

Appendix D
Comment Submissions to the Mining Recorder's Office



Pitquhiliqiyikkut

Department of Culture, Language,
Elders and Youth

Ministère de la Culture, de la Langue,
des Aînés et de la Jeunesse

January 15, 2009

Spencer Dewar
Supervising Mining Recorded
P.O. Box 100
Iqaluit, NU X0A 0H0

**Re: 2009 Coal License Application Review
(Spencer Dewar)**

Due Date: March 1, 2009

Dear Mr. Dewar:

At your request, the Department of Culture, Language Elders and Youth (CLEY), Government of Nunavut, has reviewed the above-noted applications. Our recommendations are limited to CLEY's mandate and follow.

We recommend approval of the Pending License: #116, #117, #118, #119, #120, and #121 as long as exploration activities can avoid the archaeological sites in the area. Detailed information regarding the recorded archaeological sites can be found in the attachments. The information contained in the attachments is provided solely for the purpose of the proponents' land use activities as described in the land use application, and must otherwise be treated confidentially by the proponents.

We can not recommend approval of the Pending License: #101, #102, #103, #104, #105, #106, #107, #108, #109, #110, #111, #112, #113, #114, #115, and # 116. These licenses are in a paleontological sensitive area an no exploration or development should occur in these areas.

The attached conditions specify plans and methods of site protection and restoration to be followed by all permittees if an archaeological site is encountered or disturbed in the course of the land use activity.

Sincerely,

Julie Ross
for Douglas Stenton
Director, Culture and Heritage
Department of Culture, Language, Elders and Youth

Encl.



ARCHAEOLOGICAL AND PALAEOONTOLOGICAL RESOURCES TERMS AND CONDITIONS FOR LAND USE PERMIT HOLDERS

BACKGROUND

Archaeology

As stated in Article 33 of the Nunavut Land Claims Agreement:

The archaeological record of the Inuit of Nunavut is a record of Inuit use and occupancy of lands and resources through time. The evidence associated with their use and occupancy represents a cultural, historical and ethnographic heritage of Inuit society and, as such, Government recognizes that Inuit have a special relationship with such evidence, which shall be expressed in terms of special rights and responsibilities. [33.2.1]

The archaeological record of Nunavut is of spiritual, cultural, religious and educational importance to Inuit. Accordingly, the identification, protection and conservation of archaeological sites and specimens and the interpretation of the archaeological record is of primary importance to Inuit and their involvement is both desirable and necessary. [33.2.2]

In recognition of the cultural, spiritual and religious importance of certain areas in Nunavut to Inuit, Inuit have special rights and interests in these areas as defined by Article 33 of the Nunavut Land Claims Agreement. [33.2.5]

Palaeontology

Under the Nunavut Act¹, the federal government can make regulations for the protection, care and preservation of palaeontological sites and specimens in Nunavut. Under the *Nunavut Archaeological and Palaeontological Sites Regulations*², it is illegal to alter or disturb any palaeontological site in Nunavut unless permission is first granted through the permitting process.

Definitions

As defined in the *Nunavut Archaeological and Palaeontological Sites Regulations*, the following definitions apply:

“archaeological site” means a place where an archaeological artifact is found.

¹ s. 51(1)

² P.C. 2001-1111 14 June, 2001

“archaeological artifact” means any tangible evidence of human activity that is more than 50 years old and in respect of which an unbroken chain of possession or regular pattern of usage cannot be demonstrated, and includes a Denesuline archaeological specimen referred to in section 40.4.9 of the Nunavut Land Claims Agreement.

“palaeontological site” means a site where a fossil is found.

“fossil” includes:

- (a) natural casts
- (b) preserved tracks, coprolites and plant remains; and
- (c) the preserved shells and exoskeletons of invertebrates and the eggs, teeth and bones of vertebrates.

Terms and Conditions

- 1) The permittee shall not operate any vehicle over a known or suspected archaeological or palaeontological site.
- 2) The permittee shall not remove, disturb, or displace any archaeological artifact or site, or any fossil or palaeontological site.
- 3) The permittee shall immediately contact the Department of Culture, Language, Elders and Youth (867) 934-2046 or (867) 975-5500 or 1 (866) 934-2035 should an archaeological site or specimen, or a palaeontological site or fossil be encountered or disturbed by any land use activity.
- 4) The permittee shall immediately cease any activity that disturbs an archaeological or palaeontological site encountered during the course of a land use operation, until permitted to proceed with the authorization of the Department of Culture, Language, Elders and Youth, Government of Nunavut.
- 5) The permittee shall follow the direction of the Department of Culture, Language, Elders and Youth and DIAND in restoring disturbed archaeological or palaeontological sites to an acceptable condition.
- 6) The permittee shall provide all information requested by the Department of Culture, Language, Elders and Youth concerning all archaeological sites or artifacts and all palaeontological sites and fossils encountered in the course of any land use activity.
- 7) The permittee shall make best efforts to ensure that all persons working under authority of the permit are aware of these conditions concerning archaeological sites and artifacts, and palaeontological sites and fossils.
- 8) The permittee shall avoid the known archaeological and/or palaeontological sites listed in Attachment 1.

