

**City of Winnipeg
Water and Waste Department**

2009 RIVERS SURVEY MONITORING REPORT

Survey Date ¹ : August 6, 2009		Assiniboine River Sampling Locations				Red River Sampling Locations					
Parameter	Unit	ASSINIBOINE PARK FOOT BRIDGE	HEADINGLY BRIDGE	MAIN STREET BRIDGE	WEST PERIMETER BRIDGE	SOUTH FLOODWAY CONTROL ⁴	FORT GARRY BRIDGE	NORWOOD BRIDGE	REDWOOD BRIDGE	NORTH PERIMETER BRIDGE	LOCKPORT BRIDGE
Temperature	° C	21.5	21.2	20.8	NS	21.0	21.2	21.0	21.1	20.8	20.7
Dissolved Oxygen	mg/L	9.1	9.4	7.9	NS	8.1	8.2	8.2	8.2	8.2	8.7
Oxygen Saturation ²	%	104	107	89	NS	92	93	93	93	92	98
pH	units	8.72	8.78	8.63	NS	8.35	8.32	8.30	8.35	8.18	8.20
Total Solids	mg/L	804	788	804	NS	608	572	560	616	604	564
Total Suspended Solids	mg/L	130	146	113	NS	83	62	41	60	51	42
Turbidity	n.t.u.	103	77	61	NS	70	54	41	46	33	34
Total Organic Carbon	mg/L	12	11	10	NS	10	10	10	10	10	9
Chlorophyll a	ug/L	69	71	57	NS	16	22	27	34	36	43
Ammonia Nitrogen	mg/L N	0.004	<0.003	<0.003	NS	0.007	0.101	0.029	0.044	0.196	0.110
Nitrate Nitrogen	mg/L N	0.030	0.012	0.105	NS	0.536	0.554	0.554	0.498	0.628	0.776
Total Kjeldahl Nitrogen	mg/L N	<2.0	4.0	<2.0	NS	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Nitrogen ²	mg/L N	<2.0	4.0	<2.0	NS	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Soluble Phosphorus	mg/L P	0.13	0.09	0.13	NS	0.14	0.16	0.15	0.15	0.18	0.20
Total Phosphorus	mg/L P	0.40	0.40	0.40	NS	<0.30	<0.30	<0.30	<0.30	0.40	0.30
Escherichia Coliform ³	colonies/100 mL	33	4	23	NS	4	17	63	33	170	8
Fecal Coliform ³	colonies/100 mL	240	70	23	NS	8	79	1700	330	490	230

Weather Conditions during monitoring: Winds 17.6 at W km/hr with 5 % cloud cover and 18 of precipitation. Average air temperature during survey at 17.6 C

- Notes:
- 1) LIMS Reference No: 23716
 - 2) Calculated values
 - 3) Analyzed by contract laboratory.
 - 4) Red River elevation at South Floodway Control Gates: 734.1 ft
 - 5) No West Perimeter Bridge sample because sample location closed due to construction.

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