

INUVIALUIT  
SIVUNNIUQPAIT  
IMAKKUN



INUVIALUIT  
WATER  
BOARD

**Hamlet of**

Tuktoyaktuk

**Water Licence Number:**

N7L3-0714

**Municipal Water Licence**

**Annual Report for the Year**

2018

**Date Prepared:**

May 09, 2019

### Municipal Water Licence Annual Report

Hamlet of Tuktoyaktuk  
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 <sup>3</sup> or L)	Volume from any other Source (m <sup>3</sup> or L)
January	3,694.55 m3	0
February	3,075.47 m3	0
March	3,361.35 m3	0
April	3,974.97 m3	0
May	4,016.51 m3	0
June	3,662.00 m3	0
July	4,242.89 m3	0
August	4,344.17 m3	0
September	3,777.42 m3	0
October	4,128.10 m3	0
November	3,846.63 m3	0
December	3,386.68 m3	0
<b>TOTALS</b>	<b>49,288.16 m3</b>	
<b>ANNUAL TOTAL (m<sup>3</sup> or L)</b>		
<b>% Increase or decrease from previous year</b>		

Reasons for increase / decrease (if applicable):

Reasons for exceeding licensed withdrawal volumes (if applicable):

General information:

## 2. Sewage Disposal

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

Month	Volume of sewage discharged (m <sup>3</sup> or L)
January	3,694.55 m <sup>3</sup>
February	3,075.47 m <sup>3</sup>
March	3,361.35 m <sup>3</sup>
April	3,974.97 m <sup>3</sup>
May	4,016.51 m <sup>3</sup>
June	3,662.00 m <sup>3</sup>
July	4,242.89 m <sup>3</sup>
August	4,344.17 m <sup>3</sup>
September	3,777.42 m <sup>3</sup>
October	4,128.10 m <sup>3</sup>
November	3,846.63 m <sup>3</sup>
December	3,386.68 m <sup>3</sup>
<b>ANNUAL TOTAL (m<sup>3</sup> or L)</b>	<b>49,288.16 m<sup>3</sup></b>
<b>% Increase or decrease from previous year</b>	

## 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 <sup>3</sup> or L)	Type of hazardous waste transported off site (Volume in m <sup>3</sup> or L)
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		
<b>ANNUAL TOTAL (m<sup>3</sup> or L)</b>		
<b>% Increase or decrease from previous year</b>		

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

N/A

Please include treatment or disposal plans for the remaining quantities:

We are scheduled to do inventory of all the Hazardous waste at our Temporary storage facility after the spring thaw.

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

Temporary fencing and signs were installed by the Hamlet Garage.

#### 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 <sup>3</sup> or L)	Disposal location
January	0	
February	0	
March	0	
April	0	
May	0	
June	0	
July	0	
August	0	
September	0	
October	0	
November	0	
December	0	
<b>ANNUAL TOTAL (m<sup>3</sup> or L)</b>	0	
<b>% Increase or decrease from previous year</b>		

**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.*

- Water pipeline across the harbor was repaired. Added coupling clamps and Polymer weights.  
- Sewage Lagoon had work done to the facility. The Dyke was raised about 4 meters, 2 new dumping chutes, pipes, RV dumping chute and cement tire stops were installed. A temporary dumping chute and access road was installed, and it was decided to keep the temporary access road and install one of the new dumping chutes at that location.  
- Surface work for the access and dumping pads are scheduled for the summer of 2019.

**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	Aug. 21/18 Batch No. 180785	Sept. 10/18 Batch No. 180912
SNP-0714-3	Aug. 30/18 Batch No. 180846	Sept. 25/18 Batch No. 181043
SNP-0714-1	Jan. 08/19 Batch No. 190001	Annual Drinking Water

**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.*

NIL

**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*

No Updates at this date.