9) The permittee shall have an archaeologist or palaeontologist perform the following functions, as required by the Department of Culture, Language, Elders and Youth:

- a) survey
- b) inventory and documentation of the archaeological or palaeontological resources of the land use area
- c) assessment of potential for damage to archaeological or palaeontological sites
- d) mitigation
- e) marking boundaries of archaeological or palaeontological sites
- f) site restoration

The Department of Culture, Language, Elders and Youth shall authorize by way of a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit, all procedures subsumed under the above operations.



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Department of Environment

Ministère de l'Environnement

March 3, 2009

Becky Leighfield
Mining Recorder
Mining Recorder's Office
Indian and Northern Affairs Canada
PO Box 100
Iqaluit, NU X0A 0H0

via Email to: leighfieldr@ainc-inac-gc.ca

RE: Coal License Application Review

This letter is in response to your December 18, 2009, information request for comments regarding the Coal Exploration Licence Applications for a number of areas on Ellesmere and Axel Heiberg Islands.

Due to wildlife concerns GN-DoE does not recommend issuing the permits #101-121. GN-CLEY, in their letter to INAC dated January 15, 2009 regarding these permits, does not support issuance of permits #101-115 for paleontological and archeological reasons. Details of the GN-DoE's concerns are outlined below. Two maps are attached providing a general overview of areas currently known to be important wildlife in and near the areas of the permit applications.

Permits #101-115, with the exception of #105, all fall within the locale of the Fossil Forest and paleontological sites and serious consideration should be given to making the protection of the forest a priority over other uses of the area.

Licence areas 49G15 and 49G16 (permits #101-104 and #109-111) are located within the Fosheim Peninsula Wildlife Area of Special Interest to the Department of Environment (*Wildlife Areas of Special Interest* 1995). The Fosheim Peninsula is regarded as one of the richest biological sites displaying a relatively high diversity of plants and animals over a large area for 80°N (Ecological Sites in Northern Canada, 1975).

Polar Bear

Licence areas 49E14 and 49E11 (#106-108), 39H04 and 39H03 (#116-121) are located within polar bear denning area (see attached map). Polar Bears may be found denning in this area from November through to March. Studies of polar movement show that bears use areas overlapping permit applications #116-121, water ways approaching permits areas #101-104 and #109-111, areas overlapping permit application #115, and water ways adjacent to permit applications #112-115 (GN 2001).

Caribou

The entire area within which permits #101-121 fall is Peary caribou habitat and may include calving areas. The Nunavut Atlas corroborates the importance of these areas. This population is currently under study and areas important to Peary caribou are being refined as data become available. These studies show that Axel Heiberg Island provides critical habitat to Peary caribou and indicate the area east of the Princess Margaret Range is an import pre-calving area for Peary caribou. Peary caribou is a species assessed by COSEWIC as 'Endangered.' See attached maps. DoE would like INAC to note that these are small populations of Peary caribou may be particularly sensitive to extreme or unusual climatic conditions. In other mainland caribou herds,



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the impacts of extreme climatic conditions have been shown to be exacerbated by development induced disturbances. All disturbances to Peary caribou and their habitat must be minimized.

Muskox

Licence areas 49G15, 49G16, 49G10, and 49G09 (permits #101-104 and #109-111) are located within the Fosheim Peninsula Wildlife Area of Special Interest (WASI) to the Department of Environment (*Wildlife Areas of Special Interest* 1995). The area is suspected of supporting high muskox densities (Thomas et al. 1981) and the Nunavut Atlas indicates their importance to muskox. This population is currently under study and areas important to muskox are being refined as data become available. These studies show that Axel Heiburg Island provides critical habitat to muskox and that large numbers of muskox use the area east of the Princess Margaret Range for calving. See attached maps. DoE would like INAC to note that these small populations of muskox may be particularly sensitive to extreme or unusual climatic conditions. Minimize disturbances to the animals and the grazing habitat.

