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[www.newmont.com](http://www.newmont.com)

13 May 2008

Nunavut Water Board  
PO Box 119  
Gjoa Haven NU X0B 1J0

Attention: Dionne Filiatrault, Executive Director

Dear Sirs and Mesdames:

### **Regulatory Requirements for the proposed Windy Camp Road**

As discussed during our meeting in April 2008 and subsequently between our respective legal counsel, Hope Bay Mining Ltd. ("HBML") is currently identifying regulatory requirements for the construction and operation of the proposed Windy Camp Road. We write to request the Nunavut Water Board's technical confirmation of our assessment that the proposed road will not require any water licensing under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, as the construction and operation of the road will not entail any "use" of water (as defined in the Act) or any deposit of waste into water.

To that end, we are pleased to provide the enclosed Technical Report respecting the proposed Windy Camp Road prepared by SRK Consulting Engineers and Scientists and dated May, 2008.

By way of summary, the proposed Windy Camp Road is an all-weather access road between Doris Camp and Windy Camp in the Hope Bay Belt. The proposed road is in two sections: Route 1 between Doris Camp and Windy Camp, approximately ten kilometres long; and Route 2 between the Drill Shop and Route 1, approximately one kilometre long. The proposed road is needed to improve efficiency of operations, make year-round exploration possible, reduce the use of helicopters which would reduce environmental noise effects and fuel usage, and improve site-wide medical evacuation ability. HBML believes that the proposed road will improve operational, safety and environmental performance for the activities at Hope Bay.

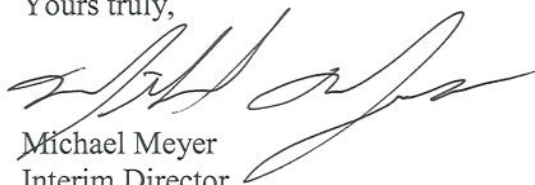
We have attempted to determine the best routing for the road in order to minimize interaction with waterbodies and terrestrial life. The proposed route will cross four streams, each of which is less than one metre in width. Maps and aerial photos of the proposed route and four stream crossings are included in the Technical Report. In order to avoid any alteration of the stream beds or banks, free-span structures (half-culverts of approximately three metres diameter) will be used to ensure that abutments are at least one metre offset from the bank-full width of the stream. Such structures will be built to incorporate the measures to protect fish and fish habitat as outlined in the applicable Department of Fisheries and Oceans Operational Statements.

We have considered the definition of “use” of water under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*. It is our understanding that the proposed Windy Camp Road does not entail any “use” of water for the following reasons:

- there is no direct or indirect “use” of water for any purpose;
- there is no proposed deposit of waste into water;
- there is no diversion or obstruction of waters or any alteration of the flow of waters; and
- there is no alteration of the bed or banks of any seasonal or permanent river, stream, lake or other body of water.

We would be pleased if you would confirm that, based on the above circumstances and our commitment to avoid impacts on water, no water licences are required for the proposed road. We wish to obtain confirmation from the various regulatory agencies as quickly as possible, as the project is currently scheduled to commence in June 2008. To that end, please let me know if you have any questions or would like to schedule a follow up meeting to discuss technical matters relating to the proposed Windy Camp Road.

Yours truly,



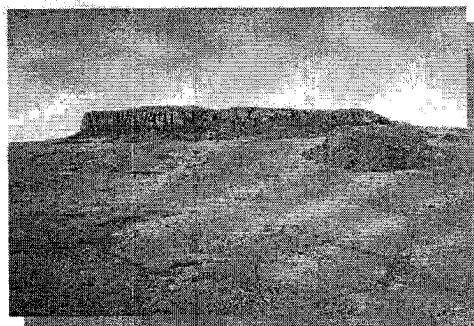
Michael Meyer  
Interim Director,  
Environment and Social Responsibility

cc: KIA  
NIRB

# Doris Camp – Windy Camp Access Road Technical Report

Hope Bay, Nunavut, Canada

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*Prepared for:*

**Hope Bay Mining Ltd.**  
Suite 300, 889 Harbourside Drive  
North Vancouver, BC V7P 3S1  
Canada

*Prepared by:*



SRK Project No. 1CH008.000

May 2008

# 1 Introduction

This document is the technical report in support of an all weather access road between Windy Camp and Doris Camp (the project). This project is proposed by Hope Bay Mining Limited (HBML), a wholly owned subsidiary of Newmont Mining Corporation.

