SCREENING PART 2 FORM
PROJECT SPECIFIC INFORMATION REQUIREMENTS (PSIR)

1. SUBMISSIONS

The Proponent must submit all information pertaining to the Project as a whole. The information requirements below are designed for the purpose of environmental assessment and are not limited to the scope of a single permit or license application.

IMPORTANT: Please be advised of the following:

1. NIRB does not accept references to an ftp site as a submission.

2. The Proponent must provide NIRB with 1 (one) electronic copy and 1 (one) hardcopy of the required information in English.

3. All maps should be legible, and should include grids, be of appropriate scale, indicate the scale, include latitude and longitude references, title, legend and a north arrow. To the extent possible, avoid hand-drawn demarcations; and,

4. Please complete all required information in each section below. If the required information is not applicable to the project proposal, please indicate this in the response with "n/a". If the request has been provided in a different section or report, please note the section or report where the response can be found.

2. GENERAL PROJECT INFORMATION REQUIREMENTS

Project Co-ordinates and Maps (MapInfo files accompany the application).

1. The preferred method for submitting project co-ordinates information is through the use of a Geographic Information System (GIS) compatible digital file. Although an ESRI ArcView 3.x shape file (in decimal degrees) is the preferred interchange format, the NIRB has the capacity to receive over 100 GIS and CAD related formats, including MapInfo and AutoCAD, provided proper format and projection metadata is also submitted. The NIRB requires co-ordinates for the project proposal which reflect the entire project area as defined by:

   - the area/sites of investigation;
     Property situated in: 26A/04-05, 26A/12, 26B/01-02, 26B/07-10, 26B/15-16, to be explored by geophysics and sampling in 2008 from a camp situated at 64° 14' 00" N. lat. - 66° 21' 00" W. long.
   - the boundaries of the foreseen land use permit/right-of-way area(s) to be applied for;

Prospecting Permit block co-ordinates: 64° 52' 30"N - 67° 00' 00"W; 64° 52' 30"N - 66° 00' 00"W; 64° 07' 30"N - 65° 30' 00"W; and 64° 00' 00"N - 66° 45' 00"W.

- the location of any proposed infrastructure or activity(s);
  Camp = 64° 14' 00" N. lat. - 66° 21' 00" W. long. Airborne geophysical survey will be flown across the property, whose co-ordinates are given above. Locations of ground surveying (grids) occurring after the airborne survey, as well as any followup heavy mineral sampling are not currently known, but will be reported as/when available.

- the boundaries of the mineral claim block(s) where proposed activities will be undertaken.
  (see above).

2. Map of the project site within a regional context indicating the distance to the closest communities.
   (see Map 1, attached with application).
3. Map of any camp site including locations of camp facilities.
   Photo 1 (attached with application) depicts proposed campsite; this site was used for initial prospecting and sampling and no facilities currently are in place. A map will be produced when the new camp is operational.

4. Map of the project site indicating existing and/or proposed infrastructure, proximity to water bodies and proximity to wildlife and wildlife habitat.
   Maps 1-3 (attached with application) depict the Prospecting Permit block and location of the proposed camp, airstrip and proposed fuel cache. Polar bear habitat exists along the coast (Map 4), with lessened probability as one proceeds inland. E-mail discussion was held with Elizabeth Peacock, Government of Nunavut polar biologist, and mapping consulted (unpublished study, with map data from 2005-2007). The Government of Nunavut Environment Department website, as well as a paper entitled "Project Caribou: An Educator's Guide to Wild Caribou of North America, Case Study – South Baffin Island Herd: Friends of the Inuit" (Mike Ferguson and Elise Maltin) was consulted for caribou information. In addition, based on Peregrine field observations to date, it is not anticipated that more than a few caribou might cross the camp or work areas and a lesser number of bears; however, Inuit Bear Monitors will be employed and airborne and ground surveying will be sensitive to any animal presence (including that of wolves and wolverine) in proposed work areas; such areas would be avoided until animals have moved on.

Project General Information

5. Discuss the need and purpose of the proposed project.
   As discussed in the Project Description (attached with application), the project activities – airborne and ground geophysics and surficial sediment sampling in 2008 and drilling in 2009, depending on 2008 results – are necessary in order to determine if the Prospecting Permit area holds economic potential. This activity occurs in planned stages over several years, as property areas such as Chidliak are remote, subject to harsh weather conditions, and experience a highly variable fieldwork window and short summers. Without this level of care and effort, new kimberlite

orebodies, which may host diamonds, will not be discovered, and potential economic resources for Nunavut and Canada will remain unproven.

Although less work could conceivably be conducted in a field season – e.g., decreasing the number of line kms flown in an airborne survey, this is not cost effective nor is it good value for shareholders. The objective in remote areas such as the Chidliak property is to do as much work as is feasible and within budget during the time that the field staff are on site, which is the wisest use of resources. Even more extreme, the company could opt to do no work at all. From a regulatory perspective, neither of these options is acceptable, as holding claims and Prospecting Permits under the Canada Mining Regulations requires that the proponent spend a certain amount per claim or Prospecting Permit, to further the national objective of exploration, or else the proponent loses that claim or Prospecting Permit.

In the case of the Chidliak property, areas of interest would be retained and converted to mineral claims (after the spending threshold has been reached) and the remainder of the ground would be released.

6. Discuss alternatives to the project and alternatives to project components, including the no-go alternative. Provide justification for the chosen option(s).
   See answer to Question #5 above.

7. Provide a schedule for all project activities.
   The following is a tentative schedule, which is subject to adjustment closer to the mobilisation date. Startup is set to occur after anticipated receipt of a water licence and two land-use permits (one from INAC, one from QIA):
   - <u>01 to 07 June 2008</u>: set up camp.
   - <u>08 June to 16 August 2008</u>: helicopter magnetic and electromagnetic (EM) surveying.
   - <u>17 August to 20 September 2008</u>: ground magnetics survey coincident with heavy mineral sampling (separate crews).
   - <u>21 to 25 September 2008</u>: demobilisation; secure empty camp for winter.

8. List the acts, regulations and guidelines that apply to project activities.
   Peregrine will obey all legislation which applies to Chidliak property, including but not limited to the Canada Mining Regulations, Nunavut Land Claims Agreement, Territorial Lands Act, Territorial Land Use Regulations, Nunavut Waters Act, Northwest Territories Waters Regulations, Fisheries Act, DFO Fish Screen Guidelines, Public Health Act and Camp Sanitation Regulations, Guidelines for Canadian Drinking Water Quality, Nunavut Wildlife Act, Nunavut Environmental Protection Act, Transportation of Dangerous Goods Act, Canadian Environmental Protection Act, Migratory Birds Convention Act and Regulations, Species at Risk Act, Nunavut Archaeological and Palaeontological Sites Regulations, etc.

9. List the approvals, permits and licenses required to conduct the project.
   An INAC Class A Land-Use Permit is being applied for. A 1-year Land Licence I is being applied for from the Qikiqtani Inuit Association (QIA). In addition, a Type B Water Licence also is being sought from the Nunavut Water Board.

Closer to the proposed programme startup date of early June 2008, an Extended Hours' Permit also will be sought from Nunavut Labour Standards.

DFO Operational Statement (OS) Conformity

10. Indicate whether any of the following Department of Fisheries and Oceans (DFO) Operational Statement (OS) activities apply to the project proposal:
    - Bridge Maintenance **N/A**
    - Clear Span Bridge **N/A**
    - Culvert Maintenance **N/A**
    - Ice Bridge **N/A**
    - Routine Maintenance Dredging **N/A**
    - Installation of Moorings **N/A**

    Please see DFO's OS for specific definitions of these activities available from either NIRB's ftp site at http://ftp.nunavut.ca/nirb/NIRB_ADMINISTRATION/ or DFO's web-site at http://www.dfo-mpo.gc.ca/canwaters-eauxcan/index_e.asp
11. If any of the DFO's OS apply to the project proposal, does the Proponent agree to meet the conditions and incorporate the measures to protect fish and fish habitat as outlined in the applicable OS? If yes, provide a signed statement of confirmation.

