Government of Newfoundland and Labrador

Last Edited: January 23, 2019

Churchill River 6.15km below Lower Muskrat Falls
NF03OE0050
Grab Sample Data

Name	SampType	Sample#	SA/WS#	Samp-Date	Lab	Alkalinity (mg/l CaCO3)	Color (TCU)	Conductivity (uS/cm)	Hardness (mg/l CaCO3)	pH	TDS (mg/l)	TSS	Turbidity (NTU)	Boron (mg/l)	Bromide (mg/l)	Calcium (mg/l)	Chloride (mg/l)	Flouride (mg/l)	Potassium (mg/l)	Sodium (mg/l)	Sulphate (mg/l)	Ammonia (mg/l)	DOC	Nitrate(ite) (mg/l)	KjeldahlNitrogen (mg/l)	TotalPhosphorus (mg/l)	Aluminium (mg/l)	Antimony (mg/l)	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Iron (mg/l)	Lead (mg/l)	Magnesium (mg/l)	Manganese (mg/l)	Mercury (mg/l)	Nickel (mg/l)	Selenium (mg/l)	Uranium (mg/l)	Zinc (mg/l)	Temperature-Source	TOC (mg/L)	Sr (mg/L)	Remarks
Churchill River 6.15 km below lower Muskrat Falls	SI	2008-1827-00-SI-SP	WS-S-0000	28-Sep-08	MX	10	19	23	11	6.99	13		2.2	0	0	2.6	0	0	0.4	0.8	0	0	3.4	0	0	0	0.26	0	0	0.011	0	0	0	0.32	0	1	0.015	0	0	0	0	0.006	12.08			
Churchill River 6.15 km below lower Muskrat Falls	SI	2009-6012-00-SI-SP	WS-S-0000	1-Jun-09	MX	7	43	15	8	6.73	11		3	0	0	1.8	0	0	0.5	0.7	0	0	5	0	0.1	0	0.55	0	0	0.014	0	0	0	0.64	0.0005	0.8	0.021	0	0	0	0	0.007	4.04			
Churchill River 6.15 km below lower Muskrat Falls	SI	2009-6030-00-SI-SP	WS-S-0000	24-Jun-09	MX	8	33	18	8	6.78	12		2	0	0	1.9	0	0	0.4	0.7	0	0.05	3.1	0	0.2	0	0.28	0	0	0.009	0	0	0.006	0.33	0	0.7	0.015	0	0	0	0	0	10.3			
Churchill River 6.15 km below lower Muskrat Falls	SI	2009-6040-00-SI-SP	WS-S-0000	20-Jul-09	MX	9	23	21	9	6.79	13		2.3	0	0	2.4	0	0	0.5	0.9	0	0	3.9	0	0	0	0.23	0	0	0.01	0	0	0	0.27	0	0.8	0.012	0	0	0	0	0.006	14.5			
Churchill River 6.15 km below lower Muskrat Falls	SI	2009-6076-00-SI-SP	WS-S-0000	1-Sep-09	MX	9	34	21	10	6.94	13		2.4	0	0	2.4	0	0	0.4	0.8	0	0	4.3	0	0.3	0	0.19	0	0	0.009	0	0	0	0.25	0	0.8	0.012	0.000013	0	0	0	0.007	14.3			
Churchill River 6.15 km below lower Muskrat Falls	SI	2009-6085-00-SI-SP	WS-S-0000	22-Sep-09	MX	10	43	20	8	6.88	13		1.1	0	0	2.1	0	0	0.3	0.6	0	0.06	4.4	0	0.1	0	0.12	0	0	0.008	0	0	0	0.17	0	0.8	0.008	0	0	0	0	0	11.3			
Churchill River 6.15 km below lower Muskrat Falls	SI	2010-6038-00-SI-SP	WS-S-0000	20-May-10	AT	0	43	16	3	6.81	10		5.8	0	0	1	0	0	0	0	0.03	5.3	0	0	0	0.06	0.21	0	0	0	0	0	0	0.28	0	0	0.01	0	0	0	0	0	3.62			
Churchill River 6.15 km below lower Muskrat Falls	SI	2010-6059-00-SI-SP	WS-S-0000	23-Jun-10	AT	7	33	18	5	6.95	12		3.6	0	0	2	0	0	0	0	0	0	4.8	0	0.17	0	0.14	0	0	0	0	0	0	0.15	0	0	0	0	0	0	0	0	12.9			
Churchill River 6.15 km below lower Muskrat Falls	SI	2010-6066-00-SI-SP	WS-S-0000	23-Jul-10	AT	11	28	20	5	6.88	13	<2	3.1	0	0	2	0	0	0	0	0	0	4.4	0	0	0	0.1	0	0	0	0	0	0	0.14	0	0	0	0	0	0	0	0	17.21	4.5	0.01	
Churchill River 6.15 km below lower Muskrat Falls	SI	2010-6113-00-SI-SP	WS-S-0000	22-Aug-10	AT	11	29	21	5	6.99	14	3	2.4	0	0	2	0	0	0	0	0	0	4.5	0	0.29	0	0.11	0	0	0	0	0	0	0.14	0	0	0	0	0	0	0	0	18.37	4.5	0.01	Mercury was analysed at Exova Pointe Claire.
