

Municipal Water Licence Annual Report

Community Government of Wekweeti

Licence #: W2017L3-0001

Reporting year: 2020

Expires: September 27, 2027

The Licensee shall file an Annual Report with the Board not later than March 31st of the year following the calendar year reported which shall contain the following information:

1. **Water Usage** (Licensed Water Volume Withdrawal: 10,000 m³)

Total volume withdrawn for reporting year: 4,992.84620 m³

Table 1: Monthly & Annual withdrawal volumes pumped (SNP 001-1)

Month	Volume from main source (m ³)	Volume from any other source (m ³)	TOTAL Volume (m ³)
January	352.67170		352.67170
February	361.84160		361.84160
March	374.55520		374.55520
April	433.69400		433.69400
May	438.96520		438.96520
June	430.54810		430.54810
July	435.73660		435.73660
August	457.45640		457.45640
September	403.25270		403.25270
October	433.08950		433.08950
November	452.72720		452.72720
December	418.30800		418.30800
TOTALS	4,992.84620		4992.84620
% Increase/decrease from previous year	14%		14%

Reasons for increase/decrease:

New water plant came online with better metering equipment.

Reasons for exceeding licensed withdrawal volumes (if applicable): **N/A**

General information (e.g. information regarding any modifications to the water withdrawal procedure or facilities should be included here. If necessary please attach any relevant reports to the end of this document): **N/A**

2. Solid Waste Disposal

Approximate total yearly volume of solid waste deposited: 648m³

Table 2: Monthly solid waste disposal volumes

Month	Volume of solid waste deposited (m ³)
January	54
February	54
March	54
April	54
May	54
June	54
July	54
August	54
September	54
October	54
November	54
December	54
TOTALS	648
% Increase/decrease from previous year	9.9%

GNWT – MACA has provided a standard formula for estimating the amount of solid waste deposited into a Solid Waste Facility in the absence of a metered Garbage Truck. The following can be used: Volume per person per day X number of days X population

e.g. 0.015 m³ X 30 days X 860 people = 387 m³ of domestic trash deposited into the Solid Waste Facility in a 30 day month

Reasons for increase/decrease (e.g. an industrial project close to Wekweeti or a large influx of people into town): **There were less people for this reporting year, thus there was a decrease in the solid waste disposal.**

General information (e.g. information regarding any agreements with outside organizations to be a waste receiving facility should be outlined here along with an estimate of the amount and type of waste to be received): **N/A**

3. Sewage Deposited to Primary Sewage Cells

Table 3: Monthly sewage waste volumes deposited

Month	Volume of sewage waste deposited (m ³)		
	Pumper Truck		TOTAL
January	352.67170		352.67170
February	361.84160		361.84160
March	374.55520		374.55520
April	433.69400		433.69400
May	438.96520		438.96520
June	430.54810		430.54810
July	435.73660		435.73660
August	457.46540		457.46540
September	403.25270		403.25270
October	433.08950		433.08950
November	452.72720		452.72720
December	418.30800		418.30800
TOTALS	4,992.84620		4992.84620
Is this an estimated volume?			
	YES		NO
Volume based on water consumption			
% Increase/decrease from previous year	14%		14%

To calculate monthly sewage waste deposited to the Primary Lagoon, please provide the above information if metered information is available. If metered information is not available, please fill in the table using the corresponding TOTAL water volumes from Table 1. This provides estimation only and equals water in/sewage out.

Reasons for increase/decrease (e.g. an industrial project close to Wekweeti or a large influx of people into town): **This is a normal increase, goes with the water consumption volume changes. New water plant came online with better metering equipment.**

Has any sludge been removed from the primary sewage cells or from Snare Lake during this reporting year? If so, what volume of sludge was removed? What testing was completed on the sludge and where it was disposed of? Please provide documentation for testing and GNWT Water License Inspector approval of placement. **No sludge was removed, and no testing has been completed.**

Was there any decanting at Snare Lake this reporting year? Please provide dates. What was the decant duration and the approximate volume decanted? As this is a Surveillance Network Program (SNP) site, the resulting testing is to be presented as part of the tabular SNP data to be provided as per the Water License [Part B(1)(d)]. **No decanting of Snare Lake occurred during the reporting year of 2020.**

4. Problems, modifications or repairs completed during the year on water supply and waste disposal facilities

Include any work done to infrastructure for all facilities completed during the year in this section. This includes any changes, repairs and modifications. If any problems occurred during the year, please note them here. If there are no changes, make note of that. If required please attach any as-built drawings or reports as an appendices to this report. [Wekweeti water plant is online.](#)

5. Surveillance Network Program Data

Surveillance Network Program (SNP) information is to be submitted in a tabular format and shall indicate date of testing, parameters tested for and any other information requested by the GNWT Water License Inspector or the WLWB. [Laboratory results should be summarized. A results table has been provided below for your convenience. Note: it is possible to copy/paste from Excel into Word provided the same number of cells are selected in each table].