Transportation

12. Describe how the project site will be accessed and how supplies will be brought to site. Provide a map showing access route(s).

    Campsite and any work sites will be accessed by air: fixed-wing for supply flights and helicopter for conveying field crews for the ground survey and sampling programme to work sites. The geophysical airborne survey will be by helicopter only; the helicopter also will be used to move the ground geophysical crew to/from survey points. The helicopter will be based at camp, conveying personnel and equipment as required; there will be a fuel cache at camp. Fixed-wing ferry flights will be from Iqaluit, as required. (Maps 1-3 accompany the application and contain scale bars for calculating distances).

13. If a previous airstrip is being used, provide a description of the type of airstrip (ice-strip/all-weather), including its location. Describe dust management procedures and provide a map showing location of airstrip.

    A level, gravel area (see terrain, Photo 1) at the proposed campsite will be used. The camp co-ordinates are: 64° 14' 00" N. lat. - 66° 21' 00" W. long., in NTS 26B/01. A dust-suppression programme is not likely to be necessary, but would be instituted, if necessary, by means of pumping water from the nearby water source. Once the camp is installed, a map will be prepared, indicating its location and orientation, relative to the camp.

14. If an airstrip is being constructed, provide the following information:
    a. Discuss design considerations for permafrost **N/A**
    b. Discuss construction techniques **N/A**
    c. Describe the construction materials, type and sources, and the acid rock drainage (ARD) and metal leaching (ML) characteristics (if rock material is required for airstrip bed). **N/A**
    d. Describe dust management procedures. **N/A**
    e. Provide a map showing location of proposed airstrip. **N/A**

15. Describe expected flight altitudes, frequency of flights and anticipated flight routes.

    Flight altitudes would be on the order of 300m above ground level, with ferry flights occurring approx. twice per week. Routes would represent the shortest distance to camp from Iqaluit, depending on atmospheric conditions and at all times taking human safety into account. Airborne surveying must be accomplished at lower altitudes in order for instrumentation to record data, with height generally on the order of 125m-150m above ground level. Survey lines are flown systematically, from start to finish, not tarrying over any area but capturing data uniformly, at the set line spacing, until the survey is concluded.

Camp Site

16. Describe all existing and proposed camp structures and infrastructure
17. Describe the type of camp:
    a. Mobile
    b. Temporary
    c. Seasonal

    Tent camp will be set up for seasonal use (in 2008, this would be June to September).

    d. Permanent
    e. Other
18. Describe the maximum number of personnel expected on site, including the timing for those personnel.

    Maximum no. of personnel = 15, during the approx. 10 weeks of the airborne survey. Since activities are staged, personnel who complete their tasks (such as the airborne geophysical contractor) would leave site when their work is completed to make room for new crew arriving (such as the ground survey crew + the sediment-sampling crew). [Also refer to schedule in Question #7.]

Equipment

19. Provide a list of equipment required for the project and discuss the uses for the equipment.

    A <u>Twin Otter</u> will be used to mobe/demobe, ferry supplies/equipment and fuel into camp/empties on backhauls); <u>helicopter</u>, A-Star or 500D, (based at camp) will be used to conduct the airborne geophysical survey and to ferry the ground survey crew and sediment sampling crew, as well as drums/ empties and sample bags to/from camp); snowmobiles, spring only, for moving drums and supplies coming off the airplane; <u>diesel generator + backup</u> for camp power; diesel-powered <u>pumps</u> (for pumping water to camp kitchen and dry, and for backup/spill-plan inventory).

20. If possible, provide digital photos of equipment.

    Photo 2 depicts a typical sampling helicopter.

Water

21. Describe the location of water source(s), the water intake methods, and all methods employed to prevent fish entrapment. Provide a map showing the water intake locations.

    Flexible-hose water line will be used for conveying water from the proximal unnamed stream to camp. Suction hose lowered into waterbody will be

screened at intake to prevent entrainment of fish (as per DFO Fish Screen Guidelines). Water pumped for camp consumption will be stored in a poly tank in the dry, from whence it will be distributed to the kitchen and dry. As the camp has not been set up as yet, there is no map; however, the co-ordinates of the new camp are: 64° 14' 00" N. lat. - 66° 21' 00" W. long., in NTS 26B/01. (A photo of the campsite accompanies the application as Photo 1).

22. Describe the estimated rate of water consumption (m^3/day).
    Est. rate of 10m^3/day for camp consumption and 50m^3/day for drilling, based on a 5-year water licence. Consumption in 2008 would be less, e.g., on the order of 6m^3/day for camp use, although use of bottled water to supplement camp supply would decrease this amount by about 2m^3/day.

23. Describe how waste water will be managed. If relevant, provide detail regarding location of sumps, including capacity of sumps and monitoring.
    Waste water from camp uses will report to a sump, hand-dug or natural depression (typical dimensions are 1m x 1m x1.5m); sump contents will be treated with Javex, if required, to control odours which could attract wildlife. The sump pit will be covered in snow periods to prevent its being filled with snow. Soaps used will be biodegradable and phosphate-free. Kitchen waste will be incinerated at least daily. Where practical, cardboard boxes and packing will be recycled and office paper reused. No Styrofoam cups or dinnerware will be used. No food scraps or other refuse will be left at the worksite; what is packed in for a shift (e.g., by samplers) will be packed out, and ground crews will ensure each area is clean before moving on. Camp sump(s) and incinerator (or burn barrel) are checked daily by camp attendant as part of his/her rounds and regularly inspected by the site supervisor. A final aerial check by helicopter will ensure cleanup has been completed across remote areas prior to end of the season.

24. If applicable, discuss how surface water and underground water will be managed and monitored. **Underground = N/A**
    Surface water is generally discussed in Question #23 above. However, it should be added that when drilling does occur (e.g., in 2009 for this project) drillwater is recirculated up to 80%, with relict drillwater and cuttings reporting to suitable sump locations (natural depressions or outcrops), and monitored such that drainage is away from watercourses. Should a drilling mud be required, only environmentally-benign products are used.

Waste Water (Grey water, Sewage, Other)

25. Describe the quantities, treatment, storage, transportation, and disposal methods for the following (where relevant):
    - Sewage

      Pacto toilets (2) are waterless; sewage up to a volume of approx. 30L/day, depending on camp population, will be incinerated on site; if a pit privy is used, waste will be limed, then the pit covered at closure. Toilets are checked daily by camp attendants.
    - Camp grey water

      Approx. volume of 0.25m^3/person/day. Cooking grease is removed from the waste stream for incineration and does not enter the greywater sump. The

liquid component of greywater reporting to the sump will both evaporate and percolate through the gravelly soil; the sump contents will be treated with Javex, if required.

- Combustible solid waste
  Combustible kitchen waste on the order of at least one 121L garbage bin by volume will be incinerated daily at camp (or burned in a retrofitted burn barrel).
- Non-combustible solid waste
  Non-combustible solid waste which can't be reused or recycled will be collected and removed on backhauls for proper disposal (authorisation will be secured with the Iqaluit community landfill in advance).
- Bulky items/scrap metal
  It is conceivable that up to 2/3 of a Twin-load of such scrap (500kg) could be accumulated during a long programme and flown out for proper disposal, most likely at a contractor's storage yard (e.g., broken parts, spent drill rod, etc.) Timbers would be stored on site for future needs.
- Waste oil/hazardous waste
  A volume of 2 drums' worth of waste oil/fuel, filters, oily rags, etc., could be generated in the 2008 season; these drums would be labelled as to contents, sealed and removed on backhauls for proper disposal (authorisation will be secured with the community landfill or collection authority in advance).
- Contaminated soils/snow
  Volume of contaminated soils/snow would be difficult to estimate. However, contaminated soil is most easily treated on site by shovelling the soil (small volume) onto tarps, which volume can be turned, over several seasons, to aerate it; soil could then be tested for compliance with industrial-soils criteria, and when hydrocarbon concentrations have been reduced to background levels, the soil can be returned to its original use or other camp uses. Snow can be shovelled onto bermed tarps or liner material, so that it is secured away from possible drainage to a watercourse. It can then be bagged and incinerated on site or placed in drums as it is melting and flown off site for proper disposal with a suitable contractor.
- Empty barrels/ fuel drums
  Empty drums will be segregated from full drums, bungs tight, and flown out on backhauls, with a certain number reserved for use as refuge drums (containers for waste fuel, scrap, any spilt hydrocarbons, should such occur).
- Any other waste produced **N/A**