## **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.*

2018 Sewage lagoon Report attached.

## **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.*

2018 Water Reservoir and Solid Waste Disposal Site attached.

## **14. Correspondence between the Inspector and the Licensee**

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

Not available at this time.

## **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.*

- 2018 Water Reservoir, Sewage lagoon and Solid Waste Disposal Site attached.  
- Taiga Environmental Laboratory Final Reports attached: SNP-0714-1 Batch No. 190011, SNP-0714-2 Batch No. 180785, 180912, SNP-0714-3 Batch No. 180846, 181043.

2018 ANNUAL RESERVOIR REFILL STARTED ON AUGUST 08/18 AT KUDLAK LAKE, CONNECTING THE SUCTION PIPELINE AND PONTOON. AUGUST 09/18 CONNECTED ALL FLANGES ACROSS THE HARBOR AND HOOKED UP ALL THE PROPANE LINES. AUGUST 21/18 THE RESERVOIR CREW STARTED REPAIRING THE PIPELINE ON THE HARBOR. 3 BOATS WITH OPERATORS WERE RENTED FOR THIS PROJECT, PLUS OUR OWN 2 BOATS. THE AIR COMPRESSOR WAS BROUGHT ACROSS THE HARBOR AND CONNECTED TO THE PIPELINE TO RAISE THE PIPELINE OUT OF THE WATER. 8 X 12 INCH CLAMPS WERE INSTALLED ON THE HOLES ON THE PIPELINE AND POLYMER WEIGHTS WAS ALSO INSTALLED WHERE THE CLAMPS WERE. AFTER COMPLETION OF INSTALLING THE CLAMPS AND WEIGHTS THE PUMP AT KUDLAK LAKE WAS STARTED TO SINK THE PIPELINE. THEY STARTED PUMPING FROM KUDLAKE LAKE ON AUGUST 22/18 AT 6 PM, BUT STOPPED THE PUMP AT 8 PM DUE TO A BROKEN PIPELINE ACROSS THE HARBOR. REPAIRED THE BROKEN LINE THE SAME EVENING, AND STARTED UP THE PUMP AT 1 AM.

START DATE: AUGUST 23, 2018 AT 1 AM.

PUMP HOUR METER: 04925.5

RESERVOIR DEPTH: 15 FT 1 IN

PROPANE LEVELS:

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

COMPLETION DATE: SEPTEMBER 12, 2018

RESERVOIR DEPTH: 21 FT 6 IN

PROPANE LEVELS:

- TANK #1 – 1000 LB AT 0%, TANK #2 – 1000 LB AT 0%  
TANK #3 – 500 LB AT 85%, TANK #4 – 500 LB AT 0%  
TANK # 5 – 500LB AT 18%, TANK # 6 – 500 LB AT 5%

WE HAD A FEW ISSUES WITH THE PONTOON FLIPPING OVER AT KUDLAK LAKE DUE TO HIGH WINDS. WE STILL HAVE TO DO WORK ON THE PIPELINE IN THE HARBOR THIS UPCOMING SEASON BEFORE WE START THE 2019 RESERVOIR REFILL, ADD MORE COUPLING CLAMPS AND POLYMER WEIGHTS.

