Environment and Climate Change Canada | Environnement et Changement climatique Canada

Water Licence 8BC- EUR2131

2022 Annual Report

Eureka High Arctic Weather Station

1871 | 2021
1971 | 2021

Canada

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1. Introduction

The Eureka High Arctic Weather Station (HAWS; the Project; the site) is located on the north side of Slidre Fjord, at the northwestern tip of Fosheim Peninsula, Ellesmere Island, Nunavut (**Figure 1**). Since 1947, Environment & Climate Change Canada (ECCC) has owned and managed the overall operations and maintenance of the site under Land Reserve #1021. The total area of the Project is approximately 2.23 hectares. There are presently 15 primary buildings and other facilities at the HAWS. The Eureka airstrip is located 1.5 kilometres northeast of the HAWS main site and is the primary way by which the HAWS is accessed year-round.

The Eureka HAWS is an operational weather monitoring facility as well as a hub of activity for the Department of National Defence (DND), the Polar Continental Shelf Project and the Polar Environment Atmospheric Research Laboratory (PEARL). Additional sites at Eureka are operated by the Canadian Network for the Detection of Atmospheric Change including the PEARL and the Surface and Atmospheric Flux, Irradiance and Radiation Extension and Zero Altitude PEARL Auxiliary Laboratory (Arcadis 2018).

1.1 Purpose of this Document

The purpose of the Water License 8BC-EUR2131 Annual Report is to provide a yearly reference and summary of all works related to water use completed for the Project in 2022. The Standard NWB Reporting Form is included in **Appendix A**. Per the terms and conditions outlined in the Type 'B' Water Licence 8BC-EUR2131, this document provides the following:

- A technical summary of activities of the Project undertaken for the respective year;
- A work plan for the following year;
- An annual summary of activities related to water use and the deposit of waste on site including tables and figures that show the locations of where permitted activities were undertaken;
- Water quality monitoring results; and
- Revisions to applicable Management Plans.

1.2 Project Overview

ECCC is currently undertaking or planning a number of construction and infrastructure upgrade projects to the Eureka HAWS. To support these projects, ECCC has obtained a number of permits. Due to project updates, design changes, unforeseen issues such as the discovery of contaminated soils or the need for additional infrastructure to support the HAWS operation or projects, ECCC may be required to re-apply for new or amended licences and permits. The numerous improvement projects currently being undertaken or planned for include the following:

- Eureka Airport Runway Recapitalization Project
- Eureka Water and Wastewater Treatment Infrastructure Upgrades Project
- Fuel Tank Inspections
- Development of Landfarm
- Human Health and Ecological Risk Assessment and Remedial Action Plan
- Long Term Monitoring Plan
- Black Top and West Remus Quarry

Legend

- Watercourse

N
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500 250 0 500 1,000 1,500 m

1:50,000

NAD 1983 UTM Zone 16N

Sources: NRCan
Imagery: Esri World Imagery

AECOM

Figure: 1

EUREKA HIGH ARCTIC WEATHER STATION
STATION SITE OVERVIEW

EUREKA HIGH ARCTIC WEATHER STATION
WATER LICENSE 8BC-EUR1621 2020 ANNUAL REPORT
PUBLIC SERVICES AND PROCUREMENT CANADA, EUREKA HAWS
Project No.: 60638794 Date: January 2022

Last saved by: STEPHANIE.CLARK (2022-01-18) Last Plotted: Tue Jan 18, 2022
Filename: \\na.aecomnet.com\LFS\AMER\Calgary-CACGY3\Legacy\CACGY5FS002\Library\Environment\GIS\Stephanie Clarke\Permitting & IAP\60638794_Eureka\02_MXDs\2020 Annual Report\Water License\H001_60638794_HAWS_Water_SiteOverview_20220118.mxd
Project Management Initials: Designer: Checked: Approved: ANSI B 279.4mm x 431.8mm

2. Technical Summary of Activities Undertaken in 2022

The Eureka HAWS maintained operational activities throughout the year at the Eureka Main Complex. A technical summary of all activities undertaken in 2022 is listed below.

- Construction camp opening and fleet maintenance began May 7, 2022
- Construction crew began to ramp up June 9, 2022
- Major and minor equipment maintenance and repairs were completed in preparation for the construction season
- Construction of an exfiltration trench
- Road maintenance and repairs of access road to West Remus Quarry, including grading, culvert maintenance, freshet observations at Blacktop Creek bridge
- Upgrades and maintenance to the access road between the airstrip and HAWS operations building
- Repair of Blacktop Creek Bridge – undermining of the east abutment required repair and reconstruction between July 21 – 24, 2022. All activities were observed by AECOM field personnel.
- Quarrying and crushing at West Remus Creek quarry
- Construction of the haul road extension and multi-culvert crossing of Remus Creek to access additional permitted quarry areas
- Hauling crushed granular materials from Blacktop quarry stockpiles to the new water reservoir
- As per quarrying permit 2022QP0002, a total of 45,266 cubic meters (m3) of aggregate was extracted from the West Remus Creek Quarry from June to September.
- Hauling of crushed granular materials from West Remus quarry to the new water reservoir
- Construction of foundation and new water reservoir berms – approximately 60% complete
- Construction of high-density polyethylene (HDPE) lined storage area for containment of hydrocarbon contaminated soils discovered within the new reservoir development area
- Receiving and storing sealift freight for future Water and Sewer Infrastructure project
- Fleet winterization, camp shut down and demobilization of personnel on September 17, 2022

3. Work Plan for 2023

The construction program summary presented below outlines activities planned for 2023 summer field season (June – September). The proposed 2023 construction schedule and activities outlined below are subject to changes and restrictions related to COVID. The summary below assumes similar restrictions and conditions encountered in 2022:

- Re-open camp and prepare fleet for summer construction –
- Ongoing operations of the site, routine facility maintenance, and runway operations.
- Program of Works Project – Renovation and retrofit activities throughout building onsite.
- West Remus Creek Quarry Expansion - Continuation of quarrying activities and crushing to provide aggregate material for other projects
- Black Top Creek Quarry Expansion - Continuation of quarrying activities to provide aggregate material for other projects.
- Fuel Storage Tank Inspections – Continuation of manual inspections and minor repairs of fuel storage tanks.
- Water & Sewer Infrastructure Upgrades:
    - Complete earthworks construction of the new raw water reservoir
    - Install liner system for the raw water reservoir
    - Install foundation pads for four new pumphouse buildings
    - Construct foundation for new Wastewater Treatment Plant (WWTP) and install the WWTP
    - Begin installation of piping, electrical and pumping systems
- Contaminated Soil and Landfarm Project:
    - Continue excavation and stockpile of hydrocarbon contaminated soil in various areas throughout the Site
    - Construction of onsite landfarm has been delayed and is now commencing in 2023. Stockpiled soil will be transferred to the landfarm once the landfarm is completed.
- Fuel/HazMat Secondary Containment Area – Potential construction of a new secondary containment area at the Station to store fuel and other hazardous materials
- Winterize camp and demobilize personnel in late September 2023.

4. Water Use

4.1 Location and Methods

The Eureka HAWS obtains its water for domestic purposes from the Eureka HAWS raw water reservoir pumphouse (**Figure 2**). The reservoir water is pumped from Station Creek using a Franklin Electric FLS-400 pump. Pumping occurs shortly after water starts flowing in Station Creek to maximize the amount of fresh runoff into the Eureka Water Reservoir. Station Creek eventually stops flowing until a second flow begins when the permafrost melts. At this time water is pumped again to ensure the Eureka Water Reservoir is full prior to freeze up. Water for construction purposes and dust suppression is withdrawn from Station Creek, Blacktop Creek, and West Remus Creek when necessary.

Location, quantities, and timeframe of withdrawal are presented in **Table 1**.

Table 1: Water Use Locations and Quantities at Eureka High Arctic Weather Station

Source Description	Quantities (m^3)	Timeframe	Latitude			Longitude		
			Deg (º)	Min (´)	Sec (˝)	Deg (º)	Min (´)	Sec (˝)
For Potable Water								
Eureka Water Reservoir (camp potable water)	543.78	2022	79	59	20	85	56	46
Station Creek Withdrawal Site (Fresh water pumped into the Eureka Water Reservoir)	1545.00	June 6 – June 23	79	59	21	85	57	4
	2031.00	August 6- August 16						
For Construction Use								
Station Creek Withdrawal Site	0.00	--	79	59	21	85	57	4
Blacktop Creek Withdrawal Site	376.38-	June - September-	79	58	12	85	38	59
West Remus Creek Withdrawal Site	1634.04	June - September	79	58	23	85	39	43

5. Waste Disposal

5.1 Location and Methods

Blackwater and greywater from the Station at the Eureka HAWS is deposited in the Sewage Lagoon. Black water from the contractor camp is collected with Pacto toilets and is then incinerated on site; whereas, greywater is pumped or collected via vacuum truck and deposited in the Sewage Lagoon (**Figure 2**).

The contents of the Sewage Lagoon are decanted into the Slidre Fiord using a Monarch Pump Model TT30 Type E. The Sewage Lagoon is usually decanted once in June or July and prior to freeze-up in August. Prior to decanting, two sets of water samples are taken, and the timing of collection coincides with the produce delivery to ensure the samples arrive at a laboratory within 24 hours. Once the laboratory results are returned, they are assessed for conformity against the water licence and ECCC requests authorization from CIRNAC to decant. Following approval from CIRNAC, the Sewage Lagoon is decanted until empty or until a layer of ice is uncovered.

Contaminated soil continues to be stored temporarily while a plan to determine long term disposal and remediation options is developed. A lined Contaminated Soil Storage Cell, with a capacity of 6,000 m^3, was constructed in 2020 to temporarily store contaminated soil discovered during the runway upgrade (**Figure 2**). In addition a high-density polyethylene (HDPE) lined storage area was constructed in 2022 for containment of hydrocarbon contaminated soils discovered within the new reservoir development area (**Figure 2**).

On September 6, 2022, Nuna Consulting, the contractor operating the West Remus Creek Quarry noticed the crusher's fuel tank had been overfilled, releasing approximately 60 litres of diesel fuel onto the ground contaminating an area of approximately 7.2 m^2. The contaminated soil was collected and placed in a lined contaminated soil area near the runway. A spill report form of the incident is included in **Appendix B.**

All other waste on site was disposed of in appropriate Waste Management Areas.

Table 2 provides locations of waste storage and disposal sites at Eureka HAWS (**Figures 2 and 3)** which include:

- Hazardous Waste – Transported off-site for disposal at a licenced hazardous waste disposal facility.
- Ash Waste - Household waste is incinerated and then the ash is transferred to the Non-Hazardous Solid Waste Facility for storage.
- Fuel Tank Farm - Waste fuel and oil products are stored in barrels and transported/disposed of as hazardous waste.
- Construction Contractor Fuel Storage
- Asbestos Waste Facility - In previous years, asbestos was discovered and transported to the Asbestos Waste Facility for storage.
- Crushed Barrel Waste - Empty barrels are crushed in a lined area and transported off-site for disposal.
- Non-Hazardous Solid Waste Facility - Miscellaneous waste that cannot be incinerated is delivered to the Eureka HAWS Non-Hazardous Solid Waste Facility.
- Sewage and greywater- disposed of in sewage lagoon and decanted into fiord.

