Nunavut Water Board

Water License 8BC-EUR1621 2020 Annual Report

Prepared by:

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Prepared for:

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Date: March 2021

Project #: 60639794

Distribution List

# Hard Copies	PDF Required	Association / Company Name
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	✓	Public Services and Procurement Canada
	✓	Environmental and Climate Change Canada
	✓	AECOM Canada Ltd.

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This Statement of Qualifications and Limitations is attached to and forms part of the Report and any use of the Report is subject to the terms hereof.

AECOM: 2015-04-13

Authors

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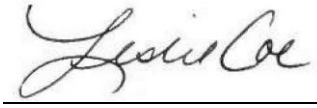
Ecologist

Report Reviewed By:



Leslie Coe, B.Sc., P.Biol.
Senior Environmental Planner

Report Approved By:

Robin Reese, M.E.Des., P.Biol., RPBio
Technical Leader Permitting - Western Canada, Environment

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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-EUR1621 Annual Report is to provide a yearly reference and summary of all works related to water use completed for the Project in 2020. This report was written by AECOM Canada Ltd. (AECOM) on behalf of ECCC.

Per Type ‘B’ Water Licence 8BC-EUR1621 (2016; NWB, 2016) and Amended Water Licence 8BC-EUR1621 / Amendment No. 1 (2018; NWB, 2018), this annual report provides an accurate annual update of the Licensee’s (i.e., ECCC) activities related to water use and the deposit of waste on site.

1.2 Project Overview

ECCC is currently undertaking or planning a number of construction and infrastructure upgrade projects to the Eureka HAWS. Due to these new projects, ECCC will be required to re-apply for new or amended existing licences and permits. The numerous improvement projects currently being undertaken or potentially planned for include the following:

- Eureka Airport Runway Recapitalization Project
- Eureka Water and Wastewater Treatment Infrastructure Upgrades Project
- Fuel Tank Inspections and Upgrades
- Building Decommissioning Project
- Development of new Non-Hazardous Waste Disposal Area(s)
- Development of Landfarm
- Human Health and Ecological Risk Assessment and Remedial Action Plan
- Long Term Environmental Monitoring Plan

Legend

Watercourse

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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: March 2021

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2. Technical Summary of Activities Undertaken in 2020

The Eureka HAWS maintained operational activities throughout the year at the Eureka Main Complex; however, most of the Project activities were related to the Eureka Airport Runway Recapitalization Project at the Eureka Airstrip. A technical summary of all activities undertaken in 2020 are listed below.

- Camp opening, operations commenced on June 5, 2020.
- Equipment maintenance and camp facility repairs and maintenance.
- Installation of updated Pacto toilets throughout camp and an incinerator for handling of black water waste.
- Snow removal and winter road maintenance. Road maintenance of West Remus access road year-round.
- Freshet management including observations and maintenance of culverts and bridge at Blacktop Creek.
- As per quarrying permit 2018QP0001 (AANDC, 2018), a total of 10,199 cubic meters (m^3) of aggregate was extracted from the West Remus Creek Quarry in 2020, all during the month of September.
- Installation of temporary threshold lights at Station 5+400.
- Removal of existing runway and apron edge lighting from 4+940 – 5+400.
- Construction of new DND Apron complete with lined fuelling area.
- Reconstruction of Main Apron complete with lined fuelling area.
- Runway reconstruction from Station 4+940 to 5+400, including subgrade preparations and regrading, placement and compaction of new granular materials.
- Installation of new runway edge and apron lighting for both aprons and the reconstructed runway section.
- Removal of temporary threshold lighting and activation of new permanent threshold lights at Station 4+940.
- Construction of access road and pad complete with liner for a New Fuel Drum Crushing Site.
- During construction activities on the apron of the Eureka airstrip, hydrocarbon contaminated soil was discovered in July 2020. As a result, a Contaminated Soil Storage Cell with a capacity of 6000 m^3 was constructed (ECCC notified Crown-Indigenous Relations and Northern Affairs Canada [CIRNAC] of this discovery on July 24, 2020).
- Removal of 4500 m^3 of hydrocarbon contaminated soil that was encountered within the footprint of the Main Apron and deposited into the Contaminated Soil Storage Cell in September 2020.
- Camp shut down and demobilization from site on September 26, 2020.

3. Work Plan for 2021

The construction program summary presented below outlines activities planned for 2021. The proposed 2021 construction schedule and activities outlined below are subject to changes and restrictions related to the COVID-19 Pandemic. The summary below assumes similar restrictions and conditions encountered in 2020.

- Re-open camp and prepare fleet for summer construction – estimated start date of June 10, 2021.
- Install all necessary temporary runway lighting required during the construction phase.
- Remove remaining runway edge lighting from Station 5+400 to east extremity at 6+570.
- Re-grade and compact existing subgrade to specifications.
- Place and compact new granular materials for remainder of runway reconstruction.
- Excavate perimeter trench for installation of remaining new runway edge lighting.
- Activate all new runway, apron and edge lighting, test and commission.
- Potential for the expansion of quarrying activities at West Remus Creek Quarry (awaiting Nunavut Impact Review Board [NIRB] approval).
- Resume crushing at West Remus Creek Quarry for future project requirements.
- Haul and stockpile all crushed material from West Remus Creek Quarry to approved stockpile area at Blacktop Creek Quarry.
- Shut down camp and demobilize in late September 2021.
- It is expected that approximately one month of crushing activities will be carried over into the 2022 season.
- Fuel tank inspections.
- Geo-tech study of potential future construction areas.

4. Water Use

4.1 Location and Methods

The Eureka HAWS obtains its water for domestic purposes from Station Creek (**Figure 2**). The water is pumped from Station Creek into the Eureka Water Reservoir 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.

From July 10 to September 4, 2020 water was incorrectly extracted from Blacktop Creek (**Figure 1**) using a 3/8' mesh screened intake hose for dust suppression. PSPC has since advised that only West Remus Creek should be used for dust suppression purposes and the contractor has altered their procedures accordingly. The incorrect withdrawal of water from Blacktop Creek has been reported as a non-compliance to the NIRB in the 2020 NIRB Annual Report (AECOM, 2020). PSPC and their consulting team will work more closing with contractors throughout the year to ensure and improve compliance requirements.

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 (˝)
Station Creek Withdrawal Site	6,458.55	June 6 – June 30; September 5	79	59	21	85	57	4
Eureka Water Reservoir	-	-	79	59	20	85	56	46
Blacktop Creek Withdrawal Site	1,344 or 16-24 per day	July 10 – September 4	79	58	12	85	38	59

4.2 Unauthorized Discharges of Water

Not Applicable: There were no unauthorized discharges of water at the Site in 2020.

5. Waste Disposal

5.1 Location and Methods

Blackwater at the Eureka HAWS is collected with Pacto toilets and is then incinerated on site; whereas, greywater is pumped to 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; however, the Sewage Lagoon in 2020 was only decanted once in July. 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.

On July 10, 2020, Nuna Consulting, the contractor excavating at the HAWS's existing runway apron, discovered soil with a hydrocarbon odour. Since the discovery, all contaminated soil has been stored temporarily while a plan to determine long-term disposal and remediation options is developed. It is estimated that there was approximately 4500 m^3 of contaminated soil excavated from the runway apron. A lined Contaminated Soil Storage Cell, with a capacity of 6000 m^3, was constructed to temporarily store the contaminated soil (**Figure 2**). CIRNAC was notified of this discovery and proposed course of action on July 24, 2020. All other waste on site is disposed of in appropriate Waste Management Areas.

Table 2 provides locations of waste disposal sites at Eureka HAWS and **Figure 3** shows the various waste storage facilities, which includes:

- 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.
- 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.

