CADUCEON ENVIRONMENTAL LABORATORIES
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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: DW 121569 **REPORT No: 23-032706 - Rev. 0**

Report To:
Municipality of Qikiqtarjuaq
P.O. Box 4
Qikiqtarjuaq, NU

CADUCEON Environmental Laboratories
2378 Holly Lane
Ottawa, ON K1V 7P1

Attention: Samuel Nuqingaq

DATE RECEIVED: 2023-Nov-21
DATE REPORTED: 2023-Dec-06
SAMPLE MATRIX: Drinking Water

CUSTOMER PROJECT:
P.O. NUMBER:

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Anions (Liquid)	1	OTTAWA	PCURIEL	2023-Nov-21	A-IC-01	SM 4110B
Colour (Liquid)	1	OTTAWA	AWILSON	2023-Nov-22	A-COL-01	SM 2120C
Cond/pH/Alk Auto (Liquid)	1	OTTAWA	SBOUDREAU	2023-Nov-21	COND-02/PH-02/A LK-02	SM 2510B/4500H/ 2320B
Cyanide Total (Liquid)	1	KINGSTON	JMACINNES	2023-Nov-27	CN-001	SM 4500-CN-E
DOC/DIC (Liquid)	1	OTTAWA	VKASYAN	2023-Nov-23	C-OC-01	EPA 415.2
ICP/MS Total (Liquid)	1	OTTAWA	AOZKAYMAK	2023-Nov-23	D-ICPMS-01	EPA 6020
ICP/MS (Liquid)	1	OTTAWA	AOZKAYMAK	2023-Nov-23	D-ICPMS-01	EPA 200.8
ICP/OES Total (Liquid)	1	OTTAWA	NHOGAN	2023-Nov-24	D-ICP-01	SM 3120B
ICP/OES (Liquid)	1	OTTAWA	NHOGAN	2023-Nov-24	D-ICP-01	SM 3120B
Mercury (Liquid)	1	OTTAWA	TBENNETT	2023-Nov-22	D-HG-02	SM 3112B
Mercury (Liquid) Lab Filtered	1	OTTAWA	TBENNETT	2023-Nov-22	D-HG-02	SM 3112B
Ammonia & o-Phosphate (Liquid)	1	KINGSTON	KDIBBITS	2023-Nov-29	NH3-001	SM 4500NH3
PHC F1 (Liquid)	1	RICHMOND_HILL	FLENA	2023-Nov-24	C-VPHW-01	MECP E3421
PHC F2-4 (Liquid)	1	KINGSTON	STHOMPSON	2023-Nov-25	PHC-W-001	MECP E3421
SVOC - Semi-Volatiles (Liquid)	1	KINGSTON	EASIEDU	2023-Nov-22	NAB-W-001	EPA 8270D
Total Organic Carbon (TOC)	1	OTTAWA	VKASYAN	2023-Nov-23	C-OC-01	EPA 415.2
TSS (Liquid)	1	KINGSTON	KKHUTSYYEVA	2023-Nov-24	TSS-001	SM 2540D
Turbidity (Liquid)	1	OTTAWA	AWILSON	2023-Nov-22	A-TURB-01	SM 2130B
UV Trans. (Subcontracted)	1	TESTMARK	SISLAM	2023-Nov-22		Subcontracted
VOC-Volatiles Full (Water)	1	RICHMOND_HILL	FLENA	2023-Nov-24	C-VOC-02	EPA 8260

µg/g = micrograms per gram (parts per million) and is equal to mg/Kg
F1 C6-C10 hydrocarbons in µg/g, (F1-btex if requested)
F2 C10-C16 hydrocarbons in µg/g, (F2-napth if requested)
F3 C16-C34 hydrocarbons in µg/g, (F3-pah if requested)
F4 C34-C50 hydrocarbons in µg/g
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
Any deviations from the method are noted and reported for any particular sample.
nC6 and nC10 response factor is within 30% of response factor for toluene:
nC10,nC16 and nC34 response factors within 10% of each other:
C50 response factors within 70% of nC10+nC16+nC34 average:
Linearity is within 15%:
All results expressed on a dry weight basis.
Unless otherwise noted all chromatograms returned to baseline by the retention time of nC50.

Unless otherwise noted all extraction, analysis, QC requirements and limits for holding time were met.
If analyzed for F4 and F4G they are not to be summed but the greater of the two numbers are to be used in application to the CWS PHC
QC will be made available upon request.

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Microbiology Supervisor

R.L. = Reporting Limit
NC = Not Calculated
Test methods may be modified from specified reference method unless indicated by an *

