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 or web sites 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 shapefiles, be legible, and should include grids, be of appropriate scale, indicate the scale, include latitude and longitude references, NTS Maps numbers, title, legend and a north arrow. To the extent possible, avoid hand-drawn demarcations and faxed maps; 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 Coordinates and Maps

1. The preferred method for submitting project coordinates 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 coordinates for the project proposal which reflect the entire project area as defined by:

   - Area/sites of investigation;
   - Boundaries of the foreseen land use permit/right-of-way area(s) to be applied for;
   - Location of any proposed infrastructure or activity(s); and,

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

2. Map of the project site within a regional context indicating the distance to the closest communities.
3. Map of any camp site including locations of camp facilities.
4. Map of the project site indicating existing and/or proposed infrastructure, proximity to water bodies and proximity to wildlife and wildlife habitat.

Project General Information

5. Discuss the need and purpose of the proposed project.

Agnico Eagle Mines Limited (AEM) signed an exploration agreement with the Nunavut Tunngavik Inc. in January 2013 for the Amaruq (IVR) property. This property is located approximately 50 km northwest of the Meadowbank mine and 125 km north of the Baker Lake community. The mineral exploration aims gold mineralization.

6. Discuss alternatives to the project and alternative methods of carrying out the project, including the no-go alternative. Provide justification for the chosen option(s).

This exploration project is important, because it could extend the Meadowbank mine life that is presently planned for 2017.

7. Provide a schedule for all project activities.

The installation of the exploration camp began last summer. The camp will be improved and extended in 2015 and the drilling will continue.

8. List the acts, regulations and guidelines that apply to project activities.

Fisheries Act
Nunavut waters and Nunavut surface rights tribunal act
Migratory Birds Convention Act and Migratory Birds Regulations
Species at Risk Act
Nunavut Wildlife Act
Nunavut Act Navigable Waters Protection Act

9. List the approvals, permits and licenses required to conduct the project.

Water Licence: 2BE-MEA1318
KVL312C03
N2013F0030

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 **No**
    - Clear Span Bridge **No**
    - Culvert Maintenance **No**
    - Ice Bridge **Yes**
    - Routine Maintenance Dredging **No**
    - Installation of Moorings **No**

    Please see DFO's OS for specific definitions of these activities available from DFO's web-site at http://www.dfo-mpo.gc.ca/regions/central/habitat/os-eo/index-eng.htm

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.

Yes

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).

The exploration project will be accessed by winter road and by air. The winter road is authorized by the permit N2013F0030 (AANDC). An amendment to the permit N2013F0030 was recently submitted to the AANDC to authorise the use of an alternative path for the winter road.

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 (if applicable) and provide a map showing location of airstrip.

A small airstrip could be constructed at the south side of the Amaruq exploration camp. This airstrip would be approximately 15 meters wide by 500 meters long.

14. If an airstrip is being constructed, provide the following information:
    a. Discuss design considerations for permafrost

The airstrip would be constructed with gravel material added on the tundra without digging. No impact on the permafrost is expected.

    b. Discuss construction techniques

The airstrip would be constructed using the esker material located near the planned location.

    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).

The material used would be tested for acid rock drainage and metal leaching to avoid environmental problems.

    d. Describe dust management procedures.

If dust becomes a problem, dust suppressant will be considered.

    e. Provide a map showing location of proposed airstrip.

See map attached.

15. Describe expected flight altitudes, frequency of flights and anticipated flight routes.
    Most of the flights will take place in the exploration area for the movement of the materiel, workers and drills and also for the transportation between Meadowbank and Amaruq.

Camp Site

16. Describe all existing and proposed camp structures and infrastructure

The actual camp structures consist mainly of tents joined together with plywood corridors. In 2015, trailers will be added to the camp to add room capacity.

17. Describe the type of camp:
    a. Mobile
    b. Temporary
    c. Seasonal
    d. Permanent
    e. Other

The actual camp is a seasonal camp, but with the addition of trailers, the construction of a garage and the installation of a waste water treatment plant, the camp could be considered permanent.

18. Describe the maximum number of personnel expected on site, including the timing for those personnel involved with the project.

For the 2015 season, we expect to have up to 60 people on the camp site.

