



Water Resources Division
Resource Management Directorate
Nunavut Regional Office
918 Nunavut Drive
Iqaluit, NU, X0A 3H0

Your file - Votre référence
8AC-EUR2331

Our file - Notre référence
GCDOCS# 139485250

August 5, 2024

Richard Dwyer
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0
E-mail: licensing@nwb-oen.ca

**Re: Crown-Indigenous Relations and Northern Affairs Canada's Review of the
Licence 2024 Annual Report for Eureka, Type A Water Licence No. 8AC-EUR2331**

Dear Richard,

Thank you for the March 27, 2024, invitation to review the referenced licence 2024 Annual Report, submitted by the Department of Environment and Climate Change Canada (ECCC), for Type A Water License No. 8AC-EUR2331.

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) examined the application pursuant to its mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Crown-Indigenous Relations and Northern Affairs Act*. Please find CIRNAC comments and recommendations in the attached Technical Memorandum.

The applicant shall provide confirmation from the Nunavut Water Board that all outstanding water license fees have been paid in full prior to approval of this application.

If there are any questions or concerns, please contact me at Courtney.white@rcaanc-cirnac.gc.ca or Andrew Keim at (867) 975-4550 or Andrew.Keim@rcaanc-cirnac.gc.ca.

Sincerely,

Courtney White,
Project Leader and Program Manager

Canada 



Technical Review Memorandum

Date: August 5, 2025

To: Richard Dwyer – Manager of Licensing, Nunavut Water Board

From: Courtney White – Project Leader and Program Manager, CIRNAC

Subject: **Crown-Indigenous Relations and Northern Affairs Canada's Review of the Licence 2023 Annual Report for Alert, Type A Water Licence No. 8AC-ALT1929**

Region: ☐ Kitikmeot ☐ Kivalliq ☒ Qikiqtani

A. BACKGROUND

The Eureka High Arctic Weather Station (HAWS) is located at the northwestern tip of Fosheim Peninsula, Ellesmere Island, Nunavut. The site is approximately 2.23 hectares and is on the north side of Slidre Fjord. Within the site there is currently 15 primary buildings and facilities. The runway at the site is located approximately 1.5 km northeast of the HAWS main complex and is the only access to HAWS year-round. Eureka HAWS operates as a weather monitoring facility as well as a hub for the Department of National Defence (DND), the Polar Continental Shelf Project, and the Polar Environment Atmospheric Research Laboratory (PEARL). The coordinates for this site are 79° 59' 41" N, 85° 48' 48" W.

The water licence allows for:

- withdrawal of up to 10,000 m³ of water annually from Station Creek,
- operation and maintenance of water supply facilities with fish-protective intake screens,
- waste disposal facilities located at least 31 metres from water bodies,
- incineration of food, paper, and untreated wood waste,
- management and off-site disposal of hazardous and non-combustible solid wastes,
- operation of sewage treatment facilities with controlled effluent discharge,
- operation of Land farm facilities for treating hydrocarbon-contaminated soils,
- sediment and erosion control to protect water quality,
- construction and modification of water, sewage, and waste facilities with Board approval,
- spill contingency planning and containment of petroleum and chemical products,
- designated maintenance areas with spill prevention measures,
- monitoring and reporting of water use, effluent quality, and waste disposal,
- progressive reclamation and restoration of disturbed or contaminated sites, and
- submission and upkeep of operational and contingency plans as required.



ECCC has submitted their 2024 Annual Report for review as per Part B item1 of the water licence

The average daily water intake for 2024, based on days when water was withdrawn, was approximately 144 m³/day with a total annual amount of water of 6,032.40 m³.

The Annual Report included three Appendices: “Appendix A. 2024 Photo Log, Appendix B. Daily Quantities of Water Withdrawn, Appendix C. Water Quality Sampling Data, and Appendix D. Water Licence Inspection Report.

ECCC’s plans for 2025 are to include routine site operations, building renovations and possible demolition, ongoing quarrying and progressive reclamation at West Remus Creek Quarry, and continued fuel storage tank inspections. Construction of the land farm and contaminated soil relocation are progressing toward completion. Water and sewer upgrades will involve filling the raw water reservoir, installing piping and pumphouse facilities, commissioning a modular wastewater treatment plant, and converting the sewage lagoon into a retention basin. The camp will be winterized by late September, and ongoing equipment maintenance will produce waste oil stored on-site for future removal.

CIRNAC provides the following comments and recommendations pertaining to the 2024 Annual Report. A summary of the subjects of recommendations can be found in Table 1. Documents reviewed as part of this submission can be found in Table 2 of Section B. Detailed technical review comments can be found in Section C.



