APPENDIX III

2008 WORKSITE SPECIFIC GUIDE FOR THE WILDLIDE MITIGATION AND MONITORING PROGRAM

TECHNICAL PROCEDURES – Camp Activity

Summary of Activity:

- Project head quarters including helicopter and seasonal trucking pick-up and drop-off points for essential supplies, service and site staff
- It is planned to expand the 2007 temporary wooden camp by installing new sleeping accommodations and an addition to the latrine infrastructure.

Potential Impact:

- Aircraft and helicopter noise during take-off and landing
- Low level flying
- Equipment Noise (e.g., ATV's, snowmobiles, generators, etc.)
- Small animal move ins (e.g., ground squirrels, voles)
- Habitat loss

Mitigation and Implementation:

Caribou Mitigation

Based on information from the BQCMB (2006), the calving grounds for the Beverly and Qamanirjuak herds are approximately 70 km and 200 km from the proposed exploration areas, respectively. The distance between the Kiggavik camp and the nearest caribou water crossings is approximately 25 km. During previous exploration activities, AREVA staff and contractors have observed several caribou per day traveling through the Judge Sissons Lake area. AREVA recognizes that there is a high probability that caribou will occur within the Project area during the northern and post-calving migration periods (i.e., April through September).

The following outlines caribou protection measures required or suggested during specific periods of the year and AREVA's follow-up action.

Mitigation Procedures for Caribou

The following procedures are practiced and enforced on site to mitigate potential impacts from exploration activities on caribou.

- Caribou have the "right-of-way" and are not blocked or deterred from moving through the Project area

- Taking-off or landing of aircraft does not occur if 50 or more caribou are in close proximity to one another and within 1 km of the aircraft.
- Track logs of helicopter flights are maintained.
- Monitoring the area for approaching caribou with the use of satellite collar information in conjunction with daily ground surveillance for caribou cows and calves, and observations during transport of contractors and site staff (following the flight altitudes for transportation described above).
- If a collared caribou is identified as being on the lease property or within 3.5 km, then verification will occur through an aerial reconnaissance survey (>300 m).
- Adherence to all mitigation and protection measures described for "Other Wildlife" by all site employees, contractors, and visitors.

Required activities and their applicable frequencies in the following table:

Activity	Frequency	Flying Altitude
Regular Long Distance Flights		>610 meters
Short Distance Flights		>300 meters – if achievable during duration of flight
Aerial Reconnaissance Surveys*	When required	>300 meters
Ground Behavior Observations	Daily	NA
Wildlife Log-Book	On event of viewing wildlife	NA

Mitigation Procedures for Raptors and Other Migratory Birds

- AREVA has implemented the following operating procedures to mitigate potential impacts to raptors and other migratory birds.
- Any land clearing activities (if necessary) will be conducted during late winter (April) outside of the nesting season (May through August) for migratory birds.
- Avoid disturbance to the nest sites of raptors and other migratory birds (i.e., songbirds and shorebirds). If a raptor nest is located incidentally within 1.5 km of exploration activities, then AREVA staff and contractors will be instructed to specifically avoid the nest site during late May through mid-July, and maintain a distance of at least 100 m from the nest during mid to late August (as recommended by the GN [GNDOE 2007]).
- An attempt will be made to prevent birds from nesting on man-made structures.
- If a nest site is established on a man-made structure and eggs are present, the nest will be avoided as much as possible and monitored for nest success.
- Adhere to all mitigation and protection measures described for "Other Wildlife".

Mitigation Procedures for Other Wildlife (Includes All Wildlife)

- AREVA will implement the following operating procedures to mitigate potential impacts to all wildlife.
- Perform exploration activities (camp layout, drilling) in a manner that limits the size of the Project footprint.
- The use of firearms is strictly controlled. The only allowable use of firearms is the use bear deterrence measures (e.g., shotguns, cracker shells and rubber bullets) as recommended by the GN (GNDOE 2007), and for safety kills to protect human life should a situation arises when other measures have failed.
- Prohibit hunting and trapping by AREVA employees and contractors.
- All wildlife has the "right-of-way".
- AREVA educates and enforces to site staff "no feeding or harassment of wildlife", and the appropriate response to animal encounters (especially carnivores and muskoxen). Staff will be required to follow the "Procedures in the "Safety in Bear Country Manual" as recommended by the GN (GNDOE 2007).
- Use of "good house keeping" practices to maintain a garbage-free camp and exploration area, should limit the attraction of animals to the project. All combustible garbage is burned in an incinerator and ash residue is placed in metal containers and disposed of in Baker Lake (see Waste Management Plan). Non-combustible waste is stored in the camp area and shipped to Baker Lake for disposal.
- If an incident occurs between a grizzly bear, wolverine, wolf, or fox and the exploration program, then the details of the incident will be described in a "Wildlife Incident Form" and AREVA will contact the local wildlife officer with the GN for appropriate protocols and actions. An incident is defined as wildlife-caused damage to camp facilities, continued persistence of a carnivore(s) within the camp or drill rig area, and interactions between humans and wildlife that lead to injury or death.
- All fuel burning equipment meet emission guidelines and are equipped with mufflers.
- All chemicals are stored in double-walled containers or in secondary containment. In addition, diesel fuel, gasoline, and aviation fuel is contained within arctic berms or double-walled storage tanks (see Spill Contingency Plan). In the event of a spill, the Spill Contingency Plan will be implemented immediately, and the spill reported to the appropriate authorities. Used chemicals are stored for transportation off site for proper handling.
- AREVA staff and contractors will record observations of caribou, other wildlife, and carnivore dens and raptor nest sites into a wildlife logbook

- All materials, chemicals, and equipment are removed from the drill sites and camp area at completion of the project as described in the Abandonment and Restoration Plan. The intent is to return the area as close as possible to the natural state.