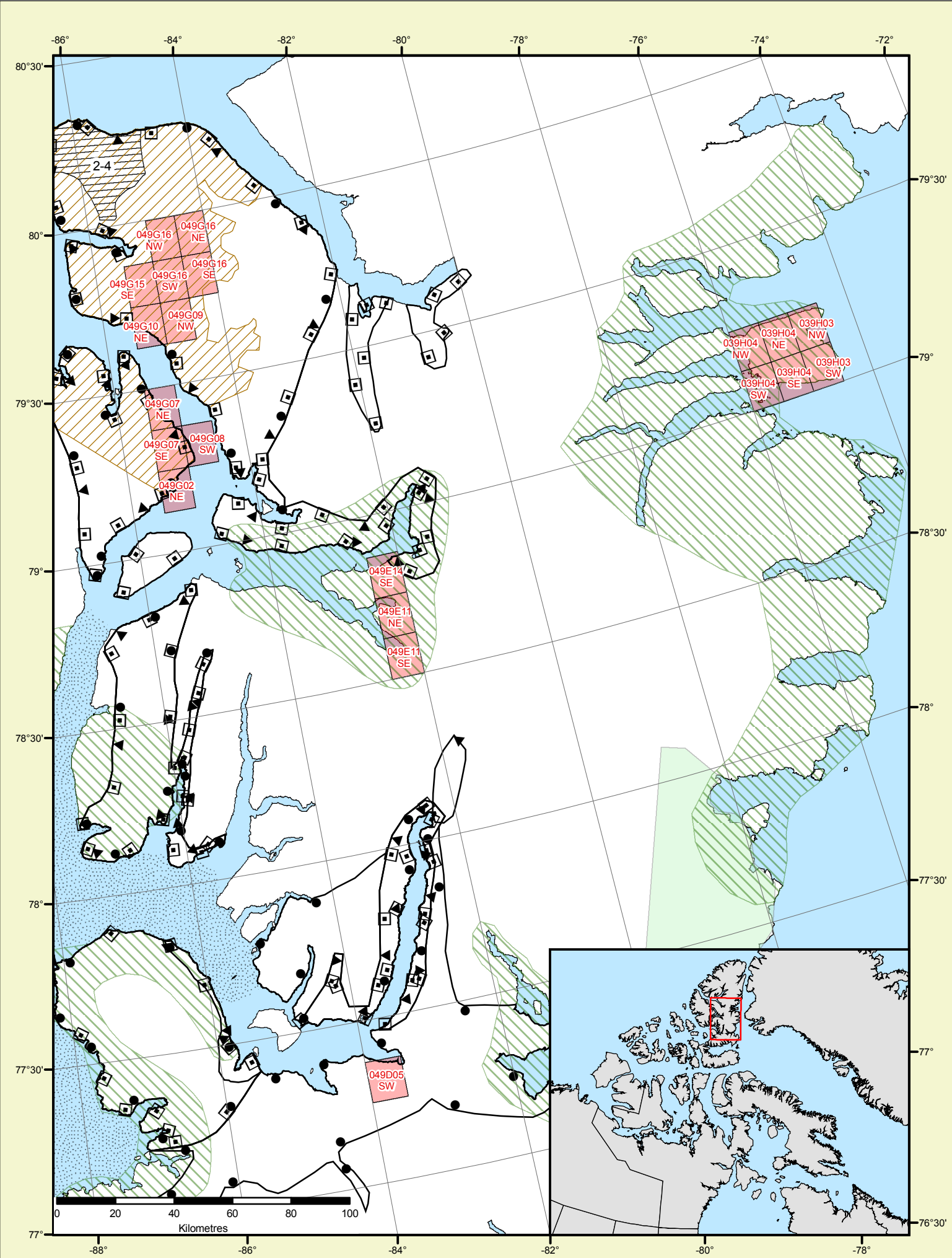
DoE would also like to emphasize that our response relies on the best available information (IQ and scientific) currently available, but should not be considered a definitive assessment of the area. We recommend that decision making for the development of this area include a more comprehensive review, drawing on the expertise and information possessed by other government agencies and organizations such as the Department of Fisheries and Oceans (DFO) and the Canadian Wildlife Service. Additionally, the area in question is particularly important for subsistence harvesting for the communities of Grise Fjord and Resolute Bay, and a great deal of traditional ecological knowledge can be obtained through communication with the Hunters and Trappers Organizations in these communities.

Based on the above considerations, the GN-DoE does not recommend issuing the following permits #101-121. However, if INAC decides to grant any of these permits, all activities in this area must ensure minimal disturbance to vegetation, grazing habitat, caribou, muskox and polar bears and mitigation of any such disturbances. The GN-DoE understands that if permits are granted, and coal is found, proponents will expect to transport coal out of these areas – any associated impacts will need to be avoided, minimized and/or mitigated. DoE is not appraised of the specific activities and levels of disturbance associated with these permit applications, and therefore, at this time we can provide no further direction.

We thank INAC for giving us the opportunity to provide comments on this matter. Should you have any further questions or comments, please do not hesitate to contact me.

Yours sincerely,

Froeydis M. Reinhart
 A/Manager Environmental Assessment and Land Use
 Department of Environment
 Government of Nunavut
 P.O. Box 1000, Stn. 1360
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 FX: (867) 975-7739
 EM: freinhart@gov.nu.ca



Prepared 02 March 2009.

