



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

Taiga Batch No.:
230938

- FINAL REPORT -

Prepared For: Indigenous and Northern Affairs Canada

Address: P.O. Box 1500
4923 - 52nd Street
Yellowknife, NT
X1A 2R3

Attn: Tim Morton

Facsimile:

Final report has been reviewed and approved by:

A handwritten signature in black ink, appearing to read 'Glen Hudy', is written over a horizontal line.

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.
- Results are based on the specific tests at the time of analysis, does not represent the conditions during sampling and relates only to the items tested.

ReportDate: July 19, 2023

Print Date: *July 21, 2023*

Page 1 of 11



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Taiga Batch No.:
230938

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **Portal**

Taiga Sample ID: **001**

Client Project:

Sample Type: Water
Received Date: 28-Jun-23
Sampling Date: 28-Jun-23
Sampling Time: 11:36
Location: Bullmoose Mine
Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Cations by ICP-MS</u>						
Calcium	69.3	0.1	mg/L	07-Jul-23	TEL035	
Magnesium	36.7	0.1	mg/L	07-Jul-23	TEL035	
Potassium	4.2	0.1	mg/L	07-Jul-23	TEL035	
Sodium	40.4	0.1	mg/L	07-Jul-23	TEL035	
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	0.825	0.005	mg/L	04-Jul-23	TEL068	
Nitrogen, Total	1.60	0.06	mg/L	30-Jun-23	TEL066	
Organic Carbon, Total	13.5	0.5	mg/L	10-Jul-23	TEL033	
Phosphorous, Total	0.027	0.002	mg/L	06-Jul-23	TEL069	
<u>Inorganics - Physicals</u>						
pH	7.40		pH units	28-Jun-23	TEL058	
Solids, Total Suspended	< 3	3	mg/L	06-Jul-23	TEL008	
<u>Organics</u>						
F2: C10-C16	< 0.2	0.2	mg/L	05-Jul-23	TEL077	
F3: C16-C34	< 0.2	0.2	mg/L	05-Jul-23	TEL077	

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Client Sample ID: Portal

Taiga Sample ID: 001

F4: C34-C50	< 0.2	0.2	mg/L	05-Jul-23	TEL077	
Hydrocarbons, Total Extractable	< 0.2	0.2	mg/L	05-Jul-23	TEL077	
<u>Subcontracted Inorganics</u>						
Sulphate	176	0.25	mg/L	04-Jul-23	EPA300.1	
<u>Subcontracted Organics</u>						
Benzene	< 0.00050	0.0005	mg/L	05-Jul-23	EPA 5021	
Ethylbenzene	< 0.00050	0.0005	mg/L	05-Jul-23	EPA 5021	
Toluene	< 0.00050	0.0005	mg/L	05-Jul-23	EPA 5021	
Xylenes	< 0.00050	0.0005	mg/L	05-Jul-23	EPA 5021	
<u>Trace Metals, Total</u>						
Aluminum	44.7	6	µg/L	11-Jul-23	TEL035	207
Antimony	< 1.0	1	µg/L	11-Jul-23	TEL035	207
Arsenic	38.2	2	µg/L	11-Jul-23	TEL035	207
Barium	20.4	1	µg/L	11-Jul-23	TEL035	207
Beryllium	< 1.0	1	µg/L	11-Jul-23	TEL035	207
Cadmium	< 0.40	0.4	µg/L	11-Jul-23	TEL035	207
Cesium	< 1.0	1	µg/L	11-Jul-23	TEL035	207
Chromium	< 1.0	1	µg/L	11-Jul-23	TEL035	207
Cobalt	1.1	1	µg/L	11-Jul-23	TEL035	207
Copper	< 2.0	2	µg/L	11-Jul-23	TEL035	207
Iron	3390	50	ug/L	11-Jul-23	TEL035	207
Lead	< 1.0	1	µg/L	11-Jul-23	TEL035	207
Lithium	24.7	2	µg/L	11-Jul-23	TEL035	207
Manganese	975	1	µg/L	11-Jul-23	TEL035	207
Molybdenum	1.3	1	µg/L	11-Jul-23	TEL035	207

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Client Sample ID: Portal

Taiga Sample ID: 001

Nickel	6.1	1	µg/L	11-Jul-23	TEL035	207
Rubidium	3.3	1	µg/L	11-Jul-23	TEL035	207
Selenium	< 3.0	3	µg/L	11-Jul-23	TEL035	207
Silver	< 1.0	1	µg/L	11-Jul-23	TEL035	207
Strontium	389	1	µg/L	11-Jul-23	TEL035	207
Thallium	< 1.0	1	µg/L	11-Jul-23	TEL035	207
Titanium	1.6	1	µg/L	11-Jul-23	TEL035	207
Uranium	3.4	1	µg/L	11-Jul-23	TEL035	207
Vanadium	1.3	1	µg/L	11-Jul-23	TEL035	207
Zinc	6.2	4	µg/L	11-Jul-23	TEL035	207

