

Table 3

Manitoba Ambient Air Quality Data - 2001 Annual Pollutant Summary –  
Continuous Monitoring

POLLUTANT Conc. Units	STATION NUMBER & LOCATION	ANNUAL MEAN	MAXIMUM DATA VALUES		# OF SAMPLES ABOVE M.D.L.		# OF SAMPLES ABOVE M.A.L.		# OF SAMPLES ABOVE M.T.L.	
			1-HR	24-HR	1-HR	24-HR	1-HR	24-HR	1-HR	24-HR
CARBON MONOXIDE (CO) ppm	9118 WINNIPEG, SCOTIA & JEFFERSON	0.46	7.0	3.5 <sup>Δ</sup>	0	0 <sup>Δ</sup>	0	0 <sup>Δ</sup>	--	0 <sup>Δ</sup>
	9119 WINNIPEG, 65 ELLEN STREET	0.67	4.5	2.8 <sup>Δ</sup>	0	0 <sup>Δ</sup>	0	0 <sup>Δ</sup>	--	0 <sup>Δ</sup>
NITROGEN DIOXIDE (NO <sub>2</sub> ) pphm	5131 BRANDON, ASSIN. COMMUN. COLLEGE	0.52	7.9	3.0	--	--	0	0	0	--
	9118 WINNIPEG, SCOTIA & JEFFERSON	1.22	6.9	4.0	--	--	0	0	0	--
	9119 WINNIPEG, 65 ELLEN STREET	1.43	6.2	4.4	--	--	0	0	0	--
NITRIC OXIDE (NO) pphm	5131 BRANDON, ASSIN. COMMUN. COLLEGE	0.49	27.9	5.7	--	--	--	--	--	--
	9118 WINNIPEG, SCOTIA & JEFFERSON	0.77	40.8	8.6	--	--	--	--	--	--
	9119 WINNIPEG, 65 ELLEN STREET	1.10	34.2	15.4	--	--	--	--	--	--
NITROGEN OXIDES (NO <sub>X</sub> ) pphm	5131 BRANDON, ASSIN. COMMUN. COLLEGE	0.98	31.2	7.9	--	--	--	--	--	--
	9118 WINNIPEG, SCOTIA & JEFFERSON	1.83	47.6	12.5	--	--	--	--	--	--
	9119 WINNIPEG, 65 ELLEN STREET	2.48	40.1	19.5	--	--	--	--	--	--
SULPHUR DIOXIDE (SO <sub>2</sub> ) ppm	7251 FLIN FLON, 143 MAIN STREET	0.01	0.52	0.19	56	124	7	27	--	0
	7271 FLIN FLON, AQUA CENTRE	0.00	0.54	0.06	22	0	8	0	--	0
	7281 FLIN FLON, HBM&S STAFFHOUSE	0.00	0.47	0.09	30	42	4	0	--	0
	7291 CREIGHTON, SASK. CITY HALL	0.00	0.55	0.11	17	23	6	0	--	0
	7301 FLIN FLON, HAPNOT COLLEGIATE	0.00	0.33	0.03	4	0	0	0	--	0
	7351 THOMPSON, WATER TREATMENT PLANT	0.00	0.32	0.04	9	0	0	0	--	0
	7361 THOMPSON, EASTWOOD SCHOOL	0.00	0.62	0.06	19	0	4	0	--	0
7371 THOMPSON, RIVERSIDE SCHOOL	0.00	0.45	0.06	48	0	9	0	--	0	
OXIDANTS OZONE (O <sub>3</sub> ) pphm	5131 BRANDON, ASSIN. COMMUN. COLLEGE	2.64	6.3	4.6	114	~	0	~	0	--
	9118 WINNIPEG, SCOTIA & JEFFERSON	1.94	6.1	4.8	35	~	0	~	0	--
	9119 WINNIPEG, 65 ELLEN STREET	1.61	6.7	4.2	34	~	0	~	0	--
AMMONIA (NH <sub>3</sub> ) ppm	5131 BRANDON, ASSIN. COMMUN. COLLEGE	0.02	2.7	0.5	--	--	5	--	--	--

