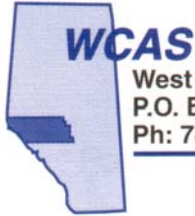


Epcor
Continuous Ambient Air Quality
Monitoring Program
Annual Summary for 2007

Prepared by:

West Central Airshed Society
Drayton Valley, Alberta



West Central Airshed Society
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January 31, 2008

EPCOR
Mr. Kevin Parry
Box 20, Site 2, RR1
Warburg, Alberta
T0C 2T0

Dear Mr. Parry:

**Re: Annual Ambient Air Quality Monitoring Report. January – December 2007.
For EPCOR**

The West Central Airshed Society (WCAS) presents the 2007 Annual Report containing ambient air quality and meteorological information from the following site:

Network Station is AMS 910 Genesee
Identified as:

WCAS data collection and validation began March 1, 2004. The following is a list of the reported ambient air and meteorological parameters measured at the site location:

AMS 910 (Genesee)

SO₂, NO/ NO₂/ NO_x, Particulate Matter (2.5 microns), Wind Speed and Direction, Relative Humidity, External Temperature (10m and 2m), Delta Temperature, (2m – 10m), Global Solar Radiation, and Precipitation.

If additional information is required please contact Patrick Andersen at (780) 514-3533.

Sincerely,

Patrick Andersen
Environmental Specialist

Summary Report

Continuous air quality/meteorological monitoring measurements

West Central Airshed Society

**EPCOR / Genesee
Station 910**

January to December 2007

Parameter	Calibration Hours	Number of Data	Percent Uptime	Mean	Total	Min	Max	Percentile				
								P10	Q1	Median	Q3	P90
SO ₂ (ppb)	454	8167	98.4	1.3	-	0.0	93.0	0.5	0.7	1.1	1.5	2.1
O ₃ (ppb)	446	8177	98.5	27.1	-	0.0	79.0	5.4	14.2	21.9	27.6	30.8
NO (ppb)	457	8169	98.5	1.4	-	0.0	79.0	0.6	0.7	0.9	1.6	4.3
NO ₂ (ppb)	457	8170	98.5	4.4	-	0.0	37.0	2.5	3.8	5.6	9.9	14.4
NO _x (ppb)	457	8170	98.5	5.6	-	0.0	105.0	3.5	4.9	7.0	12.1	18.4
Particulate Matter 2.5 microns (μ/m ³)	58	8500	97.7	3.8	-	0.0	118.0	0.4	1.6	3.2	5.8	11.0
Wind Speed (kph)	0	8602	98.2	12.2	-	0.0	52.0	4.0	6.4	10.4	14.3	18.5
Temperature - 2m (°C)	0	8626	98.5	4.3	-	-37.0	31.0	-17.8	-14.7	-8.9	-3.7	-1.0
Temperature - 10m (°C)	0	8626	98.5	3.7	-	-37.0	32.0	-18.1	-15.1	-10.2	-4.8	-2.1
Delta Temperature (°C)	0	8626	98.5	-0.5	-	-5.0	2.0	-2.3	-1.5	-0.6	-0.1	0.2
Relative Humidity (%)	0	8627	98.5	69.7	-	13.0	99.0	60.9	67.4	77.1	83.7	87.7
Global Solar Radiation (W/m ²)	0	8627	98.5	146.4	-	0.0	924.0	0.0	0.0	0.0	36.8	131.2
Precipitation (mm)	0	8078	92.2	-	360	0.0	37.1	0.0	0.0	0.0	0.0	0.0
Std Dev Wind Direction (deg)	0	8627	98.5	18.7	-	2.0	100.0	5.4	7.5	10.9	17.1	32.9
Std Dev Wind Speed (kph)	0	8627	98.5	2.8	-	0.0	16.0	1.0	1.4	2.0	2.8	4.0

West Central Airshed Society - Genesee (AMS 910)
 Annual Summary for 2007
 SO2 (ppm)

Month	Number of Data	Operational Time (%)	Mean	Maximum 1-Hour Value	Number 1-Hour Violations	Maximum 24-Hour Value	Number 24-Hour Violations	Percent of Data in each Concentration Range					
								<=0.02	>0.02-0.06	>0.06-0.11	>0.11-0.17	>0.17-0.34	>0.34
January	708	100	0.001	0.011	0	0.004	0	100	-	-	-	-	-
February	639	100	0.001	0.008	0	0.003	0	100	-	-	-	-	-
March	709	100	0.001	0.01	0	0.003	0	100	-	-	-	-	-
April	685	100	0.001	0.019	0	0.004	0	100	-	-	-	-	-
May	704	99.6	0.001	0.029	0	0.006	0	99.43	0.57	-	-	-	-
June	683	99.72	0.001	0.033	0	0.006	0	99.71	0.29	-	-	-	-
July	567	83.74	0.002	0.04	0	0.007	0	99.12	0.88	-	-	-	-
August	707	99.87	0.002	0.093	0	0.012	0	98.44	1.41	0.14	-	-	-
September	684	99.86	0.002	0.04	0	0.005	0	99.12	0.88	-	-	-	-
October	688	98.52	0.001	0.031	0	0.004	0	99.42	0.58	-	-	-	-
November	684	100	0.001	0.017	0	0.004	0	100	-	-	-	-	-
December	709	100	0.001	0.009	0	0.002	0	100	-	-	-	-	-

