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July 30, 1999

To: David Porter  
Licence Administration  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NT

Dear Mr. Porter:

**RE: Meadow Bank Gold Project**  
**NIRB: 99EN044**

**NWB: NWB2MEA9899**

Enclosed is the completed NIRB Screening Decision Report for the application for a water licence to conduct exploration trenching near Baker Lake.

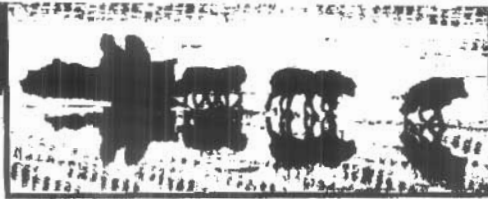
NIRB has screened this application for ecosystemic and socio-economic impacts of the proposal.

NIRB's indication to the Minister is: 12.4.4 (a) the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5.

Please contact Joe Ahmad, Executive Director at (867) 983-2593 if you have any questions about the Screening Report.

Yours truly,

Gladys Joudrey, Environmental Assessment Officer  
Nunavut Impact Review Board  
P.O. Box 2379  
Cambridge Bay, NT  
XOE OCO  
Tel: (867) 983-2593 Fax: (867) 983-2574



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## SCREENING DECISION

**Date: July 30, 1999**

Thomas Kudloo  
Chairperson, Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NT

Dear Chairperson:

**RE: Screening Decision of the Nunavut Impact Review Board (NIRB) on Application:  
NIRB: 99EN044 NWB: NWB2MEA9899  
Meadow Bank Gold Project**

**Authority:**

Section 12.4.4 of the Nunavut Land Claim Agreement states:

Upon receipt of a project proposal, NIRB shall screen the proposal and indicate to the Minister in writing that:

- a) the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5;
- b) the proposal requires review under Part 5 or 6; NIRB shall identify particular issues or concerns which should be considered in such a review;
- c) the proposal is insufficiently developed to permit proper screening, and should be returned to the proponent for clarification; or
- d) the potential adverse impacts of the proposal are so unacceptable that it should be modified or abandoned.

**Primary Objectives:**

The primary objectives of the Nunavut Land Claims Agreement are set out in section 12.2.5 of the Land Claims Agreement. This section reads:

In carrying out its functions, the primary objectives of NIRB shall be at all times to protect and promote the existing and future well-being of the residents and communities of the Nunavut Settlement Area, and to protect the ecosystemic integrity of the Nunavut Settlement Area. NIRB shall take into account the well-being of the residents of Canada outside the Nunavut Settlement Area.

The decision of the Board in this case is 12.4.4 (a) the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5;

**Reasons for Decision:**

NIRB's decision is based on specific considerations that reflect the primary objectives of the Land Claims Agreement. Our considerations in making this decision included:

- the impact of exploration activities on the ecosystem;
- disposal of waste water;
- impact to water quality, aquatic habitat and wildlife and fish populations from chemicals, and potential fuel spills;
- storage and disposal of chemicals, fuel, garbage, sewage, and gray water, and impact of these on the ecosystem;
- the impact of noise from exploration activities and their disturbance to wildlife and traditional users of area;
- the impact of campsite and equipment on terrain;
- the impact of exploration activities on archaeological sites or cultural landmarks in the area; and
- clean up/restoration of the camp site and exploration locations upon abandonment.

**Terms and Conditions:**

That the terms and conditions attached to this screening report will apply.

**Trenching Sites**

- ✓ 1. The Permittee shall not establish any trenches or stockpiles within thirty (30) metres of the normal high water mark of a water body.
- ✓ 2. The Permittee shall ensure that any and waste water be disposed of in a properly constructed sump or an appropriate natural depression that does not drain into a waterbody.
- ✓ 3. The Permittee shall ensure that the sump/depression capacity is sufficient to accommodate the volume of waste water.
- ✓ 4. The Permittee shall use berms (with burlap screens placed around them) to prevent run off water accumulated from the trenching program from entering any water bodies.
- ✓ 5. The Permittee shall test the water to be discharged from the trenches (including for suspended solids, ammonia and metals), to ensure freshwater aquatic life is protected.
- ✓ 6. The Permittee shall not locate any sump within thirty (30) metres of the normal high water mark of any water body.
- ✓ 7. The Permittee shall not use mechanized clearing within 30 meters of the normal high water mark of a watercourse in order to maintain a vegetative mat for bank stabilization.

**Water**

- olcl ✓ 8. The Permittee shall ensure that all water intake hoses are equipped with a screen with an appropriate mesh size to ensure that there is no entrapment of fish.

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**Water**

8. The Permittee shall ensure that all water intake hoses are equipped with a screen with an appropriate mesh size to ensure that there is no entrapment of fish.

### **Fuel and Chemical Storage**

9. The Permittee shall ensure that fuel storage containers are not located within thirty-one (31) metres of the ordinary high water mark of any body of water.
10. The Permittee shall ensure that any chemicals, fuels or wastes associated with the project do not spread to the surrounding lands or enter into any water body.
11. The Permittee shall construct an impermeable dyke around each stationary fuel container or group of stationary fuel containers where one container has the capacity exceeding 4,000 litres.
12. The Permittee shall take all reasonable precautions to prevent the possibility of migration of spilled petroleum fuel or chemicals over the ground surface.
13. The Permittee shall have one extra fuel storage container on site equal to, or greater than, the size of the largest fuel container.
14. The Permittee shall examine all fuel and chemical storage containers daily for leaks. All leaks should be prepared immediately.
15. The Permittee shall seal all container outlets except the outlet currently in use.
16. The Permittee shall mark all fuel containers with the Permittee's name.
17. The Permittee shall dispose of all combustible waste petroleum products by incineration and removal from the site.
18. The Permittee shall have emergency response and spill contingency plans in place prior to the commencement of the operation.
19. The Permittee shall immediately report all spills of petroleum and hazardous chemicals to the twenty four (24) hour spill report line at (867) 920-8130.

### **Waste Disposal**

20. The Permittee shall not discharge or deposit any refuse substances or other waste materials in any body of water, or on the banks thereof, which will impair the quality of the waters of the natural environment.
21. The Permittee shall not locate any sumps or areas designated for waste disposal within thirty (30) metres of the ordinary high water mark of any body of water, and be sufficiently bermed or otherwise contained to ensure that these substances do not enter a waterway unless otherwise authorized.
22. The Permittee, prior to the discharge of fluids from any sump, shall carry out an analysis of the fluid in a manner prescribed by the NWB.
23. The Permittee shall construct a sump to contain all greywater discharged and shall ensure drainage is away from any waterbody.
24. The Permittee shall backfill and recontour all sumps to match the natural environment prior to the expiry date of the permit.
25. The Permittee shall incinerate all combustible and food wastes daily. The Permittee shall use as a minimum incineration method a 45 gallon drum modified to form a more efficient incinerator.
26. The Permittee shall keep all garbage and debris in a covered metal container until disposed of.