Table 2: Locations for Waste Storage & Disposal Sites at Eureka High Arctic Weather Station

Source Description	Latitude			Longitude		
	Deg (º)	Min (´)	Sec (˝)	Deg (º)	Min (´)	Sec (˝)
Eureka Airstrip	79	59	40	85	48	38
New Drum Crushing Site	79	59	36	85	49	6
Non-hazardous Waste Facility	79	59	29	85	46	14
Temporary Contaminated Soil Storage Cell	79	59	30	85	46	21
Hydrocarbon Contaminated Soil	79	59	47	85	50	40
Airstrip Fuel Tanks	79	59	48	85	50	29
Eureka Main Complex	79	59	20	85	56	23
Fuel Tank Farm	79	59	24	85	56	10
Construction Contractor Fuel Storage	79	59	38	85	49	27
Incinerator	79	59	22	85	56	21
Sewage Lagoon	79	59	23	85	50	11

Legend

Watercourse

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NAD 1983 UTM Zone 16N

Sources: NRCan
Imagery: Esri World Imagery

AECOM

Figure: 2

EUREKA HIGH ARCTIC WEATHER STATION MAIN COMPLEX

EUREKA HIGH ARCTIC WEATHER STATION
WATER LICENSE 8BC-EUR1621 2020 ANNUAL REPORT
PUBLIC SERVICES AND PROCUREMENT CANADA, EUREKA HAWS
Project No.: 60638794 Date: February 2022

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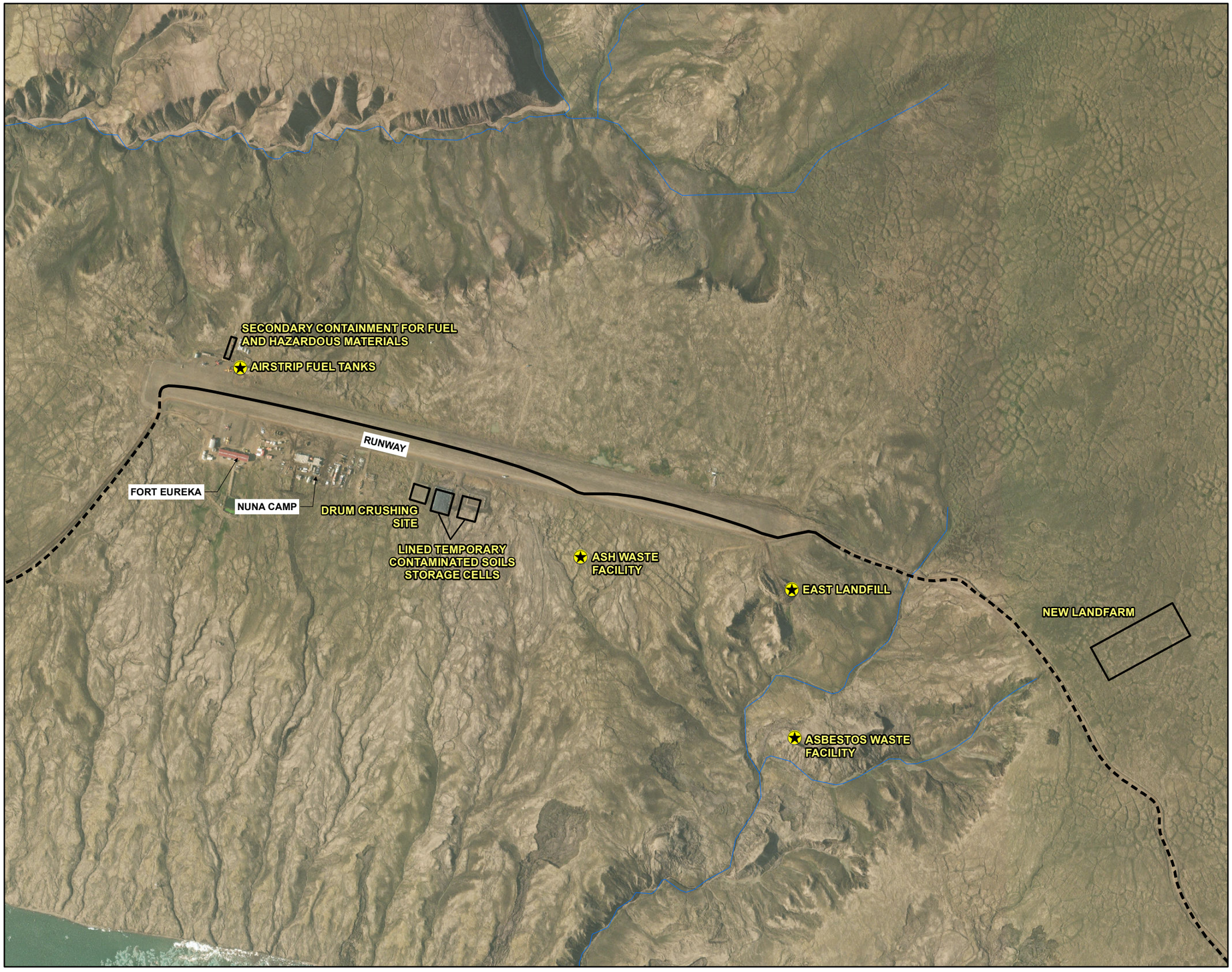

Legend

- Watercourse
- Temporary Access Road
- Existing Access Road

NOTE:
The New Drum Crushing Site and Contaminated Soil Storage Cell are approximate locations

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7537.5 0 75 150 225 m

1:10,000

NAD 1983 UTM Zone 16N

Sources: NRCan
Imagery: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

AECOM

Figure: 3

EUREKA HIGH ARCTIC WEATHER STATION
STATION AIRSTRIP

EUREKA HIGH ARCTIC WEATHER STATION
WATER LICENSE 8BC-EUR1621 2020 ANNUAL REPORT
PUBLIC SERVICES AND PROCUREMENT CANADA, EUREKA HAWS
Project No.: 60638794 Date: March 2023

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5.2 Unauthorized Discharges of Water

There were no unauthorized discharges of water in 2022.

5.3 Quantities

The following quantities of waste were observed in 2022:

- From July 2 to August 4, 2323 m^3 of sewage effluent was decanted (during ten events) into the fjord.
- Hydrocarbon contaminated soil – a total of 478 m^3 of contaminated soil was removed from the foundation area of the new raw water reservoir area and placed in a lined containment area near the Eureka runway.
- Every month, the site produces approximately 2030 lbs of household waste. It is subsequently incinerated, and the ash is sent to the Non-Hazardous Solid Waste Facility. The remainder of non-incinerable waste is also transported to the Non-Hazardous Solid Waste Facility.
- Every month, approximately 1.5 barrels of pure ash waste is produced from incinerating household waste and delivered to the Non-Hazardous Solid Waste Facility.
- On an average year, 4 barrels of waste, 1 barrel of waste oil filters, 2 barrels of incinerator ash, and 1 barrel of used batteries are generated. Quantities vary from year to year. The waste barrels are then stored in a lined area on the Fuel Tank Farm until they can be transported off-site for adequate disposal at a licenced hazardous waste facility. An estimated 10,500 litres (3 barrels) of liquid and solid waste (oil, fuel, detergent, antifreeze, fuel, ash, batteries, filters) was removed from the site in 2022 via sealift for disposal at an approved facility.

6. Water Quality Monitoring Results

The Long-Term Monitoring Program for the site did not include any sampling in 2022; however, routine water quality samples were collected in 2022 at the following locations:

- EUR 1: Raw water supply prior to treatment at Station Creek
- EUR 2: Runoff from the Solid Waste Disposal Facilities
- EUR 3: Sewage water sample collected at the Sewage Lagoon prior to decanting
- EUR 4: Runoff water sample collected at the Landfarm.
- EUR 6: Effluent discharge from the Temporary Contaminated Soil Storage

In 2022, water quality samples were not taken in quarry development areas (EUR-5) or the greywater exfiltration trench (EUR-9) due to the absence of runoff or discharge at sampling locations. Further, no sampling was conducted at West Remus Creek (EUR-7) and Blacktop Creek (EUR-8) as these locations provide water for dust suppression purposes only.

There were no seeps observed at West Remus Creek Quarry or the Contaminated Soil Storage Cell during the 2022 construction activities. Ongoing melt water from within the watershed was present within the quarry and natural drainage paths at various times throughout the season. Upon removal of thawed quarry materials, thawing of permafrost at the base of the active layer was observed throughout West Remus Creek Quarry. Further thawing allowed melt water to naturally subside and soak in. Seeps are not expected to occur at the Contaminated Soil Storage Cell since construction of the liner was successful. If seeps are observed in the future, water samples will be taken and reported in the annual report.

Water quality results for the Sewage Lagoon (EUR-3) in June and August were compared to the maximum concentration of parameters allowed in the Type 'B' Water Licence 8BC-EUR2131 and are presented in **Table 3** and **Table 4,** respectively. **Appendix C** contains the laboratory data. Total Suspended Solids were found to be above the water quality guidelines in August and analysis for biochemical oxygen demand and fecal coliforms was not possible as the hold time had been exceeded. The purpose of the new wastewater treatment plant is to resolve issues with the current lagoon exceeding the Water Licence parameters.

Table 3: Sewage Lagoon (EUR-3) Water Quality Parameters and Results June 2022

Parameter	Units	EUR-3	Maximum Concentration Guideline
Biochemical Oxygen Demand	mg/L	30	100
Total Suspended Solids	mg/L	58	120
Fecal Coliforms	CFU/100 mL	Bdl*	1×10^6
pH	pH units	7.36	6.0-9.0
Oil and Grease	Visible sheen	No Visible Sheen	No Visible Sheen

*Below the detection limit

Table 4: Sewage Lagoon (EUR-3) Water Quality Parameters and Results August 2022

Parameter	Units	EUR-3	Maximum Concentration Guideline
Biochemical Oxygen Demand	mg/L	Anp*	100
Total Suspended Solids	mg/L	230	120
Fecal Coliforms	CFU/100 mL	Anp*	1×10^6
pH	pH units	8.26	6.0-9.0

Oil and Grease	Visible sheen	No Visible Sheen	No Visible Sheen

*Analysis not possible. Samples were received past the hold time.

Domestic water sampling was conducted in August and November and included sample collection of raw water in the freshwater lagoon, chlorinated water in the Eureka Main Complex Tank, tap water and reverse osmosis drinking water. Results are provided in **Appendix C**.

7. Water License Inspection

In 2022, no formal inspector site visits occurred. The last inspector visit was conducted in July 2019 and a copy of the Inspection Report is provided in the 2020 NWB Annual Report.

Ongoing work site inspections throughout the work season include inspections of all fuel tanks for leakage/damage. Areas of concern noted during these daily inspections are documented through the reporting system as either a Spill or Equipment Damage event.

8. Revisions to Applicable Management Plans

No revisions to applicable management plans or new wildlife mitigation measures were implemented in 2022.

