



NIRB File No.: 07EN011  
Previous NIRB File No.: 06EN030  
INAC File No.: Amendment to N2006J0010  
KIA File No.: KVL307C02

April 10, 2007

Cameco Corporation  
c/o Garth Drever  
2121 – 11<sup>th</sup> St West  
Saskatoon, SK  
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Via email: [garth\\_drever@cameco.com](mailto:garth_drever@cameco.com)

Re: Receipt of Cameco Corporation's Response to Parties' Comments and Opportunity for Parties to Assess the Response to Comments

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Dear Garth Drever:

As you aware, on March 9, 2007 NIRB distributed the Notice of Part 4 Screening for Cameco Corporation's Aberdeen-Turqavik project proposal.

NIRB invited interested Parties and municipalities most affected by the Aberdeen-Turqavik project to comment directly to the NIRB by March 29, 2007. On or before March 29, NIRB received a number of comments and concerns from Parties.

On March 30, 2007, NIRB requested that Cameco Corporation respond to Parties' comments and concerns by April 6, 2007.

On April 5, 2007 NIRB received your response to Parties' comments (Response to Comments) and has uploaded this document to NIRB's ftp-site, located at:

[ftp://ftp.nunavut.ca/nirb/NIRB\\_SCREENINGS/ACTIVE\\_SCREENINGS/07EN011-Cameco\\_Corporation/1-SCREENING/02-DISTRIBUTION/CORRESPONDENCE/](ftp://ftp.nunavut.ca/nirb/NIRB_SCREENINGS/ACTIVE_SCREENINGS/07EN011-Cameco_Corporation/1-SCREENING/02-DISTRIBUTION/CORRESPONDENCE/)

NIRB is providing an opportunity for Parties' to review your Response to Comments before proceeding with the next steps of the screening process. Parties should review the Response to Comments, found at the above-indicated ftp-site location and provide any comments/concerns to NIRB by **Friday April 13, 2007**. For ease of review of this document, I have attached the Response to Comments to this letter.

All correspondence should be directed to NIRB's Manager of Administration, Leslie Payette at [lpayette@nirb.nunavut.ca](mailto:lpayette@nirb.nunavut.ca).

If you have any questions or concerns, feel free to contact me at 867-983-4607 or [cinglis@nirb.nunavut.ca](mailto:cinglis@nirb.nunavut.ca).

Sincerely,

*[original signed by]*

Carolanne Inglis-McQuay  
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Attachments: Cameco Corporation's Response to Comments (dated April 5, 2007)

## **ABERDEEN AND TURQAVIK PROJECTS NUNAVUT NIRB (FILE NO.: 07EN011)**

### **Summary**

Several concerns and recommendations regarding Cameco's Land Use amendment have been forwarded to the Nunavut Impact Review Board (NIRB) prior to March 29, 2007. Cameco has been allowed until April 6, 2007 to respond. Many of the issues are related to wildlife mitigation and monitoring issues.

Cameco's policy has always been to avoid unnecessary conflict and encounters with all wildlife regardless of species. Cameco recognizes the importance of the migrating barren lands caribou to the region and is aware of the fragile environment in which the Aberdeen – Turqavik project is located.

Several of the concerns are easily rectified, particularly issues relating to operational procedures. These include the replacement of burning barrels by recognized portable incinerators; the inclusion of contact names on the Spill Contingency Plan and the exclusion from incineration of items considered toxic to the environment.

Fundamental issues relating to migratory wildlife are, for the most part, easily resolved. Some issues associated with monitoring, particularly for preliminary exploration, will require compromise in order to establish workable procedures. It should be recognized that Cameco's level of exploration proposed is at a very early stage. To monitor caribou migration activity, as outlined by the Government of Nunavut Department of Environment and the Beverly and Qamanirjuaq Caribou Management Board, will be an onerous project on its own. Given the revised cope of activity for 2007, which involves very low impact activities (no proposed drilling), Cameco would like to initiate dialog with government departments and concerned groups regarding the development of effective collaborative scenarios to move forward with regards to monitoring wildlife activity. We fully intend to maintain records of wildlife sightings during the course of our activities during 2007 and develop strategies for 2008 as our level of activity ramps up.

