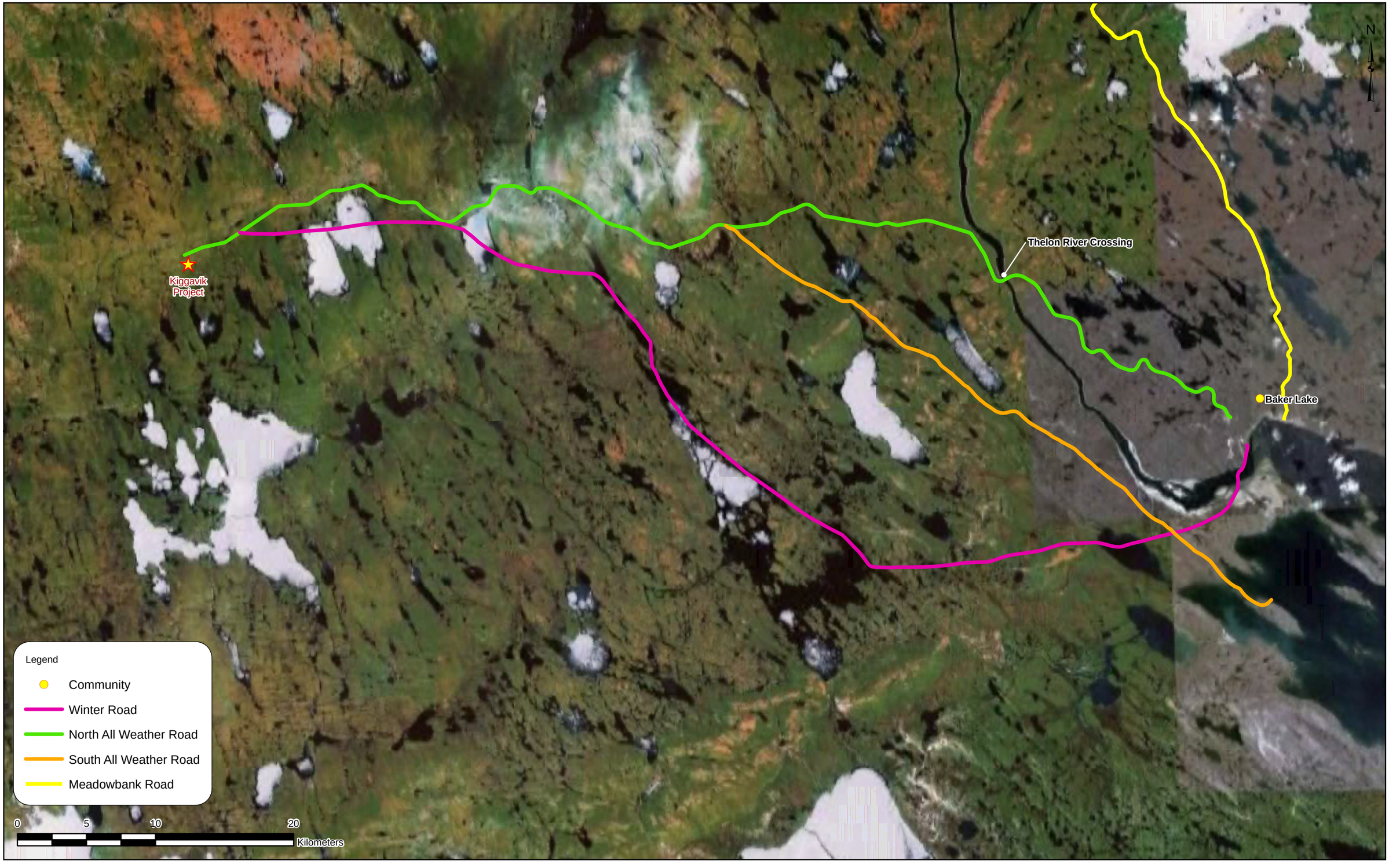
For the pre-feasibility study, the road options were narrowed down from the EBA report to include a winter road, north all-season road, and a south all-season road. No causeway roads were included to minimize disturbance to the aquatic environment. The north all-season road followed closely the existing ATV trail and started at a dock site located to the west of Baker Lake. The south all-season road started at a dock site located on Sagliq Island. The road routings met up part way through the route. For the latter portion of the route to the Kiggavik site, the north and south all-season roads had the same routing. The north all-season road with bridge was considered the best industrial option and the south all-season road was considered the second best industrial option. The all-season road with cable ferry was considered an intermediate option.

For the Thelon River crossing on the north all-season route, both a bridge and cable ferry were included as options. The crossing location is in a similar location to the currently proposed all-season road.

The all-season road options presented in the 2007 prefeasibility study are shown in Figure 2.2-2. In the figure, the all-season road is referred to as an all weather road.