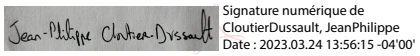
9. Progressive Reclamation Work Undertaken in 2022

Progressive reclamation has begun in the West Remus quarry. The quarry was virtually exhausted at the end of the 2022 season. Reclamation of the depleted areas has been started, however the crushing plant remains set up at the last operating location. Reclamation of this area will be completed after the crusher is moved at the beginning of the 2023 season. Reclamation activities include shaping and sloping of the disturbed areas to create positive drainage and natural looking surface contours, similar to the appearance prior to disturbance. The natural drainage path through the quarry area will be maintained/restored at completion of the project. Reclamation activity will continue in the West Remus Creek area throughout the 2023 season.

10. Closure

Should the Nunavut Water Board have any questions or concerns regarding this document, please contact the undersigned.

Sincerely,
Environment and Climate Change Canada



Jean-Philippe Cloutier-Dussault
Property Manager, Assets, Real Property and Security Directorate
Environment and Climate Change Canada /
Government of Canada
jean-philippe.cloutier-dussault@ec.gc.ca / Tel. : 514-641-8753

11. References

Arcadis Canada Inc. (Arcadis), 2018:
Environmental Impact Assessment Addendum for the High Arctic Weather Station Project Improvements for: Construction of New Road, Construction of Water Crossing over Black Top Creek, and Development of New Quarry Site. March 2018. Prepared for Public Services and Procurement Canada.

CCME (Canadian Council for Ministers of the Environment), 2001:
Canadian Water Quality Guidelines for the Protections of Aquatic Life. CCME Water Quality Index 1.0 Technical Report. 13pp.

Health Canada, 2020:
Guidelines for Canadian Drinking Water Quality—Summary Table. Water and Air Quality Bureau, Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.

Nunavut Water Board (NWB), 2021:
NWB Amended Renewal Water Licence No: 8BC-EUR2131

Appendix A

Standard NWB Annual Reporting Form

NWB Annual Report **Year being reported:** Select 2022

License No: 8BC-EUR2131 **Issued Date:** July 22, 2021
Expiry Date: July 21, 2031

Project Name: Eureka High Arctic Weather Station

Licensee: Environment and Climate Change Canada.

Mailing Address:
160 Chemin Tour-de-l'isle
Montreal, QC H3C 4G8
for Eureka Weather Station, Eureka, NU, X0A 0G0

Name of Company filing Annual Report (if different from Name of Licensee please clarify relationship between the two entities, if applicable):
AECOM Canada Ltd. Regulatory Contractor of Environment and Climate Change Canada

General Background Information on the Project (*optional):
The Eureka High Arctic Weather Station (HAWS; the Project; the site) is located on the north side of Slidre Fjord, at the northwestern tip of Fosheim Peninsula, Ellesmere Island, NU. Since 1947, Environment & Climate Change Canada (ECCC) has owned and managed the overall operations and maintenance of the site under Land Reserve #1021. The total area of the Project is approximately 2.23 hectares. There are presently 15 primary buildings and other facilities at the HAWS. The Eureka runway is located 1.5 kilometres northeast of the HAWS main site and is the primary way by which the HAWS is accessed year-round.
The Eureka HAWS is an operational weather monitoring facility as well as a hub of activity for the Department of National Defence (DND), the Polar Continental Shelf Project and the Polar Environment Atmospheric Research Lab. Additional sites at Eureka are operated by the Canadian Network for the Detection of Atmospheric Change including the PEARL and the Surface and Atmospheric Flux, Irradiance and Radiation Extension and Zero Altitude PEARL Auxiliary Laboratory.

Licence Requirements: the licensee must provide the following information in accodance with

Part B Item 1

A summary report of water use and waste disposal activities, including, but not limited to: methods of obtaining water; sewage and greywater management; drill waste management; solid and hazardous waste management.

Water Source(s): Station Creek

Water Quantity:	
10000	Quantity Allowable Domestic (cu.m)
3576	Actual Quantity Used Domestic (cu.m)
	Quantity Allowable Drilling (cu.m)
	Total Quantity Used Drilling (cu.m)

Waste Management and/or Disposal

- [x] Solid Waste Disposal
- [x] Sewage
- [ ] Drill Waste
- [x] Greywater

☑ Hazardous
☐ Other:

Additional Details:

Please see attached report.

A list of unauthorized discharges and a summary of follow-up actions taken.

Spill No.: (as reported to the Spill Hot-line)
Date of Spill: September 6, 2022
Date of Notification to an Inspector: September 8, 2022
Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

See appendix B of report

Spill No.: (as reported to the Spill Hot-line)
Date of Spill:
Date of Notification to an Inspector:
Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

Spill No.: (as reported to the Spill Hot-line)
Date of Spill:
Date of Notification to an Inspector:
Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

Revisions to the Spill Contingency Plan

SCP submitted and approved - no revision required or proposed

Additional Details:

Revisions to the Abandonment and Restoration Plan

AR plan submitted and approved - no revision required or proposed

Additional Details:

Progressive Reclamation Work Undertaken

Additional Details (i.e., work completed and future works proposed)

See Section 9 of report

Results of the Monitoring Program including:

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each

Details attached

Additional Details:

Please see attached report.

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each

Details attached

Additional Details:

Please see attached report.

Results of any additional sampling and/or analysis that was requested by an Inspector

No additional sampling requested by an Inspector or the Board

Additional Details: (date of request, analysis of results, data attached, etc)

Any other details on water use or waste disposal requested by the Board by November 1 of the year being

No additional sampling requested by an Inspector or the Board

Additional Details: (Attached or provided below)

Any responses or follow-up actions on inspection/compliance reports

No inspection report issued by INAC

Additional Details: (Dates of Report, Follow-up by the Licensee)

Any additional comments or information for the Board to consider

Date Submitted:	March 23, 2022	
Submitted/Prepared by:	Tyler Huguet	
Contact Information:	**Tel:**	2363346120
	Fax:	
	email:	Tyler.huguet@aecom.com

Appendix B

Spill Reports

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND
OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE
Tel: (867) 920-8130 • Email: spills@gov.nt.ca

REPORT LINE USE ONLY

A	Report Date: 09 / 08 / 22	Report Time: 10:00 am	☑ Original Spill Report **OR** ☐ Update # _____ to the Original Spill Report	**Report Number:**
B	Occurrence Date: 09 / 06 / 22	Occurrence Time: 6:30 pm		
C	Land Use Permit Number (if applicable): N2017-N0017		Water Licence Number (if applicable): 8BC-EUR2131	
D	Geographic Place Name or Distance and Direction from the Named Location: Eureka		Region: ☐ NT ☑ Nunavut ☐ Adjacent Jurisdiction or Ocean	
E	Latitude: 79 Degrees 56 Minutes 32 Seconds		Longitude: 85 Degrees 21 Minutes 17 Seconds	
F	Responsible Party or Vessel Name:		Responsible Party Address or Office Location:	
G	Any Contractor Involved: Nuna		Contractor Address or Office Location: Eureka	
H	Product Spilled: ☐ Potential Spill Diesel Fuel	Quantity in Litres, Kilograms or Cubic Metres: 60 Litres	U.N. Number:	
I	Spill Source: Crusher Fuel Tank	Spill Cause: Overfill	Area of Contamination in Square Metres: 7.2	
J	Factors Affecting Spill or Recovery: None	Describe Any Assistance Required: None	Hazards to Persons, Property or Environment: None	
K	Additional Information, Comments, Actions Proposed or Taken to Contain, Recover or Dispose of Spilled Product and Contaminated Materials: Soil was cleaned up and placed in contaminated soil area			

L	Reported to Spill Line by: Rob Goldstone	Position: Safety	Employer: Nuna	Location Calling From: Emailed	Telephone:
M	Any Alternate Contact:	Position:	Employer:	Alternate Contact Location:	Alternate Telephone:

REPORT LINE USE ONLY

N	Received at Spill Line by:	Position:	Employer:	Location Called:	Report Line Number:

Lead Agency: ☐ EC ☐ CCG/TCMSS ☐ GNWT ☐ GN ☐ ILA ☐ AANDC ☐ NEB ☐ Other: _____

Significance: ☐ Minor ☐ Major ☐ Unknown

File Status: ☐ Open ☐ Closed

Agency:	Contact Name:	Contact Time:	Remarks:
Lead Agency:			
First Support Agency:			
Second Support Agency:			
Third Support Agency:			

Appendix C

Laboratory Data

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

Taiga Batch No.: 221135

- FINAL REPORT -

Prepared For: Environment Canada

Address: 123 Main Street
Suite 150
Winnipeg,MB
R3C 4W2

Attn: Don Lavallee **Facsimile:**

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: June-30-22
Print Date: *June-30-22*

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

Taiga Batch No.: 221135

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-3 **Taiga Sample ID:** 001

Client Project: Sewage Lagoon Sampling
Sample Type: Water
Received Date: 17-Jun-22
Sampling Date: 16-Jun-22
Sampling Time: 16:05
Location:
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Inorganics - Nutrients						
Ammonia as Nitrogen	10.5	0.005	mg/L	22-Jun-22	TEL068	
Biochemical Oxygen Demand	30	2	mg/L	17-Jun-22	TEL019	
Organic Carbon, Total	35.7	0.5	mg/L	21-Jun-22	TEL033	
Phosphorous, Total	1.75	0.002	mg/L	23-Jun-22	TEL069	
Inorganics - Physicals						
Alkalinity, Total (as CaCO3)	139	0.4	mg/L	17-Jun-22	TEL060	
Conductivity, Specific (@25C)	1950	0.4	µS/cm	17-Jun-22	TEL059	
pH	7.36		pH units	17-Jun-22	TEL058	
Solids, Total Suspended	58	3	mg/L	22-Jun-22	TEL008	
Major Ions						
Calcium	74.1	0.1	mg/L	19-Jun-22	TEL055	
Chloride	366	0.7	mg/L	18-Jun-22	TEL055	
Hardness	341	0.7	mg/L	19-Jun-22	TEL055	
Magnesium	37.8	0.1	mg/L	19-Jun-22	TEL055	
Nitrate as Nitrogen	< 0.01	0.01	mg/L	18-Jun-22	TEL055	

ReportDate: June-30-22
Print Date: *June-30-22*

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Taiga Batch No.: 221135

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-3 **Taiga Sample ID:** 001

Nitrate+Nitrite as Nitrogen	< 0.01	0.01	mg/L	18-Jun-22	TEL055
Potassium	13.9	0.1	mg/L	19-Jun-22	TEL055
Sodium	257	0.1	mg/L	19-Jun-22	TEL055
Sulphate	269	1	mg/L	18-Jun-22	TEL055
Microbiology					
Coliforms, Fecal	< 100000	100000	CFU/100mL	17-Jun-22	TEL017
Organics					
Oil and Grease, visible	Non-visible			17-Jun-22	Visual Exam
Subcontracted Organics					
Phenols, Total	0.0032	0.001	mg/L	21-Jun-22	AB ENV.06537
Trace Metals, Total					
Aluminum	441	5	µg/L	22-Jun-22	TEL035
Antimony	0.3	0.1	µg/L	22-Jun-22	TEL035
Arsenic	0.8	0.2	µg/L	22-Jun-22	TEL035
Barium	11.6	0.1	µg/L	22-Jun-22	TEL035
Beryllium	< 0.1	0.1	µg/L	22-Jun-22	TEL035
Cadmium	< 0.1	0.1	µg/L	22-Jun-22	TEL035
Cesium	< 0.1	0.1	µg/L	22-Jun-22	TEL035
Chromium	1.0	0.1	µg/L	22-Jun-22	TEL035
Cobalt	0.7	0.1	µg/L	22-Jun-22	TEL035
Copper	27.9	0.2	µg/L	22-Jun-22	TEL035
Iron	991	5	µg/L	22-Jun-22	TEL035
Lead	0.6	0.1	µg/L	22-Jun-22	TEL035
Lithium	15.4	0.2	µg/L	22-Jun-22	TEL035
Manganese	54.5	0.1	µg/L	22-Jun-22	TEL035