26. If the project proposal includes a landfill or landfarm, indicate the locations on a map, provide the conceptual design parameters, and discuss waste management and contact-water management procedures. **N/A**

Fuel

27. Describe the types of fuel, quantities (number of containers, type of containers and capacity of containers), method of storage and containment. Indicate the location on a map where fuel is to be stored, and method of transportation of fuel to project site.
    Fuel will be as follows: 200 drums of diesel, 300 drums of Jet-B, 8 drums of unleaded petrol (unleaded gasoline) and 25 cylinders of propane. Sizes are 205L/drum and 45kg/cylinder. A fuel-drum storage area will be established at the new campsite. Snow berms will be erected around the cache and, as

weather warms, peat bales will serve this same function. Fuel will be flown to camp via fixed-wing service and then positioned/rotated by helicopter. Propane will be securely stored upright, caged or chained. Drums will be segregated as to fuel, with empties separated from full drums. Drums will be inspected upon receipt and daily for bung and drum soundness during the programme. Drums hooked up to tents and shacks will be secured, with absorbent-lined drip containers placed under valves, or, in the case of drilling contractors (in 2009), moulded plastic drip-collection containers which over-fit the drum may be deployed. Spill kits and extra absorbents are kept at key fuel-use or transfer locations, i.e., at the fuel cache/helicopter area, and at the camp. MSDS sheets for products on site are available digitally on camp computers or in hard copy. An updated Spill Plan and Emergency Response Plan also are present for all staff, contractors.

28. Describe any secondary containment measures to be employed, including the type of material or system used. If no secondary containment is to be employed, please provide justification.

    Please see Question #27 above.

29. Describe the method of fuel transfer and the method of refuelling.

    Transfer by hand-wobble pump, grounded electric pump or diesel pump, with drip pans in place and absorbents on hand.

Chemicals and Hazardous Materials*

**included but not limited to oils, greases, drill mud, antifreeze, calcium or sodium chloride salt, lead acid batteries and cleaners*

30. Describe the types, quantities (number of containers, the type of container and capacity of containers), method of storage and containment. Indicate the location on a map where material is to be stored, and method of transportation of materials to project site.

    Items such as cleaners/degreasers, antifreeze and oils for camp use are kept in their original, labelled containers, which are generally 1L to 5L in size; up to about 140L of chemicals/hazardous substances could be required in a programme season. Drilling-related chemicals, muds and oils/greases (not required until 2009) will be stored in their original large tubs at drill-side, in the approx. volume of 200L. Lead-acid batteries in use would be in corrosive-resistant sleeves and storage of spares would be in similar boxes. Other chemicals are stored in their containers on layers of absorbents (if applicable), in sturdy drip trays or on liner material. Spill kits and extra absorbents are kept at key use/transfer locations, i.e., each drillshack, each fuel cache/helicopter area, and at the camp. MSDS sheets for products on site are available digitally on camp computers or in hard copy. An updated Spill Plan and Emergency Response Plan also are present for all staff, contractors. Materials are transported to site via fixed-wing service, thence to worksites by helicopter.

31. Describe any secondary containment measures to be employed, including the type of material or system used.

    Please see Question #30 above.

32. Describe the method of chemical transfer.

Thick material, such as drill-rod grease, is typically transferred by hand, with absorbents placed under the immediate work area. Liquid material, such as oil or fuel for the camp generator, or antifreeze for snowmobiles, is typically funnel-poured, with a drip pan and absorbents in place, as well as protective goggles. Volumes of liquids, such as drilling-mud stabiliser or glycol coolants for stationary drill motors with compressors, can also be pump-transferred; for this procedure, all typical spill-control measures would be employed, such as non-reactive catch trays or cloths, control of nearby ignition sources, etc.

Workforce and Human Resources/Socio-Economic Impacts

33. Discuss opportunities for training and employment of local Inuit beneficiaries.

Employment, accompanied by on-the-job training (as required), in addition to the environmental and safety training provided to all staff, will be provided for Inuit beneficiaries. Types of opportunities currently known are for camp attendant and environmental monitor/bear monitor, although other opportunities, such as geophysical assistant or field-sampling assistant, could be made available, depending on local interest. It is acknowledged that a number of projects, including mine development, are under way on Baffin Island, and that it will be necessary to recruit in advance of the season.

34. Discuss workforce mobilization and schedule, including the duration of work and rotation length, and the transportation of workers to site.

For workforce schedule, please see Question #7 above. The maximum length of a rotation by law is 6 weeks; however, such long rotations may not be suitable to those with families. A rotation of 2 or 3 weeks may be more suitable; however, this remains to be discussed with community residents during meetings. Transportation to/from the worksite, along with accommodation and food in camp, will be supplied by Peregrine.

35. Discuss, where relevant, any specific hiring policies for Inuit beneficiaries.

Peregrine supports the principles of the Prospectors' and Developers' Association's "E 3" or Excellence in Exploration initiative, and, as well, enforces an internal policy of hiring from the closest communities to the extent possible.

Public Involvement/ Traditional Knowledge

36. Indicate which communities, groups, or organizations would be affected by this project proposal.

The communities most likely to be affected by this project, or interested in participating in it, will be Iqaluit (85km) and Pangnirtung (133km). Community input will include that from CLARCs and hunter-trapper organisations (Amarok Hunters & Trappers Association in Iqaluit, Pangnirtung Hunters & Trappers Association in Pangnirtung). The Qikiqtani Inuit Association (QIA) will be involved in regard to access to Prospecting Permits (12) which intersect surface IOLs (4 Pangnirtung parcels). Local knowledge, where provided, will be used to inform/enhance the field programme and planning.

37. Describe any consultation with interested Parties which has occurred regarding the development of the project proposal.

    Consultation with interested parties in Iqaluit and Pangnirtung will be initiated in 2008 as soon as meetings can be set up, depending on availability of community groups.

38. Provide a summary of public involvement measures, a summary of concerns expressed, and strategies employed to address any concerns.

    The public will be involved through regular meetings, hiring of local persons and use of local services, such as expediting/supply, groceries, air services and hotel accommodation. Specific concerns expressed will be recorded in a consultation log and addressed with communities through followup meetings, and the resolution of concerns will be documented.

39. Describe how traditional knowledge was obtained, and how it has been integrated into the project.

    Local knowledge is always welcomed by Peregrine as it provides valuable guidance for field activities and can help the company plan for avoiding sensitive wildlife and heritage areas and lead to information about weather, areas of weak ice/good ice and best travel routes; this also is the case with the Chidliak property. Should the project advance, more formal traditional knowledge studies would be contracted with communities, to inform any future development planning.

40. Discuss future consultation plans.

    Please see Question #37 above. Peregrine looks forward to local participation in its Baffin Island exploration activities and looks forward to initiating consultation with its community neighbours.

3. PROJECT SPECIFIC INFORMATION

The following table identifies the project types identified in Section 3 of the NIRB, Part 1 Form. Please complete all relevant sections.

It is the proponent's responsibility to review all sections in addition to the required sections to ensure a complete application form.

Project Type	Type of Project Proposal	Information Request
1	All-Weather Road/Access Trail	Section A-1 and Section A-2
2	Winter Road/Winter Trail	Section A-1 and Section A-3
3	Mineral Exploration	Section B-1 through Section B-4
4	Advanced Mineral Exploration	Section B-1 through Section B-8
5	Mine Development/Bulk Sampling	Section B-1 through Section B-12
6	Pits and Quarries	Section C

7	Offshore Infrastructure(port, break water, dock)	Section D
8	Seismic Survey	Section E
9	Site Cleanup/Remediation	Section F
10	Oil and Natural Gas Exploration/Activities	Section B-3 and Section G
11	Marine Based Activities	Section H
12	Municipal and Industrial Development	Section I

SECTION A: <u>Roads/Trails</u> **N/A**

A-1 Project Information

1. Describe any field investigations and the results of field investigations used in selecting the proposed route (e.g. geotechnical, snow pack)
2. Provide a conceptual plan of the road, including example road cross-sections and water crossings.
3. Discuss the type and volume of traffic using the road/trail (i.e. type of vehicles and cargo and number of trips annually).
4. Discuss public access to the road.
5. Describe maintenance procedures.