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- 22  
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- anat  
notch  
miller*



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28. The Permittee shall not bury any wastes.
29. The Permittee shall deposit all scrap metal, discarded machinery and parts, barrels and kegs, at an approved disposal site.
30. The Permittee shall dispose of slash or debris above the high water mark so that it does not enter any waterbody.

## **Wildlife**

31. The Permittee shall ensure that there is no damage to wildlife habitat in conducting this operation.
32. The Permittee shall not feed wildlife.
33. The Permittee use the latest bear detection and deterrent techniques to minimize man-bear interactions and shall report any Man-Bear Interactions to the nearest Renewable Resource Officer or contact (867) 873-7181.
34. In the event that caribou or muskox cows calve within site of the exploration activities, the Permittee shall suspend operations within the area(s) occupied by cows and/or calves between May 15 and July 15. All personnel are to be removed from the zone who are not required for the maintenance and protection of the camp facilities and equipment.
35. The Permittee shall not locate any operation so as to block or cause substantial diversion to migration of caribou.
36. The Permittee shall cease activities that may interfere with migration or calving, such as airborne geophysics surveys or movement of equipment, sampling activities until the migrating caribou and their calves have vacated the area.
37. The Permittee shall not detonate explosives within fifteen (15) metres of any body of water which is not completely frozen to the bottom.
38. The Permittee shall not conduct any activity associated with the land use operation during critical periods of wildlife cycles (eg. caribou migration, calving, fish spawning or raptor nesting).
39. That the Permittee shall ensure that there is no hunting by employees of the company or any contractors hired.
40. The Permittee shall ensure that aircraft pilots adhere to recommended flight altitudes of greater than 300 m above ground level as to not disturb wildlife. Raptor nesting sites and concentrations of nesting or molting waterfowl should be avoided by aircraft at all times.
41. The Permittee shall ensure compliance with Section 36 of the Fisheries Act which requires that no person shall deposit or permit the deposit of a deleterious substance on any type in water frequented by fish or in any place under any conditions where the deleterious substance may enter such a water body.
42. The harmful alteration, disruption or destruction of fish habitat is prohibited under Section 35 of the Fisheries Act. No construction or disturbance of any stream/lake bed or banks of any definable watercourse is permitted unless authorized by DFO.
43. The Permittee shall ensure that trenching sites avoid known environmentally sensitive areas (denning, nesting etc.) by a minimum of 250 metres.
44. The Permittee shall barricade trenches to prevent wildlife from falling into them.

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**Environmental**

45. The Permittee shall ensure that the land use area is kept clean and tidy at all times.
46. The Permittee shall prepare the site in such a manner as to prevent rutting of the ground surface.
47. The Permittee shall not do anything that will cause erosion of the banks of any body of water on or adjacent to the land and shall provide necessary controls to prevent such erosion.
48. The Permittee shall be required to undertake any corrective measures in the event of any damage to the land or water as a result of the permittee's operation.
49. The Permittee shall not remove any material from below the ordinary high water mark of any waterbody.
50. The Permittee may only excavate and stockpiles in areas designated
51. The Permittee shall not use any equipment except of the type, size and number that is listed in the accepted application.
52. The Permittee shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging.
53. The Permittee shall suspend overland travel of equipment or vehicles if rutting occurs.

**Camp**

54. The Permittee shall not erect camps or store material on the surface ice of lakes or streams.
55. The Permittee shall locate all camps and storage facilities on gravel, sand or other durable land.

**Archaeological Sites**

56. The Permittee shall follow all terms and conditions for the protection and restoration of archaeological resources as outlined by the Prince of Wales Northern Heritage Centre (PWNHC) in attached letter.
57. The Permittee shall contact the Arctic Archaeologist at the Prince of Wales Northern Heritage Centre (867-873-7551) should an archaeological or historical site be disturbed by any land use activity or support activity. The Permittee shall proceed on the stipulation/advice of the Archaeology Programme.

**Reclamation**

58. The Permittee shall remove all scrap metal, discarded machinery and parts, barrels and kegs, buildings and building material upon abandonment.
59. The Permittee shall complete all clean-up and restoration of the lands used prior to the expiry date of the permit.
60. The Permittee shall undertake ongoing restoration for any land or improvements which are no longer required for the Permittee's operation on the land.

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SENT BY:4038732602

; 8- 3-99 ; 10:22 ;

YELLOWKNIFE INN-

8679832594;# 3/ 4

AUG-08-99 10:01 From:NIRB

8870832584

T-200 P.03/04 Job-820

**Other Recommendations**

1. NIRB would like to encourage the proponent to hire local people and services, to the extent possible.
2. NIRB advises proponents to consult with local residents regarding their activities in the region.
3. An executive summary of the results be provided to the relevant HTO's and Hamlets.
4. Any amendment requests deemed by NIRB to be outside the original scope of the project will be considered a new project.
5. The Environmental Protection Branch (DOE), Department of Fisheries and Oceans (DFO), Nunavut Impact Review Board (NIRB), and the Nunavut Water Board (NWB) should be advised of any material changes to plans or operating conditions associated with the project.

**Validity of Land Claims Agreement****Section 2.12.2**

Where there is any inconsistency or conflict between any federal, territorial and local government laws, and the Agreement, the Agreement shall prevail to the extent of the inconsistency or conflict.

Dated August 3/99 at Cambridge Bay, NT

  
Larry Pokok Aknevigak, Chairperson



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# NIRB



## SCREENING DOCUMENTS

Date: August 3, 1999

To: David Foster

Fax #: \_\_\_\_\_

NIRB File No. \_\_\_\_\_

Total # of Pages including this page: 37

From: Gladys Joudrey  
Environmental Assessment Officer  
e-mail: gladys@polarnet.ca

Comments:

**FOR SCREENING DOCUMENTS, PLEASE RESPOND  
TO NIRB'S SPECIAL FAX #: (867) 983-2574.**

The document(s) accompanying this transmission contain(s) information intended for a specific individual and purpose. The information is private and legally protected by law. If you are the intended recipient, you are hereby notified that any disclosure, copying, distribution or the taking of any action in reference to the contents of this telecopied information is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return the original to us by regular mail.