There was a mix-up in the samples collected in July, staff mixed up the sample bags that had the SNP locations written on it (i.e., SNP location 001-2 was mixed up with SNP location 001-3). The results showed that SNP 001-2 was collected in the Snare Lake location and SNP 001-3 was collected in the Sewage Effluent which is why the information in the results summary table shows that Fecal Coliforms and other Parameters in the Snare Lake location were very high for the month of July.

Surveillance Network Program Lab Results Summary

	Sewage Effluent					Snare Lake					Runoff from Waste Disposal Facility				
	SNP 001-2					SNP 001-3					SNP 001-4				
	June	July	Aug	Sept	Oct	June	July	Aug	Sept	Oct	June	July	Aug	Sept	Oct
pH	7.44	6.83	6.92	6.77		7.10	8.64	6.76	7.20		7.67	7.49	7.44	7.49	
Suspended Solids	116	<3	174	<3		8	100	<3	50		4	<3	<3	<3	
Ammonia-Nitrogen	38.9	<0.005	11.9	<0.005		<0.005	10.1	0.011	9.85		Not required for SNP 001-4				
BOD	46	<2	157	<2		<2	54	<2	33						
Total Phosphate			4.95	0.008				0.011	1.83						
Faecal Coliforms	141000	2	0	<1		8	35000	0	0						
Oil and Grease	21.8	<1.0	5.7	<1.0		<2.0	<1.0	<2.0	<1.0						
Mercury	<0.01	0.01	<0.01	<0.01		<0.01	0.02	<0.01	0.01		<0.01	<0.01	<0.01	<0.01	
Arsenic											0.6	0.3	0.3	0.3	
Aluminum											21.8	19.4	13.9	8.3	
Barium											15.3	16.4	16.2	14.3	
Boron															
Cadmium											<0.1	<0.1	<0.1	<0.1	
Chromium											0.1	0.2	0.1	0.1	
Copper											0.7	0.6	0.7	0.7	
Iron	Not required for SNP 001-2 and 001-3										94	218	163	241	
Lead											<0.1	<0.1		<0.1	
Manganese											14.0	37.0	13.3	19.5	
Molybdenum											0.2	0.2	0.2	0.2	
Nickel											0.7	0.7	0.7	0.6	
Selenium											<0.5	<0.5	<0.5	<0.5	
Strontium											62.0	58.6	62.9	64.4	
Uranium											0.3	0.3	0.3	0.3	
Zinc											<5.0	<5.0	<5.0	<5.0	

6. SNP Sample Locations

See attached Map with the SNP locations.

7. Unauthorized discharges

List any unauthorized discharges here including any spills, how and when they were reported, and how they were cleaned up. Please attach copies of spill reports, correspondence with the GNWT Water Licence Inspector or any other pertinent documentation as an appendices to this report.

No unauthorized discharges in 2020.

8. Spill Training and Communications Exercises

List any spill training and communications exercises that have been carried out including courses on spills prevention, waste management, SNP sampling, etc. **community government employees were trained on sampling procedures and practical illustrations on how to collect samples at the SNP sample location**

9. Closure and Reclamation

Include any closure and reclamation details here including any work anticipated to be completed during the next year. If required please attach any as-built drawings or reports as an appendices to this report.

N/A

10. Studies requested by the Board

If the Board has requested that specific studies be completed, include details of the plan in this section with a summary of the outcome. Include any attachments with the submission of the Annual Report.

N/A

11. Updates or revisions to approved plans

Details on any changes to approved plans such as the O&M Plan, the Closure and Reclamation Plan, the Spill Contingency Plan, or any other that is specific to this Municipal Water Licence. Please attach documents as appendices to this report. **None Identified**


12. Other Information

- Include any other information here that may be valuable to the WLWB or to GNWT. **N/A**
- Include details on upcoming studies that will be completed. **None at the moment**
- Please include any non-compliance items identified in the GNWT Water Licence Inspection report and detail how the Community Government of Wekweeti is addressing them. **None Identified**
- If there is any contaminated soil piles currently in use (land farming), please list the details of containment, remediation and progress in this section. **Non for 2020**
- Please identify any on-going compliance issues for the Community Government of Wekweeti. This can facilitate discussions to resolve the issues.