This report is intended to provide a complete summary of the information relating to the proposed road that may be required by stakeholders, the landowner and Federal and Territorial regulatory agencies. The document is intended to be inclusive, with the detailed engineering reports, drawings and specifications attached as supporting documents. The focus is on transparently demonstrating that HBML has considered the proposed road development and is aware of its responsibilities in ensuring good environmental stewardship in all its activities at Hope Bay. To this end HBML and its Consultants have considered the data available, applied the Precautionary Principle and used conservative engineering designs to ensure that potential environmental effects are minimised. Where HBML and its Consultants have made assumptions in the designs or with regards to site conditions, these assumptions are clearly stated to ensure transparency.

## 1.1 Proposed Project Location

The proposed Doris Camp to Windy Camp access road project is located on the mainland in the West Kitikmeot region of Nunavut approximately 125 km southwest of Cambridge Bay and 75 km northeast of Umingmaktok (Figure 1 and Figure 2). The proposed road will begin immediately to the South of the approved Doris North Project for which an extensive Environmental Impact Statement (EIS) (Doris North EIS) was prepared and the required regulatory permits received. Windy Camp, which is operated under an active Nunavut Water Board Water Licence is the southernmost part of the proposed access road.

## 1.2 Project Summary

This proposed project is to develop all-weather access roads between:

- Doris Camp (Lat. 68.137°; Long. -106.616°) and Windy Camp (Lat. 68.060°; Long. -106.615°) (Route 1), and
- a link road between Route 1 (Lat. 68.078°; Long -106.614°) and the Patch Lake Drill Shop (Lat. 68.072°; Long. -106.590°) (Route 2).

Windy Camp and the Patch Lake Drill Shop are existing exploration infrastructure, and Doris Camp is part of the Doris North Project which is currently under construction. All these sites are currently accessed by air and winter road (Figure 3).

### 1.3 Motivation for the Proposed Project

HBML has assessed operational activities at Hope Bay and it is now apparent that current transport systems pose safety concerns, are inefficient, operationally limiting and consume resources unnecessarily. The proposed access Routes 1 and 2 will create the following benefits for HBML and the environment:

- extension of the operational exploration period to a year round activity,
- reductions in the use of helicopters, associated fuel usage, exhaust emissions and noise,
- minimisation of the footprint by restricting activities to a narrower corridor, and
- increase worker safety by having year round access to an airstrip.

To facilitate realising the proposed access road project in 2008, this technical report is based on the extensive set of data collected for the region during the Doris North EIS and Water Licence Application. HBML and its Consultants have extracted and extrapolated relevant data from these applications for use in this document. Where necessary, additional new studies were undertaken to support the proposed project.



Due to the small scale of these structures, this machine will be able to complete all work without having to access the stream channel or the immediate stream banks.

- CAT 16H Grader (one): The Grader will be used to do the final shaping of the road, as well as carry out routine maintenance on the roads.

#### 3.4.4 Typical Road Cross Section

The proposed road surface will have an 8 m crown width. Side slopes will be at angle of repose (about 1.2H:1V). Roadway drainage will be via 0.5% surface grading in both directions from the centreline of the roadway. The road will consist of a 0.2 m thick surfacing grade layer overlying a 0.3 m thick select grade layer. Both these will overlie a 1.0 m thick run-of-quarry layer (Figure 7).

#### 3.4.5 Animal (Caribou) Crossings

HBML will install graded animal crossings at appropriate locations along the proposed all-weather roads. These crossings will typically consist of a gently sloped section with fine grained crushed rock (i.e. surfacing grade material) covering to allow animals to cross the roads with low risk of injury. Immediately following completion of the road construction HBML will work with the Kitikmeot Inuit Association (KIA), community Elders and representatives of the local hunters and trappers associations to determine the number and location of animal crossings required.

