



## Appendix

| GN AR # 01 – ANNUAL REPORT COMPLETENESS  |  |
|--|--|
| <b>Department</b>  | Environment  |
| <b>Organization</b>  | Government of Nunavut  |
| <b>Subject/Topic</b>   | Comprehensive Annual Report Information  |
| <b>Terms and Conditions</b>  | Terms: 15, 19,20, 26, 27, and Monitoring and Reporting Requirements  |
| <b>References</b>  | <ul style="list-style-type: none"> <li>• Nunavut Impact Review Board Screening Decision Report NIRB File No.:17EN029, June 29, 2018</li> <li>• 190102-17EN029-2018 Annual Report-IA2E, Appendix 4 2018 Wildlife Observation Logs</li> <li>• 180528-17EN029-GN Comments-IA2E, GN Comments on 17EN029 Gibson MacQuoid Project, Comment GN-01, May 28, 2018</li> <li>• 180525-17EN029-Kangiqliniq HTO Comments-IA2E, Kangiqliniq Hunters and Trappers Organization Comments on 17EN029 Gibson MacQuoid Project, May 28, 2018</li> </ul> |
| IDENTIFICATION OF ISSUE  |  |
| <p><u>Completeness of the Annual Report.</u></p> <p>The Project Certificate issued through the Nunavut Impact Review Board’s (NIRB) Screening Decision Report dated June 29, 2018 outlines the monitoring requirements for the Proponent’s annual reporting. An itemized list of what is required from the Proponent to complete their annual reporting is presented in the screening report.</p> <p>The Proponent has not provided the following information listed as a requirement in the NIRB’s Screening Decision Report in the Proponent’s 2018 Annual Report:</p> <ul style="list-style-type: none"> <li>• Flight altitudes, frequency of flights and anticipated flight routes;</li> <li>• Information on the frequency of use of the unmanned air vehicles or non-recreational drones including altitudes, frequency of flights and flight routes completed;</li> <li>• Site photos;</li> <li>• A work plan for the following year, including descriptions of any planned progressive reclamation work;</li> <li>• A log of instances in which residents from nearby communities occupy or transit through the project area for the purpose of traditional land use or harvesting;</li> <li>• A description of the animal activity, and a description of the gender and age of animals within their wildlife observation records</li> <li>• A map of known sensitive wildlife sites such as denning sites, caribou crossing sites,</li> </ul> |  |

and raptor nests in the area;

- A summary of any wildlife mitigation actions undertaken, including the number of cease-work orders required as a result of proximity to caribou and any other wildlife;
- An analysis of the effectiveness of mitigation measures for wildlife, and identification of adaptive mitigation that will be implemented if mitigation measures were unsuccessful;
- Summary of its knowledge of Inuit land use in/near the project area and explain how project activities were modified to mitigate impacts on Inuit land use; and
- A summary of how the Proponent has complied with conditions contained within the Screening Decision, and all conditions as required by other authorizations associated with the project proposal.

Wildlife Monitoring.

The Proponent has provided a table of wildlife observations (Table 1.) however this table does not encompass the entire timeframe of the Proponent’s project activities which took place from August 30 to September 27, 2018. The sighting log only accounts for the period of September 3 to 16.

**Table 1. Wildlife Sightings Log**

| <b>Gibson MacQuoid 2018 - Wildlife Observations</b> |                            |                            |                 |                    |
|---|----------------------------|----------------------------|-----------------|--------------------|
| <b>Date</b>   | <b>Wildlife Monitor</b>    |                            | <b>Prospect</b> | <b>Area of</b>     |
|   | <b>Lionel Nutaradlaluk</b> | <b>Sam Curley</b>          |                 |                    |
| 03-Sep  | 4 Caribou; 1 Bald Eagle    | 4 Caribou; 1 Bald Eagle    | SZ              | N63 52 00.9 W94 13 |
| 04-Sep  | 7 Wolves; 7 Caribou        | 4 Caribou                  | SZ              | N63 52 00.9 W94 13 |
| 05-Sep  | 3 Caribou; 1 Muskox; 1 Fox | Many Geese                 | SZ              | N63 52 00.9 W94 13 |
| 06-Sep  | >40 Muskox                 | 14 Muskox                  | SF              | N63 38 00.2 W93 34 |
| 07-Sep  | Many Geese                 | 40 Muskox; 14 Caribou      | SF              | N63 38 00.2 W93 34 |
| 08-Sep  | Geese; 1 Muskox; 1 Fox     | 1 Muskox; 1 Fox            | SF              | N63 38 00.2 W93 34 |
| 09-Sep  | 5 Wolves; 1 Muskox         | 11 Muskox; Many Geese      | SF              | N63 38 00.2 W93 34 |
| 10-Sep  | 2 Geese; 1 Siksik          | 4 Caribou; 1 Muskox; 1 Fox | SF              | N63 38 00.2 W93 34 |
| 11-Sep  | Many Geese                 | Many Geese                 | SB              | N63 32 31.0 W93 21 |
| 12-Sep  | 1 Muskox; Geese            | 28 Muskox                  | FA              | N63 34 15.2 W93 42 |
| 13-Sep  | 4 Muskox                   | 15 Ptarmigan               | FA              | N63 34 15.2 W93 42 |
| 14-Sep  | 2 Red Fox                  | 10 Muskox                  | FA              | N63 34 15.2 W93 42 |
| 15-Sep  | 18 Muskox                  | 11 Muskox; Geese           | SZ              | N63 52 00.9 W94 13 |
| 16-Sep  | No sightings               | 8 Muskox                   | SZ              | N63 52 00.9 W94 13 |