A-2 All-Weather Road/Access Trail

6. Discuss road design considerations for permafrost.
7. Describe the construction materials (type and sources for materials), and the acid rock drainage (ARD) and metal leaching (ML) characteristics of the construction materials.
8. Discuss construction techniques, including timing for construction activities.
9. Indicate on a map the locations of designated refuelling areas, water crossings, culverts, and quarries/borrow sources.
10. Identify the proposed traffic speed and measures employed to ensure public safety.
11. Describe dust management procedures.

A-3 Winter Road/Trail

12. Describe the surface preparation, including the use of snow berms or compaction, and any flooding. If flooding is to be used, provide the location of the water source on a map.
13. Describe the operating time period.
14. Identify the proposed traffic speed and measures employed to ensure public safety.
15. Discuss whether the selected route traverses any fish-bearing water bodies.

SECTION B: <u>Mineral Exploration /Advanced Exploration /Development</u>

B-1 Project Information

1. Describe the type of mineral resource under exploration.
   Peregrine is primarily exploring for kimberlite, a host rock for diamonds.

B-2 Exploration Activity

2. Indicate the type of exploration activity:
   - Bulk Sampling (underground or other)

A potential future activity, not in 2008 and not likely in 2009.

- Stripping (mining shallow bedded mineral deposits in which the overlying material is stripped off, the mineral removed and the overburden replaced) **N/A**
- Trenching **N/A**
- Pitting **N/A**
- Delineation drilling **N/A**
- Preliminary Delineation drilling **N/A**
- Exploration drilling
  2009: 1-2 heli-portable diamond-drill core rigs will be deployed, if 2008 results warrant.
- Geophysical work (indicate ground and/or air)
  Helicopter airborne geophysics, followed by ground geophysics are planned in 2008.
- Other **N/A**

3. Describe the exploration activities associated with this project:
   - Satellite remote sensing **N/A**
   - Aircraft remote sensing **N/A**
   - Soil sampling **N/A**
   - Sediment sampling
     Surficial sediment sampling is possible in 2008 at selected locations in the Prospecting Permits; approx. 200 samples may be collected.
   - On land drilling (indicate drill type)
     May occur in 2009, depending on 2008 survey and sampling results. Drills such as Boart LF-70 and/or Boyles BBS25 which are both capable of producing HQ- and PQ-size core would be considered.
   - On ice drilling (indicate drill type) **N/A**
   - Water based drilling (indicate drill type) **N/A**
   - Overburden removal
     Minimal overburden would be removed and stockpiled, mainly associated with putting in the new camp and greywater sump.
   - Explosives transportation and storage **N/A**
   - Work within navigable waters **N/A**
   - On site sample processing **N/A**
   - Off site sample processing **N/A**
   - Waste rock storage **N/A**
   - Ore storage **N/A**
   - Tailings disposal **N/A**
   - Portal and underground ramp construction **N/A**
   - Landfilling **N/A**
   - Landfarming **N/A**
   - Other **N/A**

B-3 Geosciences

4. Indicate the geophysical operation type:
   a. Seismic (please complete Section E) **N/A**
   b. Magnetic
      Ground mag across selected areas of the property.
      Airborne mag across the property.
   c. Gravimetric **N/A**

d. Electromagnetic

Airborne mag + EM survey by helicopter *(also see "b." above).*

e. Other (specify)

5. Indicate the geological operation type: **N/A**
   a. Geological Mapping
   b. Aerial Photography
   c. Geotechnical Survey
   d. Ground Penetrating Survey
   e. Other (specify)
6. Indicate on a map the boundary subject to air and/or ground geophysical work.

   Ground and air survey boundaries have not yet been selected, but there would be systematic coverage across the property, which is approx. 75km E-W x 98km N-S; a 25000 line-km air survey is anticipated, with 100m line spacing. The size/ boundaries of the property are presented in Map 2 (accompanying application).
7. Provide flight altitudes and locations where flight altitudes will be below 610m.

   Flight altitude for the helicopter geophysical survey will be < 300m, but provision will be made for caribou right-of-way: Should numbers of animals (or a polar bear) be observed entering an area where survey is commencing or under way, other flight lines (away from the aggregation) will be flown so as to avoid overflying the animals. (Also see answer to Question #15 above).

B-4 Drilling

8. Provide the number of drill holes and depths (provide estimates and maximums where possible).

   Drilling is not anticipated until 2009, depending on 2008 results.

9. Discuss any drill additives to be used.

   In 2009: When drill additives are required, only environmentally-benign muds would be used. (As an example, Boart Longyear's list of potential drilling muds is included with the application as Appendix 2). A list of muds will be required of each contractor prior to any potential use in the field, and data on any additive use is required to be recorded on the drill log.

10. Describe method for dealing with drill cuttings.

    Cuttings (natural country rock) will report to suitably-sized depressions or outcrops on land, so that any flow is away from waterbodies.

11. Describe method for dealing with drill water.

    In 2009: Drillwater will be recycled in the drilling circuit up to about 80%; the remaining 20% will be pumped through a flex-hose sludge line to a predetermined sump.

12. Describe how drill equipment will be mobilized.

    In 2009: Drill equipment will be flown to site via fixed-wing, then heli-ported to drillsite locations.

13. Describe how drill holes will be abandoned.

    Peregrine ensures that each drillsite is properly cleaned up when the hole is closed, not simply when the project closes. Lake-based coreholes (should

any be drilled in future) will be closed with grout plugs; land-based holes are cemented and casings cut. Locations of drillholes are recorded as GPS co-ordinates for future reference.

14. If project proposal involves uranium exploration drilling, discuss the potential for radiation exposure and radiation protection measures. Please refer to the *Canadian Guidelines for Naturally Occurring Radioactive Materials* for more information. **N/A**

B-5 Stripping/ Trenching/ Pit Excavation **N/A**

15. Discuss methods employed. (i.e. mechanical, manual, hydraulic, blasting, other)
16. Describe expected dimensions of excavation(s) including depth(s).
17. Indicate the locations on a map.
18. Discuss the expected volume material to be removed.
19. Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results.

B-6 Underground Activities **N/A**

20. Describe underground access.
21. Describe underground workings and provide a conceptual plan.
22. Show location of underground workings on a map.
23. Describe ventilation system.
24. Describe the method for dealing with ground ice, groundwater and mine water when encountered.
25. Provide a Mine Rescue Plan.

B-7 Waste Rock Storage and Tailings Disposal **N/A**

26. Indicate on a map the location and conceptual design of waste rock storage piles and tailings disposal facility.
27. Discuss the anticipated volumes of waste rock and tailings.
28. Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results.

B-8 Stockpiles **N/A**

29. Indicate on a map the location and conceptual design of all stockpiles.
30. Describe the types of material to be stockpiled. (i.e. ore, overburden)
31. Describe the anticipated volumes of each type of material to be stockpiled.
32. Describe any containment measures for stockpiled materials as well as treatment measures for runoff from the stockpile.
33. Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results.

B-9 Mine Development Activities **N/A**

34. Indicate the type(s) of mine development activity(s):
    - Underground
    - Open Pit
    - Strip Mining
    - Other
35. Describe mine activities.
    - Mining development plan and methods

- Site access
- Site infrastructure (e.g. airstrip, accommodations, offshore infrastructures, mill facilities, fuel storage facilities, site service roads)
- Milling process
- Water source(s) for domestic and industrial uses, required volumes, distribution and management.
- Solid waste, wastewater and sewage management
- Water treatment systems
- Hazardous waste management
- Ore stockpile management
- Tailings containment and management
- Waste rock management
- Site surface water management
- Mine water management
- Pitting and quarrying activities (please complete Section C)
- Explosive use, supply and storage (including on site manufacturing if required)
- Power generation, fuel requirements and storage
- Continuing exploration
- Other

36. Describe the explosive type(s), hazard class, volumes, uses, location of storage (show on map), and method of storage.