This map identifies some of the known ecological resources of the region. It is intended to be used for a broad overview of identified areas of potential interest for wildlife and ecosystem function. The area depicted in this map comprises Peary caribou habitat and may include calving areas of this subspecies.

KNOWN MISSING INFORMATION:

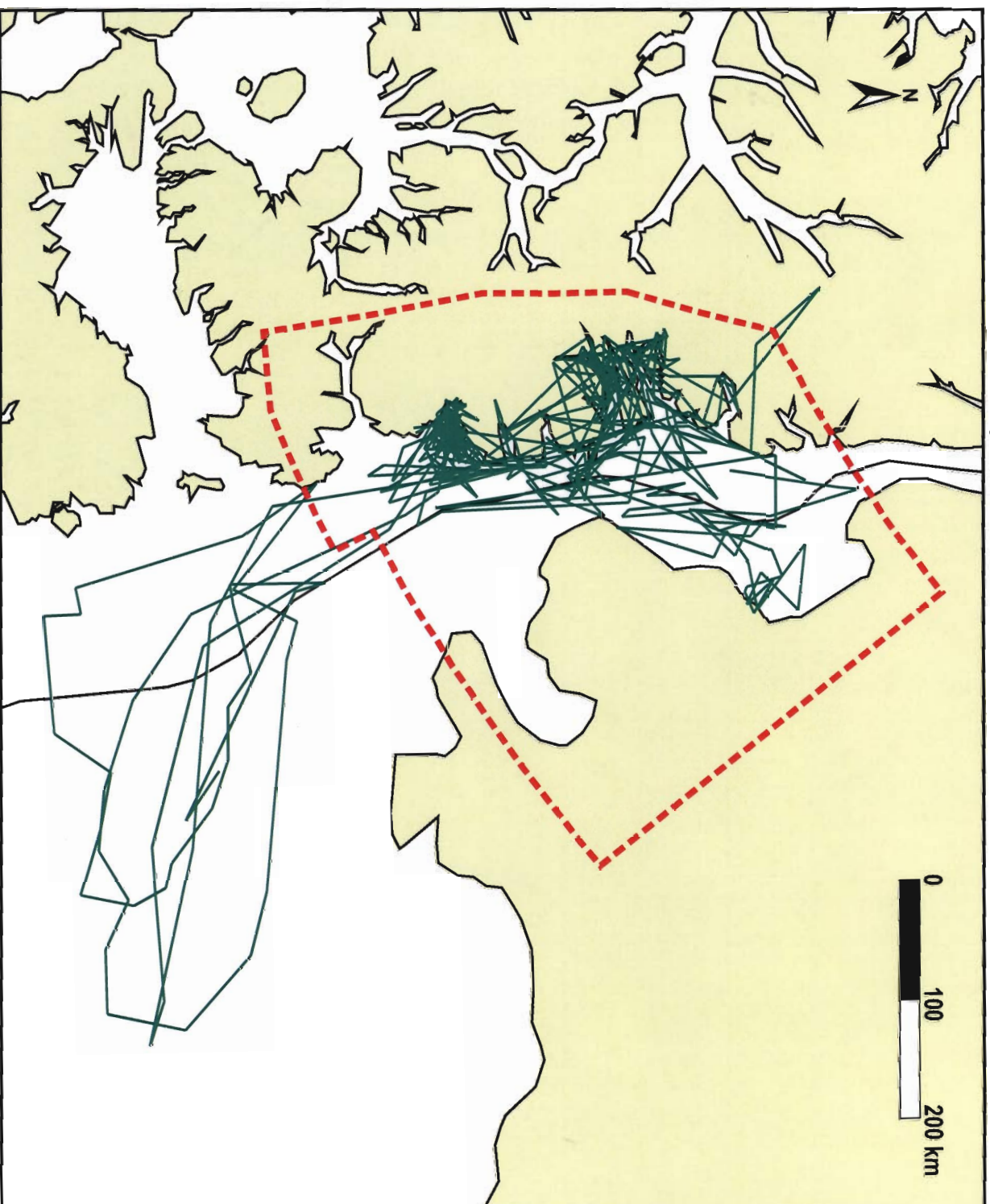
- 1) Wildlife Distribution and Local Land Use Information from the Northern Land Use Information Series Maps (Indian and Northern Affairs Canada and Environment Canada 1978-1986. Canada Map Office, Dept. of Energy Mines and Resources, Ottawa Ontario. 1:250,000)
- 2) Arctic Ecology Map Series (Canadian Wildlife Service, 1972. 1:1,000,000)