Churchill River 6.15 km below lower Muskrat Falls	SI	2010-6120-00-SI-SP	WS-S-0000	21-Sep-10	AT	12	15	25	7	7.21	16	41	7.5	0	0	3	0	0	0	0	0	0	3.9	0.13	0	0.04	0.11	0	0	0	0	0	0	0.15	0	0	0.01	0	0	0	0	0	13.5	4.1	0.01	
Churchill River 6.15 km below lower Muskrat Falls	SI	2011-6303-00-SI-SP	WS-S-0000	27-May-11	AT	7	41	16	5	6.56	10	17	9	0	0	2	1	0	0	0	1	0.04	5.4	0	0	0.03	0.34	0	0	0	0	0	0	0.37	0	0	0.01	0	0	0	0	0	2.9	5.6	0.01	Holding time for turbidity analysis was exceeded.
Churchill River 6.15 km below lower Muskrat Falls	SI	2011-6312-00-SI-SP	WS-S-0000	29-Jun-11	AT	7	32	19	5	6.58	12	5	4	0	0	2	0	0	0	0	0	0	5	0	0	0.01	0.16	0	0	0	0	0	0	0.19	0	0	0	0	0	0	0	0	10.91	5.8	0.011	Holding time for turbidity analysis was exceeded.
Churchill River 6.15 km below lower Muskrat Falls	SI	2011-6325-00-SI-SP	WS-S-0000	2-Aug-11	AT	7	28	20	5	6.46	13	7	2	0	0	2	0	0	0	0	2	0.05	4.7	0	0.19	0.05	0.1	0	0	0	0	0	0	0.14	0	0	0	0	0	0	0	0	17.96	5.2	0.012	Holding time for turbidity analysis was exceeded.
Churchill River 6.15 km below lower Muskrat Falls	SI	2011-6330-00-SI-SP	WS-S-0000	1-Sep-11	AT	10	26	22	5	6.37	14	8	2.9	0	0	2	0	0	0	0	0	0	4.3	0	0	0.01	0.12	0	0	0	0	0	0	0.19	0	0	0.01	0	0	0	0	0	16.6	4.6	0.014	Holding time for turbidity analysis was exceeded.
Churchill River 6.15 km below lower Muskrat Falls	SI	2011-6331-00-SI-SP	WS-S-0000	2-Sep-11	AT	9	24	22	5	6.37	14	9	1.3	0	0	2	0	0	0	0	0	0	4	0	0	0	0.13	0	0	0	0	0	0	0.17	0	0	0.01	0	0	0	0	0	16.5	4.5	0.013	Holding time for turbidity analysis was exceeded.
Churchill River 6.15 km below lower Muskrat Falls	SI	2011-6345-00-SI-SP	WS-S-0000	4-Oct-11	AT	11	26	22	7	6.24	14	19	1.7	0	0	3	0	0	0	0	1	0	3.9	0	0.1	0.01	0.08	0	0	0	0	0	0	0.12	0	0	0	0	0	0	0	0.03	9.4	4.2	0.01	Holding time for turbidity analysis was exceeded.
Churchill River 6.15 km below lower Muskrat Falls	SI	2012-6305-00-SI-SP	WS-S-0000	29-Jun-12	AT	9	24	21	9	6.9	14	40	3.7	0	0	2	0	0	0	0	0	0	1.7	0	0	0.05	0.23	0	0	0.01	0	0	0	0.28	0	1	0.01	0	0	0	0	0		3	0.11	Holding time for DOC analysis was exceeded.