(Gibson MacQuoid Annual Report 2018, Appendix 4, Figure 5, pg. 14)

Additionally the Proponent’s logs do not possess information on witnessed wildlife behaviour, distance from project infrastructure, time spent near project, method utilized to detect the wildlife, or mitigation actions taken due to the presence of wildlife.

**IMPORTANCE TO REVIEW AND SUPPORTING RATIONALE**

The ability of the Government of Nunavut (GN) to monitor existing projects for possible environmental effects is dependent on accurate and comprehensive reporting by proponents through their annual reports to the NIRB. Without the information listed in issues 1 and 2, any

review of the Project would be incomplete.

Accurate data on wildlife interaction with the project is essential in order to determine potential wildlife effects. This data must include the behaviour, age, and sex of the animals). The Proponent must also include a map relating their project activities to known sensitive wildlife sites. The GN possesses seasonal range maps for caribou that can be provided upon request to assist with the reporting requirements of the Project Certificate. This issue is additionally important as a large portion of this project is occurring within the Qamanirjuaq caribou herd's core calving areas, and to a lesser extent, post-calving areas (Government of Nunavut, 17EN029 Screening Comments, pg. 4). It is well documented that any development or activities in core calving areas can pose a high risk to the long term viability of mainland migratory caribou populations and therefore could have long-term negative implications to Inuit subsistence harvesting. Kivalliq communities and Hunters and Trappers Organizations have shown strong opposition to any development within Kivalliq caribou core calving areas (Kangiqliniq HTO, 2018).

#### **RECOMMENDATION(S)**

The GN recommends that the Proponent:

1. Provide the missing data required under the terms of the Project's Screening Decision Report to the NIRB and the GN. The Proponent's Annual Report should be updated to include this data.
2. Make revisions to their wildlife observation reporting to include all parameters required under the Screening Decision Report, including: distance from project, animal behaviour, animal sex or cow/calf groups, and the actions taken by the Proponent. The wildlife logs should encompass the entire period of the Project operation, August 30 to September 27.

| <b>GN AR # 02 – Aircraft</b>  |  |
|---|--|
| <b>Department</b>   | Environment  |
| <b>Organization</b>   | Government of Nunavut  |
| <b>Subject/Topic</b>  | Project use of Aircraft  |
| <b>Terms and Conditions</b>   | 14, and 21 to 23   |
| <b>References</b>   | <ul style="list-style-type: none"> <li>• 190102-17EN029-2018 Annual Report-IA2E, Appendix 1 Community Liaison Logs, 2018</li> <li>• Project_application_125337_as_of_2018-04-30, Material Use</li> <li>• Flying in Caribou Country, EDI Environmental Dynamics Inc. 2008</li> <li>• George et al (1976), The Reaction of Barren-Ground Caribou to Aircraft, Arctic Institute of North America, 1976</li> </ul> |
| <b>IDENTIFICATION OF ISSUE</b>  |  |
| <p>The Proponent's Project Proposal states that they will be utilizing a B12 helicopter, clarified to be a Bell 212 during community consultations (Annual Report, Appendix 1, p. 20). During the April 23, 2018 community consultation in Rankin Inlet, the Proponent responded to a question regarding its flight path by stating:</p> <p style="padding-left: 40px;">“We have been using an Otter that fly's out of Baker Lake” (Annual Report, Appendix 1, p. 14)</p> <p>However during the April 25 community consultations in Baker Lake the Proponent stated that they were flying back and forth using a Bell 212 helicopter (Annual Report, Appendix 1, p. 20).</p> <p>The use of an Otter aircraft does not appear in the Project's list of activities or equipment included in the Proponent's project proposal.</p> |  |
| <b>IMPORTANCE TO REVIEW AND SUPPORTING RATIONALE</b>  |  |
| <p>Caribou are sensitive to disturbance from low altitude flights (EDI, 2008; George et al., 1976); and display greater sensitivity to disturbance in calving ground (George et al., 1976) As such it is important for the reviewer to have an accurate account of what type of aircraft(s) is/are in use over the course of the Project.</p> <p>The type of aircraft in use may also alter the effects to vegetation. For instance the use of fixed wing aircraft may necessitate the construction of an airstrip, whereas the use of helicopters bypasses this requirement.</p>   |  |

## RECOMMENDATION(S)

The Government of Nunavut requests clarification regarding:

1. What type of aircraft is being utilized to access the Project site? Whether a Bell 212 or an Otter is being used, and if it is an Otter aircraft, the specific model.
2. If a fixed wing aircraft is being used in addition to the Bell 212?