Legend

Watercourse

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1:5,000

NAD 1983 UTM Zone 16N

Sources: NRCan
Imagery: Esri World Imagery

AECOM

Figure: 2

WASTE AND STORAGE FACILITIES ON THE MAIN COMPLEX OF THE EUREKA HIGH ARCTIC WEATHER STATION

EUREKA HIGH ARCTIC WEATHER STATION
WATER LICENSE 8BC-EUR1621 2020 ANNUAL REPORT
PUBLIC SERVICES AND PROCUREMENT CANADA, EUREKA HAWS
Project No.: 60638794 Date: March 2021

Legend

- Watercourse
- Temporary Access Road
- Existing Access Road

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

N
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S

75 37.5 0 75 150 225 m

1:7,500

NAD 1983 UTM Zone 16N

Sources: NRCan
Imagery: Esri World Imagery

AECOM

Figure: 3

WASTE DISPOSAL FACILITIES FOR THE EUREKA HIGH ARCTIC WEATHER STATION

EUREKA HIGH ARCTIC WEATHER STATION
WATER LICENSE 8BC-EUR1621 2020 ANNUAL REPORT
PUBLIC SERVICES AND PROCUREMENT CANADA, EUREKA HAWS
Project No.: 60638794 Date: March 2021

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Table 2: Locations for Waste 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 Solid Waste Facility	79	59	29	85	46	14
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
Incinerator	79	59	22	85	56	21
Sewage Lagoon	79	59	23	85	50	11
West Remus Creek Quarry	79	56	32	85	21	20

5.2 Quantities

The following quantities of waste were observed in 2020:

- From July 9 to July 13, 1526.08 m^3 of sewage effluent was decanted into the fjord.
- In August and September, approximately 4500 m^3 of contaminated soil excavated from the Eureka Airport Runway Recapitalization Project was stored in the Contaminated Soil Storage Cell
- Every month, the site produces approximately 1820 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, one barrel of pure ash waste is produced from incinerating household waste and delivered to the Non-Hazardous Solid Waste Facility.
- On an average month, one barrel of fuel and oil waste is produced. On average, the site produces 12-14 barrels per year. The fuel and oil waste are then stored in a lined area on the Fuel Tank Farm until it can be transported off-site for adequate disposal at a licenced hazardous waste facility.

6. Water Quality Monitoring Results

The Long-Term Monitoring Program for the site did not include any sampling in 2020; however, routine water quality samples were collected in June 2020 at the following locations:

- EUR-1: Sample collected at the Eureka Water Reservoir.
- EUR-3: Sewage water sample collected at the Sewage Lagoon prior to decanting.
- EUR-4: Runoff water sample collected at the Landfarm.

In 2020, water quality samples were not taken from the Non-Hazardous Solid Waste Facility due to the absence of runoff at the sampling location (EUR-2). It is also important to note that runoff from West Remus Creek Quarry (EUR-5) was sampled at the incorrect sampling location; as such, the invalid results have been excluded from this report. In 2021, EUR-5 will be sampled at the correct location and results will be provided in the 2021 Annual Report.

There were no seeps observed at West Remus Creek Quarry or the Contaminated Soil Storage Cell. 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.

Domestic water sampling was conducted in May 2020 and included sample collection of raw water in the tank room, chlorinated water in the Eureka Main Complex Tank, tap water and reverse osmosis drinking water. Raw data for all water quality sampling and the appropriate water quality guidelines are presented in **Appendix C** and discussed below. The results collected in May 2020 were previously reported in an amendment to the 2019 annual report. To realign reporting, they will be presented again in this report. Future annual reports will only include samples taken in their respective reporting year.

Water quality results for the Sewage Lagoon (EUR-3) and Landfarm runoff (EUR-4) were compared to the maximum concentration of parameters allowed in the Type 'B' Water Licence 8BC-EUR1621 are presented in **Table 3**, **Table 4** and **Table 5**, respectively, and were all found to be below the water quality guidelines.

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

Parameter	Units	EUR-3	Maximum Concentration Guideline
Biochemical Oxygen Demand	mg/L	34	100
Total Suspended Solids	mg/L	42	120
Fecal Coliforms	CFU/100 mL	200	1×10^6
pH	pH units	8.47	6.0-9.0
Oil and Grease	Visible sheen	No visible sheen	No Visible Sheen

Table 4: Landfarm (EUR-4) Runoff Water Quality Parameters and Results

Parameter	Units	EUR-4	Maximum Concentration Guideline
Benzene	µg/L	-	370
Toluene	µg/L	-	2
Ethylbenzene	µg/L	-	90
Lead	µg/L	0.6	1
Phenols	µg/L	<0.0010	20
Oil and Grease	mg/L; visible sheen	No visible sheen	15 and no visible sheen
pH	pH Units	8.31	6.0-9.0

Note: "-" = no data

The water quality results for reverse osmosis drinking water was compared against the Guidelines for Canadian Drinking Water Maximum Allowable Concentration (Health Canada, 2020). The guideline was exceeded for total trihalomethane (see **Appendix C**). With additional data, AECOM will analyze if the 2020 exceedance was a random event, or statistically significant. ECCC is also taking precautions by supporting additional data collection and analysis to ensure the protection of on site staff.

Per the Type ‘B’ Water Licence 8BC-EUR1621, EUR-4 water quality results are compared against the CCME Water Quality Guidelines for the Protection of Aquatic Life (CCME, 2001). It was found that there were exceedances for aluminum and iron at EUR-4.

7. Water License Inspection

The 2019 inspection report identified five (5) non-compliance items in the Type ‘B’ Water Licence 8BC-EUR1621. The status of recommended mitigation measures, as of December 31, 2020, is provided in **Appendix B**.

The next site inspection is scheduled to occur in summer 2021.

8. Revisions to Applicable Management Plans

Not applicable: There were no revisions to the Spill Contingency Plan or Abandonment and Restoration Plan in 2020.

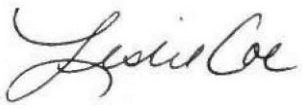
9. Progressive Reclamation Work Undertaken in 2020

Not applicable: No progressive reclamation work was undertaken at the Site in 2020.

10. Closure

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

Sincerely,
AECOM Canada Ltd.



Leslie Coe, B.Sc., P.Biol
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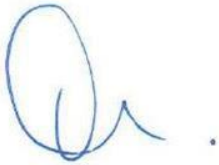

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Technical Lead – Permitting
robin.reese@aecom.com

11. References

AECOM Canada Ltd. (AECOM), 2020:
2020 Nunavut Impact Review Board Annual Report. December 2020. Prepared for Nunavut Impact Review Board.

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), 2016:
NWB Renewal Amendment Licence No. 8BC-EUR1621, Nunavut Water Board.

Nunavut Water Board (NWB), 2018:
8BC-EUR1621 Type “B” Water Licence – Amendment No.1, Nunavut Water Board.

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Attachment A

Standard NWB Annual Reporting Form

NWB Annual Report **Year being reported:** Select 2020

License No: 8BC-EUR1621 **Issued Date:** August 11, 2016
Expiry Date: August 10, 2021

Project Name: Eureka High Arctic Weather Station

Licensee: Environment 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 (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.

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)
6458.55	Actual Quantity Used Domestic (cu.m)
	Quantity Allowable Drilling (cu.m)
	Total Quantity Used Drilling (cu.m)

Waste Management and/or Disposal

- ☑ Solid Waste Disposal
- ☑ Sewage
- ☐ Drill Waste
- ☑ 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:

Date of Notification to an Inspector:

Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

There were no unauthroized discharges to report in 2020.

Revisions to the Spill Contingency Plan

SCP submitted and approved - no revision required or proposed

Additional Details:

Revisions to the Abandonment and Restoration Plan

N/A - not applicable

Additional Details:

Progressive Reclamation Work Undertaken

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

There were no reclamation activities completed in 2020.