ReportDate: June-30-22
Print Date: *June-30-22*

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Taiga Batch No.: 221135

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-3 **Taiga Sample ID:** 001

Molybdenum	0.5	0.1	µg/L	22-Jun-22	TEL035
Nickel	3.8	0.1	µg/L	22-Jun-22	TEL035
Rubidium	5.8	0.1	µg/L	22-Jun-22	TEL035
Selenium	0.5	0.5	µg/L	22-Jun-22	TEL035
Silver	< 0.1	0.1	µg/L	22-Jun-22	TEL035
Strontium	282	0.1	µg/L	22-Jun-22	TEL035
Thallium	< 0.1	0.1	µg/L	22-Jun-22	TEL035
Titanium	11.2	0.1	µg/L	22-Jun-22	TEL035
Uranium	0.5	0.1	µg/L	22-Jun-22	TEL035
Vanadium	1.3	0.1	µg/L	22-Jun-22	TEL035
Zinc	28.4	5	µg/L	22-Jun-22	TEL035

ReportDate: June-30-22
Print Date: *June-30-22*

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Taiga Batch No.: 221135

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-2 **Taiga Sample ID:** 002

Client Project: Sewage Lagoon Sampling
Sample Type: Water
Received Date: 17-Jun-22
Sampling Date: 16-Jun-22
Sampling Time: 13:15
Location:
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Inorganics - Nutrients						
Ammonia as Nitrogen	0.122	0.005	mg/L	22-Jun-22	TEL068	
Biochemical Oxygen Demand	17	2	mg/L	17-Jun-22	TEL019	
Organic Carbon, Total	1.6	0.5	mg/L	21-Jun-22	TEL033	
Phosphorous, Total	3.30	0.002	mg/L	23-Jun-22	TEL069	
Inorganics - Physicals						
Alkalinity, Total (as CaCO3)	61.7	0.4	mg/L	17-Jun-22	TEL060	
Conductivity, Specific (@25C)	753	0.4	µS/cm	17-Jun-22	TEL059	
pH	8.25		pH units	17-Jun-22	TEL058	
Solids, Total Suspended		3	mg/L	22-Jun-22	TEL008	235
Major Ions						
Calcium	28.5	0.1	mg/L	19-Jun-22	TEL055	
Chloride	127	0.7	mg/L	18-Jun-22	TEL055	
Hardness	126	0.7	mg/L	19-Jun-22	TEL055	
Magnesium	13.4	0.1	mg/L	19-Jun-22	TEL055	
Nitrate as Nitrogen	4.14	0.01	mg/L	18-Jun-22	TEL055	
Nitrate+Nitrite as Nitrogen	4.14	0.01	mg/L	18-Jun-22	TEL055	

ReportDate: June-30-22
Print Date: *June-30-22*

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Taiga Batch No.: 221135

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-2 **Taiga Sample ID:** 002

Potassium	4.8	0.1	mg/L	19-Jun-22	TEL055
Sodium	99.9	0.1	mg/L	19-Jun-22	TEL055
Sulphate	90	1	mg/L	18-Jun-22	TEL055
Microbiology					
Coliforms, Fecal	< 100	100	CFU/100mL	17-Jun-22	TEL017
Organics					
Oil and Grease, visible	Non-visible			17-Jun-22	Visual Exam
Subcontracted Organics					
Phenols, Total	< 0.0010	0.001	mg/L	21-Jun-22	AB ENV.06537
Trace Metals, Total					
Aluminum	92200	5	µg/L	22-Jun-22	TEL035
Antimony	0.2	0.1	µg/L	22-Jun-22	TEL035
Arsenic	13.5	0.2	µg/L	22-Jun-22	TEL035
Barium	1240	0.1	µg/L	22-Jun-22	TEL035
Beryllium	17.9	0.1	µg/L	22-Jun-22	TEL035
Cadmium	2.0	0.1	µg/L	22-Jun-22	TEL035
Cesium	4.8	0.1	µg/L	22-Jun-22	TEL035
Chromium	197	0.1	µg/L	22-Jun-22	TEL035
Cobalt	96.8	0.1	µg/L	22-Jun-22	TEL035
Copper	328	0.2	µg/L	22-Jun-22	TEL035
Iron	339000	5	µg/L	22-Jun-22	TEL035
Lead	194	0.1	µg/L	22-Jun-22	TEL035
Lithium	321	0.2	µg/L	22-Jun-22	TEL035
Manganese	2490	0.1	µg/L	22-Jun-22	TEL035
Molybdenum	0.4	0.1	µg/L	22-Jun-22	TEL035

ReportDate: June-30-22
Print Date: *June-30-22*

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Taiga Batch No.: 221135

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-2 **Taiga Sample ID:** 002

Nickel	234	0.1	µg/L	22-Jun-22	TEL035
Rubidium	128	0.1	µg/L	22-Jun-22	TEL035
Selenium	6.1	0.5	µg/L	22-Jun-22	TEL035
Silver	1.3	0.1	µg/L	22-Jun-22	TEL035
Strontium	1050	0.1	µg/L	22-Jun-22	TEL035
Thallium	1.1	0.1	µg/L	22-Jun-22	TEL035
Titanium	115	0.1	µg/L	22-Jun-22	TEL035
Uranium	14.8	0.1	µg/L	22-Jun-22	TEL035
Vanadium	265	0.1	µg/L	22-Jun-22	TEL035
Zinc	819	5	µg/L	22-Jun-22	TEL035

ReportDate: June-30-22
Print Date: *June-30-22*

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Taiga Batch No.: 221135

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-4 **Taiga Sample ID:** 003

Client Project: Sewage Lagoon Sampling
Sample Type: Water
Received Date: 17-Jun-22
Sampling Date: 16-Jun-22
Sampling Time: 13:45
Location:
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Inorganics - Nutrients						
Ammonia as Nitrogen	< 0.005	0.005	mg/L	22-Jun-22	TEL068	
Biochemical Oxygen Demand	< 2	2	mg/L	17-Jun-22	TEL019	
Organic Carbon, Total	4.8	0.5	mg/L	21-Jun-22	TEL033	
Phosphorous, Total	0.162	0.002	mg/L	23-Jun-22	TEL069	
Inorganics - Physicals						
Alkalinity, Total (as CaCO3)	50.3	0.4	mg/L	17-Jun-22	TEL060	
Conductivity, Specific (@25C)	5070	0.4	µS/cm	17-Jun-22	TEL059	
pH	7.76		pH units	17-Jun-22	TEL058	
Solids, Total Suspended	272	3	mg/L	22-Jun-22	TEL008	
Major Ions						
Calcium	343	0.1	mg/L	19-Jun-22	TEL055	
Chloride	1050	0.7	mg/L	18-Jun-22	TEL055	
Hardness	1770	0.7	mg/L	19-Jun-22	TEL055	
Magnesium	222	0.1	mg/L	19-Jun-22	TEL055	
Nitrate as Nitrogen	< 0.01	0.01	mg/L	18-Jun-22	TEL055	
Nitrate+Nitrite as Nitrogen	< 0.01	0.01	mg/L	18-Jun-22	TEL055	

ReportDate: June-30-22
Print Date: *June-30-22*

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Taiga Batch No.: 221135

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-4 **Taiga Sample ID:** 003

Potassium	17.2	0.1	mg/L	19-Jun-22	TEL055
Sodium	552	0.1	mg/L	19-Jun-22	TEL055
Sulphate	1380	1	mg/L	18-Jun-22	TEL055
Microbiology					
Coliforms, Fecal	< 1	1	CFU/100mL	17-Jun-22	TEL017
Organics					
Oil and Grease, visible	Non-visible			17-Jun-22	Visual Exam
Subcontracted Organics					
Phenols, Total	< 0.0010	0.001	mg/L	21-Jun-22	AB ENV.06537
Trace Metals, Total					
Aluminum	512	5	µg/L	22-Jun-22	TEL035
Antimony	0.2	0.1	µg/L	22-Jun-22	TEL035
Arsenic	0.9	0.2	µg/L	22-Jun-22	TEL035
Barium	20.7	0.1	µg/L	22-Jun-22	TEL035
Beryllium	< 0.1	0.1	µg/L	22-Jun-22	TEL035
Cadmium	< 0.1	0.1	µg/L	22-Jun-22	TEL035
Cesium	0.1	0.1	µg/L	22-Jun-22	TEL035
Chromium	1.0	0.1	µg/L	22-Jun-22	TEL035
Cobalt	0.8	0.1	µg/L	22-Jun-22	TEL035
Copper	2.3	0.2	µg/L	22-Jun-22	TEL035
Iron	929	5	µg/L	22-Jun-22	TEL035
Lead	0.6	0.1	µg/L	22-Jun-22	TEL035
Lithium	36.7	0.2	µg/L	22-Jun-22	TEL035
Manganese	62.7	0.1	µg/L	22-Jun-22	TEL035
Molybdenum	0.8	0.1	µg/L	22-Jun-22	TEL035

ReportDate: June-30-22
Print Date: *June-30-22*

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Taiga Batch No.: 221135

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-4 **Taiga Sample ID:** 003

Nickel	2.6	0.1	µg/L	22-Jun-22	TEL035
Rubidium	2.6	0.1	µg/L	22-Jun-22	TEL035
Selenium	0.8	0.5	µg/L	22-Jun-22	TEL035
Silver	< 0.1	0.1	µg/L	22-Jun-22	TEL035
Strontium	713	0.1	µg/L	22-Jun-22	TEL035
Thallium	< 0.1	0.1	µg/L	22-Jun-22	TEL035
Titanium	16.3	0.1	µg/L	22-Jun-22	TEL035
Uranium	1.0	0.1	µg/L	22-Jun-22	TEL035
Vanadium	1.5	0.1	µg/L	22-Jun-22	TEL035
Zinc	< 5.0	5	µg/L	22-Jun-22	TEL035