SUBMITTED ON OCTOBER 24, 2018

DAVY KRENGNEKTAK  
MUNICIPAL WORKS MANAGER  
INC. HAMLET OF TUKTOYAKTUK



**THE SEWAGE LAGOON AND SOLID WASTE SITE WERE BOTH INSPECTED ON AUGUST 21, 2018.**

**SEAWAGE LAGOON BERM:**

- **THE BERM WAS INSPECTED WITH NO DEFICIENCIES. THE FREE BOARD WAS AT .75 METERS.**

**SEWAGE LAGOON DISCHARGE CHUTES:**

- **BOTH THE NORTH AND SOUTH DISCHARGE CHUTE WERE IN OKAY OPERATING CONDITIONS. THE TIRE STOPS WERE IN GOOD CONDITION.**

**2018 SEWAGE LAGOON CONTROLLED DECANT:**

- **SAMPLES WERE COLLECTED AND SENT OUT TO TAIGA LABORATORIES IN YELLOWKNIFE ON AUGUST 21, 2018. RECEIVED LAB RESULTS ON AUGUST 28, 2018. STARTED THE CONTROLLED LAGOON DECANT ON AUGUST 29, 2018 WITH ENR APPROVAL. HOUR METER WAS AT 4635.7 AND RPM WAS AT 1700. COMPLETION DATE WAS ON SEPTEMBER 08, 2018. HOUR METER READING WAS AT 4851.2. NO ISSUES DURING THE 2018 DECANT.**

**SOLID WASTE DISPOSAL SITE:**

- **THE BERM WAS INSPECTED ON AUGUST 21, 2018 WITH NO DEFICIENCIES. THE FREE BOARD WAS AT 0.25 METERS. DECANT WAS REQUIRED.**
- **SAMPLES WERE COLLECTED AND SENT OUT TO TAIGA LABORATORIES IN YELLOWKNIFE ON AUGUST 30, 2018. RECEIVED LAB RESULTS ON SEPTEMBER 13, 2018. STARTED THE CONTROLLED DECANT AT THE SOLID WASTE SITE ON SEPTEMBER 14, 2018 WITH ENR APPROVAL. HOUR METER WAS AT 4851.2 AND RPM AT 1500. COMPLETION DATE WAS ON SEPTEMBER 19, 2018. HOUR METER READING WAS AT 4958.4. NO ISSUE DURING DECANT.**
- **SEWAGE LAGOON UPGRADE: INUVIALUIT WATER BOARD HAS DOCUMENTATION FOR THE SEWAGE LAGOON UPGRADE.**

**SUBMITTED ON OCTOBER 25, 2018,**

**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.:**  
**190011**

**- FINAL REPORT -**

---

**Prepared For:** Hamlet of Tuktoyaktuk

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

**Attn:** Duncan Walker

**Facsimile:** (867) 977-2110

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**Final report has been reviewed and approved by:**

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**Glen Hudy**  
Quality Assurance Officer

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**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.

**Report Date:** Monday, January 21, 2019

**Print Date:** Monday, January 21, 2019

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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.:  
190011

## - CERTIFICATE OF ANALYSIS -

Client Sample ID:

Taiga Sample ID: 001

Client Project: Annual Drinking Water

Sample Type: Potable

Received Date: 09-Jan-19

Sampling Date: 08-Jan-19

Sampling Time: 8:00

Location: Tuktoyaktuk, NT

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<b><u>Inorganics - Nutrients</u></b>						
Organic Carbon, Dissolved	8.7	0.5	mg/L	16-Jan-19	SM5310:B	
Organic Carbon, Total	9.5	0.5	mg/L	17-Jan-19	SM5310:B	
<b><u>Inorganics - Physicals</u></b>						
Alkalinity, Total (as CaCO <sub>3</sub> )	78.3	0.4	mg/L	09-Jan-19	SM2320:B	
Colour, Apparent	27	5	CU	09-Jan-19	SM2120:B	
pH	7.39		pH units	09-Jan-19	SM4500-H:B	
Solids, Total Dissolved	116	10	mg/L	09-Jan-19	SM2540:C	
Solids, Total Suspended	< 3	3	mg/L	09-Jan-19	SM2540:D	
Turbidity	0.88	0.05	NTU	09-Jan-19	SM2130:B	
<b><u>Major Ions</u></b>						
Chloride	20.0	0.7	mg/L	10-Jan-19	SM4110:B	
Fluoride	< 0.1	0.1	mg/L	10-Jan-19	SM4110:B	
Hardness	83.9	0.7	mg/L	10-Jan-19	SM4110:B	
Nitrate as Nitrogen	0.26	0.01	mg/L	10-Jan-19	SM4110:B	