Δ averaged over 8 hours \* denotes company supplied data -- no guideline or objective  
~ numerous exceedences of the 24 hour MDL and MAL which are currently under review

Table 4a

Manitoba Ambient Air Quality Data - 2001 Annual Pollutant Summary –  
Particulate Matter Monitoring (PM<sub>10</sub>)

POLLUTANT	STATION NUMBER & LOCATION	ANNUAL ARITH/ GEO MEAN	MAXIMUM DATA VALUES 24/1-HR	# OF SAMPLES ABOVE M.D.L.		# OF SAMPLES ABOVE M.A.L.		# OF SAMPLES ABOVE M.T.L.		
				1-HR	24-HR	1-HR	24-HR	1-HR	24-HR	
INHALABLE PARTICULATE (PM <sub>10</sub> )	7251 <sup>4</sup>	FLIN FLON, 143 MAIN STREET	22.5 / -	197.6 / 500.0	--	--	--	28 <sup>6</sup>	--	--
	7284 <sup>1</sup>	FLIN FLON, RUTH BETTS	14.8 / 12.3	66.0 / -	--	--	--	1 <sup>6</sup>	--	--
	7285 <sup>1</sup>	FLIN FLON, SEWAGE PLANT	10.3 / 9.0	28.4 / -	--	--	--	0 <sup>6</sup>	--	--
	9119 <sup>5</sup>	WINNIPEG, 65 ELLEN STREET	19.0 / -	93.9 / 398.4	--	--	--	9 <sup>6</sup>	--	--
	9119 <sup>5</sup>	WINNIPEG, 65 ELLEN STREET	18.9 / 16.2	49.7 / -	--	--	--	0 <sup>6</sup>	--	--
	5131 <sup>4</sup>	BRANDON, ASSIN. COMMUN. COLLEGE	22.3 / -	131.4 / 451.5	--	--	--	26 <sup>6</sup>	--	--
LEAD (Pb)	7284 <sup>1,7</sup>	FLIN FLON, RUTH BETTS	0.245 / 0.162	0.600 / -	--	--	--	0	--	--
	7285 <sup>1,7</sup>	FLIN FLON, SEWAGE PLANT	0.191 / 0.121	0.506 / -	--	--	--	0	--	--
SULPHATES (SO <sub>4</sub> <sup>2-</sup> )	7284 <sup>1,7</sup>	FLIN FLON, RUTH BETTS	2.127 / 1.667	6.205 / -	--	--	--	--	--	--
	7285 <sup>1,7</sup>	FLIN FLON, SEWAGE PLANT	1.471 / 1.316	3.047 / -	--	--	--	--	--	--
ARSENIC (As)	7284 <sup>1,7</sup>	FLIN FLON, RUTH BETTS	0.048 / 0.017	0.129 / -	--	--	--	0 <sup>6</sup>	--	--
	7285 <sup>1,7</sup>	FLIN FLON, SEWAGE PLANT	0.046 / 0.015	0.190 / -	--	--	--	0 <sup>6</sup>	--	--
CADMIUM (Cd)	7284 <sup>1,7</sup>	FLIN FLON, RUTH BETTS	0.060 / 0.031	0.187 / -	--	--	--	0 <sup>6</sup>	--	--
	7285 <sup>1,7</sup>	FLIN FLON, SEWAGE PLANT	0.042 / 0.025	0.101 / -	--	--	--	0 <sup>6</sup>	--	--
COPPER (Cu)	7284 <sup>1,7</sup>	FLIN FLON, RUTH BETTS	0.503 / 0.300	1.532 / -	--	--	--	0 <sup>6</sup>	--	--
	7285 <sup>1,7</sup>	FLIN FLON, SEWAGE PLANT	0.234 / 0.157	0.516 / -	--	--	--	0 <sup>6</sup>	--	--
ZINC (Zn)	7284 <sup>1,7</sup>	FLIN FLON, RUTH BETTS	0.939 / 0.584	3.338 / -	--	--	--	0 <sup>6</sup>	--	--
	7285 <sup>1,7</sup>	FLIN FLON, SEWAGE PLANT	0.502 / 0.286	0.958 / -	--	--	--	0 <sup>6</sup>	--	--

**Notes:**

All Concentration units for the above Table 4a are in ug/m3.