Contact:
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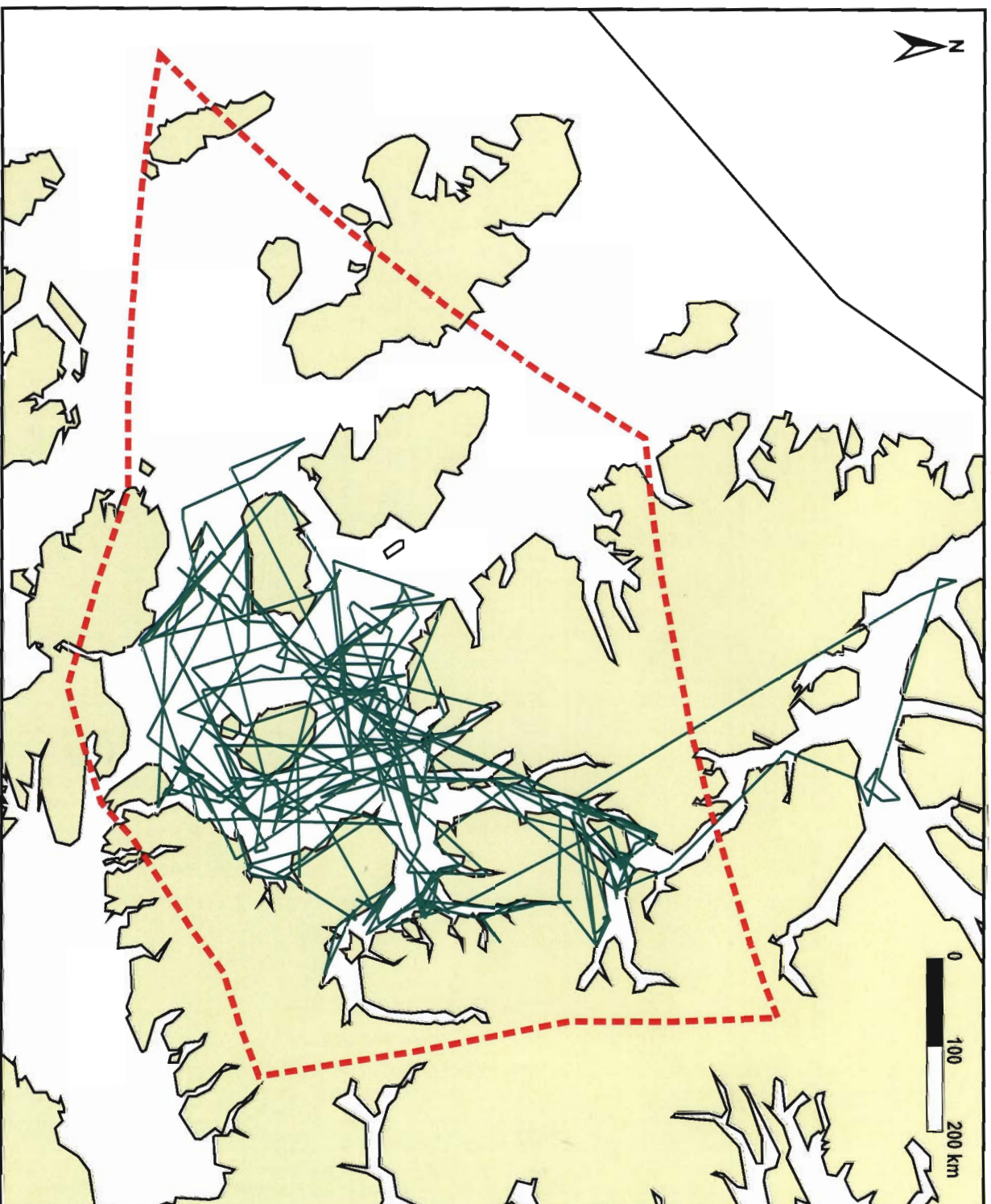
<div></div> Licence Area	<div></div> Wildlife Areas of Special Interest
<div></div> International Biological Programme Sites	<div></div> Muskox
<div></div> Important Bird Areas	<div></div> Polar Bear Distribution
<div></div> Caribou	<div></div> Denning Area
<div></div> Muskox	<div></div> Winter Concentration
<div></div> Waterfowl	

Regional Wildlife Overview -- Coal Exploration
Licence Applications. January 2009