Wildlife Log Book

In conjunction with the technical surveys conducted to collect scientific data, AREVA has provided a wildlife log book for all site personnel, contractors, and visitors to complete following the observation of any wildlife. Instructions regarding the log book are provided during orientation and/or arrival on site.

TECHNICAL PROCEDURES – Drilling Operations

Summary of Activity:

Bong and Granite Areas

- Diamond drilling will focus on existing targets on the Bong and Granite Grids, South and West of Kiggavik respectively.
- Diamond drilling will include 7 - 12 drill holes on Granite Grid and similar amounts of drilling on the Bong Grid (total of 14 -24 drill holes).
- Total meterage is expected to range between 3000 and 5000m.
- The drill hole size may be NQ or HQ
- Holes may be inclined (from vertical to 60^{o})
- Maximum depth 400m

Kiggavik Area

- Diamond drilling will focus on the existing Main Zone and Center Zone deposits
- Diamond drilling will include a total of 10 to 25 drill holes
- Total meterage is expected to range between 2000 and 4000m.
- The drill hole size will be HQ
- Holes may be inclined (from vertical to 60o)
- Maximum depth 300 m
- Holes below the permafrost will be packer tested
- Water samples will be collected using packer systems and swabbing tools. A pump will be required to pump all drill water from the hole during sampling. In order to pump out approximately 2 volumes before sampling, holding capacity on the order of 5 m^3 will be required.

Andrew Lake and End Grid Areas

- Diamond drilling will focus on the existing Andrew Lake and End Grid deposits, South West of Kiggavik.
- Diamond drilling will include 6 - 12 drill holes at Andrew Lake and similar amounts of drilling at End Grid (total of 12 -24 drillholes).
- Total meterage is expected to range between 2000 and 4000m.
- The drill hole size will be HQ
- Holes may be inclined (from vertical to 60^{o})
- Drill water will be directed to settling tanks prior to being re-circulated

- Maximum depth 400m
- Holes below the permafrost will be packer tested
- Water samples will be collected using packer systems and swabbing tools. A pump will be required to pump all drill water from the hole during sampling. In order to pump out approximately 2 volumes before sampling, holding capacity on the order of 5 m^3 will be required.

Potential Impact:

- Helicopter noise during take-off landing and pick-ups
- Low level flying
- Equipment Noise (e.g., Drills, ATV's, snowmobiles, generators)
- Animal encounters
- Habitat loss

Mitigation Procedures for Caribou

The following procedures are practiced and enforced on site to mitigate potential impacts from exploration activities on caribou.

- Caribou have the "right-of-way" and are not blocked or deterred from moving through the Project area
- Adherence to flying altitude requirements:
    - For long-range transportation flights and when travelling over large concentrations of caribou (50 or more individuals in close proximity to one another), the normal practice is to fly all aircraft at a minimum of 610 m above ground level. Exceptions may exist during take off and landing, low-level ceiling conditions, high winds, or other risks to flight safety flight safety.
    - For relatively shorter transportation flights (e.g., movement of staff and equipment between camp and ore bodies within the Kiggavik lease), the normal practice is to fly all aircraft at a minimum of 300 m above ground level. Exceptions may exist during take off and landing, low-level ceiling conditions, high winds, or other risks to flight safety flight safety.
- Taking-off or landing of aircraft does not occur if 50 or more caribou are in close proximity to one another and within 1 km of the aircraft.
- Track logs of helicopter flights are maintained.
- No drilling within 5 km of designated caribou crossings and not to construct a camp, cache fuel, or operate ground, air and water transportation equipment within 10 km of designated caribou crossings.

- Notifying EHS group is caribou are identified to be within 4 km of the drill site
- AREVA agrees to suspend all operations in accordance with Technical Procedure – Mitigation Measures for Caribou within 1 km of Drilling Operations (drilling, operation of ATVs, snowmobiles and water craft) if calves and cows are present within 1 km of exploration activities (50 or more individuals in close proximity to one another).
- Adherence to all mitigation and protection measures described for "Other Wildlife" by all site employees, contractors, and visitors.
- Use of mufflers on equipment and vehicles
- No feeding the wildlife
- No hunting

Required activities and their applicable frequencies and flying altitudes are presented in the following table:

Activity	Frequency	Flying Altitude
Regular Long Distance Flights		>610 meters
Short Distance Flights		>300 meters – if achievable during duration of flight
Aerial Reconnaissance Surveys*	When required	>300 meters
Wildlife Log-Book	On event of viewing wildlife	NA

*** If required, as per collared satellite data**

Mitigation Procedures for Raptors and Other Migratory Birds

- Any land clearing activities (if necessary) will be conducted during late winter (April) outside of the nesting season (May through August) for migratory birds.
- Avoid disturbance to the nest sites of raptors and other migratory birds (i.e., songbirds and shorebirds). If a raptor nest is located incidentally within 1.5 km of exploration activities, then AREVA staff and contractors will be instructed to specifically avoid the nest site during late May through mid-July, and maintain a distance of at least 100 m from the nest during mid to late August (as recommended by the GN [GNDOE 2007]).
- An attempt will be made to prevent birds from nesting on man-made structures.
- If a nest site is established on a man-made structure and eggs are present, the nest will be avoided as much as possible and monitored for nest success.

- Adhere to all mitigation and protection measures described for “Other Wildlife”.