KIGGAVIK PROJECT	Scale: 1:250,000	Figure 2.2-2 Road Options Presented in 2007 Pre-feasibility Study
ROADS AND ROUTES OPTIONS XXXXXXX	Creator: CDC	
	Date: 10/05/07	
	Drawing:	

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Saskatoon, Sk. S7K 3X5

2.3 Community Engagement

In December 2006, a Baker Lake Community Liaison Committee (CLC) was formed to establish an ongoing dialogue with the community of Baker Lake regarding AREVA's Kiggavik project. The committee is made up of appointees from organizations in Baker Lake. Road options were discussed at several of the CLC meetings. It became evident early on that roads were a topic of importance, and road options should be discussed with Elders, hunters, and community members and a map of routes should be available (EN-BL CLC Mar 2007[1], EN-BL CLC Feb 2008[2]).. This led to the discussion of road options during community engagement sessions and IQ meetings, and more specifically, transportation workshops were held to focus discussions on road options.

2.4 Best Value Decision Workshop

In February 2008, a best value decision workshop was held on transportation alternatives. The alternatives which were assessed are as follows:

- Winter road (south)
- North all-season road with bridge
- North all-season road with cable ferry / ice bridge
- South all-season road
- Winter road from the end of the narrows

The road options were evaluated on cost effectiveness, local acceptance, ease of approval, operational flexibility, contribution to local infrastructure, and minimizing potential effects to the Thelon River. The north all-season road with bridge ranked the highest and the south winter road scored second highest. The winter road from the end of the narrows scored much lower than all other options and was no longer considered as an option. All other alternatives were carried forward to the project proposal.

[1] EN-BL CLC Mar 2007: *We should use elder IQ before we decide on a route*

[2] EN-BL CLC Feb 2008: *Also thought IQ questions should be asked about Huqliq Island. A map of routes should be provided for IQ sessions.*

2.5 November 2008 Project Proposal

Between the pre-feasibility study and the project proposal, no changes were made to the routing of the winter road. No preference was indicated by AREVA between an all-season road and a winter road in the project proposal, at that time. Figure 2.5-1 shows the winter road presented in the November 2008 project proposal.

560000 580000 600000 620000 640000

7160000 7140000 7120000

N

Kavisilik Lake
Squiggly Lake
Skinny Lake
Meadow Lake
Escarpment Lake
Ridge Lake
Crash Lake
Drum Lake
Lin Lake
Aberdeen Lake
Kiggavik
Rhyolite Lake
Siamese Lake
Long Lake
Jaeger Lake
Scotch Lake
Sleek Lake
Fox Lake
Pointer Lake
Rock Lake
Caribou Lake
Willow Lake
Mushroom Lake
Knee Lake
Lunch Lake
Sissons
Gerhard Lake
Boulder Lake
Smoke Lake
Andrew Lake
Shack Lake
Judge Sissons Lake
Lobster Lake
Cigar Lake
Lower Lake
Bear Island Lake
Buzzard
Lake
Ayaktuuk Lake
Half Way Hills
Whitehills Lake
Qikittalik Lake
Proposed Thelon River Bridge Site
Thelon River
Tupik Lake
Baker Lake
Thom Lake
Audra Lake
Qinguq Bay
Baker Lake
Arlug Island
Saglig Island
Qamanaugaq Lake
Mihaluk Lake
Takijuq Island
Pitz Lake
Gull Lake

Legend:

- AREVA Site
- Community
- Existing Meadowbank All-WeatherAccess Road
- Winter Access Road Option
- All-Weather Access Road (North Option)
- All-WeatherAccess Road (South Option)
- Kiggavik Lease
- Sissons Lease

0 5 10 20 30 40 Kilometers

KIGGAVIK PROJECT	Scale: 1:290,000	Figure 2.5-1 Road Options Presented in November 2008 Project Proposal
ACCESS ROAD ROUTE OPTIONS XXXXXXXX	Creator: CDC	
	Date: 10/31/08	
	Drawing:	

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3 2008 Project Proposal to DEIS

3.1 Integration of Valued Eco-Systems Components (VEC's) into Design

3.1.1 Community Input on VEC's

During 2009, AREVA led an open house tour. An interactive display was set up for participants to identify broad ecological and socioeconomic areas they valued highly and/or had concerns about in relation to the Kiggavik Project.

The eight broad VEC categories were: air quality and noise, fresh water, freshwater fish and fish habitat, marine environment, permafrost and groundwater, soils, landforms and vegetation, wildlife, and birds.

All VECs were identified as having importance. The most important VEC's were fresh water, wildlife, freshwater fish and fish habitat, and birds.

3.1.2 Incorporation of VEC's Into Design

The roads have been designed with consideration for the VEC's and environmental protection. Some examples of consideration for the VECs include the following:

- The preference for a winter road will reduce dust generation, and habitat loss
- The roads have been designed for best visibility to reduce the potential for wildlife-vehicle collisions, and with appropriate gradients to accommodate wildlife crossing.
- Portage locations were selected to minimize the disturbance of the tundra soil and its vegetation, while providing grades that are acceptable to traffic.
- Fill construction will be used where the road passes over overburden soils. The minimum depth of embankment fill is designed to be sufficient to construct a stable road embankment and to protect the underlying permafrost.
- Unique landforms and archaeological sites have been identified and the road alignments routed around these areas.
- Materials selected for road construction will be of appropriate size to facilitate wildlife crossings, while minimizing dust and protecting permafrost.
- Waterbodies and watercourses were selected as much as possible during routing of the proposed winter road to avoid disturbing vegetation communities, and to protect the permafrost.

