



Hamlet of *Tuktoyaktuk*

Water Licence Number: *N. 7L3-0714*

Municipal Water Licence

Annual Report for the Year *2017*

Date Prepared: *MAY 28 / 18*

Municipal Water Licence Annual Report

Hamlet of Tatouakukuk
Licence # N7L3-0714
Reporting year 2018

1. Water Usage

Table 1: Monthly and annual quantities of fresh water obtained from all sources

Month	Volume from Source (m ³ or L)	Volume from any other Source (m ³ or L)
January	3,520,900 (L)	
February	3,619,840 (L)	
March	4,302,000 (L)	
April	3,850,700 (L)	
May	4,434,860 (L)	
June	4,382,760 (L)	
July	4,378,860 (L)	
August	4,546,030 (L)	
September	4,102,610 (L)	
October	4,595,510 (L)	
November	4,155,890 (L)	
December	3,810,650 (L)	
TOTALS	49,700,610 (L)	0
ANNUAL TOTAL (m³ or L)	49,700,610 (L)	
% Increase or decrease from previous year	0.04% INCREASE	

Reasons for increase / decrease (if applicable):

CUSTOMER DEMAND

Reasons for exceeding licensed withdrawal volumes (if applicable):

0

General information:

there WAS AN INCREASE of WATER used of 21,690(L) for 2017

2. Sewage Disposal

Table 2: Monthly and annual quantities of sewage discharged to the sewage disposal facilities

Month	Volume of sewage discharged (m ³ or L)
January	3,526,900 (L)
February	3,619,840 (L)
March	4,302,000 (L)
April	3,850,700 (L)
May	4,434,800 (L)
June	4,382,760 (L)
July	4,378,860 (L)
August	4,546,030 (L)
September	4,102,610 (L)
October	4,595,510 (L)
November	4,155,890 (L)
December	3,810,650 (L)
ANNUAL TOTAL (m³ or L)	49,700,610 (L)
% Increase or decrease from previous year	0.04 % INCREASE

3. Hazardous Waste Storage and Transportation

On Table 3, list the types of hazardous waste accepted into the facility including volumes.

Table 3: Monthly and annual quantities of hazardous waste stored on site and transported off site

Month	Type of hazardous waste accepted (Volume in m ³ or L)	Type of hazardous waste transported off site (Volume in m ³ or L)
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		
ANNUAL TOTAL (m³ or L)		
% Increase or decrease from previous year		

If hazardous waste has been transported off site this year, please describe how it was transported and the final destination:

NIL

Please include treatment or disposal plans for the remaining quantities:

STORE UNTIL TRANSPORTED AT GARAGE YARD.

Please describe any changes or improvements to temporary hazardous waste storage areas:

NIL

4. Sewage Sludge Removal

Table 4: Monthly and annual quantities of sewage sludge removed from the sewage disposal facilities and disposal location

Month	Volume of sewage sludge removed (m ³ or L)	Disposal location
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		
ANNUAL TOTAL (m³ or L)		
% Increase or decrease from previous year		

5. Problems, Modifications or Repairs Completed During the Year on Water Supply and Waste Disposal Facilities

Include any changes to infrastructure of all facilities completed during the year, including any changes, repairs and modifications. Please note any problems that occurred during the year. If there are no changes, make note of that also.

REPAIRED BREAKS IN PIPE LINE BEFORE ANNUAL RE-FILL
NO CHANGES/REPAIRS AT WTP OTHER THAN ROUTINE MAINTENANCE

6. SNP Data

A condition of the Water Licence is the Surveillance Network Program (SNP). The SNP outlines the sampling requirements and frequency at monitoring stations. In table 5, insert the sites sampled during the reporting year and the sampling period (sampling date). Attach the complete Taiga Laboratory results, with your "Municipal Water Licence Annual Report" to the Inuvialuit Water Board.

Table 5: Sampling station and sampling period

Sampling station	After break-up	Prior to freeze-up
SNP-0714-2	SEPT 16/17 TAIGA BATCH # 170934	
SNP-0714-2		OCT. 27/17 TAIGA BATCH # 171111

7. Spills and Unauthorized Discharges

List any spills and unauthorized discharges, how and when they were reported, and clean up methods.

