



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

Taiga Batch No.:
200856

- FINAL REPORT -

Prepared For: Community Government of Behchoko

Address: P.O. Box 68
Behchoko, NT
X0E 0Y0

Attn: Galvin Simpson

Facsimile: (867) 392-6967

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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Taiga Batch No.:
200856

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **SNP R4**

Taiga Sample ID: **001**

Client Project: W2014L3-0002

Sample Type: Sewage

Received Date: 06-Oct-20

Sampling Date: 05-Oct-20

Sampling Time: 14:00

Location: Rae Lagoon

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	0.050	0.005	mg/L	08-Oct-20	SM4500-NH3:G	
Biochemical Oxygen Demand	30	2	mg/L	07-Oct-20	SM5210:B	
CBOD	31	2	mg/L	07-Oct-20	SM5210:B	
Nitrogen, Total	5.35	0.06	mg/L	07-Oct-20	ISO/TR 11905:1997(E)	
Phosphorous, Total	0.232	0.002	mg/L	09-Oct-20	SM4500-P:D	
<u>Inorganics - Physicals</u>						
pH	6.38		pH units	06-Oct-20	SM4500-H:B	
Solids, Total Suspended	16	3	mg/L	08-Oct-20	SM2540:D	
<u>Major Ions</u>						
Nitrate+Nitrite as Nitrogen	0.04	0.01	mg/L	07-Oct-20	SM4110:B	
<u>Microbiology</u>						
Coliforms, Fecal	< 10	10	CFU/100mL	06-Oct-20	SM9222:D	

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Taiga Batch No.:
 200856

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **SNP R2**

Taiga Sample ID: **002**

Client Project: W2014L3-0002

Sample Type: Sewage

Received Date: 06-Oct-20

Sampling Date: 05-Oct-20

Sampling Time: 14:00

Location: Rae Lagoon

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Biochemical Oxygen Demand	8	2	mg/L	07-Oct-20	SM5210:B	
CBOD	7	2	mg/L	07-Oct-20	SM5210:B	
Nitrogen, Total	9.31	0.06	mg/L	07-Oct-20	ISO/TR 11905:1997(E)	
Phosphorous, Total	4.20	0.002	mg/L	09-Oct-20	SM4500-P:D	
<u>Inorganics - Physicals</u>						
pH	7.41		pH units	06-Oct-20	SM4500-H:B	
Solids, Total Suspended	21	3	mg/L	08-Oct-20	SM2540:D	
<u>Major Ions</u>						
Nitrate+Nitrite as Nitrogen	0.38	0.01	mg/L	07-Oct-20	SM4110:B	
<u>Microbiology</u>						
Coliforms, Fecal	360	10	CFU/100mL	06-Oct-20	SM9222:D	
<u>Trace Metals, Total</u>						
Aluminum	591	5	µg/L	13-Oct-20	EPA200.8	
Antimony	0.1	0.1	µg/L	13-Oct-20	EPA200.8	
Arsenic	2.2	0.2	µg/L	13-Oct-20	EPA200.8	
Barium	35.1	0.1	µg/L	13-Oct-20	EPA200.8	

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Client Sample ID: **SNP R2**

Taiga Sample ID: **002**

Beryllium	< 0.1	0.1	µg/L	13-Oct-20	EPA200.8
Bismuth	< 0.2	0.2	µg/L	13-Oct-20	EPA200.8
Boron	251	0.9	µg/L	13-Oct-20	EPA200.8
Cadmium	< 0.1	0.1	µg/L	13-Oct-20	EPA200.8
Cesium	< 0.1	0.1	µg/L	13-Oct-20	EPA200.8
Chromium	0.8	0.1	µg/L	13-Oct-20	EPA200.8
Cobalt	0.9	0.1	µg/L	13-Oct-20	EPA200.8
Copper	1.5	0.2	µg/L	13-Oct-20	EPA200.8
Iron	945	5	µg/L	13-Oct-20	EPA200.8
Lead	0.5	0.1	µg/L	13-Oct-20	EPA200.8
Lithium	6.5	0.2	µg/L	13-Oct-20	EPA200.8
Manganese	262	0.1	µg/L	13-Oct-20	EPA200.8
Mercury	< 0.01	0.01	µg/L	13-Oct-20	EPA200.8
Molybdenum	0.2	0.1	µg/L	13-Oct-20	EPA200.8
Nickel	2.8	0.1	µg/L	13-Oct-20	EPA200.8
Rubidium	12.5	0.1	µg/L	13-Oct-20	EPA200.8
Selenium	< 0.5	0.5	µg/L	13-Oct-20	EPA200.8
Silver	< 0.1	0.1	µg/L	13-Oct-20	EPA200.8
Strontium	68.3	0.1	µg/L	13-Oct-20	EPA200.8
Thallium	< 0.1	0.1	µg/L	13-Oct-20	EPA200.8
Tin	0.2	0.1	µg/L	13-Oct-20	EPA200.8
Titanium	18.6	0.1	µg/L	13-Oct-20	EPA200.8
Uranium	0.5	0.1	µg/L	13-Oct-20	EPA200.8
Vanadium	1.6	0.1	µg/L	13-Oct-20	EPA200.8
Zinc	< 5.0	5	µg/L	13-Oct-20	EPA200.8

