	148	160	173	161	245	WSW
15-Dec-06	155	171	181	187	203	210	204	210	208	211	216	218	238	257	262	264	270	271	280	299	290	280	270	270	230	SW
16-Dec-06	300	311	313	311	312	312	316	315	321	324	328	330	329	321	318	320	310	282	283	285	284	275	240	257	313	NW
17-Dec-06	190	228	235	230	212	193	128	134	146	202	241	223	237	235	237	242	267	317	81	229	238	237	238	231	227	SW
18-Dec-06	230	230	230	231	241	230	217	218	225	221	227	223	223	232	240	241	230	229	239	240	228	224	220	223	228	SW
19-Dec-06	215	220	221	220	219	220	221	225	223	220	263	267	273	339	176	27	248	234	216	204	184	158	127	162	225	SW
20-Dec-06	232	222	220	200	222	208	212	214	221	218	210	213	208	208	212	213	213	218	215	211	220	221	216	223	215	SW
21-Dec-06	224	218	215	212	218	209	206	202	202	200	208	218	215	217	219	225	235	240	250	246	238	237	222	211	220	SW
22-Dec-06	222	247	236	220	215	232	233	240	234	238	230	228	236	257	244	253	269	267	250	231	242	251	232	216	239	WSW
23-Dec-06	207	182	222	223	245	236	229	223	196	206	213	209	203	205	207	213	221	252	268	288	282	289	308	317	232	SW
24-Dec-06	305	296	267	288	292	295	300	305	271	233	234	224	220	212	215	213	205	215	225	238	236	254	211	192	243	WSW
25-Dec-06	190	195	204	203	210	208	216	217	216	223	236	239	250	265	251	247	249	259	265	265	266	253	224	224	226	SW
26-Dec-06	210	213	221	231	227	220	232	222	227	233	236	265	212	219	214	210	154	185	227	103	25	282	227	231	223	SW
27-Dec-06	168	38	99	29	7	1	21	10	37	33	11	10	26	14	3	359	355	2	360	0	349	349	355	359	6	N
28-Dec-06	1	358	360	354	352	349	349	344	328	340	330	326	325	330	331	329	336	310	313	333	291	252	217	198	338	NNW
29-Dec-06	183	110	121	125	128	144	147	88	77	74	116	181	185	186	195	201	216	209	200	201	208	207	196	190	190	S
30-Dec-06	209	206	228	262	244	237	233	233	228	227	227	221	221	209	217	230	238	231	216	190	150	183	176	227	223	SW
31-Dec-06	247	251	253	267	284	187	183	172	124	155	131	144	95	97	110	91	4	3	5	59	118	249	249	242	206	SSW
Hourly Avg	232	232	232	238	244	239	237	238	234	232	235	232	233	239	239	241	246	248	248	245	245	246	239	235		





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

Station: Crescent Heights  
Station Owner: PAS

## HOURLY AVERAGE TABLE

### Wind Direction (WD)

Monitoring Dates: December 1, 2006 to January 1, 2007

#### Summary


Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	744 hrs			
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%			
Percentile	99	95	75	50	25	5	1
	57.1	35.5	13.6	7.5	5.5	4.1	3.5

#### Status Flag Characters

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

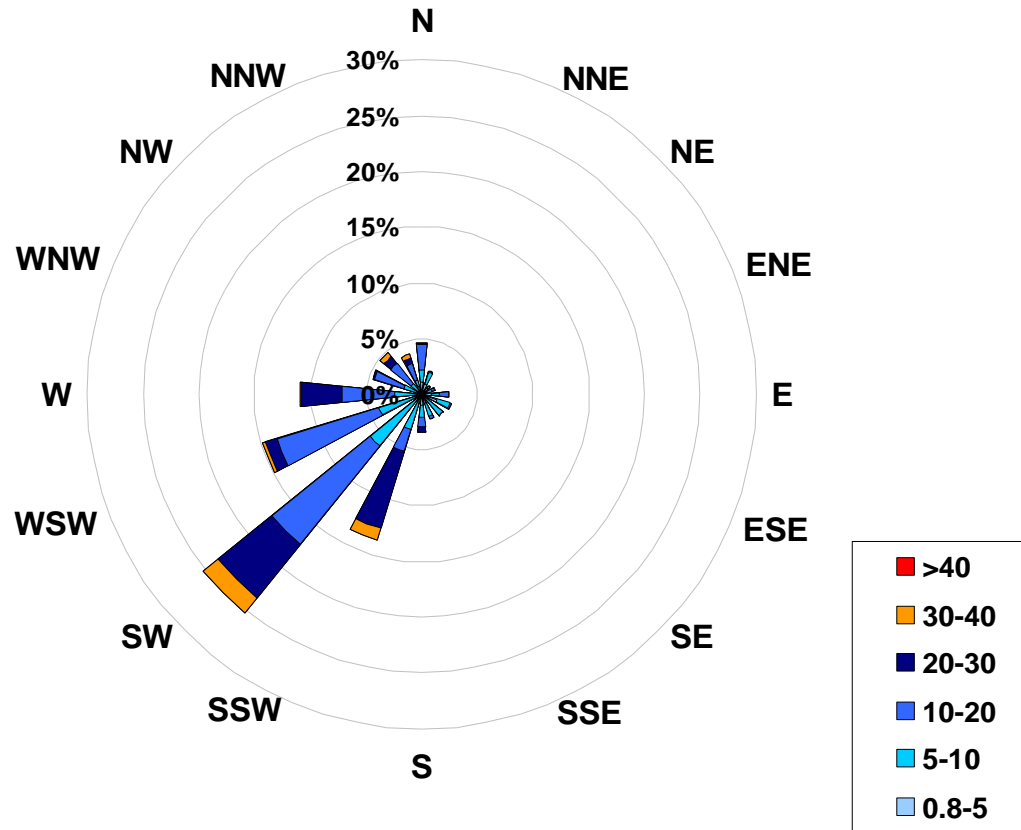
#### Day Mountain Standard Time

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	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-Dec-06	10	8	13	9	10	12	4	5	6	5	6	6	6	6	6	8	11	10	9	9	14	12	10	9	13.6	
2-Dec-06	8	8	11	23	40	24	33	34	48	8	37	25	14	22	21	22	4	4	5	8	26	29	16	26	48.2	
3-Dec-06	32	6	5	5	7	3	4	4	6	8	9	11	11	8	9	16	5	4	6	20	27	40	36	34	39.9	
4-Dec-06	11	18	20	19	10	16	22	21	22	31	7	7	9	6	6	9	6	7	5	6	6	7	5	6	31.5	
5-Dec-06	7	5	6	7	8	8	6	6	8	8	9	7	7	8	7	6	10	7	9	8	5	4	3	5	9.9	
6-Dec-06	16	27	55	53	40	32	32	24	15	6	6	6	7	8	8	9	6	6	8	19	26	15	33	31	55.3	
7-Dec-06	20	35	23	5	4	6	7	8	4	7	9	8	6	9	6	7	4	14	19	23	14	18	21	45	45.3	
8-Dec-06	8	6	8	23	43	20	16	58	36	22	5	9	5	6	15	9	11	11	15	11	10	11	12	44	58.5	
9-Dec-06	31	9	16	15	10	4	5	15	43	13	14	17	8	10	9	16	15	7	6	9	13	13	50	32	49.6	
10-Dec-06	38	11	10	20	52	18	14	36	19	33	42	58	39	9	40	22	13	11	7	9	6	30	24	13	57.8	
11-Dec-06	5	19	12	13	15	14	6	5	4	5	5	4	6	5	5	4	4	5	5	4	5	4	4	4	19.2	
12-Dec-06	4	5	4	4	4	4	4	5	9	5	5	4	5	6	5	5	5	5	6	17	12	7	9	6	17.4	
13-Dec-06	8	10	13	5	20	58	13	7	11	6	7	5	5	6	5	5	5	5	4	5	5	6	5	5	57.6	
14-Dec-06	5	6	5	5	6	5	6	6	7	6	8	9	8	9	11	10	13	17	17	9	9	6	8	7	17.2	
15-Dec-06	39	16	7	6	7	7	4	4	5	4	4	5	6	5	4	5	5	6	6	10	8	8	9	6	39.3	
16-Dec-06	8	8	6	6	5	7	6	5	4	4	5	5	6	6	6	5	8	7	7	6	8	13	12	10	12.6	
17-Dec-06	23	4	6	5	20	10	6	11	23	58	31	5	12	10	7	7	11	17	27	7	8	5	5	4	58.2	
18-Dec-06	5	5	4	7	9	15	9	7	4	5	6	5	5	6	7	6	7	6	7	7	8	6	5	6	14.5	
19-Dec-06	5	5	5	4	4	4	4	4	4	6	6	8	8	8	38	64	16	38	9	8	9	19	32	16	27	64.4
20-Dec-06	33	35	61	33	21	7	4	4	7	6	7	4	5	5	5	6	5	7	5	7	5	6	4	6	60.5	
21-Dec-06	5	4	4	4	7	4	4	9	5	5	5	4	5	4	5	5	7	7	7	7	6	7	8	7	8.9	
22-Dec-06	7	8	4	12	8	7	11	9	5	4	11	7	9	7	9	8	5	6	6	4	6	6	6	15	14.9	
23-Dec-06	31	33	9	9	9	8	27	16	15	4	4	6	6	6	6	5	5	14	7	7	7	7	6	6	32.8	
24-Dec-06	8	10	8	7	7	6	8	9	8	6	5	6	8	7	6	5	4	5	4	10	57	25	10	6	56.6	
25-Dec-06	9	7	7	6	3	4	5	4	4	4	6	7	15	8	7	7	7	6	5	5	6	7	13	8	15.2	
26-Dec-06	14	13	9	7	6	9	6	8	14	15	30	17	21	9	19	37	33	27	20	31	17	33	10	7	36.8	
27-Dec-06	22	11	17	14	7	8	16	6	7	9	7	10	17	8	7	7	5	3	3	3	6	4	4	3	21.9	
28-Dec-06	4	4	3	4	4	5	4	5	5	5	8	8	5	5	8	7	10	12	12	24	23	27	12	41	41.4	
29-Dec-06	15	24	21	7	8	10	20	15	34	20	26	22	14	9	8	6	7	8	9	6	7	13	7	7	34.0	
30-Dec-06	5	7	19	12	8	8	4	5	6	7	7	9	6	7	7	5	7	15	14	13	19	22	18	22	22.1	
31-Dec-06	24	9	10	13	35	54	37	13	11	26	9	35	19	14	27	11	61	16	14	31	38	58	43	9	61.4	