B-10 Geology and Mineralogy **N/A**

37. Describe the physical nature of the ore body, including known dimensions and approximate shape.
38. Describe the geology/ mineralogy of the ore deposit
39. Describe the host rock in the general vicinity of the ore body.
40. Discuss the predicted rate of production.
41. Describe mine rock geochemical test programs which have been or will be performed on the ore, host rock, waste rock and tailings to determine acid generation and contaminant leaching potential. Outline methods and provide results if possible.

B-11 Mine **N/A**

42. Discuss the expected life of the mine.
43. Describe mine equipment to be used.
44. Does the project proposal involve lake and/or pit dewatering? If so, describe the activity as well as the construction of water retention facilities if necessary.
45. Discuss the possibility of operational changes occurring during the mine life with consideration for timing. (e.g. open pit to underground)
46. If project proposal involves uranium mining, consider the potential for radiation exposure and radiation protection measures. Particular attention should be paid to *The Nuclear Safety and Control Act*.

B-12 Mill **N/A**

47. If a mill will be operating on the property in conjunction with mining, indicate whether mine-water may be directed to the mill for reuse.
48. Describe the proposed capacity of the mill.
49. Describe the physical and chemical characteristics of mill waste as best as possible.
50. Will or does the mill handle custom lots of ore from other properties or mine sites?

SECTION C: Pits and Quarries **N/A**

1. Describe all activities included in this project.
   - Pitting
   - Quarrying
   - Overburden removal
   - Road use and/or construction (please complete Section A)
   - Explosives transportation and storage
   - Work within navigable waters
   - Blasting
   - Stockpiling
   - Crushing
   - Washing
   - Other
2. Describe any field investigations and the results of field investigations used in determining new extraction sites.
3. Identify any carving stone deposits.
4. Provide a conceptual design including footprint.
5. Describe the type and volume of material to be extracted.
6. Describe the depth of overburden.
7. Describe any existing and potential for thermokarst development and any thermokarst prevention measures.
8. Describe any existing or potential for flooding and any flood control measures.
9. Describe any existing or potential for erosion and any erosion control measures.
10. Describe any existing or potential for sedimentation and any sedimentation control measures.
11. Describe any existing or potential for slumping and any slump control measures.
12. Describe the moisture content of the ground.
13. Describe any evidence of ice lenses.
14. If blasting, describe methods employed.
15. Describe the explosive type(s), hazard class, volumes, uses, location of storage (show on map), and method of storage.
16. Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results.
17. Discuss safety measures for the workforce and the public.

SECTION D: Offshore Infrastructure **N/A**

D-1 Facility

1. Describe any field investigations and the results of field investigations used in selecting the site (i.e. aerial surveys, bathymetric surveys, tidal processes, shoreline erosion processes, geotechnical foundation conditions)
2. Provide a conceptual plan, profile description and drawing(s) indicating shoreline, facility footprint, tidal variations, required vessel draft, keel offset, deck height freeboard
3. Discuss how anticipated loads on the seabed foundation and on the offloading platform will be incorporated into the design.
4. Describe how vessels will manoeuvre around the facility. (e.g. pull alongside or in front)
5. Discuss the anticipated life of the facility.

D-2 Facility Construction

6. Describe the types of material used for construction (i.e. granular or rock, steel piling or sheet piling, concrete). If material is granular, consider acid rock drainage potential, metal leaching potential, percentage of fines, size.
7. Describe dredging activities.
8. Indicate source of granular or rock material used in construction.
9. List quantities of the various types of material used in construction.
10. Describe construction method(s).
11. Indicate whether a site engineer will be on-site to inspect construction.
12. If proposed construction method involves dumping of fill into water, discuss measures for mitigating the release of suspended solids.

D-3 Facility Operation

13. Describe maintenance activities associated with the facility (e.g. dredging, maintenance to account for potential settlement of facility,)
14. Discuss whether the public will have access to the facility(s) and describe public safety measures.
15. Describe cargo and container handling, transfer and storage facilities.
16. Indicate whether fuel will be transferred from barges at this site and describe the method of that fuel transfer.
17. Discuss frequency of use.

D-4 Vessel Use in Offshore Infrastructure

18. Please complete Section H

SECTION E: <u>Seismic Survey</u> **N/A**

E-1 Offshore Seismic Survey

1. Indicate whether the survey is 2D or 3D at each site
2. Describe the type of equipment used, including:
   - Type and number of vessels including length, beam, draft, motors, accommodation capacity, operational speeds when towing and when not towing
   - Sound source (type and number of airguns)
   - Type and number of hydrophones
   - Number, length, and spacing of cables/ streamers
3. On a map, indicate the grid, number of lines and total distance covered at each site.
4. Indicate the discharge volume of the airguns, the depth of airgun discharge, and the frequency and duration of airgun operation at each site.
5. Discuss the potential for dielectric oil to be released from the streamer array, and describe proposed mitigation measures.
6. Indicate whether additional seismic operations are required for start-up of operations, equipment testing, repeat coverage of areas.
7. Indicate whether air gun procedures will include a “ramping up” period and, if so, the proposed rate of ramping up.
8. Indicate whether the measures described in the *Statement of Canadian Practice for Mitigation of Noise in the Marine Environment* will be adhered to for this project.

E-2 Nearshore/ Onshore Seismic Survey

9. For each site, indicate whether nearshore and onshore surveys will be conducted during the ice season or once the ice has melted
10. Describe how nearshore and onshore areas will be accessed.
11. Describe the survey methods to be used (e.g. explosive charge, vibration, air or water gun, other)
12. Describe equipment to be used
13. If applicable, indicate number, depth and spacing of shot holes
14. Describe explosive wastes including characteristics, quantities, treatment, storage, handling, transportation and disposal methods.

E-3 Vessel Use in Seismic Survey

15. Please complete Section H

SECTION F: Site Cleanup/Remediation N/A

1. Describe the location, content, and condition of any existing landfills and dumps (indicate locations on a map).
2. Identify salvageable equipment, infrastructure and/or supplies.
3. Provide a list of all contaminants to be cleaned up, anticipated volumes and a map delineating contaminated areas. This includes buildings, equipment, scrap metal and debris, and barrels as well as soil, water (surface and groundwater) and sediment.
4. Describe the degree of pollution/contamination, and list the contaminants and toxicity.
5. Describe technologies used for clean-up and/or disposal of contaminated materials. Include a list of all the physical, chemical and biological cleanup/ remediation methods, operational procedures, and the dosage/frequency of reagents and bacterial medium.
6. Identify and describe all materials to be disposed of off site, including the proposed off site facilities, method of transport and containment measures.
7. Discuss the viability of landfarming, given site specific climate and geographic conditions.
8. Describe the explosive types, hazard classes, volumes, uses, location of storage (indicate on a map), and method of storage (if applicable).
9. If blasting, describe the methods employed.
10. Describe all methods of erosion control, dust suppression, and contouring and re-vegetation of lands.
11. Describe **all** activities included in this project.
    - Excavation (please complete Section B-5)
    - Road use and/or construction (please complete Section A)
    - Airstrip use and/or construction
    - Camp use and/or construction
    - Stockpiling of contaminated material
    - Pit and/or quarry (please complete Section C)
    - Work within navigable waters (please complete Section H)
    - Barrel crushing
    - Building Demolition
    - Other

SECTION G: Oil and Natural Gas Exploration/Activities N/A

G-1 Well Authorization

1. Identify the location(s) of the well centre(s) by latitude and longitude. Attach a map drawn to scale showing locations of existing and proposed wells.
2. Indicate if the site contains any known former well sites.
3. Include the following information for each well:
    a. Well name
    b. Surface location
    c. Proposed bottomhole location
    d. Ground elevation (in metres)
    e. Spacing area (in units)
    f. Identify the well type:
        i. Production
        ii. Injection
        iii. Disposal
        iv. Observation
        v. Storage
        vi. Experimental
        vii. Other (specify)
    g. Identify the well classification:
        i. Exploratory wildcat
        ii. Exploratory outpost
        iii. Development
    h. Drilling operation (deviation):
        i. Vertical
        ii. Directional
        iii. Horizontal
        iv. Slant
    i. Objective Zones (copy chart style below)

