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NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYINGI  
OFFICE DES EAUX DU NUNAVUT

## EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: Stornoway Diamond Company Licence No: \_\_\_\_\_  
(For NWB Use Only)

### ADMINISTRATIVE INFORMATION

1. Land Manager: Nicole Westcott Tel : 604-983-7750 Fax: 604-987-7107  
Email: nwestcott@stornowaydiamonds.com
2. Project Manager: Robin Hopkins Tel: 604-983-7750 Fax: 604-987-7107 E-mail: N/A
3. Does the applicant hold the necessary property rights?  
  
Yes.
4. Is the applicant an 'operator' for another company (i.e., the holder of the property rights)? If so, please provide letter of authorization.  
  
No.
5. Duration of the Project  
  
☐ One year or less      Start and completion dates: \_\_\_\_\_  
☒ Multi Year:

If Multi- Year indicate proposed schedule of on site activities

Start: October 1, 2008 (expiry of current license) Completion: September 30, 2013 (ongoing)

### CAMP CLASSIFICATION

6. Type of Camp  
  
☐ Mobile (self-propelled)  
☐ Temporary  
☒ Seasonally Occupied: \_\_\_\_\_  
☐ Permanent  
☐ Other: \_\_\_\_\_

7. What is the design, maximum and expected average population of the camp?

**Camp facilities able to support a population of 40 personnel exist/operate under the current land and water use permits.**

**Personnel will vary in number and job description depending upon the phase of the program with camp facilities having a maximum population of 40. At maximum occupancy personnel requirements would typically consist of up to 26 geological personnel, 5 drillers, 3 helicopter pilots, 1 helicopter engineer, and 5 camp support staff.**

8. Provide history of the site if it has been used in the past.

**The current camp location has been utilized since 2005.**

## **CAMP LOCATION**

9. Please describe proposed camp location in relation to biogeographical and geomorphological features, and water bodies.

**The site is located on 1000m x 250m till plain. Vegetation is sparse and consists of isolated patches of grass and moss. The lake that serves as the camp's domestic water source is located to the west of the camp facilities.**

10. How was the location of the camp selected? Was the site previously used? Was assistance from the Regional Inuit Association Land Manager sought? Include maps and/or aerial photographs.

**The camp location was chosen on the basis of its central position in relation to the exploration area, the proximity of a suitable domestic water source, and for the fact that it is not intersecting a major wildlife migratory path.**

11. Is the camp or any aspect of the project located on:

- |                                     |                     |   |
|-------------------------------------|---------------------|---|
| <input checked="" type="checkbox"/> | Crown Lands         | Permit Number (s)/Expiry Date: <u>N2007C0003/April 15, 2009</u> |
| <input type="checkbox"/>            | Commissioners Lands | Permit Number (s)/Expiry Date: <u>N/A</u>                       |
| <input checked="" type="checkbox"/> | Inuit Owned Lands   | Permit Number (s)/Expiry Date: <u>Q07L3C02/May 24, 2009</u>     |

**Nunavut Impact Review Board Screening 07EN024, dated April 4, 2007**

12. Closest Communities (direction and distance in km):

**From Camp Location to :  
Igloolik – 60 km  
Hall Beach – 110 km**

13. Has the proponent notified and consulted the nearby communities and potentially interested parties about the proposed work?

Community consultation has been conducted on an ongoing basis throughout this project and will continue for its duration. Stornoway's logistics team continues to be based out of Igloolik (from May to September) and these individuals consult regularly with hamlet officials and residents on an informal basis, providing them with ongoing information regarding camp operations and exploration activities.

Stornoway issues quarterly updates to the hamlet officials and the Hunters' and Trappers' Associations of both Igloolik and Hall Beach, with the intent of insuring that the community and its residents have access to consistent and current information regarding the company and its exploration activities.

14. Will the project have impacts on traditional water use areas used by the nearby communities?  
Will the project have impacts on local fish and wildlife habitats?

**No impact on traditional water use areas or local fish and wildlife habitats is anticipated.**

**As per the terms and conditions of NIRB Screening 07EN0024 a Wildlife Mitigation and Monitoring Plan has been created and is in effect for the Aviat Project.**

#### **PURPOSE OF THE CAMP**

15. ☒ Mining (includes exploration drilling)  
☐ Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.)  
(Omit questions # 16 to 21)  
☐ Other \_\_\_\_\_

16. Activities (check all applicable)

- ☐ Preliminary site visit  
☒ Prospecting  
☒ Geological mapping  
☒ Geophysical survey  
☒ Diamond drilling  
☐ Reverse circulation drilling  
☐ Evaluation Drilling/Bulk Sampling (also complete separate questionnaire)  
☒ Other: **Trenching and Minor Surface Blasting**