Results of the Monitoring Program including:

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where sources of water are utilized;

Details attached

Additional Details:

Please see attached report.

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where wastes associated with the licence are deposited;

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 reported.

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:	February 24, 2021	
Submitted/Prepared by:	Brad Stuckless	
Contact Information:	**Tel:**	604-347-6802
	Fax:	
	email:	brad.stuckless@aecom.com

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Attachment B

Mitigation Measures Status Document

CIRNAC Water License Inspection

Report received on January 23, 2020

The following table includes recommended mitigation measures (and timeline) to address the non-compliances identified in the report.

#	Non-Compliance Identified in CIRNAC Report	Water License Item Related to Identified Non-compliance	Timeline	Recommended Mitigation Measures	Status as of December 31, 2020
1	The Licensee shall install flow meters or other such devices, or implement suitable methods required for the measuring of Water volumes as required under.	Part B: Item 3; Part J: Item 2	Summer 2020 Given the current COVID-19 situation, timeline may be impacted if the contractor cannot access the site	Flow meters will be installed at the two following locations: ▪ In the raw water pump house ▪ After the portable pump used to discharge the wastewater lagoon. The selection of the flow meters is ongoing and purchase order to be initiated shortly.	Flow meters have been received and are in use. 
2	Freeboard of 1.0 metre, or as recommended by a qualified geotechnical Engineer and as approved by the Board, shall be maintained at all dykes and earth-fill structures associated with the Water Supply Facilities.	Part C: Item 4	Spring 2020 Given the current COVID-19 situation, timeline may be impacted if the contractor cannot access the site	Measures to monitor the level of wastewater in the lagoon will be increased to ensure that the 1.0 metre freeboard is maintained at all times. Should the wastewater level come close to the limit, ECCC management shall be notified as early as possible. ECCC is exploring the possibility of raising the dyke.	Freeboard is maintained and monitoring continues. 

#	Non-Compliance Identified in CIRNAC Report	Water License Item Related to Identified Non-compliance	Timeline	Recommended Mitigation Measures	Status as of December 31, 2020
3	The Licensee shall not cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion.	Part C: Item 7	Summer 2020 Given the current COVID-19 situation, timeline may be impacted if the contractor cannot access the site	Banks will be repaired. Furthermore, ECCC will establish an exclusion zone around the raw water reservoir and the wastewater lagoon to prevent erosion. Heavy vehicles will be excluded from the zone and all stakeholders will receive a written notification. In addition, high visibility signage will be installed at the boundary of the zone to warn heavy vehicles not to approach. This signage is to be clearly visible in all weather conditions. Also, Station Program Manager will brief all incoming visitors and contractors when they arrive on site about these procedures.	Signs have been installed. Banks are repaired. Directive is in effect and is being followed by station staff and visitors. 
4	The Licensee shall not open burn plastics, wood treated with preservatives, electric wire, Styrofoam, asbestos or painted wood to prevent the deposition of waste materials of incomplete combustion and/or leachate from contaminated ash residual, from impacting any surrounding waters, unless otherwise approved by the Board in writing.	Part D: Item 3	2020	ECCC management will notify all station occupants (including subcontractors and other government organizations) that open burning of such materials is strictly prohibited. This directive will be written in the upcoming Standard Operating Procedures for the station. Also, Station Program Manager will brief all incoming visitors and contractors when they arrive on site about these procedures. Finally, clear signage will be installed near burning locations.	 Sign has been installed next to the burning location. Directive is in effect and is being followed by station staff and visitors.

#	Non-Compliance Identified in CIRNAC Report	Water License Item Related to Identified Non-compliance	Timeline	Recommended Mitigation Measures	Status as of December 31, 2020
5	Effluent discharged from the Sewage Treatment Facility at monitoring station EUR-3 shall not exceed the following Effluent quality limits: Parameter Maximum Concentration of any Grab Sample Biochemical Oxygen Demand BOD5 100 mg/L Total Suspended Solids 120 mg/L Fecal Coliforms 1 x 106 CFU/100 mL pH between 6.0 and 9.0 Oil and grease No visible sheen	Part D: Item 8	2020 Given the current COVID-19 situation, timeline may be impacted if the contractor cannot access the site	ECCC will establish a strict protocol for discharge that covers the following: ▪ When a discharge is planned, wastewater samples shall be taken in advance and sent to the laboratory for analysis. ▪ Standard sampling procedures will be established in accordance with the NWB guidelines. ▪ Sampling results shall be reviewed by ECCC Real Property Management against the requirements of the NWB Water License. ▪ Should the sampling results be compliant with the Effluent Quality Limits, ECCC will contact NWB to notify them about the intent to discharge. ▪ Should the sampling results be Non-compliant, discharge will be denied and that will trigger additional measures. ▪ Wastewater discharge shall never happen without written authorization from NWB and ECCC Real Property Management. ECCC currently developing an SOP on sampling. ECCC staff will receive training for water sampling and discharge regulations and procedures. The current sewage system provides partial treatment through decantation, which does not comply with environmental standards and has been assessed as in poor condition. ECCC received funding from Treasury Board in 2019. The project consists of constructing a new, larger fresh water reservoir as well as installing a fresh water treatment system which will contribute to the following results: reducing risks to the environment and human health; provide full compliance with environmental standards regarding the disposal of waste water; provide full rather than partial sewage treatment; provide safe and sanitary disposal of wastewater; minimize environmental impacts from Eureka operations; and, extend the useful life of the asset by 25 years. The design for the Water and Sewage projects is currently being finalized with tendering to be completed in 2020-21 and construction occurring between 2021-22 and 2023-24. For more details, refer to attachments “Summary Eureka Jan 29-2020 SW” and “Eureka Reservoir Schedule”.	Compliant laboratory analysis results have been received in July 2020, after which authorization to discharge the lagoon has been requested to CIRNAC. Upon reception of written authorization, the discharge was initiated on July 9 and is now complete.