Mitigation Procedures for Other Wildlife (Includes All Wildlife)

- Perform exploration activities (camp layout, drilling) in a manner that limits the size of the Project footprint.
- For longer range flights within the project area (e.g., between the Kiggavik and Sissons leases), the normal practice is to fly all aircraft at a minimum of 610 m above ground level, except during take off and landing, and when ceiling conditions do not permit.
- For relatively shorter flights (e.g., between camp and ore bodies on Kiggavik lease), normal practice is to fly all aircraft at a minimum of 300 m above ground level, except during take off and landing, and when ceiling conditions do not permit.
- The use of firearms is strictly controlled. The only allowable use of firearms is the use bear deterrence measures (e.g., shotguns, cracker shells and rubber bullets) as recommended by the GN (GNDOE 2007), and for safety kills to protect human life should a situation arises when other measures have failed.
- Prohibit hunting and trapping by AREVA employees and contractors.
- All wildlife has the “right-of-way”.
- AREVA educates and enforces to site staff “no feeding or harassment of wildlife”, and the appropriate response to animal encounters (especially carnivores and muskoxen). Staff will be required to follow the “Procedures in the “Safety in Bear Country Manual” as recommended by the GN (GNDOE 2007).
- Use of “good house keeping” practices to maintain a garbage-free camp and exploration area, should limit the attraction of animals to the project. All combustible garbage is burned in an incinerator and ash residue is placed in metal containers and disposed of in Baker Lake (see Waste Management Plan). Non-combustible waste is stored in the camp area and shipped to Baker Lake for disposal.
- If an incident occurs between a grizzly bear, wolverine, wolf, or fox and the exploration program, then the details of the incident will be described in a “Wildlife Incident Form” and AREVA will contact the local wildlife officer with the GN for appropriate protocols and actions. An incident is defined as wildlife-caused damage to camp facilities, continued persistence of a carnivore(s) within the camp or drill rig area, and interactions between humans and wildlife that lead to injury or death.
- All fuel burning equipment meet emission guidelines and are equipped with mufflers.
- All chemicals are stored in double-walled containers or in secondary containment. In addition, diesel fuel, gasoline, and aviation fuel is contained within arctic berms or double-walled storage tanks (see Spill Contingency Plan). In the event

of a spill, the Spill Contingency Plan will be implemented immediately, and the spill reported to the appropriate authorities. Used chemicals are stored for transportation off site for proper handling.

- AREVA staff and contractors will record observations of caribou, other wildlife, and carnivore dens and raptor nest sites into a wildlife logbook
- All materials, chemicals, and equipment are removed from the drill sites and camp area at completion of the project as described in the Abandonment and Restoration Plan. The intent is to return the area as close as possible to the natural state.

TECHNICAL PROCEDURES – Airborne Geophysics Surveys

Summary of Activity:

- Surveying will be done with a Cessna C208B Grand Caravan
- Instrumentation will record full tensor gravity gradiometry, gravity, triaxial magnetic gradiometry, digital video, and a complete digital terrain model from an inertially referenced laser (Lidar) altimeter system.
- The airborne gravity survey is slated to be finalised in the summer of the 2008.

Potential Impact:

- Helicopter noise during take-off landing and pick-ups
- Aircraft noise
- Low level flying
- Equipment Noise (e.g., ATV's, snowmobiles, generators)

Mitigation and Implementation:

Protection measures for conducting Aerial Geophysical Surveys (AGG).

- AREVA will only conduct AGG when caribou will not be disturbed by the survey.
- To meet requirements made by EC and GN, prior to initiating the survey program for the day, a reconnaissance flight is flown at an altitude of 300 meters over the initial line of the proposed route to determine the presence of caribou. If the ceiling is lower than the 300 meters but at an altitude that permits safe flying, the reconnaissance flight will be flown at the maximum altitude possible.
- If large quantities of caribou (50 or more individuals in close proximity to one another) are present within the area, then the aircraft will relocate to another part of the block and repeat the reconnaissance flight or will be postponed until the animals are a distance of 2 km from the survey area.
- If no caribou are observed within the survey route, then the survey proceeds at an altitude of 120 m.
- A continuous watch is kept for caribou during the survey.
- If caribou are observed in the study area during the survey, then the survey is aborted.

The proposed window for these surveys is in June, after the northern migration when the cows are on the calving grounds and outside of the study area.

Mitigation Procedures for Caribou

The following procedures are practiced and enforced on site to mitigate potential impacts from exploration activities on caribou.

- Caribou have the "right-of-way" and are not blocked or deterred from moving through the Project area
- Adhering to flying altitude requirements during transport of crew to survey location:
    - For long-range transportation flights and when travelling over large concentrations of caribou (50 or more individuals in close proximity to one another), the normal practice is to fly all aircraft at a minimum of 610 m above ground level. Exceptions may exist during take off and landing, low-level ceiling conditions, high winds, or other risks to flight safety flight safety.
    - For relatively shorter transportation flights (e.g., movement of staff and equipment between camp and ore bodies within the Kiggavik lease), the normal practice is to fly all aircraft at a minimum of 300 m above ground level. Exceptions may exist during take off and landing, low-level ceiling conditions, high winds, or other risks to flight safety flight safety.
- Taking-off or landing of aircraft does not occur if 50 or more caribou are in close proximity to one another and within 1 km of the aircraft.
- Track logs of helicopter flights are maintained.
- Adherence to all mitigation and protection measures described for "Other Wildlife" by all site employees, contractors, and visitors.

Required activities and their applicable frequencies and flying altitudes are presented in the following table:

Activity	Frequency	Flying Altitude
Regular Long Distance Flights		>610 meters
Short Distance Flights		>300 meters – if achievable during duration of flight
Wildlife Log-Book	On event of viewing wildlife	NA
Aerial Geophysical Surveys – Reconnaissance	Prior to conducting survey	>300 meters
Aerial Geophysical Surveys	As required	120 meters

Mitigation Procedures for Raptors and Other Migratory Birds

AREVA has implemented the following operating procedures to mitigate potential impacts to raptors and other migratory birds.