Hourly Max	39	35	61	53	52	58	37	58	48	58	42	58	39	38	64	37	61	27	27	31	57	58	50	45
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**1-hr Average Wind Rose (in km/hr) Located at the Crescent Heights Site  
for December 2006**



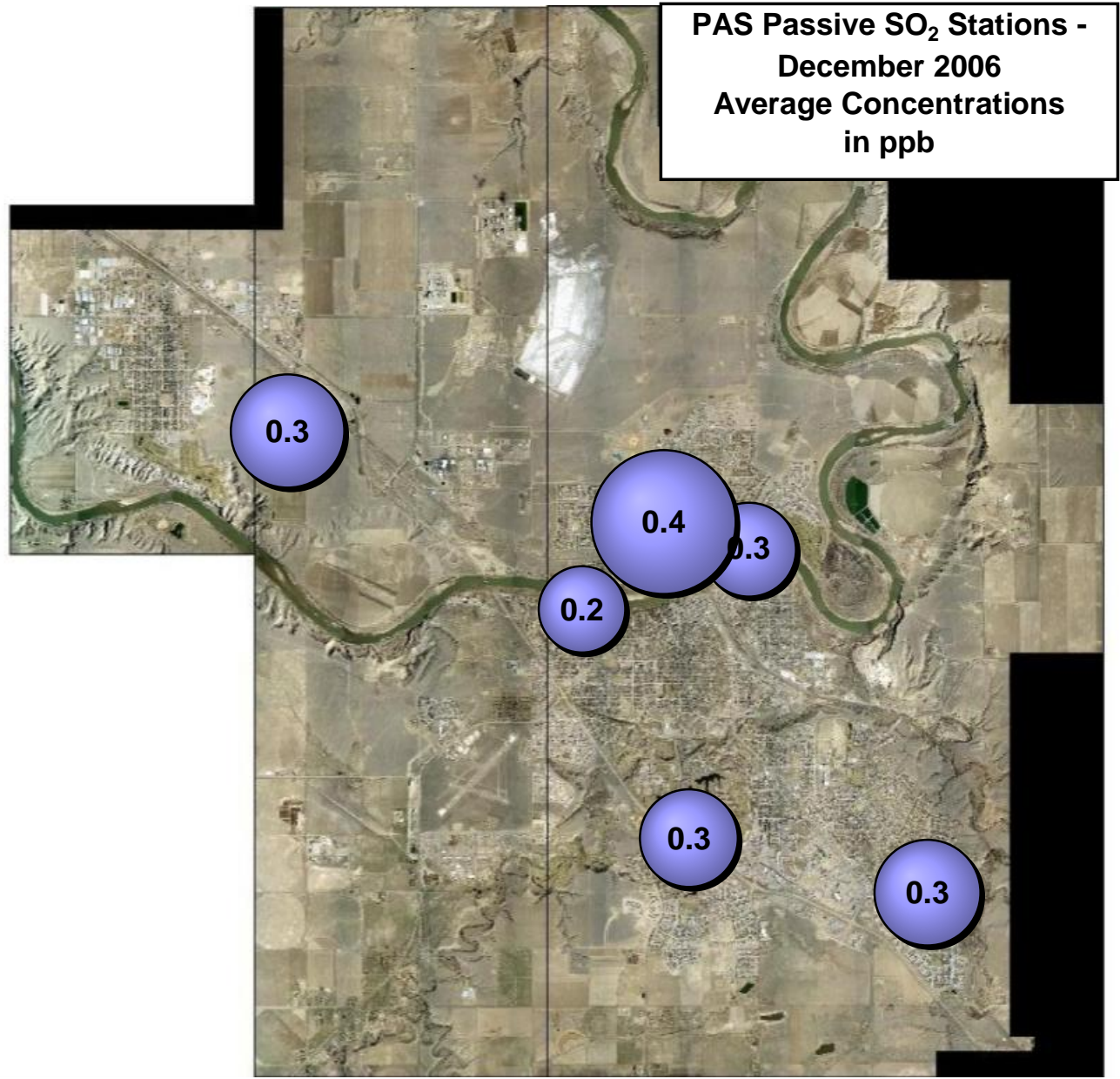
**Calms: 0%**

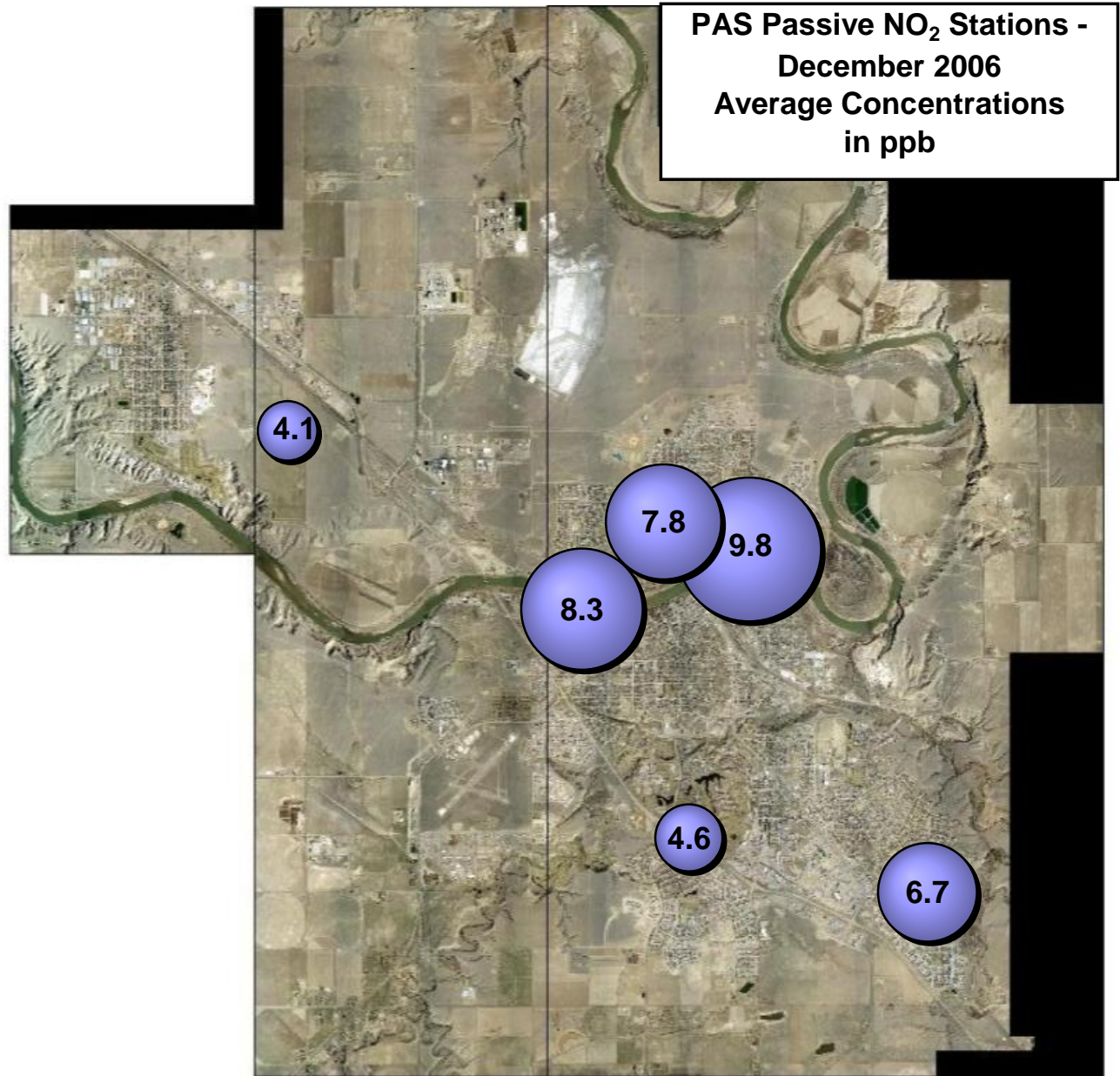
Frequency Distribution of Wind in km/hr			Frequency (hrs)
Range			
0.8	<	5	84
5	to	10	189
10	to	20	292
20	to	30	149
30	to	40	30
	>	40	0
Total Non-Zero Values			744