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	Client I.D.		Raw @ WTP	Raw @ WTP - Total Metals
	Sample I.D.		23-032706-1	23-032706-2
	Date Collected		2023-11-16	2023-11-16
Parameter	Units	R.L.	-	-
Alkalinity(CaCO3) to pH4.5	mg/L	5	<5	
TDS (Calc. from Cond.)	mg/L	3	8	
Conductivity @25°C	uS/cm	1	16	
pH @25°C	pH units	-	6.22	
Colour	TCU	2	<2	
Turbidity	NTU	0.1	1.0	
Fluoride	mg/L	0.1	<0.1	
Chloride	mg/L	0.5	2.9	
Nitrate (N)	mg/L	0.05	0.07	
Sulphate	mg/L	1	<1	
Total Suspended Solids	mg/L	3	<3	
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05	<0.05	
Dissolved Organic Carbon	mg/L	0.2	0.9	
Total Organic Carbon	mg/L	0.2	0.9	
Cyanide (Total)	mg/L	0.005	<0.005	
Hardness (as CaCO3)	mg/L	0.02	1.64	
Aluminum	mg/L	0.01	0.07	
Barium	mg/L	0.001	0.001	
Boron	mg/L	0.005	<0.005	
Calcium	mg/L	0.02	0.26	
Copper	mg/L	0.002	0.005	

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	Client I.D.		Raw @ WTP	Raw @ WTP - Total Metals
	Sample I.D.		23-032706-1	23-032706-2
	Date Collected		2023-11-16	2023-11-16
Parameter	**Units**	**R.L.**	-	-
Iron	mg/L	0.005	0.044	
Manganese	mg/L	0.001	0.001	
Potassium	mg/L	0.1	0.2	
Sodium	mg/L	0.2	2.2	
Zinc	mg/L	0.005	0.005	
Aluminum (Total)	mg/L	0.01		0.04
Barium (Total)	mg/L	0.001		0.002
Boron (Total)	mg/L	0.005		<0.005
Calcium (Total)	mg/L	0.02		0.34
Copper (Total)	mg/L	0.002		0.005
Iron (Total)	mg/L	0.005		0.035
Manganese (Total)	mg/L	0.001		0.002
Potassium (Total)	mg/L	0.1		0.2
Sodium (Total)	mg/L	0.2		2.4
Zinc (Total)	mg/L	0.005		0.006
Arsenic	mg/L	0.0001	<0.0001	
Cadmium	mg/L	0.000015	<0.000015	
Chromium	mg/L	0.001	<0.001	
Lead	mg/L	0.00002	0.00026	
Selenium	mg/L	0.001	<0.001	
Uranium	mg/L	0.00005	<0.00005	

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	Client I.D.		Raw @ WTP	Raw @ WTP - Total Metals
	Sample I.D.		23-032706-1	23-032706-2
	Date Collected		2023-11-16	2023-11-16
Parameter	**Units**	**R.L.**	-	-
Arsenic (Total)	mg/L	0.0001		<0.0001
Cadmium (Total)	mg/L	0.000015		<0.000015
Chromium (Total)	mg/L	0.001		<0.001
Lead (Total)	mg/L	0.00002		0.00011
Selenium (Total)	mg/L	0.001		<0.001
Uranium (Total)	mg/L	0.00005		<0.00005
Mercury	mg/L	0.00002		<0.00002
Mercury (Filtered)	mg/L	0.00002	<0.00002	

	Client I.D.		Raw @ WTP
	Sample I.D.		23-032706-1
	Date Collected		2023-11-16
Parameter	**Units**	**R.L.**	-
Benzene	µg/L	0.5	<0.5
Ethylbenzene	µg/L	0.5	<0.5
Toluene	µg/L	0.5	<0.5
Xylene, m,p-	µg/L	1	<1
Xylene, m,p,o-	µg/L	1.1	<1.1
Xylene, o-	µg/L	0.5	<0.5
PHC F1 (C6-C10)	µg/L	25	<25
PHC F2 (>C10-C16)	µg/L	50	<50
PHC F3 (>C16-C34)	µg/L	400	<400
PHC F4 (>C34-C50)	µg/L	400	<400

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		Client I.D.	Raw @ WTP
		Sample I.D.	23-032706-1
		Date Collected	2023-11-16
Parameter	**Units**	**R.L.**	-
Acenaphthene	µg/L	0.05	<0.05
Acenaphthylene	µg/L	0.05	<0.05
Anthracene	µg/L	0.05	<0.05
Benzo[a]anthracene	µg/L	0.05	<0.05
Benzo(a)pyrene	µg/L	0.01	<0.01
Benzo(b)fluoranthene	µg/L	0.05	<0.05
Benzo(b+k)fluoranthene	µg/L	0.1	<0.1
Benzo(g,h,i)perylene	µg/L	0.05	<0.05
Benzo(k)fluoranthene	µg/L	0.05	<0.05
Chrysene	µg/L	0.05	<0.05
Dibenzo(a,h)anthracene	µg/L	0.05	<0.05
Fluoranthene	µg/L	0.05	<0.05
Fluorene	µg/L	0.05	<0.05
Indeno(1,2,3,-cd)Pyrene	µg/L	0.05	<0.05
Methylnaphthalene,1-	µg/L	0.05	<0.05
Methylnaphthalene,2-(1-)	µg/L	1	<1
Methylnaphthalene,2-	µg/L	0.05	<0.05
Naphthalene	µg/L	0.05	<0.05
Phenanthrene	µg/L	0.05	<0.05
Pyrene	µg/L	0.05	<0.05
Total PAH	µg/L	0.1	<0.1

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Subcontracted Analyses

	Client I.D.	Raw @ WTP
	Sample I.D.	23-032706-1
	Date Collected	2023-11-16
Parameter	Units / R.L.	-
UV Transmittance	% / -	98.2

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