ReportDate: June-30-22
Print Date: *June-30-22*

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Taiga Batch No.: 221135

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-6 **Taiga Sample ID:** 004

Client Project: Sewage Lagoon Sampling
Sample Type: Water
Received Date: 17-Jun-22
Sampling Date: 16-Jun-22
Sampling Time: 13:30
Location:
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Inorganics - Nutrients						
Ammonia as Nitrogen	< 0.005	0.005	mg/L	22-Jun-22	TEL068	
Biochemical Oxygen Demand	< 2	2	mg/L	17-Jun-22	TEL019	
Organic Carbon, Total	3.6	0.5	mg/L	21-Jun-22	TEL033	
Phosphorous, Total	0.066	0.002	mg/L	23-Jun-22	TEL069	
Inorganics - Physicals						
Alkalinity, Total (as CaCO3)	21.2	0.4	mg/L	17-Jun-22	TEL060	
Conductivity, Specific (@25C)	1960	0.4	µS/cm	17-Jun-22	TEL059	
pH	7.56		pH units	17-Jun-22	TEL058	
Solids, Total Suspended	24	3	mg/L	22-Jun-22	TEL008	
Major Ions						
Calcium	65.4	0.1	mg/L	19-Jun-22	TEL055	
Chloride	490	0.7	mg/L	18-Jun-22	TEL055	
Hardness	347	0.7	mg/L	19-Jun-22	TEL055	
Magnesium	44.7	0.1	mg/L	19-Jun-22	TEL055	
Nitrate as Nitrogen	0.37	0.01	mg/L	18-Jun-22	TEL055	
Nitrate+Nitrite as Nitrogen	0.37	0.01	mg/L	18-Jun-22	TEL055	

ReportDate: June-30-22
Print Date: *June-30-22*

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Taiga Batch No.: 221135

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-6 **Taiga Sample ID:** 004

Potassium	11.4	0.1	mg/L	19-Jun-22	TEL055
Sodium	252	0.1	mg/L	19-Jun-22	TEL055
Sulphate	161	1	mg/L	18-Jun-22	TEL055
Microbiology					
Coliforms, Fecal	< 1	1	CFU/100mL	17-Jun-22	TEL017
Organics					
Oil and Grease, visible	Non-visible			17-Jun-22	Visual Exam
Subcontracted Organics					
Phenols, Total	< 0.0010	0.001	mg/L	21-Jun-22	AB ENV.06537
Trace Metals, Total					
Aluminum	1350	5	µg/L	22-Jun-22	TEL035
Antimony	< 0.1	0.1	µg/L	22-Jun-22	TEL035
Arsenic	1.6	0.2	µg/L	22-Jun-22	TEL035
Barium	26.7	0.1	µg/L	22-Jun-22	TEL035
Beryllium	0.1	0.1	µg/L	22-Jun-22	TEL035
Cadmium	< 0.1	0.1	µg/L	22-Jun-22	TEL035
Cesium	0.3	0.1	µg/L	22-Jun-22	TEL035
Chromium	2.6	0.1	µg/L	22-Jun-22	TEL035
Cobalt	1.4	0.1	µg/L	22-Jun-22	TEL035
Copper	3.3	0.2	µg/L	22-Jun-22	TEL035
Iron	3730	5	µg/L	22-Jun-22	TEL035
Lead	1.5	0.1	µg/L	22-Jun-22	TEL035
Lithium	13.8	0.2	µg/L	22-Jun-22	TEL035
Manganese	62.7	0.1	µg/L	22-Jun-22	TEL035
Molybdenum	0.5	0.1	µg/L	22-Jun-22	TEL035

ReportDate: June-30-22
Print Date: *June-30-22*

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Taiga Batch No.: 221135

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-6 **Taiga Sample ID:** 004

Nickel	3.2	0.1	µg/L	22-Jun-22	TEL035
Rubidium	3.4	0.1	µg/L	22-Jun-22	TEL035
Selenium	< 0.5	0.5	µg/L	22-Jun-22	TEL035
Silver	< 0.1	0.1	µg/L	22-Jun-22	TEL035
Strontium	344	0.1	µg/L	22-Jun-22	TEL035
Thallium	< 0.1	0.1	µg/L	22-Jun-22	TEL035
Titanium	31.6	0.1	µg/L	22-Jun-22	TEL035
Uranium	1.0	0.1	µg/L	22-Jun-22	TEL035
Vanadium	5.2	0.1	µg/L	22-Jun-22	TEL035
Zinc	7.8	5	µg/L	22-Jun-22	TEL035

ReportDate: June-30-22
Print Date: *June-30-22*

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Taiga Batch No.: 221135

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-6 **Taiga Sample ID:** 004

- DATA QUALIFERS -

Data Qualifier Descriptions:

235 *Could not filter adequate sample size due to high levels of solids in sample.*

*** 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: June-30-22
Print Date: *June-30-22*

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

Taiga Batch No.: 221718

- FINAL REPORT -

Prepared For: Environment Canada

Address: 123 Main Street
Suite 150
Winnipeg,MB
R3C 4W2

Attn: **Don Lavallee** **Facsimile:**

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: Monday, September 5, 2022
Print Date: ***Monday, September 5, 2022***

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

Taiga Batch No.: 221718

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU-Bulk **Taiga Sample ID:** 001

Client Project: Domestic Water
Sample Type: Water Storage Tank - Powerhouse
Received Date: 19-Aug-22
Sampling Date: 11-Aug-22
Sampling Time: 14:40
Location: Eureka, Nunavut
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Cations by ICP-MS						
Calcium	60.0	0.1	mg/L	24-Aug-22	TEL035	
Hardness	266	0.7	mg/L	24-Aug-22	TEL035	
Magnesium	28.4	0.1	mg/L	24-Aug-22	TEL035	
Sodium	64.8	0.1	mg/L	24-Aug-22	TEL035	
Inorganics - Nutrients						
Organic Carbon, Total	2.1	0.5	mg/L	24-Aug-22	TEL033	
Inorganics - Physicals						
Alkalinity, Total (as CaCO3)	61.7	0.4	mg/L	20-Aug-22	TEL060	
Conductivity, Specific (@25C)	829	0.4	µS/cm	20-Aug-22	TEL059	
pH	8.08		pH units	20-Aug-22	TEL058	
Solids, Total Suspended	20	3	mg/L	22-Aug-22	TEL008	
Turbidity	15.9	0.05	NTU	19-Aug-22	TEL006	
Microbiology						
Coliforms, Total		1	MPN/100ml		TEL053	105
Escherichia coli		1	MPN/100ml		TEL053	105

ReportDate: Monday, September 5, 2022
Print Date: ***Monday, September 5, 2022***

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

Taiga Batch No.: 221718

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU-Bulk **Taiga Sample ID:** 001

Organics					
Bromodichloromethane	24.1	1	ug/L	23-Aug-22	TEL074
Bromoform	20.5	1	ug/L	23-Aug-22	TEL074
Chloroform	12.8	1	ug/L	23-Aug-22	TEL074
Dibromochloromethane	42.7	1	ug/L	23-Aug-22	TEL074
Trihalomethanes, Total	100	1	ug/L	23-Aug-22	TEL074
Trace Metals, Total					
Aluminum	393	0.6	µg/L	31-Aug-22	TEL035
Antimony	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Arsenic	0.4	0.2	µg/L	31-Aug-22	TEL035
Barium	6.7	0.1	µg/L	31-Aug-22	TEL035
Beryllium	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Cadmium	< 0.0	0.04	µg/L	31-Aug-22	TEL035
Cesium	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Chromium	0.7	0.1	µg/L	31-Aug-22	TEL035
Cobalt	0.5	0.1	µg/L	31-Aug-22	TEL035
Copper	7.6	0.2	µg/L	31-Aug-22	TEL035
Iron	887	5	µg/L	31-Aug-22	TEL035
Lead	0.4	0.1	µg/L	31-Aug-22	TEL035
Lithium	14.0	0.2	µg/L	31-Aug-22	TEL035
Manganese	19.9	0.1	µg/L	31-Aug-22	TEL035
Molybdenum	0.2	0.1	µg/L	31-Aug-22	TEL035
Nickel	3.2	0.1	µg/L	31-Aug-22	TEL035
Rubidium	1.7	0.1	µg/L	31-Aug-22	TEL035
Selenium	0.5	0.3	µg/L	31-Aug-22	TEL035

ReportDate: Monday, September 5, 2022
Print Date: *Monday, September 5, 2022*

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

Taiga Batch No.: 221718

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU-Bulk **Taiga Sample ID:** 001

Silver	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Strontium	235	0.1	µg/L	31-Aug-22	TEL035
Thallium	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Titanium	4.2	0.1	µg/L	31-Aug-22	TEL035
Uranium	0.4	0.1	µg/L	31-Aug-22	TEL035
Vanadium	1.0	0.1	µg/L	31-Aug-22	TEL035
Zinc	8.6	0.4	µg/L	31-Aug-22	TEL035

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Taiga Batch No.: 221718

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU-RO **Taiga Sample ID:** 002

Client Project: Domestic Water
Sample Type: Reverse Osmosis
Received Date: 19-Aug-22
Sampling Date: 11-Aug-22
Sampling Time: 17:40
Location: Eureka, Nunavut
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Cations by ICP-MS						
Calcium	< 0.1	0.1	mg/L	24-Aug-22	TEL035	
Hardness	< 0.7	0.7	mg/L	24-Aug-22	TEL035	
Magnesium	< 0.1	0.1	mg/L	24-Aug-22	TEL035	
Sodium	5.2	0.1	mg/L	24-Aug-22	TEL035	
Inorganics - Nutrients						
Organic Carbon, Total	< 0.5	0.5	mg/L	24-Aug-22	TEL033	
Inorganics - Physicals						
Alkalinity, Total (as CaCO3)	3.7	0.4	mg/L	20-Aug-22	TEL060	
Conductivity, Specific (@25C)	25.5	0.4	µS/cm	20-Aug-22	TEL059	
pH	7.12		pH units	20-Aug-22	TEL058	
Solids, Total Suspended	< 3	3	mg/L	22-Aug-22	TEL008	
Turbidity	0.09	0.05	NTU	19-Aug-22	TEL006	
Microbiology						
Coliforms, Total		1	MPN/100ml		TEL053	105
Escherichia coli		1	MPN/100ml		TEL053	105
Organics						

ReportDate: Monday, September 5, 2022
Print Date: ***Monday, September 5, 2022***

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Taiga Batch No.: 221718

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU-RO **Taiga Sample ID:** 002

Bromodichloromethane	1.1	1	ug/L	23-Aug-22	TEL074	110
Bromoform	< 1.0	1	ug/L	23-Aug-22	TEL074	110
Chloroform	5.1	1	ug/L	23-Aug-22	TEL074	110
Dibromochloromethane	< 1.0	1	ug/L	23-Aug-22	TEL074	110
Trihalomethanes, Total	6.6	1	ug/L	23-Aug-22	TEL074	110
Trace Metals, Total						
Aluminum	1.9	0.6	µg/L	31-Aug-22	TEL035	
Antimony	< 0.1	0.1	µg/L	31-Aug-22	TEL035	
Arsenic	< 0.2	0.2	µg/L	31-Aug-22	TEL035	
Barium	< 0.1	0.1	µg/L	31-Aug-22	TEL035	
Beryllium	< 0.1	0.1	µg/L	31-Aug-22	TEL035	
Bismuth	< 0.2	0.2	µg/L	31-Aug-22	TEL035	
Cadmium	< 0.04	0.04	µg/L	31-Aug-22	TEL035	
Cesium	< 0.1	0.1	µg/L	31-Aug-22	TEL035	
Chromium	< 0.1	0.1	µg/L	31-Aug-22	TEL035	
Cobalt	< 0.1	0.1	µg/L	31-Aug-22	TEL035	
Copper	1.4	0.2	µg/L	31-Aug-22	TEL035	
Iron	< 5	5	ug/L	31-Aug-22	TEL035	
Lead	0.1	0.1	µg/L	31-Aug-22	TEL035	
Lithium	< 0.2	0.2	µg/L	31-Aug-22	TEL035	
Manganese	< 0.1	0.1	µg/L	31-Aug-22	TEL035	
Molybdenum	< 0.1	0.1	µg/L	31-Aug-22	TEL035	
Nickel	< 0.1	0.1	µg/L	31-Aug-22	TEL035	
Rubidium	< 0.1	0.1	µg/L	31-Aug-22	TEL035	
Selenium	< 0.3	0.3	µg/L	31-Aug-22	TEL035	