**2. Authorizing Agencies**

Authorizing Agency(ies): Kivalliq I.A., Kitikmeot I.A., QIA, ~~NWB~~, NWMB, DIAND, DFO, DOE, NRI, RWED, Other: \_\_\_\_\_

Authorizing Agency Contact Person: David Porter  
(office where project file is located, contact person, number)

Land Status: Inuit Owned ☒ Crown \_\_\_\_\_ Commissioner's \_\_\_\_\_ Marine Areas \_\_\_\_\_

Type of Application: water license  
(e.g. water licence, land use permit, quarry permit, research permit, lease, reserve)

Type of Approval being sought: New  
(e.g. new, renewal, amendment, cancellation)

Other required approvals, permits or licences: \_\_\_\_\_  
(e.g. water licence, land use permit, quarry permit, lease, reserve)

Present Authorizations (active): \_\_\_\_\_  
(file number)

Previous Authorizations (inactive/expired): \_\_\_\_\_  
(file number)

**3. Project Location**

Kivalliq ☒ Kitikmeot \_\_\_\_\_ Baffin \_\_\_\_\_

Land Use Planning Region: Kivalliq  
(e.g. West Kitikmeot, North Baffin, South Baffin, Kivalliq)

Geographic Place Name: Meadowbank River Area  
(nearest place name or geographic feature)

Local/Traditional Name: \_\_\_\_\_

National Topographic Sheet (NTS) Number: \_\_\_\_\_ Scale: \_\_\_\_\_

Latitude/Longitude: 65° 00' N, 96° 00' W  
(degrees, minutes seconds)

Drainage Region and Watershed: \_\_\_\_\_  
(nearest creek, river or lake system)

Nearest Settlement: Baker Lake

Adjacent Settlement/Out-post camps: \_\_\_\_\_

Special Designation: No  
(Yes/No - e.g. Heritage River, Wildlife Reserve, Park)

Does the project have Nunavut transboundary implications? Yes \_\_\_\_\_ No ☒

If yes, what additional procedures/contacts are needed? \_\_\_\_\_



**4. Project Description and Assessment**

Physical Work, Activity(ies): exploration - Trenching  
 (drilling, construction, camp, research, water works, installation, modification, maintenance)

Multiple Activities: Yes \_\_\_\_\_ No ✓

Project Category Code: Point Multiple Points Linear Area

Phase of Project: exploration  
 (exploration, bulk sampling, development, operations, decommissioning, abandonment/restoration)

**Project Description Summary (non-technical):**

(duration of project, size of project, number of personnel on site, related physical activities, machinery used, fuels and chemical use and storage, associated infrastructure, methods of transportation, amount and source of resources needed eg. Gravel)

Attach Project Overview (English and Inuktitut)

**Alternatives Considered:**

(list all alternatives to the project and/or components of the project to avoid unnecessary amendments, (e.g. alternatives to location of ice road or camp logistics)

**5. The Proponent's Public Consultation Process**

Description of Proponent's Public Consultation Process

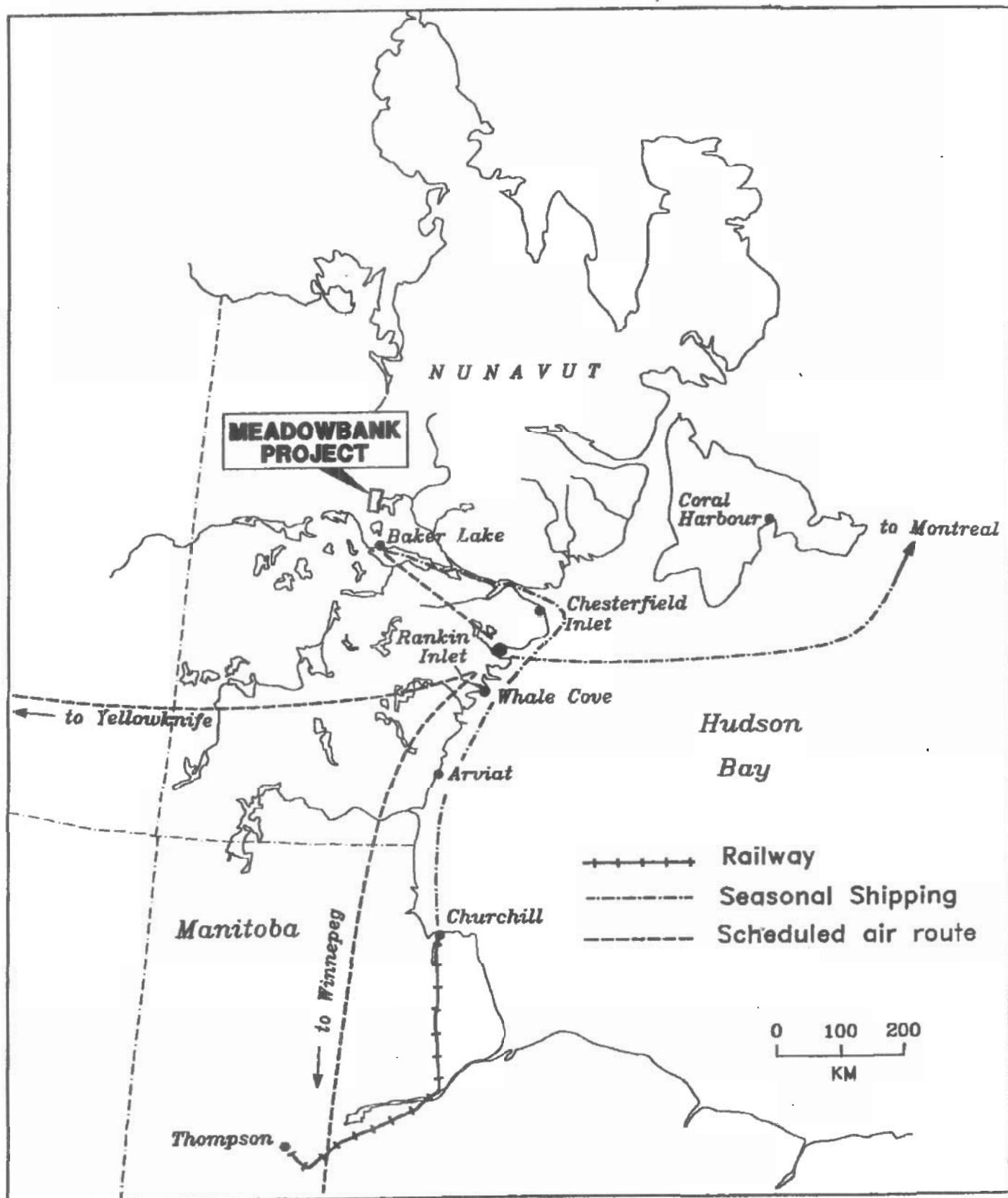
Contacted CIARC, HTO and Hamlet Council  
of Bales Lake.