Churchill River 6.15 km below lower Muskrat Falls	SI	2012-6317-00-SI-SP	WS-S-0000	24-Jul-12	AT	11	20	24	7	6.63	16	11	2.9	0	0	3	0	0	0	0	0	0	3.8	0	0	0.02	0.22	0	0	0.01	0	0	0	0.24	0	0	0.02	0	0	0	0	0	19	3.6	0.013	RTWQ
Churchill River 6.15 km below lower Muskrat Falls	SI	2012-6330-00-SI-SP	WS-S-0000	22-Aug-12	AT	13	23	24	5	6.8	16	14	6.1	0	0	2	0	0	0	0	0	0	3.6	0	0.14	0.01	0.2	0	0	0.01	0	0	0	0.24	0	0	0.01	0	0	0	0	0.02	18.4	3.6	0.014	RTWQ
Churchill River 6.15 km below lower Muskrat Falls	SI	2012-6339-00-SI-SP	WS-S-0000	25-Sep-12	AT	10	18	24	7	6.58	16	15	5.9	0	0	3	0	0	0	0	0	0	3.7	0	0.25	0.03	0.19	0	0	0.01	0	0	0	0.21	0	0	0.01	0	0	0	0	0		3.6	0.012	
Churchill River 6.15 km below lower Muskrat Falls	SI	2013-6301-00-SI-SP	WS-S-0000	24-May-13	AT	16	46	34	7	7.05	22	13	4	0	0	3	0	0	0	0	0	0	5.2	0	0.14	0.01	0.24	0	0	0	0	0	0	0.31	0	0	0.01	0	0	0	0	0	3.1	5.3	0.01	RTWQ Grab Sample / Holding time for turbidity analysis was exceeded.
Churchill River 6.15 km below lower Muskrat Falls	SI	2013-6317-00-SI-SP	WS-S-0000	27-Jun-13	AT	10	31	20	5	6.85	13	6	2.1	0	0	2	0	0	0	0	0	0	5.2	0	0.13	0.01	0.18	0	0	0	0	0	0	0.25	0	0	0	0	0	0	0	0	12.3	5.3	0.014	Holding time for turbidity analysis was exceeded.
Churchill River 6.15 km below lower Muskrat Falls	SI	2013-6330-00-SI-SP	WS-S-0000	9-Aug-13	AT	12	22	23	5	6.68	15	3	1.8	0	0	2	0	0	0	0	3	0	4.3	0	0.2	0.02	0.11	0	0	0	0	0	0	0.13	0	0	0.01	0	0	0	0	0.05	17.4	4.3	0.013	RTWQ / Holding time for turbidity analysis was exceeded.
Churchill River 6.15 km below lower Muskrat Falls	SI	2013-6345-00-SI-SP	WS-S-0000	14-Sep-13	AT	13	26	23	5	6.49	15	3	2.1	0	0	2	0	0	0	0	0	0	4	0	0.1	0.02	0.16	0	0	0.01	0	0	0	0.22	0	0	0.01	0	0	0	0	0	12.1	3.8	0.014	RTWQ / Holding time for Turbidity analysis was exceeded.
Churchill River 6.15 km below lower Muskrat Falls	SI	2013-6355-00-SI-SP	WS-S-0000	11-Oct-13	AT	13	28	22	5	6.66	14	31	3.4	0	0	2	2	0	0	0	0	0	4.5	0	0	0.03	0.22	0	0	0.01	0	0	0.001	0.28	0	0	0.02	0	0	0	0	0	8.3	4.9	0.013	RTWQ
Churchill River 6.15 km below lower Muskrat Falls	SI	2013-6363-00-SI-SP	WS-S-0000	8-Nov-13	AT	13	27	20	7	6.87	13	3	2.3	0	0	3	0	0	0	0	0	0	4.9	0	0	0.01	0.14	0	0	0	0	0	0	0.14	0	0	0.01	0	0	0	0	0	4	4.9	0.011	RTWQ
Churchill River 6.15 km below lower Muskrat Falls	SI	2013-6355-00-SI-SP	WS-S-0000	11-Oct-13	AT	13	28	22	5	6.66	14	31	3.4	0	0	2	2	0	0	0	0	0	4.5	0	0	0.03	0.22	0	0	0.01	0	0	0.001	0.28	0	0	0.02	0	0	0	0	0	8.3	4.9	0.013	Holding time for trubidity analysis was exceeded.