17. Type of deposit (exploration focus):

- ☐ Lead Zinc  
☒ Diamond  
☐ Gold  
☐ Uranium  
☐ Other: \_\_\_\_\_

## DRILLING INFORMATION

### 18. Drilling Activities

- ☒ Land Based drilling
- ☒ Drilling on ice

### 19. Describe what will be done with drill cuttings?

**All land based drill cuttings are pumped to a sump which is either a natural depression or a dyke that is temporarily deployed , both of which trap the cuttings and allow the water to drain naturally.**

### 20. Describe what will be done with drill water?

**Drill water will be re-circulated, but some may be lost in the rock face. The drill will be accompanied by a "Poly Drill" or similar filtration system to treat return water where applicable.**

### 21. List the brand names and constituents of the drill additives to be used? Includes MSDS sheets and provide confirmation that the additives are non-toxic and biodegradable.

**Polydrill 550 and if required, calcium chloride will be used. All drilling additives to be used are non-toxic, and biodegradable, and will be stored in a shack at the camp location that had been constructed for this purpose. The plywood flooring will be lined with plastic and the plastic liner then topped with enviromats to absorb any potential spillage.**

### 22. Will any core testing be done on site? Describe.

N/A

## SPILL CONTINGENCY PLANNING

### 23. The proponent is required to have a site specific Spill Contingency Plan prepared and submitted with the application This Plan should be prepared in accordance with the *NWT Environmental Protection Act, Spill Contingency Planning and Reporting Regulations, July 22, 1998* and *A Guide to the Spill Contingency Planning and Reporting Regulations, June 2002*. Please include for review.

**Please see the attached Spill Contingency Plan for the Aviat Project.**

### 24. How many spill kits will be on site and where will they be located?

**One large spill kit is located at generator shack and one large spill kit is located outside of the spare survival shack in the outdoor storage area. Four small spill kits**

are kept inside the television/storage tent, and another small spill kit is located at the middle helicopter landing site/fuel cache.

In addition, at least one empty fuel drum will be located at each fuel cache in the event of damaged or leaking drums. Extra absorbent pads will be kept with the helicopter, drill and any area where re-fuelling, transferring and/or handling is done.

25. Please describe the types, quantities, and method of storage of fuel and chemicals on site, and provide MSDS sheets.

Please see the attached Spill Contingency Plan for full details of the types, quantities, and method of storage for fuels and chemicals at both the camp facility and the drill shack. MSDS for all fuel to be used form Appendix III of the Spill Contingency Plan for the Aviat Project.

## WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

The camp/domestic water source is located at the following coordinates :  
69° 26' 9.24, -83° 14' 27.96"

Water for drilling activities will be drawn from lakes or ponds proximal to the drill sites.

27. Estimated water use (in cubic metres/day):

- ☒ Domestic Use: 10 cubic metres/day Water Source: Lake Location 69° 26' 9.24, -83° 14' 27.96"  
☒ Drilling: 50 cubic metres/day Water Source: Lakes/Ponds Proximal to Drill Site Locations  
☐ Other: \_\_\_\_\_ Water Source: \_\_\_\_\_

28. Describe water intake for camp operations? Is the water intake equipped with a mesh screen to prevent entrapment of fish? (see DFO 1995, *Freshwater Intake End-of-Pipe Fish Screen Guideline*) Describe:

A submersible pump with filtered intake to prevent the entrapment of fish will be used for both the domestic and drilling water supply. DLJ100, 1 inch, water meters will be used to measure the quantity of water utilized for domestic purposes.

29. Will drinking water quality be monitored? What parameters will be analyzed and at what frequency?

Drinking water will not be monitored.

30. Will drinking water be treated? How?

**Not applicable.**

31. Will water be stored on site?

**Yes, water for domestic purposes will be stored at the camp location (approx. 150-gallon tanks).**

## **WASTE TREATMENT AND DISPOSAL**

32. Describe the characteristics, quantities, treatment and disposal methods for:

☒ Camp Sewage (blackwater)

**All camp sewage is collected using a bag and bucket method and backhauled to Igloolik for disposal in the sewage lagoon (authorization has been obtained from hamlet officials).**

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☒ Camp Greywater –

**Drainage from the kitchen tent and the dry tent passes through a milk crate filled with gravel to trap and contain any solid debris while allowing the waste water to flow directly into the sump, and the traps are cleared daily.**

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☐ Solid Waste

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☐ Bulky Items/Scrap Metal

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☒ Waste Oil/Hazardous Waste –

**Minimal amounts of waste oil are backhauled to Igloolik for proper disposal.**

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☒ Empty Barrels/Fuel Drums

**Fuel drums will be returned to a local agent or transported south for proper treatment.**

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☐ Other:

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33. Please describe incineration system if used on site. What types of wastes will be incinerated?