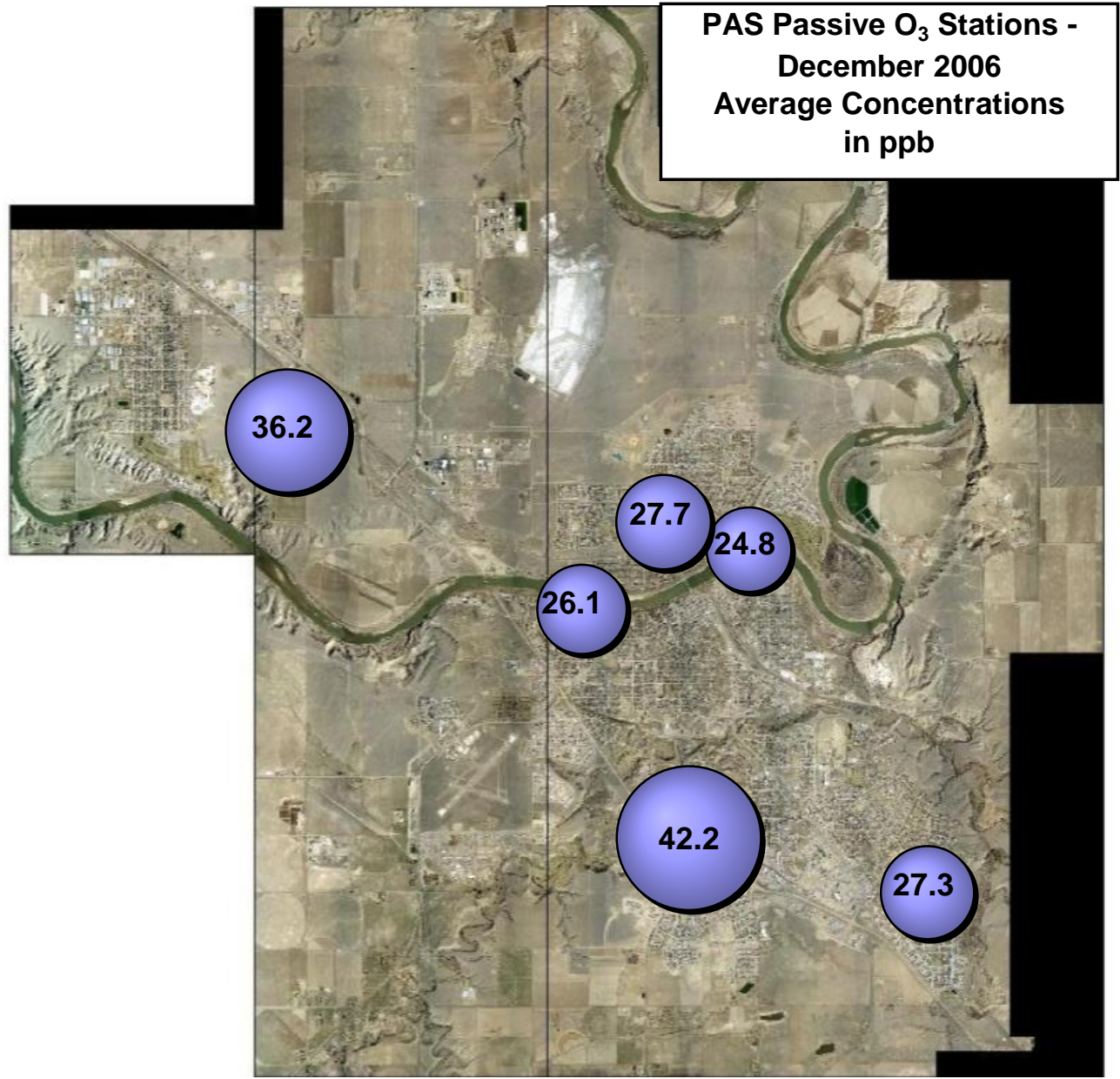
## Passive Monitoring – December 2006

Station Number	Station Name	SO <sub>2</sub> ppb	O <sub>3</sub> ppb	NO <sub>2</sub> ppb	Easting	Northing	Elevation
<b>Duplicates</b>							
3a	Monitoring Station	0.4	26.9	7.8			
3b		0.4	28.6	7.9			
1	Hospital	0.2	26.1	8.3	521648	5542721	698
2	Ball Park	0.3	24.8	9.8	524019	5543686	660
3	Monitoring Station	0.4	27.7	7.8	522812	5544133	714
4	Redcliff	0.3	36.2	4.1	517448	5545608	725
5	Southridge	0.3	42.2	4.6	523172	5539016	721
6	Christian School Park	0.3	27.3	6.7	526577	5538133	709
<b>Stats:</b>							
	<b>Mean</b>	<b>0.3</b>	<b>30.7</b>	<b>6.9</b>			
	<b>Standard Deviation</b>	<b>0.1</b>	<b>6.9</b>	<b>2.2</b>			
	<b>Minimum</b>	<b>0.2</b>			<b>1</b>	<b>Hospital</b>	
	<b>Maximum</b>	<b>0.4</b>			<b>3</b>	<b>Monitoring Station</b>	
	<b>Minimum</b>		<b>24.8</b>		<b>2</b>	<b>Ball Park</b>	
	<b>Maximum</b>		<b>42.2</b>		<b>5</b>	<b>Southridge</b>	
	<b>Minimum</b>			<b>4.1</b>	<b>4</b>	<b>Redcliff</b>	
	<b>Maximum</b>			<b>9.8</b>	<b>2</b>	<b>Ball Park</b>	









# **Palliser Airshed Society December 2006 - Calibration Reports**

**Crescent Heights Station: O<sub>3</sub>, NO<sub>x</sub>, NO, NO<sub>2</sub>, THC, CO and PM<sub>2.5</sub>**

# Calibration Report

Parameter 03  
 Air Monitoring Network Palliser Airshed



## Station Information

Calibration Date	December 12, 2006	Previous Calibration	November 22, 2006
Station Number	101	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Calibration	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	8:00	End Time (MST)	10:59
Barometric Pressure	27.5 inches Hg	Station Temperature	25.4 Deg C
Calibrator	Envionics 6100	Serial Number	3474
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	45270
DACS voltage range	0 - 1 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	1.002981	Calculated slope	0.988561
Calculated intercept	1.691385	Calculated intercept	1.908163
Analyzer make	API Model 400E	Analyzer serial #	331

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Offset	-7.6	ppb	-7.6	ppb
Slope	1.113		1.113	
Lamp measure	4659.0	mV	4659.0	mV
Lamp Reference	4667.5	mV	4667.5	mV
Pressure	25.8	inches Hg	25.8	inches Hg
Sample Flow	665	ccm	665	ccm
Sample temp	35.6	Deg C	35.6	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)
4990	0.0	0.0	-2.3	N/A
4990	300.0	285.2	286.6	0.9951
4990	200.0	193.2	193.0	1.0008
4990	100.0	101.4	101.4	1.0000
4990	0.0	0.0	-2.3	0.0000
4990	300.0	285.2	286.6	0.9951
Average Correction Factor				0.9986

Calculated value of As Found Response: 291.4 ppm      Percent Change of As Found: 2.2%

	before calibration		after calibration	
Auto zero	-1.1	ppb	-1.9	ppb
Auto span	370.7	ppb	368.2	ppb

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Calibration Performed By: Lenin Flores, Travis Mehrer



## Calibration Summary

Parameter                     O3                      
 Air Monitoring Network                     Palliser Airshed                    