Report Date: Monday, January 21, 2019

Print Date: Monday, January 21, 2019



# Taiga Environmental Laboratory

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

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

Taiga Batch No.:  
190011

## - CERTIFICATE OF ANALYSIS -

Client Sample ID:

Taiga Sample ID: 001

Sodium	13.1	0.1	mg/L	10-Jan-19	SM4110:B
Sulphate	9	1	mg/L	10-Jan-19	SM4110:B
<b><u>Subcontracted Organics</u></b>					
Cyanide, Weak Acid Dissociable	0.0016	0.0010	mg/L	18-Jan-19	APHA4500-CN
<b><u>Trace Metals, Total</u></b>					
Aluminum	6.0	0.6	µg/L	10-Jan-19	EPA200.8
Arsenic	0.7	0.2	µg/L	10-Jan-19	EPA200.8
Barium	153	0.1	µg/L	10-Jan-19	EPA200.8
Cadmium	< 0.04	0.04	µg/L	10-Jan-19	EPA200.8
Chromium	< 0.1	0.1	µg/L	10-Jan-19	EPA200.8
Copper	11.7	0.2	µg/L	10-Jan-19	EPA200.8
Iron	176	5	ug/L	10-Jan-19	EPA200.8
Lead	0.3	0.1	µg/L	10-Jan-19	EPA200.8
Manganese	156	0.1	µg/L	10-Jan-19	EPA200.8
Mercury	< 0.01	0.01	µg/L	10-Jan-19	EPA200.8
Selenium	< 0.3	0.3	µg/L	10-Jan-19	EPA200.8
Uranium	0.1	0.1	µg/L	10-Jan-19	EPA200.8
Zinc	16.1	0.4	µg/L	10-Jan-19	EPA200.8

ReportDate: Monday, January 21, 2019

Print Date: Monday, January 21, 2019

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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.:**  
**190011**

**- CERTIFICATE OF ANALYSIS -**

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**Client Sample ID:**

**Taiga Sample ID: 001**

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**\* 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, January 21, 2019

**Print Date:** Monday, January 21, 2019

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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.:  
180785

### - PRELIMINARY 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:**

**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:**

**Print Date:** Monday, August 27, 2018

Page 1 of 3



**Taiga Environmental Laboratory**

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

**Taiga Batch No.:**  
**180785**

**- CERTIFICATE OF ANALYSIS -**

**Client Sample ID:** Sewage Lagoon (SNP-0714-2)

**Taiga Sample ID:** 001

**Client Project:**

**Sample Type:** Water  
**Received Date:** 21-Aug-18  
**Sampling Date:** 21-Aug-18  
**Sampling Time:** 8:15

**Location:**

**Report Status:** Preliminary

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<b><u>Inorganics - Nutrients</u></b>						
Ammonia as Nitrogen		0.005	mg/L		SM4500-NH3:G	
Biochemical Oxygen Demand		2	mg/L		SM5210:B	
<b><u>Inorganics - Physicals</u></b>						
pH	8.39		pH units	21-Aug-18	SM4500-H:B	
Solids, Total Suspended	< 3	3	mg/L	22-Aug-18	SM2540:D	
<b><u>Microbiology</u></b>						
Coliforms, Fecal	33000	1000	CFU/100mL	21-Aug-18	SM9222:D	
<b><u>Organics</u></b>						
Hexane Extractable Material	4.5	2.0	mg/L	23-Aug-18	EPA1664A	

**ReportDate:**

**Print Date:** Monday, August 27, 2018



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

**Taiga Batch No.:**  
**180785**

**- CERTIFICATE OF ANALYSIS -**

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**Client Sample ID: Sewage Lagoon (SNP-0714-2)**

**Taiga Sample ID: 001**

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- \* 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:**

**Print Date:** *Monday, August 27, 2018*

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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.:

180912

### - FINAL REPORT -

**Prepared For:** Hamlet of Tuktoyaktuk

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

**Attn:** Duncan Walker

**Facsimile:** (867) 977-2110

**Final report has been reviewed and approved by:**

A handwritten signature in black ink, appearing to read 'Judy Mah'.