3.2 Archaeology Studies

The preservation of archaeological sites is of high importance to the Inuit. Any archaeological sites located in the Project area must be protected. Mitigation is required for any archaeological sites which are disturbed. Kivalliq residents have noted the presence of archaeological sites along the proposed road routes and are concerned about the preservation of archaeological sites (EN-BL CLC Feb 2010[3,4], EN-RI RLC Feb 2009[5]) . *Along the Thelon River were caribou crossing points, and former camps used by nomadic hunter groups of the region which are considered important. Concerns for the protection of the sites have been noted.* (Geovector, 2008)

The preferred method of mitigation is to avoid disturbance of the archaeological site. Archaeology studies were conducted in 2007, 2008, 2009, and 2013 to provide information about the existing archaeological conditions in the Project area and to help refine the road routings. Where possible, road routings were altered to avoid disturbance to archaeological sites. The information collected in conjunction with past investigations between 1955 and 2006 and data collected through Inuit Qaujimajatuqangit (IQ) and Traditional Land Use (TLU) interviews forms the current understanding of known archaeological sites. Details of the archaeology are presented in Tier 3, Volume 9, Technical Appendix 9B. The sections below provide an overview of the archaeology as it relates to the winter road options.

3.2.1 South Winter Road

The South Winter Road was examined as part of heritage baseline studies in 2009. As this road will traverse frozen lakes and generally low-lying, water saturated areas, the heritage potential is generally lower than the all-season road options. As a result, a low-level helicopter reconnaissance was flown along the route to examine higher potential landforms. A pedestrian survey was also carried out along an 11 km stretch near the mouth of the Thelon River as part of the 2013 reconnaissance. As a result of baseline studies, one archaeology site is currently identified within the Winter Road local study area.

[3] EN-BL CLC Feb 2010: *Proposed bridge site is too shallow, and there is old archaeological site just above it*.

[4] EN-BL CLC Feb 2010: *I am wondering if they can look somewhere else which would be a narrower river where they are interested in. There are three tent rings and camp grounds right there.*

[5] EN-RI RLC Feb 2009: *Old homes made from sod and whale bone [frames] need to be protected if encountered during road construction*

3.2.2 North Winter Road

Since the north winter road option was introduced in 2010, no archaeology studies specific to the north winter road were completed.

3.3 Wildlife Studies

There were mixed concerns about the potential effects of the access road on caribou. It was noted by residents that the importance of water crossings, annual migration routes (summer as well as winter ranges) needs to be considered especially regarding the road option. (EN-BL NIRB Apr 2010). Some residents were concerned that if AREVA builds a road, it may cause changes to the caribou migration and limit hunter access (IQ-BLHT 2011). Some residents were concerned that the road may cause a change in caribou migration routes (EN-RB NIRB Apr 2010[6]). Some residents were more concerned about migration impacts from the road than the mine site (EN-CH OH Nov 2010). There has been mixed opinions about the effects to caribou from other developments. . Some residents have noted that the opening of Meadowbank Mine has negatively impacted the caribou and made it harder for hunters (EN-BL OH Nov 2013[7], IQ-BLHT 2011[8]), while others have noted that the Meadowbank Mine has not negatively impacted the hunting of caribou and many caribou can be found along the Meadowbank Road (EN-RI RLC Feb 2009[9],EN-BL OH Nov 2013[10]). The road design considers embankments with slopes suitable for caribou crossings.

Wildlife studies were conducted between 2007 and 2010 to collect baseline data for the Local and Regional Study areas of the Kiggavik Project, including the access roads. Details of the wildlife studies are presented in Tier 3, Volume 6, Technical Appendix 6B, Terrestrial Wildlife Baseline. The following survey methods were included in the wildlife studies: ground surveys, aerial surveys, caribou satellite collaring studies, raptor nests, waterbird surveys, breeding bird surveys, hunter harvest study, camp log and wildlife monitors, incidental observations and tissue chemistry.

Residents have expressed interest in what will occur in the event that the road alignment is along the caribou migration route (EN-KIV OH Oct 2009[11], EN-BL HTO Mar 2009[12], EN-BL CLARC Apr

[6] EN-RB NIRB Apr 2010: *Concerned that wildlife migration routes might be impacted if the roads were built.*

[7] EN-BL OH Nov 2013: *We are concerned that this will affect the hunting since Meadowbank started Caribou hunting has been hard.*

[8] IQ-BLHT 2011: *Traffic on Meadowbank road day in day out is affecting caribou.*

[9] EN-RI RLC Feb 2009: *Meadowbank road construction…has not made things harder for hunters. There are many caribou along the road.*

[10] EN-BL OH Nov 2013: *Caribou cross all over the Meadowbank road*

[11] EN-KIV OH Oct 2009: *If there is a migration route with caribou, if there is an impact on that and people don't like that, how would you respond?*

2013[13]). Preliminary mitigation measures for wildlife mitigation on the roads have been developed. These wildlife specific mitigation measures are outlined in Technical Appendix6D, Wildlife Mitigation and Monitoring Plan.

