



## Appendix

### Archaeology

A search of the Nunavut Archaeological Site Database indicates that there are no recorded archaeological sites within the boundaries of the proposed exploration areas. This, however, does not preclude the presence of unidentified sites or cultural features as to this day no archaeological survey has been conducted in this specific area.

The proponent plans a diamond exploration program between March 1, 2016 and March 1, 2018. The project proposal puts forward ground disturbance activities such as test pit trenching up to 10 sites/year, diamond drilling, bulk sampling including blasting, drilling and excavation of up to 500 tonnes of sampling material/site, development of a winter trail for personnel and equipment transportation, and the use of heavy machinery and equipment.

A section of the exploration area is located along a natural transitory corridor - the Josephine river system – and the potential for the presence of archaeological sites is high.

The timeline to conduct ground disturbance activities is also a concern as it might mask recorded and unrecorded archaeological sites.

#### *Recommendation:*

On the basis that no archaeological reconnaissance has ever been conducted in the area proposed for exploration and that ground disturbance activities are planned to occur, the department of Culture and Heritage recommends that:

1. Prior to any ground disturbance an archaeological overview assessment is conducted in the general area proposed for development/exploration activities.
2. Prior to any ground disturbance an archaeological survey and documentation is conducted in the specific areas proposed for testing, trenching, drilling, sampling, storage, transportation or vehicle movements and any layout areas associated with the proposed activities.
3. All the above-mentioned activities require a Nunavut Archaeology Permit.

All archaeological and palaeontological sites in Nunavut are protected by law. The applicant must understand that it is their responsibility to ensure that no heritage resource sites are disturbed in the course of their activities. No person shall alter, or otherwise disturb an archaeological site, or remove any artifact from an archaeological site. Moreover, the building of inuksuit is not recommended.

### Caribou

The GN recommends the Proponent develop a Wildlife Mitigation and Monitoring Plan. At a minimum this document should include:

- Detailed descriptions of project activities, timeframes, duration and intensity, field site locations and flight paths. Please include shapefiles.
- The identification of caribou use and caribou habitat within the proposed footprint of the activity and its associated areas of influence. Information for these can be obtained from the Department of Environment.
- The identification of project overlaps with known areas of ecological significance (ex. caribou calving grounds).
- The identification of potential impacts the proposed activities might have on caribou and caribou habitat use.
- A description of how impacts will be avoided and minimized (ex. relocating activities, following timing windows, mitigation measures etc.).

### Aircraft Disturbance

Aircraft activities have been shown to affect wildlife such as caribou and birds in behaviour, development, and reproductive success as well as potential accidental damage or injury. However, by raising flight altitudes studies have shown that it will alleviate some of the negative effects.

Unless there is a specific requirement for low level flights, aircraft activities should maintain a minimum altitude of 610 meters above ground level in places where there are occurrences of wildlife. In areas where there are observed large concentrations of birds, flight level is restricted to 1,000 meters vertical distance and 1,500 meters horizontal distance from the birds. As a good practice, it is recommended to avoid critical and sensitive wildlife areas such as calving grounds at all times by choosing alternate flight corridors.

### Raptors

Nesting raptors occur throughout this area and may be disturbed by activities. The GN recommends that the Proponent refrain from approaching nesting raptors during the critical timing window (May – July 15). Approaching the nest site near the time of fledging often leads to premature nest departure. Maintain field sites at a distance of at least 100 meters from a nest site during the latter part of the nesting stage (August 15 – September). Avoiding nesting and fledging raptors during these timeframes minimizes the risk of destroying active nests, birds or their eggs etc. and reduces the likelihood of contraventions under the *Wildlife Act*:

### Bird's nests

**72(2)** Unless lawfully harvesting down, no person shall injure, molest or destroy

- (a) the nest of a bird when the nest is occupied by a bird or its egg; or
- (b) the nest of any bird of prey or prescribed bird.

### Significant disturbance

**73(1)** No person shall, unless authorized by a licence,

(a) engage in any activity, other than harvesting, that is likely to result in a significant disturbance to a substantial number of wildlife; or

(b) break into, destroy or damage any abode of a bear, fox, beaver, muskrat, weasel, wolf or wolverine outside any municipality or prescribed area.

### Monitoring

The GN requests that the Proponent monitor and report on any wildlife sightings in the area of operations during the time of operation. These reports may be sent to the Ecosystems Biologist, Wildlife Research Section, BOX 209, Igloolik, Nunavut, X0A 0L0 or via email at

[mwilson@gov.nu.ca](mailto:mwilson@gov.nu.ca).