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Taiga Batch No.: 221718

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU-RO **Taiga Sample ID:** 002

Silver	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Strontium	0.2	0.1	µg/L	31-Aug-22	TEL035
Thallium	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Titanium	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Uranium	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Vanadium	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Zinc	20.4	0.4	µg/L	31-Aug-22	TEL035

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Taiga Batch No.: 221718

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU-Main **Taiga Sample ID:** 003

Client Project: Domestic Water
Sample Type: Water Storage Tank - Main Complex
Received Date: 19-Aug-22
Sampling Date: 11-Aug-22
Sampling Time: 16:05
Location: Eureka, Nunavut
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Cations by ICP-MS						
Calcium	70.0	0.1	mg/L	24-Aug-22	TEL035	
Hardness	314	0.7	mg/L	24-Aug-22	TEL035	
Magnesium	33.9	0.1	mg/L	24-Aug-22	TEL035	
Sodium	73.1	0.1	mg/L	24-Aug-22	TEL035	
Inorganics - Nutrients						
Organic Carbon, Total	1.5	0.5	mg/L	24-Aug-22	TEL033	
Inorganics - Physicals						
Alkalinity, Total (as CaCO3)	65.5	0.4	mg/L	20-Aug-22	TEL060	
Conductivity, Specific (@25C)	963	0.4	µS/cm	20-Aug-22	TEL059	
pH	8.14		pH units	20-Aug-22	TEL058	
Solids, Total Suspended	< 3	3	mg/L	22-Aug-22	TEL008	
Turbidity	2.55	0.05	NTU	19-Aug-22	TEL006	
Microbiology						
Coliforms, Total		1	MPN/100ml		TEL053	105
Escherichia coli		1	MPN/100ml		TEL053	105
Organics						

ReportDate: Monday, September 5, 2022
Print Date: ***Monday, September 5, 2022***

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Taiga Batch No.: 221718

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU-Main **Taiga Sample ID:** 003

Bromodichloromethane	26.3	1	ug/L	23-Aug-22	TEL074	110
Bromoform	43.9	1	ug/L	23-Aug-22	TEL074	110
Chloroform	10.6	1	ug/L	23-Aug-22	TEL074	110
Dibromochloromethane	51.9	1	ug/L	23-Aug-22	TEL074	110
Trihalomethanes, Total	133	1	ug/L	23-Aug-22	TEL074	110
Trace Metals, Total						
Aluminum	43.2	0.6	µg/L	31-Aug-22	TEL035	
Antimony	< 0.1	0.1	µg/L	31-Aug-22	TEL035	
Arsenic	< 0.2	0.2	µg/L	31-Aug-22	TEL035	
Barium	5.4	0.1	µg/L	31-Aug-22	TEL035	
Beryllium	< 0.1	0.1	µg/L	31-Aug-22	TEL035	
Cadmium	< 0.0	0.04	µg/L	31-Aug-22	TEL035	
Cesium	< 0.1	0.1	µg/L	31-Aug-22	TEL035	
Chromium	0.2	0.1	µg/L	31-Aug-22	TEL035	
Cobalt	0.4	0.1	µg/L	31-Aug-22	TEL035	
Copper	9.9	0.2	µg/L	31-Aug-22	TEL035	
Iron	99	5	µg/L	31-Aug-22	TEL035	
Lead	0.2	0.1	µg/L	31-Aug-22	TEL035	
Lithium	15.6	0.2	µg/L	31-Aug-22	TEL035	
Manganese	16.3	0.1	µg/L	31-Aug-22	TEL035	
Molybdenum	0.2	0.1	µg/L	31-Aug-22	TEL035	
Nickel	3.5	0.1	µg/L	31-Aug-22	TEL035	
Rubidium	1.4	0.1	µg/L	31-Aug-22	TEL035	
Selenium	0.5	0.3	µg/L	31-Aug-22	TEL035	
Silver	< 0.1	0.1	µg/L	31-Aug-22	TEL035	

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Taiga Batch No.: 221718

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU-Main **Taiga Sample ID:** 003

Strontium	284	0.1	µg/L	31-Aug-22	TEL035
Thallium	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Titanium	0.9	0.1	µg/L	31-Aug-22	TEL035
Uranium	0.4	0.1	µg/L	31-Aug-22	TEL035
Vanadium	0.2	0.1	µg/L	31-Aug-22	TEL035
Zinc	62.6	0.4	µg/L	31-Aug-22	TEL035

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Taiga Batch No.: 221718

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU-Tap **Taiga Sample ID:** 004

Client Project: Domestic Water
Sample Type: Weather Office Tap
Received Date: 19-Aug-22
Sampling Date: 11-Aug-22
Sampling Time: 15:45
Location: Eureka, Nunavut
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Cations by ICP-MS						
Calcium	1.0	0.1	mg/L	24-Aug-22	TEL035	
Hardness	3.6	0.7	mg/L	24-Aug-22	TEL035	
Magnesium	0.3	0.1	mg/L	24-Aug-22	TEL035	
Sodium	219	0.1	mg/L	24-Aug-22	TEL035	
Inorganics - Nutrients						
Organic Carbon, Total	1.7	0.5	mg/L	24-Aug-22	TEL033	
Inorganics - Physicals						
Alkalinity, Total (as CaCO3)	67.6	0.4	mg/L	20-Aug-22	TEL060	
Conductivity, Specific (@25C)	1070	0.4	µS/cm	20-Aug-22	TEL059	
pH	8.22		pH units	20-Aug-22	TEL058	
Solids, Total Suspended	< 3	3	mg/L	22-Aug-22	TEL008	
Turbidity	0.22	0.05	NTU	19-Aug-22	TEL006	
Microbiology						
Coliforms, Total		1	MPN/100ml		TEL053	105
Escherichia coli		1	MPN/100ml		TEL053	105
Organics						

ReportDate: Monday, September 5, 2022
Print Date: ***Monday, September 5, 2022***

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

Taiga Batch No.: 221718

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU-Tap **Taiga Sample ID:** 004

Bromodichloromethane	26.1	1	ug/L	23-Aug-22	TEL074
Bromoform	41.2	1	ug/L	23-Aug-22	TEL074
Chloroform	15.0	1	ug/L	23-Aug-22	TEL074
Dibromochloromethane	48.7	1	ug/L	23-Aug-22	TEL074
Trihalomethanes, Total	131	1	ug/L	23-Aug-22	TEL074
Trace Metals, Total					
Aluminum	9.9	0.6	µg/L	31-Aug-22	TEL035
Antimony	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Arsenic	< 0.2	0.2	µg/L	31-Aug-22	TEL035
Barium	0.1	0.1	µg/L	31-Aug-22	TEL035
Beryllium	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Bismuth	< 0.2	0.2	µg/L	31-Aug-22	TEL035
Cadmium	< 0.04	0.04	µg/L	31-Aug-22	TEL035
Cesium	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Chromium	0.1	0.1	µg/L	31-Aug-22	TEL035
Cobalt	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Copper	74.1	0.2	µg/L	31-Aug-22	TEL035
Iron	10	5	ug/L	31-Aug-22	TEL035
Lead	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Lithium	3.9	0.2	µg/L	31-Aug-22	TEL035
Manganese	0.6	0.1	µg/L	31-Aug-22	TEL035
Molybdenum	0.2	0.1	µg/L	31-Aug-22	TEL035
Nickel	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Rubidium	0.3	0.1	µg/L	31-Aug-22	TEL035
Selenium	0.6	0.3	µg/L	31-Aug-22	TEL035

ReportDate: Monday, September 5, 2022
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Taiga Batch No.: 221718

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU-Tap **Taiga Sample ID:** 004

Silver	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Strontium	2.8	0.1	µg/L	31-Aug-22	TEL035
Thallium	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Titanium	0.1	0.1	µg/L	31-Aug-22	TEL035
Uranium	0.2	0.1	µg/L	31-Aug-22	TEL035
Vanadium	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Zinc	8.4	0.4	µg/L	31-Aug-22	TEL035

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Taiga Batch No.: 221718

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU-Fresh **Taiga Sample ID:** 005

Client Project: Domestic Water
Sample Type: Fresh Water Lagoon
Received Date: 19-Aug-22
Sampling Date: 11-Aug-22
Sampling Time: 14:25
Location: Eureka, Nunavut
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Cations by ICP-MS						
Calcium	64.5	0.1	mg/L	24-Aug-22	TEL035	
Hardness	284	0.7	mg/L	24-Aug-22	TEL035	
Magnesium	29.9	0.1	mg/L	24-Aug-22	TEL035	
Sodium	56.2	0.1	mg/L	24-Aug-22	TEL035	
Inorganics - Nutrients						
Organic Carbon, Total	1.5	0.5	mg/L	24-Aug-22	TEL033	
Inorganics - Physicals						
Alkalinity, Total (as CaCO3)	63.8	0.4	mg/L	20-Aug-22	TEL060	
Conductivity, Specific (@25C)	808	0.4	µS/cm	20-Aug-22	TEL059	
pH	8.10		pH units	20-Aug-22	TEL058	
Solids, Total Suspended	6	3	mg/L	22-Aug-22	TEL008	
Turbidity	14.0	0.05	NTU	19-Aug-22	TEL006	
Microbiology						
Coliforms, Total		1	MPN/100ml		TEL053	105
Escherichia coli		1	MPN/100ml		TEL053	105
Organics						

ReportDate: Monday, September 5, 2022
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Taiga Batch No.: 221718

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU-Fresh **Taiga Sample ID:** 005