Equipment

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

- 6 diamond drills
- 3 bulldozers D6 to move drills during the winter
- 6 pumps shack to supply the water for the drilling
- 4 helicopter to move the drills and to transport material between Meadowbank and the exploration area
- 1 plane to transport material and workers up to the exploration camp
- 1 backhoe to work on the camp area
- 8 snowmobiles to travel up to the drills and around the camp
- 2 ATV to travel and work around the camp
- 1 mini excavator to work on the camp area
- 1 dumper truck to transport gravel from the pits to the camp area
- 1 excavator to excavate in the gravel pits
- 2 tracked tractors to transport material and equipment during the winter

20. If possible, provide digital photos of equipment.

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.

The water for the camp use will be pumped from the lake in front of the camp. For the drilling, proximal lakes and ponds will be used.

22. Describe the estimated rate of water consumption (m^3/day).

A maximum of 299 m^3/day will be used.

23. Describe how waste water will be managed. If relevant, provide detail regarding location of sumps, including capacity of sumps and monitoring.

The waste coming from the toilets will be treated with a Bionest system and released to the environment. The grey water will be treated in the Bionest or disposed in a sump.

The treated water will be released to the environment. Monitoring of the water will be performed to assure compliance with the licence requirement.

The waste water from the drills will be disposed in a sump or in an appropriated natural depression to have a decantation of the suspended solids.

24. If applicable, discuss how surface water and underground water will be managed and monitored.

Waste Water (Grey water, Sewage, Other)

The grey water and water coming from sewage treatment that will be treated via the Bionest system will be sampled to assure the quality of the effluent.

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

Sewage: **The sewage will be sent in the Bionest treatment system. The liquid part will be treated in this system and the solid part (sludge) will settle in a septic tank. The sludge would be removed from the tank and disposed of in a pit located near the site, treated with lime and finally covered with at least 30 cm of compacted soil (as suggested in the "Northern land use Guidelines, Camp and Support Facilities", AANDC)**

- Camp grey water: **The grey water will be treated by a Bionest system or disposed of in a sump and released in the environment.**
- Combustible solid waste: **The majority of the combustible solid waste will be incinerated.**
- Non-combustible solid waste, including bulky items/scrap metal: **The scrap metal will be stored in containers and brought to a southern facility for recycling.**
- Hazardous waste or oil: **The hazardous waste will be securely packaged and transported by boat to an approved facility.**
- Contaminated soils/snow: **The contaminated soil and snow will be recuperated, packaged and transported to a treatment facility.**
- Empty barrels/ fuel drums: **The empty barrels will be reused or transported by boat to a recycling facility.**
- Any other waste produced

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.

No landfarm and landfill are planned for the moment.

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	Number of Containers and Capacity of Containers	Total Amount of Fuel (in Litres)	Proposed Storage Methods
Diesel		400 000 litres	In double-wall tanks
Gasoline	205 litres barrels	10 000 litres	Barrels will be stored in a berm.
Aviation fuel		250 000 litres	In double-wall tanks or in barrels stored in a berm
Propane	100 pounds tank	10 000 pounds	In container
Other			
Hazardous Materials and Chemicals		**Total Amount of Hazardous Materials and Chemicals (in Litres)**	
Oil		5000 litres	
Glycol		2000 litres	
Grease		2000 kg	

The fuel will be transported mainly on the winter road using tanks on skids. A part of the fuel could also be transported using helicopters.

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.

Most of the fuel will be stored in double-walled tanks The rest will be in drums stored in small berms constructed with HDPE liners.

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

The fuel is pumped from the tanks with a fuel pump and distributed in smaller tanks to power the equipment.

30. Describe spill control measures in place.

Prevention is the first control measure. The spill control measures are described in the spill management plan.

Please refer to Environment Canada's fuel storage tank system regulations (*Storage Tank System for Petroleum and Allied Petroleum Products*) website at http://www.ec.gc.ca/st-rs/ for details on fuel storage requirements.

Chemicals and Hazardous Materials*

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

31. 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.

The oils, glycol, grease, calcium, batteries and cleaners will be chiefly stored in containers. These materials will be mostly transported during the winter using the winter road.

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

Most of these products will be stored in containers.

33. Describe the method of chemical transfer.

The methods are described in the spill management plan.

34. Describe spill control measures in place.

Prevention is the first control measure. The spill control measures are described in the spill management plan.