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Attachment C

Water Quality Raw Data

Analyte		Units	Sampling Location							Guidelines		
			Domestic Water				Raw Water	Sewage	Runoff			
			Raw Water in the Tank Room	Eureka Main Complex Tank	Tap Water	Eureka Reverse Osmosis Drinking Water	EUR-1 (Fresh Water Reservoir)	EUR-3 (Sewage Lagoon)	EUR-4 (Landfarm)	CCME[a]	Canadian Drinking Water Quality[b]	NWB License[c]
			May	May	May	May	June	June	June			
Nutrients	Ammonia as Nitrogen	mg/L	-	-	-	-	< 0.005	16.8	0.008			
	Biochemical Oxygen Demand	mg/L	-	-	-	-	4.0	34.0	4.0			100
	NO2+NO3 - N	mg/L	-	-	-	-	< 0.022	< 0.110	< 0.110			
	Total Phosphorus	mg/L	-	-	-	-	0.012	2.41	0.039			
Physical Properties	Conductivity, Specific (@25C)	µS/cm	-	-	-	-	717.0	4360.0	2410.0			
	Total Dissolved Solids	mg/L		-	-	-	440.0	42.0	1490.0			
	Total Organic Carbon	mg/L	2.3	6.4	6.7	< 0.5	-	-	-			
	Total Suspended Solids	mg/L	16.0	26.0	22.0	< 3	-	-	-			50[d]; 120[e]
	Tubidity	NTU	1.87	0.74	0.15	0.05	-	-	-		0.1	
	pH	pH units	-	-	-	-	7.77	8.47	8.31	6.5 - 9.0		6.0-9.5
Microbiology	Fecal Coliforms	CFU/100 mL	-	-	-	-	< 1.0	200.0	< 1.0			1 x 10[6]
	Total Coliforms	MPN/100 mL	< 0.1	< 0.1	< 1.0	< 1.0	< 1.0	4140.0	< 1.0		0	
	E. Coli	MPN/100 mL	< 0.1	< 0.1	< 1.0	< 1.0	-	-	-		0	
Organics	Bromodichloromethane	mg/L	< 0.005	0.058	0.055	0.016	-	-	-		0.016	
	Bromoform	mg/L	< 0.005	0.368	0.361	0.077	-	-	-			
	Chloroform	mg/L	< 0.005	0.01	0.019	< 0.005	-	-	-			
	Dibromochloromethane	mg/L	< 0.005	0.183	0.177	0.059	-	-	-			
	Total Trihalomethane	mg/L	< 0.005	0.619	0.613	0.156	-	-	-		0.1	
	Total Phenols	mg/L	-	-	-	-	< 0.001-	0.004	< 0.0010			20
	Oil and Grease, visible		-	-	-	-	Non-visible	Non-visible	Non-visible			No visible sheen
Subcontracted Inorganics	Calcium	mg/L	37.2	407.0	297.0	1.3	49.3	115.0	149.0			
	Hardness	mg/L	168.0	1870.0	1430.0	5.9	-	-	-			
	Magnesium	mg/L	18.2	207.0	168.0	0.6	25.6	57.5	68.0			
	Potassium	mg/L	-	-	-	-	2.89	14.9	6.78			
	Sodium	mg/L	49.0	445.0	594.0	13.5	55.4	796.0	302.0			
	Sulphate	mg/L	-	-	-	-	192.0	371.0	316.0			
Total Metals	Aluminum	µg/L	378.0	40.3	9.7	0.6	544.0	147.0	1240.0	100		
	Antimony	µg/L	< 0.1	0.2	0.2	< 0.1	< 0.1	0.2	0.2		6	
	Arsenic	µg/L	0.3	0.7	1.2	< 0.2	0.5	2.4	1.8	5		
	Barium	µg/L	5.0	35.3	25.6	< 0.1	5.0	12.8	58.0		2000	
	Beryllium	µg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1			
	Cadmium	µg/L	< 0.1	< 0.04	< 0.04	< 0.04	< 0.1	< 0.1	< 0.1	*	7	
	Cesium	µg/L	< 0.1	0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.2			
	Chromium	µg/L	0.3	0.5	0.5	< 0.1	0.8	0.6	2.0		50	
	Cobalt	µg/L	0.3	0.2	0.2	< 0.1	0.8	1.0	0.9			
	Copper	µg/L	5.4	14.9	469.0	14.4	0.7	29.6	3.1	*	2000	
	Iron	µg/L	194.0	38.0	9.0	< 5	440.0	361.0	1870.0	300		
	Lead	µg/L	0.5	0.3	0.2	0.2	0.3	0.3	0.6	*	5	
	Lithium	µg/L	6.9	63.3	66.9	1.6	10.9	22.8	35.4			
	Manganese	µg/L	19.0	8.6	4.8	< 0.1	31.5	59.4	22.7	25-66.14	120	
	Molybdenum	µg/L	0.2	0.9	0.9	< 0.1	0.1	0.5	1.3	73		
	Nickel	µg/L	1.3	6.8	5.7	0.1	3.1	4.7	4.0	*		
	Rubidium	µg/L	1.1	5.9	16.1	< 0.1	1.7	9.0	3.3			
	Selenium	µg/L	< 0.5	1.4	1.7	< 0.3	< 0.5	1.0	0.7	1	50	
	Silver	µg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.3		
	Strontium	µg/L	144.0	1610.0	1160.0	3.6	194.0	427.0	580.0		7000	
	Thallium	µg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.8		
	Titanium	µg/L	5.2	0.9	0.1	< 0.1	23.2	6.3	52.3			
	Uranium	µg/L	0.2	2.7	3.0	< 0.1	0.4	0.6	3.5	33 (Acute); 15 (Chronic)	20	
	Vanadium	µg/L	0.3	< 0.1	< 0.1	< 0.1	1.3	0.4	3.8			
	Zinc	µg/L	236.0	74.9	71.0	33.7	< 5.0	37.4	< 5.0	30		

(a) Canadian water quality guidelines for the protection of aquatic life, Council of Ministers of the Environment, 2007. http://www.ccme.ca/publications/ceqg_rcqe.html; These guidelines are used for the assessment of EUR-4 and EUR-5 water quality

(b) Guidelines for Canadian Drinking Water Maximum Allowable Concentration Summary Table, May 2020. These guidelines are used for the assessment of drinking water quality.

(c) NWB water license effluent quality limits presented in water license 8BC-EUR1621 for the assessment of water quality at EUR-3, EUR-4 and EUR-5

(d) Effluent quality limit for total suspended solids at EUR-5

(e) Effluent quality limit for total suspended solids at EUR-4

Note: At sampling location EUR-2 runoff flows were not sufficient to collect a sample. At sampling location EUR-5 samples were taken at an incorrect sampling location and were removed.

"-" = parameter not measured

* = hardness was not assessed therefore guideline ranges could not be calculated

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Attachment D

Laboratory Reports

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

Taiga Batch No.: 200222

- 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: Thursday, June 18, 2020
Print Date: ***Thursday, June 18, 2020***

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

Taiga Batch No.: 200222

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU Main Complex Tank **Taiga Sample ID:** 001

Client Project: Domestic Water
Sample Type: Water
Received Date: 23-May-20
Sampling Date: 23-May-20
Sampling Time: 13:00
Location: Eureka
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Inorganics - Nutrients						
Organic Carbon, Total	6.4	0.5	mg/L	26-May-20	SM5310:B	
Inorganics - Physicals						
Solids, Total Suspended	26	3	mg/L	28-May-20	SM2540:D	
Turbidity	0.74	0.05	NTU	28-May-20	SM2130:B	
Major Ions						
Calcium	407	0.1	mg/L	25-May-20	SM4110:B	
Hardness	1870	0.7	mg/L	25-May-20	SM4110:B	
Magnesium	207	0.1	mg/L	25-May-20	SM4110:B	
Sodium	445	0.1	mg/L	25-May-20	SM4110:B	
Microbiology						
Coliforms, Total	< 1.0	1.0	MPN/100ml	24-May-20	SM9223:B	
Escherichia coli	< 1.0	1.0	MPN/100ml	24-May-20	SM9223:B	
Organics						
Bromodichloromethane	0.058	0.005	mg/L	04-Jun-20	EPA8260B	
Bromoform	0.368	0.005	mg/L	04-Jun-20	EPA8260B	244

ReportDate: Thursday, June 18, 2020
Print Date: ***Thursday, June 18, 2020***

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

Taiga Batch No.: 200222

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU Main Complex Tank **Taiga Sample ID:** 001

Chloroform	0.010	0.005	mg/L	04-Jun-20	EPA8260B	
Dibromochloromethane	0.183	0.005	mg/L	04-Jun-20	EPA8260B	244
Trihalomethanes, Total	0.619	0.005	mg/L	04-Jun-20	EPA8260B	
Trace Metals, Total						
Aluminum	40.3	0.6	µg/L	28-May-20	EPA200.8	
Antimony	0.2	0.1	µg/L	28-May-20	EPA200.8	
Arsenic	0.7	0.2	µg/L	28-May-20	EPA200.8	
Barium	35.3	0.1	µg/L	28-May-20	EPA200.8	
Beryllium	< 0.1	0.1	µg/L	28-May-20	EPA200.8	
Cadmium	< 0.04	0.04	µg/L	28-May-20	EPA200.8	
Cesium	0.1	0.1	µg/L	28-May-20	EPA200.8	
Chromium	0.5	0.1	µg/L	28-May-20	EPA200.8	
Cobalt	0.2	0.1	µg/L	28-May-20	EPA200.8	
Copper	14.9	0.2	µg/L	28-May-20	EPA200.8	
Iron	38	5	ug/L	28-May-20	EPA200.8	
Lead	0.3	0.1	µg/L	28-May-20	EPA200.8	
Lithium	63.3	0.2	µg/L	28-May-20	EPA200.8	
Manganese	8.6	0.1	µg/L	28-May-20	EPA200.8	
Molybdenum	0.9	0.1	µg/L	28-May-20	EPA200.8	
Nickel	6.8	0.1	µg/L	28-May-20	EPA200.8	
Rubidium	5.9	0.1	µg/L	28-May-20	EPA200.8	
Selenium	1.4	0.3	µg/L	28-May-20	EPA200.8	
Silver	< 0.1	0.1	µg/L	28-May-20	EPA200.8	
Strontium	1610	0.1	µg/L	28-May-20	EPA200.8	
Thallium	< 0.1	0.1	µg/L	28-May-20	EPA200.8	