Objective Formation	Fluid (oil/gas/water)	Depth (mTVD)	Core (Y/N)

    j. Proposed Total Depth in mTDV and mMD.
    k. Formation of Total Depth
    l. Sour well? (yes or no)
        i. If Yes: Maximum H_2S concentration in mol/kmol
            Emergency planning zone radius in km
    m. Blowout Prevention (Well Class I – VI)
    n. Deviation Surveys
        i. Will be run at intervals less than 150m? (yes or no)
    o. Wireline logs
        i. Will run logs in hole for surface casing? (yes or no)
        ii. Will run a minimum of 2 porosity measuring logs? (yes or no)

G-2 On-Land Exploration

4. Indicate if the site contains any known:
    a. Waste Dumps
    b. Fuel and Chemical Storage Areas
    c. Sump Areas
    d. Waste Water Discharge Locations

5. Attach maps drawn to scale showing locations of existing and proposed items identified in (2) above, as well as all proposed:
    a. Sumps
    b. Water sources
    c. Fuel and chemical storage facilities
    d. Drilling mud storage areas
    e. Transportation routes
6. If utilizing *fresh water*, estimate maximum drawdown and recharge capability of the river or lake from which water will be drawn.
7. Indicate if permafrost is expected to be encountered under:
    a. Camp Facilities
    b. Well Site
    c. Access Routes
    d. Sumps
    e. Other: _____
8. Indicate any potential for encountering artesian aquifers or lost circulation within the surface hole (to casing depth).
9. Will drilling wastes contain detrimental substances (including, but not limited to, oil-based or invert mud and high salinity fluids)? If yes, indicate the substances and estimated volumes.
10. Indicate methods for disposal of drilling wastes:
    a. Sump
    b. Down Hole (requires NEB approval)
    c. On-Site Treatment (provide plan)
    d. Off-Site (give location and method of disposal)
11. If a sump is being used, attach the following information:
    a. scale drawings and design of sumps
    b. capacity in cubic metres
    c. berm erosion protection
    d. soil permeability and type
    e. recycling/reclaiming waters
    f. surface drainage controls
    g. abandonment procedures
12. Attach the proposed or existing contingency plan which describes the course of action, mitigative measures and equipment available for use in the event of system failures and spills of hazardous materials.
13. Attach an outline of planned abandonment and restoration procedures.

G-3 Off-Shore Exploration

14. Will drilling wastes contain detrimental substances (including, but not limited to, oil-based or invert mud and high salinity fluids)? If yes, indicate the substances and estimated volumes.
15. Attach the proposed or existing contingency plan which describes the course of action, mitigative measures and equipment available for use in the event of system failures and spills of hazardous materials.
16. Attach an outline of planned abandonment and restoration procedures.
17. Please complete Section H

G-4 Rig

18. Type of Rig. Draw works, make and model
19. Derrick/Mast make and model

20. H.P. available to draw-works

SECTION H: Marine Based Activities **N/A**

H-1 Vessel Use

1. Describe the purpose of vessel operations.
2. List classes and sizes of vessels to be used.
3. Indicate crew size.
4. Indicate operating schedule.
5. Provide a description of route to be traveled (include map).
6. Indicate whether the vessel will call at any ports. If so, where and why?
7. Describe wastes produced or carried onboard including the quantities, storage, treatment, handling and disposal methods for the following:
    a. Ballast water
    b. Bilge water
    c. Deck drainage
    d. Grey and black water
    e. Solid waste
    f. Waste oil
    g. Hazardous or toxic waste
8. List all applicable regulations concerning management of wastes and discharges of materials into the marine environment
9. Provide detailed Waste Management, Emergency Response and Spill Contingency Plans
10. Does the vessel(s) possess an Arctic Pollution Prevention Certificate? If yes, indicate the date of issue and the name of the classification society.
11. Describe the source of fresh water and potable water
12. Indicate whether ice-breaking will be required, and if so, approximately where and when? Discuss any possible impacts to caribou migration, Inuit harvesting or travel routes, and outline proposed mitigation measures.
13. Indicate whether the operation will be conducted within the Outer Land Fast Ice Zone of the East Baffin Coast. For more information on the Outer Land Fast Ice Zone, please see the Nunavut Land Claims Agreement (NLCA), Articles 1 and 16.
14. Indicate whether Fisheries or Environmental Observers will be onboard during the proposed project activities. If yes, describe their function and responsibilities.
15. Describe all proposed measures for reducing impacts to marine habitat and marine wildlife (including mammals, birds, reptiles, fish, and invertebrates).

H-2 Disposal at Sea

1. Provide confirmation you have applied for a *Disposal at Sea* permit with Environment Canada
2. Provide a justification for the disposal at sea
3. Describe the substance to be disposed of, including chemical and physical properties
4. Indicate the location where the disposal is to take place
5. Describe the frequency of disposals (disposals per day/week or month)
6. Describe the route to be followed during disposal and indicate on a map.
7. Indicate any previous disposal methods and locations

8. Provide an assessment of the potential effects of the disposal substance on living marine resources
9. Provide an assessment of the potential of the disposal substance, once disposed of at sea, to cause long-term physical effects.
10. Describe all mitigation measures to be employed to minimize the environmental, health, navigational and aesthetic impacts during loading, transport and disposal.

SECTION I: <u>Municipal and Industrial Development</u> **N/A**

1. Describe the business type, including public, private, limited, unlimited or other.
2. Describe the activity (e.g. development of quarry, development of hydroelectric facility, bulk fuel storage, power generation with nuclear fuels or hydro, tannery operations, meat processing and packing, etc.).
3. Describe the production process or service provision procedures.
4. Describe the raw materials used in this activity, the storage and transportation methods. If hazardous materials are included in raw materials, products or by-products; include safety regulations methodology.
5. Provide detailed information about the structure and/or building in which the activity will be conducted.
6. List the PPE (personal protective equipment) and tools to be used to protect personal health and safety.
7. Describe the firefighting equipment that are or will be installed.
8. Describe the noise sources, noise level in work area, technical measurements that will be adopted to abate the noise levels and regulatory requirements for noise abatement and noise levels.
9. Describe the type of gaseous emission that will be produced during this activity. Include the allowable thresholds and mitigation measures.
10. Describe odours that the activity might release and include corresponding allowable threshold. Describe mitigation measures if thresholds are exceeded.
11. Describe radiation sources that might be emitted during the activity. Include type and source and include mitigation measures. Also describe preventative measures for human exposure (i.e. PPE).
12. Discuss the employee safety and environment protection training program.
13. If the activity involves a bulk fuel storage facility, include drawings showing the bulk fuel storage facility location in proximity to natural water courses, high water marks, etc.
14. If the activity involves the development of a new quarry or expansion of an existing quarry, complete Section C.

4. DESCRIPTION OF THE EXISTING ENVIRONMENT

Describe the existing environment, including physical, biological and socioeconomic aspects. Where it is appropriate, identify local and regional study areas.

Please note that the detail provided in the description of the existing environment should be appropriate for the type of project proposal and its scope.

The following lists are intended as a guide only.

Physical Environment

Please note that a description of the physical environment is intended to cover all components of a project, including roads/trails, marine routes, etc

- Proximity to designated environmental areas, including parks; heritage sites; sensitive areas, including sensitive marine habitat areas (recreational areas; sport and commercial fishing areas; breeding, spawning and nursery areas; known migration routes of living ;marine resources; and areas of natural beauty, cultural or historical history and; other) and protected wildlife areas; and other protected areas.