NIL

8. Spill Response Training and/or other Operator Training

Please provide a description of any Spill Response Training and/or other operator training carried out during the year.

CIRCUIT RIDER WITH WACA REPS.

9. Closure and Reclamation

Include a description of any closure, remediation and/or reclamation activities completed during the year and an outline of any work anticipated for next year.

NIL

10. Studies Requested by the Board that Relate to Water Use, Waste Disposal or Closure and Reclamation

If the Board has requested that specific studies be completed or have asked for specific information be included in the annual report, include these details in this section. Include a summary report of the study completed and the results. Include as attachments with the submission of the Annual Report. Include details of any upcoming studies that will be completed by the Hamlet.

NIL

11. Updates or Revisions to Approved Plans

Include details on any changes to approved plans such as the Solid and Sewage Waste Disposal Facilities Operating and Maintenance Plan (O&M Plan) or any other plans specific to your Water Licence.

- *Spill Contingency Plan*
- *Solid Waste Disposal Facilities Operation and Maintenance Plan*
- *Sewage Disposal Facilities Operation and Maintenance Plan*
- *Hazardous Waste Management Plan*
- *Closure and Reclamation Plan*

NIL

12. Inspection of Dams, Berms, Dykes and Control Structures

Include results of any inspections of all dams, berms, dykes and control structures related to the water intake facilities, solid waste disposal facilities, sewage disposal facilities and/or any other specific to your water licence.

ATTACHED: - 2017 SEWAGE LAGOON/SOLID WASTE DISPOSAL SITE ANNUAL REPORT.

13. Inspections on all Water and Waste Disposal Facilities

Include results of regular staff inspections on all water and waste disposal facilities authorized under this licence and any corrective actions taken, as necessary.

ATTACHED: - 2017 SEWAGE LAGOON/SOLID WASTE DISPOSAL SITE ANNUAL REPORT.

- 2017 TUKTOYAKTUK WATER RESERVOIR ANNUAL REFILL REPORT.

14. Correspondence between the Inspector and the Licensee

Include all correspondence between the Inspector and the Licensee with your annual report.

15. Other Information

Include any other details on waste disposal requested by the Board by November 1, of the year being reported. In this section you may include non-compliance items identified in the inspection reports and how the Hamlet is addressing them. If there are any contaminated soil piles currently in use, please list the details of containment, remediation, and progress in this section. Ongoing issues with compliance can be identified here. If the IWB is aware of ongoing problems with the licence, discussions can occur to find a resolution.

ATTACHED: { SOLID WASTE SITE
SEWAGE LAGOON FINAL RESULTS
TAIGA BATCH # 170934
- SEWAGE LAGOON FINAL RESULTS
TAIGA BATCH # 171111

THE SEWAGE LAGOON AND SOLID WASTE DISPOSAL SITE WERE BOTH INSPECTED ON SEPTEMBER 07, 2017.

SEWAGE LAGOON BERM:

- THE BERM WAS INSPECT WITH NO DEFICIENCIES. THE FREE BOARD WAS AT 1.1 METERS.

SEWGAE LAGOON DISCHARGE CHUTES:

- NORTH DISCHARGE CHUTE WAS IN GOOD CONDITION WITH NO LEAKS DETECTED.
- SOUTH DISCHARGE WAS DAMAGED AND IT WAS TOO DAMAGED TO BE USED AND IT WAS BARRICADED TO PREVENT ANYONE TO USE IT.

2017 SEWAGE LAGOON CONTROLLED DECANT:

- SAMPLES WERE TAKEN AND SENT OUT TO TAIGA LABORATORIES IN YELLOWKNIFE ON SEPTEMBER 14, 2017. RECEIVED THE RESULTS ON SEPTEMBER 27, 2017 AND FORWARDED TO ENR FOR PERMISSION TO DECANT. PERMISSION WAS GIVEN THE SAME DAY AND STARTED DECANTING ON OCTOBER 02, 2017. COMPLETED DECANTING ON OCTOBER 10, 2018. SAMPLES WERE TAKEN OCTOBER 26, 2017 AND SENT TO TAIGA LABS. RECEIVED FINAL RESULTS ON NOVEMBER 09, 2017 AND SENT TO ENR.