Churchill River 6.15 km below lower Muskrat Falls	SI	2013-6363-00-SI-SP	WS-S-0000	8-Nov-13	AT	13	27	20	7	6.87	13	3	2.3	0	0	3	0	0	0	0	0	0	4.9	0	0	0.01	0.14	0	0	0	0	0	0	0.14	0	0	0.01	0	0	0	0	0	4	4.9	0.011	Holding time for turbidity analysis was exceeded.
Churchill River 6.15 km below lower Muskrat Falls	SI	2014-6312-00-SI-SP	WS-S-0000	25-Jun-14	AT	0	38	16	0	6.86	10	30	25	0	0	0	0	0	0	0	1	0.09	5.5	0	0.2	0.06	0.61	0	0	0.01	0	0.001	0.002	0.61	0	0	0.02	0	0	0	0	0	9.7	5.5	0.011	RTWQ
Churchill River 6.15 km below lower Muskrat Falls	SI	2014-6315-00-SI-SP	WS-S-0000	8-Jul-14	AT	6	30	18	5	6.89	12	12	27.2	0	0	2	0	0	0	0	0	0.12	4.6	0	0.2	0.04	0.95	0	0	0.02	0.0007	0.002	0.003	0.99	0	0	0.03	0	0	0	0	0	10.3	4.7	0.012	RTWQ / Holding time for Turbidity and DOC analysis was exceeded for the entire report.
Churchill River 6.15 km below lower Muskrat Falls	SI	2014-6322-00-SI-SP	WS-S-0000	22-Jul-14	AT	6	31	20	5	7.09	13	<2	9.1	0	0	2	0	0	0	0	1	0.03	4.6	0	0	0.02	0.31	0	0	0	0	0	0.001	0.32	0	0	0.01	0	0	0	0	0		4.4	0.012	RTWQ
Churchill River 6.15 km below lower Muskrat Falls	SI	2014-6332-00-SI-SP	WS-S-0000	14-Aug-14	AT	7	25	21	5	7.1	14	2	3.6	0	0	2	0	0	0	0	1	0.09	4.2	0	0	0	0.19	0	0	0	0	0	0.001	0.22	0	0	0.01	0	0	0	0	0	20.3	4.3	0.012	RTWQ
Churchill River 6.15 km below lower Muskrat Falls	SI	2014-6348-00-SI-SP	WS-S-0000	1-Oct-14	AT	7	32	20	5	7.04	13	4	4.3	0	0	2	0	0	0	0	0	0.04	4.9	0	0.13	0.02	0.27	0	0	0	0	0	0.01	0.32	0	0	0.01	0	0	0	0	0	8.4	4.9	0.012	RTWQ Sample
Churchill River 6.15 km below lower Muskrat Falls	SI	2014-6355-00-SI-SP	WS-S-0000	5-Nov-14	AT	8	28	19	5	6.95	12	<2	5.8	0	0	2	0	0	0	0	0	0.08	4	0	0	0.04	0.34	0	0	0	0	0.001	0.001	0.35	0	0	0.02	0	0	0	0	0	3.6	4.3	0.01	RTWQ Sample / Holding time for turbidity analysis was exceeded.
Churchill River 6.15 km below lower Muskrat Falls	SI	2015-6301-00-SI-SP	WS-S-0000	27-May-15	AT	6	52	16	5	6.82	10	36	4.6	0	0	2	2	0	0	0	0	0.16	6.6	0	0	0.04	0.68	0	0	0.01	0	0.001	0.001	0.68	0	0	0.02	0	0	0	0	0	1.02	6.1	0.01	RTWQ Sample
Churchill River 6.15 km below lower Muskrat Falls	SI	2015-6309-00-SI-SP	WS-S-0000	24-Jun-15	AT	9	36	16	5	6.86	10	11	3.8	0	0	2	0	0	0	0	0	0.18	5.1	0	0.31	0	0.31	0	0	0	0	0	0	0.33	0	0	0.01	0	0	0	0	0	11.9	5.5	0.011	RTWQ Sample
Churchill River 6.15 km below lower Muskrat Falls	SI	2015-6326-00-SI-SP	WS-S-0000	2-Sep-15	AT	12	37	28	5	7.62	18	5	3.6	0	0	2	0	0	0	0	0	0.135	4.5	0	0.22	0	0.29	0	0	0	0	0	0.001	0.34	0	0	0.01	0	0	0	0	0	15.9	5	0.012	RTWQ Sample / Holding time for NO2 and NO3 analysis was exceeded.