The exploration timeline has been updated with the most significant change being the delay of the shallow drilling and diamond drilling until 2008.

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## **1.0 CONCERNS FROM INTERESTED PARTIES WITH CAMECO'S RESPONSES**

Cameco received notification on March 29<sup>th</sup> with a request for a response to 12 bulleted items of concern from responses from six interested Parties (see complete list in section 4.0). These concerns have been classified into the following sections: Wildlife Mitigation; Archaeological & Cultural and; Operations & Logistics.

### **1.1 Wildlife Mitigation & Monitoring Issues**

***Bulleted Item:***

***“Project activities occurring in lands used by the Beverly and Ahlak caribou herds for spring migration, calving, post-calving and late summer, particularly during a proposed June 2007 GN/GNWT population survey of the Beverly caribou herd.”***

**Cameco's response:**

Cameco supports the concept of the June 2007 GN/GNWT survey. Our exploration camp is suitably situated to provide logistical support for survey crews if needed. This would provide an opportunity for explorationists to interact with wildlife biologists.

Cameco's policy is to avoid unnecessary conflict and encounters with all wildlife regardless of species. This includes intrusion into their habitat, sightseeing, and unnecessary tracking activity by aircraft. When migrating wildlife is observed we will record the location (GPS) and time with a description of type and estimate of numbers. If necessary, these areas will be avoided until such time that the activity has ended as in the case of migratory wildlife or be permanently avoided in the case of nesting raptors, migratory birds and other vulnerable birds.

***Bulleted Item:***

***Potential impacts to caribou from disruptive activities, such as drilling, low-level flights by helicopter, and aircraft activity in general.***

**Cameco's Response:**

As outlined in Cameco's original amendment, our project area is sufficiently large to allow amendments/deviations from our planned schedule to move exploration activities to areas away from significant wildlife activity. Migrating/calving caribou will be monitored if within our traffic areas to and from our work areas and within our work areas. If and when caribou encounters cannot be avoided our operations in the affected area will cease immediately until the encounter is terminated by the caribou on their own terms. Our experience and advice from local resident indicates that the caribou are migratory/roaming and rarely remain in the same locale for more than a few days at most and that our operations such as drilling can either be halted for a short period or moved to another exploration target area away from herds/groups. Low-level flights can be modified to skirt a safe distance around wildlife when mobilizing field crews etc. or moved to a different survey areas devoid of animals as in the case of geophysical surveys along fixed flight-lines.

***Bulleted Item:***

***Lack of mitigation measures described for potential adverse impacts to Beverly caribou.***

**Cameco's Response:**

Because the Beverly herd's annual migration maybe within the project area there is potential for our exploration activities to have adverse impact on the herd. Impact can range from anxiety and nervousness due to noise from aircraft to fright and stampede due to extreme low level flying and/or personnel on the ground. Cameco Corporation's company wide policy has always been to avoid and prevent any adverse impact on all wildlife. All incidents including potential incidents that have a negative impact on wildlife are reported and reviewed internally by Cameco's Exploration and Environmental and Safety Departments. We continuously develop our policies to better manage environmental and safety awareness.

***Bulleted Item:***

***The necessity of a rigorous wildlife monitoring with particular emphasis on caribou.***

**Cameco's Response:**

Cameco Corporation recognizes the request for a rigorous wildlife monitoring mechanism, however, believes that our stage of preliminary exploration will have a minimal impact on wildlife. We will record all wildlife encounters and begin dialog with government departments, other exploration companies and concerned groups such as the Beverly Qamanirjuaq Caribou Management Board (BQCMB) to develop strategies to move forward with acceptable monitoring practices as exploration activity ramps up.