Table 1: Summary of Recommendations

Recommendation Number	Subject
R1	Effluent Quality Standards
R2	Management Plans Reporting
R3	Water Quality Monitoring and Analysis
R4	Waste Volumes and Hazardous Waste Reporting
R5	Sludge Management Reporting
R6	Clarification on Roles and Responsibilities (ECCC vs DND)
R7	Public Engagement Efforts
R8	Reporting Consistency

B. DOCUMENTS REVIEWED AND REFERENCED

The following table (Table 2) provides a list of the documents reviewed under the submission and reference during the review.

Table 2: Documents Reviewed and Referenced

Document Title	Author, File No., Rev., Date
250325 8AC-EUR2331 Eureka HAWS - 2024 Annual Report-ILAE.pdf	ECCC, March 25, 2025
110607 3BC-EUR1116 Licence OAAE.pdf	Thomas Kabloona, June 11, 2007



C. RESULTS OF REVIEW

1. Effluent Quality Standards

Comment:

Water quality sampling conducted on July 11, 2024, at the sewage lagoon (EUR-3) reported Biochemical Oxygen Demand (BOD) at 1,330 mg/L, exceeding the licensed effluent quality criteria of 100 mg/L outlined in the Water Licence. This exceedance indicates that the current sewage lagoon system may not be adequately treating effluent before discharge.

Recommendation:

(R-01) CIRNAC recommends that the licensee implement interim effluent treatment measures to remain in compliance and expedite commissioning of the new wastewater treatment plant to ensure future compliance with effluent discharge criteria.

2. Management Plans Reporting

Comment:

No updates or revisions were submitted for applicable management plans in 2024, despite significant changes on-site including new infrastructure projects (e.g., land farm construction, reservoir and wastewater treatment upgrades). As per Part B item 4 of the water licence, these changes require updates to relevant plans, including the Operation and Maintenance Plan and Spill Contingency Plan.

Recommendation:

(R-02) CIRNAC recommends that the licensee submit updated versions of applicable management plans reflecting the current infrastructure and operational changes.

3. Water Quality Monitoring and Analysis

Comment:

The June 27, 2024, effluent sample was not analyzed for Biochemical Oxygen Demand or Fecal Coliforms due to missed holding times. This compromises data reliability and may hinder regulatory assessment of compliance with water quality standards.

Recommendation:

(R-03) CIRNAC recommends that the licensee strengthen sampling protocols to ensure all parameters are tested within the specified holding times and that contingency plans are in place to address invalid or incomplete results.



4. Waste Volumes and Hazardous Waste Reporting

Comment:

The 2024 Annual Report indicates that no hazardous waste was removed from site, and that barrels of waste oil, filters, batteries, and ash are being stored for future removal. Continued accumulation without removal presents potential environmental risk.

Recommendation:

(R-04) CIRNAC recommends that the licensee establish and implement a schedule for the regular removal of hazardous waste from the site and provide updates in future annual reports.

5. Sludge Management Reporting

Comment:

Sludge from the existing sewage lagoon remains unmanaged, and the Sludge Disposal Plan has not been updated or finalized. Past sampling has indicated exceedances of environmental guidelines for sediment quality.

Recommendation:

(R-05) CIRNAC recommends that the licensee finalize and submit an updated Sludge Management Plan prior to lagoon decommissioning, including mitigation measures to protect surrounding water sources.

6. Clarification on Roles and Responsibilities (ECCC vs DND)

Comment:

The Annual Report does not clearly distinguish which waste management facilities are operated by Environment and Climate Change Canada (ECCC) versus the Department of National Defence (DND). This can lead to ambiguity regarding responsibility for compliance and maintenance.

Recommendation:

(R-06) CIRNAC recommends that the licensee clarify roles and responsibilities for shared facilities and include supporting documentation (e.g., MOUs or agreements) in the next Annual Report.



7. Public Engagement Efforts

Comment:

Letters were sent to the Hamlet of Grise Fiord and the Iviq Hunters and Trappers Organization in June 2024; however, no follow-up activities were reported. Lack of engagement may hinder transparency and community involvement in project oversight.

Recommendation:

(R-07) CIRNAC recommends that the licensee conduct active follow-up (e.g., phone calls, virtual meetings) and document engagement efforts in future Annual Reports.

8. Reporting Consistency

Comment:

The 2024 Annual Report lacks an executive summary, a compliance table, and concise interpretations of water use and waste data, which makes it difficult for reviewers to quickly assess compliance status.

Recommendation:

(R-08) CIRNAC recommends that the licensee include a compliance matrix and section summaries in future reports to improve clarity, transparency, and usability.