W2017L3-0001

Community Government of Wekweeti
SNP Locations

Legend

 CGW SNP



Google Earth

Image © 2024 Airbus

1 km





Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
200337

- FINAL REPORT -

Prepared For: Community Government of Wekweeti

Address: P.O. Box 69
Wekweeti, NT
X1A 1W0

Attn: SAO

Facsimile: (867) 713-2030

Final report has been reviewed and approved by:

Glen Hudy
Quality Assurance Officer

NOTES:

- Test methods and data are validated by the laboratory's Quality Assurance Program. Taiga Environmental Laboratory is accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) to ISO/IEC 17025 as a testing laboratory for specific tests registered with CALA.
- Routine methods are based on recognized procedures from sources such as
 - Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
 - Environment Canada
 - USEPA
- Samples shall be kept for thirty (30) days after the final report is issued. All microbiological samples shall be disposed of immediately upon completion of analysis to minimize biohazardous risks to laboratory personnel. Please contact the laboratory if you have any special requirements.
- Final results are based on the specific tests at the time of analysis and do not represent the conditions during sampling.

ReportDate: Friday, July 10, 2020

Print Date: *Friday, July 10, 2020*

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
200337

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **001-2**

Taiga Sample ID: **001**

Client Project:

Sample Type: Water

Received Date: 26-Jun-20

Sampling Date: 26-Jun-20

Sampling Time:

Location:

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	38.9	0.005	mg/L	06-Jul-20	SM4500-NH3:G	
Biochemical Oxygen Demand	46	2	mg/L	26-Jun-20	SM5210:B	55
<u>Inorganics - Physicals</u>						
pH	7.44		pH units	26-Jun-20	SM4500-H:B	
Solids, Total Suspended	116	3	mg/L	29-Jun-20	SM2540:D	
<u>Microbiology</u>						
Coliforms, Fecal	141000	1000	CFU/100mL	26-Jun-20	SM9222:D	
<u>Organics</u>						
Hexane Extractable Material	21.8	2.0	mg/L	09-Jul-20	EPA1664A	
<u>Trace Metals, Total</u>						
Mercury	< 0.01	0.01	µg/L	06-Jul-20	EPA200.8	

ReportDate: Friday, July 10, 2020

Print Date: *Friday, July 10, 2020*

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Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
200337

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **001-3**

Taiga Sample ID: **002**

Client Project:

Sample Type: Water

Received Date: 26-Jun-20

Sampling Date: 26-Jun-20

Sampling Time:

Location:

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	< 0.005	0.005	mg/L	06-Jul-20	SM4500-NH3:G	
Biochemical Oxygen Demand	< 2	2	mg/L	26-Jun-20	SM5210:B	
<u>Inorganics - Physicals</u>						
pH	7.10		pH units	26-Jun-20	SM4500-H:B	
Solids, Total Suspended	8	3	mg/L	29-Jun-20	SM2540:D	
<u>Microbiology</u>						
Coliforms, Fecal	8	1	CFU/100mL	26-Jun-20	SM9222:D	
<u>Organics</u>						
Hexane Extractable Material	< 2.0	2.0	mg/L	09-Jul-20	EPA1664A	
<u>Trace Metals, Total</u>						
Mercury	< 0.01	0.01	µg/L	06-Jul-20	EPA200.8	

ReportDate: Friday, July 10, 2020

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Taiga Batch No.:
200337

- CERTIFICATE OF ANALYSIS -

Client Sample ID: 001-4

Taiga Sample ID: 003

Client Project:

Sample Type: Water

Received Date: 26-Jun-20

Sampling Date: 26-Jun-20

Sampling Time:

Location:

