

**ANNUAL REPORT  
FOR THE HAMLET OF PANGNIRTUNG DUVAL RIVER, 2020**

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**YEAR BEING REPORTED: 2020**

The following information is compiled pursuant to the requirements of Part B, Item 1 of Water Licence # 1BW-DUV 2025 issued to the Hamlet of Pangnirtung Duval River.

- i) - iii) tabular summaries of all data generated under the “Monitoring Program”; monthly and annual quantities in cubic metres of freshwater obtained from all sources; monthly and annual quantities in cubic metres of each and all wastes discharged;

Attached are quantities of water used as reported in our On Tap Water Delivery System and the estimated discharge of sewage waste based on quantities used...?

<b>Month Reported</b>	<b>Quantity of Water Obtained from all sources (litres)</b>	<b>Quantity of Sewage Waste Discharged (Estimated)</b>
<b>January</b>	o	o
<b>February</b>	o	o
<b>March</b>	o	o
<b>April</b>	o	o
<b>May</b>	o	o
<b>June</b>	o	o
<b>July</b>	o	o
<b>August</b>	o	o
<b>September</b>	o	o
<b>October</b>	o	o
<b>November</b>	o	o
<b>December</b>	o	o
<b>ANNUAL TOTAL</b>	o	o

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Note: Water extraction and Sewage disposal are not part of this licence.

- iv. A summary of modifications and/or major maintenance work carried out on the Water Supply and Waste Disposal Facilities, including all associated structures and facilities;

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The water licence was transferred to Hamlet due to their request. Hamlet is maintaining this crossing for their own interest. No major modifications and /or major maintenance works were needed for this reporting period.

- v. A list of unauthorized discharges and summary of follow-up action taken;  
No unauthorised discharge took place and no follow up action was required.

- vi. A summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;  
No abandonment and restoration work were conducted during this reporting year.

- vii. A summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;

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Under the Municipal Water Licence number 3AM-PAN 1828, Type A; A hydrology Study of the Duval River has been requested to be completed by 2022. The Hydrology Study shall address intervenor's comments and recommendations made during 2017-18 licensing process, including at a minimum, details related to the discharge volume and velocity, erosion, sedimentation, water quality, and variability of discharge into the Duval River.

- viii. Any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and

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Under the Municipal water Licence #3AM-PAN1828, Type A; “ the Licensee shall withdraw water from the Duval River at a rate that shall not exceed ten per cent (10%) of the instantaneous flow in the river, and shall cease all water withdrawal when the instantaneous flow in the river is below thirty per cent (30%) of the mean annual discharge.”

- ix. Updates or revisions to the approved Operation and Maintenance Plans.

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No update or revision on the O&M manual is required at this stage.

**x.      ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:**

Hamlet is conducting water sampling as indicated in Part H; item 4 of the Water Licence # 1BW-DUV 2025.

This facility will be managed under the Municipality of Pangnirtung central Spill Contingency plan.

**xi.      FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:**

Hamlet is working closely with the GN technical staff and CIRNAC's inspector and following their advice to keep the facility into compliancy.

**Note:** The Lab Results for 2020 will be submitted in a different document.

C.O.C.: DW 25991

REPORT No. B18-25991

**Report To:**

Hamlet of Pangnirtung  
P.O. Box 253,  
Pangnirtung Nunavut X0A 0R0 Canada  
**Attention:** SAO -

Caduceon Environmental Laboratories  
2378 Holly Lane  
Ottawa Ontario K1V 7P1  
Tel: 613-526-0123  
Fax: 613-526-1244

DATE RECEIVED: 29-Aug-18

JOB/PROJECT NO.: Drinking Water

DATE REPORTED: 12-Sep-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	Effluent/ WWTP	Duval River		
			Sample I.D.	B18-25991-1	B18-25991-2		
			Date Collected	22-Aug-18	22-Aug-18		
Parameter	Units	R.L.	Reference Method	Date/Date Analyzed			
TDS (Calc. from Cond.)	mg/L	1	Calc.	31-Aug-18	327	3	
Chloride	mg/L	0.5	SM4110C	29-Aug-18/O	56.6	0.9	
Fluoride	mg/L	0.1	SM4110C	29-Aug-18/O	< 0.1	< 0.1	
Nitrate (N)	mg/L	0.1	SM4110C	29-Aug-18/O	35.9	< 0.1	
Nitrite (N)	mg/L	0.1	SM4110C	29-Aug-18/O	< 0.1	< 0.1	
Sulphate	mg/L	1	SM4110C	29-Aug-18/O	31	< 1	
Cyanide (Total)	mg/L	0.005	SM 4500CN	30-Aug-18/K	< 0.005	< 0.005	
Arsenic	mg/L	0.0001	EPA 200.8	29-Aug-18/O	0.0008	< 0.0001	
Barium	mg/L	0.001	SM 3120	31-Aug-18/O	< 0.001	< 0.001	
Cadmium	mg/L	0.000015	EPA 200.8	29-Aug-18/O	0.000131	< 0.000015	
Chromium	mg/L	0.002	SM 3120	31-Aug-18/O	< 0.002	< 0.002	
Chromium (VI)	mg/L	0.002	MOE E3056	04-Sep-18/O	< 0.002	< 0.002	
Copper	mg/L	0.002	SM 3120	31-Aug-18/O	0.100	< 0.002	
Iron	mg/L	0.005	SM 3120	31-Aug-18/O	0.121	0.013	
Lead	mg/L	0.00002	EPA 200.8	29-Aug-18/O	0.00562	< 0.00002	
Manganese	mg/L	0.001	SM 3120	31-Aug-18/O	0.035	0.001	
Selenium	mg/L	0.001	EPA 200.8	29-Aug-18/O	< 0.001	< 0.001	
Silver	mg/L	0.0001	EPA 200.8	29-Aug-18/O	< 0.0001	< 0.0001	
Zinc	mg/L	0.005	SM 3120	31-Aug-18/O	0.313	< 0.005	
Phenolics	mg/L	0.002	MOEE 3179	31-Aug-18/K	0.003	< 0.002	
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	30-Aug-18/O	14.9	1.2	
Surfactants Content	mg/L	0.05	SM-5540-C	10-Sep-18/O	0.12	< 0.05	
E coli	cfu/100mL	1	MOE E3407	29-Aug-18/O	5	3	

1. Chromium (VI) result is based on total Chromium

2. Subcontracted to Niagara Analytical

NOTE: E. coli passed acceptable holding time upon arrival at Lab.



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

R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an \*

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

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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