

C.O.C.: G37010

REPORT No. B13-22716

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Paul Clow

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 29-Aug-13

JOB/PROJECT NO.: Test A

DATE REPORTED: 10-Sep-13

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	WTP Test A	WTP Test A - Total Metal		
			Sample I.D.	B13-22716-1	B13-22716-2		
			Date Collected	27-Aug-13	27-Aug-13		
Parameter	Units	M.D.L.	Reference Method	Date/Site Analyzed			
Hardness (as CaCO ₃)	mg/L	1	SM 3120	03-Sep-13/O	15		
Hardness (as CaCO ₃)	mg/L	1	SM 3120	30-Aug-13/O		17	
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	30-Aug-13/O	14		
Bicarbonate(as CaCO ₃)	mg/L	5	SM 2320B	30-Aug-13/O	14		
Carbonate (as CaCO ₃)	mg/L	5	SM 2320B	30-Aug-13/O	< 5		
Hydroxide	mg/L	5	EPA 310.2	30-Aug-13/O	< 5		
Conductivity @25°C	µmho/cm	1	SM 2510B	30-Aug-13/O	37		
Total Suspended Solids	mg/L	3	SM 2540D	30-Aug-13/O	3		
TDS(ion sum calc.)	mg/L		Calc.	03-Sep-13/O	18.4		
Turbidity	NTU	0.1	SM 2130	30-Aug-13/O	1.2		
pH @25°C	pH Units		SM 4500H	30-Aug-13/O	7.18		
Chloride	mg/L	0.5	SM4110C	29-Aug-13/O	1.2		
Sulphate	mg/L	1	SM4110C	29-Aug-13/O	2		
Calcium	mg/L	0.02	SM 3120	03-Sep-13/O	4.38		
Calcium	mg/L	0.02	SM 3120	30-Aug-13/O		5.19	
Magnesium	mg/L	0.01	SM 3120	03-Sep-13/O	0.96		
Magnesium	mg/L	0.01	SM 3120	30-Aug-13/O		1.00	
Sodium	mg/L	0.2	SM 3120	03-Sep-13/O	1.1		
Sodium	mg/L	0.2	SM 3120	30-Aug-13/O		0.8	
Potassium	mg/L	0.1	SM 3120	03-Sep-13/O	0.2		
Potassium	mg/L	0.1	SM 3120	30-Aug-13/O		0.2	
Aluminum	mg/L	0.01	SM 3120	03-Sep-13/O	< 0.01		
Aluminum (total)	mg/L	0.01	SM 3120	30-Aug-13/O		0.04	
Antimony	mg/L	0.0001	EPA 200.8	03-Sep-13/O	< 0.0001		
Antimony	mg/L	0.0001	EPA 200.8	30-Aug-13/O		< 0.0001	
Arsenic	mg/L	0.0001	EPA 200.8	03-Sep-13/O	< 0.0001		
Arsenic	mg/L	0.0001	EPA 200.8	30-Aug-13/O		< 0.0001	
Barium	mg/L	0.001	SM 3120	03-Sep-13/O	0.007		

M.D.L. = Method Detection Limit

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

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DATE RECEIVED: 29-Aug-13

JOB/PROJECT NO.: Test A

DATE REPORTED: 10-Sep-13

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	WTP Test A	WTP Test A - Total Metal		
			Sample I.D.	B13-22716-1	B13-22716-2		
			Date Collected	27-Aug-13	27-Aug-13		
Parameter	Units	M.D.L.	Reference Method	Date/Site Analyzed			
Barium	mg/L	0.001	SM 3120	30-Aug-13/O	0.003		
Beryllium	mg/L	0.002	SM 3120	03-Sep-13/O	< 0.002		
Beryllium	mg/L	0.002	SM 3120	30-Aug-13/O	< 0.002		
Bismuth	mg/L	0.02	SM 3120	03-Sep-13/O	< 0.02		
Bismuth	mg/L	0.02	SM 3120	30-Aug-13/O	< 0.02		
Boron	mg/L	0.005	SM 3120	03-Sep-13/O	< 0.005		
Boron	mg/L	0.005	SM 3120	30-Aug-13/O	< 0.005		
Cadmium	mg/L	0.005	SM 3120	03-Sep-13/O	< 0.005		
Cadmium	mg/L	0.005	SM 3120	30-Aug-13/O	< 0.005		
Chromium	mg/L	0.002	SM 3120	03-Sep-13/O	< 0.002		
Chromium	mg/L	0.002	SM 3120	30-Aug-13/O	< 0.002		
Cobalt	mg/L	0.005	SM 3120	03-Sep-13/O	< 0.005		
Cobalt	mg/L	0.005	SM 3120	30-Aug-13/O	< 0.005		
Copper	mg/L	0.002	SM 3120	03-Sep-13/O	< 0.002		
Copper	mg/L	0.002	SM 3120	30-Aug-13/O	0.004		
Iron	mg/L	0.005	SM 3120	03-Sep-13/O	0.054		
Iron (Total)	mg/L	0.005	SM 3120	30-Aug-13/O	0.240		
Lead	mg/L	0.02	SM 3120	03-Sep-13/O	< 0.02		
Lead	mg/L	0.02	SM 3120	30-Aug-13/O	< 0.02		
Lithium	mg/L	0.005	SM 3120	03-Sep-13/O	< 0.005		
Lithium	mg/L	0.005	SM 3120	30-Aug-13/O	< 0.005		
Manganese	mg/L	0.001	SM 3120	03-Sep-13/O	0.007		
Manganese (Total)	mg/L	0.001	SM 3120	30-Aug-13/O	0.102		
Molybdenum	mg/L	0.01	SM 3120	03-Sep-13/O	< 0.01		
Molybdenum	mg/L	0.01	SM 3120	30-Aug-13/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	03-Sep-13/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	30-Aug-13/O	< 0.01		
Silicon	mg/L	0.01	SM 3120	03-Sep-13/O	0.38		