**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.
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  - Environment Canada
  - USEPA
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- Final results are based on the specific tests at the time of analysis and do not represent the conditions during sampling.

**ReportDate:** Tuesday, October 02, 2018

**Print Date:** Tuesday, October 02, 2018

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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.:  
180912

### - CERTIFICATE OF ANALYSIS -

Client Sample ID: Sewage Lagoon (SNP-0714-2)

Taiga Sample ID: 001

**Client Project:**

Sample Type: Water

Received Date: 10-Sep-18

Sampling Date: 10-Sep-18

Sampling Time: 8:00

**Location:**

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<b><u>Inorganics - Nutrients</u></b>						
Ammonia as Nitrogen	4.29	0.005	mg/L	12-Sep-18	SM4500-NH3:G	
Biochemical Oxygen Demand	36	2	mg/L	11-Sep-18	SM5210:B	
<b><u>Inorganics - Physicals</u></b>						
pH	7.84		pH units	11-Sep-18	SM4500-H:B	
Solids, Total Suspended	58	3	mg/L	11-Sep-18	SM2540:D	
<b><u>Microbiology</u></b>						
Coliforms, Fecal	38000	1000	CFU/100mL	10-Sep-18	SM9222:D	
<b><u>Organics</u></b>						
Hexane Extractable Material	2.8	2.0	mg/L	12-Sep-18	EPA1664A	

ReportDate: Tuesday, October 02, 2018

Print Date: Tuesday, October 02, 2018

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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.:**  
**180912**

**- CERTIFICATE OF ANALYSIS -**

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**Client Sample ID: Sewage Lagoon (SNP-0714-2)**

**Taiga Sample ID: 001**

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**\* 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:** Tuesday, October 02, 2018  
**Print Date:** Tuesday, October 02, 2018

*Page 3 of 3*



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

**Taiga Batch No.:**  
180846

**- 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:**

---

**Glen Hudy**  
Quality Assurance Officer

---

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**ReportDate:** Wednesday, September 12, 2018

**Print Date:** Wednesday, September 12, 2018

*Page 1 of 4*



## Taiga Environmental Laboratory

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

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

Taiga Batch No.:  
180846

### - CERTIFICATE OF ANALYSIS -

Client Sample ID: Solid Waste Site

Taiga Sample ID: 001

**Client Project:**

**Sample Type:** Water

**Received Date:** 30-Aug-18

**Sampling Date:** 30-Aug-18

**Sampling Time:** 8:03

**Location:**

**Report Status:** Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<b><u>Inorganics - Nutrients</u></b>						
Biochemical Oxygen Demand	3	2	mg/L	30-Aug-18	SM5210:B	
<b><u>Inorganics - Physicals</u></b>						
pH	8.47		pH units	31-Aug-18	SM4500-H:B	
Solids, Total Suspended	< 3	3	mg/L	31-Aug-18	SM2540:D	
<b><u>Microbiology</u></b>						
Coliforms, Fecal	< 1	1	CFU/100mL	30-Aug-18	SM9222:D	
<b><u>Subcontracted Organics</u></b>						
Polychlorinated Biphenyls	< 0.00100	0.0010	mg/L	10-Sep-18	EPA3510	
<b><u>Trace Metals, Total</u></b>						
Cadmium	< 0.1	0.1	µg/L	05-Sep-18	EPA200.8	
Chromium	0.3	0.1	µg/L	05-Sep-18	EPA200.8	
Cobalt	0.1	0.1	µg/L	05-Sep-18	EPA200.8	
Copper	1.3	0.2	µg/L	05-Sep-18	EPA200.8	
Iron	278	5	µg/L	05-Sep-18	EPA200.8	
Lead	0.2	0.1	µg/L	05-Sep-18	EPA200.8	