ReportDate: Thursday, June 18, 2020
Print Date: *Thursday, June 18, 2020*

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Taiga Batch No.: 200222

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU Main Complex Tank **Taiga Sample ID:** 001

Titanium	0.9	0.1	µg/L	28-May-20	EPA200.8
Uranium	2.7	0.1	µg/L	28-May-20	EPA200.8
Vanadium	0.1	0.1	µg/L	28-May-20	EPA200.8
Zinc	74.9	0.4	µg/L	28-May-20	EPA200.8

ReportDate: Thursday, June 18, 2020
Print Date: *Thursday, June 18, 2020*

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Taiga Batch No.: 200222

- CERTIFICATE OF ANALYSIS -

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

Client Project: Domestic Water
Sample Type: Water
Received Date: 23-May-20
Sampling Date: 23-May-20
Sampling Time: 13:00
Location: Eureka
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Inorganics - Nutrients						
Organic Carbon, Total	< 0.5	0.5	mg/L	26-May-20	SM5310:B	
Inorganics - Physicals						
Solids, Total Suspended	< 3	3	mg/L	28-May-20	SM2540:D	
Turbidity	0.05	0.05	NTU	28-May-20	SM2130:B	
Major Ions						
Calcium	1.3	0.1	mg/L	25-May-20	SM4110:B	
Hardness	5.9	0.7	mg/L	25-May-20	SM4110:B	
Magnesium	0.6	0.1	mg/L	25-May-20	SM4110:B	
Sodium	13.5	0.1	mg/L	25-May-20	SM4110:B	
Microbiology						
Coliforms, Total	< 1.0	1.0	MPN/100ml	24-May-20	SM9223:B	
Escherichia coli	< 1.0	1.0	MPN/100ml	24-May-20	SM9223:B	
Organics						
Bromodichloromethane	0.016	0.005	mg/L	04-Jun-20	EPA8260B	
Bromoform	0.077	0.005	mg/L	04-Jun-20	EPA8260B	
Chloroform	< 0.005	0.005	mg/L	04-Jun-20	EPA8260B	

ReportDate: Thursday, June 18, 2020
Print Date: ***Thursday, June 18, 2020***

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Taiga Batch No.: 200222

- CERTIFICATE OF ANALYSIS -

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

Dibromochloromethane	0.059	0.005	mg/L	04-Jun-20	EPA8260B
Trihalomethanes, Total	0.156	0.005	mg/L	04-Jun-20	EPA8260B
Trace Metals, Total					
Aluminum	0.6	0.6	µg/L	28-May-20	EPA200.8
Antimony	< 0.1	0.1	µg/L	28-May-20	EPA200.8
Arsenic	< 0.2	0.2	µg/L	28-May-20	EPA200.8
Barium	< 0.1	0.1	µg/L	28-May-20	EPA200.8
Beryllium	< 0.1	0.1	µg/L	28-May-20	EPA200.8
Cadmium	< 0.04	0.04	µg/L	28-May-20	EPA200.8
Cesium	< 0.1	0.1	µg/L	28-May-20	EPA200.8
Chromium	< 0.1	0.1	µg/L	28-May-20	EPA200.8
Cobalt	< 0.1	0.1	µg/L	28-May-20	EPA200.8
Copper	14.4	0.2	µg/L	28-May-20	EPA200.8
Iron	< 5	5	ug/L	28-May-20	EPA200.8
Lead	0.2	0.1	µg/L	28-May-20	EPA200.8
Lithium	1.6	0.2	µg/L	28-May-20	EPA200.8
Manganese	< 0.1	0.1	µg/L	28-May-20	EPA200.8
Molybdenum	< 0.1	0.1	µg/L	28-May-20	EPA200.8
Nickel	0.1	0.1	µg/L	28-May-20	EPA200.8
Rubidium	< 0.1	0.1	µg/L	28-May-20	EPA200.8
Selenium	< 0.3	0.3	µg/L	28-May-20	EPA200.8
Silver	< 0.1	0.1	µg/L	28-May-20	EPA200.8
Strontium	3.6	0.1	µg/L	28-May-20	EPA200.8
Thallium	< 0.1	0.1	µg/L	28-May-20	EPA200.8
Titanium	< 0.1	0.1	µg/L	28-May-20	EPA200.8

ReportDate: Thursday, June 18, 2020
Print Date: *Thursday, June 18, 2020*

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

Taiga Batch No.: 200222

- CERTIFICATE OF ANALYSIS -

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

Uranium	< 0.1	0.1	µg/L	28-May-20	EPA200.8
Vanadium	< 0.1	0.1	µg/L	28-May-20	EPA200.8
Zinc	33.7	0.4	µg/L	28-May-20	EPA200.8

ReportDate: Thursday, June 18, 2020
Print Date: *Thursday, June 18, 2020*

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Taiga Batch No.: 200222

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU Lagoon **Taiga Sample ID:** 003

Client Project: Domestic Water
Sample Type: Water
Received Date: 23-May-20
Sampling Date: 23-May-20
Sampling Time: 13:00
Location: Eureka
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Inorganics - Nutrients						
Organic Carbon, Total	2.3	0.5	mg/L	26-May-20	SM5310:B	
Inorganics - Physicals						
Solids, Total Suspended	16	3	mg/L	28-May-20	SM2540:D	
Turbidity	1.87	0.05	NTU	28-May-20	SM2130:B	
Major Ions						
Calcium	37.2	0.1	mg/L	25-May-20	SM4110:B	
Hardness	168	0.7	mg/L	25-May-20	SM4110:B	
Magnesium	18.2	0.1	mg/L	25-May-20	SM4110:B	
Sodium	49.0	0.1	mg/L	25-May-20	SM4110:B	
Microbiology						
Coliforms, Total	< 1.0	1.0	MPN/100ml	24-May-20	SM9223:B	
Escherichia coli	< 1.0	1.0	MPN/100ml	24-May-20	SM9223:B	
Organics						
Bromodichloromethane	< 0.005	0.005	mg/L	04-Jun-20	EPA8260B	
Bromoform	< 0.005	0.005	mg/L	04-Jun-20	EPA8260B	
Chloroform	< 0.005	0.005	mg/L	04-Jun-20	EPA8260B	

ReportDate: Thursday, June 18, 2020
Print Date: ***Thursday, June 18, 2020***

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

Taiga Batch No.: 200222

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU Lagoon **Taiga Sample ID:** 003