Workforce and Human Resources/Socio-Economic Impacts

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

Based on the fact that the Meadowbank Mine is planned to be closed in 2017, the Amaruq exploration project could help the Meadowbank mine and its workers to extend their work at this site.

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

For the Amaruq exploration project, we plan to have up to 60 workers on site, probably on a 21-21 schedule. Material and workers are transported by plane up to the Meadowbank mine and by helicopter or small plane from the mine up to the exploration camp.

Public Involvement/ Traditional Knowledge

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

The nearest community is Baker Lake.

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

Consultations will occur as the exploration project advances.

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

No public consultation was conducted at this moment for the Amaruq exploration project.

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

Up to now, there have not been any consultation with the elders about the Amaruq exploration project. Archaeological field work was conducted to protect the Inuit Heritage and the reports were submitted to the Nunavut Government.

41. Discuss future consultation plans.

Consultation will occur as the exploration project advances.

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.

Table 1: Project Type and Information Required

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: Roads/Trails

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)

For the winter road starting at Meadowbank and going to Amaruq (LUP N2013F0030-AANDC), an archaeological investigation was conducted during the summer 2014 to assure the protection of the Inuit heritage.

For the small exploration roads required on the Amaruq project to access the exploration sites and the gravel pits, one part of the archaeological investigation was conducted in summer 2014 and the other part will be finalised in summer 2015.

These small roads would all be located on a commercial lease that will be requested from the Kivalliq Inuit Association.

2. Provide a conceptual plan of the road, including example road cross-sections and water crossings.

Please see the conceptual plan 2015-2016 for the location of the elements.

3. Discuss the type and volume of traffic using the road/trail (i.e. type of vehicles and cargo and number of trips annually).

For the winter road, there will be trips almost every day from February to May using Challenger type tracked tractors.

4. Discuss public access to the road.

For safety concerns, the public should not use the winter road.

5. Describe maintenance procedures.

The tracked tractors will use the authorised path, but will probably just pass on the snow. If required, the snow could be leveled to improve the quality of the travelling.

6. Describe whether any portion of the road will be located outside of the Nunavut Settlement Area and whether any other regulatory requirements must be met (e.g. CEAA)

The entirewinter road is located in Nunavut area.

A-2. All-Weather Road/Access Trail

7. Discuss road design considerations for permafrost.

The gravel roads will be limited to the commercial lease area. Roads going to the gravel pits and roads going to the exploration drilling sites will be required. These roads will be constructed by adding gravel on the tundra to avoid effects on the permafrost.

8. Describe the construction materials (type and sources for materials), and the acid rock drainage (ARD) and metal leaching characteristics of the construction materials.

2 gravel pit location are proposed. One is located on the south side of the exploration camp and the other on the east side. These materials will be tested for acid rock drainage and metal leaching.

9. Discuss construction techniques, including timing for construction activities.

These gravel roads will be used only for the transport of gravel up to the camp site or to give access to exploration sites so advanced engineering is not needed for these purposes. These roads would have a width of ±5 meters and the gravel thickness would be ± 0.40 meters.

10. Indicate on a map the locations of designated refuelling areas, water crossings, culverts, and quarries/borrow sources.

Please see the conceptual plan 2015-2016 for the location of the elements.

11. Identify the proposed traffic speed and measures employed to ensure public safety.

These gravel roads will not give access to existing roads, so only Amaruq project workers would use them. The speed limit will be established at 50 km/h.

12. Describe dust management procedures.

These small roads will not be used intensively, so problems with dust are not expected. If a problem occurs, dust suppressant could be used.

A-3. Winter Road/Trail

13. 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.
14. Describe the operating time period.