- Any land clearing activities (if necessary) will be conducted during late winter (April) outside of the nesting season (May through August) for migratory birds.
- Avoid disturbance to the nest sites of raptors and other migratory birds (i.e., songbirds and shorebirds). If a raptor nest is located incidentally within 1.5 km of exploration activities, then AREVA staff and contractors will be instructed to specifically avoid the nest site during late May through mid-July, and maintain a distance of at least 100 m from the nest during mid to late August (as recommended by the GN [GNDOE 2007]).
- An attempt will be made to prevent birds from nesting on man-made structures.
- If a nest site is established on a man-made structure and eggs are present, the nest will be avoided as much as possible and monitored for nest success.
- Adhere to all mitigation and protection measures described for "Other Wildlife".

Mitigation Procedures for Other Wildlife (Includes All Wildlife)

AREVA will implement the following operating procedures to mitigate potential impacts to all wildlife.

- Perform exploration activities (camp layout, drilling) in a manner that limits the size of the Project footprint.
- For longer range flights within the project area (e.g., between the Kiggavik and Sissons leases), the normal practice is to fly all aircraft at a minimum of 610 m above ground level, except during take off and landing, and when ceiling conditions do not permit.
- For relatively shorter flights (e.g., between camp and ore bodies on Kiggavik lease), normal practice is to fly all aircraft at a minimum of 300 m above ground level, except during take off and landing, and when ceiling conditions do not permit.
- The use of firearms is strictly controlled. The only allowable use of firearms is the use bear deterrence measures (e.g., shotguns, cracker shells and rubber bullets) as recommended by the GN (GNDOE 2007), and for safety kills to protect human life should a situation arises when other measures have failed.
- Prohibit hunting and trapping by AREVA employees and contractors.
- All wildlife has the "right-of-way".
- AREVA educates and enforces to site staff "no feeding or harassment of wildlife", and the appropriate response to animal encounters (especially

carnivores and muskoxen). Staff will be required to follow the "Procedures in the "Safety in Bear Country Manual" as recommended by the GN (GNDOE 2007).

- Use of "good house keeping" practices to maintain a garbage-free camp and exploration area, should limit the attraction of animals to the project. All combustible garbage is burned in an incinerator and ash residue is placed in metal containers and disposed of in Baker Lake (see Waste Management Plan). Non-combustible waste is stored in the camp area and shipped to Baker Lake for disposal.
- If an incident occurs between a grizzly bear, wolverine, wolf, or fox and the exploration program, then the details of the incident will be described in a "Wildlife Incident Form" and AREVA will contact the local wildlife officer with the GN for appropriate protocols and actions. An incident is defined as wildlife-caused damage to camp facilities, continued persistence of a carnivore(s) within the camp or drill rig area, and interactions between humans and wildlife that lead to injury or death.
- All fuel burning equipment meet emission guidelines and are equipped with mufflers.
- All chemicals are stored in double-walled containers or in secondary containment. In addition, diesel fuel, gasoline, and aviation fuel is contained within arctic berms or double-walled storage tanks (see Spill Contingency Plan). In the event of a spill, the Spill Contingency Plan will be implemented immediately, and the spill reported to the appropriate authorities. Used chemicals are stored for transportation off site for proper handling.
- AREVA staff and contractors will record observations of caribou, other wildlife, and carnivore dens and raptor nest sites into a wildlife logbook
- All materials, chemicals, and equipment are removed from the drill sites and camp area at completion of the project as described in the Abandonment and Restoration Plan. The intent is to return the area as close as possible to the natural state.

Wildlife Log Book

In conjunction with the technical surveys conducted to collect scientific data, AREVA has provided a wildlife log book for all site personnel, contractors, and visitors to complete following the observation of any wildlife. Instructions regarding the log book are provided during orientation and/or arrival on site.

TECHNICAL PROCEDURES – Ground Geophysics and Exploration Activities

Summary of Activity:

- Ground geophysics in 2008 will likely be limited due to the incomplete dataset obtained by the airborne program in 2007, however the airborne gravity survey is slated to be finalised in the summer of the 2008.

Potential Impact:

- Helicopter noise during take-off landing and pick-ups
- Low level flying
- Equipment Noise (e.g., ATV's, snowmobiles, generators)
- Animal encounters
- Habitat loss

Mitigation and Implementation:

Mitigation Procedures for Caribou

The following procedures are practiced and enforced on site to mitigate potential impacts from exploration activities on caribou.

- Caribou have the "right-of-way" and are not blocked or deterred from moving through the Project area
- Adhering to flying altitude requirements:
    - For long-range transportation flights and when travelling over large concentrations of caribou (50 or more individuals in close proximity to one another), the normal practice is to fly all aircraft at a minimum of 610 m above ground level. Exceptions may exist during take off and landing, low-level ceiling conditions, high winds, or other risks to flight safety flight safety.
    - For relatively shorter transportation flights (e.g., movement of staff and equipment between camp and ore bodies within the Kiggavik lease), the normal practice is to fly all aircraft at a minimum of 300 m above ground level. Exceptions may exist during take off and landing, low-level ceiling conditions, high winds, or other risks to flight safety flight safety.
- Taking-off or landing of aircraft does not occur if 50 or more caribou are in close proximity to one another and within 1 km of the aircraft.
- Track logs of helicopter flights are maintained.