3.4 Aquatic Studies

Kivalliq residents have expressed concerns related to the aquatic environment as it relates to road. Specific concerns included the level of the Thelon (EN-BL CLC Feb 2010[14]), loss of fish habitat (EN-BL CLC May 2008[15]), and the impacts of bridges and stream crossings on the environment (EN-AR NIRB May 2010[16], EN-CH NIRB May 2010[17]).

The level of the Thelon has been monitored, and road design considers the potential changes in the level of the Thelon River.

Several different road corridors have been examined during the 2007 to 2010 sampling period. Fish sampling and habitat assessments were conducted where the proposed road corridors crossed the streams. Surface measurements of DO, temperature, pH and conductivity were taken to provide supporting environmental characteristics.

In 2008, foreshore habitat of Baker Lake was characterized at five potential dock sites to document environmental values that could be affected by the development of docking facilities and an access road.

Habitat assessments were performed for crossings along the proposed road alignments. Many watercourses were undefined, seasonal or dry channels. Small streams were generally characterized by organic substrate and low habitat diversity (i.e., few habitat types present). Large streams or

---

[12] EN-BL HTO Mar 2009: *When you look at the area, caribou do wander all over the place, and what would happen if the caribou come around? The reason I asked that questions is because when there is a herd, the leader of the heard is followed quite closely by the rest of the herd, and nobody tries to disturb the heard to not disrupt the migratory route.*

[13] EN-BL CLARC Apr 2013: *Says here Qaminirjuaq herd uses site the most. What will you do during major migration?*

[14] EN-BL CLC Feb 2010: *It is very shallow up there. It is not like down south. Some years Thelon River is very high and some years it is not*.

[15] EN-BL CLC May 2008: *I would like to ask how about at Mamautit at the very mouth of Thelon River? It is very deep; I don't want any fishing spots to be destroyed*.

[16] EN-AR NIRB May 2010: *Concerns over the potential impacts of the bridges/crossings that would be built over the rivers to the Kiggavik site when the road is built.*

[17] EN-CH NIRB May 2010: *Question regarding the proposed route and whether the Proponent will be building a lot of bridges to cross the rivers and tributaries.*

rivers contained more instream and overhead cover and had a greater diversity of substrates and habitat types present.

Details on the aquatics studies can be found in Tier 3, Volume 5, Technical Appendix 5C Aquatics Baseline.

3.5 November 2009 Community Workshops on Road Alternatives

In November 2009, AREVA held community meetings to discuss road options. Details of the transportation workshops are provided in Tier 3, Volume 3, Technical Appendix 3A. Engagement specific to road options occurred in a series of workshops for establishing community road option preferences. The Community Liaison Committee (CLC), Baker Lake Elders, and the District Education Authority (DEA) were consulted specifically on roads in late November, 2009. Augmented with the Baker Lake open house, the consultations gathered community information for road options. Figure 3.5-1 below shows the road options presented during the community workshops.

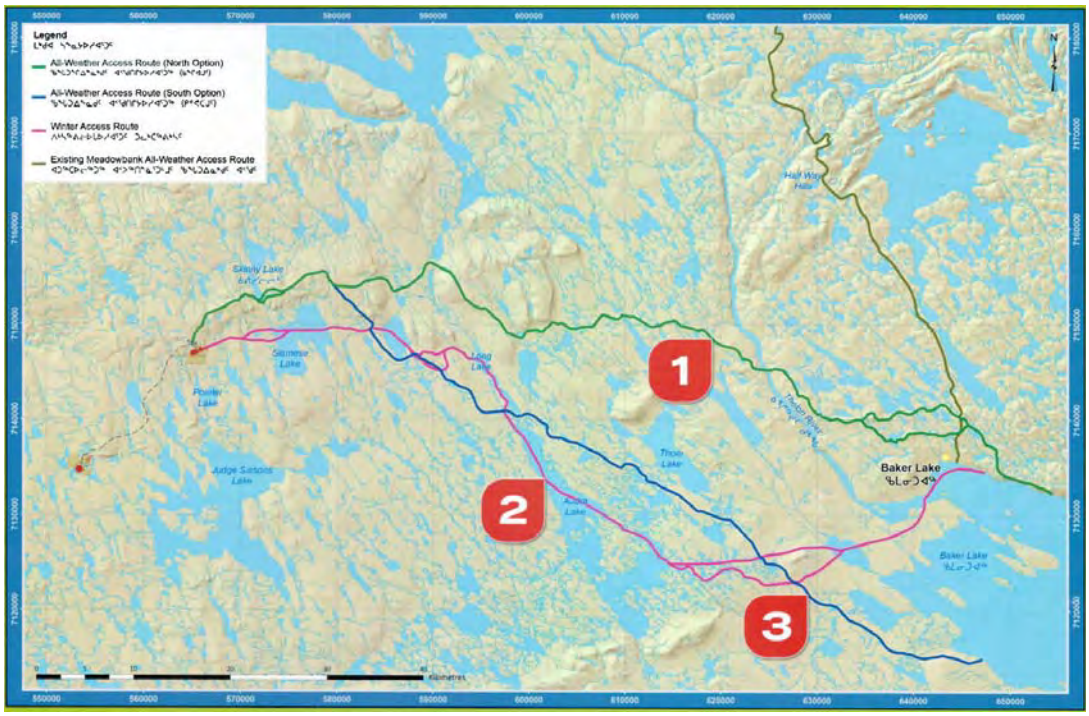

Figure 3.5-1 Road Options – Presented in the November 2009 Community Workshops

Information on the three road alternatives was presented at the Transportation Workshops, with comments collected from participants. As illustrated in Table 3.5-1, community feedback shows that

