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ECCC File: 6200 000 002/005  
NWB File: 1BR-BAK----



September 16, 2022

via email at: [licensing@nwb-oen.ca](mailto:licensing@nwb-oen.ca)

Sylvia Ekelik  
Licensing Administrative Assistant  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU X0B 1J0

Dear Sylvia Ekelik:

**RE: 1BR-BAK---- – Dept. Community Government Services Hamlet of Baker Lake – The Land Farm at Baker Lake Project – Water Licence/Land Use Permit application**

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Water Board (NWB) regarding the above-mentioned Water Licence Application. ECCC is providing technical, science-based information and knowledge based on our mandate pursuant to the *Canadian Environmental Protection Act*, the pollution prevention provisions of the *Fisheries Act*. These comments are intended to inform the assessment of this project's potential effects in the receiving environment and on valued ecosystem components. Any comments received from ECCC in this context does not relieve the proponent of its obligations to respect all applicable federal legislation.

The following comments are provided:

**1. Treatment Targets and Discharge/Disposal Criteria**

Reference(s)

- General Water Licence Application (July 26, 2022)
- Supplemental Information Guide (July 2022)

Comment

The General Water Licence Application document (Section 14 Waste) states that this land farm project involves remediation of contaminated soil and water/snowmelt. Per Section 13 (Quantity and Quality of Water Involved), onsite water (impacted water and snowmelt) will be treated through an onsite Hydrocarbon Treatment Plant and discharge criteria will be met before discharge. Section 15 (Quantity and Quality of Waste Involved) indicates the volume of contaminated water (snowmelt) to be treated. Yet, the General Water Licence Application



document does not provide any soil remediation details, such as the quantity of contaminated soil to be treated.

An overview of the project and some details are provided in the Supplemental Information Guide document. However, the application documents contain insufficient detail to support an understanding of how potential environmental impacts will be mitigated. The application documents do not provide key information identifying appropriate treatment targets, discharge/disposal criteria, and discharge/disposal locations that are important aspects in mitigating potential environmental impacts.

#### ECCC Recommendation(s)

ECCC recommends that the Proponent: (1) Update the General Water Licence Application document to include the quantity of contaminated soil to be treated, and (2) Provide the following information:

- Design treatment targets for the Hydrocarbon Treatment Plant;
- Discharge criteria for treated effluent (include parameter values and units);
- Disposal criteria for remediated soil (include parameter values and units);
- Discharge location(s) for treated effluent and distance to fish-bearing water; and
- Disposal location(s) for remediated soil (if onsite, include distance to fish-bearing water).

## **2. Certificate of Analysis**

#### Reference(s)

- Certificate of Analysis (July 2022)

#### Comment

The water licence application includes a certificate of analysis. However, no details were provided regarding the sample(s) analyzed. Relevant monitoring details should be shared, in order to provide context and support interpretation of the analytical report.

#### ECCC Recommendation(s)

ECCC recommends that the Proponent provide the corresponding monitoring details (for example, sample location and description, treatment, and receiving environment) for the certificate of analysis submitted in the water licence application.

## **3. Monitoring Plan**

#### Reference(s)

- General Water Licence Application (July 26, 2022)

#### Comment

Section 26 (Annual Reporting) of the General Water Licence Application document states that the site monitoring program will be updated. However, the monitoring program is not described in the application materials. Given the lack of information regarding monitoring, it is not possible

to assess the adequacy of the proposed monitoring program, nor whether potential environmental changes could be detected in a timely manner.

#### ECCC Recommendation(s)

ECCC recommends provision of a comprehensive monitoring plan, containing but not limited to the following plan components:

- project overview, project map(s),
- waste types and sources,
- description of treatment process(es),
- design treatment targets,
- monitoring goals (for example, baseline, reference, environmental (e.g., groundwater, surface water), and compliance monitoring),
- map(s) of monitoring locations,
- sampling parameters and methodology,
- QA/QC,
- overview of sample analyses,
- discharge criteria (treated effluent),
- disposal criteria (remediated soil),
- overview of data analyses, and;
- template(s) for data summary tables with comparison to relevant limits (for example, treatment targets, discharge/disposal criteria, baseline/reference data, and environmental guidelines).

## **4. Annual Reporting**

#### Reference(s)

- General Water Licence Application (July 26, 2022)

#### Comment

Section 26 (Annual Reporting) provides insufficient detail regarding what information will be provided in annual reports. Annual reports should be sufficiently detailed to convey a thorough understanding of the project.

#### ECCC Recommendation(s)

ECCC recommends that annual reports contain but are not limited to the following information:

- Waste quantity and quality (pre- and post-treatment)
- Treatment summary and any items of note
- Details of monitoring, sampling, and sample analyses
- Results, including: (1) Raw data, (2) Data summary table(s) that include comparison to relevant limits (for example, treatment targets, discharge/disposal criteria, baseline/reference data, environmental guidelines) and, (3) Discussion of monitoring

results. Any exceedances should be clearly indicated and discussed, including causes and response actions.

- Details of any spills and accompanying response actions

## **5. Operation Maintenance Plan**

### Reference(s)

- Supplemental Information Guide (July 2022)

### Comment

The application does not include an operation and maintenance (O&M) plan. Therefore, the details of project operations are unclear. Although page 1 of the Supplemental Information Guide appears to indicate that this document is an O&M plan, the level of detail provided is insufficient for an operational plan. An O&M plan should be developed and provide a sufficient level of detail so operators can access clear and detailed instructions and guidance.

### ECCC Recommendation(s)

ECCC recommends that a detailed operation and maintenance (O&M) plan be provided, containing but not limited to the following information:

- Project description
- Site map(s)
- Relevant figures and drawings
- Infrastructure and equipment
- Personnel, responsibilities and training
- Detailed description of wastes
- Waste acceptance criteria
- Procedures to manage any incoming waste that does not meet acceptance criteria
- Detailed description of treatment processes
- Details of any treatment additives
- Discharge criteria and discharge procedures for treated effluent
- Disposal criteria and disposal procedures for remediated soil
- Procedures to manage any treated waste (soil and water) that does not meet discharge criteria or disposal criteria
- Maintenance procedures
- Record-keeping procedures
- Templates for record-keeping
- List of guidelines and reference documents that informed development of the O&M plan

## 6. Maps and Drawings

### Reference(s)

- Supplemental Information Guide (July 2022)

### Comment

The maps and drawings submitted for this application have poor resolution quality, and much of the accompanying text is illegible.

### ECCC Recommendation(s)

ECCC recommends that any maps and drawings included in the recommended plans (i.e., monitoring plan and O&M plan) be fully legible.

If you need more information, please contact Eva Walker at [eva.walker@ec.gc.ca](mailto:eva.walker@ec.gc.ca)

Sincerely,

*[original signed by]*

Eva Walker  
Senior Environmental Assessment Officer

cc: Jody Small, Acting Head, Environmental Assessment North (NT and NU)