Dibromochloromethane	< 0.005	0.005	mg/L	04-Jun-20	EPA8260B
Trihalomethanes, Total	< 0.005	0.005	mg/L	04-Jun-20	EPA8260B
Trace Metals, Total					
Aluminum	378	5	µg/L	28-May-20	EPA200.8
Antimony	< 0.1	0.1	µg/L	28-May-20	EPA200.8
Arsenic	0.3	0.2	µg/L	28-May-20	EPA200.8
Barium	5.0	0.1	µg/L	28-May-20	EPA200.8
Beryllium	< 0.1	0.1	µg/L	28-May-20	EPA200.8
Cadmium	< 0.1	0.1	µg/L	28-May-20	EPA200.8
Cesium	< 0.1	0.1	µg/L	28-May-20	EPA200.8
Chromium	0.3	0.1	µg/L	28-May-20	EPA200.8
Cobalt	0.3	0.1	µg/L	28-May-20	EPA200.8
Copper	5.4	0.2	µg/L	28-May-20	EPA200.8
Iron	194	5	µg/L	28-May-20	EPA200.8
Lead	0.5	0.1	µg/L	28-May-20	EPA200.8
Lithium	6.9	0.2	µg/L	28-May-20	EPA200.8
Manganese	19.0	0.1	µg/L	28-May-20	EPA200.8
Molybdenum	0.2	0.1	µg/L	28-May-20	EPA200.8
Nickel	1.3	0.1	µg/L	28-May-20	EPA200.8
Rubidium	1.1	0.1	µg/L	28-May-20	EPA200.8
Selenium	< 0.5	0.5	µg/L	28-May-20	EPA200.8
Silver	< 0.1	0.1	µg/L	28-May-20	EPA200.8
Strontium	144	0.1	µg/L	28-May-20	EPA200.8
Thallium	< 0.1	0.1	µg/L	28-May-20	EPA200.8
Titanium	5.2	0.1	µg/L	28-May-20	EPA200.8

ReportDate: Thursday, June 18, 2020
Print Date: *Thursday, June 18, 2020*

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

Taiga Batch No.: 200222

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EU Lagoon **Taiga Sample ID:** 003

Uranium	0.2	0.1	µg/L	28-May-20	EPA200.8
Vanadium	0.3	0.1	µg/L	28-May-20	EPA200.8
Zinc	236	5	µg/L	28-May-20	EPA200.8

ReportDate: Thursday, June 18, 2020
Print Date: *Thursday, June 18, 2020*

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Taiga Batch No.: 200222

- CERTIFICATE OF ANALYSIS -

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

Client Project: Domestic Water
Sample Type: Water
Received Date: 23-May-20
Sampling Date: 23-May-20
Sampling Time: 13:00
Location: Eureka
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Inorganics - Nutrients						
Organic Carbon, Total	6.7	0.5	mg/L	26-May-20	SM5310:B	
Inorganics - Physicals						
Solids, Total Suspended	22	3	mg/L	28-May-20	SM2540:D	
Turbidity	0.15	0.05	NTU	28-May-20	SM2130:B	
Major Ions						
Calcium	297	0.1	mg/L	25-May-20	SM4110:B	
Hardness	1430	0.7	mg/L	25-May-20	SM4110:B	
Magnesium	168	0.1	mg/L	25-May-20	SM4110:B	
Sodium	594	0.1	mg/L	25-May-20	SM4110:B	
Microbiology						
Coliforms, Total	< 1.0	1.0	MPN/100ml	24-May-20	SM9223:B	
Escherichia coli	< 1.0	1.0	MPN/100ml	24-May-20	SM9223:B	
Organics						
Bromodichloromethane	0.055	0.005	mg/L	04-Jun-20	EPA8260B	
Bromoform	0.361	0.005	mg/L	04-Jun-20	EPA8260B	244
Chloroform	0.019	0.005	mg/L	04-Jun-20	EPA8260B	

ReportDate: Thursday, June 18, 2020
Print Date: ***Thursday, June 18, 2020***

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Taiga Batch No.: 200222

- CERTIFICATE OF ANALYSIS -

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

Dibromochloromethane	0.177	0.005	mg/L	04-Jun-20	EPA8260B	244
Trihalomethanes, Total	0.613	0.005	mg/L	04-Jun-20	EPA8260B	
Trace Metals, Total						
Aluminum	9.7	0.6	µg/L	28-May-20	EPA200.8	
Antimony	0.2	0.1	µg/L	28-May-20	EPA200.8	
Arsenic	1.2	0.2	µg/L	28-May-20	EPA200.8	
Barium	25.6	0.1	µg/L	28-May-20	EPA200.8	
Beryllium	< 0.1	0.1	µg/L	28-May-20	EPA200.8	
Cadmium	< 0.04	0.04	µg/L	28-May-20	EPA200.8	
Cesium	< 0.1	0.1	µg/L	28-May-20	EPA200.8	
Chromium	0.5	0.1	µg/L	28-May-20	EPA200.8	
Cobalt	0.2	0.1	µg/L	28-May-20	EPA200.8	
Copper	469	0.2	µg/L	28-May-20	EPA200.8	
Iron	9	5	ug/L	28-May-20	EPA200.8	
Lead	0.2	0.1	µg/L	28-May-20	EPA200.8	
Lithium	66.9	0.2	µg/L	28-May-20	EPA200.8	
Manganese	4.8	0.1	µg/L	28-May-20	EPA200.8	
Molybdenum	0.9	0.1	µg/L	28-May-20	EPA200.8	
Nickel	5.7	0.1	µg/L	28-May-20	EPA200.8	
Rubidium	16.1	0.1	µg/L	28-May-20	EPA200.8	
Selenium	1.7	0.3	µg/L	28-May-20	EPA200.8	
Silver	< 0.1	0.1	µg/L	28-May-20	EPA200.8	
Strontium	1160	0.1	µg/L	28-May-20	EPA200.8	
Thallium	< 0.1	0.1	µg/L	28-May-20	EPA200.8	
Titanium	0.1	0.1	µg/L	28-May-20	EPA200.8	

ReportDate: Thursday, June 18, 2020
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Taiga Batch No.: 200222

- CERTIFICATE OF ANALYSIS -

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

Uranium	3.0	0.1	µg/L	28-May-20	EPA200.8
Vanadium	< 0.1	0.1	µg/L	28-May-20	EPA200.8
Zinc	71.0	0.4	µg/L	28-May-20	EPA200.8

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Taiga Batch No.: 200222

- CERTIFICATE OF ANALYSIS -

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

- DATA QUALIFERS -

Data Qualifier Descriptions:

244 *Suspect result. Result was over the equipment calibration range.*

*** 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

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

Taiga Batch No.: 200311

- 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: Thursday, July 02, 2020
Print Date: ***Thursday, July 02, 2020***

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

Taiga Batch No.: 200311

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-1 **Taiga Sample ID:** 001

Client Project: Eureka 2020
Sample Type: Raw Water
Received Date: 23-Jun-20
Sampling Date: 22-Jun-20
Sampling Time: 18:30
Location: Eureka, NU
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	26-Jun-20	SM4500-NH3:G	
Biochemical Oxygen Demand	4	2	mg/L	24-Jun-20	SM5210:B	
Phosphorous, Total	0.012	0.002	mg/L	24-Jun-20	SM4500-P:D	
Inorganics - Physicals						
Conductivity, Specific (@25C)	717	0.4	µS/cm	23-Jun-20	SM2510:B	
pH	7.77		pH units	23-Jun-20	SM4500-H:B	
Solids, Total Dissolved	440	10	mg/L	29-Jun-20	SM2540:C	
Microbiology						
Coliforms, Fecal	< 1	1	CFU/100mL	23-Jun-20	SM9222:D	
Coliforms, Total	< 1.0	1.0	MPN/100mL	23-Jun-20	SM9223:B	
Organics						
Oil and Grease, visible	Non-visible			23-Jun-20	Visual Exam	
Subcontracted Inorganics						
Calcium	49.3	0.05	mg/L	26-Jun-20	EPA200.2	
Magnesium	25.6	0.005	mg/L	26-Jun-20	EPA200.2	