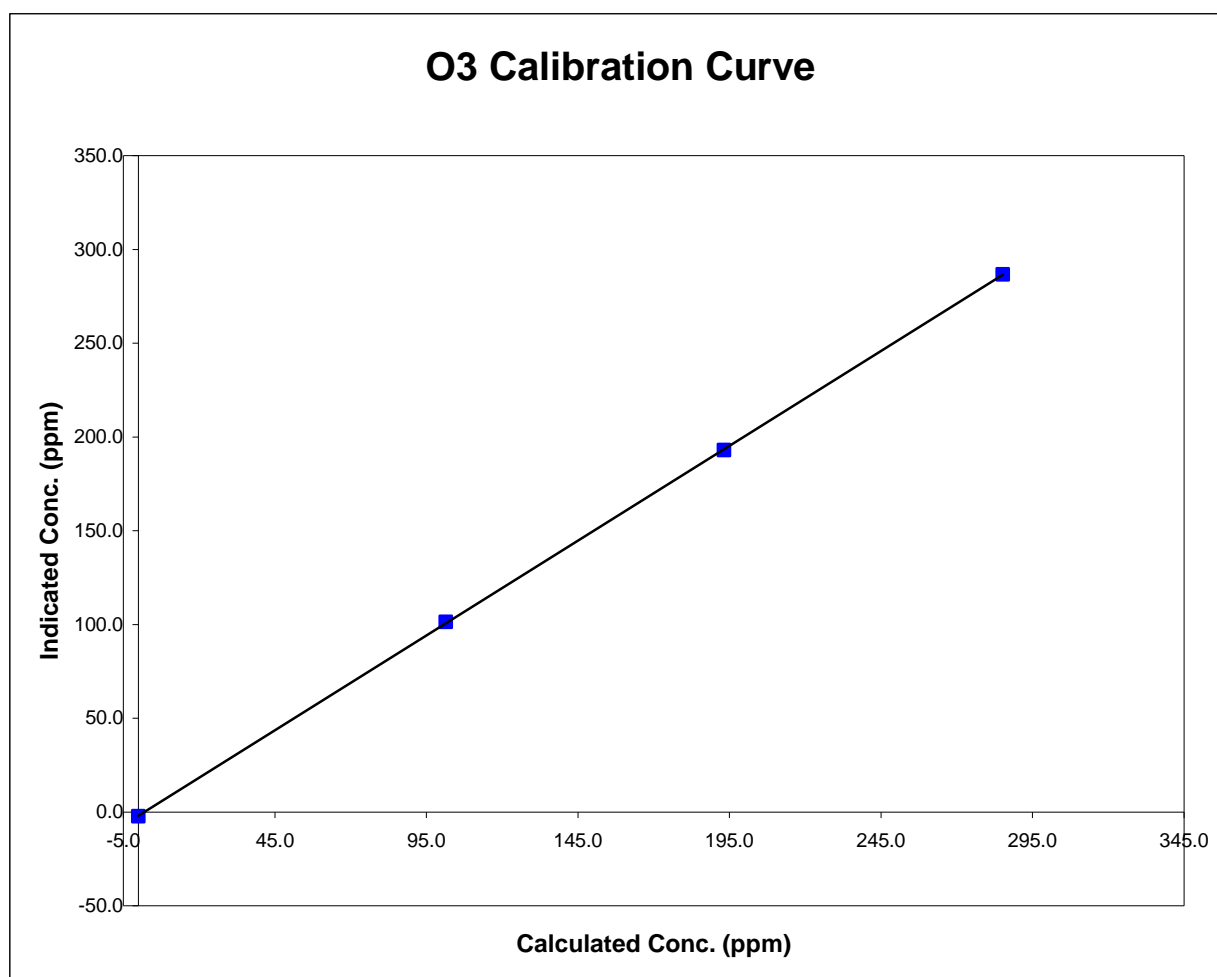


### Station Information

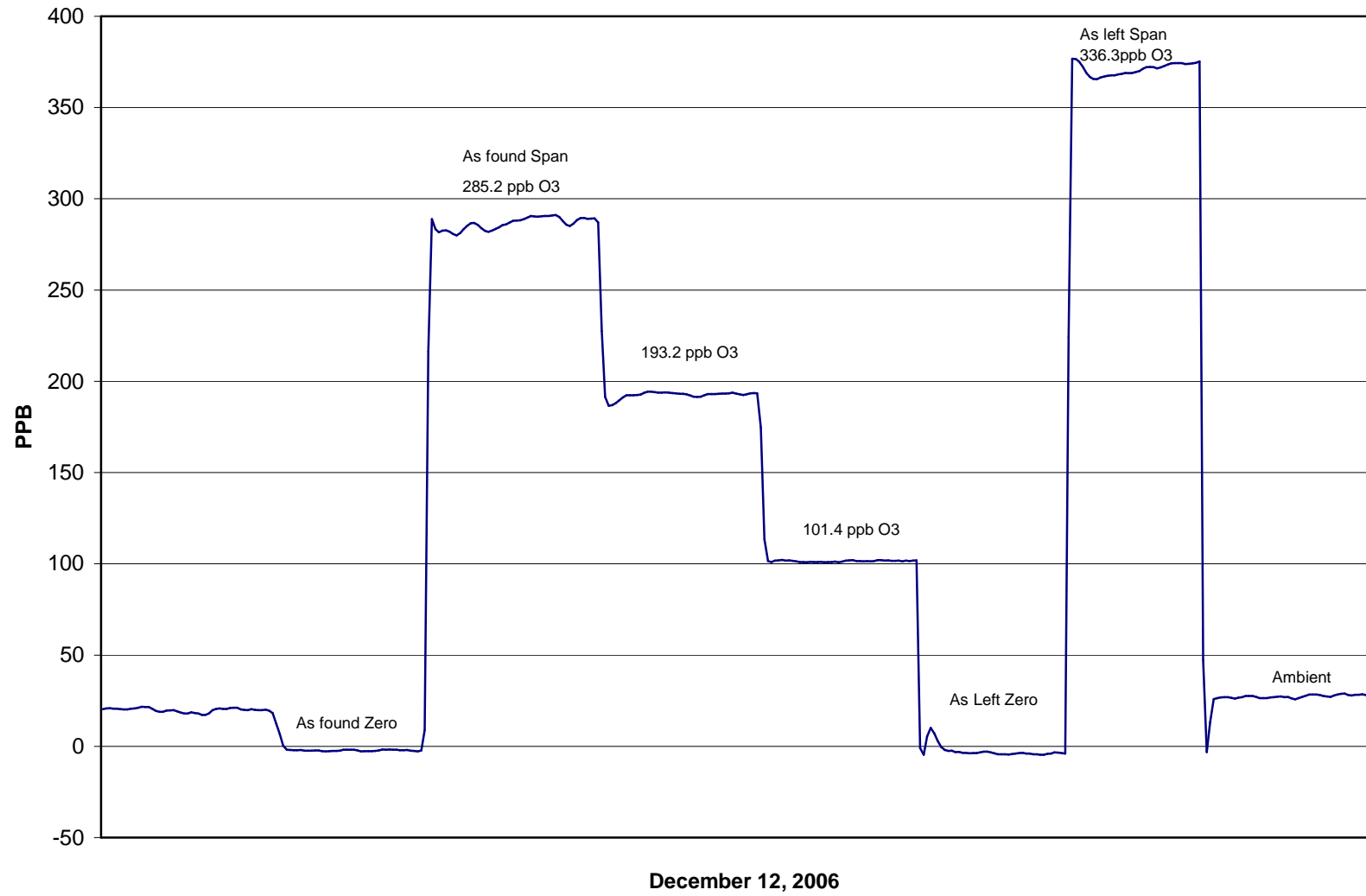
Calibration Date	December 12, 2006	Previous Calibration	November 22, 2006
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	8:00	End Time (MST)	10:59
Analyzer make/model	API Model 400E	Analyzer serial #	331

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
285.2	286.6	0.9951		
193.2	193.0	1.0008	Correlation Coefficient	0.999980
101.4	101.4	1.0000		
0.0	-2.3	N/A	Slope	0.988561
			Intercept	1.908163



### O3 Calibration



# Calibration Report

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



## Station Information

Calibration Date	<u>December 11, 2006</u>	Previous Calibration	<u>November 21, 2006</u>
Station Number	<u>101</u>	Station Location	<u>Crescent Heights</u>

Reason:  Routine    Installation    Removal   Other: \_\_\_\_\_

Start Time (MST)	<u>13:00</u>	End Time (MST)	<u>17:42</u>
Barometric Pressure	<u>27.2</u> inches Hg	Station Temperature	<u>30.0</u> Deg C
Calibrator	<u>EnviroNics 6100</u>	Serial Number	<u>3474</u>
NO Cal Gas Conc	<u>49.9</u> ppm	Cal Gas Expiry Date	<u>15-Dec-07</u>
NOx Cal Gas Conc	<u>49.9</u> ppm	Cal Gas Serial #	<u>LL-50114</u>

## DACS Information

DACS make FOCUS AP1000      DACS serial No. 45270

Parameter		NO2	NOx	NO
Before	Data Slope	1.001089	0.999109	0.998338
	Data Offset	0.511037	0.725960	2.846580
After	Data Slope	0.999649	0.999023	0.996439
	Data Offset	2.652215	2.003859	2.832079
Channel #		8	6	7
Voltage Range		0 - 1 VDC	0 - 1 VDC	0 - 1 VDC

## Analyzer Information

Analyzer make/model API Model 200E      Analyzer serial # 219

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO background	-0.2	mV	-0.2	mV
NOx background	1.1	mV	1.1	mV
NO coefficient	1.378		1.426	
NOx coefficient	1.397		1.455	
Chamber Temp	49.9	Deg C	50.0	Deg C
Cooler Temp	7.0	Deg C	7.0	Deg C
Azero	42.4		41.8	
Perm Temp	40.1	Deg C	40.0	Deg C
Pressure	5.2	inches Hg	5.2	inches Hg
Sample Flow	448.0	ccm	450.0	ccm

Notes: Performed a Span Adjustment... A thorough maintenance will have to be performed next calibration...

\_\_\_\_\_

\_\_\_\_\_

# Calibration Report

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



## Station Information

Calibration Date: December 11, 2006 Station Location: Crescent Heights

## Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NO <sub>x</sub> conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NO <sub>x</sub> conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NO <sub>x</sub> Correction factor	NO Correction factor
zero	4990	0.00	0.0	0.0	0.0	-2.6	-3.1	-2.7	N/A	N/A
1	4990	39.85	395.3	395.3	0.0	393.1	393.6	-3.2	1.0057	1.0045
2	4990	19.90	198.2	198.2	0.0	197.7	196.8	-2.2	1.0028	1.0072
3	4990	9.95	99.3	99.3	0.0	97.4	96.7	-2.7	1.0196	1.0271
AFZ	4990	0.00	0.0	0.0	0.0	-2.6	-3.1	-2.7	0.0000	0.0000
AFS	4990	39.86	395.5	395.5	0.0	377.9	381.0	-5.8	1.0464	1.0379
Average Correction Factor									1.0094	1.0129

As Found Concentrations NO<sub>x</sub>= 381.3 NO= 387.0 As Found Percent Change NO<sub>x</sub>= -3.6% NO= -2.1%

## GPT Calibration Data

Dilution Flow 4990 ccm Source Gas Flow 39.86 ccm

O <sub>3</sub> Setpoint (ppb)	Calculated NO <sub>x</sub> conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NO <sub>x</sub> conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NO <sub>x</sub> Correction factor	NO Correction factor	NO <sub>2</sub> Correction factor	Converter Efficiency
0	394.6	392.7	1.9	392.9	391.2	-2.7	N/A	N/A	N/A	N/A
300	397.5	296.1	101.4	395.9	294.3	98.8	1.0041	1.0061	1.0260	97.5%
200	398.7	205.5	193.2	397.1	203.4	190.7	1.0041	1.0104	1.0135	98.7%
100	397.4	112.1	285.2	395.7	109.7	282.7	1.0041	1.0223	1.0091	99.1%
Average Correction Factor							1.0041	1.0129	1.0162	98.4%

## AIC Data

Parameter	Previous calibration				Current calibration			
	NO <sub>x</sub>	NO <sub>2</sub>	NO		NO <sub>x</sub>	NO <sub>2</sub>	NO	
Auto zero	-2.6	-3.7	-0.5	ppb	0.5	0.3	0.3	ppb
Auto span	397.9	392.1	5.1	ppb	448.6	442.3	7.1	ppb