Bromodichloromethane	<	1.0	1	ug/L	23-Aug-22	TEL074
Bromoform	<	1.0	1	ug/L	23-Aug-22	TEL074
Chloroform	<	1.0	1	ug/L	23-Aug-22	TEL074
Dibromochloromethane	<	1.0	1	ug/L	23-Aug-22	TEL074
Trihalomethanes, Total	<	1.0	1	ug/L	23-Aug-22	TEL074
Trace Metals, Total						
Aluminum		225	0.6	µg/L	31-Aug-22	TEL035
Antimony	<	0.1	0.1	µg/L	31-Aug-22	TEL035
Arsenic		0.4	0.2	µg/L	31-Aug-22	TEL035
Barium		9.0	0.1	µg/L	31-Aug-22	TEL035
Beryllium	<	0.1	0.1	µg/L	31-Aug-22	TEL035
Cadmium	<	0.0	0.04	µg/L	31-Aug-22	TEL035
Cesium	<	0.1	0.1	µg/L	31-Aug-22	TEL035
Chromium		0.5	0.1	µg/L	31-Aug-22	TEL035
Cobalt		0.4	0.1	µg/L	31-Aug-22	TEL035
Copper		0.8	0.2	µg/L	31-Aug-22	TEL035
Iron		547	5	µg/L	31-Aug-22	TEL035
Lead		0.3	0.1	µg/L	31-Aug-22	TEL035
Lithium		12.4	0.2	µg/L	31-Aug-22	TEL035
Manganese		9.9	0.1	µg/L	31-Aug-22	TEL035
Molybdenum		0.2	0.1	µg/L	31-Aug-22	TEL035
Nickel		2.9	0.1	µg/L	31-Aug-22	TEL035
Rubidium		1.7	0.1	µg/L	31-Aug-22	TEL035
Selenium		0.6	0.3	µg/L	31-Aug-22	TEL035
Silver	<	0.1	0.1	µg/L	31-Aug-22	TEL035

ReportDate: Monday, September 5, 2022
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Taiga Batch No.: 221718

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU-Fresh **Taiga Sample ID:** 005

Strontium	251	0.1	µg/L	31-Aug-22	TEL035
Thallium	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Titanium	5.2	0.1	µg/L	31-Aug-22	TEL035
Uranium	0.4	0.1	µg/L	31-Aug-22	TEL035
Vanadium	1.1	0.1	µg/L	31-Aug-22	TEL035
Zinc	2.6	0.4	µg/L	31-Aug-22	TEL035

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

Taiga Batch No.: 221718

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU-Fresh **Taiga Sample ID:** 005

- DATA QUALIFERS -

Data Qualifier Descriptions:

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

110 *Reported result uncertain, due to air in vial.*

*** 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, September 5, 2022

Print Date: ***Monday, September 5, 2022***

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

Taiga Batch No.: 221719

- FINAL REPORT -

Prepared For: Environment Canada

Address: 123 Main Street
Suite 150
Winnipeg,MB
R3C 4W2

Attn: **Don Lavallee** **Facsimile:**

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: Monday, September 5, 2022
Print Date: ***Monday, September 5, 2022***

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

Taiga Batch No.: 221719

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-3 **Taiga Sample ID:** 001

Client Project: Sewage Lagoon
Sample Type: Sewage Lagoon
Received Date: 19-Aug-22
Sampling Date: 11-Aug-22
Sampling Time: 16:00
Location: Eureka, Nunavut
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Cations by ICP-MS						
Calcium	193	2.6	mg/L	24-Aug-22	TEL035	
Hardness	1010	18.2	mg/L	24-Aug-22	TEL035	
Magnesium	130	2.6	mg/L	24-Aug-22	TEL035	
Potassium	34.8	2.6	mg/L	24-Aug-22	TEL035	
Sodium	962	2.6	mg/L	24-Aug-22	TEL035	
Inorganics - Nutrients						
Ammonia as Nitrogen	16.4	0.005	mg/L	22-Aug-22	TEL068	
Biochemical Oxygen Demand		2	mg/L		TEL019	105
Organic Carbon, Total	203	0.5	mg/L	24-Aug-22	TEL033	
Phosphorous, Total	3.71	0.002	mg/L	25-Aug-22	TEL069	
Inorganics - Physicals						
Alkalinity, Total (as CaCO3)	344	0.4	mg/L	20-Aug-22	TEL060	
Conductivity, Specific (@25C)	6140	0.4	µS/cm	20-Aug-22	TEL059	
pH	8.26		pH units	20-Aug-22	TEL058	
Solids, Total Suspended	230	3	mg/L	19-Aug-22	TEL008	

ReportDate: Monday, September 5, 2022
Print Date: ***Monday, September 5, 2022***

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Taiga Batch No.: 221719

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-3 **Taiga Sample ID:** 001

Major Ions					
Chloride	1490	0.7	mg/L	21-Aug-22	TEL055
Nitrate as Nitrogen	< 0.01	0.01	mg/L	21-Aug-22	TEL055
Nitrate+Nitrite as Nitrogen	< 0.01	0.01	mg/L	21-Aug-22	TEL055
Sulphate	578	1	mg/L	21-Aug-22	TEL055
Microbiology					
Coliforms, Fecal		1	CFU/100mL		TEL017 105
Organics					
Oil and Grease, visible	Non-visible			19-Aug-22	Visual Exam
Subcontracted Organics					
Phenols, Total	0.0094	0.001	mg/L	25-Aug-22	AB ENV.06537
Trace Metals, Total					
Aluminum	1310	0.6	µg/L	31-Aug-22	TEL035
Antimony	0.8	0.1	µg/L	31-Aug-22	TEL035
Arsenic	3.9	0.2	µg/L	31-Aug-22	TEL035
Barium	20.0	0.1	µg/L	31-Aug-22	TEL035
Beryllium	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Cadmium	0.6	0.04	µg/L	31-Aug-22	TEL035
Cesium	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Chromium	1.7	0.1	µg/L	31-Aug-22	TEL035
Cobalt	1.5	0.1	µg/L	31-Aug-22	TEL035
Copper	59.3	0.2	µg/L	31-Aug-22	TEL035
Iron	1860	5	µg/L	31-Aug-22	TEL035
Lead	1.6	0.1	µg/L	31-Aug-22	TEL035
Lithium	37.5	0.2	µg/L	31-Aug-22	TEL035

ReportDate: Monday, September 5, 2022
Print Date: *Monday, September 5, 2022*

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Taiga Batch No.: 221719

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-3 **Taiga Sample ID:** 001

Manganese	783	0.1	µg/L	31-Aug-22	TEL035
Molybdenum	0.7	0.1	µg/L	31-Aug-22	TEL035
Nickel	9.6	0.1	µg/L	31-Aug-22	TEL035
Rubidium	18.7	0.1	µg/L	31-Aug-22	TEL035
Selenium	2.8	0.3	µg/L	31-Aug-22	TEL035
Silver	0.1	0.1	µg/L	31-Aug-22	TEL035
Strontium	810	0.1	µg/L	31-Aug-22	TEL035
Thallium	< 0.1	0.1	µg/L	31-Aug-22	TEL035
Titanium	3.7	0.1	µg/L	31-Aug-22	TEL035
Uranium	0.4	0.1	µg/L	31-Aug-22	TEL035
Vanadium	1.8	0.1	µg/L	31-Aug-22	TEL035
Zinc	66.4	0.4	µg/L	31-Aug-22	TEL035

ReportDate: Monday, September 5, 2022
Print Date: *Monday, September 5, 2022*

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Taiga Batch No.: 221719

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-3 **Taiga Sample ID:** 001

- DATA QUALIFERS -

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: Monday, September 5, 2022

Print Date: ***Monday, September 5, 2022***

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

Taiga Batch No.: 222294

- FINAL REPORT -

Prepared For: Environment Canada

Address: 123 Main Street
Suite 150
Winnipeg,MB
R3C 4W2

Attn: **Greg Stansfield** **Facsimile:**

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: November-25-22
Print Date: *November-25-22*

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

Taiga Batch No.: 222294

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU - Bulk **Taiga Sample ID:** 001

Client Project:
Sample Type: Water Storage Tank - Powerhouse
Received Date: 10-Nov-22
Sampling Date: 09-Nov-22
Sampling Time:
Location: Eureka, NU
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Cations by ICP-MS						
Calcium	76.5	0.1	mg/L	21-Nov-22	TEL035	
Hardness	344	0.7	mg/L	21-Nov-22	TEL035	
Magnesium	37.2	0.1	mg/L	21-Nov-22	TEL035	
Sodium	82.0	0.1	mg/L	21-Nov-22	TEL035	
Inorganics - Nutrients						
Organic Carbon, Total	1.6	0.5	mg/L	21-Nov-22	TEL033	
Inorganics - Physicals						
Alkalinity, Total (as CaCO3)	85.2	0.4	mg/L	14-Nov-22	TEL060	102
Conductivity, Specific (@25C)	1020	0.4	µS/cm	10-Nov-22	TEL059	
pH	8.02		pH units	10-Nov-22	TEL058	
Solids, Total Suspended	4	3	mg/L	16-Nov-22	TEL008	
Turbidity	0.94	0.05	NTU	09-Nov-22	TEL006	
Microbiology						
Coliforms, Total	< 1.0	1	MPN/100ml	10-Nov-22	TEL053	
Escherichia coli	< 1.0	1	MPN/100ml	10-Nov-22	TEL053	

ReportDate: November-25-22
Print Date: *November-25-22*

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

Taiga Batch No.: 222294

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU - Bulk **Taiga Sample ID:** 001

Organics						
Bromodichloromethane	42.6	1	ug/L	21-Nov-22	TEL074	110
Bromoform	27.0	1	ug/L	21-Nov-22	TEL074	110
Chloroform	28.3	1	ug/L	21-Nov-22	TEL074	110
Dibromochloromethane	62.0	1	ug/L	21-Nov-22	TEL074	110
Trihalomethanes, Total	160	1	ug/L	21-Nov-22	TEL074	110
Trace Metals, Total						
Aluminum	15.0	0.6	µg/L	14-Nov-22	TEL035	
Antimony	< 0.1	0.1	µg/L	14-Nov-22	TEL035	
Arsenic	0.2	0.2	µg/L	14-Nov-22	TEL035	
Barium	9.6	0.1	µg/L	14-Nov-22	TEL035	
Beryllium	< 0.1	0.1	µg/L	14-Nov-22	TEL035	
Cadmium	< 0.04	0.04	µg/L	14-Nov-22	TEL035	
Cesium	< 0.1	0.1	µg/L	14-Nov-22	TEL035	
Chromium	0.2	0.1	µg/L	14-Nov-22	TEL035	
Cobalt	< 0.1	0.1	µg/L	14-Nov-22	TEL035	
Copper	114	0.2	µg/L	14-Nov-22	TEL035	
Iron	425	5	ug/L	14-Nov-22	TEL035	
Lead	0.2	0.1	µg/L	14-Nov-22	TEL035	
Lithium	15.5	0.2	µg/L	14-Nov-22	TEL035	
Manganese	3.9	0.1	µg/L	14-Nov-22	TEL035	
Molybdenum	0.2	0.1	µg/L	14-Nov-22	TEL035	
Nickel	2.4	0.1	µg/L	14-Nov-22	TEL035	
Rubidium	1.3	0.1	µg/L	14-Nov-22	TEL035	
Selenium	< 0.3	0.3	µg/L	14-Nov-22	TEL035	

ReportDate: November-25-22
Print Date: *November-25-22*

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Taiga Batch No.: 222294

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU - Bulk **Taiga Sample ID:** 001

Silver	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Strontium	291	0.1	µg/L	14-Nov-22	TEL035
Thallium	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Titanium	0.4	0.1	µg/L	14-Nov-22	TEL035
Uranium	0.4	0.1	µg/L	14-Nov-22	TEL035
Vanadium	0.1	0.1	µg/L	14-Nov-22	TEL035
Zinc	98.4	0.4	µg/L	14-Nov-22	TEL035