- No drilling within 5 km of designated caribou crossings and not to construct a camp, cache fuel, or operate ground, air and water transportation equipment within 10 km of designated caribou crossings.
- Report to EHS Group is caribou are identified to be within 1 to 3.5km of working location
- Suspend all operations in accordance with Technical Procedure – Mitigation Measures for Caribou within 1 km of Drilling Operations (drilling, operation of ATVs, snowmobiles and water craft) if calves and cows are present within 1 km of exploration activities (50 or more individuals in close proximity to one another).
- Aerial surveys and ground-based surveys will include an independent wildlife monitor.
- Adherence to all mitigation and protection measures described for "Other Wildlife" by all site employees, contractors, and visitors.

Required activities and their applicable frequencies and flying altitudes are presented in the following table:

Activity	Frequency	Flying Altitude
Regular Long Distance Flights		>610 meters
Short Distance Flights		>300 meters – if achievable during duration of flight
Wildlife Log-Book	On event of viewing wildlife	NA

Mitigation Procedures for Raptors and Other Migratory Birds

- Any land clearing activities (if necessary) will be conducted during late winter (April) outside of the nesting season (May through August) for migratory birds.
- Avoid disturbance to the nest sites of raptors and other migratory birds (i.e., songbirds and shorebirds). If a raptor nest is located incidentally within 1.5 km of exploration activities, then AREVA staff and contractors will be instructed to specifically avoid the nest site during late May through mid-July, and maintain a distance of at least 100 m from the nest during mid to late August (as recommended by the GN [GNDOE 2007]).
- An attempt will be made to prevent birds from nesting on man-made structures.
- If a nest site is established on a man-made structure and eggs are present, the nest will be avoided as much as possible and monitored for nest success.
- Adhere to all mitigation and protection measures described for "Other Wildlife".

Mitigation Procedures for Other Wildlife (Includes All Wildlife)

- Perform exploration activities (camp layout, drilling) in a manner that limits the size of the Project footprint.
- For longer range flights within the project area (e.g., between the Kiggavik and Sissons leases), the normal practice is to fly all aircraft at a minimum of 610 m above ground level, except during take off and landing, and when ceiling conditions do not permit.
- For relatively shorter flights (e.g., between camp and ore bodies on Kiggavik lease), normal practice is to fly all aircraft at a minimum of 300 m above ground level, except during take off and landing, and when ceiling conditions do not permit.
- The use of firearms is strictly controlled. The only allowable use of firearms is the use bear deterrence measures (e.g., shotguns, cracker shells and rubber bullets) as recommended by the GN (GNDOE 2007), and for safety kills to protect human life should a situation arises when other measures have failed.
- Prohibit hunting and trapping by AREVA employees and contractors.
- All wildlife has the "right-of-way".
- AREVA educates and enforces to site staff "no feeding or harassment of wildlife", and the appropriate response to animal encounters (especially carnivores and muskoxen). Staff will be required to follow the "Procedures in the "Safety in Bear Country Manual" as recommended by the GN (GNDOE 2007).
- Use of "good house keeping" practices to maintain a garbage-free camp and exploration area, should limit the attraction of animals to the project. All combustible garbage is burned in an incinerator and ash residue is placed in metal containers and disposed of in Baker Lake (see Waste Management Plan). Non-combustible waste is stored in the camp area and shipped to Baker Lake for disposal.
- If an incident occurs between a grizzly bear, wolverine, wolf, or fox and the exploration program, then the details of the incident will be described in a "Wildlife Incident Form" and AREVA will contact the local wildlife officer with the GN for appropriate protocols and actions. An incident is defined as wildlife-caused damage to camp facilities, continued persistence of a carnivore(s) within the camp or drill rig area, and interactions between humans and wildlife that lead to injury or death.
- All fuel burning equipment meet emission guidelines and are equipped with mufflers.
- All chemicals are stored in double-walled containers or in secondary containment. In addition, diesel fuel, gasoline, and aviation fuel is contained within arctic berms or double-walled storage tanks (see Spill Contingency Plan). In the event of a spill, the Spill Contingency Plan will be implemented immediately, and the

spill reported to the appropriate authorities. Used chemicals are stored for transportation off site for proper handling.

- AREVA staff and contractors will record observations of caribou, other wildlife, and carnivore dens and raptor nest sites into a wildlife logbook
- All materials, chemicals, and equipment are removed from the drill sites and camp area at completion of the project as described in the Abandonment and Restoration Plan. The intent is to return the area as close as possible to the natural state.

Wildlife Log Book

In conjunction with the technical surveys conducted to collect scientific data, AREVA has provided a wildlife log book for all site personnel, contractors, and visitors to complete following the observation of any wildlife. Instructions regarding the log book are provided during orientation and/or arrival on site.

TECHNICAL PROCEDURES – Environmental Protection Plans

Summary of Activity:

- The 2008 Environmental, Health and Safety (EH&S) monitoring program will involve independent wildlife monitors from the Baker Lake community and AREVA field staff. The EH&S staff will be responsible for the implementation of the following plans: Radiation Protection Plan, Spill Contingency Plan, Waste Management Plan, Noise Abatement Plan, Wildlife Mitigation and Monitoring Plan, Abandonment and Restoration Plan.