ReportDate: Wednesday, September 12, 2018

Print Date: Wednesday, September 12, 2018

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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.:  
180846

## - CERTIFICATE OF ANALYSIS -

---

Client Sample ID: Solid Waste Site

Taiga Sample ID: 001

Manganese	13.5	0.1	µg/L	05-Sep-18	EPA200.8
Mercury	< 0.01	0.01	µg/L	05-Sep-18	EPA200.8
Nickel	2.8	0.1	µg/L	05-Sep-18	EPA200.8
Zinc	23.5	5	µg/L	05-Sep-18	EPA200.8

ReportDate: Wednesday, September 12, 2018

Print Date: Wednesday, September 12, 2018

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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.:**  
**180846**

**- CERTIFICATE OF ANALYSIS -**

---

**Client Sample ID: Solid Waste Site**

**Taiga Sample ID: 001**

- \* 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:** Wednesday, September 12, 2018

**Print Date:** Wednesday, September 12, 2018

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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.:

181043

### - FINAL REPORT -

**Prepared For:** Hamlet of Tuktoyaktuk

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

**Attn:** Duncan Walker

**Facsimile:** (867) 977-2110

**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:** Thursday, October 18, 2018

**Print Date:** Thursday, October 18, 2018

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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.:**  
**181043**

**- CERTIFICATE OF ANALYSIS -**

**Client Sample ID: Solid Waste Site**

**Taiga Sample ID: 001**

**Client Project:**

**Sample Type:** Water  
**Received Date:** 25-Sep-18  
**Sampling Date:** 25-Sep-18  
**Sampling Time:** 8:20

**Location:**

**Report Status:** Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<b><u>Inorganics - Nutrients</u></b>						
Biochemical Oxygen Demand	17	2	mg/L	26-Sep-18	SM5210:B	
<b><u>Inorganics - Physicals</u></b>						
pH	8.18		pH units	26-Sep-18	SM4500-H:B	
Solids, Total Suspended	74	3	mg/L	27-Sep-18	SM2540:D	
<b><u>Microbiology</u></b>						
Coliforms, Fecal	< 1	1	CFU/100mL	25-Sep-18	SM9222:D	
<b><u>Subcontracted Organics</u></b>						
Polychlorinated Biphenyls	< 0.00005	0.00005	mg/L	03-Oct-18	EPA3510	
<b><u>Trace Metals, Total</u></b>						
Cadmium	0.1	0.1	µg/L	14-Oct-18	EPA200.8	
Chromium	12.9	0.1	µg/L	14-Oct-18	EPA200.8	
Cobalt	0.7	0.1	µg/L	14-Oct-18	EPA200.8	
Copper	5.1	0.2	µg/L	14-Oct-18	EPA200.8	
Iron	3500	5	µg/L	14-Oct-18	EPA200.8	
Lead	2.5	0.1	µg/L	14-Oct-18	EPA200.8	

**ReportDate:** Thursday, October 18, 2018

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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.:**  
**181043**

**- CERTIFICATE OF ANALYSIS -**

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**Client Sample ID: Solid Waste Site**

**Taiga Sample ID: 001**

Manganese	151	0.1	µg/L	14-Oct-18	EPA200.8
Mercury	0.01	0.01	µg/L	14-Oct-18	EPA200.8
Nickel	4.5	0.1	µg/L	14-Oct-18	EPA200.8
Zinc	130	5	µg/L	14-Oct-18	EPA200.8

**ReportDate:** Thursday, October 18, 2018  
**Print Date:** Thursday, October 18, 2018

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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.:**  
**181043**

### - CERTIFICATE OF ANALYSIS -

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**Client Sample ID: Solid Waste Site**

**Taiga Sample ID: 001**

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**ReportDate:** Thursday, October 18, 2018

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