Churchill River 6.15 km below lower Muskrat Falls	SI	2015-6334-00-SI-SP	WS-S-0000	1-Oct-15	AT	10	30	22	5	7.02	14	8	4	0	0	2	0	0	0	0	0	0	3.7	0	0.26	0	0.13	0	0	0	0	0	0	0.2	0	0	0	0	0	0	0	0	11.2	3.9	0.012	RTWQ Sample
Churchill River 6.15 km below lower Muskrat Falls	SI	2015-6337-00-SI-SP	WS-S-0000	6-Nov-15	AT	11	30	22	5	7.17	14	10	5.1	0	0	2	0	0	0	0	0	0	3.9	0	0.52	0	0.26	0	0	0	0	0	0	0.27	0	0	0.02	0	0	0	0	0	2.7	3.9	0.011	RTWQ Sample
Churchill River 6.15 km below lower Muskrat Falls	SI	2016-6320-00-SI-SP	WS-S-0000	3-Aug-16	MX	9.1	30	16	8.8	7	13	6.4	4.2	0	0	2.2	0	0	0.4	0.69	0	0	4.5	0.054	0.2	0.01	0.24	0	0	0.011	1.30E-05	0	0	0.28	0	0.79	0.012	0	0	0	0	0	17.9	4.4	0.012	RTWQ Sample
Churchill River 6.15 km below lower Muskrat Falls	SI	2016-6330-00-SI-SP	WS-S-0000	15-Sep-16	MX	9.3	27	19	9.4	7.3	14	8.4	5.4	0	0	2.4	1	0	0.43	0.73	0	0	4.3	0	0.19	0.011	0.27	0	0	0.01	1.50E-05	0	0	0.32	0	0.86	0.013	0.000013	0	0	0	0		4.6	0.013	
Churchill River 6.15 km below lower Muskrat Falls	SI	2017-6300-00-SI-SP	WS-S-0000	31-May-17	MX	6.9	46	13	7.1	6.72	12	26	12	0	0	1.6	1	0	0.42	0.54	0	0	4.9	0	0.17	0.026	0.6	0	0	0.012	0	0.0012	0	0.68	0	0.74	0.02	0	0	0	0	0.007	3.6	5.2	0.01	/ RTWQ
Churchill River 6.15 km below lower Muskrat Falls	SI	2017-6329-00-SI-SP	WS-S-0000	27-Sep-17	MX	10	33	19	8.7	7.1	13	3	1	0	0	2.2	0	0	0.27	0.68	0	0.08	4.4	0	0.13	0.006	0.15	0	0	0.0084	0	0	0	0.23	0	0.76	0.0082	0	0	0	0	0	12	5	0.012	/ RTQW
Churchill River 6.15 km below lower Muskrat Falls	SI	2017-6309-00-SI-SP	WS-S-0000	5-Jul-17	MX	7.8	37	15	7.8	6.9	12	18	3.5	0	0	1.9	0	0	0.39	0.63	0	0	4.3	0.084	0.15	0.024	0.37	0	0	0.01	0	0	0	0.45	0	0.72	0.016	0	0	0	0	0	13.5	4.5	0.011	/ RTQW
Churchill River 6.15 km below lower Muskrat Falls	SI	2017-6320-00-SI-SP	WS-S-0000	10-Aug-17	MX	10	27	19	8.7	7.1	14	4.6	3.6	0	0	2.2	1.3	0	0.37	0.68	0	0	4.3	0	0	0.008	0.16	0	0	0.009	0	0	0	0.21	0	0.75	0.0088	0	0	0	0	0	17.7	4.2	0.012	/ RTQW
Churchill River 6.15 km below lower Muskrat Falls	SI	2018-6300-00-SI-SP	WS-S-0000	28-May-18	MX	6	44	17	5	7	11	22	5.6	0	0	2	0	0	0	0	0	0.11	6.2	0	0.2	0.016	0.35	0	0	0.01	0	0	0.001	0.53	0	0	0.02	0	0	0	0	0	3.05	5.7	0.011	/ Turbidity was analysed past recomended holding