Potential Impact

- Helicopter noise during take-off landing and pick-ups
- Low level flying
- Equipment Noise (e.g., ATV's, snowmobiles, generators)
- Animal encounters
- Habitat loss

Work Activities Undergone for Baseline Studies

AERIAL SURVEYS FOR CARIBOU AND MUSKOX:

FIELD PROCEDURES

The surveys will be conducted on 11 transect lines flown in a north-south direction following a predetermined flight path using GPS co-ordinates (Figure 1). Transect 1 and 2, and 10 and 11 are spaced 8 km apart, while the remaining transects are separated by a distance of 6 km. The study design intends to provide good coverage of the main project area while maintaining data quality by limiting observer fatigue. An important aspect of the study design and study area is to capture the natural variation in movement and abundance (frequency of use) of caribou along the Thelon River basin (i.e., crossings at Aberdeen and Schultz lakes) as they enter the anticipated project area during the post-calving migration. Presence of caribou in the study area will be determined from satellite collar information, communication with commercial pilots flying in the area, and information from site personnel and contractors. Approximately six to eight surveys will be completed each year from mid-April through September, depending on the presence of caribou in the region. If more than 1,000 caribou are present in the study area, then

surveys should be conducted every four to five days. This information will be critical for predicting effects from the proposed project.

Techniques

A helicopter will be used for all aerial surveys. In addition to the pilot, a navigator in the front seat will use a 1:250,000 scale map to follow a pre-determined flight path (transect coordinates should also be downloaded in the aircraft GPS unit). The navigator will record all observations of wildlife way point number in the GPS and on the data sheets. The navigator will also record species, number of animals in group (group size), group composition, dominant behaviour of the group, and habitat type on the data sheet provided (note that the way point [GPS location], group size and group composition are the critical attributes to record). During snow/ice cover conditions, habitat types should be classified as hilltop, valley, lake shore, or ice (i.e., frozen lake). Two observers situated in the rear seat on either side of the aircraft will communicate observations to the navigator/data recorder. Surveys will be conducted at 200 m above ground level (agl), at a speed of 130 to160 km/hour. All caribou and muskoxen within 600 m of either side of the helicopter will be counted, amounting to approximately 15% coverage of the study area. The location and direction of historic caribou trails (areas where the frequent migrations of caribou have left "scars" on the land) also will be recorded.

Estimates of the number of caribou snow tracks (not for muskox) will also be recorded during the northern migration and late post-calving migration (when there is greater than 50% snow cover). Information will be recorded on a separate data sheet by one of the observers. At two minute intervals (approximately 4 km to 5 km), each observer will estimate the number of trails observed during the previous two minutes as none (no tracks observed), low (occasional single tracks), moderate (regular single tracks or occasional trails), or high (continuous single tracks or large numbers of trails).

The following information will be recorded for caribou and muskox group observations:

- GPS location (way point), using hand held GPS or helicopter GPS;
- habitat type;
- number of animals in group;
- dominant composition of the group;
- number of calves and cows in group (when applicable); and
- dominant behaviour of group.

Incidental observations of other species will be made, but there will be no excessive deviation from the flight path in connection with such observations. Incidental observations of grizzly bears (and bear dens), wolves (and wolf dens), wolverines, raptors or raptor nest sites will be recorded on aerial survey data sheets. These observations will

later be recorded in the “incidental observation” database and not in the caribou and muskox aerial survey database.

If surveys detected no caribou or muskox, then a “0” should be entered on the data sheet and in the database for that date.

EQUIPMENT AND MATERIALS

- Binoculars;
- GPS units;
- Maps; and,
- Data sheets and classification codes for group composition and behaviour, and habitat.

CLASSIFICATION SYSTEM FOR CARIBOU AND MUSKOX GROUP COMPOSITION, BEHAVIOUR AND HABITATS

Caribou and Muskox Group Composition

Caribou and muskox will be classified to one of the following group types, based on the presence of calves in a group.

- Nursery (Nurse)– any group with calves (including solitary calves); and,
- Non-nursery (Nonnurse) – groups with no calves.

Caribou and Muskox Behaviour Categories

- Bed (B);
- Stand (S);
- Feed (F);
- Alert (A);
- Walk (W);
- Trot (T); and,
- Run (R).

Habitat Categories Based on ELC Classification.

- HT = heath tundra;
- HT-b = Heath tundra with 30-80% boulder;
- LV = lichen veneer (dry sedge – lichen). May be difficult to observe;
- SW = sedge wetland (wet meadow or emergent marsh);
- TH = tussock-hummock;
- RS = riparian shrub / birch seep (riparian willow);
- BE = greater than 80% bedrock (bedrock association);
- WAT = lake with open water (Lake);
- ICE = frozen lake (Lake – shallow or deep water); and,
- DS = disturbed by infrastructure.

CARIBOU ACTIVITY BUDGETS

FIELD PROCEDURES

Scan Sampling of Caribou Groups

Scan sampling of caribou groups or individuals from the ground will be used to monitor caribou behaviour as function of distance from the project. The method to be used is adapted from Curatolo and Murphy (1986), and will involve two observers. Observers should position themselves so that they do not influence caribou behaviour.

Individual caribou activities will be recorded as feeding, bedded, standing, alert, walking, trotting, or running. Individuals (not the dominant behaviour of the group) will be classified as feeding when they are actually foraging or searching for food (i.e., walking with head down).

The GPS location will be recorded, and observations will be conducted when caribou are present in the study area. Group composition will be classified, and the estimated number of animals in the group will be recorded. Also record the habitat type, and number of calves and cows in a group (if applicable).

The group will be scanned every 8 minutes for a minimum period of 32 minutes and a maximum of 80 minutes (i.e., four to ten observations per group). For each scan, the number of animals exhibiting a specific behaviour will be recorded (up to 30 to 40 animals can be scanned accurately). If the group is too large (i.e., greater than 40 animals), then focus on a smaller portion of the group. The group size does not have to be the same for each 8 minute scan. A strong attempt should be made to distribute the number of observations evenly over distances of less than 2 km from the project to distances up to 30 km from the project.