Calibration Performed By: Travis Mehrer, Lenin Flores

## Calibration Summary

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

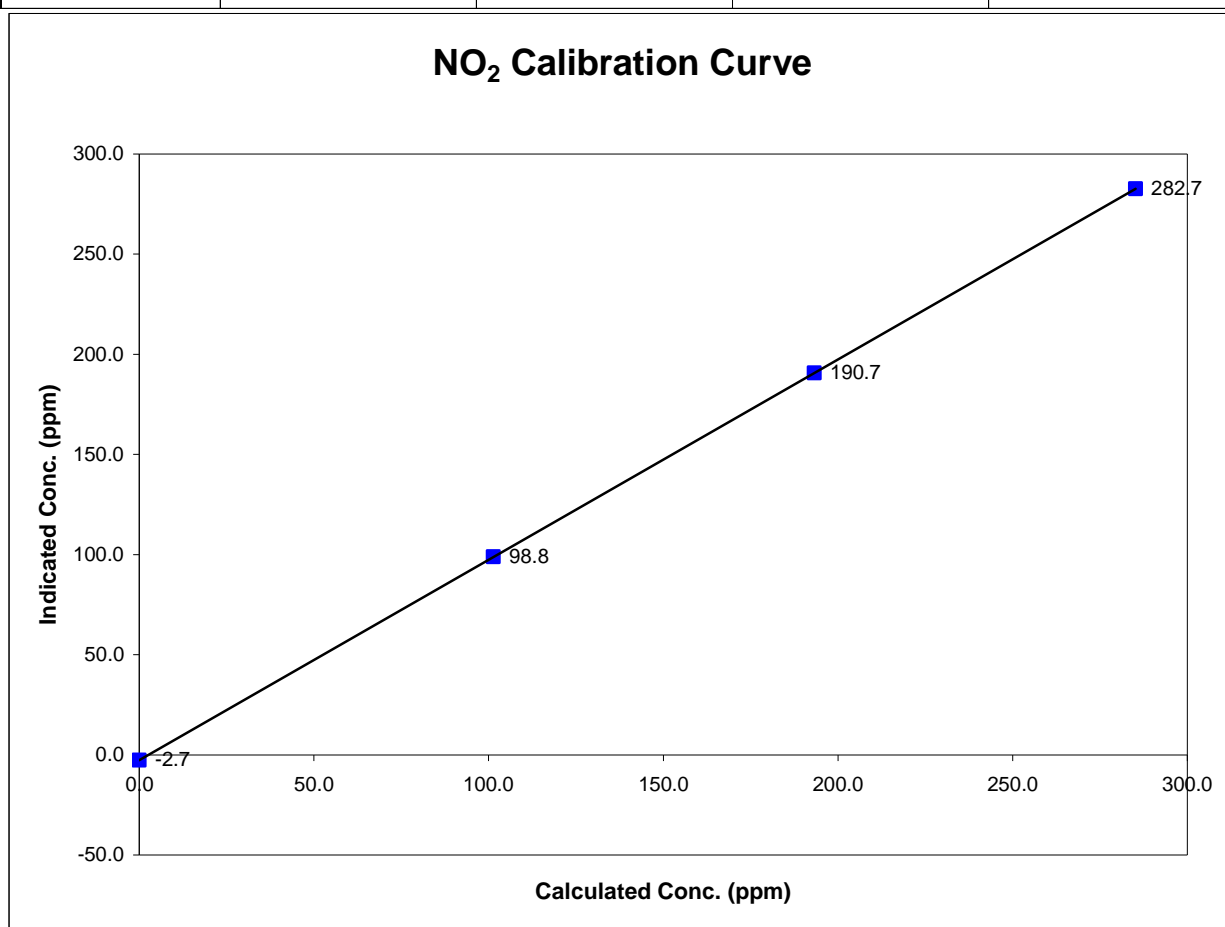


### Station Information

Calibration Date	December 11, 2006	Previous Calibration	November 21, 2006
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	13:00	End Time (MST)	17:42
Analyzer make	API Model 200E	Analyzer serial #	219

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-2.7	0.0000	Correlation Coefficient	1.000000
101.4	98.8	1.0260		
193.2	190.7	1.0135		
285.2	282.7	1.0091		
			Slope	0.999649
			Intercept	2.652215



## Calibration Summary

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

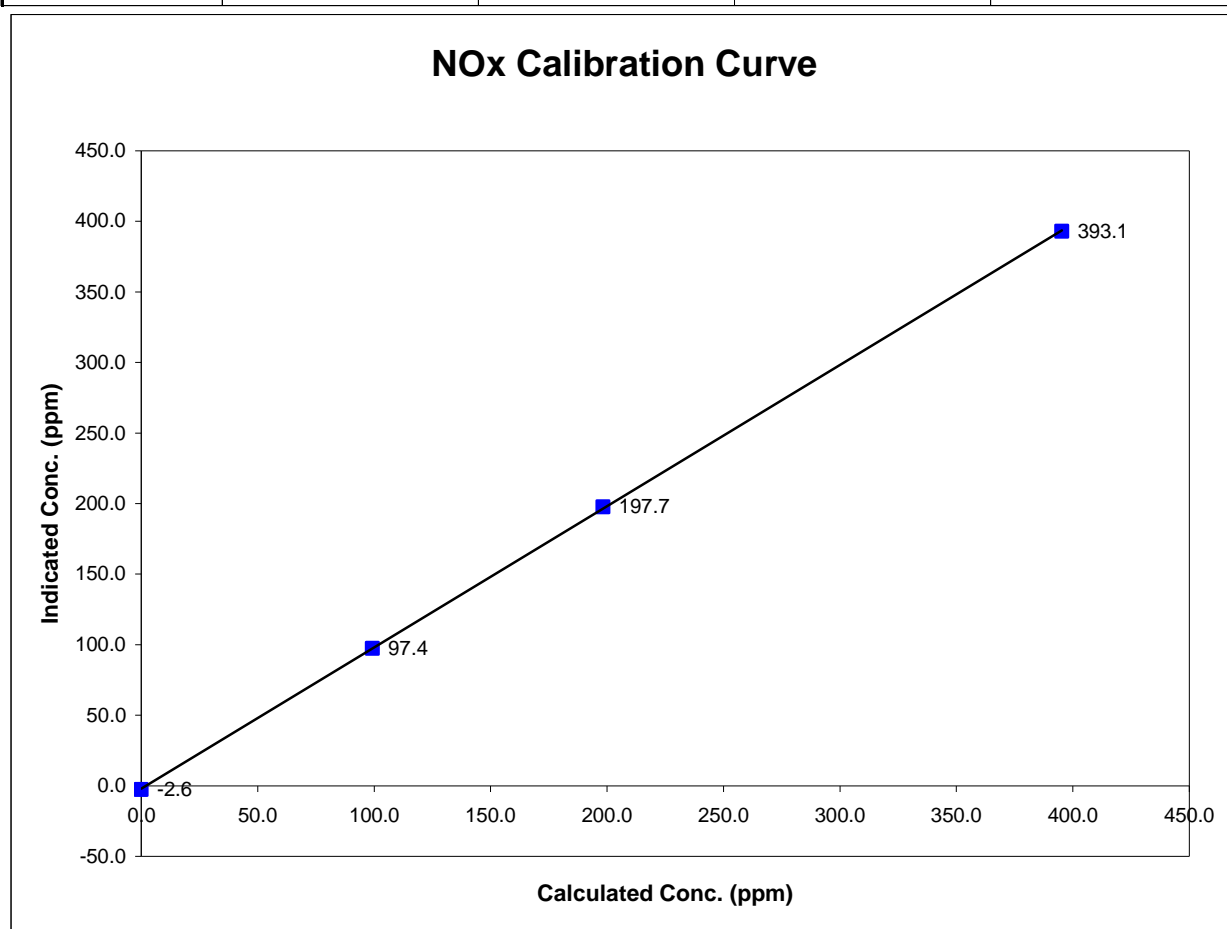


### Station Information

Calibration Date	December 11, 2006	Previous Calibration	November 21, 2006
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	13:00	End Time (MST)	17:42
Analyzer make	API Model 200E	Analyzer serial #	219

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-2.6	0.0000	Correlation Coefficient	0.999973
395.3	393.1	1.0057		
198.2	197.7	1.0028	Slope	0.999023
99.3	97.4	1.0196		
			Intercept	2.003859