the north all-season road was the preferred route by participants. The south all-season road and winter road are the second and third place preferences.

Table 3.5-1 Community Preferred Road Options (Baker Lake Transportation Workshops)

	Community Liaison Committee	Baker Lake Elders	Baker Lake Open House	District Education Authority	Total
North All-Season Road	3	9	7	1	20
Winter Road		1	1		2
South All-Season Road	1	1	1		3

The Baker Lake Open House provided a public forum for members of the community to learn more about the road options, to share any concerns they might have and to indicate their preference. Informational posters in the Inuktitut and English language enabled community members to read about the various options and to indicate their preferred road access option. Children wanting to participate were provided a smaller version of the road options poster so not to skew the preferences selected by adults in the community.

Table 3.5-2 indicates that community preference was for the north all-season road. This is in line with the preference indicated in workshops with Elders and members of the CLC and DEA.

Table 3.5-2 Community Preferred Road Options (Baker Lake Open House)

	Inuktitut Poster (Adults)	English Poster (Adults)	Total	Kids' Poster
North All-Season Road	4	53	**57**	4
Winter Road	0	6	**6**	10
South All-Season Road	0	5	**5**	0

3.6 EBA Winter Road Report and Nuna Logistics Review of EBA Report

In April 2009, AREVA commissioned EBA Engineering to conduct additional work on the winter road options. A draft report was completed in early 2010. The draft report considered two options for a winter road as shown in Figure 3.6-1. The line in green is Option 1, and the line in red is Option 2.

In April 2010, AREVA asked Nuna logistics to review the draft winter and all-season road reports completed by EBA Engineering. Nuna prepared a memo to address some of their concerns with EBA's work. The Nuna memo is presented in Attachment B of this document. As part of their review, Nuna proposed an alternate option for the winter road to maximize the portion of over-ice portion of the road. In Nuna's view, the over-ice portion of a winter road should be maximized as it is a more cost-effective means for winter road operations, and reduces the amount of construction that is required. The segment of this alternate option from Baker Lake to Audra Lake was carried forward to develop a north winter road route. Figure 3.6-1 below shows the Nuna proposed alternate road. The portion of the north winter road between Audra Lake and the Kiggavik site was maintained as the same route as the south winter road

In June 2010, two Elders were taken along with representatives from AREVA and EBA to the proposed locations of the Thelon River crossing of both the North Winter Road, and the north all-season road. The Elders liked the proposed location of the ice bridge for the winter road. The ice was flat and stable, whereas upstream there was evidence that the ice was blue and wet. Some of the comments made by the Elders were:

- The river is changing from year to year these days so predicting is difficult even for IQ. Wind and snow change a lot. Used to be possible to build igloos on the ice now the snow if often too hard.
- Bars on the bottom are created by ice.
- The Elders asked why there is always water flowing somewhere on the river and he answered the water erodes the ice underneath.
- There is very little snow so the ice might be to the bottom.

In June 2010, a preliminary inspection of the winter road routes was performed with representatives from EBA Engineering and Nuna Logistics. A follow-up inspection was completed in September, 2010 as some of the areas were still snow-covered at the time of the first inspection. Information received from the local expeditor indicated that primary high snow fall periods begin in late February, which is an incentive to move cargo early in the season.

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KAVISILIK LAKE

SOUNGOLY LAKE

KIGGAVIK

SISSONS

SLEEK LAKE

FOX LAKE

POINTER LAKE

JAGGER LAKE

SCOTCH LAKE

SIAMESE LAKE

LONG LAKE

CARIBOU LAKE

BOULDER LAKE

JUDGE SISSONS LAKE

AMIGUQ RIVER

AUDRA LAKE

QIKITTALIK LAKE

THOM LAKE

THELON RIVER

TURIK LAKE

MEADOWBANK ROAD

POTENTIAL PORT

QINGUQ BAY

ARLUG ISLAND

SAGLIQ ISLAND

QAMANAUGAQ LAKE

BAKER LAKE

MIHALUK LAKE

PITZ LAKE

0 10 20 30 40 50 60 70 80 90 100

202 220 230 240 255 260 270 280 290 300

LEGEND

- Winter Road Option 1
- Winter Road Option 1 Alternate
- Winter Road Option 2
- Winter Road Option 2 Alternate
- 25m Contour - NTS Base Data

NUNA PROPOSED WINTER ROAD

SCALE 1:250,000

2 0 2 6 10km

*This drawing has been "Issued for Review" to allow the client/design team to review and provide comments back to EBA. This drawing is subject to revision based on input received and therefore any decisions based on this drawing should be reviewed in relation to the subsequent "Issued for Use" drawing".