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Physicals</u>						
pH	7.67		pH units	26-Jun-20	SM4500-H:B	
Solids, Total Suspended	4	3	mg/L	29-Jun-20	SM2540:D	
<u>Trace Metals, Total</u>						
Aluminum	21.8	5	µg/L	06-Jul-20	EPA200.8	
Antimony	< 0.1	0.1	µg/L	06-Jul-20	EPA200.8	
Arsenic	0.6	0.2	µg/L	06-Jul-20	EPA200.8	
Barium	15.3	0.1	µg/L	06-Jul-20	EPA200.8	
Beryllium	< 0.1	0.1	µg/L	06-Jul-20	EPA200.8	
Cadmium	< 0.1	0.1	µg/L	06-Jul-20	EPA200.8	
Cesium	< 0.1	0.1	µg/L	06-Jul-20	EPA200.8	
Chromium	0.1	0.1	µg/L	06-Jul-20	EPA200.8	
Cobalt	< 0.1	0.1	µg/L	06-Jul-20	EPA200.8	
Copper	0.7	0.2	µg/L	06-Jul-20	EPA200.8	
Iron	94	5	µg/L	06-Jul-20	EPA200.8	
Lead	< 0.1	0.1	µg/L	06-Jul-20	EPA200.8	
Lithium	0.4	0.2	µg/L	06-Jul-20	EPA200.8	

ReportDate: Friday, July 10, 2020

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- CERTIFICATE OF ANALYSIS -

Client Sample ID: 001-4

Taiga Sample ID: 003

Manganese	14.0	0.1	µg/L	06-Jul-20	EPA200.8
Mercury	< 0.01	0.01	µg/L	06-Jul-20	EPA200.8
Molybdenum	0.2	0.1	µg/L	06-Jul-20	EPA200.8
Nickel	0.7	0.1	µg/L	06-Jul-20	EPA200.8
Rubidium	3.7	0.1	µg/L	06-Jul-20	EPA200.8
Selenium	< 0.5	0.5	µg/L	06-Jul-20	EPA200.8
Silver	< 0.1	0.1	µg/L	06-Jul-20	EPA200.8
Strontium	62.0	0.1	µg/L	06-Jul-20	EPA200.8
Thallium	< 0.1	0.1	µg/L	06-Jul-20	EPA200.8
Titanium	0.4	0.1	µg/L	06-Jul-20	EPA200.8
Uranium	0.3	0.1	µg/L	06-Jul-20	EPA200.8
Vanadium	0.2	0.1	µg/L	06-Jul-20	EPA200.8
Zinc	< 5.0	5	µg/L	06-Jul-20	EPA200.8

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Taiga Batch No.:
200337

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **001-4**

Taiga Sample ID: **003**

- DATA QUALIFIERS -

Data Qualifier Descriptions:

55 *BOD result is inconclusive; residual DO was less than 1 mg/L. For evaluation purposes only.*

*** Taiga analytical methods are based on the following standard analytical methods**

- SM - Standard Methods for the Examination of Water and Wastewater
- EPA - United States Environmental Protection Agency



Taiga Environmental Laboratory
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Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
200510

- FINAL REPORT -

Prepared For: Community Government of Wekweeti

Address: P.O. Box 69
Wekweeti, NT
X1A 1W0

Attn: SAO

Facsimile: (867) 713-2030

Final report has been reviewed and approved by:

Glen Hudy
Quality Assurance Officer

NOTES:

- Test methods and data are validated by the laboratory's Quality Assurance Program. Taiga Environmental Laboratory is accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) to ISO/IEC 17025 as a testing laboratory for specific tests registered with CALA.
- Routine methods are based on recognized procedures from sources such as
 - Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
 - Environment Canada
 - USEPA
- Samples shall be kept for thirty (30) days after the final report is issued. All microbiological samples shall be disposed of immediately upon completion of analysis to minimize biohazardous risks to laboratory personnel. Please contact the laboratory if you have any special requirements.
- Final results are based on the specific tests at the time of analysis and do not represent the conditions during sampling.

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Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
200510

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **001-2**

Taiga Sample ID: **001**

Client Project: W2007L3-0001

Sample Type: Sewage effluent

Received Date: 31-Jul-20

Sampling Date: 31-Jul-20

Sampling Time: 11:00

Location: Wekweeti

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	< 0.005	0.005	mg/L	06-Aug-20	SM4500-NH3:G	
Biochemical Oxygen Demand	< 2	2	mg/L	31-Jul-20	SM5210:B	
<u>Inorganics - Physicals</u>						
pH	6.83		pH units	31-Jul-20	SM4500-H:B	
Solids, Total Suspended	< 3	3	mg/L	07-Aug-20	SM2540:D	
<u>Microbiology</u>						
Coliforms, Fecal	2	1	CFU/100mL	31-Jul-20	SM9222:D	
<u>Subcontracted Organics</u>						
Hexane Extractable Material	< 1.0	1	mg/L	12-Aug-20	APHA 5520B	
<u>Trace Metals, Total</u>						
Mercury	0.01	0.01	µg/L	12-Aug-20	EPA200.8	