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Taiga Batch No.:
200856

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **Cell #1**

Taiga Sample ID: **003**

Client Project: W2014L3-0002

Sample Type: Sewage

Received Date: 06-Oct-20

Sampling Date: 05-Oct-20

Sampling Time: 14:00

Location: Rae Lagoon

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	40.9	0.005	mg/L	08-Oct-20	SM4500-NH3:G	
Biochemical Oxygen Demand	24	2	mg/L	07-Oct-20	SM5210:B	
CBOD	24	2	mg/L	07-Oct-20	SM5210:B	
Phosphorous, Total	6.15	0.002	mg/L	09-Oct-20	SM4500-P:D	
<u>Inorganics - Physicals</u>						
pH	7.57		pH units	06-Oct-20	SM4500-H:B	
Solids, Total Suspended	122	3	mg/L	08-Oct-20	SM2540:D	
<u>Major Ions</u>						
Nitrate+Nitrite as Nitrogen	0.11	0.01	mg/L	07-Oct-20	SM4110:B	
<u>Microbiology</u>						
Coliforms, Fecal	25000	1000	CFU/100mL	06-Oct-20	SM9222:D	
<u>Subcontracted Inorganics</u>						
Calcium	29.8	0.05	mg/L	09-Oct-20	EPA200.2	
Magnesium	11.4	0.005	mg/L	09-Oct-20	EPA200.2	
Potassium	24.3	0.05	mg/L	09-Oct-20	EPA200.2	
Sodium	62.8	0.05	mg/L	09-Oct-20	EPA200.2	

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Taiga Sample ID: **003**

Trace Metals, Total

Aluminum	341	5	µg/L	13-Oct-20	EPA200.8
Antimony	0.3	0.1	µg/L	13-Oct-20	EPA200.8
Arsenic	1.1	0.2	µg/L	13-Oct-20	EPA200.8
Barium	14.2	0.1	µg/L	13-Oct-20	EPA200.8
Beryllium	< 0.1	0.1	µg/L	13-Oct-20	EPA200.8
Bismuth	1.5	0.2	µg/L	13-Oct-20	EPA200.8
Boron	390	0.9	µg/L	13-Oct-20	EPA200.8
Cadmium	< 0.1	0.1	µg/L	13-Oct-20	EPA200.8
Cesium	0.1	0.1	µg/L	13-Oct-20	EPA200.8
Chromium	0.7	0.1	µg/L	13-Oct-20	EPA200.8
Cobalt	0.9	0.1	µg/L	13-Oct-20	EPA200.8
Copper	8.0	0.2	µg/L	13-Oct-20	EPA200.8
Iron	508	5	µg/L	13-Oct-20	EPA200.8
Lead	0.3	0.1	µg/L	13-Oct-20	EPA200.8
Lithium	5.4	0.2	µg/L	13-Oct-20	EPA200.8
Manganese	116	0.1	µg/L	13-Oct-20	EPA200.8
Mercury	< 0.01	0.01	µg/L	13-Oct-20	EPA200.8
Molybdenum	0.5	0.1	µg/L	13-Oct-20	EPA200.8
Nickel	3.6	0.1	µg/L	13-Oct-20	EPA200.8
Rubidium	21.4	0.1	µg/L	13-Oct-20	EPA200.8
Selenium	< 0.5	0.5	µg/L	13-Oct-20	EPA200.8
Silver	< 0.1	0.1	µg/L	13-Oct-20	EPA200.8
Strontium	80.8	0.1	µg/L	13-Oct-20	EPA200.8
Thallium	< 0.1	0.1	µg/L	13-Oct-20	EPA200.8