ISSUED FOR REVIEW

CLIENT

AREVA

EBA Engineering Consultants Ltd.

KIGGAVIK PROJECT
CIVIL INFRASTRUCTURE REPORT

WINTER ROAD OPTIONS

PROJECT NO	DWN	CKD	REV
V33101016	AJD	DCD	-
OFFICE	DATE		
VANC	March 26, 2010		

Figure 3.6-1

Figure 3.6-1 EBA Draft Road Options and Nuna Proposed Alternate Road

Q:\Vancouver\Transportation\V331\Projects\V33101016 - Areva\CADD\2009 Conceptual Design\Drawings\DEIS Report\Winter Routes.dwg [FIGURE 4.5-1] March 26, 2010 - 3:47:48 pm (BY: ANDREW DEEPWELL)

In June 2010, a preliminary inspection of the winter road routes was performed with representatives from EBA Engineering and Nuna Logistics. A follow-up inspection was completed in September, 2010 as some of the areas were still snow-covered at the time of the first inspection. Information received from the local expeditor indicated that primary high snow fall periods begin in late February, which is an incentive to move cargo early in the season.

For the north winter route, the following observations were made:

- Considerable ice building would be required for the Thelon River crossing due to fast moving water
- Earth fill would be required at the Thelon crossing to form acceptable approaches for the expected trucks
- The Meadowbank road portion would require a major re-build to make it suitable for the expected trucks
- In September, there was still a lot of fast flowing water, which would make an early season ice crossing challenging
- The crossing would be subject to ice erosion

For the south winter route, the following observations were made:

- The 26km of road between Baker Lake and the start of the Qinguq portage could be cleared by large plow trucks once the ice reached a thickness of 27 inches
- Large plow trucks could be fitted with a fifth wheel to pull side dump trailers to build up earth fill portages or pull cargo trailers
- Constructing 3 major portages would ensure the route could accommodate up to 60 tonne loads
- The fresh water line from Siamese Lake should be located well off the road to prevent trucks from running into it
- Potential quarry locations near 20km Lake, and between Quinnguq Bay and Audra Lake were identified

The EBA winter road report was completed in October, 2010. In the final report, both a north and south route were mentioned, with the south route being identified as the shortest and most effective route. In the figures showing the road options, only the south route (Option 1) was included in the figures. For EIS purposes, the north route was kept as an option. For the south route, Option 2 was kept as it contained a greater distance over water and was the routing presented to the communities.

3.7 2011 Community Review

Road construction for the Kiggavik site was a concern for the HTO members at the community review meeting in 2011. The management of the Kiggavik Road was a major source of concern for the HTO participants, specifically the impact of roads on the wildlife (ie. habitat fragmentation, noise, the potential for animal-vehicle collisions, and dust). In particular, the interview participants were most concerned for the migrating caribou.

The interview participants explained that although roads do provide easier access to caribou for hunters, they can also have negative impacts. One hunter said that the roads can produce a lot of dust in the summer, and then the caribou feed on dusty grass by the roadside, which is not good for them (IQ-BLHT 2011[18]). Participants requested industry to minimize dust on the roads (IQ-BLHT 2011[19]). They expressed concern that a road to Kiggavik may act in combination with other roads in disturbing caribou (IQ-BLHT 2011[20]). The participants expressed concern that mining and roads associated with the Kiggavik site may affect the migrating caribou in a negative way (IQ-BLHT 2011[21]).

One hunter said that there should be three or four wildlife monitors employed to supervise the construction [and operation] of the AREVA road to Kiggavik (IQ-BLHT 2011[22]). The timing for wildlife monitors to be present on the Kiggavik road would depend on the timing of the caribou migration, but one participant estimated that June through to December would probably be a good time (IQ-BLHT 2011[23]). Some participants expressed concern that If AREVA were to succeed at building a road through the Baker Lake area, then access to traditional hunting grounds may be restricted (IQ-BLHT 2011[22]).

[18] IQ-BLHT 2011: *Roads are easier to access but there is another problem: be aware that the road to Meadowbank produces a lot of dust in the summertime. Caribou feed on grass close to the road; this grass is full of dust. If you are going to build a road, try to minimize dust*.

[19] IQ-BLHT 2011: *If AREVA builds a road, there will be dust from the road in the summer time. This dust will collect on the grass on which the caribou feed, and may impact caribou health. This should be minimized.*

[20] IQ-BLHT 2011: *Traffic on Meadowbank road day in day out is affecting caribou. Road to Kiggavik will only add to this (e.g. caribou coming from west and south may be affected in their movements)*

[21] IQ-BLHT 2011: *If AREVA builds a road, it may cause changes to the caribou migration and limit hunter access.*

[22] IQ-BLHT 2011: *I suggested that maybe there should be 3-4 wildlife monitors at AREVA to monitor road if it is built. "If AREVA builds a road, it may cause changes to the caribou migration and limit hunter access"*

[23] IQ-BLHT 2011: *These monitors are most useful between June and December*

3.8 Alternatives Assessment

The initial submission of the Project alternatives assessment can be found in Tier 3, Technical Appendix 2A. Alternatives were evaluated based on perceived public sensitivity, perceived public benefit, engineering, technical, and economic considerations.