Did proponent make use of traditional knowledge? Yes \_\_\_\_\_ No \_\_\_\_\_

Was information available in the community's preferred language? Yes \_\_\_\_\_ No \_\_\_\_\_

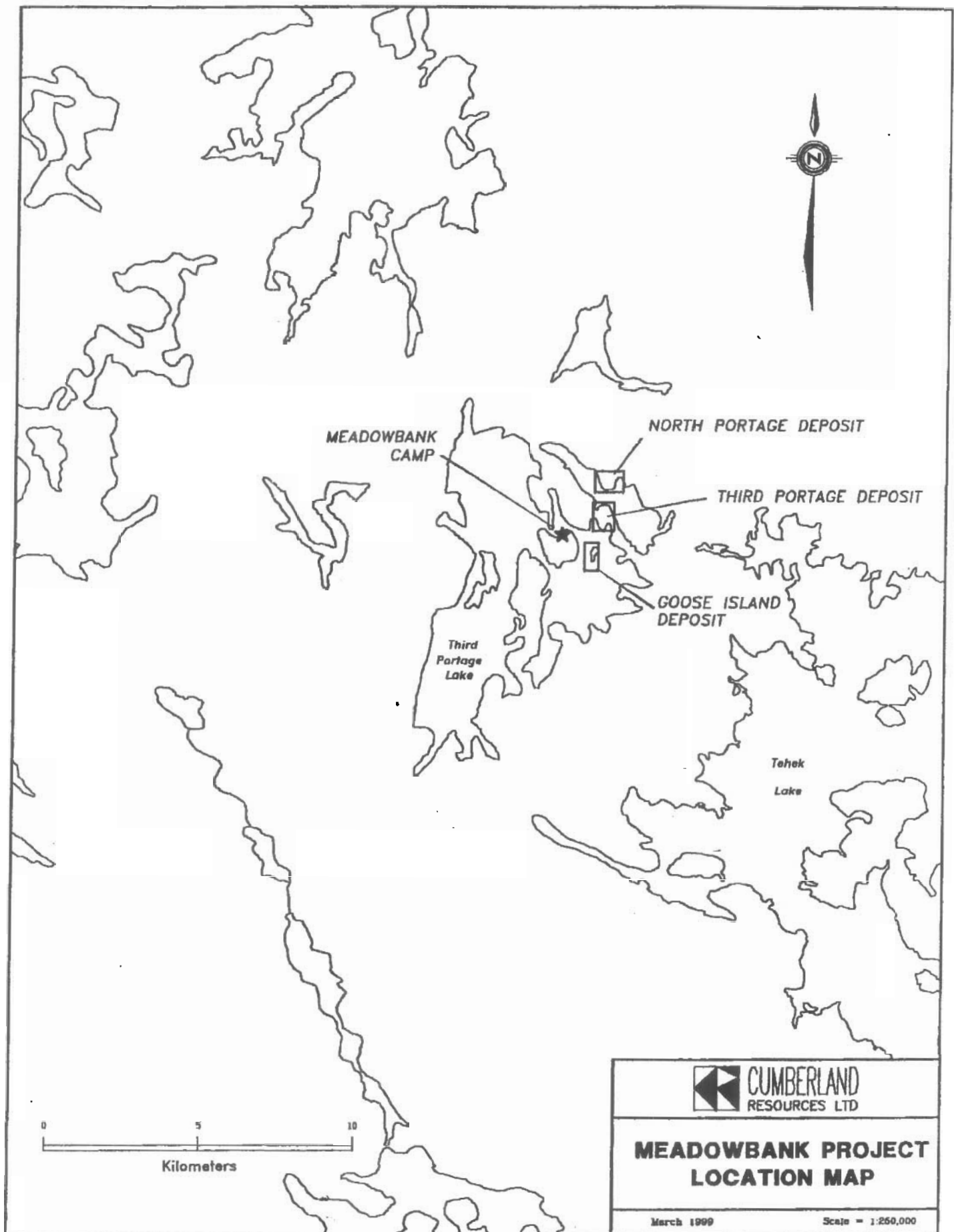
In NIRB's opinion, was the proponent's public consultation adequate? Yes ✓ No \_\_\_\_\_

If no, explain why the proponent's consultation program was found deficient.



CUMBERLAND  
RESOURCES LTD

## MEADOWBANK PROJECT LOCATION MAP



**6. Description of the Environment**

## Description of Biophysical Environment

This area has been identified as a denning area for arctic fox and wolves.

Small cliffs throughout the area may be used by rough-legged hawks, peregrines and gyrfalcons for nesting.

## Description of Socio-Economic and Cultural Environment

In some years, significant numbers of barren-ground caribou winter in the whitehills-Toke lakes area. In these years, extensive caribou hunting occurs from fall through spring, especially in the vicinity of whitehill lake. Trapping Arctic fox in this area occurs in February and March. Domestic fishing, especially in whitehill lake, provides food for hunters and trappers. Baker lake residents community travel to whitehills lake in spring and summer to occupy seasonal fishing camps.

**7. NIRB's Consultation Process**

Date application referred for comments:

June 15, 1999

(yyyy-mm-dd)

Deadline for comments:

July 2, 1999

(yyyy-mm-dd)

Distribution List:

Contact Person:

Date comments received:

**NUNAVUT:**

- ☒ NTI  
☒ QIA  
☒ Kivalliq I.A.  
☒ Kitikmeot I.A.  
☒ NPC  
☒ NWB  
☒ NWMB  
☒ RWO  
☒ Inuit Heritage Trust  
☒ Community(s)  
 Hamlet \_\_\_\_\_  
 HTO \_\_\_\_\_  
 Other? \_\_\_\_\_

Baker Lake**FEDERAL:**

- ☒ DIAND  
☒ DFO  
☒ DOE  
☒ Heritage Can.  
☒ Natural Resources  
 Other? (eg. Health  
 DOT, DND)

Margaret Keast.  
Anne WilsonJuly 13, 1999  
June 23, 1999  
June 1999**GNWT:**

- ☒ ~~DEWED~~  
☒ Transport  
☒ MACA  
☒ PWNHC  
 Other? (eg. Health,  
 Soc.Serv., ECE)

Charles ArnoldJuly 6, 1999**TRANSBOUNDARY  
PARTIES**BCCMBJuly 2, 1999**OTHER PARTIES**CCG

## Identification of Project Activities and Environmental Effects

Identify all activities of the project under screening and their potential adverse environmental effects.