SOLID WASTE DISPOSAL SITE BERM:

- THE BERM WAS INSPECTED AND NO ISSUES WE DETECTED. THE FREE BOARD WAS AROUND 1 METER. NO DECANTING REQUIRED.

REPORT SUBMITTED ON NOVEMBER 14, 2017.



**DAVY KRENGNEKTAK
MUNICIPAL WORKS MANAGER
INC. HAMLET OF TUKTOYAKTUK**

2017 TUKTOYAKTUK WATER RESERVOIR ANNUAL REFILL REPORT

2017 ANNUAL RESERVOIR REFILL BEGAN ON AUGUST 16, 2017. HAULED ARGO ACROSS TO KUDLAK LAKE TO START CONNECTING THE PIPELINE, SUCTION/PONTOON LINE AND PROPANE LINES. COMPLETED CONNECTING ALL LINES ON AUGUST 24, 2017 AND STARTED PUMPING ON AUGUST 25, 2017. NO ISSUES WITH PIPELINE WHEN WE INSPECTED THE PIPELINE, PUMP AND RESERVOIR.

STARTED PUMPING: AUGUST 25, 2017 AT 6 PM.

PUMP HOUR METER: 04299.6

RPM: 1500

RESERVOIR DEPTH: 16 FEET

PROPANE TANK LEVELS:

- TANK #1 – 1000 LB. AT 85%
- TANK #2 – 1000 LB. AT 85%
- TANK #3 – 500 LB. AT 90%
- TANK #4 – 500 LB. AT 90%
- TANK #5 – 500 LB. AT 90%
- TANK #6 – 500 LB. AT 90%

COMPLETION DATE: SEPTEMBER 21, 2017 AT 9:30 AM.

PUMP HOUR METER: 04925.5

COMPLETION DEPTH: 23'1"

PROPANE TANK LEVELS:

- TANK # 1 AT 0%
- TANK #2 AT 0%
- TANK #3 AT 20%
- TANK #4 AT 0%
- TANK #5 AT 0%
- TANK #6 AT 5%

THE PUMP HAD NO ISSUES, BUT THE PIPELINE HAD A LOT OF SMALL HOLES IN THE HARBOR FROM THE PREVIOUS YEAR DUE TO DRILLING HOLES TO SINK THE PIPELINE WHEN COMPLETED. THE 2018 ANNUAL REFILL WILL HAVE TO DO SOME REPAIRS AND ORDER POLYMER WEIGHTS FOR THE PIPELINE.

SUBMITTED ON OCTOBER 12, 2017.



DAVY KRENGNEKTAK
MUNICIPAL WORKS MANAGER
INC. HAMLET OF TUKTOYAKTUK



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

Taiga Batch No.:
170934

- FINAL REPORT -

Prepared For: Hamlet of Tuktoyaktuk

Address: P.O. Box 120
Tuktoyaktuk, NT
X0E 1C0

Attn: Davy Krengnektak

Facsimile: (867) 977-2110

Final report has been reviewed and approved by:

Bruce Stuart
Manager

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: Monday, November 06, 2017

Print Date: Monday, November 06, 2017

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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.:
170934

- CERTIFICATE OF ANALYSIS -

Client Sample ID: Sewage Lagoon SNP 0714-2

Taiga Sample ID: 001

Client Project:

Sample Type: Water

Received Date: 15-Sep-17

Sampling Date: 14-Sep-17

Sampling Time: 9:00

Location: Sewage Lagoon SNP-0714-2

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	16.8	0.005	mg/L	19-Sep-17	SM4500-NH3:G	
Biochemical Oxygen Demand	8	2	mg/L	15-Sep-17	SM5210:B	81
<u>Inorganics - Physicals</u>						
pH	7.57		pH units	15-Sep-17	SM4500-H:B	
Solids, Total Suspended	3	3	mg/L	18-Sep-17	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	22-Sep-17	EPA1664A	

ReportDate: Monday, November 06, 2017

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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.:
170934

- CERTIFICATE OF ANALYSIS -

Client Sample ID: Solid Waste Site

Taiga Sample ID: 002

Client Project:

Sample Type: Water
Received Date: 15-Sep-17
Sampling Date: 14-Sep-17
Sampling Time: 9:15

Location: Solid Waste Site

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Nutrients</u>						
Biochemical Oxygen Demand	3	2	mg/L	15-Sep-17	SM5210:B	
<u>Inorganics - Physicals</u>						
pH	8.33		pH units	15-Sep-17	SM4500-H:B	
Solids, Total Suspended	7	3	mg/L	18-Sep-17	SM2540:D	
<u>Microbiology</u>						
Coliforms, Fecal		1	CFU/100mL		SM9222:D	105
<u>Subcontracted Organics</u>						
Polychlorinated Biphenyls	< 0.00005	0.000050	mg/L	10-Oct-17	EPA3510	
<u>Trace Metals, Total</u>						
Cadmium	< 0.1	0.1	µg/L	22-Sep-17	EPA200.8	
Chromium	0.2	0.1	µg/L	22-Sep-17	EPA200.8	
Cobalt	0.1	0.1	µg/L	22-Sep-17	EPA200.8	
Copper	0.8	0.2	µg/L	22-Sep-17	EPA200.8	
Iron	246	5	µg/L	22-Sep-17	EPA200.8	
Lead	0.1	0.1	µg/L	22-Sep-17	EPA200.8	
Manganese	11.9	0.1	µg/L	22-Sep-17	EPA200.8	

ReportDate: Monday, November 06, 2017

Print Date: Monday, November 06, 2017



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

Taiga Batch No.:
170934

- CERTIFICATE OF ANALYSIS -

Client Sample ID: Solid Waste Site

Taiga Sample ID: 002

Mercury	< 0.01	0.01	µg/L	22-Sep-17	EPA200.8
Nickel	2.8	0.1	µg/L	22-Sep-17	EPA200.8
Zinc	13.1	5	µg/L	22-Sep-17	EPA200.8

ReportDate: Monday, November 06, 2017
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Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
170934

- CERTIFICATE OF ANALYSIS -

Client Sample ID: Solid Waste Site

Taiga Sample ID: 002

- DATA QUALIFIERS -

Data Qualifier Descriptions:

- 105 *Samples received past hold time; analysis not possible.*
- 81 *Results are inconclusive due to insufficient depletion of sample, minimum 2 mg/L required over 5 days.*

*** 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: Monday, November 06, 2017

Print Date: Monday, November 06, 2017

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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.:
171111

- FINAL REPORT -

Prepared For: Hamlet of Tuktoyaktuk

Address: P.O. Box 120
Tuktoyaktuk, NT
X0E 1C0

Attn: Davy Krengnektak

Facsimile: (867) 977-2110

Final report has been reviewed and approved by:

Judy Mah
Client Service 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: Thursday, November 09, 2017

Print Date: Thursday, November 09, 2017

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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.:
171111

- CERTIFICATE OF ANALYSIS -

Client Sample ID: Sewage Lagoon SNP-0714-2

Taiga Sample ID: 001

Client Project:

Sample Type: Water

Received Date: 26-Oct-17

Sampling Date: 26-Oct-17

Sampling Time: 9:05

Location: Sewage Lagoon SNP-0714-2

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	19.7	0.005	mg/L	03-Nov-17	SM4500-NH3:G	
Biochemical Oxygen Demand	7	2	mg/L	27-Oct-17	SM5210:B	55
<u>Inorganics - Physicals</u>						
pH	8.13		pH units	27-Oct-17	SM4500-H:B	
Solids, Total Suspended	15	3	mg/L	02-Nov-17	SM2540:D	
<u>Microbiology</u>						
Coliforms, Fecal	120	10	CFU/100mL	26-Oct-17	SM9222:D	
<u>Organics</u>						
Hexane Extractable Material	2.8	2.0	mg/L	08-Nov-17	EPA1664A	

ReportDate: Thursday, November 09, 2017

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

Taiga Batch No.:
171111

- CERTIFICATE OF ANALYSIS -

Client Sample ID: Sewage Lagoon SNP-0714-2

Taiga Sample ID: 001

- 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

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