The road options included in the alternatives assessment were as follows:

- North All-Season Road with Bridge
- North All-Season Road with Ferry
- Winter Road North Route
- Winter Road South Route
- South All-Season Road

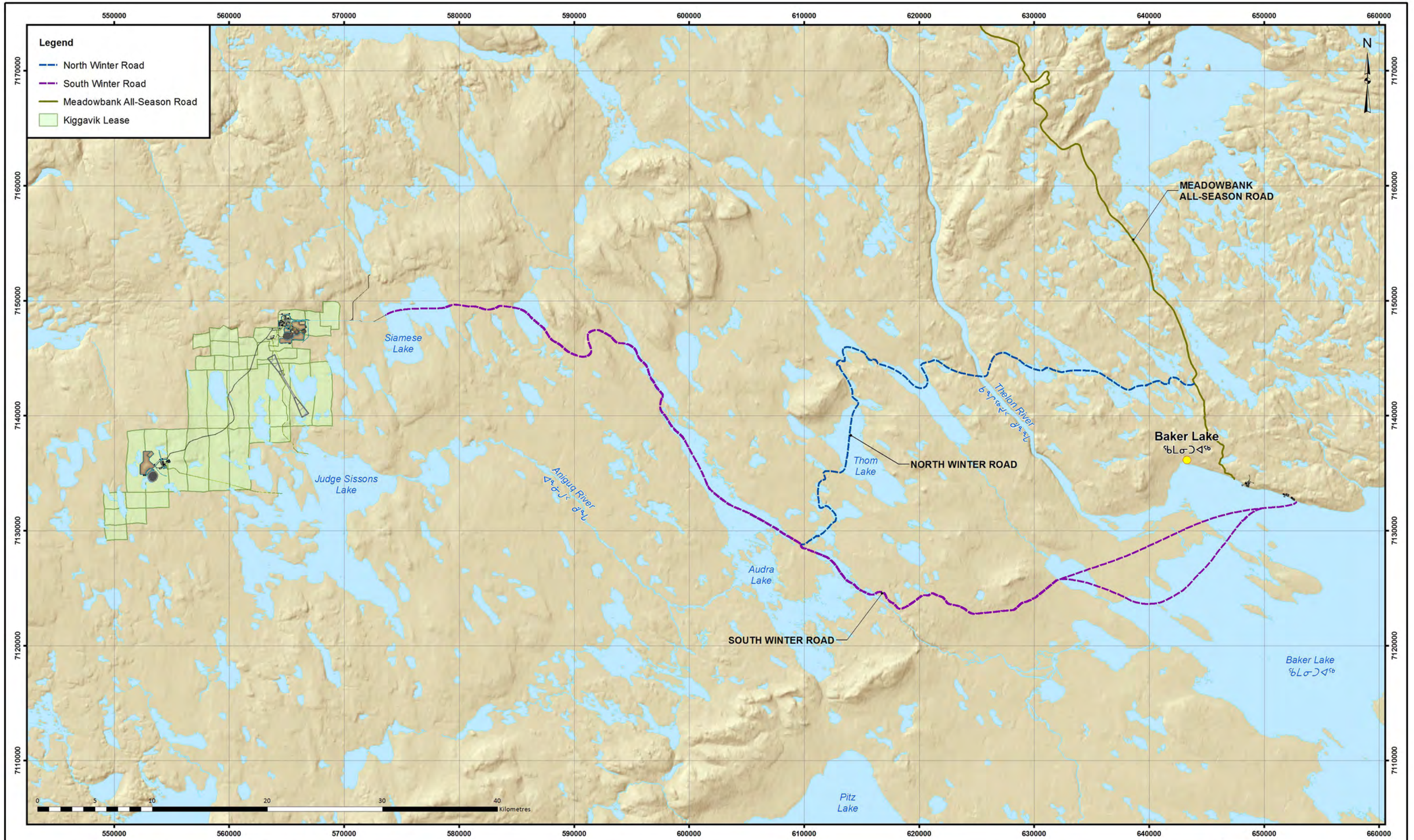
Overall, winter road north route was identified as the preferred alternative, scoring fairly closely to the winter road south route. The north route is preferred from a physical environment perspective and the south route is preferred from a biological environment perspective.

The alternatives assessment concluded that from a social and environmental perspective, a winter road is preferred over an all-season road.

3.9 DEIS

For the draft EIS, two winter road options were considered; a north winter road option and a south winter road option. The portion of the winter road from the Kiggavik site to Audra Lake is identical for the north and south winter road. For the north winter road, the routing from Audra Lake to the Baker Lake dock site is similar to the routing presented in the Nuna memo. For the south winter road, the routing is similar to Option 2 in the EBA report, while maintaining two potential routes from the Baker Lake dock site to Qinguq Bay. The Assessment Basis indicates that the south winter road is the preferred option. It was not clear within Tier 2, Volume 2, Section 10.4 in the DEIS that the south winter road is the preferred option which lead to confusion by multiple interveners upon reading the DEIS. .