***Bulleted Item:***

***Potential impacts to humans and wildlife, including grizzly bears, wolverines, wolves, foxes, and raptor nesting areas from noise, human-carnivore interactions and general disruption.***

**Cameco's Response:**

Cameco practice has been to maintain a well-managed, clean campsite, which, in the past has minimized negative wildlife encounters. Incineration of waste in burning barrels was proposed and has been amended to include approved double-walled incinerators. Food carried by workers on the ground will be contained in sealed plastic containers to minimize odours etc. that could attract animals. Workers on the ground will be encouraged to carry bells or other sources of noise to warn animals to prevent startling or frightening encounters. All ground personnel will carry "banger" flairs, bear spray and 2-way communication. Areas of known bear sightings will be avoided until deemed safe by Cameco's safety officer. Each drill site will be surveyed prior to drilling to avoid areas of raptor and/or Canada geese nesting sites (summer 2008 program).

***Bulleted Item:***

***Proximity of the project proposal to the Thelon River, designated as a Canadian Heritage River, and the proposed Special Management Area, as designated in the Thelon Game Sanctuary Management Plan.***

**Cameco's Response:**

Some work has been designated within the proposed Special Management area. All reasonable efforts will be made to maintain a safe distance as set out by the Canadian Wildlife Service, from Canadian geese particularly when moulting. All other

recommendations relating to exploration activities within this designated area will be adhered to during our exploration program.

## **1.2 Archaeological & Cultural**

***Bulleted Item:***

***Potential impact to archaeological sites within project area.***

**Cameco's Response:**

Through collaborative efforts with the Baker Lake Elders Society in 2006, Cameco Corporation was able to identify all known burial sites within the project area and in particular, the location of the exploration campsite. All archaeological sites encountered during the 2006 summer program have been documented and incorporated into our database. As suggested by the Baker Lake Elders and the Hamlet of Baker Lake Councillors, we have not released the locations of these archaeological sites. Locations of all previously known and new sightings will be monitored to ensure current and all future activities will be planned and executed to avoid any unnecessary disturbance.

***Bulleted Item:***

***Community consultation and public involvement, including clarification related to discussions with Baker Lake HTO regarding caribou and muskox.***

**Cameco's Response:**

Informal discussions have been ongoing since early 2006 regarding Cameco's activities in Nunavut. Discussions with members of the Baker Lake Hunters and Trappers occurred in April and May of 2006. By reviewing a map of our project areas we were shown where to expect caribou migration paths and potential river (Thelon) crossings. Some crossing exist within our property, however, most of the major crossings were shown to be off property. During the 2007 Nunavut Mining Symposium in Iqaluit, April 17 to 19<sup>th</sup>, 2007 Cameco representatives will informally meet with interested individuals and groups regarding our activities. Meetings with the Baker Lake Hunters and Trappers, and the Baker Lake Hamlet councilors will be scheduled for late April 2007 to discuss results of our 2006 efforts and our 2007 exploration program.

## **1.3 Operations & Logistics**

***Bulleted Item:***

***Lack of discussion of cumulative effects in relation to other projects in the area.***

**Cameco's Response:**

Cameco Corporation has been continuously communicating with other exploration companies to work co-operatively to ensure that logistics associated with mobilization – demobilization of camp, movement of materials, personnel and servicing camps will be minimized. Efforts to share remote camp facilities are being proposed and reviewed. In doing so will reduce the overall impact on the environment by reducing the total number of project activities at a given time (same amount of activity, but potentially spread out over a longer period).

***Bulleted Item:***

***Omissions regarding details about the winter trail, including discussions related to the Proponent responsibility to ensure the subcontractor follows all requirements to reduce environmental impacts, including the requirement for completion of the winter trail by April 30.***

**Cameco's Response:**

The amendment has indicated the drill and equipment would be mobilized from the exploration camp to the various drill sites by using an overland winter route. It is understood that all guidelines relating to the environment would be adhered to. This would include such items as ensuring the tundra is sufficiently frozen, snow covered and that the same track would be used if multiple trips were required.