15. Identify the proposed traffic speed and measures employed to ensure public safety.

16. Discuss whether the selected route traverses any fish-bearing water bodies.

SECTION B: Mineral Exploration /Advanced Exploration /Development

B-1. Project Information

1. Describe the type of mineral resource under exploration.

Gold

B-2. Exploration Activity

2. Indicate the type of exploration activity:
   - Bulk Sampling (underground or other)
   - Stripping (mining shallow bedded mineral deposits in which the overlying material is stripped off, the mineral removed and the overburden replaced)
   - Trenching
   - Pitting
   - Delineation drilling
   - **Preliminary Delineation drilling**
   - **Exploration drilling**
   - **Geophysical work (indicate ground and/or air): ground and air**
   - Other
   -
3. Describe the exploration activities associated with this project:
   - Satellite remote sensing
   - **Aircraft remote sensing**
   - **Soil sampling**
   - Sediment sampling
   - **On land drilling (indicate drill type) , diamond drills Orbit 1500**
   - **On ice drilling (indicate drill type), diamond drills Orbit 1500**
   - Water based drilling (indicate drill type)
   - Overburden removal
   - Explosives transportation and storage
   - Work within navigable waters
   - **On site sample processing**
   - Off site sample processing
   - Waste rock storage
   - Ore storage
   - Tailings disposal
   - Portal and underground ramp construction
   - Landfilling
   - Landfarming
   - Other

B-3. Geosciences

4. Indicate the geophysical operation type:
    a. Seismic (please complete Section E)
    b. Magnetic
    c. Gravimetric
    d. Electromagnetic
    e. Other (specify)
5. Indicate the geological operation type:
    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. **The geophysical work will be limited to the area under exploration agreement with the NTI or under mining claims managed by AANDC.**
7. Provide flight altitudes and locations where flight altitudes will be below 610m. **The flight altitude will be below 610 m during short range flights and during drill moves.**

B-4. Drilling

8. Provide the number of drill holes and depths (provide estimates and maximums where possible). **Up to 6 drills could be in operation in 2015. Approximately 75 000 meters of core could be drilled.**
9. Discuss any drill additives to be used.
   Non-toxic additives are used for the drilling.

10. Describe method for dealing with drill cuttings.
    All drill waste is disposed of, including water and drill cutting, in a properly constructed sump or an appropriate natural depression located at a distance of at least thirty one (31) metres from the ordinary High Water Mark of any adjacent water body, where direct flow into a water body is not possible and no additional impacts are created.

11. Describe method for dealing with drill water. **See above description.**
12. Describe how drill equipment will be mobilized. **The drills will be mobilized using a D6 tractor during the winter and by helicopter during the summer period.**
13. Describe how drill holes will be abandoned. **When the drilling is done, the casing is removed. If it can't be removed, it is cut at the ground level. The cleaning is done and a final inspection assures that no waste is left on the drilling site.**
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.
    NA

B-5. Stripping/ Trenching/ Pit Excavation

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 potential and results.

B-6. Underground Activities

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

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

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

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

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

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

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

1. Describe all activities included in this project.

- **Pitting**
  2 gravel pits are planned to be opened and used near of the exploration site.
- Quarrying
- **Overburden removal**
  The overburden removed for the pit activities will be stockpiled near the pits for rehabilitation at the end of the pitting.
- 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.
   Gravel samples have been taken and are presently being analysed to determine the quality of the material.
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

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.
6. Describe whether part of the facility or project will be located outside of the Nunavut Settlement Area and whether any other regulatory requirements must be met (e.g. CEAA).

D-2. Facility Construction

7. 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.
8. Describe dredging activities.
9. Indicate source of granular or rock material used in construction.
10. List quantities of the various types of material used in construction.
11. Describe construction method(s).
12. Indicate whether a site engineer will be on-site to inspect construction.
13. If proposed construction method involves dumping of fill into water, discuss measures for mitigating the release of suspended solids.

D-3. Facility Operation

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

D-4. Vessel Use in Offshore Infrastructure

19. Please complete Section H

SECTION E: Seismic Survey

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 by each line, the distance to nearby community/communities and sensitive areas (e.g., National Parks, National Wildlife Areas, Migratory Bird Sanctuaries, recognized breeding grounds or migratory routes).

4. Indicate the discharge volume of the airguns, the depth of airgun discharge, the noise levels of acoustic signal at various distances from the source (e.g.,500 metres,1000 metres), 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.
9. Describe whether any part of the project will be located outside of the Nunavut Settlement Area and whether any other regulatory requirements must be met (e.g. CEAA).

E-2. Nearshore/Onshore Seismic Survey

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

E-3. Vessel Use in Seismic Survey

16. Please complete Section H.

SECTION F: Site Cleanup/Remediation

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

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

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 or any other *Qualified Marine Observer* 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).
16. Describe whether any part of the project will be located outside of the Nunavut Settlement Area and whether any other regulatory requirements must be met (e.g. CEAA).