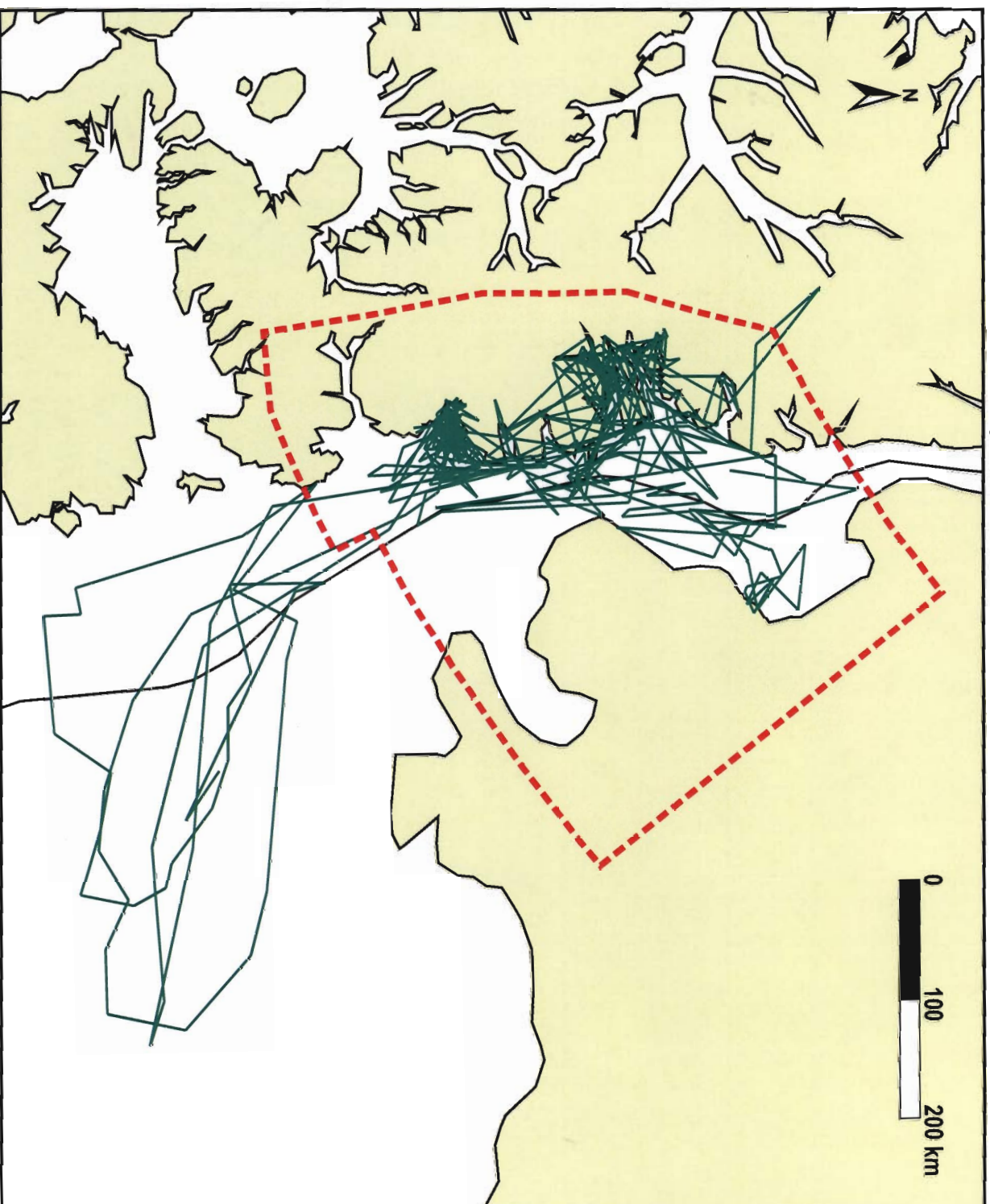
Kane Basin Population / ΔP_{C2A} Γ_{C2A} ΔL_{A2C}