### Project Activities

(✓ check all the items appropriate to this project)

- ☐ access road
  - ☐ winter
  - ☐ construction
  - ☐ abandonment/removal
  - ☐ modification e.g., widening
- ☒ automobile, aircraft or vessel movement *helicopter*
- ☐ blasting
- ☒ burning
- ☐ burying
- ☐ channelling
- ☐ construction
  - ☐ building
  - ☐ shed/warehouse
  - ☐ landing strip
- ☐ cut and fill
- ☐ removal of vegetation
- ☐ dams and impoundments
  - ☐ construction
  - ☐ abandonment/removal
  - ☐ modification
- ☐ ditch construction
- ☐ drainage alteration
- ☐ drilling other than geoscientific
- ☐ ecological surveys
- ☐ excavation
- ☒ explosive storage
- ☒ fuel storage
- ☒ garbage
  - ☐ disposal of hazardous waste
  - ☒ disposal of sewage or grey water
  - ☒ disposal of solid waste
- ☒ geoscientific sampling
  - ☒ trenching
  - ☐ diamond drill
  - ☐ borehole core sampling
  - ☐ bulk soil sampling
- ☐ quarry
- ☐ hydrological testing
- ☐ river/stream/lake crossing/bridging
- ☐ site restoration
  - ☐ fertilization
  - ☐ grubbing
  - ☐ planting/seeding
  - ☐ scarification
  - ☐ spraying
  - ☐ recontouring
- ☐ soil testing
- ☒ topsoil, overburden or soil
  - ☐ fill
  - ☐ disposal
  - ☒ removal
  - ☐ storage
- ☐ tunnelling/underground
- ☐ other, explain \_\_\_\_\_

☒ possibility for accidents or malfunctions. Describe.

*potential for fuel spills.*

effects of environment on project (e.g., flooding).  
Describe. \_\_\_\_\_

### Project Effects

(✓ check all the items appropriate to this project)

#### Directly-related Socio-Economic & Cultural Effects:

1. ☒ impact to hunting / trapping / fishing
2. ☐ impact on:
  - ☐ women
  - ☐ men
  - ☐ children
  - ☐ elders
3. ☐ impact to traditional use or traditional use area
4. ☐ impact to outfitters
5. ☐ impact on recreational use
6. ☐ impact on family structure
7. ☐ impact to community health
8. ☐ change in community economics
9. ☐ change in community housing or infrastructure
10. ☐ impact to industry
11. ☐ change in regional transportation
12. ☐ impact to archaeological or cultural landmarks
13. ☒ impact on beauty of the landscape
14. ☐ other, explain \_\_\_\_\_

#### Biophysical Environment Effects

15. ☐ deposit into surface or ground water
16. ☐ deposit to marine environment
17. ☐ change in surface or ground water flow
18. ☐ change in water temperature
19. ☐ change in drainage pattern
20. ☐ change in air quality
21. ☐ change in air flow
22. ☐ micro-climate change
23. ☐ ice fog
24. ☒ change in ambient noise level
25. ☒ deposit onto ground surface
26. ☒ change in slope stability
27. ☐ change in soil structure
28. ☐ alteration of permafrost regime
29. ☒ destabilization/erosion
30. ☐ soil compaction
31. ☐ change in access to renewable resources
32. ☐ depletion of non-renewable resource
33. ☐ removal of rare/endangered plant species
34. ☐ introduction of species
35. ☐ toxin/heavy metal accumulation
36. ☐ removal of rare/endangered wildlife species
37. ☐ change in wildlife health
38. ☒ impact to large mammals
39. ☒ impact to small mammals
40. ☒ impact to fish
41. ☒ impact to birds
42. ☐ impact to other wildlife
43. ☐ impact in a calving, nesting, staging or spawning area
44. ☐ removal of wildlife buffer zone
45. ☐ change in wildlife habitat/ecosystem
46. ☐ other, explain \_\_\_\_\_



**Describe biophysical and socio-economic and cultural effects identified from check-list.**

Environmental Effect	Describe
#1	area used by hunters and trappers of Baker Lake. Key area for Arctic fox and wolf denning areas. Could impact it available to hunt trap.
#13	Impact to the beauty of the landscape with the trenches.
#24	Helicopter Hrenching activities and explosives will increase ambient noise level. Possible avoidance of area in immediate vicinity by wildlife. Expect to be a temporary disturbance.
#25	waste water and sewage will be deposited onto ground surface.
#26, #39	Some destabilization / erosion caused by trenching. Could affect slope stability.
#36	Caribou migrate through area. Cows, particularly susceptible to noise disturbance.
#39	Key fox and wolf denning area. any disturbance denning area & population numbers.
#40	water from trenches may impact fish / fish habitat mitigation to use berms and make sure drains away from water body (min. 30m high water mark).
#41	peregrine falcons nesting area in cliffs throughout area.

**9. Cumulative Effects: Identification of Other Resources Used in the Area.** Identify past, current and future (pending applications) physical works and activities in the area (for the proponent, other proponents and nearby communities) and their potential adverse environmental effects.

#### Other Resource Uses

(✓ check all the items appropriate to this project)

- ✓ harvesting
  - marine mammals
  - ✓ land mammals
  - ✓ fur bearers
  - ✓ birds
  - shell fish
  - plants
  - berries
  - ✓ fish
- ✓ mining
  - ✓ exploration
  - open pits
  - underground
  - off-shore
- mineral processing
- industry \_\_\_\_\_ (type)
- ✓ quarries
  - carving stone
  - aggregate
- transportation/communications
  - airport / landing strip
  - roads/access routes
  - shipping
  - channels/canal
  - telephone lines, satellite dishes, cables
  - beacons
- waste disposal (solid, liquid or gas?)
- energy project
  - hydro
  - pipeline
  - transmission line
- other water licenses, permits, leases
- ✓ lands
  - ✓ Inuit owned
    - surface rights
    - sub-surface rights
  - ✓ Crown
    - Commissioner's
    - Marine Areas
  - other private lands held under tenure
- ✓ heritage sites or archaeological sites
- ✓ recreation (eg. cabins, tent frames)
- tourism
- municipal (construction)
  - commercial
  - built structures
  - infrastructure
- agriculture
- forestry
- ✓ other, explain research.