H-2. Disposal at Sea

17. Provide confirmation you have applied for a *Disposal at Sea* permit with Environment Canada.
18. Provide a justification for the disposal at sea.
19. Describe the substance to be disposed of, including chemical and physical properties.
20. Indicate the location where the disposal is to take place.
21. Describe the frequency of disposals (disposals per day/week or month).
22. Describe the route to be followed during disposal and indicate on a map.
23. Indicate any previous disposal methods and locations.
24. Provide an assessment of the potential effects of the disposal substance on living marine resources.
25. Provide an assessment of the potential of the disposal substance, once disposed of at sea, to cause long-term physical effects.
26. Describe all mitigation measures to be employed to minimize the environmental, health, navigational and aesthetic impacts during loading, transport and disposal.

SECTION I: Municipal and Industrial Development

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 appropriate, identify local study areas (LSA) and regional study areas (RSA).

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 is 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. that are in existence at present time.

- Proximity to protected areas, including:
  i. designated environmental areas, including parks;
  ii. heritage sites;
  iii. sensitive areas, including all sensitive marine habitat areas;
  iv. recreational areas;
  v. sport and commercial fishing areas;
  vi. breeding, spawning and nursery areas;
  vii. known migration routes of terrestrial and marine species;
  viii. marine resources;
  ix. areas of natural beauty, cultural or historical history;
  x. protected wildlife areas; and
  xi. other protected areas.
- Eskers and other unique landscapes (e.g. sand hills, marshes, wetlands, floodplains).
- Evidence of ground, slope or rock instability, seismicity.
- Evidence of thermokarsts.
- Evidence of ice lenses.
- Surface and bedrock geology.
- Topography.
- Permafrost (e.g. stability, depth, thickness, continuity, taliks).
- Sediment and soil quality.

- Hydrology/ limnology (e.g. watershed boundaries, lakes, streams, sediment geochemistry, surface water flow, groundwater flow, flood zones).
- Tidal processes and bathymetry in the project area (if applicable).
- Water quality and quantity.
- Air quality.
- Climate conditions and predicted future climate trends.
- Noise levels.
- Other physical Valued Ecosystem Components (VEC) as determined through community consultation and/or literature review.

Biological Environment

- Vegetation (terrestrial as well as freshwater and marine where applicable).
- Wildlife, including habitat and migration patterns.
- Birds, including habitat and migration patterns.
- 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.
- Aquatic (freshwater and marine) species, including habitat and migration/spawning patterns.
- Other biological Valued Ecosystem Components (VEC) as determined through community consultation and/or literature review.

Socioeconomic Environment

- Proximity to communities.
- Archaeological and culturally significant sites (e.g. pingos, soap stone quarries) in the project (Local Study Area) and adjacent area (Regional Study Area).
- Palaeontological component of surface and bedrock geology.
- Land and resource use in the area, including subsistence harvesting, tourism, trapping and guiding operations.
- Local and regional traffic patterns.
- Human Health, broadly defined as a complete state of wellbeing (including physical, social, psychological, and spiritual aspects).
- Other Valued Socioeconomic Components (VSEC) as determined through community consultation and/or literature review.

5. IDENTIFICATION OF IMPACTS AND PROPOSED MITIGATION MEASURES

1. Please complete the attached Table 1 – Identification of Environmental Impacts, taking into consideration the components/activities and project phase(s) identified in Section 4 of this document. 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.

6. CUMULATIVE EFFECTS

A cumulative impact (or effect) can be defined as the impact on the environment that results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions. Cumulative impacts can also result from individually minor but collectively significant actions taking place over a period of time.

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

7. SUPPORTING DOCUMENTS

Where relevant, provide the following supporting documents:

- Abandonment and Decommissioning Plan
- Existing site photos with descriptions
- Emergency Response Plan
- Comprehensive Spill Prevention/Plan (must consider hazardous waste and fuel handling, storage, disposal, spill prevention measures, staff training and emergency contacts)
- 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.

Nunavut Kanogilivalianikot Elittohaiyeoplotik Katimayiit

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/spawning	wildlife protected areas	other VEC:	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																																		

Note: Please indicate in the matrix cell whether the interaction causes an impact and whether the impact is

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

If no impact is expected please leave the cell blank