ReportDate: Friday, August 14, 2020

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Taiga Batch No.:
200510

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **001-3**

Taiga Sample ID: **002**

Client Project: W2007L3-0001

Sample Type: Water

Received Date: 31-Jul-20

Sampling Date: 31-Jul-20

Sampling Time: 11:00

Location: Wekweeti

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	10.1	0.005	mg/L	06-Aug-20	SM4500-NH3:G	
Biochemical Oxygen Demand	54	2	mg/L	31-Jul-20	SM5210:B	
<u>Inorganics - Physicals</u>						
pH	8.64		pH units	31-Jul-20	SM4500-H:B	
Solids, Total Suspended	100	3	mg/L	07-Aug-20	SM2540:D	
<u>Microbiology</u>						
Coliforms, Fecal	35000	1000	CFU/100mL	31-Jul-20	SM9222:D	
<u>Subcontracted Organics</u>						
Hexane Extractable Material	< 1.0	1	mg/L	12-Aug-20	APHA 5520B	
<u>Trace Metals, Total</u>						
Mercury	0.02	0.01	µg/L	12-Aug-20	EPA200.8	

ReportDate: Friday, August 14, 2020

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Taiga Batch No.:
200510

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **001.4**

Taiga Sample ID: **003**

Client Project: W2007L3-0001

Sample Type: Wastewater

Received Date: 31-Jul-20

Sampling Date: 31-Jul-20

Sampling Time: 11:00

Location: Wekweeti

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Physicals</u>						
pH	7.49		pH units	31-Jul-20	SM4500-H:B	
Solids, Total Suspended	< 3	3	mg/L	07-Aug-20	SM2540:D	
<u>Trace Metals, Total</u>						
Aluminum	19.4	5	µg/L	12-Aug-20	EPA200.8	
Antimony	< 0.1	0.1	µg/L	12-Aug-20	EPA200.8	
Arsenic	0.3	0.2	µg/L	12-Aug-20	EPA200.8	
Barium	16.4	0.1	µg/L	12-Aug-20	EPA200.8	
Beryllium	< 0.1	0.1	µg/L	12-Aug-20	EPA200.8	
Cadmium	< 0.1	0.1	µg/L	12-Aug-20	EPA200.8	
Cesium	< 0.1	0.1	µg/L	12-Aug-20	EPA200.8	
Chromium	0.2	0.1	µg/L	12-Aug-20	EPA200.8	
Cobalt	0.1	0.1	µg/L	12-Aug-20	EPA200.8	
Copper	0.6	0.2	µg/L	12-Aug-20	EPA200.8	
Iron	218	5	µg/L	12-Aug-20	EPA200.8	
Lead	< 0.1	0.1	µg/L	12-Aug-20	EPA200.8	
Lithium	0.5	0.2	µg/L	12-Aug-20	EPA200.8	

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Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
200510

- CERTIFICATE OF ANALYSIS -

Client Sample ID: 001.4

Taiga Sample ID: 003

Manganese	37.0	0.1	µg/L	12-Aug-20	EPA200.8
Mercury	< 0.01	0.01	µg/L	12-Aug-20	EPA200.8
Molybdenum	0.2	0.1	µg/L	12-Aug-20	EPA200.8
Nickel	0.7	0.1	µg/L	12-Aug-20	EPA200.8
Rubidium	3.7	0.1	µg/L	12-Aug-20	EPA200.8
Selenium	< 0.5	0.5	µg/L	12-Aug-20	EPA200.8
Silver	< 0.1	0.1	µg/L	12-Aug-20	EPA200.8
Strontium	58.6	0.1	µg/L	12-Aug-20	EPA200.8
Thallium	< 0.1	0.1	µg/L	12-Aug-20	EPA200.8
Titanium	0.4	0.1	µg/L	12-Aug-20	EPA200.8
Uranium	0.3	0.1	µg/L	12-Aug-20	EPA200.8
Vanadium	0.2	0.1	µg/L	12-Aug-20	EPA200.8
Zinc	< 5.0	5	µg/L	12-Aug-20	EPA200.8