## Calibration Summary

Parameter NO  
 Air Monitoring Network Palliser Airshed

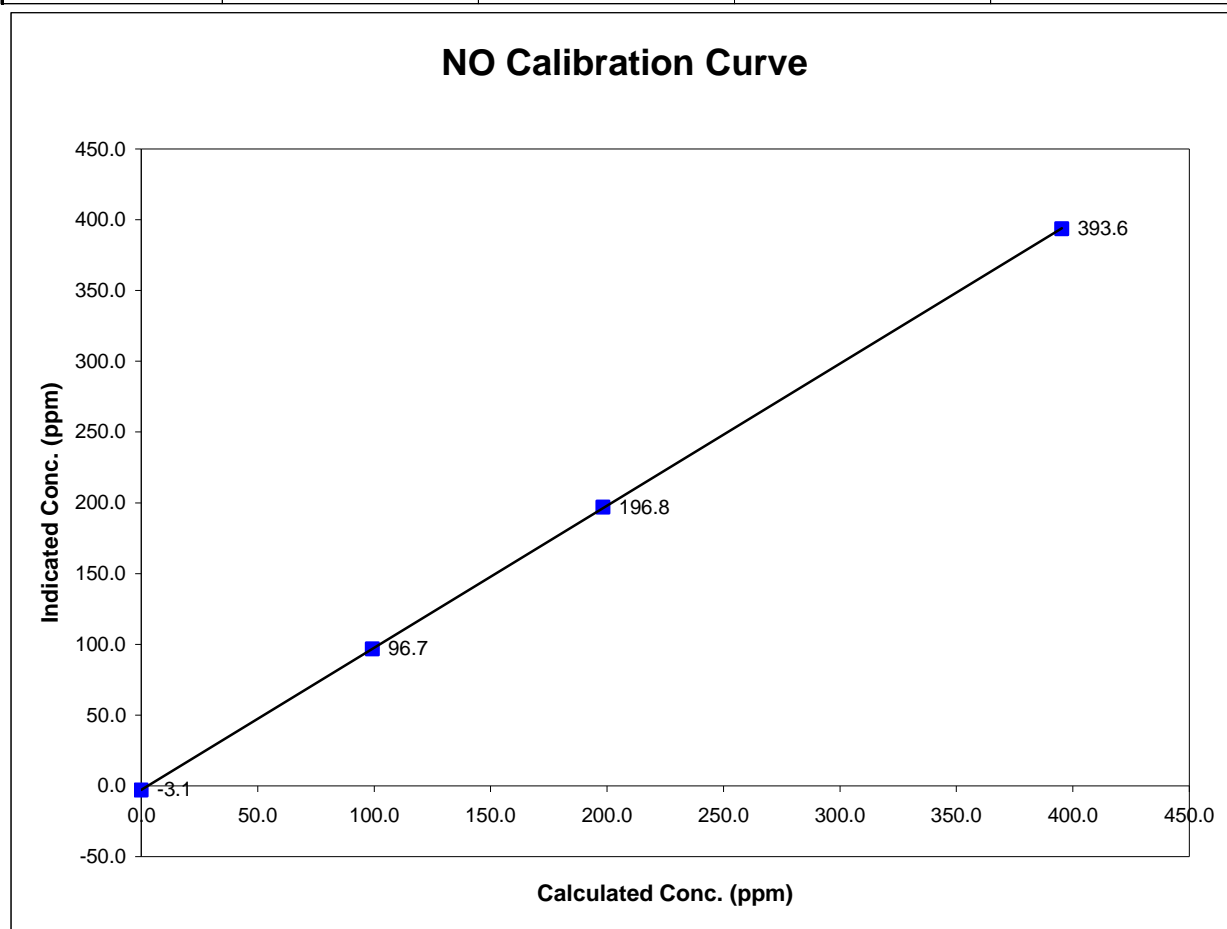


### Station Information

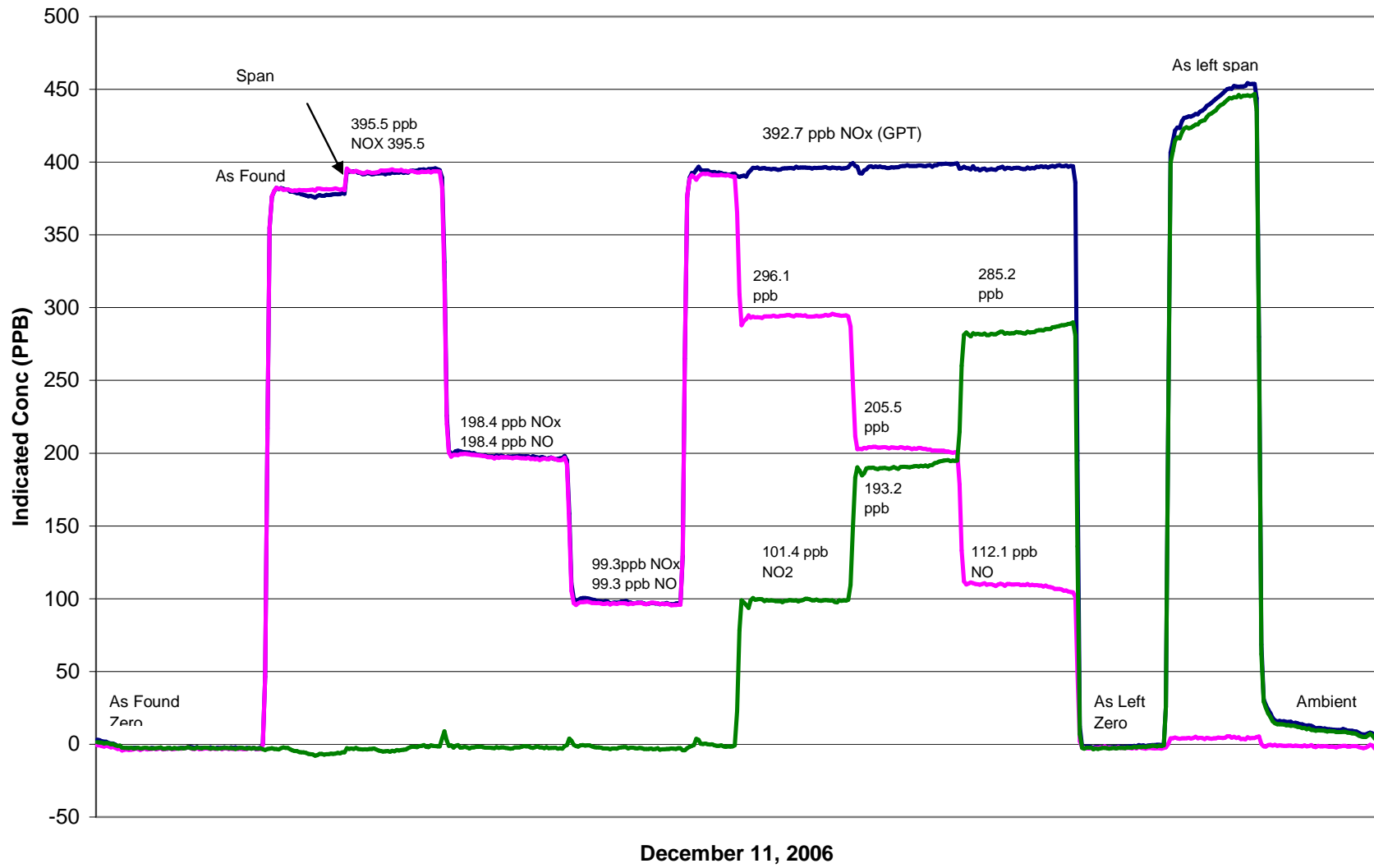
Calibration Date	December 11, 2006	Previous Calibration	November 21, 2006
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	13:00	End Time (MST)	17:42
Analyzer make	API Model 200E	Analyzer serial #	219

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-3.1	N/A		
395.3	393.6	1.0045	Correlation Coefficient	0.999992
198.2	196.8	1.0072		
99.3	96.7	1.0271	Slope	0.996439
			Intercept	2.832079



## NOx Calibration





# Calibration Report

Parameter THC  
 Air Monitoring Network Palliser Airshed



## Station Information

Calibration Date	December 11, 2006	Previous Calibration	November 21, 2006
Station Number	101	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	11:02	End Time (MST)	14:03
Barometric Pressure	27.2 inches Hg	Station Temperature	30.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3747
Cal Gas Concentration	700 ppm CH <sub>4</sub> / 301 ppm C <sub>3</sub> H <sub>8</sub>	Cal Gas Expiry Date	8/28/2005
Cal Gas CH <sub>4</sub> equiv	1527.75 ppm	Cal Gas Cylinder #	ALM030358
DACS make	Focus AP1000	DACS serial No.	45270
DACS voltage range	0 - 10 volt	DACS channel #	9
	Before		After
Calculated slope	0.996074	Calculated slope	0.995671
Calculated intercept	0.206512	Calculated intercept	0.094402
Analyzer make	TEI model 51C-LT	Analyzer serial #	407505596

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
THC sample pressure	5.75	PSI	5.75	PSI
THC span counts	12605	raw	12605	raw
THC zero counts	1370	raw	1370	raw

## Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4990	0.00	0.00	-0.04	N/A
4990	79.79	24.04	24.10	0.9977
4990	39.87	12.11	11.98	1.0113
4990	9.96	3.04	2.95	1.0296
zero	0.00	0.00	0.02	As Found Zero
4990	79.77	24.04	24.10	As Found Span
Average Correction Factor				1.0128

Calculated value of As Found Response: 24.193 ppm      Percent Change of As Found: -0.6%

	before calibration		after calibration	
Auto zero	0.05	ppm	0.05	ppm
Auto span	21.19	ppm	21.22	ppm

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Calibration Performed By: Lenin Flores, Travis Mehrer