#### Effects from Other Resource Uses

(✓ check all the items appropriate to the scope of this project)

#### Directly-related Socio-Economic & Cultural Effects:

1. ✓ impact to hunting / trapping / fishing
2. — impact on:
  - women
  - men
  - children
  - elders
3. — impact to traditional use or traditional use area
4. — impact to outfitters
5. — impact on recreational use
6. — impact on family structure
7. — impact to community health
8. — change in community economics
9. — change in community housing or infrastructure
10. — impact to industry
11. — change in regional transportation
12. ✓ impact to archaeological or cultural landmarks
13. — impact on beauty of the landscape
14. — other, explain \_\_\_\_\_

#### Biophysical Environment Effects

15. — deposit into surface or ground water
16. — deposit to marine environment
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22. — micro-climate change
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26. — change in slope stability
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30. — soil compaction
31. — change in access to renewable resources
32. — depletion of non-renewable resource
33. — removal of rare/endangered plant species
34. — introduction of species
35. — toxin/heavy metal accumulation
36. — removal of rare/endangered wildlife species
37. — change in wildlife health
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40. ✓ impact to fish
41. — impact to birds
42. — impact to other wildlife
43. — impact in a calving, nesting, staging or spawning area
44. — removal of wildlife buffer zone
45. — change in wildlife habitat/ecosystem
46. — other \_\_\_\_\_

**10. Cumulative Environmental Effects**

Based on a comparison of effects identified in #8 and #9.

Matching Number(s)

Description of Cumulative Environmental Effects

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NO Will the project make large demands on non-renewable energy sources?     Will the project encourage further developments within the current project or other developments (other similar projects, energy development, generation, petroleum development and extraction, the building of additional roads)? *possibly*NO Will the project encourage a "boom-bust" economy over an economy of permanence?NO Will the project encourage more wildlife harvesting on account of better access for hunters and fishers?     Will the project have an effect on the water quality of the watershed? *possibly*NO Will the project have a significant effect on existing land uses?**11. Mitigation Measures**

For each environmental effect identified in #8, #9 and #10, describe the required mitigation measures.

Number(s)  
(as identified  
in #8, #9 & #10)

Description of Mitigation Measures

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*See Screening Decision*

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*Report Terms and Conditions*

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**12. Significance**

After taking into account the mitigation measures identified in #11, are any of the residual, adverse environmental effects significant?

☐ Yes ☒ No

If yes, identify which one(s) and proceed to #13; if no proceed to # 14.

Number(s) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**13. Likelihood of Occurrence**

Of the significant, residual, adverse environmental effects identified in #12, are any likely to occur?

☐ Yes ☒ No

Number(s) \_\_\_\_\_  
\_\_\_\_\_

**14. Information Sources**

What sources of information were used in the screening process?

- ☐ local knowledge
- ☐ traditional ecological knowledge
- ☐ land use plans (and draft land use plans)
- ☒ authorizing agencies' data
- ☒ departmental or agency opinions
- ☒ maps
- ☒ photos
- ☐ reports (scientific, economic, social, or anthropological, archival or historical information)
- ☐ Nunavut Environmental Database (NED)
- ☒ personal communications
- ☐ Project Registry (NPC)
- ☒ previous similar projects
- ☐ service organizations
- ☐ media monitoring
- ☐ experts
- ☐ other \_\_\_\_\_

For information sources identified above, provide contact person and/or information location (for future follow-up): \_\_\_\_\_

**15. Staff Recommendations**

Staff Recommendations: (include rationale)

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Prepared By: Gladys Joudrey Date: July 15, 1999  
Screener (yyyy-mm-dd)

**16. NIRB'S Principles**

- ☐ The project has significant adverse effects on the ecosystem, wildlife habitat or Inuit harvesting activities.
- ☐ The project may have significant adverse socio-economic effects on northerners.
- ☐ The project will cause significant public concern.
- ☐ The project involves technological innovations for which the effects are unknown.
- ☐ The project **does not** have significant effects or concerns.

**17. Indication to the Minister (12.4.4)**

N.B. Transfer this information to Box 1: "EA Indication" and "Date of Indication".

- ☐ a) the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5;
- ☐ b) the proposal requires review under Part 5 or 6; NIRB shall identify particular issues or concerns which should be considered in such a review;
- ☐ c) the proposal is insufficiently developed to permit proper screening, and should be returned to the proponent for clarification; or
- ☐ d) the potential adverse impacts of the proposal are so unacceptable that it should be modified or abandoned.

**18. Terms and Conditions**

If the determination is 12.4.4 (a), NIRB's terms and conditions include those listed in the Screening Decision Report.

Specific Terms and Conditions to note include:

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**19. Authorization**

Approved By:

  
(NIRB Decision Maker)

Date:

99-08-03  
(yyyy-mm-dd)

**20. Follow-up / Monitoring**

Minister's Determination

Minister agreed with NIRB's indication.  
Action? 

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Minister varied NIRB's indication.  
Action? 

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Minister rejected NIRB's indication  
Action? 

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If applicable,

Is a follow-up/monitoring program required? If yes, give details.  

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Has screening report information been added to NIRB's GIS/Calyx system?  

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## COMMENT FORM FOR NIRB SCREENINGS

The Nunavut Impact Review Board has a mandate to protect the integrity of the ecosystem for the existing and future residents of Nunavut. In order to assess the environmental and socio-economic impacts of project proposals, NIRB would like to hear your concerns, comments and suggestions about the following project application:

**Project Title:** Meadowbank Gold Project

**Proponent:** Cumberland Resources Ltd.

**Location:** 70 km North of Baker Lake

**NIRB#:** 99EN040

**Comments Due By:** July 2, 1999

**Indicate your concerns about the project proposal below:**

- |  |  |
|--|--|
| <input type="checkbox"/> no concerns                             | <input type="checkbox"/> traditional uses of land    |
| <input checked="" type="checkbox"/> water quality ✓              | <input type="checkbox"/> Inuit harvesting activities |
| <input type="checkbox"/> terrain                                 | <input type="checkbox"/> community involvement       |
| <input type="checkbox"/> and consultation                        |  |
| <input type="checkbox"/> air quality                             | <input type="checkbox"/> local development in the    |
| <input type="checkbox"/> area                                    |  |
| <input checked="" type="checkbox"/> wildlife and their habitat ✓ | <input type="checkbox"/> tourism in the area         |
| <input type="checkbox"/> marine mammals and their habitat        | <input type="checkbox"/> human health issues         |
| <input type="checkbox"/> birds and their habitat                 | <input type="checkbox"/>                             |
| <input checked="" type="checkbox"/> Other: ✓                     |  |
| <input type="checkbox"/> fish and their habitat                  |  |
| <input type="checkbox"/> heritage resources in area              |  |

**Please describe the concerns indicated above:**

**Please see attached**

**Do you have any suggestions or recommendations for this application?**

Do you support the project proposal? YES ☐ ✓ NO ☐  
Any additional comments?

Name of person commenting: \_\_\_\_\_ of  
\_\_\_\_\_ Sustainable Development \_\_\_\_\_

Position: \_\_\_\_\_ Organisation: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### Sustainable Development Comments NIRB 99EN040

#### Water Quality/Quantity

- Grey water should be adequately treated before the operation is given clearance or released from responsibilities in the area.
- All effluent from sample washing site including trenches must not be allowed to flow directly into the lake/river. It should be allowed to go to a depression that does not drain in any active aquatic system.