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DATE RECEIVED: 29-Aug-13

JOB/PROJECT NO.: Test A

DATE REPORTED: 10-Sep-13

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	WTP Test A	WTP Test A - Total Metal		
			Sample I.D.	B13-22716-1	B13-22716-2		
			Date Collected	27-Aug-13	27-Aug-13		
Parameter	Units	M.D.L.	Reference Method	Date/Site Analyzed			
Silicon	mg/L	0.01	SM 3120	30-Aug-13/O		0.43	
Silver	mg/L	0.005	SM 3120	03-Sep-13/O	< 0.005		
Silver	mg/L	0.005	SM 3120	30-Aug-13/O		< 0.005	
Strontium	mg/L	0.001	SM 3120	03-Sep-13/O	0.019		
Strontium	mg/L	0.001	SM 3120	30-Aug-13/O		0.014	
Tin	mg/L	0.05	SM 3120	03-Sep-13/O	< 0.05		
Tin	mg/L	0.05	SM 3120	30-Aug-13/O		< 0.05	
Titanium	mg/L	0.005	SM 3120	03-Sep-13/O	< 0.005		
Titanium	mg/L	0.005	SM 3120	30-Aug-13/O		< 0.005	
Uranium	mg/L	0.00005	EPA 200.8	03-Sep-13/O	< 0.00005		
Uranium	mg/L	0.00005	EPA 200.8	30-Aug-13/O		< 0.00005	
Vanadium	mg/L	0.005	SM 3120	03-Sep-13/O	< 0.005		
Vanadium	mg/L	0.005	SM 3120	30-Aug-13/O		< 0.005	
Zinc	mg/L	0.005	SM 3120	03-Sep-13/O	< 0.005		
Zinc	mg/L	0.005	SM 3120	30-Aug-13/O		< 0.005	
o-Phosphate (P)	mg/L	0.01	MOEE 3366	04-Sep-13/O	< 0.01		
Total Organic Carbon	mg/L	0.2	EPA 415.1	30-Aug-13/O	3.1		
TIC	mg/L	0.5	EPA 415.1	30-Aug-13/O	3.1		
REDOX potential	mV		Subcontract	09-Sep-13	422	¹	
Fecal Coliform	cfu/100mL	1	MOE E3371	29-Aug-13/O	<10		
Anion Sum	meq/L		Calc.	03-Sep-13/O	0.355		
Cation Sum	meq/L		Calc.	03-Sep-13/O	0.354		
% Difference	%		Calc.	03-Sep-13/O	0.169		
Ion Ratio	AS/CS		Calc.	03-Sep-13/O	1.00		
Sodium Adsorption Ratio	-		Calc.	03-Sep-13/O	0.128		
Conductivity (calc.)	µmho/cm		Calc.	03-Sep-13/O	37.3		
TDS(calc.)/EC(actual)	-		Calc.	03-Sep-13/O	0.504		
EC(calc.)/EC(actual)	-		Calc.	03-Sep-13/O	1.02		



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JOB/PROJECT NO.: Test A

DATE REPORTED: 10-Sep-13

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	WTP Test A	WTP Test A - Total Metal		
			Sample I.D.	B13-22716-1	B13-22716-2		
			Date Collected	27-Aug-13	27-Aug-13		
Parameter	Units	M.D.L.	Reference Method	Date/Site Analyzed			
Langelier Index(25°C)	S.I.		Calc.	03-Sep-13/O	-2.36		

1 subcontracted to Testmark Labs.



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