The 2006 exploration program was hampered by many factors. Delays associated with shipping materials from Churchill, equipment availability, mild weather in April and the delayed approval of the Land Use permit had an adverse effect resulting in an inability to complete the overland transportation before the deadline. Cameco accepts the responsibility for delays and during 2007 will inspect and document the locations sighted by Orin Durey as potential damage zones from the LMC final trip in 2006 even though the contractor in question, received an acceptable clearance on the Environmental Inspection Report dated July 27<sup>th</sup>, 2006. Cameco will ensure that all efforts to maintain timely overland trips during 2007 will occur.

***Bulleted Item:***

***Omissions in the Spill Contingency Plan.***

**Cameco's Response:**

No toxic waste material will be incinerated on site. All Toxic waste will be removed in an acceptable container to Baker Lake for proper disposal. The contact for Jimmy Noble, Environment Canada's Enforcement Officer has been added to Cameco's Spill Contingency Plan.

***Bulleted Item:***

***Potential for impacts from noise, and lack of mitigation measures described in information provided to NIRB.***

**Cameco's Response:**

Sources of potential noise during Cameco's proposed exploration program will be from the following:

- a) Camp generator
- b) Camp activity including servicing by aircraft
- c) Deployment of exploration crews to and from the field (helicopter)
- d) Use of snowmobiles by geophysical crews (winter)
- e) Mobilization and demobilization of drill and equipment (overland transport and helicopter supported)
- f) Drilling activity including drill motor and mob-demob of drill crew via helicopter
- g) Low-flying aircraft completing airborne geophysical surveys.

Mitigation Measures relating to a) to g) above:

- a) Measures will be taken to minimize noise levels by use of critical grade mufflers and/or shutting down the gen-set after 11PM when appropriate, and relying on battery back-up to power essential items.

- b) Servicing the camp will include only essential flights and/or weekly service flights.
- c) When possible the helicopter will be fully loaded to minimize aircraft time and crews will plan full day traverses whenever possible.
- d) Snowmobiles will be used only to facilitate access to the geophysical stations. They will be turned off during collection of data.
- e) Little can be done to mitigate noise pollution from the overland hauling activities other than to eliminate unnecessary running of the engines when idle. Again little can be done with the helicopter moves other than to ensure that loads are maximized to minimize the total number to trips to move the drill and equipment.
- f) The noise due to drilling activity can not be significantly mitigated other than to ensure that the contractor uses critical grade mufflers. It is an integral part of the program that is present with all drilling.
- g) Again the noise of the aircraft cannot be minimized. What can be accomplished is to plan the sequence of surveying to occur in areas devoid of migratory herds.

## 2.0 **DISCUSSION**

### 2.1 **Wildlife Mitigation & Monitoring Issues**

Fundamental issues relating to migratory wildlife are, for the most part, easily resolved. Some issues associated with monitoring will require compromising in order to find the middle ground. It should be recognized that Cameco is at a very early stage of exploration activity with a large land holding. To adequately monitor caribou migration activity throughout the active exploration regions will be an onerous project on its own.

Cameco will initiate a database of wildlife sighting from both air and ground in the normal course of daily work. Since drilling activity has been delayed (see sections 3.3 & 3.4) until 2008 all work planned for 2007 will be low impact and predominately completed by ground based crews. Cameco will initiate dialog with government departments, other exploration companies and concerned groups regarding collaborative and workable scenarios to move forward on wildlife monitoring issues. We fully intend to maintain records of wildlife sightings during the course of our activities during 2007 and develop strategies for 2008 as our level of activity ramps up. Monitoring would consist of counting, activity levels, and locations etc. of all wildlife within the active work area. As suggested in section 1.1 (first bulleted item), if the GN/GNWT Beverly Caribou herd survey crew is available to spend time at our exploration camp during the June survey we would gain valuable advice and insight into monitoring procedures.