For project planning purposes HBML proposes to place animal crossings at road junctions, major bends and at regular intervals along stretches of road where no junctions are present. The animal crossings will entail flattening of the roadway shoulder to 5H:1V for a 10 m wide section on either side of the road (Figure 8). This flattened section will be clad in surfacing grade material to ensure a suitable surface for animals to travel on. Roadway signposts will be installed to warn traffic of the locations of these crossings. These signs will be similar to those used at the Diavik Diamond Mine, which give a color coded warning for the probability of encountering caribou on the road.

#### 3.4.6 Proposed Stream Crossings

SRK has defined a stream in this report as a preferential flow path for surface freshet melt water and rain fall such that it may contain water seasonally or permanently and frequently links permanent water bodies. Some on-site review and reconnaissance flights have occurred relating to the four streams which will potentially be crossed on Route 1 and on Route 2 (Figure 9). These streams are located at the following latitude and longitude co-ordinates respectively; Stream 1: 68.118°; -106.617°, Stream 2: 68.107°; -106.618°, Stream 3: 68.099°; -106.622° and Stream 4: 68.075°; -106.597°.

A general assessment of fish habitat potential in the streams of the area was conducted (Heidi Swanson and Matt Kawei, (Miramar) 2007; as reported by Golder, 2008 (see Appendix 2)) and they were considered to have limited to no fish habitat potential. However, without conducting fish

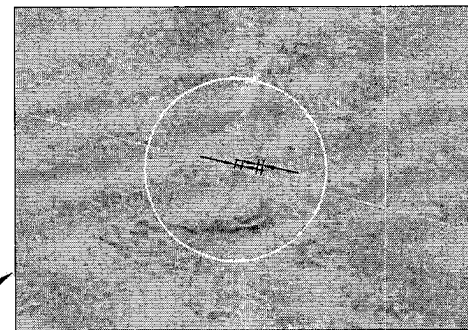
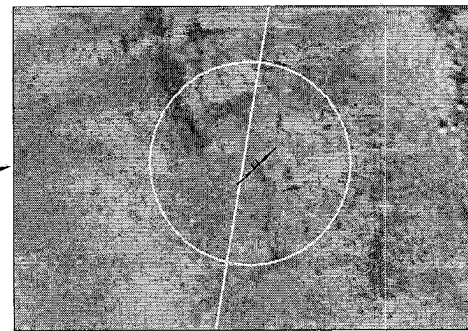
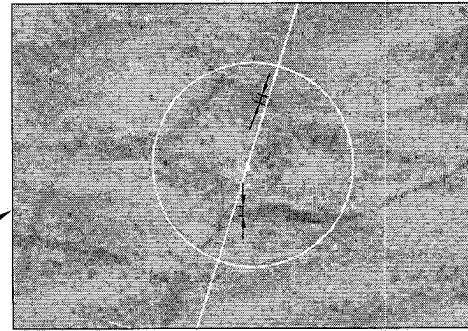
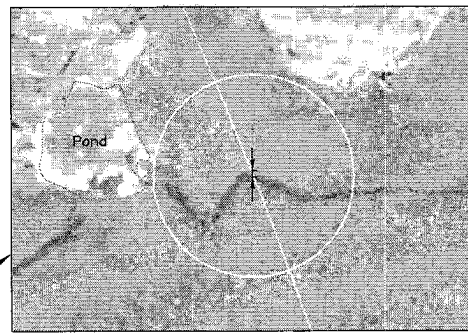
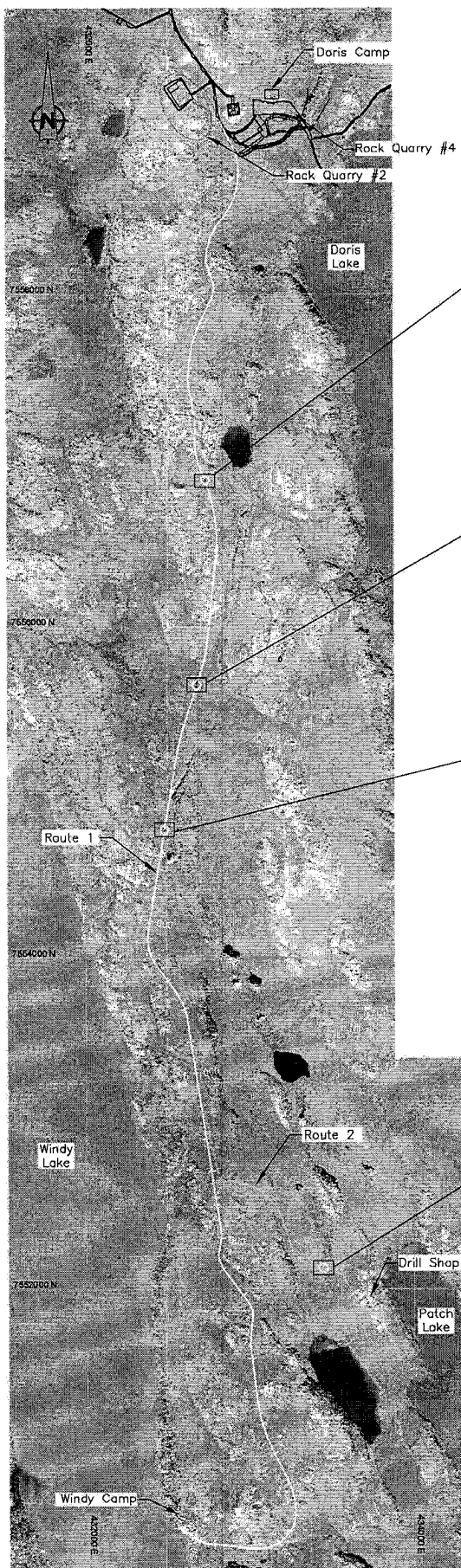
sampling, it is not possible to unequivocally state that there are no fish present within the streams in question.