ReportDate: Thursday, July 02, 2020
Print Date: ***Thursday, July 02, 2020***

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Taiga Batch No.: 200311

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-1 **Taiga Sample ID:** 001

NO2+NO3 - N	< 0.0220	0.022	mg/L	27-Jun-20	EPA300.1
Potassium	2.89	0.05	mg/L	26-Jun-20	EPA200.2
Sodium	55.4	0.05	mg/L	26-Jun-20	EPA200.2
Sulphate	192	0.3	mg/L	27-Jun-20	EPA300.1
Subcontracted Organics					
Phenols, Total	< 0.0010	0.001	mg/L	25-Jun-20	AB ENV.06537
Trace Metals, Total					
Aluminum	544	5	µg/L	30-Jun-20	EPA200.8
Antimony	< 0.1	0.1	µg/L	30-Jun-20	EPA200.8
Arsenic	0.5	0.2	µg/L	30-Jun-20	EPA200.8
Barium	5.0	0.1	µg/L	30-Jun-20	EPA200.8
Beryllium	< 0.1	0.1	µg/L	30-Jun-20	EPA200.8
Cadmium	< 0.1	0.1	µg/L	30-Jun-20	EPA200.8
Cesium	< 0.1	0.1	µg/L	30-Jun-20	EPA200.8
Chromium	0.8	0.1	µg/L	30-Jun-20	EPA200.8
Cobalt	0.8	0.1	µg/L	30-Jun-20	EPA200.8
Copper	0.7	0.2	µg/L	30-Jun-20	EPA200.8
Iron	440	5	µg/L	30-Jun-20	EPA200.8
Lead	0.3	0.1	µg/L	30-Jun-20	EPA200.8
Lithium	10.9	0.2	µg/L	30-Jun-20	EPA200.8
Manganese	31.5	0.1	µg/L	30-Jun-20	EPA200.8
Molybdenum	0.1	0.1	µg/L	30-Jun-20	EPA200.8
Nickel	3.1	0.1	µg/L	30-Jun-20	EPA200.8
Rubidium	1.7	0.1	µg/L	30-Jun-20	EPA200.8
Selenium	< 0.5	0.5	µg/L	30-Jun-20	EPA200.8

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Taiga Batch No.: 200311

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-1 **Taiga Sample ID:** 001

Silver	< 0.1	0.1	µg/L	30-Jun-20	EPA200.8
Strontium	194	0.1	µg/L	30-Jun-20	EPA200.8
Thallium	< 0.1	0.1	µg/L	30-Jun-20	EPA200.8
Titanium	23.2	0.1	µg/L	30-Jun-20	EPA200.8
Uranium	0.4	0.1	µg/L	30-Jun-20	EPA200.8
Vanadium	1.3	0.1	µg/L	30-Jun-20	EPA200.8
Zinc	< 5.0	5	µg/L	30-Jun-20	EPA200.8

ReportDate: Thursday, July 02, 2020
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Taiga Batch No.: 200311

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-3 **Taiga Sample ID:** 002

Client Project: Eureka 2020
Sample Type: Sewage
Received Date: 23-Jun-20
Sampling Date: 22-Jun-20
Sampling Time: 18:30
Location: Eureka, NU
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Inorganics - Nutrients						
Ammonia as Nitrogen	16.8	0.005	mg/L	26-Jun-20	SM4500-NH3:G	
Biochemical Oxygen Demand	34	2	mg/L	24-Jun-20	SM5210:B	
Phosphorous, Total	2.41	0.002	mg/L	24-Jun-20	SM4500-P:D	
Inorganics - Physicals						
Conductivity, Specific (@25C)	4360	0.4	µS/cm	23-Jun-20	SM2510:B	
pH	8.47		pH units	23-Jun-20	SM4500-H:B	
Solids, Total Suspended	42	3	mg/L	29-Jun-20	SM2540:D	
Microbiology						
Coliforms, Fecal	200	100	CFU/100mL	23-Jun-20	SM9222:D	
Coliforms, Total	4140	100	MPN/100mL	23-Jun-20	SM9223:B	
Organics						
Oil and Grease, visible	Non-visible			23-Jun-20	Visual Exam	
Subcontracted Inorganics						
Calcium	115	0.05	mg/L	26-Jun-20	EPA200.2	
Magnesium	57.5	0.005	mg/L	26-Jun-20	EPA200.2	
NO2+NO3 - N	< 0.110	0.11	mg/L	27-Jun-20	EPA300.1	

ReportDate: Thursday, July 02, 2020
Print Date: ***Thursday, July 02, 2020***

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Taiga Batch No.: 200311

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-3 **Taiga Sample ID:** 002

Potassium	14.9	0.05	mg/L	26-Jun-20	EPA200.2	
Sodium	796	0.05	mg/L	26-Jun-20	EPA200.2	
Sulphate	371	1.5	mg/L	27-Jun-20	EPA300.1	228
Subcontracted Organics						
Phenols, Total	0.0043	0.001	mg/L	25-Jun-20	AB ENV.06537	
Trace Metals, Total						
Aluminum	147	5	µg/L	30-Jun-20	EPA200.8	
Antimony	0.2	0.1	µg/L	30-Jun-20	EPA200.8	
Arsenic	2.4	0.2	µg/L	30-Jun-20	EPA200.8	
Barium	12.8	0.1	µg/L	30-Jun-20	EPA200.8	
Beryllium	< 0.1	0.1	µg/L	30-Jun-20	EPA200.8	
Cadmium	< 0.1	0.1	µg/L	30-Jun-20	EPA200.8	
Cesium	< 0.1	0.1	µg/L	30-Jun-20	EPA200.8	
Chromium	0.6	0.1	µg/L	30-Jun-20	EPA200.8	
Cobalt	1.0	0.1	µg/L	30-Jun-20	EPA200.8	
Copper	29.6	0.2	µg/L	30-Jun-20	EPA200.8	
Iron	361	5	µg/L	30-Jun-20	EPA200.8	
Lead	0.3	0.1	µg/L	30-Jun-20	EPA200.8	
Lithium	22.8	0.2	µg/L	30-Jun-20	EPA200.8	
Manganese	59.4	0.1	µg/L	30-Jun-20	EPA200.8	
Molybdenum	0.5	0.1	µg/L	30-Jun-20	EPA200.8	
Nickel	4.7	0.1	µg/L	30-Jun-20	EPA200.8	
Rubidium	9.0	0.1	µg/L	30-Jun-20	EPA200.8	
Selenium	1.0	0.5	µg/L	30-Jun-20	EPA200.8	
Silver	< 0.1	0.1	µg/L	30-Jun-20	EPA200.8	

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Taiga Batch No.: 200311

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-3 **Taiga Sample ID:** 002

Strontium	427	0.1	µg/L	30-Jun-20	EPA200.8
Thallium	< 0.1	0.1	µg/L	30-Jun-20	EPA200.8
Titanium	6.3	0.1	µg/L	30-Jun-20	EPA200.8
Uranium	0.6	0.1	µg/L	30-Jun-20	EPA200.8
Vanadium	0.4	0.1	µg/L	30-Jun-20	EPA200.8
Zinc	37.4	5	µg/L	30-Jun-20	EPA200.8

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Taiga Batch No.: 200311

- CERTIFICATE OF ANALYSIS -

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

Client Project: Eureka 2020
Sample Type: Runoff
Received Date: 23-Jun-20
Sampling Date: 22-Jun-20
Sampling Time: 18:30
Location: Eureka, NU
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Inorganics - Nutrients						
Ammonia as Nitrogen	0.008	0.005	mg/L	26-Jun-20	SM4500-NH3:G	
Biochemical Oxygen Demand	4	2	mg/L	24-Jun-20	SM5210:B	
Phosphorous, Total	0.039	0.002	mg/L	24-Jun-20	SM4500-P:D	
Inorganics - Physicals						
Conductivity, Specific (@25C)	2410	0.4	µS/cm	23-Jun-20	SM2510:B	
pH	8.31		pH units	23-Jun-20	SM4500-H:B	
Solids, Total Dissolved	1490	10	mg/L	29-Jun-20	SM2540:C	
Microbiology						
Coliforms, Fecal	< 1	1	CFU/100mL	23-Jun-20	SM9222:D	
Coliforms, Total	< 1.0	1.0	MPN/100mL	23-Jun-20	SM9223:B	
Organics						
Oil and Grease, visible	Non-visible			23-Jun-20	Visual Exam	
Subcontracted Inorganics						
Calcium	149	0.05	mg/L	26-Jun-20	EPA200.2	
Magnesium	68.0	0.005	mg/L	26-Jun-20	EPA200.2	
NO2+NO3 - N	< 0.110	0.11	mg/L	27-Jun-20	EPA300.1	

