January 6, 2009

VIA EMAIL

Mr. Don Carr
Technical Advisor
Nunavut Water Board (NWB)
PO Box 119
Gjoa Haven NU X0B 1J0

Dear Mr. Carr:

Re: Response to comments received on review of request to amend NWB water use licence 2BE-KIG0812 to allow drilling within 30 metres of a high water mark at the End Grid location

This letter is submitted in response to an email forwarded to Tina Searcy by Richard Dwyer on December 15, 2008 containing comments on AREVA Resources Canada Inc's (ARC) request to amend Part 5, Section F of the Nunavut Water Board licence 2BE-KIG0812, to allow for drilling within 30 metres of an ordinary high water mark at the End Grid Location. For ease of your review, the comments have been reproduced below in italics followed by ARC's response.

> *One of the main reasons for the 30 m prohibition is to protect the near shore areas of water bodies. To this end, any work that occurs in that area must be done such that there is no disturbance to surficial materials or permafrost, so that surface erosion does not occur. The proponent has not provided details of mitigation measures for protecting surface stability. EC requests that this information be provided for review prior to approval of this amendment request. Our concerns lie with the setup of the drilling rig on the organic materials, and with traffic across the small streams. In addition to the potential for surface disturbance, there is the potential for thermal erosion if ice lenses are exposed and subsequently thaw;*

ARC has worked diligently at establishing mitigation measures from the how the drill is set up, to improving drilling activities and implementing actions to prevent materials from entering water bodies. In addition to limiting time spent drilling at each site to the greatest extent possible, drill rigs are set-up on 6x6 beams which raise the actual platform approximately 2-3 feet above the tundra surface (Refer to Figure 1). This allows for the continual air movement through the base, preventing heat from being transmitted from the equipment into the tundra. In the 30 years that

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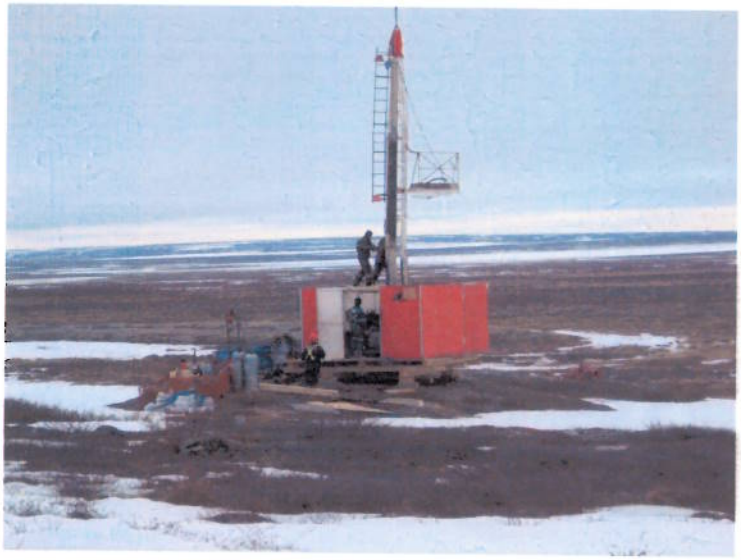
this method of set-up has been practiced in the area, ARC's geologists have not observed thermal erosion.

Figure 1



To prevent drill water movement around the drill site and on the tundra, a bladder is constructed out of textile that is placed under the rig to collect the drill water (Refer to Figure 2). Water that has been collected is then pumped from the bladder to the designated discharge point, which is a natural low-lying depression located at a minimum of 30m beyond the ordinary high level water mark of any nearby water bodies, and where direct flow into the water body is not possible.

Figure 2

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With respect to the comment about *traffic across small streams*, please note that motor vehicles are not presently being utilized on site and all drill rigs and personnel are currently transported by helicopter directly to the drilling location.

> *It is unclear what distance is meant by "as far as practical from the stream system" for fuel storage, fuel tanks and separator set-up used to collect radioactive cuttings. According to the Fisheries Act, Section 36(3), the deposition of deleterious substances of any type into water frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance, may enter any such water, is prohibited. The proponent shall not deposit, nor permit the deposit of any fuel, chemicals, wastes or sediment into any water body;*

ARC is assuming the comment noted above *by "as far as practical from the stream system" for fuel storage, fuel tanks and separator set-up used to collect radioactive cuttings"* is from the supplementary information submitted with the application on October 09, 2008 titled *End Grid Amendment Request – Technical Support*. Please see below for further clarification of this statement.