ReportDate: Friday, August 14, 2020

Print Date: *Friday, August 14, 2020*

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

200510

- CERTIFICATE OF ANALYSIS -

Client Sample ID: 001.4

Taiga Sample ID: 003

*** Taiga analytical methods are based on the following standard analytical methods**

SM - Standard Methods for the Examination of Water and Wastewater

EPA - United States Environmental Protection Agency

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Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
200666

- FINAL REPORT -

Prepared For: Community Government of Wekweeti

Address: P.O. Box 69
Wekweeti, NT
X1A 1W0

Attn: SAO

Facsimile: (867) 713-2030

Final report has been reviewed and approved by:

Glen Hudy
Quality Assurance Officer

NOTES:

- Test methods and data are validated by the laboratory's Quality Assurance Program. Taiga Environmental Laboratory is accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) to ISO/IEC 17025 as a testing laboratory for specific tests registered with CALA.
- Routine methods are based on recognized procedures from sources such as
 - Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
 - Environment Canada
 - USEPA
- Samples shall be kept for thirty (30) days after the final report is issued. All microbiological samples shall be disposed of immediately upon completion of analysis to minimize biohazardous risks to laboratory personnel. Please contact the laboratory if you have any special requirements.
- Final results are based on the specific tests at the time of analysis and do not represent the conditions during sampling.

ReportDate: Saturday, September 05, 2020

Print Date: *Saturday, September 05, 2020*

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
200666

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **SNP 001-2**

Taiga Sample ID: **001**

Client Project: W2017L3-0001

Sample Type: Sewage

Received Date: 26-Aug-20

Sampling Date: 25-Aug-20

Sampling Time: 11:00

Location: Wekweeti

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	11.9	0.005	mg/L	28-Aug-20	SM4500-NH3:G	
CBOD	157	2	mg/L	27-Aug-20	SM5210:B	
Phosphorous, Total	4.95	0.002	mg/L	01-Sep-20	SM4500-P:D	
<u>Inorganics - Physicals</u>						
pH	6.92		pH units	27-Aug-20	SM4500-H:B	
Solids, Total Suspended	174	3	mg/L	31-Aug-20	SM2540:D	
<u>Microbiology</u>						
Coliforms, Fecal		1	CFU/100mL		SM9222:D	105
<u>Organics</u>						
Hexane Extractable Material	5.7	2.0	mg/L	04-Sep-20	EPA1664A	
<u>Trace Metals, Total</u>						
Mercury	< 0.01	0.01	µg/L	03-Sep-20	EPA200.8	

ReportDate: Saturday, September 05, 2020

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
200666

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **SNP 001-3**

Taiga Sample ID: **002**

Client Project: W2017L3-0001

Sample Type: Outflow

Received Date: 26-Aug-20

Sampling Date: 25-Aug-20

Sampling Time: 11:00

Location: Wekweeti

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	0.011	0.005	mg/L	28-Aug-20	SM4500-NH3:G	
CBOD	< 2	2	mg/L	27-Aug-20	SM5210:B	
Phosphorous, Total	0.011	0.002	mg/L	01-Sep-20	SM4500-P:D	
<u>Inorganics - Physicals</u>						
pH	6.76		pH units	27-Aug-20	SM4500-H:B	
Solids, Total Suspended	< 3	3	mg/L	31-Aug-20	SM2540:D	
<u>Microbiology</u>						
Coliforms, Fecal		1	CFU/100mL		SM9222:D	105
<u>Organics</u>						
Hexane Extractable Material	< 2.0	2.0	mg/L	04-Sep-20	EPA1664A	
<u>Trace Metals, Total</u>						
Mercury	< 0.01	0.01	µg/L	03-Sep-20	EPA200.8	

ReportDate: Saturday, September 05, 2020

Print Date: *Saturday, September 05, 2020*



Taiga Environmental Laboratory
 4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
 Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
 200666