## Calibration Summary

Parameter THC  
 Air Monitoring Network Palliser Airshed

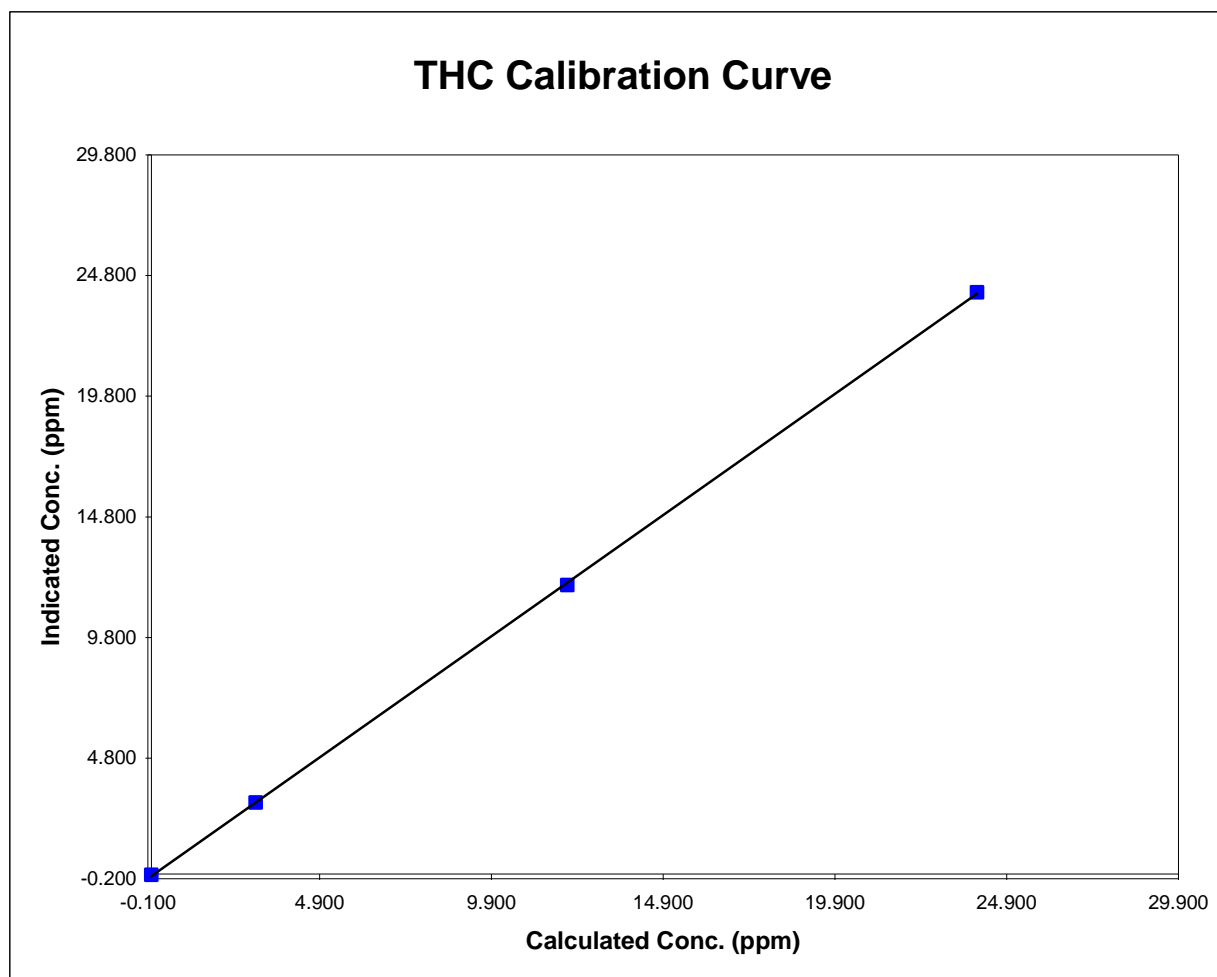


### Station Information

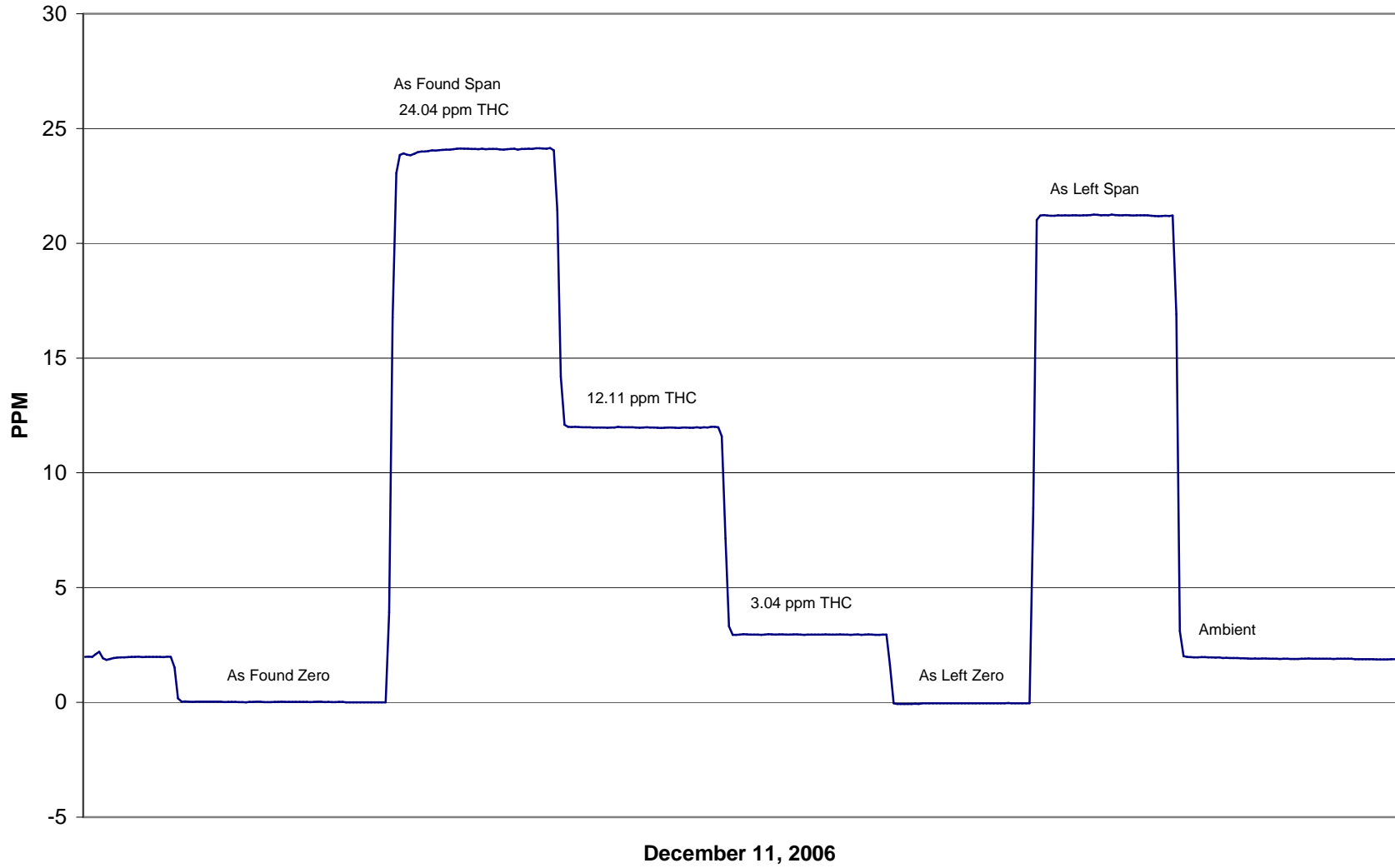
Calibration Date	December 11, 2006	Previous Calibration	November 21, 2006
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	11:02	End Time (MST)	14:03
Analyzer make/model	TEI model 51C-LT	Analyzer serial #	407505596

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.043	N/A		
24.043	24.100	0.9977	Correlation Coefficient	0.999962
12.110	11.975	1.0113		
3.042	2.954	1.0296	Slope	0.995671
			Intercept	0.094402



### THC Calibration



# Calibration Report



Parameter CO  
 Air Monitoring Network Palliser

## Station Information

Calibration Date	December 12, 2006	Previous Calibration	November 21, 2006
Station Number	101	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	16:38	End Time (MST)	19:30
Barometric Pressure	27.20 in Hg	Station Temperature	25.4 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Conc	2998 ppm	Cal Gas Expiry Date	3/14/2008
		Cal Gas Cylinder #	BLM002248
DACS make	Focus AP1000	DACS serial No.	45270
DACS voltage range	0 - 1 volt	DACS channel #	11
	<u>Before</u>		<u>After</u>
Calculated slope	0.986610	Calculated slope	0.972921
Calculated intercept	-0.879055	Calculated intercept	-0.930199
Analyzer make	TEI Model 48C	Analyzer serial #	436609887

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO coefficient	1.064		1.064	
CO bkg setting	10.653		10.774	
Lamp ratio	1.1460		1.1454	
Lamp intensity	200131	Hz	199572	Hz
Sample Flow	1.005	LPM	0.995	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)
4990	0.00	0.00	1.05	N/A
4990	49.83	29.64	31.47	0.9421
4990	19.91	11.91	13.13	0.9075
4990	9.96	5.97	7.03	0.8492
4990	0.00	0.00	0.94	0.0000
4990	49.83	29.64	31.47	0.9421
Average Correction Factor				0.8996

Calculated value of As Found Response: 29.238 ppm      Percent Change of As Found: 1.4%

	before calibration		after calibration	
Auto zero	-0.15	ppm	0.09	ppm
Auto span	16.14	ppm	20.97	ppm

Notes: Tried to adjust Zero, but were unsuccessful again.... "BKG Coefficient too high"