ReportDate: November-25-22
Print Date: *November-25-22*

Taiga Environmental Laboratory
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Taiga Batch No.: 222294

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU - RO **Taiga Sample ID:** 002

Client Project:
Sample Type: Reverse Osmosis
Received Date: 10-Nov-22
Sampling Date: 09-Nov-22
Sampling Time:
Location: Eureka, NU
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Cations by ICP-MS						
Calcium	< 0.1	0.1	mg/L	21-Nov-22	TEL035	
Hardness	< 0.7	0.7	mg/L	21-Nov-22	TEL035	
Magnesium	< 0.1	0.1	mg/L	21-Nov-22	TEL035	
Sodium	3.9	0.1	mg/L	21-Nov-22	TEL035	
Inorganics - Nutrients						
Organic Carbon, Total	< 0.5	0.5	mg/L	21-Nov-22	TEL033	
Inorganics - Physicals						
Alkalinity, Total (as CaCO3)	2.9	0.4	mg/L	14-Nov-22	TEL060	102
Conductivity, Specific (@25C)	16.4	0.4	µS/cm	10-Nov-22	TEL059	
pH	7.02		pH units	10-Nov-22	TEL058	
Solids, Total Suspended	< 3	3	mg/L	16-Nov-22	TEL008	
Turbidity	0.07	0.05	NTU	09-Nov-22	TEL006	
Microbiology						
Coliforms, Total	< 1.0	1	MPN/100ml	10-Nov-22	TEL053	
Escherichia coli	< 1.0	1	MPN/100ml	10-Nov-22	TEL053	
Organics						

ReportDate: November-25-22
Print Date: *November-25-22*

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

Taiga Batch No.: 222294

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU - RO **Taiga Sample ID:** 002

Bromodichloromethane	6.9	1	ug/L	21-Nov-22	TEL074
Bromoform	3.4	1	ug/L	21-Nov-22	TEL074
Chloroform	7.6	1	ug/L	21-Nov-22	TEL074
Dibromochloromethane	8.4	1	ug/L	21-Nov-22	TEL074
Trihalomethanes, Total	26.3	1	ug/L	21-Nov-22	TEL074
Trace Metals, Total					
Aluminum	< 0.6	0.6	µg/L	14-Nov-22	TEL035
Antimony	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Arsenic	< 0.2	0.2	µg/L	14-Nov-22	TEL035
Barium	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Beryllium	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Cadmium	< 0.04	0.04	µg/L	14-Nov-22	TEL035
Cesium	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Chromium	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Cobalt	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Copper	1.9	0.2	µg/L	14-Nov-22	TEL035
Iron	< 5	5	ug/L	14-Nov-22	TEL035
Lead	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Lithium	< 0.2	0.2	µg/L	14-Nov-22	TEL035
Manganese	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Molybdenum	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Nickel	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Rubidium	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Selenium	< 0.3	0.3	µg/L	14-Nov-22	TEL035
Silver	< 0.1	0.1	µg/L	14-Nov-22	TEL035

ReportDate: November-25-22
Print Date: *November-25-22*

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Taiga Batch No.: 222294

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU - RO **Taiga Sample ID:** 002

Strontium	0.1	0.1	µg/L	14-Nov-22	TEL035
Thallium	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Titanium	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Uranium	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Vanadium	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Zinc	13.3	0.4	µg/L	14-Nov-22	TEL035

ReportDate: November-25-22
Print Date: *November-25-22*

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

Taiga Batch No.: 222294

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU - Main **Taiga Sample ID:** 003

Client Project:
Sample Type: Water Storage Tank - Main Complex
Received Date: 10-Nov-22
Sampling Date: 09-Nov-22
Sampling Time:
Location: Eureka, NU
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Cations by ICP-MS						
Calcium	71.0	0.1	mg/L	21-Nov-22	TEL035	
Hardness	321	0.7	mg/L	21-Nov-22	TEL035	
Magnesium	35.0	0.1	mg/L	21-Nov-22	TEL035	
Sodium	75.3	0.1	mg/L	21-Nov-22	TEL035	
Inorganics - Nutrients						
Organic Carbon, Total	1.4	0.5	mg/L	21-Nov-22	TEL033	
Inorganics - Physicals						
Alkalinity, Total (as CaCO3)	81.7	0.4	mg/L	14-Nov-22	TEL060	102
Conductivity, Specific (@25C)	975	0.4	µS/cm	10-Nov-22	TEL059	
pH	8.09		pH units	10-Nov-22	TEL058	
Solids, Total Suspended	< 3	3	mg/L	16-Nov-22	TEL008	
Turbidity	1.30	0.05	NTU	09-Nov-22	TEL006	
Microbiology						
Coliforms, Total	< 1.0	1	MPN/100ml	10-Nov-22	TEL053	
Escherichia coli	< 1.0	1	MPN/100ml	10-Nov-22	TEL053	
Organics						

ReportDate: November-25-22
Print Date: *November-25-22*

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Taiga Batch No.: 222294

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU - Main **Taiga Sample ID:** 003

Bromodichloromethane	27.3	1	ug/L	21-Nov-22	TEL074
Bromoform	19.4	1	ug/L	21-Nov-22	TEL074
Chloroform	14.7	1	ug/L	21-Nov-22	TEL074
Dibromochloromethane	40.7	1	ug/L	21-Nov-22	TEL074
Trihalomethanes, Total	102	1	ug/L	21-Nov-22	TEL074
Trace Metals, Total					
Aluminum	19.6	0.6	µg/L	14-Nov-22	TEL035
Antimony	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Arsenic	< 0.2	0.2	µg/L	14-Nov-22	TEL035
Barium	9.0	0.1	µg/L	14-Nov-22	TEL035
Beryllium	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Cadmium	< 0.04	0.04	µg/L	14-Nov-22	TEL035
Cesium	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Chromium	0.2	0.1	µg/L	14-Nov-22	TEL035
Cobalt	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Copper	6.9	0.2	µg/L	14-Nov-22	TEL035
Iron	35	5	ug/L	14-Nov-22	TEL035
Lead	0.1	0.1	µg/L	14-Nov-22	TEL035
Lithium	14.3	0.2	µg/L	14-Nov-22	TEL035
Manganese	1.4	0.1	µg/L	14-Nov-22	TEL035
Molybdenum	0.2	0.1	µg/L	14-Nov-22	TEL035
Nickel	2.2	0.1	µg/L	14-Nov-22	TEL035
Rubidium	1.2	0.1	µg/L	14-Nov-22	TEL035
Selenium	< 0.3	0.3	µg/L	14-Nov-22	TEL035
Silver	< 0.1	0.1	µg/L	14-Nov-22	TEL035

ReportDate: November-25-22
Print Date: *November-25-22*

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Taiga Batch No.: 222294

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU - Main **Taiga Sample ID:** 003

Strontium	273	0.1	µg/L	14-Nov-22	TEL035
Thallium	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Titanium	0.6	0.1	µg/L	14-Nov-22	TEL035
Uranium	0.4	0.1	µg/L	14-Nov-22	TEL035
Vanadium	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Zinc	62.6	0.4	µg/L	14-Nov-22	TEL035

ReportDate: November-25-22
Print Date: *November-25-22*

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

Taiga Batch No.: 222294

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU - Tap **Taiga Sample ID:** 004

Client Project:
Sample Type: Weather Office Tap
Received Date: 10-Nov-22
Sampling Date: 09-Nov-22
Sampling Time:
Location: Eureka, NU
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Cations by ICP-MS						
Calcium	0.8	0.1	mg/L	21-Nov-22	TEL035	
Hardness	3.3	0.7	mg/L	21-Nov-22	TEL035	
Magnesium	0.3	0.1	mg/L	21-Nov-22	TEL035	
Sodium	228	0.1	mg/L	21-Nov-22	TEL035	
Inorganics - Nutrients						
Organic Carbon, Total	1.8	0.5	mg/L	21-Nov-22	TEL033	
Inorganics - Physicals						
Alkalinity, Total (as CaCO3)	82.3	0.4	mg/L	14-Nov-22	TEL060	102
Conductivity, Specific (@25C)	1080	0.4	µS/cm	10-Nov-22	TEL059	
pH	8.36		pH units	10-Nov-22	TEL058	
Solids, Total Suspended	< 3	3	mg/L	16-Nov-22	TEL008	
Turbidity	0.18	0.05	NTU	09-Nov-22	TEL006	
Microbiology						
Coliforms, Total	< 1.0	1	MPN/100ml	10-Nov-22	TEL053	
Escherichia coli	< 1.0	1	MPN/100ml	10-Nov-22	TEL053	
Organics						

ReportDate: November-25-22
Print Date: *November-25-22*

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

Taiga Batch No.: 222294

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU - Tap **Taiga Sample ID:** 004

Bromodichloromethane	30.7	1	ug/L	21-Nov-22	TEL074
Bromoform	20.1	1	ug/L	21-Nov-22	TEL074
Chloroform	39.0	1	ug/L	21-Nov-22	TEL074
Dibromochloromethane	41.2	1	ug/L	21-Nov-22	TEL074
Trihalomethanes, Total	131	1	ug/L	21-Nov-22	TEL074
Trace Metals, Total					
Aluminum	6.9	0.6	µg/L	14-Nov-22	TEL035
Antimony	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Arsenic	< 0.2	0.2	µg/L	14-Nov-22	TEL035
Barium	0.1	0.1	µg/L	14-Nov-22	TEL035
Beryllium	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Cadmium	< 0.04	0.04	µg/L	14-Nov-22	TEL035
Cesium	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Chromium	0.2	0.1	µg/L	14-Nov-22	TEL035
Cobalt	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Copper	44.0	0.2	µg/L	14-Nov-22	TEL035
Iron	11	5	ug/L	14-Nov-22	TEL035
Lead	0.1	0.1	µg/L	14-Nov-22	TEL035
Lithium	0.6	0.2	µg/L	14-Nov-22	TEL035
Manganese	0.3	0.1	µg/L	14-Nov-22	TEL035
Molybdenum	0.2	0.1	µg/L	14-Nov-22	TEL035
Nickel	0.8	0.1	µg/L	14-Nov-22	TEL035
Rubidium	0.5	0.1	µg/L	14-Nov-22	TEL035
Selenium	0.4	0.3	µg/L	14-Nov-22	TEL035
Silver	< 0.1	0.1	µg/L	14-Nov-22	TEL035

ReportDate: November-25-22
Print Date: *November-25-22*

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Taiga Batch No.: 222294

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU - Tap **Taiga Sample ID:** 004

Strontium	2.7	0.1	µg/L	14-Nov-22	TEL035
Thallium	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Titanium	0.2	0.1	µg/L	14-Nov-22	TEL035
Uranium	0.2	0.1	µg/L	14-Nov-22	TEL035
Vanadium	< 0.1	0.1	µg/L	14-Nov-22	TEL035
Zinc	16.6	0.4	µg/L	14-Nov-22	TEL035

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- DATA QUALIFERS -

Data Qualifier Descriptions:

102 *Sample analyzed past holding time due to equipment failure.*

110 *Reported result uncertain, due to air in vial.*

*** 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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