Response to Specific Stressors

For all caribou groups, instantaneous observations will be used to assess the response of caribou to different potential stressors as a function of distance. These observations will occur during scan sampling, and consequently, no increase in observation time will be required. In the event that a stressor is introduced during scan sampling, the observers will note the time (in the comments box) and record the response of caribou to the stressor as "no reaction" or "exhibiting a reaction" (i.e., alert posture, walking or running away from disturbance; see data sheet). The reaction of the majority of the group will be used in selecting the category. Estimated distance (meters) from the stressor will also be recorded. Stressors may include type of aircraft, project staff and insects (bot/warble flies, mosquitoes).

The observers will then wait until the animals resume previous behaviour (1 to 2 minutes), and begin scanning observations again.

EQUIPMENT AND MATERIALS

- Binoculars, spotting scope, tripod;
- Watches or stopwatches;
- GPS units; and,
- Data sheets and classification codes for group composition and habitat.

<u>Mitigation</u>

Mitigation Procedures for Caribou

The following procedures are practiced and enforced on site to mitigate potential impacts from exploration activities on caribou.

- Caribou have the "right-of-way" and are not blocked or deterred from moving through the Project area
- For long-range transportation flights and when travelling over large concentrations of caribou (50 or more individuals in close proximity to one another), the normal practice is to fly all aircraft at a minimum of 610 m above ground level. Exceptions may exist during take off and landing, low-level ceiling conditions, high winds, or other risks to flight safety flight safety.
- For relatively shorter transportation flights (e.g., movement of staff and equipment between camp and ore bodies within the Kiggavik lease), the normal practice is to fly all aircraft at a minimum of 300 m above ground level.

Exceptions may exist during take off and landing, low-level ceiling conditions, high winds, or other risks to flight safety flight safety.

- Taking-off or landing of aircraft does not occur if 50 or more caribou are in close proximity to one another and within 1 km of the aircraft.
- Track logs of helicopter flights are maintained.
- During the months of operations, AREVA employees a fully independent monitor (from the community of Baker Lake) to conduct aerial and ground-based caribou surveys (see the Wildlife Mitigation and Monitoring Plan, Section 5), and to determine the presence of cows and calves near exploration activities. The wildlife monitor interacts daily with the Facility Supervisor to plan activities, and can report back to the community and regulators on the effectiveness of mitigation and monitoring.
- AREVA is committed to not drilling within 5 km of designated caribou crossings and not to construct a camp, cache fuel, or operate ground, air and water transportation equipment within 10 km of designated caribou crossings.
- Rather than continuing with the daily aerial reconnaissance (>300m) surveys that where conducted during the 2007 season, AREVA is proposing the following.
    - Monitoring the area for approaching caribou with the use of satellite collar information in conjunction with daily ground surveillance for caribou cows and calves, and observations during transport of contractors and site staff (following the flight altitudes for transportation described above).
    - If a collared caribou is identified as being on the lease property or within 4 km, then verification will occur through an aerial reconnaissance survey (>300 m).
- AREVA agrees to suspend all operations in accordance with Technical Procedure – Mitigation Measures for Caribou within 1 km of Drilling Operations (drilling, operation of ATVs, snowmobiles and water craft) if calves and cows are present within 1 km of exploration activities (50 or more individuals in close proximity to one another).
- Aerial surveys and ground-based surveys will include an independent wildlife monitor.
- Adherence to all mitigation and protection measures described for “Other Wildlife” by all site employees, contractors, and visitors.

Required activities and their applicable frequencies and flying altitudes are presented in the following table:

Activity	Frequency	Flying Altitude
Regular Long Distance Flights		>610 meters
Short Distance Flights		>300 meters – if achievable during duration of flight
Aerial Reconnaissance Surveys*	When required	>300 meters
Aerial Surveys (collecting scientific baseline data) **		200 meters
Ground Behavior Observations	Daily	NA
Wildlife Log-Book	On event of viewing wildlife	NA
Aerial Geophysical Surveys – Reconnaissance	Prior to conducting survey	>300 meters
Aerial Geophysical Surveys	As required	120 meters

*** If required, as per collared satellite data**

**** Discussed in the Wildlife Mitigation and Monitoring Plan, Section 5 Caribou Monitoring and Baseline Data Collection**

Mitigation Procedures for Raptors and Other Migratory Birds

- Any land clearing activities (if necessary) will be conducted during late winter (April) outside of the nesting season (May through August) for migratory birds.
- Avoid disturbance to the nest sites of raptors and other migratory birds (i.e., songbirds and shorebirds). If a raptor nest is located incidentally within 1.5 km of exploration activities, then AREVA staff and contractors will be instructed to specifically avoid the nest site during late May through mid-July, and maintain a distance of at least 100 m from the nest during mid to late August (as recommended by the GN [GNDOE 2007]).
- An attempt will be made to prevent birds from nesting on man-made structures.
- If a nest site is established on a man-made structure and eggs are present, the nest will be avoided as much as possible and monitored for nest success.
- Adhere to all mitigation and protection measures described for “Other Wildlife”.

Mitigation Procedures for Other Wildlife (Includes All Wildlife)

- Perform exploration activities (camp layout, drilling) in a manner that limits the size of the Project footprint.
- For longer range flights within the project area (e.g., between the Kiggavik and Sissons leases), the normal practice is to fly all aircraft at a minimum of 610 m

above ground level, except during take off and landing, and when ceiling conditions do not permit.