1 - 24 Hour sample collected every six days according to NAPS schedule  
objective

4 - real-time continuous monitoring

6 - Ontario 24-hour guideline

---no guideline or

7 - metals results biased in that analysis based on wind direction and/or TSP loading

Table 4b

Manitoba Ambient Air Quality Data - 2001 Annual Pollutant Summary –  
Particulate Matter Monitoring (PM<sub>2.5</sub>)

POLLUTANT	STATION NUMBER & LOCATION		ANNUAL ARITH/Geo MEAN	MAXIMUM DATA VALUES 24/1-HR	# OF SAMPLES ABOVE M.D.L.		# OF SAMPLES ABOVE M.A.L.		# OF SAMPLES ABOVE M.T.L.	
					1-HR	24-HR	1-HR	24-HR	1-HR	24-HR
INHALABLE PARTICULATE (PM <sub>2.5</sub> )	9118 <sup>d</sup>	WINNIPEG, SCOTIA & JEFFERSON	5.8 / -	22.0 / 70.1	--	--	--	--	--	--
	9119 <sup>1</sup>	WINNIPEG, 65 ELLEN STREET	6.2 / 5.5	16.8 / -	--	--	--	--	--	--
	9119 <sup>d</sup>	WINNIPEG, 65 ELLEN STREET	5.5 / -	19.5 / 70.1	--	--	--	--	--	--
	5131 <sup>d</sup>	BRANDON, ASSIN. COMMUN. COLLEGE	5.8 / -	17.9 / 165.2	--	--	--	--	--	--

**Notes:**

All Concentration units for the above Table 4b are in ug/m3.

1 - 24 Hour sample collected every six days according to NAPS schedule

4 - real-time continuous monitoring

-- no guideline or objective

Table 4c

Manitoba Ambient Air Quality Data - 2001 Annual Pollutant Summary –  
Particulate Matter Monitoring (TSP)