Cameco is proposing the following guidelines based on recommendations from the Government of Nunavut Department of Environment:

- Maintain a minimum aircraft distance of 1.5 km from known migratory herds (caribou, muskoxen etc.) and flocks (geese, sand hill cranes etc.).
- Maintain a minimum ground distance of 100 m from known nesting birds, and in particular, migratory, endangered and all raptor species.
- Maintain a database of ground and air sightings of caribou/muskoxen and type of activity.

*Note: the above list is by no means complete or exhaustive, but will be incorporated into Cameco's policy.*

## **2.2     Operations & Logistics**

Several of the issues are easily rectified, particularly issues relating to operational procedures. These include the replacement of burning barrels by recognized portable incinerators; the inclusion of contact names on the Spill Contingency Plan and the exclusion from incineration of items considered toxic to the environment when burned. Several issues with noise pollution can be mitigated by ensuring proper mufflers are used on all engines (gen-set, drills etc) and by eliminating unnecessary flights by aircraft.

## **2.3     Archaeological & Cultural**

Issues relating to Archaeological sites have already been incorporated into Cameco's policies. During the 2006 exploration program all archaeological sites encountered in the field were recorded and photographed. A map showing locations of burial sites was provided by the Baker Lake Elders association and will be digitized. Most of the sites identified during 2006 were predominately tent rings and inukshuks. Cameco's policy is to leave these sites undisturbed and will ensure that all winter routes, drilling activity, and any other activity maintain a safe distance away.

Local residents will continue to be consulted regarding best practices relating to activity on the Tundra.

## **3.0     MODIFIED TIMELINE OF EXPLORATION ACTIVITY**

Since the amendment was submitted in February 2007 several factors have changed since that time. A revised timeline is described below.

### **3.1     Construction of Exploration Camp**

SK Construction Ltd. of Baker Lake will be completing the construction of the exploration camp on Qamanaarjuk Lake during April 2007. Work will consist of completing the insulation, roofing and plumbing of the washroom facility and grooming the airstrip.

### **3.2     Ground Geophysical Survey (Late April to July 2007)**

A geophysical contractor is scheduled to commence surveying ground gravity stations during the last week of April 2007. The contractor will stay at the exploration camp and be transported by helicopter to the work areas. Once at the work area, the contractor will use snowmobiles to move between stations spaced approximately 500 and 1000 m apart. The helicopter will be stationed at the camp throughout the duration of the geophysical program. It is anticipated that the survey will require 75 to 100 days to complete.

### **3.3     Shallow Drilling (delayed until 2008)**

A contractor was selected to complete the shallow drill program, however, was unable to supply personnel and equipment during the optimum time (April – May 2007). It was agreed to postpone the drilling until March – May 2008 to allow time to acquire proper

equipment and develop a preferred method of mobilizing and moving the drill and equipment to the site and between sites.

### **3.4 Diamond Drilling (delayed until 2008)**

Two drill contractors had drills available in Baker Lake, however, were unable to commit to drilling during May –June 2007 due to availability of personnel. As a result the diamond drilling has been postponed until April – July 2008 at which time a significantly larger drill program will be proposed.

### **3.5 Geological Mapping and Prospecting (June to July 2007)**

Geological mapping, prospecting and sampling, similar to the 2006 program, will be completed between mid June and late July, 2006.

### **3.6 Airborne Geophysical Surveys (June to August 2007)**

Airborne geophysical surveys will be planned in lieu of the postponed drilling. Surveys will be planned based on availability of contractor and will complement the ground gravity surveys.

## **4.0 REFERENCES**

070324-07EN011-The Beverly and Qamanirjuaq Caribou Management Board  
070326-07EN011-Environment Canada  
070327-07EN011-Mr. Orin Durey of Baker Lake  
070328-07EN011-The World Wildlife Fund  
070329-07EN011-The Govt of NU Department of Environment  
070329-07EN011-The Govt of NU Department of Culture, Language, Elders & Youth  
Environmental Inspection Report dated July 27, 2006 for Land Use Permit No:  
N2005X0013