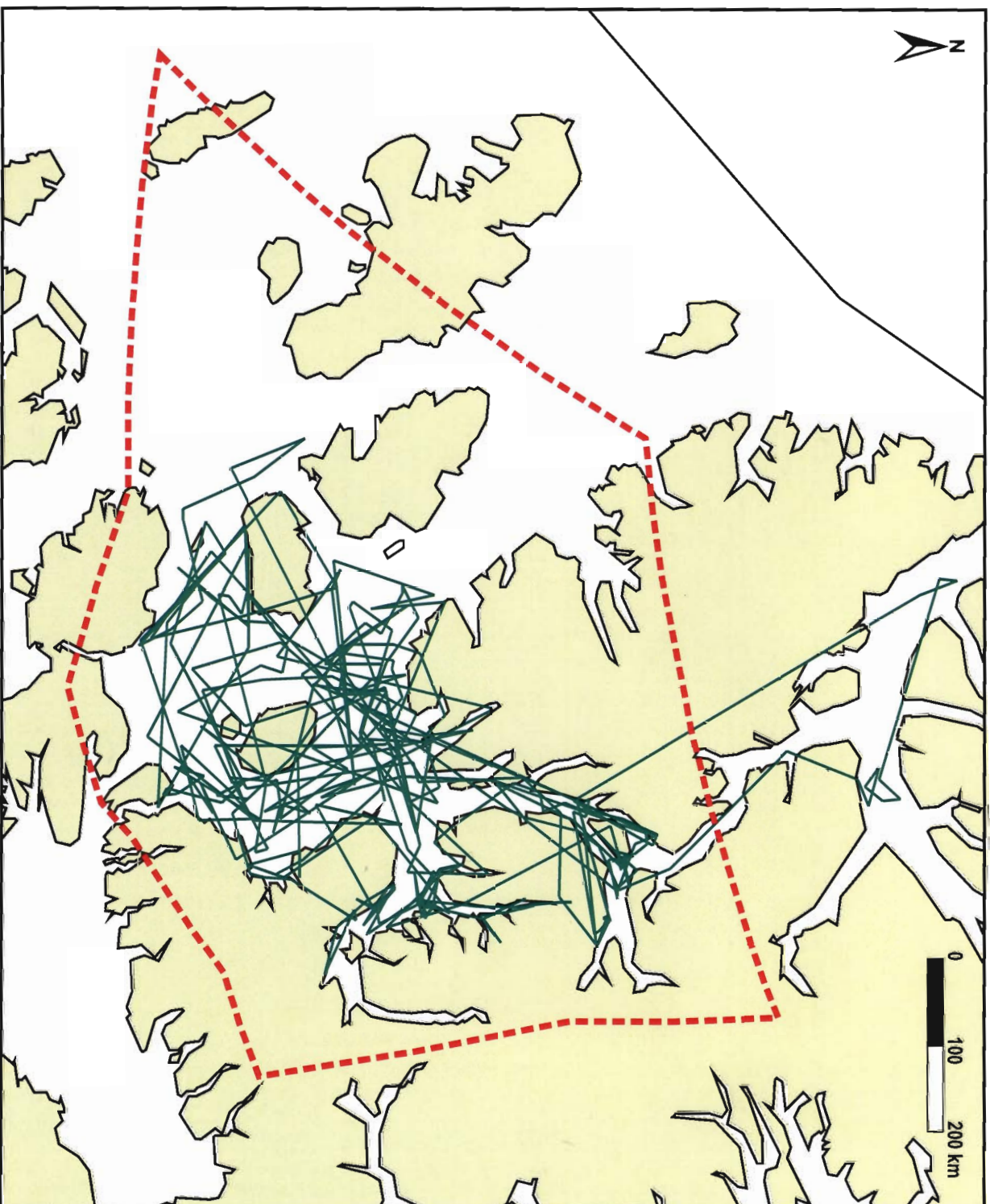
Norwegian Bay Population / Δ

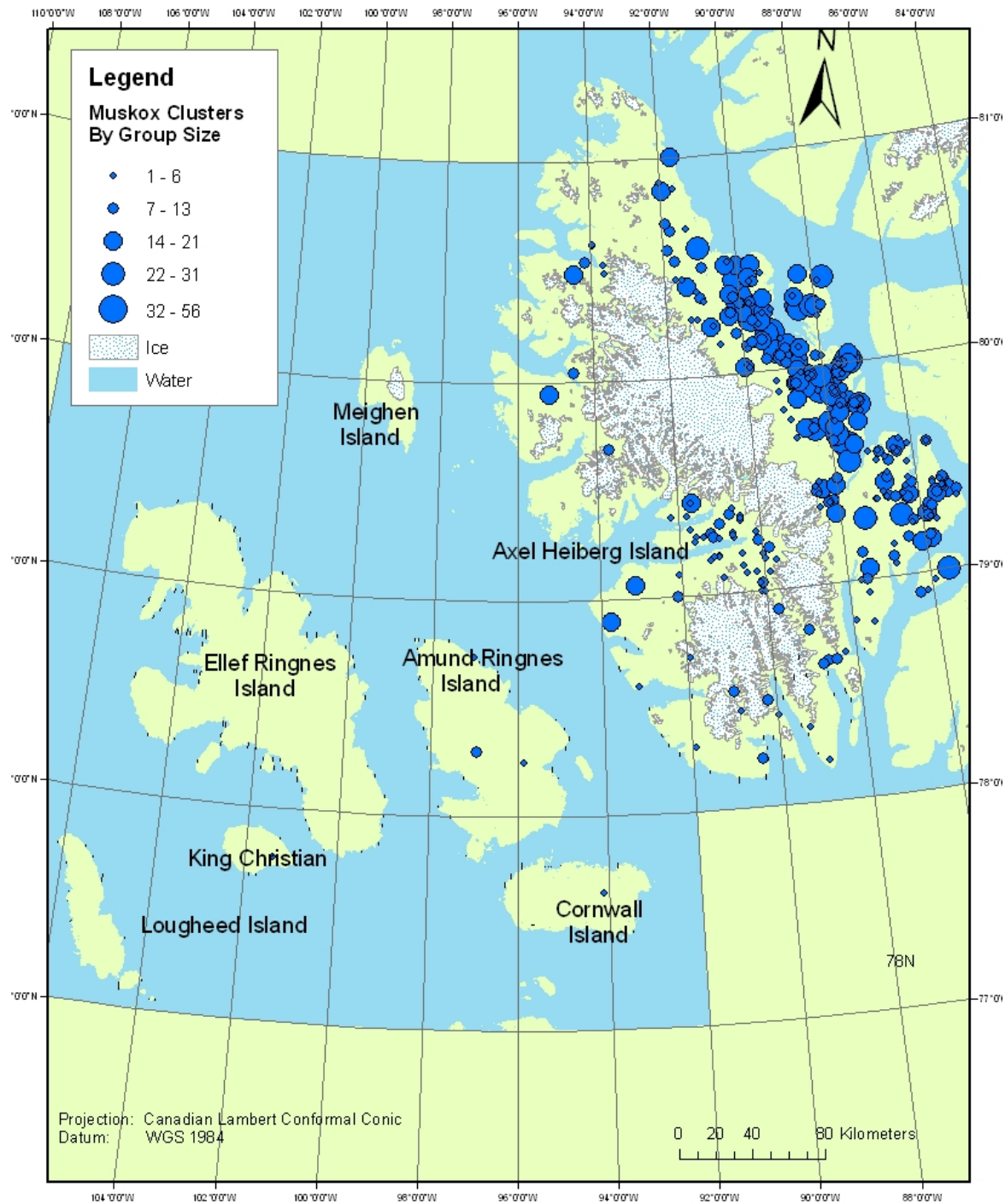


Kane Basin Population / ΔP_{C2A} Γ_{C2A} ΔL_{A2C}



Norwegian Bay Population / Δ





Study Area 2007



Indian and Northern
Affairs Canada

Affaires indiennes
et du Nord Canada

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March 24, 2009

Becky Leighfield
Mining Recorder
Indian and Northern Affairs Canada
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Iqaluit, NU X0A 0H0

Hand Delivered to leighfieldr@inac.gc.ca

Re: 2009 Coal License Application Review

Dear Ms. Leighfield,

The Environment Division of Indian and Northern Affairs Canada's (INAC) Nunavut Regional Office would like to thank you for the opportunity to review the proposed Coal Exploration Licenses for the upcoming period of 2009 to 2012. The Environment Division has reviewed the twenty-one (21) areas for which Coal Licenses are proposed to be issued, as requested in your letter dated December 18, 2008, and is pleased to provide you the following comments.

Our findings suggest that the issuance of several of these permits, should they proceed to exploration or development, may likely cause environmental impacts on the petrified forests found on both Axel Heiberg Island and Ellesmere Island. These areas contain fossil wood dating back to the Eocene period from when these islands were tropical forests. This wood has been protected in such a way that the original structure of the wood is still intact and all the organic materials have been replaced with minerals. The petrified forests of Axel Heiberg Island and Ellesmere Island are an excellent example of preservation and are among some of the best examples of petrified forests worldwide. As of now, these specific areas are not protected, however there are examples of protected petrified forests worldwide. Lesvos Petrified Forest in Greece has been designated as a National Geopark, sanctioned by UNESCO's Global Network of National Geoparks and the petrified forests in Arizona are now protected through the creation of a National Park. I would observe, however, that probably a more appropriate method for land preservation and/ or withdrawals would be through already established processes and regulations changes that the department employs.