  Chidliak property at its northernmost limit is located approx. 133km S of Pangnirtung, and 12 Prospecting Permits intersect portions of IOL surface parcels PA-22, PA-27, PA-28 and PA-29; Iqaluit is located approx. 85km SW of the southwest corner of the property. Territorial parks are not close by, but the closest are Sylvia Grinnell and Qaummaarviit territorial parks (at Iqaluit) and Katannilik territorial park (between Frobisher Bay and Kimmirut, 215km from the southwest corner of the property). Polar bear habitat (denning and summering) is at the northernmost (marine) edges of the property and will be treated with sensitivity (see Question #4, Pg. 2). South Baffin caribou may wander throughout their range in summer, without fidelity to specific routes, with some remaining close to their wintering areas in summer and others migrating hundreds of kms. Because distribution of the South Baffin population is complex and not easily defined, sensitivity will be exercised at all times, which may result in the need to alter a day's flight plans. Local Inuit knowledge and scientific knowledge (which also involves helicopter overflights) will help to inform field activities.

- Eskers and other unique landscapes (e.g. sand hills, marshes, wetlands, floodplains). **N/A**
- Evidence of ground, slope or rock instability, seismicity. **N/A**
- Evidence of thermokarsts **N/A**
- Evidence of ice lenses **N/A**
- Surface and bedrock geology.

  Much of the Chidliak property comprises upland surfaces and stepped plain or dissected upland surfaces. Glacial tills are found throughout the area, generally as thin veneers on bedrock. Ice flow directions in the area are dominated by the Hall Ice Divide, parallel to the length of the peninsula, with the primary ice flow direction parallel to the ice divide and then emanating to the north and south away from it.

  The majority of the property is believed to be underlain by Archaean and Proterozoic Ramsay River Orthogneisses. Inliers of strata correlated with the Paleoproterozoic Lake Harbour Group occur in north-south trending, discontinuously mapped belts on the property. The majority of the mapped Lake Harbour Group rocks on the property are metasediments; however, two small areas of Lake Harbour Group mafic igneous rocks and one area of Lake Harbour Group ultramafic rocks have been mapped on the property. Rocks

of the 1.86 to 1.85 Ga Cumberland Batholith occur along the western margin of the property.

- Topography.
  Please see Geology section above.
- Permafrost (e.g. stability, depth, thickness, continuity, taliks). **N/A**
- Sediment and soil quality. **N/A**
- Hydrology/ limnology (e.g. watershed boundaries, lakes, streams, sediment geochemistry, surface water flow, groundwater flow, flood zones). **N/A**
- Tidal processes and bathymetry in the project area. **N/A**
- Water quality and quantity.
  Water quality can be considered pristine. Large lakes are not numerous on the Chidliak property.
- Air quality.
  Air quality is undisturbed.
- Climate conditions and predicted future climate trends. **N/A**
- Noise levels.
  Noise from aircraft and the camp generator, and any other exploration activity, is confined to a short, seasonal period of exploration activity. There are no communities close enough to be affected by this short-term noise. If any Pangnirtung or Iqaluit hunters/ trappers camp in the Prospecting Permit area, their use will be respected, and exploration plans discussed with the local hunters/trappers associations.
- Other physical Valued Ecosystem Components (VEC) as determined through community consultation and/or literature review.
  A list of VECs has not yet been compiled. This would evolve in due course through community consultation.

Biological Environment

- Vegetation.
  Plant studies and habitat mapping would occur at a more advanced project stage.
- Wildlife, including habitat and migration patterns.
  Wildlife studies would occur at a more advanced project stage; information on wildlife habitat has been requested from the Government of Nunavut Wildlife Division, Environment Canada and the Canadian Wildlife Service (migratory bird habitat); some polar-bear habitat information has already been supplied by Nunavut government biologist, E. Peacock. Please see answer to the wildlife section of Physical Environment (Pg. 23) and answer to Question #4, Pg. 2. As consultation proceeds, information from local HTAs also will enrich and complement scientific data.

- Birds, including habitat and migration patterns.
  Avian studies and habitat mapping would occur at a more advanced project stage. However, existing data has been requested for the area from Nunavut personnel of Environment Canada and the Canadian Wildlife Service.

- Species of concern as identified by federal or territorial agencies, including any wildlife species listed under the *Species at Risk Act (SARA)*, its critical habitat or the residences of individuals of the species.

Polar bears hunt amid the ice floes of Cumberland Sound to the north of the Chidliak property, and den and summer on the shorelines. The polar bear (*ursus maritimus*) is listed by COSEWIC as a species of special concern; however, polar bears are not listed in Schedule 1 of SARA.

- Aquatic (freshwater and marine) species, including habitat and migration/spawning patterns.
  Species in regional rivers and lakes include Arctic char, lake trout and Arctic grayling, although it must be noted that many waterbodies on the property are shallow and freeze to the bottom in winter. Aquatic studies, including habitat characterisation, would occur at a more advanced project stage.

- Other biological Valued Ecosystem Components (VEC) as determined through community consultation and/or literature review.
  A list of VECs has not yet been compiled. This would evolve in due course through community consultation.

Socioeconomic Environment

- Proximity to communities.
  Please see Question #36 (Pg. 9) and the Physical Environment section response (Pg. 23).
- Archaeological and culturally significant sites (e.g. pingos, soap stone quarries) in the project and adjacent areas.
  A request has been made in writing to D. Stenton of the Archaeology Division, to receive locational information on archaeological and other significant sites which might occur within the mapsheets where with Prospecting Permits are located.
- Palaeontological component of surface and bedrock geology. **N/A**
- Land and resource use in the area, including subsistence harvesting, tourism, trapping and guiding operations.
  The Chidliak property is away from parks and thus is not a tourist destination. Hunting and trapping activities on the property have not been observed to date, but information will be sought during consultation meetings; community activities – including hunting/trapping and guiding – will not be impeded in any way by Peregrine personnel or contractors.
- Local and regional traffic patterns.
  Local and regional traffic across the property has not been observed and thus is currently unknown; as stated above, this will not be impeded in any way. Community use of the area is a subject for anticipated community consultations.
- Human Health, broadly defined as a complete state of wellbeing (including physical, social, psychological, and spiritual aspects).
  Socioeconomic data collection and studies with communities would be commissioned at a more advanced project stage.
- Other Valued Socioeconomic Components (VSEC) as determined through community consultation and/or literature review.
  A list of VECs has not yet been compiled. This would evolve in due course through community consultation.

5. IDENTIFICATION OF IMPACTS AND PROPOSED MITIGATION MEASURES

1. Please complete the attached Table 1 – Identification of Environmental Impacts, taking into consideration the components in Appendix A. Identify impacts in Table 1 as either positive (P), negative and mitigable (M), negative and non- mitigable (N), or unknown (U).
2. Discuss the impacts identified in the above table.
3. Discuss potential socioeconomic impacts, including human health.
4. Discuss potential for transboundary effects related to the project.
5. Identify any potentially adverse effects of the project proposal on species listed under the *Species at Risk Act (SARA)* and their critical habitats or residences, what measures will be taken to avoid or lessen those effects and how the effects will be monitored.
6. Discuss proposed measures to mitigate all identified negative impacts.

7. CUMULATIVE EFFECTS

Discuss how the effects of this project interact with the effects of relevant past, present and reasonably foreseeable projects in a regional context.

The closest known properties (held by other explorers) are 77km, 85km and 92km E, on Hall Peninsula, in the vicinity of Cornelius Grinnell Bay and Field Bay. Past exploration activity in the region of the Chidliak Project has been negligible. Effects of the Chidliak Project on the current distant though neighbouring properties, and future projects, can be expected to be minimal, owing to a limited number of explorers over a vast area, the seasonal nature of the activity and the commitment of all players to environmental sustainability.

8. SUPPORTING DOCUMENTS

Where relevant, provide the following supporting documents:

- Abandonment and Decommissioning Plan (**included with application)**
- Existing site photos with descriptions **(included with application)**
- Emergency Response Plan **(included with application)**
- Comprehensive Spill Prevention/Plan (must consider hazardous waste and fuel handling, storage, disposal, spill prevention measures, staff training and emergency contacts) **(included with application)**
- Waste Management Plan/Program
- Monitoring and Management Plans (e.g. water quality, air pollution, noise control and wildlife protection etc.)
- If project activities are located within Caribou Protection Areas or Schedule 1 Species at Risk known locations, please provide a Wildlife Mitigation and Monitoring Plan

In addition, for Project Type 9 (Site Cleanup/Remediation), please provide the following additional supporting documents:

- Remediation Plan including cleanup criteria and how the criteria were derived.
- Human Health Risk Assessment of the contaminants at the site.