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **SNP 001-4**

Taiga Sample ID: **003**

Client Project: W2017L3-0001

Sample Type: Runoff

Received Date: 26-Aug-20

Sampling Date: 25-Aug-20

Sampling Time: 11:00

Location: Wekweeti

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Physicals</u>						
pH	7.44		pH units	27-Aug-20	SM4500-H:B	
Solids, Total Suspended	< 3	3	mg/L	31-Aug-20	SM2540:D	
<u>Trace Metals, Total</u>						
Aluminum	13.9	5	µg/L	03-Sep-20	EPA200.8	
Arsenic	0.3	0.2	µg/L	03-Sep-20	EPA200.8	
Barium	16.2	0.1	µg/L	03-Sep-20	EPA200.8	
Cadmium	< 0.1	0.1	µg/L	03-Sep-20	EPA200.8	
Chromium	0.1	0.1	µg/L	03-Sep-20	EPA200.8	
Copper	0.7	0.2	µg/L	03-Sep-20	EPA200.8	
Iron	163	5	µg/L	03-Sep-20	EPA200.8	
Manganese	13.3	0.1	µg/L	03-Sep-20	EPA200.8	
Mercury	< 0.01	0.01	µg/L	03-Sep-20	EPA200.8	
Molybdenum	0.2	0.1	µg/L	03-Sep-20	EPA200.8	
Nickel	0.7	0.1	µg/L	03-Sep-20	EPA200.8	
Selenium	< 0.5	0.5	µg/L	03-Sep-20	EPA200.8	
Strontium	62.9	0.1	µg/L	03-Sep-20	EPA200.8	

ReportDate: Saturday, September 05, 2020

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Taiga Environmental Laboratory

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Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

200666

- CERTIFICATE OF ANALYSIS -

Client Sample ID: SNP 001-4

Taiga Sample ID: 003

Uranium	0.3	0.1	µg/L	03-Sep-20	EPA200.8
Zinc	< 5.0	5	µg/L	03-Sep-20	EPA200.8

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

200666

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **SNP 001-4**

Taiga Sample ID: **003**

- DATA QUALIFIERS -

Data Qualifier Descriptions:

105 *Samples received past hold time; analysis not possible.*

*** Taiga analytical methods are based on the following standard analytical methods**

SM - Standard Methods for the Examination of Water and Wastewater

EPA - United States Environmental Protection Agency

ReportDate: Saturday, September 05, 2020

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Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
200834

- FINAL REPORT -

Prepared For: Community Government of Wekweeti

Address: P.O. Box 69
Wekweeti, NT
X1A 1W0

Attn: SAO

Facsimile: (867) 713-2030

Final report has been reviewed and approved by:

Glen Hudy
Quality Assurance Officer

NOTES:

- Test methods and data are validated by the laboratory's Quality Assurance Program. Taiga Environmental Laboratory is accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) to ISO/IEC 17025 as a testing laboratory for specific tests registered with CALA.
- Routine methods are based on recognized procedures from sources such as
 - Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
 - Environment Canada
 - USEPA
- Samples shall be kept for thirty (30) days after the final report is issued. All microbiological samples shall be disposed of immediately upon completion of analysis to minimize biohazardous risks to laboratory personnel. Please contact the laboratory if you have any special requirements.
- Final results are based on the specific tests at the time of analysis and do not represent the conditions during sampling.

ReportDate: Friday, October 16, 2020

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
200834

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **SNP 001-2**

Taiga Sample ID: **001**

Client Project: W2017L3-0001

Sample Type: Sewage

Received Date: 29-Sep-20

Sampling Date: 28-Sep-20

Sampling Time: 11:00

Location: Wekweeti

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	< 0.005	0.005	mg/L	02-Oct-20	SM4500-NH3:G	
CBOD	< 2	2	mg/L	30-Sep-20	SM5210:B	
Phosphorous, Total	0.008	0.002	mg/L	30-Sep-20	SM4500-P:D	
<u>Inorganics - Physicals</u>						
pH	6.77		pH units	29-Sep-20	SM4500-H:B	
Solids, Total Suspended	< 3	3	mg/L	29-Sep-20	SM2540:D	
<u>Microbiology</u>						
Coliforms, Fecal	< 1	1	CFU/100mL	29-Sep-20	SM9222:D	88
<u>Subcontracted Organics</u>						
Hexane Extractable Material	< 1.0	1	mg/L	14-Oct-20	APHA 5520B	
<u>Trace Metals, Total</u>						
Mercury	< 0.01	0.01	µg/L	02-Oct-20	EPA200.8	

ReportDate: Friday, October 16, 2020

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Taiga Environmental Laboratory
 4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
 Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
 200834