#### Fish and Wildlife

- Are exploration personnel allowed to fish/hunt in the areas? This should only be allowed if personnel have the appropriate licenses in compliance with the NWT wildlife ACT. Also, if the camp turns into a long-term operation this policy should be reevaluated. Prolonged hunting or fishing activities in any localized area can have negative impacts upon fish and wildlife populations and this type of activity should be discouraged.
- It should be clearly understood that harassment of wildlife is prohibited under the NWT Wildlife Act and this includes low-level flights.
- Trenches should only be allowed to remain open if they can be barricaded or covered to prevent wildlife from falling into them. Open excavations can be dangerous to humans and wildlife that might use the area.

#### Effluent/Sewage Treatment

- All latrine pits must be limed, properly covered, and reclaimed upon shutdown.

**Hazardous Materials, Fuels, etc.**

- A list of all hazardous materials should be sent to Environmental Protection. The list should include why the material is required and how it will be removed after the site is closed.
- All necessary permits must be obtained before any hazardous materials are transported to the site.
- All empty containers must be removed from the site and dealt with in accordance with the guidelines. Any hazardous materials that are left over after the operation is completed must be removed and addressed according to existing guidelines.
- All fuel drums should be stored in an area that is appropriately designed for that purpose. The storage area should be lined and bermed. Any spillage must be reported to the regulatory authority and must be cleaned-up immediately to the satisfaction of the regulatory authority.
- Contaminated soil as a result of fuel spillage must be properly treated before leaving the site.
- All Barrels (empty, partially full, or full) must be removed from the site before the site is abandoned.
- No Barrels are to be buried in the landfill area.
- All fuel caches must be removed and the site totally reclaimed after use.

**Equipment, vehicles, skidoos, etc.**

- Any equipment on site must be properly utilized.
- All parts (old or otherwise) must be stored at one location and must be removed and taken away when work is completed.

**Socioeconomic**

- To maximize employment of residents from the Kitikmeot Region, you may want to recommend one or all of the following strategies:
  1. The Kitikmeot Economic Development Commission has run training programs for driller's helpers and other exploration camp, entry-level personnel. People who have successfully completed the program are probably good candidates for wage subsidies or transportation assistance.
  2. The Department of Education administers two programs:
    - Employment Insurance (under the Labour Market Development Agreement), and
    - Training on the Job Wage Subsidy
- Employment Insurance could be used as a travel subsidy to get people from Kitikmeot communities to Yellowknife, which is the staging site for both exploration companies. The Training-on-the-Job program provides up to \$7.50/hour in wage subsidies to employers.

- Coordination will be key to employing Inuit from the Kitikmeot Region in these camps. First, the exploration companies must be made aware of the practical support that the Department of Education could provide to them to hire Inuit employees. Assuming they would be prepared to hire Kitikmeot candidates, the potential employees from the Kitikmeot Region must be informed of the opportunity, speak with a Career Counselor in Kugluktuk or Cambridge Bay (to develop a 'career plan') and work with the officer to secure the funding support. (Note that the TOJ subsidy will require work from the employer's side). The candidate(s) must demonstrate that actually working in an exploration camp will contribute to their career goals.

Note that Career Development Officers will work one-on-one with candidates to determine whether an individual will qualify for support.

**Other comments/Concerns**

- Since trenches will remain open until mining begins on the property or economic considerations require Cumberland to pull out and stop, a reclamation bond should be posted to cover 100% of the cost of reclamation.
- The proposed Spill Contingency Plan for Land is **NOT** adequate. The plan requires revision and updating.
- The blasts resulting from the use of explosives should be of sufficiently low power so that overburden is not unduly scattered over the landscape causing the need for fill to be hauled in from somewhere else. Alternatives to blasting should be considered such as using a larger excavator.



**Fisheries and Oceans  
Canada**

**Pêches et Océans  
Canada**

Box 358  
Iqaluit, NT.  
XOA OHO  
Ph: (819) 979-6274  
Fax: (819) 979-4539

July 13, 1999

Gladys Joudrey  
Nunavut Impact Review Board  
P.O. Box 2379  
Cambridge Bay, NT  
XOE OCO

**Re: Meadowbank Gold Project – Trenching Program**  
**NIRB: 90MN040**  
**Letter of Advice**

The Department of Fisheries and Oceans, Habitat Management (DFO-HM) has reviewed the information submitted with the above application. DFO-HM's assessment takes into consideration impacts on fish and fish habitat only.

On the basis of the information provided, it has been determined that the above project has the potential to affect fish or fish habitat pursuant to the Fisheries Act. It has also been concluded that the potentially adverse environmental effects that may be caused by the proposal are mitigable with known technology. Factors to consider when developing measures to mitigate any potentially adverse effects on fish and fish habitat may include, but are not limited to, the following:

1. The deposition of deleterious substances into water bodies frequented by fish is prohibited under Section 36 of the Fisheries Act. The proponent shall ensure that any chemicals, fuel or wastes associated with the proposed project do not enter any such waters.
  - DFO-HM recommends that all sumps, wastes and fuel caches be located a minimum of thirty (30) metres from the normal high water mark of any such water body.
  - The deposition of slash, debris or sediment into any water body is prohibited. These materials shall be disposed of above the high water mark in such a fashion that they do not enter the water.



- • Water accumulation encountered from the trenching program shall be appropriately contained to prevent run off from entering any water bodies. It is recommended that the water chemistry be determined.
- 2. The harmful alteration, disruption or destruction of fish habitat is prohibited under the Fisheries Act. No construction or disturbance of any stream/lake bed or banks of any definable watercourse is permitted unless authorized by DFO-HM.
- 3. Explosives shall not be used within 15 metres of any water body that is not frozen to the bottom.
- 4. DFO-HM recommends that mechanized clearing not be permitted within thirty (30) metres of the normal high water mark of any water body.
- 5. Upon completion of the trenching program, the site shall be restored to its original condition.
- 6. All spills of oil, fuel, or other deleterious materials shall be reported immediately to the 24-Hour Spill Line at (867) 920-8130.
- 9. DFO-HM shall be notified of any changes in plans or operation conditions associated with this land use activity which may adversely affect fish or fish habitat.

Please note that none of the foregoing should be taken as authorization of the undertaking in accordance with the Fisheries Act or any other applicable legislation.

If the proposed work is carried out as described in the information provided to the Department of Fisheries and Oceans and appropriate mitigation measures are implemented, the proposed work will not be considered as contravening Section 35(1) of the Fisheries Act which reads:

*"No person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat."*

Accordingly, an authorization under Section 35(2) of the Fisheries Act will not be necessary. Failure to comply with any of the above conditions and failure to implement measures to mitigate adverse impacts may result in the harmful alteration, disruption, or destruction of fish habitat in contravention of the Fisheries Act subject to prosecution under Section 35(1) of the Fisheries Act.