ReportDate: July 19, 2023

Print Date: July 21, 2023

Page 4 of 11



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Taiga Batch No.:
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- CERTIFICATE OF ANALYSIS -

Client Sample ID: **Pool by Portal**

Taiga Sample ID: **002**

Client Project:

Sample Type: Water

Received Date: 28-Jun-23

Sampling Date: 28-Jun-23

Sampling Time: 11:36

Location: Bullmoose Mine

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Cations by ICP-MS</u>						
Calcium	15.9	0.1	mg/L	07-Jul-23	TEL035	
Magnesium	10.8	0.1	mg/L	07-Jul-23	TEL035	
Potassium	3.9	0.1	mg/L	07-Jul-23	TEL035	
Sodium	7.4	0.1	mg/L	07-Jul-23	TEL035	
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	0.018	0.005	mg/L	04-Jul-23	TEL068	
Nitrogen, Total	0.93	0.06	mg/L	30-Jun-23	TEL066	
Organic Carbon, Total	15.3	0.5	mg/L	10-Jul-23	TEL033	
Phosphorous, Total	0.014	0.002	mg/L	06-Jul-23	TEL069	
<u>Inorganics - Physicals</u>						
pH	7.29		pH units	28-Jun-23	TEL058	
Solids, Total Suspended	< 3	3	mg/L	06-Jul-23	TEL008	
<u>Organics</u>						
F2: C10-C16	< 0.2	0.2	mg/L	05-Jul-23	TEL077	
F3: C16-C34	< 0.2	0.2	mg/L	05-Jul-23	TEL077	
F4: C34-C50	< 0.2	0.2	mg/L	05-Jul-23	TEL077	

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Taiga Sample ID: **002**

Hydrocarbons, Total Extractable	< 0.2	0.2	mg/L	05-Jul-23	TEL077
<u>Subcontracted Inorganics</u>					
Sulphate	6.20	0.05	mg/L	04-Jul-23	EPA300.1
<u>Subcontracted Organics</u>					
Benzene	< 0.00050	0.0005	mg/L	05-Jul-23	EPA 5021
Ethylbenzene	< 0.00050	0.0005	mg/L	05-Jul-23	EPA 5021
Toluene	< 0.00050	0.0005	mg/L	05-Jul-23	EPA 5021
Xylenes	< 0.00050	0.0005	mg/L	05-Jul-23	EPA 5021
<u>Trace Metals, Total</u>					
Aluminum	27.7	0.6	µg/L	11-Jul-23	TEL035
Antimony	< 0.1	0.1	µg/L	11-Jul-23	TEL035
Arsenic	10.7	0.2	µg/L	11-Jul-23	TEL035
Barium	22.8	0.1	µg/L	11-Jul-23	TEL035
Beryllium	< 0.1	0.1	µg/L	11-Jul-23	TEL035
Cadmium	< 0.04	0.04	µg/L	11-Jul-23	TEL035
Cesium	< 0.1	0.1	µg/L	11-Jul-23	TEL035
Chromium	0.2	0.1	µg/L	11-Jul-23	TEL035
Cobalt	3.0	0.1	µg/L	11-Jul-23	TEL035
Copper	4.8	0.2	µg/L	11-Jul-23	TEL035
Iron	495	5	µg/L	11-Jul-23	TEL035
Lead	0.6	0.1	µg/L	11-Jul-23	TEL035
Lithium	3.9	0.2	µg/L	11-Jul-23	TEL035
Manganese	80.2	0.1	µg/L	11-Jul-23	TEL035
Molybdenum	0.2	0.1	µg/L	11-Jul-23	TEL035
Nickel	6.0	0.1	µg/L	11-Jul-23	TEL035

ReportDate: July 19, 2023

Print Date: **July 21, 2023**



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Client Sample ID: **Pool by Portal**

Taiga Sample ID: **002**

Rubidium	5.2	0.1	µg/L	11-Jul-23	TEL035
Selenium	< 0.3	0.3	µg/L	11-Jul-23	TEL035
Silver	< 0.1	0.1	µg/L	11-Jul-23	TEL035
Strontium	53.5	0.1	µg/L	11-Jul-23	TEL035
Thallium	< 0.1	0.1	µg/L	11-Jul-23	TEL035
Titanium	1.0	0.1	µg/L	11-Jul-23	TEL035
Uranium	< 0.1	0.1	µg/L	11-Jul-23	TEL035
Vanadium	0.3	0.1	µg/L	11-Jul-23	TEL035
Zinc	2.1	0.4	µg/L	11-Jul-23	TEL035