Calibration Performed By: Lenin Flores, Travis Mehrer

# Calibration Summary

Parameter CO  
 Air Monitoring Network Palliser

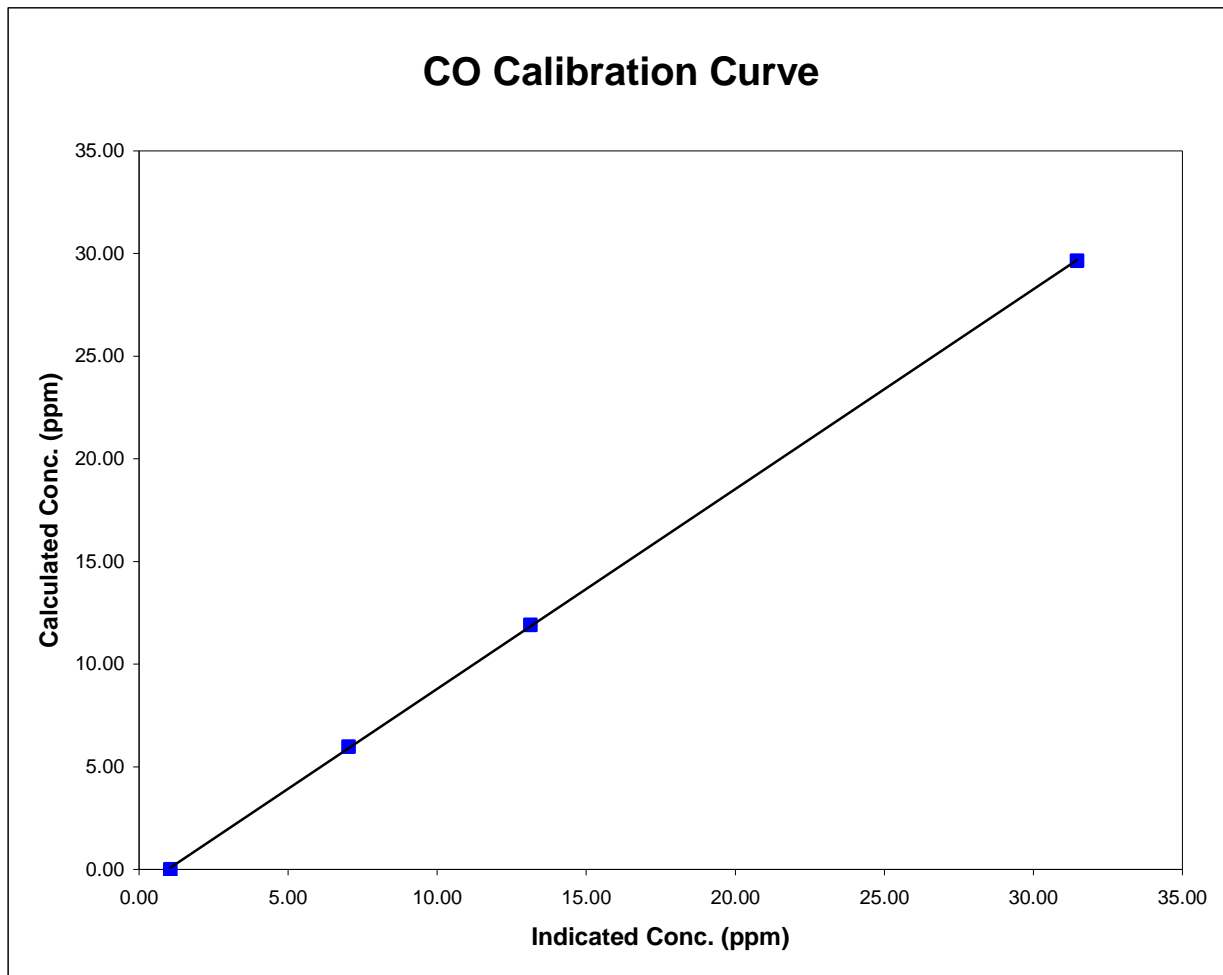


### Station Information

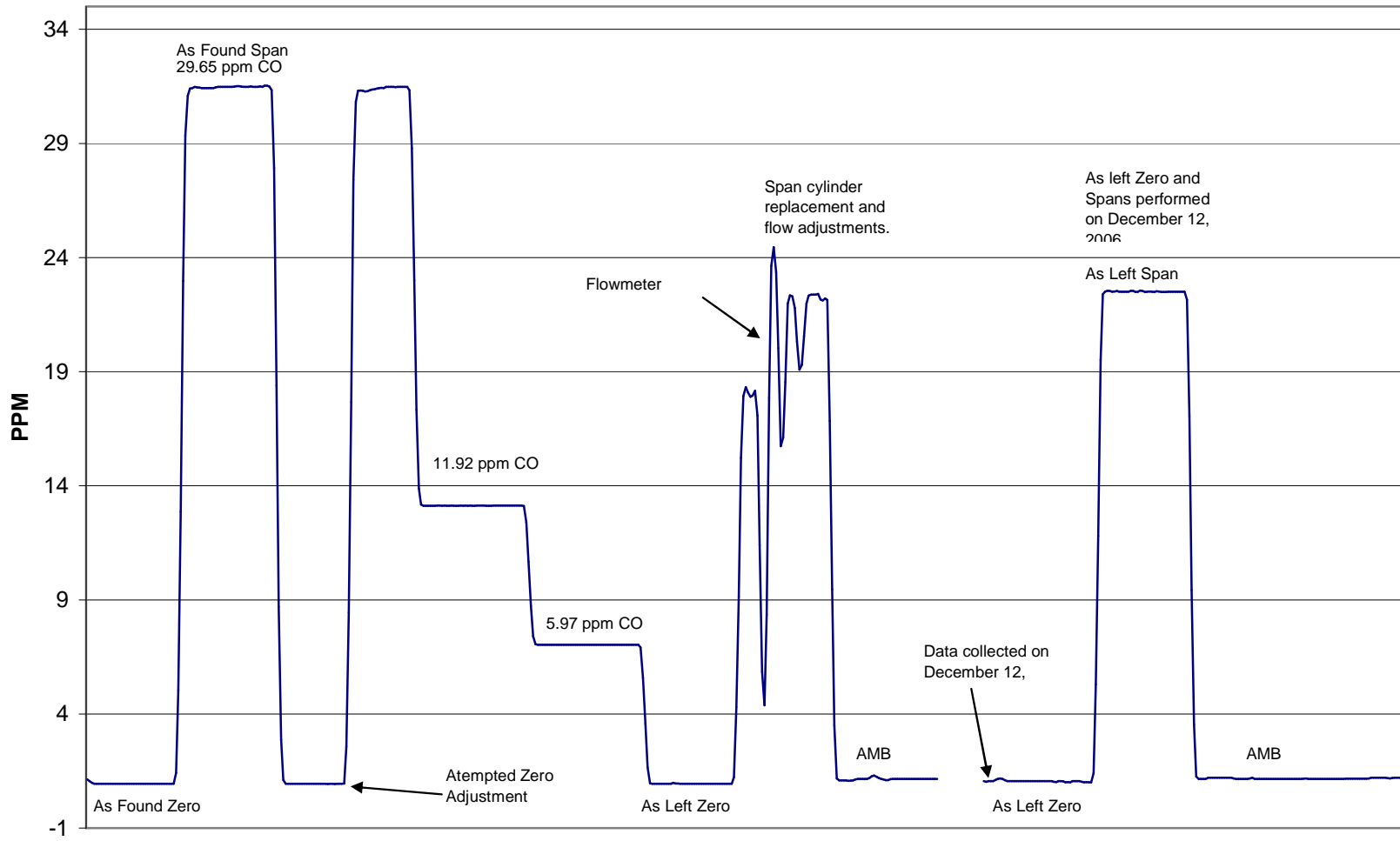
Calibration Date	December 12, 2006	Previous Calibration	November 21, 2006
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	16:38	End Time (MST)	19:30
Analyzer make/model	TEI Model 48C	Analyzer serial #	436609887

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.00	1.05	N/A		
29.64	31.47	0.9421	Correlation Coefficient	0.999962
11.91	13.13	0.9075		
5.97	7.03	0.8492	Slope	0.972921
			Intercept	-0.930199



### CO Calibration



December 12, 2006

# Calibration Report

Parameter PM2.5  
 Air Monitoring Network Palliser Airshed



## Station Information

Calibration Date	December 12, 2006	Previous Calibration	November 22, 2006
Station Number	1	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	9:26	End Time (MST)	10:50
Barometric Pressure	0.921 ATM	Station Temperature	25.0 Deg C
Flow Calibrator	BIOS Drycal DCL-MH	Serial Number	101780
DACS make	AP 1000	DACS serial No.	45269
DACS voltage range	0 - 1 V	DACS channel #	15
	Before		After
DACS Scale High	450	DACS slope	450
DACS Scale Low	-50	DACS intercept	-50

## Analyzer Information

Analyzer make	R&P	Control Unit serial #	140AB237960110
Analyzer model	TEOM 1400AB	Sensor Unit serial #	140AB237960110

	before		after	
Main Flow Set Point	3.000	SLPM	3.000	SLPM
Aux Flow Set Point	13.67	SLPM	13.67	SLPM
Filter Load	31%	%	31%	%
Ko Factor	NA		NA	
Temperature	-8.0	Deg C	6.2	Deg C
Pressure	0.918	ATM	0.918	ATM

## Calibration Data

Parameter	Set Point	TEOM Reading (as found)	Tolerance	TEOM Reading (after adjustments)
zero flow - main	0.0	-0.01	0.00	-0.01
zero flow - auxillary	0.0	0.00	0.01	0.00
flow recovery - main	45 - 60 Seconds	35.0	45 - 60 Seconds	35.0
flow recovery - aux	46 - 60 Seconds	45.0	46 - 60 Seconds	45.0
Temperature	measured	6.2	+/- 1.0 Deg C	6.2
Pressure	measured	0.907	+/- 1.5% ΔATM	0.907
Total Flow	16.67 SLPM	16.71		16.71
Auxiliary flow	13.67 SLPM	13.92	+/- 1.0 SLPM	13.92
Main flow	3.0 SLPM	3.034	+/- 0.2 SLPM	3.034
Leak Check - main	0.0	0.00	<0.15 SLPM	0.00
Leak Check - aux	0.0	-0.01	<0.15 SLPM	-0.01
Ko Factor (w/o filter)	measured	NA	filter weight (g)	NA
Ko Factor (w/ filter)	measured	NA	% Ko difference	NA

Notes: No adjustments were necessary

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