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **SNP 001-3**

Taiga Sample ID: **002**

Client Project: W2017L3-0001

Sample Type: Outflow

Received Date: 29-Sep-20

Sampling Date: 28-Sep-20

Sampling Time: 11:00

Location: Wekweeti

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	9.85	0.005	mg/L	02-Oct-20	SM4500-NH3:G	
CBOD	33	2	mg/L	30-Sep-20	SM5210:B	
Phosphorous, Total	1.83	0.002	mg/L	30-Sep-20	SM4500-P:D	
<u>Inorganics - Physicals</u>						
pH	7.20		pH units	29-Sep-20	SM4500-H:B	
Solids, Total Suspended	50	3	mg/L	29-Sep-20	SM2540:D	
<u>Microbiology</u>						
Coliforms, Fecal		1	CFU/100mL	29-Sep-20	SM9222:D	15
<u>Subcontracted Organics</u>						
Hexane Extractable Material	< 1.0	1	mg/L	14-Oct-20	APHA 5520B	
<u>Trace Metals, Total</u>						
Mercury	0.01	0.01	µg/L	02-Oct-20	EPA200.8	

ReportDate: Friday, October 16, 2020

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Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
200834

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **SNP 001-4**

Taiga Sample ID: **003**

Client Project: W2017L3-0001

Sample Type: Runoff

Received Date: 29-Sep-20

Sampling Date: 28-Sep-20

Sampling Time: 11:00

Location: Wekweeti

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Physicals</u>						
pH	7.49		pH units	29-Sep-20	SM4500-H:B	
Solids, Total Suspended	< 3	3	mg/L	29-Sep-20	SM2540:D	
<u>Trace Metals, Total</u>						
Aluminum	8.3	5	µg/L	02-Oct-20	EPA200.8	
Antimony	< 0.1	0.1	µg/L	02-Oct-20	EPA200.8	
Arsenic	0.3	0.2	µg/L	02-Oct-20	EPA200.8	
Barium	14.3	0.1	µg/L	02-Oct-20	EPA200.8	
Beryllium	< 0.1	0.1	µg/L	02-Oct-20	EPA200.8	
Cadmium	< 0.1	0.1	µg/L	02-Oct-20	EPA200.8	
Cesium	< 0.1	0.1	µg/L	02-Oct-20	EPA200.8	
Chromium	0.1	0.1	µg/L	02-Oct-20	EPA200.8	
Cobalt	0.1	0.1	µg/L	02-Oct-20	EPA200.8	
Copper	0.7	0.2	µg/L	02-Oct-20	EPA200.8	
Iron	241	5	µg/L	02-Oct-20	EPA200.8	
Lead	< 0.1	0.1	µg/L	02-Oct-20	EPA200.8	
Lithium	0.5	0.2	µg/L	02-Oct-20	EPA200.8	

ReportDate: Friday, October 16, 2020

Print Date: **Friday, October 16, 2020**



Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
200834

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **SNP 001-4**

Taiga Sample ID: **003**

Manganese	19.5	0.1	µg/L	02-Oct-20	EPA200.8
Mercury	< 0.01	0.01	µg/L	02-Oct-20	EPA200.8
Molybdenum	0.2	0.1	µg/L	02-Oct-20	EPA200.8
Nickel	0.6	0.1	µg/L	02-Oct-20	EPA200.8
Rubidium	3.7	0.1	µg/L	02-Oct-20	EPA200.8
Selenium	< 0.5	0.5	µg/L	02-Oct-20	EPA200.8
Silver	< 0.1	0.1	µg/L	02-Oct-20	EPA200.8
Strontium	64.4	0.1	µg/L	02-Oct-20	EPA200.8
Thallium	< 0.1	0.1	µg/L	02-Oct-20	EPA200.8
Titanium	0.2	0.1	µg/L	02-Oct-20	EPA200.8
Uranium	0.3	0.1	µg/L	02-Oct-20	EPA200.8
Vanadium	0.1	0.1	µg/L	02-Oct-20	EPA200.8
Zinc	< 5.0	5	µg/L	02-Oct-20	EPA200.8

ReportDate: Friday, October 16, 2020

Print Date: *Friday, October 16, 2020*

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

200834

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **SNP 001-4**

Taiga Sample ID: **003**

- DATA QUALIFIERS -

Data Qualifier Descriptions:

- 15 *Matrix interference, unable to report value.*
- 88 *Samples analysed past holding time, as per client request.*

*** Taiga analytical methods are based on the following standard analytical methods**

SM - Standard Methods for the Examination of Water and Wastewater

EPA - United States Environmental Protection Agency

ReportDate: Friday, October 16, 2020

Print Date: *Friday, October 16, 2020*

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