ReportDate: July 19, 2023

Print Date: **July 21, 2023**

Page 7 of 11



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Taiga Batch No.:
230938

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **Lake**

Taiga Sample ID: **003**

Client Project:

Sample Type: Lake Water

Received Date: 28-Jun-23

Sampling Date: 28-Jun-23

Sampling Time: 11:36

Location: Bullmoose Mine

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Cations by ICP-MS</u>						
Calcium	15.0	0.1	mg/L	07-Jul-23	TEL035	
Magnesium	9.8	0.1	mg/L	07-Jul-23	TEL035	
Potassium	3.1	0.1	mg/L	07-Jul-23	TEL035	
Sodium	7.3	0.1	mg/L	07-Jul-23	TEL035	
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	< 0.005	0.005	mg/L	04-Jul-23	TEL068	
Nitrogen, Total	0.87	0.06	mg/L	30-Jun-23	TEL066	
Organic Carbon, Total	18.0	0.5	mg/L	11-Jul-23	TEL033	
Phosphorous, Total	0.018	0.002	mg/L	06-Jul-23	TEL069	
<u>Inorganics - Physicals</u>						
pH	8.21		pH units	28-Jun-23	TEL058	
Solids, Total Suspended	< 3	3	mg/L	06-Jul-23	TEL008	
<u>Organics</u>						
F2: C10-C16	< 0.2	0.2	mg/L	05-Jul-23	TEL077	
F3: C16-C34	< 0.2	0.2	mg/L	05-Jul-23	TEL077	
F4: C34-C50	< 0.2	0.2	mg/L	05-Jul-23	TEL077	

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Hydrocarbons, Total Extractable	< 0.2	0.2	mg/L	05-Jul-23	TEL077
<u>Subcontracted Inorganics</u>					
Sulphate	9.84	0.05	mg/L	04-Jul-23	EPA300.1
<u>Subcontracted Organics</u>					
Benzene	< 0.00050	0.0005	mg/L	05-Jul-23	EPA 5021
Ethylbenzene	< 0.00050	0.0005	mg/L	05-Jul-23	EPA 5021
Toluene	< 0.00050	0.0005	mg/L	05-Jul-23	EPA 5021
Xylenes	< 0.00050	0.0005	mg/L	05-Jul-23	EPA 5021
<u>Trace Metals, Total</u>					
Aluminum	15.0	0.6	µg/L	11-Jul-23	TEL035
Antimony	< 0.1	0.1	µg/L	11-Jul-23	TEL035
Arsenic	2.2	0.2	µg/L	11-Jul-23	TEL035
Barium	12.2	0.1	µg/L	11-Jul-23	TEL035
Beryllium	< 0.1	0.1	µg/L	11-Jul-23	TEL035
Cadmium	< 0.04	0.04	µg/L	11-Jul-23	TEL035
Cesium	< 0.1	0.1	µg/L	11-Jul-23	TEL035
Chromium	< 0.1	0.1	µg/L	11-Jul-23	TEL035
Cobalt	< 0.1	0.1	µg/L	11-Jul-23	TEL035
Copper	0.5	0.2	µg/L	11-Jul-23	TEL035
Iron	31	5	µg/L	11-Jul-23	TEL035
Lead	< 0.1	0.1	µg/L	11-Jul-23	TEL035
Lithium	4.6	0.2	µg/L	11-Jul-23	TEL035
Manganese	33.4	0.1	µg/L	11-Jul-23	TEL035
Molybdenum	0.1	0.1	µg/L	11-Jul-23	TEL035
Nickel	1.0	0.1	µg/L	11-Jul-23	TEL035

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Client Sample ID: Lake

Taiga Sample ID: 003

Rubidium	4.2	0.1	µg/L	11-Jul-23	TEL035
Selenium	< 0.3	0.3	µg/L	11-Jul-23	TEL035
Silver	< 0.1	0.1	µg/L	11-Jul-23	TEL035
Strontium	58.1	0.1	µg/L	11-Jul-23	TEL035
Thallium	< 0.1	0.1	µg/L	11-Jul-23	TEL035
Titanium	0.5	0.1	µg/L	11-Jul-23	TEL035
Uranium	< 0.1	0.1	µg/L	11-Jul-23	TEL035
Vanadium	0.1	0.1	µg/L	11-Jul-23	TEL035
Zinc	0.7	0.4	µg/L	11-Jul-23	TEL035

ReportDate: July 19, 2023

Print Date: July 21, 2023

Page 10 of 11



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- CERTIFICATE OF ANALYSIS -

Client Sample ID: **Lake**

Taiga Sample ID: **003**

- DATA QUALIFIERS -

Data Qualifier Descriptions:

207 *Detection limit adjusted due to sample matrix effects*

*** 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: July 19, 2023

Print Date: *July 21, 2023*

Page 11 of 11