ReportDate: Thursday, July 02, 2020
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Taiga Batch No.: 200311

- CERTIFICATE OF ANALYSIS -

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

Potassium	6.78	0.05	mg/L	26-Jun-20	EPA200.2	
Sodium	302	0.05	mg/L	26-Jun-20	EPA200.2	
Sulphate	316	1.5	mg/L	27-Jun-20	EPA300.1	228
Subcontracted Organics						
Phenols, Total	< 0.0010	0.001	mg/L	25-Jun-20	AB ENV.06537	
Trace Metals, Total						
Aluminum	1240	5	µg/L	30-Jun-20	EPA200.8	
Antimony	0.2	0.1	µg/L	30-Jun-20	EPA200.8	
Arsenic	1.8	0.2	µg/L	30-Jun-20	EPA200.8	
Barium	58.0	0.1	µg/L	30-Jun-20	EPA200.8	
Beryllium	< 0.1	0.1	µg/L	30-Jun-20	EPA200.8	
Cadmium	< 0.1	0.1	µg/L	30-Jun-20	EPA200.8	
Cesium	0.2	0.1	µg/L	30-Jun-20	EPA200.8	
Chromium	2.0	0.1	µg/L	30-Jun-20	EPA200.8	
Cobalt	0.9	0.1	µg/L	30-Jun-20	EPA200.8	
Copper	3.1	0.2	µg/L	30-Jun-20	EPA200.8	
Iron	1870	5	µg/L	30-Jun-20	EPA200.8	
Lead	0.6	0.1	µg/L	30-Jun-20	EPA200.8	
Lithium	35.4	0.2	µg/L	30-Jun-20	EPA200.8	
Manganese	22.7	0.1	µg/L	30-Jun-20	EPA200.8	
Molybdenum	1.3	0.1	µg/L	30-Jun-20	EPA200.8	
Nickel	4.0	0.1	µg/L	30-Jun-20	EPA200.8	
Rubidium	3.3	0.1	µg/L	30-Jun-20	EPA200.8	
Selenium	0.7	0.5	µg/L	30-Jun-20	EPA200.8	
Silver	< 0.1	0.1	µg/L	30-Jun-20	EPA200.8	

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Taiga Batch No.: 200311

- CERTIFICATE OF ANALYSIS -

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

Strontium	580	0.1	µg/L	30-Jun-20	EPA200.8
Thallium	< 0.1	0.1	µg/L	30-Jun-20	EPA200.8
Titanium	52.3	0.1	µg/L	30-Jun-20	EPA200.8
Uranium	3.5	0.1	µg/L	30-Jun-20	EPA200.8
Vanadium	3.8	0.1	µg/L	30-Jun-20	EPA200.8
Zinc	< 5.0	5	µg/L	30-Jun-20	EPA200.8

ReportDate: Thursday, July 02, 2020
Print Date: *Thursday, July 02, 2020*

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

Taiga Batch No.: 200311

- CERTIFICATE OF ANALYSIS -

Client Sample ID: EUR-5 **Taiga Sample ID:** 004

Client Project: Eureka 2020
Sample Type: Runoff
Received Date: 23-Jun-20
Sampling Date: 22-Jun-20
Sampling Time: 18:30
Location: Eureka, NU
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Inorganics - Nutrients						
Ammonia as Nitrogen	0.034	0.005	mg/L	26-Jun-20	SM4500-NH3:G	
Biochemical Oxygen Demand	4	2	mg/L	24-Jun-20	SM5210:B	
Phosphorous, Total	6.91	0.002	mg/L	24-Jun-20	SM4500-P:D	
Inorganics - Physicals						
Conductivity, Specific (@25C)	2590	0.4	µS/cm	23-Jun-20	SM2510:B	
pH	7.83		pH units	23-Jun-20	SM4500-H:B	
Solids, Total Dissolved	2160	10	mg/L	29-Jun-20	SM2540:C	
Microbiology						
Coliforms, Fecal	< 1	1	CFU/100mL	23-Jun-20	SM9222:D	
Coliforms, Total	332	10	MPN/100mL	23-Jun-20	SM9223:B	
Organics						
Oil and Grease, visible	Non-visible			23-Jun-20	Visual Exam	
Subcontracted Inorganics						
Calcium	138	0.05	mg/L	26-Jun-20	EPA200.2	
Magnesium	89.7	0.005	mg/L	26-Jun-20	EPA200.2	
NO2+NO3 - N	0.690	0.11	mg/L	27-Jun-20	EPA300.1	

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Potassium	14.6	0.05	mg/L	26-Jun-20	EPA200.2	
Sodium	406	0.05	mg/L	26-Jun-20	EPA200.2	
Sulphate	239	1.5	mg/L	27-Jun-20	EPA300.1	228
Subcontracted Organics						
Phenols, Total	< 0.0010	0.001	mg/L	25-Jun-20	AB ENV.06537	
Trace Metals, Total						
Aluminum	29500	5	µg/L	30-Jun-20	EPA200.8	
Antimony	0.2	0.1	µg/L	30-Jun-20	EPA200.8	
Arsenic	29.1	0.2	µg/L	30-Jun-20	EPA200.8	
Barium	803	0.1	µg/L	30-Jun-20	EPA200.8	
Beryllium	3.9	0.1	µg/L	30-Jun-20	EPA200.8	
Cadmium	1.9	0.1	µg/L	30-Jun-20	EPA200.8	
Cesium	5.2	0.1	µg/L	30-Jun-20	EPA200.8	
Chromium	67.2	0.1	µg/L	30-Jun-20	EPA200.8	
Cobalt	51.3	0.1	µg/L	30-Jun-20	EPA200.8	
Copper	144	0.2	µg/L	30-Jun-20	EPA200.8	
Iron	269000	5	µg/L	30-Jun-20	EPA200.8	
Lead	140	0.1	µg/L	30-Jun-20	EPA200.8	
Lithium	68.7	0.2	µg/L	30-Jun-20	EPA200.8	
Manganese	1590	0.1	µg/L	30-Jun-20	EPA200.8	
Molybdenum	0.9	0.1	µg/L	30-Jun-20	EPA200.8	
Nickel	102	0.1	µg/L	30-Jun-20	EPA200.8	
Rubidium	70.9	0.1	µg/L	30-Jun-20	EPA200.8	
Selenium	4.9	0.5	µg/L	30-Jun-20	EPA200.8	
Silver	0.8	0.1	µg/L	30-Jun-20	EPA200.8	

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Strontium	995	0.1	µg/L	30-Jun-20	EPA200.8
Thallium	0.8	0.1	µg/L	30-Jun-20	EPA200.8
Titanium	170	0.1	µg/L	30-Jun-20	EPA200.8
Uranium	10.9	0.1	µg/L	30-Jun-20	EPA200.8
Vanadium	134	0.1	µg/L	30-Jun-20	EPA200.8
Zinc	521	5	µg/L	30-Jun-20	EPA200.8

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Client Sample ID: EUR-5 **Taiga Sample ID:** 004

- DATA QUALIFERS -

Data Qualifier Descriptions:

228 *Detection Limit Raised - Dilution required due to high Dissolved Solids/Electrical Conductivity.*

*** 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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