If you have any questions, concerns or comments with respect to the above, please contact me at (867) 979-8007.

Regards,



Margaret Keast

**Area Habitat Management Biologist  
Nunavut Area**

cc. Area Manager, G. Weber  
cc. Chief Conservation & Protection Officer, W. Fillatre



Environment  
Canada

Environnement  
Canada

NWT DIVISION  
ENVIRONMENTAL PROTECTION BRANCH  
PRAIRIE AND NORTHERN REGION  
#301 - 5204 - 50<sup>th</sup> AVE  
YELLOWKNIFE, NT X1A 1E2  
PH, (867) 669-4735

June 23, 1999

Gladys Joudrey  
Environmental Assessment Officer  
Nunavut Impact Review Board  
P.O. Box 2379  
Cambridge Bay, NT X0E 0C0

By Facsimile: (867) 983-2594

**Re: NIRB File No. 99EN048 - Meadowbank Gold Project - Cumberland Resources Ltd. -  
Water Licence Application for Exploration Trenching North of Baker Lake**

I have reviewed the above water licence application on behalf of the Environmental Protection Branch, Environment Canada (EPB) and offer the following comments:

Some of the potential effects associated with this type of operation include erosion, degradation of adjacent permafrost and resultant instability, contamination of surface runoff, exposure of potentially acid-generating materials, and fuel spills. Mitigation proposed by the company largely addresses the concerns listed above. Testing of the rock and soil samples indicated that acid generation should not be a problem. It is recommended that the licence include the following conditions:

- surface runoff management should be effected (such as the berming of trenches to prevent surface water from flowing in) to minimize water accumulation in the trenches and eventual discharge to the environment;
- • testing of water to be discharged from the trenches should be done (including for suspended solids, ammonia and metals), to ensure freshwater aquatic life is protected;
- • a minimum 30 m buffer zone should be established between trenches or stockpiles and the ordinary high water mark of the lake;
- fuel caches should be located a minimum of thirty (30) metres from the high water mark;
- a spill contingency plan should be filed, and supplies of appropriate clean-up materials maintained on site.
- any drilling wastes should be disposed of in a sump such that they do not enter any water body.

Please do not hesitate to contact me at (867) 669-4735 with any questions or comments regarding the foregoing.



Yours truly,

*M. A. Wilson*

Anne Wilson  
Water Pollution Specialist

cc: Steve Harbicht (Head, Assessment & Monitoring, EPB)  
Carey Ogilvie (Assessment Coordinator, EPB)

SENT BY:GNWT RES., WLDLF&amp;ECDV ; 7- 2-99 ; 4:16PM ; Wildlife Mgmt Div.→

8679832574;# 1/ 1

## COMMENT FORM FOR NIRB SCREENINGS

The Nunavut Impact Review Board has a mandate to protect the integrity of the ecosystem for the existing and future residents of Nunavut. In order to assess the environmental and socio-economic impacts of project proposals, NIRB would like to hear your concerns, comments and suggestions about the following project application:

Project Title: Meadowbank Gold Project  
 Proponent: Cumberland Resources Ltd.  
 Location: Meadowbank River - Baker Lake, NIRB#: 99EN040  
 Comments Due By: Friday July 2, 1999

## Indicate your concerns about the project proposal below:

- \* no concerns
- \* water quality
- \* terrain
- \* air quality
- \* wildlife and their habitat
- \* marine mammals and their habitat
- \* birds and their habitat
- \* fish and their habitat
- \* heritage resources in area

- \* traditional uses of land
- \* Inuit harvesting activities
- \* community involvement and consultation
- \* local development in the area
- \* tourism in the area
- \* human health issues
- \* Other: \_\_\_\_\_

## Please describe the concerns indicated above:

Trenching, although in a small area, can severely disrupt localised vegetation/soil, plus cause disturbance to calving + migrating caribou. When will this be done + how will equipment be used on the property? Helicopter support?

## Do you have any suggestions or recommendations for this application?

Consultation with Baker Lake seems minimal.

Do you support the project proposal? YES \* NO \*

Any additional comments?

Not enough details!

Name of person commenting: S. Osseburg of BQEMB



Northwest  
Territories Education, Culture and Employment

201 23

June 30, 1999

Peter Irniq, Deputy Minister  
Department of Culture, Language, Elders and Youth  
Government of Nunavut  
Bag 800  
Iqaluit NT X0A 0H0

Re: NIRB 99EN040  
Activity: Meadowbank Gold Project

Due Date: July 2, 1999

Dear Mr. Irniq:

At your request, the Prince of Wales Northern Heritage Centre has reviewed the above-noted application. Our recommendations follow.

We recommend approval of the above-cited application as the proponent's proposed activities do not constitute a threat to known archaeological resources.

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

Regards,

Charles D. Arnold, Director  
Culture, Heritage and Languages

Prince of Wales Northern Heritage Centre

c. Nunavut Impact Review Board  
PO Box 2379  
Cambridge Bay, NT X0E 0C0

## ARCHAEOLOGICAL RESOURCES: TERMS AND CONDITIONS BACKGROUND

- I. 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.

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.

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 Nunavut Land Claim Agreement.

- II. "Archaeological site" means a site or work within Nunavut of archaeological, ethnographical or historical importance, interest or significance or a place where an archaeological specimen is found, and includes explorers' cairns. "Archaeological specimen" means an object or specimen found in an archaeological site of archaeological, ethnological or historical importance, interest or significance and includes explorers' documents.

- III. Any new Terms and Conditions raising issues found in ss. 10 and 16 of the Territorial Land Use Regulations should duplicate statutory sections, or be stricter, but not more lenient in terms of protection of archaeological resources.

### IV.

1. The permittee shall not operate any vehicle over a known or suspected archaeological site.
2. The permittee shall not remove, disturb or displace any archaeological specimen or site.
3. The permittee shall contact the Department of Culture, Language, Elders and Youth, Iqaluit (867-979-4720) and DIAND official should an archaeological site or specimen be encountered or disturbed by any land use activity.
4. The permittee shall immediately cease any activity which disturbs an archaeological or historical 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.
5. The permittee shall follow the direction of the Department of Culture, Language, Elders and Youth and DIAND in restoring disturbed archaeological sites to an acceptable condition, and according to the respective jurisdictions and authorities.
6. The permittee shall provide information to the Department of Culture, Language, Elders and Youth about each archaeological site or specimen encountered by any land use activity, by completing the attached form.
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 specimens.