Year 2007	Annual Number of Data Hours	Annual Operational Time (%)	Annual Mean (ppm)	Annual Maximum 1-Hour Value (ppm)	Annual Number 1-Hour Violations	Annual Maximum 24-Hour Value (ppm)	Annual Number 24-Hour Violations	Annual Percent of Data in each Concentration Range					
								<=0.02	>0.02-0.06	>0.06-0.11	>0.11-0.17	>0.17-0.34	>0.34
	8167	98.41	0.001	0.093	0	0.012	0	99.61	0.38	0.01	-	-	-

West Central Airshed Society - Genesee (AMS 910)

Annual Summary for 2007

NO2 (ppm)

Month	Number of Data	Operational Time (%)	Mean	Maximum 1-Hour Value	Number 1-Hour Violations	Maximum 24-Hour Value	Number 24-Hour Violations	Percent of Data in each Concentration Range			
								<=0.05	>0.05-0.11	>0.11-0.21	>0.21
January	707	100	0.005	0.023	0	0.01	0	100	-	-	-
February	638	100	0.007	0.037	0	0.019	0	100	-	-	-
March	707	100	0.006	0.027	0	0.016	0	100	-	-	-
April	684	100	0.003	0.022	0	0.006	0	100	-	-	-
May	704	99.6	0.003	0.022	0	0.007	0	100	-	-	-
June	682	99.72	0.003	0.02	0	0.006	0	100	-	-	-
July	565	83.74	0.003	0.028	0	0.008	0	100	-	-	-
August	706	99.87	0.003	0.026	0	0.009	0	100	-	-	-
September	684	99.86	0.003	0.021	0	0.006	0	100	-	-	-
October	702	99.33	0.005	0.027	0	0.01	0	100	-	-	-
November	684	100	0.005	0.022	0	0.009	0	100	-	-	-
December	707	100	0.007	0.028	0	0.017	0	100	-	-	-

Year 2007	Annual Number of Data Hours	Annual Operational Time (%)	Annual Mean (ppm)	Annual Maximum 1-Hour Value (ppm)	Annual Number 1-Hour Violations	Annual Maximum 24-Hour Value (ppm)	Annual Number 24-Hour Violations	Annual Percent of Data in each Concentration Range			
								<=0.05	>0.05-0.11	>0.11-0.21	>0.21
	8170	98.48	0.004	0.037	0	0.019	0	100	-	-	-

West Central Airshed Society - Genesee (AMS 910)
 Annual Summary for 2007
 PM2.5 (ppm)

Month	Number of Data	Operational Time (%)	Mean	Maximum 1-Hour Value	Maximum 24-Hour Value
January	736	99.6	2	17	5.2
February	667	99.26	3.5	29.8	10.1
March	739	100	3.3	22	10.3
April	715	99.31	2.2	9.6	5.3
May	734	99.6	4.2	105.9	12.2
June	709	98.75	5.5	35.7	12.8
July	574	81.59	6.4	40.1	15.9
August	737	99.06	4.1	118	8.7
September	716	99.44	2.9	19.1	7.2
October	731	98.25	3.9	23.1	10.4
November	714	100	3.3	45.6	5.8
December	728	97.85	4.7	37.9	20.1

Year 2007	Annual Number of Data Hours	Annual Operational Time (%)	Annual Mean (ppm)	Annual Maximum 1-Hour Value (ppm)	Annual Maximum 24-Hour Value (ppm)
	8500	97.69	3.8	118	20.1

West Central Airshed Society - Genesee (AMS 910)
 Annual Summary for 2007
 Percentage Frequency Distribution of Wind

Speed (kph)							
Direction	>1 to 5	>5 to 11	>11 to 19	>19 to 28	>28 to 38	>38	Totals
North	1.06	3.45	3.5	1.33	0.28	0.01	9.63
NorthEast	1.53	2.67	1.6	0.33	0.01	--	6.15
East	1.73	7.6	3.2	0.14	--	--	12.67
SouthEast	1.76	4.58	3.46	1.76	0.31	--	11.87
South	1.58	2.49	1.55	0.88	0.12	--	6.61
SouthWest	1.57	4.82	2.72	0.58	0.03	--	9.73
West	1.43	7.34	13.38	1	0.16	0.03	23.34
NorthWest	1.1	3.45	7.99	4.89	1.81	0.52	19.77
Totals	11.76	36.41	37.4	10.9	2.73	0.57	99.78

Percent Calm	0.22
Number of Data Values	8602
Hours in Time Period	8760