As described above, the pending licenses: #101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, and 115 are located in sensitive terrain areas of Ellesmere Island and Axel Heiberg Island that are not formally protected under any legislation. It is the Environment Division's view that these areas contain significant and unique paleontological findings and these findings and sensitivities should be reflected in any authorizations that INAC either manages or comments on. I would also encourage the



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Mining Recorders Office to share the sensitivities of this area of the High Arctic with the Proponents.

The pending licenses #116, 117, 118, 119, 120, and 121 are located on Ellesmere Island near sensitive land-use areas. The Environment Division supports the permitting of licenses in these areas and recognizes that land use activities required for exploration purposes will be addressed in the *Territorial Land Use Regulations*.

In completing its review, the Environment Division has also considered cumulative effects of land use activities on the ecosystem. For instance, Pending Licenses #116, 117, 118, 119, 120, and 121 are all located on the entirety of Bache Peninsula which, prior to this, has experienced little exposure to development. The Nunavut Planning Commission (NPC) and the Nunavut Impact Review Board (NIRB) both have a role with respect to cumulative effects of project proposals. While we recognize that a coal exploration license does not require a land use permit, we suggest the NPC and NIRB be informed of the regions in which these coal licenses will be issued so they may be aware of, plan for, and address cumulative effects issues, should they arise, in the land-use permitting stage.

We hope these comments are of assistance to you. Should you have any questions or like any further clarification, please do not hesitate to contact Sara Holzman at (867) 975-4288 by phone or at sara.holzman@inac-ainc.gc.ca by email.

Sincerely,

Original signed by

Robyn Abernethy-Gillis
Manager, Environment Division