



April 2, 2025

Chris Hotson
Regulatory Manager
Mackenzie Valley Land and Water Board
4922 - 48th Street
Yellowknife NT X1A 2P6

Dear Mr. Hotson:

Pointed Mountain Gas Field Remediation Project – Water Licence – New Applications – Interventions Information Requests – MV2023L1-0010 - Amended

On March 14, 2025, the Government of the Northwest Territories (GNWT), Department of Environment and Climate Change (ECC) received an Information Request the Mackenzie Valley Land and Water Board (MVLWB) as a result of recommendations made in GNWT-ECC’s February 28, 2025, Intervention. GNWT-ECC responds to the Information Request as follows:

The MVLWB has requested specific reference to exact Water Licences, Water Licence Conditions, and sections of the Reasons for Decisions to support the recommended effluent quality criteria presented in Table 1 of the GNWT-ECC Intervention. Table 1 footnotes have been revised to include references to specific sections of the referenced Water Licences, as requested. Note we have also updated the reference of the Mary River Water Licence to the most recent version currently before the Nunavut Water Board during an ongoing renewal application process. The updated reference is provided for recency and does not alter the contents of the GNWT’s submission.

Table 1. Proposed Effluent Quality Criteria for discharges of contact water (treated or otherwise) to land.

Parameter	Maximum Average Concentration (mg/L)	Maximum Authorized Concentration in a Grab Sample (mg/L)
General		
pH ^{a,d}	Between 6.0 and 9.5	Between 6.0 and 9.5
TSS ^{a,b}	50	100
Chloride ^e	640	640
PAHs and PHs		
Total Oil and Grease ^{b, g}	5, No Visible Sheen	5, No Visible Sheen
Naphthalene ^c	0.0011	
Benzene ^{b,d, g}	0.37	0.37
Toluene ^{b,d, g}	0.002	0.002
Ethylbenzene ^{b,d, g}	0.09	0.09
Total Metals		
Total Antimony ^f	See toxicity	

Parameter	Maximum Average Concentration (mg/L)	Maximum Authorized Concentration in a Grab Sample (mg/L)
Total Arsenic ^a	0.30	0.60
Total Copper ^a	0.30	0.60
Total Barium ^f	See toxicity	
Total Boron ^e	29	29
Total Cadmium ^e	0.00011	0.00011
Total Chromium ^f	See toxicity	
Total Hexavalent Chromium ^e	0.001	0.001
Total Lead ^b	0.2	0.4
Total Molybdenum ^e	0.073	0.073
Total Nickel ^a	0.50	1.0
Total Selenium ^e	0.001	0.001
Total Silver ^e	0.00025	0.00025
Total Vanadium ^f	See toxicity	
Total Zinc ^a	0.50	1.0
Toxicity Testing		
Toxicity	Not Acutely Toxic (as defined through a standard LC ₅₀ test) to either rainbow trout or <i>Daphnia magna</i> .	

- a Mary River Water Licence Framework Table 1 (TSS), Table 7 (pH, total arsenic, copper, nickel, zinc)¹. Water licence criteria as applied to all discharge from the landfill facilities, open pit, stockpiles and sedimentation ponds discharged to land.
- b Hope Bay Water Licence, Part D (Item 9) for TSS; Part F (Item 18b) for benzene, toluene, ethylbenzene, oil and grease, and total lead². Effluent discharged onto land from the Landfarm Sump and Fuel Storage and Containment Facility Sumps
- c Naphthalene is relatively soluble and will be a good representation of the risk posed by other soluble Polycyclic Aromatic Hydrocarbons (PAHs) and other Petroleum Hydrocarbons (PHs), identified COCs associated with the site. The proposed EQC is set at the chronic CCME WQO³ following the example set through EQC for BTEX components within the Hope Bay Water Licence (Part F, Item 18b).
- d Back River Water Licence, Part F (Item 12)⁴. Applies to the discharge of effluent from the “Project areas” to land.
- e Canadian Council of Ministers of the Environment Acute Water Quality Objective for the Protection of Aquatic life.
- f EQC for metals identified as COCs in the Remediation Plan Revision 3 (2017) included as part of Paramount’s IR responses that do not have corresponding acute CCME guidelines are recommended to be regulated through toxicity testing requirements
- g Meliadine Water Licence⁵, Part F (Item 6) for benzene, toluene, ethylbenzene, and oil and grease. Applies to effluent discharged onto land from the Fuel Storage Facility at the Itivia Site.

¹ [Nunavut Water Board Water Licence No. 2AM-MRY1325. 2025. \[Nunavut Water Board Water Licence for Baffinland Iron Mines Corporation’s Mary River Project\].](#)

² [Nunavut Water Board Water Licence No. 2AM-DOH1335. 2018. \[Nunavut Water Board Water Licence for Agnico Eagle Mines Ltd.’s Hope Bay Belt Project\].](#)

³ [Canadian Council of Ministers of the Environment. 1999. Canadian water quality guidelines for the protection of aquatic life: Polycyclic aromatic hydrocarbons \(PAHs\). In: Canadian environmental quality guidelines, 1999, Canadian Council of Ministers of the Environment, Winnipeg.](#)

⁴ [Nunavut Water Board Water Licence No. 2AM-BRP1831. 2021. \[Nunavut Water Board Water Licence for Sabina Gold and Silver Corp.’s \(now B2Gold Corp.\) Back River Project\].](#)

⁵ [Nunavut Water Board Amended Licence No. 2AM-MEL1631. 2024. \[Nunavut Water Board Water Licence for Agnico Eagle Mine Ltd.’s Meliadine Gold Project\].](#)

GNWT-ECC has also included hard copies of the referenced Water Licences and associated documents (i.e., Mary River Water Licence Renewal Framework Draft for Discussion) as an attachment for the board's reference.

If you require further information, please contact Bill Pain, Manager, Water Regulatory, at Bill.Pain@gov.nt.ca.

Sincerely,

Bill Pain

Bill Pain
Manager
Water Regulatory
Regulatory and Permitting Division
Environment and Climate Change