**No incinerator will be on site.**

34. Where and how will non-combustible waste be disposed of? If in a municipality in Nunavut, has authorization been granted?

**All domestic waste (both combustible and non-combustible) will be backhauled to Igloolik on a regular basis for disposal in the hamlet landfill. Authorization from the appropriate authorities has been obtained.**

35. Describe location (relative to water bodies and camp facilities) dimensions and volume, and freeboard for all sumps (if applicable).

**Sumps for drill cuttings will be located at least 30 metres from any high water mark.**

36. Will leachate monitoring be done? What parameters will be sampled and analyzed, and at what frequency?

**No leachate is anticipated. Monitoring not applicable.**

#### **OPERATION AND MAINTENANCE**

37. Have the water supply and waste treatment and disposal methods been used and proven in cold climate? What known O&M problems may occur? What contingency plans are in place?

**The water supply and waste disposal methods described in this application are typical of remote exploration camps in this climate.**

#### **ABANDONMENT AND RESTORATION**

38. Provide a detailed description of progressive and final abandonment and restoration activities at the site.

**All drill sites will be restored as closely as possible to prior conditions. Absorbent pads/mats will be used during fuel transfer, and situated under the drill rig at strategic sites. Any on ice drill cuttings will be scraped clean and removed to an on-land location.**

**Diamond drilling cuttings which are fine inert silt are the only by product of drilling. Cutting additives, if used, will be biodegradable to minimize their environmental impact. The drill will be accompanied by a "Poly Drill" or similar filtration system to treat return water where applicable. The drill rig is helicopter moved and supported, thus there will be no clearing or leveling of drill sites, and minimal on site fuel. Upon completion of all drill holes, casings are removed or cut-off at ground level and all materials are removed from the drill site.**

**If required, a light, helicopter portable mechanical trenching device (likely a Kubota, or a vehicle similar in type, size and ability) may be used to assist in the hand stripping**

excavation of areas with thin till cover. All overburden will be stockpiled and once exploration of the area is completed will be replaced. There is little to no vegetation in the areas where this activity may be conducted, however the ground will be scarified to promote natural re-vegetation.

If explosives are used all effected areas will be recontoured upon completion to avoid any adverse effects to wildlife or humans.

All scrap material and equipment will be returned to Igloolik for proper disposal. Fuel drums will be returned to a local agent or transported south for proper treatment.

Please see attached Abandonment and Restoration Plan for the Aviat Project for more detailed information.

## **BASELINE DATA**

39. Has or will any baseline information be collected as part of this project? Provide bibliography.

- ☐ Physical Environment (Landscape and Terrain, Air, Water, etc.)
- ☐ Biological Environment (Vegetation, Wildlife, Birds, Fish and Other Aquatic Organisms, etc.)
- ☐ Socio-Economic Environment (Archaeology, Land and Resources Use,
- ☐ Demographics, Social and Culture Patterns, etc.)
- ☐ Other: \_\_\_\_\_

## **REGULATORY INFORMATION**

40. At a minimum, you should ensure you have a copy of and consult the documents below for compliance with existing regulatory requirements:

- ✓ ARTICLE 13 – *NCLA -Nunavut Land Claims Agreement*
- ✓ NWNSTRA – *The Nunavut Waters and Nunavut Surface Rights Tribunal Act, 2002*
- ✓ *Northwest Territories Waters Regulations, 1993*
- ✓ NWB - Water Licensing in Nunavut - Interim Procedures and Information Guide for Applicants
- ✓ NWB - Interim Rules of Practice and Procedure for Public Hearings
- ✓ RWED – *Environmental Protection Act, R-068-93- Spill Contingency Planning and Reporting Regulations, 1993*
- ✓ RWED A Guide to the Spill Contingency Planning and Reporting Regulations, 2002
- ✓ NWTWB - Guidelines for Contingency Planning
- ✓ *Canadian Environmental Protection Act, 1999 (CEPA)*
- ✓ *Fisheries Act, RS 1985 - s.34, 35, 36 and 37*
- ✓ DFO - Freshwater Intake End of Pipe Fish Screen Guideline
- ✓ NWTWB - Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
- ✓ Canadian Council for Ministers of the Environment (CCME); Canadian Drinking Water Quality Guidelines, 1987
- ✓ Public Health Act - Camp Sanitation Regulations
- ✓ Public Health Act - Water Supply Regulations
- ✓ *Territorial Lands Act and Territorial Land Use Regulations; Updated 2000*