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Client Sample ID: Cell #1

Taiga Sample ID: 003

Tin	0.2	0.1	µg/L	13-Oct-20	EPA200.8
Titanium	9.5	0.1	µg/L	13-Oct-20	EPA200.8
Uranium	1.4	0.1	µg/L	13-Oct-20	EPA200.8
Vanadium	0.7	0.1	µg/L	13-Oct-20	EPA200.8
Zinc	25.5	5	µg/L	13-Oct-20	EPA200.8

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200856

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **Cell #1 dump station**

Taiga Sample ID: **004**

Client Project: W2014L3-002

Sample Type: Sewage

Received Date: 06-Oct-20

Sampling Date: 05-Oct-20

Sampling Time: 14:00

Location: Rae Lagoon

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	41.0	0.005	mg/L	08-Oct-20	SM4500-NH3:G	
Biochemical Oxygen Demand	16	2	mg/L	07-Oct-20	SM5210:B	81
CBOD	17	2	mg/L	07-Oct-20	SM5210:B	81
Phosphorous, Total	5.76	0.002	mg/L	09-Oct-20	SM4500-P:D	
<u>Inorganics - Physicals</u>						
pH	7.61		pH units	06-Oct-20	SM4500-H:B	
Solids, Total Suspended	28	3	mg/L	08-Oct-20	SM2540:D	
<u>Major Ions</u>						
Nitrate+Nitrite as Nitrogen	0.12	0.01	mg/L	07-Oct-20	SM4110:B	
<u>Microbiology</u>						
Coliforms, Fecal	24000	1	CFU/100mL	06-Oct-20	SM9222:D	
<u>Subcontracted Inorganics</u>						
Calcium	30.0	0.05	mg/L	09-Oct-20	EPA200.2	
Magnesium	11.6	0.005	mg/L	09-Oct-20	EPA200.2	
Potassium	25.8	0.05	mg/L	09-Oct-20	EPA200.2	
Sodium	64.0	0.05	mg/L	09-Oct-20	EPA200.2	

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Client Sample ID: Cell #1 dump station

Taiga Sample ID: 004

Trace Metals, Total

Aluminum	69.7	5	µg/L	13-Oct-20	EPA200.8
Antimony	0.3	0.1	µg/L	13-Oct-20	EPA200.8
Arsenic	1.0	0.2	µg/L	13-Oct-20	EPA200.8
Barium	7.0	0.1	µg/L	13-Oct-20	EPA200.8
Beryllium	< 0.1	0.1	µg/L	13-Oct-20	EPA200.8
Bismuth	0.7	0.2	µg/L	13-Oct-20	EPA200.8
Boron	386	0.9	µg/L	13-Oct-20	EPA200.8
Cadmium	< 0.1	0.1	µg/L	13-Oct-20	EPA200.8
Cesium	0.1	0.1	µg/L	13-Oct-20	EPA200.8
Chromium	0.2	0.1	µg/L	13-Oct-20	EPA200.8
Cobalt	0.7	0.1	µg/L	13-Oct-20	EPA200.8
Copper	4.2	0.2	µg/L	13-Oct-20	EPA200.8
Iron	212	5	µg/L	13-Oct-20	EPA200.8
Lead	0.1	0.1	µg/L	13-Oct-20	EPA200.8
Lithium	5.0	0.2	µg/L	13-Oct-20	EPA200.8
Manganese	94.8	0.1	µg/L	13-Oct-20	EPA200.8
Mercury	0.01	0.01	µg/L	13-Oct-20	EPA200.8
Molybdenum	0.4	0.1	µg/L	13-Oct-20	EPA200.8
Nickel	3.0	0.1	µg/L	13-Oct-20	EPA200.8
Rubidium	20.5	0.1	µg/L	13-Oct-20	EPA200.8
Selenium	< 0.5	0.5	µg/L	13-Oct-20	EPA200.8
Silver	< 0.1	0.1	µg/L	13-Oct-20	EPA200.8
Strontium	76.7	0.1	µg/L	13-Oct-20	EPA200.8
Thallium	< 0.1	0.1	µg/L	13-Oct-20	EPA200.8

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Client Sample ID: **Cell #1 dump station**

Taiga Sample ID: **004**

Tin	0.2	0.1	µg/L	13-Oct-20	EPA200.8
Titanium	1.9	0.1	µg/L	13-Oct-20	EPA200.8
Uranium	1.1	0.1	µg/L	13-Oct-20	EPA200.8
Vanadium	0.2	0.1	µg/L	13-Oct-20	EPA200.8
Zinc	11.7	5	µg/L	13-Oct-20	EPA200.8

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Taiga Sample ID: **004**

- DATA QUALIFIERS -

Data Qualifier Descriptions:

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