POLLUTANT	STATION NUMBER & LOCATION	ANNUAL ARITH/Geo MEAN	MAXIMUM DATA VALUES 24-HR	# OF SAMPLES ABOVE M.D.L.		# OF SAMPLES ABOVE M.A.L.		# OF SAMPLES ABOVE M.T.L.		
				1-HR	24-HR	1-HR	24-HR	1-HR	24-HR	
TOTAL SUSPENDED PARTICULATE (TSP)	7251 <sup>2</sup>	FLIN FLON, 143 MAIN STREET	49 / 32	468	--	--	--	13	--	--
	7283 <sup>1,7</sup>	CREIGHTON, SCHOOL	29 / 24	132	--	--	--	2	--	--
	7284 <sup>1,7</sup>	FLIN FLON, RUTH BETTS	33 / 22	423	--	--	--	3	--	--
	7285 <sup>1,7</sup>	FLIN FLON, SEWAGE PLANT	19 / 15	164	--	--	--	1	--	--
	9118 <sup>7</sup>	WINNIPEG, 299 SCOTIA STREET	30 / 25	97	--	--	--	0	--	--
	9119 <sup>1,3</sup>	WINNIPEG, 65 ELLEN STREET	46 / 36	155	--	--	--	3	--	--
LEAD (Pb)	7251 <sup>2</sup>	FLIN FLON, 143 MAIN STREET	0.26 / 0.09	2.92	--	--	--	0	--	--
	7283 <sup>1,7</sup>	CREIGHTON, SCHOOL	0.09 / 0.05	0.53	--	--	--	0	--	--
	7284 <sup>1,7</sup>	FLIN FLON, RUTH BETTS	0.21 / 0.12	0.66	--	--	--	0	--	--
	7285 <sup>1,7</sup>	FLIN FLON, SEWAGE PLANT	0.17 / 0.10	0.48	--	--	--	0	--	--
SULPHATES (SO4=)	7251 <sup>2</sup>	FLIN FLON, 143 MAIN STREET	2.73 / 1.83	20.47	--	--	--	--	--	--
	7283 <sup>1,7</sup>	CREIGHTON, SCHOOL	2.06 / 1.69	5.34	--	--	--	--	--	--
	7284 <sup>1,7</sup>	FLIN FLON, RUTH BETTS	2.39 / 1.92	6.56	--	--	--	--	--	--
	7285 <sup>1,7</sup>	FLIN FLON, SEWAGE PLANT	1.76 / 1.38	3.70	--	--	--	--	--	--
NITRATES (NO3-)	7251 <sup>2</sup>	FLIN FLON, 143 MAIN STREET	0.15 / 0.10	1.61	--	--	--	--	--	--
ARSENIC (As)	7251 <sup>2</sup>	FLIN FLON, 143 MAIN STREET	0.051 / 0.016	0.690	--	--	--	5 <sup>6</sup>	--	--
	7283 <sup>1,7</sup>	CREIGHTON, SCHOOL	0.031 / 0.011	0.151	--	--	--	0 <sup>6</sup>	--	--
	7284 <sup>1,7</sup>	FLIN FLON, RUTH BETTS	0.055 / 0.018	0.345	--	--	--	1 <sup>6</sup>	--	--
	7285 <sup>1,7</sup>	FLIN FLON, SEWAGE PLANT	0.038 / 0.015	0.206	--	--	--	0 <sup>6</sup>	--	--
CADMIUM (Cd)	7251 <sup>2</sup>	FLIN FLON, 143 MAIN STREET	0.048 / 0.011	0.619	--	--	--	0 <sup>6</sup>	--	--
	7283 <sup>1,7</sup>	CREIGHTON, SCHOOL	0.013 / 0.006	0.086	--	--	--	0 <sup>6</sup>	--	--
	7284 <sup>1,7</sup>	FLIN FLON, RUTH BETTS	0.040 / 0.019	0.171	--	--	--	0 <sup>6</sup>	--	--
	7285 <sup>1,7</sup>	FLIN FLON, SEWAGE PLANT	0.037 / 0.021	0.096	--	--	--	0 <sup>6</sup>	--	--
COPPER (Cu)	7251 <sup>2</sup>	FLIN FLON, 143 MAIN STREET	0.907 / 0.442	9.427	--	--	--	0 <sup>6</sup>	--	--
	7283 <sup>1,7</sup>	CREIGHTON, SCHOOL	0.628 / 0.486	1.618	--	--	--	0 <sup>6</sup>	--	--
	7284 <sup>1,7</sup>	FLIN FLON, RUTH BETTS	1.002 / 0.670	3.093	--	--	--	0 <sup>6</sup>	--	--
	7285 <sup>1,7</sup>	FLIN FLON, SEWAGE PLANT	0.840 / 0.666	2.406	--	--	--	0 <sup>6</sup>	--	--
ZINC (Zn)	7251 <sup>2</sup>	FLIN FLON, 143 MAIN STREET	1.951 / 0.991	16.270	--	--	--	0 <sup>6</sup>	--	--
	7283 <sup>1,7</sup>	CREIGHTON, SCHOOL	0.510 / 0.202	2.385	--	--	--	0 <sup>6</sup>	--	--
	7284 <sup>1,7</sup>	FLIN FLON, RUTH BETTS	1.399 / 0.831	5.835	--	--	--	0 <sup>6</sup>	--	--
	7285 <sup>1,7</sup>	FLIN FLON, SEWAGE PLANT	0.866 / 0.430	2.357	--	--	--	0 <sup>6</sup>	--	--

## Notes:

All Concentration units for the above Table 4c are in ug/m3.

-- no guideline or objective

\*- company supplied data

1 - 24 Hour sample collected every six days according to NAPS schedule

2 - 24 Hour sample collected every three days, synchronized with the NAPS schedule

3 - 3 additional samples collected every NAPS cycle

4 - real-time continuous monitoring

6 - Ontario 24-hour Guideline

7 - metals results biased in that analysis based on wind direction and/or TSP loading