The winter road options presented in the DEIS are shown in Figure 3.9-1 below.



Projection: NAD 1983 UTM Zone 14N
Creator: CDC
Date: 09/01/2011 Scale: 1:300,000
File:
Data Sources: *Natural Resources Canada, Geobase®, Nation Topographic Database, AREVA Resources Canada Inc.*

FIGURE 19.4-1
XXXXXXXXXX
BAKER LAKE KIGGAVIK WINTER ACCESS ROAD

ENVIRONMENTAL IMPACT STATEMENT
VOLUME 2

Figure 3.9-1 Winter Road Options Presented in DEIS

Kiggavik Project
AREVA

AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

3.9.1 Selection of the South Winter Road as the Preferred Route

For the DEIS, the preferred road option was the south winter road. Initial feedback, was that the all-season road was preferred over the winter road. Over time concerns with dust became more prominent to residents of Baker Lake and there has been shifting support to favor the winter road. The use of a winter road as the preferred option minimizes the amount of dust generated on the road between Baker Lake and Kiggavik.

Another factor in the preference between the all-season road and the winter road was potential effects to caribou. Community members *would prefer the winter road to Kiggavik than the all weather road because although it would provide road use for the short term it might be better for the caribou in the long term.* (EN-CH OH Nov 2010). Some residents *used to support the north all weather road but now prefer the winter.* (EN - BL OH Nov 2010) A resident thought they *would use the north all weather road, but when thinking of the caribou and fish, prefer the winter road.* (EN-BL OH Nov 2010)

Some caribou biologists and management boards expressed opposition to the all-season road, due to its potential impacts to caribou should harvest locations and intensities change given the improved land access. The life cycle cost of the winter road is also expected to be lower than the life cycle cost of the all-season road. Due to the community preference, wildlife management concerns, and higher costs, the south winter road became the preferred road option for the draft EIS.

4 DEIS to FEIS

4.1 Comments on DEIS Road Options

After submission of the DEIS, AREVA continued to receive feedback on the road options through various means including:

- November 2012 Open House Tour
- DEIS Information Requests
- DEIS Technical Comments
- Spring 2013 Technical Meeting and NIRB pre-hearing conference (PHC)

Feedback received indicated that there was confusion about the road options, which options were preferred, and the number of roads expected to be built. This confusion may have persisted because figures continued to illustrate the remaining access road options and the full assessment of a secondary option. (EN-BL OH Oct 2012[24]). Interveners requested confirmation of the preferred routing, clarification of which roads are expected to be constructed, and how long the all-season road might remain as an option. Some residents expressed that *winter roads are important* (EN-CH HL Nov 2012), and others were unsure if a winter road would suit the Project's needs (EN-BL OH Nov 2013[25]). It was unclear why two winter road options were presented when only one winter road would be constructed (EN-BL CLARC Apr 2013[26]). Some thought AREVA *should decide now on the road option* (EN-BL OH Oct 2012).

The DEIS Winter Road Report and All-Season Road Report were inconsistent with the road options presented in Tier 2, Volume 2, Section 10.4 because they reflected a time when additional alternatives had not yet been removed from consideration. For the all-season road report, both the south route and the north route were included. The north route showed the bridge option only and did not include a cable ferry option. These documents continue to provide a history of the Project.

[24] EN-BL OH Oct 2012: *You still have two all-season road options. You need to update your maps so you don't confuse people*

[25] EN-BL OH Nov 2013: *Will a winter road be enough?*

[26] EN-BL CLARC Apr 2013: *Why are there two winter road options?*

4.2 November 2013 Open House Tour

Given the regulatory and community guidance to narrow the winter road options remaining, AREVA evaluated the two winter routes and decided to advance with the south winter road as the preferred option and only winter road option. The all-season road remains as a secondary option for full assessment and approval. This was done to simplify the road options presented as there would be no need to construct two winter roads.

In conjunction with removing the north winter road option, the routing of the roads was altered slightly to coincide with the preferred dock site location (Dock Site #1). As the preferred dock site was not finalized at the time the road routing was completed, this detail got missed in the draft EIS. The preferred road option is shown in Figure 4.2-1

4.3 Assessment and Approval

The process used to remove access road alternatives for the proposed Kiggavik Project demonstrates use of environmental assessment as a planning tool that allowed for the influence of environmental and community considerations to be reflected in project design. Removal of alternatives was based on environmental, technical, economic and social considerations and community preference strongly influenced removal of some alternatives.

The inclusion of a second access road option in the assessment demonstrates transparency and a conservative approach to project development as the effects assessment will include the assessment of potential effects for an additional road that may never be constructed. The assessment includes both options providing confidence to reviewers that the actual effects to be observed with only the winter road, or additionally the all-season road should it be required in the future, will be within the approved assessment of effects.