Fuel

ARC is aware of the requirement to store all fuel a safe distance from an ordinary high water mark of any nearby water bodies; it is our understanding that in Nunavut this distance is 30 meters. ARC strives to meet this commitment, however in some locations on the End Grid site, there is a large network of streams branching off from one another (these streams may be permanent or intermittent) that may prevent this target from being meet. ARC has implemented the following mitigation measures:

- Secondary containment of fuel
- Fuel on hand is not in excess of amount required for refuelling
- Personnel are trained in fuel transfer and in the Spill Contingency Plan
- Regular inspections by site environment personnel and geologists

ARC has developed a Spill Contingency Plan that has been accepted by the NWB (Licence 2BE-KIG0812 Part H(1)) indicating that fuel products are stored in acceptable means of secondary containment and outlines spill response in the event of a unplanned release.

Drill Cuttings

The following has been proposed in the Uranium Exploration Plan developed by ARC and accepted by the NWB (Licence 2BE-KIG0812 Part F (4)).

During drilling activities, drill mud solids or cuttings in non-mineralized zones, that can not be re-circulated during the drilling operations are deposited into the receiving environment, preferably in a selected natural low-lying depression. This natural depression must also be located at a

minimum of 30m beyond the ordinary high level water mark of any nearby water bodies, and where direct flow into the water body is not possible. Upon completion, a radiological survey is conducted to ensure elevated readings are not occurring.

When mineralized core is intersected, all drill mud and cuttings are collected in appropriate containers and categorized as radioactive through appropriate radiation measurements in accordance with work instructions.

Drill mud or cuttings with a uranium content greater than 0.05% that are not otherwise retained is disposed down the drill hole, when practicable and then the upper 30m of bedrock is sealed by grouting. Where down hole disposal is not practical, drill cuttings are collected and stored in the on-site long-term core storage area with appropriate containment systems in place.

Any drill hole that encounters mineralization with uranium content greater than 1.0% over a length of > 1.0m and with a metre-per-cent concentration of > 5.0 is sealed by grouting over the entire length of the mineralization zone and not less than 10m above or below each mineralization zone.

Additional mitigation measures include the following:

- A collection pan/case box is placed around the casing under the drill
- The return water is collected in the pan and pumped rather than being allowed to flow directly from the casing
- A manifold system is used to manage the water supply, with the objective of routing the excess supply water (fresh water) back to the lake and reducing the amount of fresh water pooling around the site
- Silt barriers are utilized in the wetland area of the lake to prevent suspended particulate from any potential escaped drilling fluid from entering the main water body
- Sand barriers are established within the drainage pathway from the drill rig to the water body
- Daily inspections are conducted of the drill fluid system by the drilling contractors and ARC's EH& S personnel
- Personnel are trained in the Spill Contingency Plan

<u>Separator</u>

The separator shack is an open shack located behind the drill which houses 1 or 2 large steel tanks with augers at the base and pumps to move the water through the system. Drill fluids carry the cuttings pumped into a settling tank. This settling tank, often with the aid of a centrifuge, then allows the heavier particles in the drill fluid to settle to the bottom of the tank. Any remaining sediment-laden water is then pumped to a second tank. This second settling tank effectively removes a large percentage of the cuttings from the water. The water is then pumped back into the ground, used in the drilling process, or pumped to the natural depression. The cuttings are then removed from the settling tanks with the use of an auger or shovel, depending

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on the system. If they are radioactive, these cuttings are stored in the appropriate compound at camp. If they are not radioactive they can be used to fill the hole that inevitably occurs under the drill during the process.

The separator is set-up as a component of the drill, the further water is required to be pumped the less effective the system and increases the opportunity for "accidents" or "spill". The shack is quite light and similar to the drill rig, is placed on beams to keep it off of the tundra, it produces no heat and is in place for a limited amount of time.

Please feel free to contact me at 306 343-4525 should you have any further questions, comments or concerns.

Sincerely,

T Searcy

Tina Searcy
Regulatory Coordinator
AREVA Resources Canada Inc.

cc: ARC Distribution
Phyllis Beaulieu