THE NUNAVUT IMPACT REVIEW BOARD
SCREENING PART 2 FORMS

TABLE 1 - IDENTIFICATION OF ENVIRONMENTAL IMPACTS

	PROJECT ACTIVITIES	ENVIRONMENTAL COMPONENTS	PHYSICAL	designated environmental areas (ie. Parks, Wildlife Protected areas)	ground stability	permafrost	hydrology/ limnology	water quality	climate conditions	eskers and other unique or fragile landscapes	surface and bedrock geology	sediment and soil quality	tidal processes and bathymetry	air quality	noise levels	other VEC:	other VEC:	other VEC:	BIOLOGICAL	vegetation	wildlife, including habitat and migration patterns	birds, including habitat and migration patterns	aquatic species, incl. habitat and migration/spawnin	wildlife protected areas	other VEC:	other VEC:	other VEC:	SOCIO-ECONOMIC	archaeological and cultural historic sites	employment	community wellness	community infrastructure	human health	other VSEC
CONSTRUCTION																																	
OPERATION																																	
DECOMMISSIONING																																	

P *Positive*
N *Negative and non-mitigatable*
M *Negative and mitigatable*
U *Unknown*

MITIGATION FOR TABLE 1 IMPACTS:

Table 1is NOT fillable, so a simple set of charts for activities, components and impacts is produced below: Also refer to TEXT following the chart:

NOTE: There are NO transboundary effects.

PROJECT ACTIVITY: Set up camp.

Components which Might Sustain Impacts	Rating (P, N, M, U or Not Applicable (N/A)
Designated environmental areas.	**N/A** (property is not in a special area)
Ground stability.	**U** (no infrastructure requiring such testing)
Permafrost.	**U** (study in future as project advances)
Hydrology/limnology.	**U** (study in future as project advances)
Water quality.	**M** (mitigation measures have been described)
Climate conditions.	**U** (study in future as project advances)
Eskers + other unique or fragile landscapes	**M** (mitigation measures have been described)
Surface + bedrock geology	**N/A** (no harm from this activity)
Sediment + soil quality.	**M** (mitigation measures have been described)
Noise levels	**U** (study in future as project advances)
Vegetation.	**U** (study in future as project advances)
Wildlife, incl. habitat + migration patterns	**U** (study in future as project advances)
Birds, incl. habitat + migration patterns	**U** (study in future as project advances)
Aquatic species, incl. habitat + migration/spawning	**U** (study in future as project advances)
Wildlife protected areas.	**N/A** (property is not in a special area)
Archaeological + cultural historic sites	**M** (mitigation measures have been described)
Employment	**P**
Community wellness	**P** (providing services brings $ into community)
Community infrastructure	**N/A** (project is too small + not near community)
Human health	**N/A** (project is too small + not near community)

PROJECT ACTIVITY: Conduct field exploration programmes.

Components which Might Sustain Impacts	Rating (P, N, M, U or Not Applicable (N/A)
Designated environmental areas.	**N/A** (property is not in a special area)
Ground stability.	**U** (no infrastructure requiring such testing)
Permafrost.	**U** (study in future as project advances)
Hydrology/limnology.	**U** (study in future as project advances)
Water quality.	**M** (mitigation measures have been described)
Climate conditions.	**U** (study in future as project advances)
Eskers + other unique or fragile landscapes	**M** (mitigation measures have been described)
Surface + bedrock geology	**M** (minimal disruption mitigated after drilling)
Sediment + soil quality.	**M** (mitigation measures have been described)
Noise levels	**U** (study in future as project advances)
Vegetation.	**U** (study in future as project advances)
Wildlife, incl. habitat + migration patterns	**U** (study in future as project advances)
Birds, incl. habitat + migration patterns	**U** (study in future as project advances)
Aquatic species, incl. habitat + migration/spawning	**U** (study in future as project advances)
Wildlife protected areas.	**N/A** (property is not in a special area)
Archaeological + cultural historic sites	**M** (mitigation measures have been described)
Employment	**P**
Community wellness	**P** (providing services brings $ into community)
Community infrastructure	**N/A** (project is too small + not near community)

Human health	**N/A** (project is too small + not near community)

PROJECT ACTIVITY: Secure/close camp + demobe.

Components which Might Sustain Impacts	Rating (P, N, M, U or Not Applicable (N/A)
Designated environmental areas.	**N/A** (property is not in a special area)
Ground stability.	**U** (no infrastructure requiring such testing)
Permafrost.	**U** (study in future as project advances)
Hydrology/limnology.	**U** (study in future as project advances)
Water quality.	**M** (mitigation measures have been described)
Climate conditions.	**U** (study in future as project advances)
Eskers + other unique or fragile landscapes	**M** (mitigation measures have been described)
Surface + bedrock geology	**N/A** (no harm from this activity)
Sediment + soil quality.	**M** (mitigation measures have been described)
Noise levels	**U** (study in future as project advances)
Vegetation.	**U** (study in future as project advances)
Wildlife, incl. habitat + migration patterns	**U** (study in future as project advances)
Birds, incl. habitat + migration patterns	**U** (study in future as project advances)
Aquatic species, incl. habitat + migration/spawning	**U** (study in future as project advances)
Wildlife protected areas.	**N/A** (property is not in a special area)
Archaeological + cultural historic sites	**M** (mitigation measures have been described)
Employment	**P**
Community wellness	**P** (providing services brings $ into community)
Community infrastructure	**N/A** (project is too small + not near community)
Human health	**N/A** (project is too small + not near community)

There are a number of “unknowns” in the charts above, as Nanuq is still at the exploration stage and baseline environmental studies have not yet commenced. These areas – including wildlife, aquatics, hydrology/limnology and archaeological studies – will be addressed as the project advances, i.e., as mineral occurrences are found and evaluated and the project moves toward potential development. Socioeconomic data also will be collected as the project advances and studies, including traditional-knowledge studies, contracted with local communities.

Component areas for potential mitigation – water quality, sediment and soil quality, use of eskers, presence of archaeological/historic sites, as well as mitigation post-drilling (should drilling be conducted in future) – have been addressed elsewhere in this document and in the application’s Project Description. As the first objective of any exploration programme is prevention of harm, Peregrine trains contractors and staff in environmental awareness and in maintaining the conditions imposed through permits and licences. Should spills occur, procedures are clearly laid out in Peregrine’s Spill Contingency Plan and Emergency Response Plan and are noted in this document. Impact to water quality will be mitigated by initiating sampling of waterbodies near mineral occurrences (when occurrences are found) to determine background levels for future monitoring. Provision of spill kits, refuge drums and extra absorbents, as well as use of drip pans, also mitigate against impact to water. Environmentally benign drilling muds also reduce chances of impact to water. Similar mitigation measures are practised by Peregrine with respect to sediment and soil quality and use of eskers. Following both sediment sampling and drilling, pits/holes are closed and no debris left behind. Archaeological sites, where co-ordinates are known, can be protected through avoidance – hence, Peregrine’s commitment to acquiring site data from the

Archaeology Division of CLEY. An archaeology protocol also exists to guide field personnel, should a suspected archaeological or historic site be encountered.

Although the wildlife component has been indicated as “unknown impact” in the chart above, pending future wildlife studies, it must be stressed (as indicated elsewhere in this document and in the Project Description), that wildlife always have right-of-way on project sites and encounters are avoided to the extent possible. If caribou or bears are encountered during an airborne survey (viewed ahead whilst on a survey flight line), plans will be altered so as to avoid disturbance, then the area returned to later. Information from government biologists and local HTAs also will be used to inform surveys, to lower the potential incidence of encounters. Wildlife logs will be kept in camp to document any wildlife passage through the camp area or worksites.