- For relatively shorter flights (e.g., between camp and ore bodies on Kiggavik lease), normal practice is to fly all aircraft at a minimum of 300 m above ground level, except during take off and landing, and when ceiling conditions do not permit.
- The use of firearms is strictly controlled. The only allowable use of firearms is the use bear deterrence measures (e.g., shotguns, cracker shells and rubber bullets) as recommended by the GN (GNDOE 2007), and for safety kills to protect human life should a situation arises when other measures have failed.
- Prohibit hunting and trapping by AREVA employees and contractors.
- All wildlife has the "right-of-way".
- AREVA educates and enforces to site staff "no feeding or harassment of wildlife", and the appropriate response to animal encounters (especially carnivores and muskoxen). Staff will be required to follow the "Procedures in the "Safety in Bear Country Manual" as recommended by the GN (GNDOE 2007).
- Use of "good house keeping" practices to maintain a garbage-free camp and exploration area, should limit the attraction of animals to the project. All combustible garbage is burned in an incinerator and ash residue is placed in metal containers and disposed of in Baker Lake (see Waste Management Plan). Non-combustible waste is stored in the camp area and shipped to Baker Lake for disposal.
- If an incident occurs between a grizzly bear, wolverine, wolf, or fox and the exploration program, then the details of the incident will be described in a "Wildlife Incident Form" and AREVA will contact the local wildlife officer with the GN for appropriate protocols and actions. An incident is defined as wildlife-caused damage to camp facilities, continued persistence of a carnivore(s) within the camp or drill rig area, and interactions between humans and wildlife that lead to injury or death.
- All fuel burning equipment meet emission guidelines and are equipped with mufflers.
- All chemicals are stored in double-walled containers or in secondary containment. In addition, diesel fuel, gasoline, and aviation fuel is contained within arctic berms or double-walled storage tanks (see Spill Contingency Plan). In the event of a spill, the Spill Contingency Plan will be implemented immediately, and the spill reported to the appropriate authorities. Used chemicals are stored for transportation off site for proper handling.
- AREVA staff and contractors will record observations of caribou, other wildlife, and carnivore dens and raptor nest sites into a wildlife logbook
- All materials, chemicals, and equipment are removed from the drill sites and camp area at completion of the project as described in the Abandonment and

Restoration Plan. The intent is to return the area as close as possible to the natural state.

Daily Aerial Surveys

In 2008, AREVA is proposing to monitor the location of caribou with the use of satellite collar information in conjunction with daily ground surveillance for caribou cows and calves, and observations during the transport of contractors and site staff. Pilots and passengers will be instructed to watch for wildlife during regular transport. Observations during daily transportation of field staff at altitudes greater than 300 m (see the *Wildlife Mitigation and Monitoring Program, Section 3.1*) will provide the same information as the daily reconnaissance surveys conducted in 2007.

If a collared caribou is identified as being on the lease property or within 4 km, verification will occur through an aerial reconnaissance survey (>300 m). Upon verification of a group of caribou (50 or more individuals in close proximity to one another) within 1 km of Project activities, mitigation measures will be implemented (see the *Wildlife Mitigation and Monitoring Program, Section 3.1*).

Weekly Aerial Surveys

In 2008, weekly aerial surveys to monitor caribou within the mineral leases (Project area) will not be conducted. Instead, aerial surveys for caribou (and muskoxen) will focus on collecting baseline data to fulfill the expected requirements for an environmental Impact assessment (see the *Wildlife Mitigation and Monitoring Program, Section 5.2*).

Caribou Behaviour Observations

Ground observations focus on determining the proportion of time caribou spend feeding, bedded, standing, alert, walking, trotting, or running. The behaviour of each group or individuals (especially females with calves) is recorded at eight minute intervals for a total duration of no less than 32 minutes and no more than 80 minutes (i.e., four to ten scans per group). The reaction to stressors (e.g., vehicles, aircraft, staff working) by caribou as a function of distance also is recorded during scan sampling. Detailed technical procedures are provided in Appendix II.

Wildlife Baseline Surveys

Following positive results from the exploration and feasibility programs, AREVA will likely submit an application to develop a uranium mine, and it is anticipated that this will require an Environmental Impact Statement (EIS). To meet regulatory guidelines for the EIS, physical and biological aquatic and terrestrial baseline data will be required.

Appendix I explains the rationale and objectives for the selection of wildlife species (i.e., valued components), study area boundaries, and baseline study designs. Details for the study designs and methods are presented in Appendix II.

Caribou Aerial Surveys

Data from satellite and GPS-collared female caribou provides information on the coarse-scale movement and distribution of the Ahiak and Beverly herds during baseline studies. Data from collared animals generally represents the seasonal and annual movement and distribution of the herd, however, sole use of this data is not sufficient for determining environmental design features, or predicting and testing effects from the Project. Collar data does not provide estimates of the number, group composition, and distribution of caribou that may interact with the Project. To achieve quality data for predicting and monitoring the effects of the Project on caribou it is proposed to obtain the combination of course, medium, and fine-scale information from collared animals, aerial transect surveys, and ground observations of behavior. Further rationale and objectives for the baseline aerial surveys are provided in Appendix I.

Baseline and monitoring programs at several projects in Nunavut and the NWT have successfully used systematic aerial surveys to obtain robust estimates of group size, group composition, number, and distribution (probability of occurrence) of caribou and muskoxen (see Appendix I for rationale). Surveys are flown along pre-determined transects at altitude of 200 m above ground level at speeds of 130 to 160 km/hour during the northern and post-calving migration periods (see Appendix II for details). The approach provides good visibility for detecting caribou groups and determining group composition, which is important for analyzing the effect of development on caribou distribution. Information from satellite-collared animals, commercial pilots, and site staff are used to help determine the timing of surveys.

Wildlife Log Book

In conjunction with the technical surveys conducted to collect scientific data, AREVA has provided a wildlife log book for all site personnel, contractors, and visitors to complete following the observation of any wildlife. Instructions regarding the log book are provided during orientation and/or arrival on site.