HBML are proposing an approach that assumes the streams are fish bearing and will engineer clear-span structures for stream crossings on both Route 1 and 2. These clear-span structures will conform to the Department of Fisheries and Oceans Operational Statements. During the coming summer field season HBML may verify, with appropriate studies, the fish bearing status of the streams, and if they are non fish bearing would propose to cross those streams with appropriately engineered systems suitable to the stream classification.

Stream flow hydrology for each of the four streams in question has been evaluated (see Appendix 1) and confirms that these streams generally have a peak flow of less than  $0.03 \text{ m}^3/\text{s}$ . Regional knowledge, as well as the small peak flows in these streams suggest that the bank-full width (i.e. the ordinary high water mark) of the streams are likely less than 1.0 m, and probably much smaller. Figure 9 demonstrates close-up aerial photography of each stream, confirming that the actual channel width is probably very small.

Construction of the clear-span structures will not impact the stream or stream banks. To demonstrate this, the following construction summary is provided:

- Clear-span structures will consist of conventional arch culverts (Figure 12) or clear-span bridge decks (Figure 11).
- If a clear-span bridge is selected it will have a solid deck to avoid material falling through and entering the stream.
- None of the proposed stream crossings will require a clear-span of more than 2.5 to 3 m.
- Clear-span structure abutments will be sized to ensure at least a 1 m offset from the bank-full width of the stream.
- The minimum freeboard height to the underside of the clear-span structure will be 1 m during a 24-hour duration storm event with a 1:100 year recurrence interval.
- All-weather road fill placement will advance towards the stream, but stop about 3 m from the bank-full width of the stream (see Figure 10).
- The culvert and its components will be installed by excavator (using a sling), standing on the end of the constructed road to ensure no disturbance of original ground or stream.
- When the culvert is in place, the excavator will place fill material into the gap between the culvert and the advancing road, before the normal road construction is allowed to proceed.
- Silt fences will be installed along both sides of the toe of the roadway to ensure that all surface runoff sediment is captured and not released into the streams. The silt fences will start 3 m before the abutment of the clear-span structure.



0 10 20 30 40 50  
1:1250

#### Legend

- Route 1
- Route 2
- Roads and Other Infrastructure Associated with Doris North Project
- Quarries Evaluated as part of the Doris North Project
- Interpreted Watershed Boundary
- Possible Stream Crossing Location

#### Notes

1. Road alignment will be adjusted in the field to adjust to the length of stream crossing.
2. Some streams may have more than one channel.

0 200 400 600 800 1000 Metres  
1:25,000



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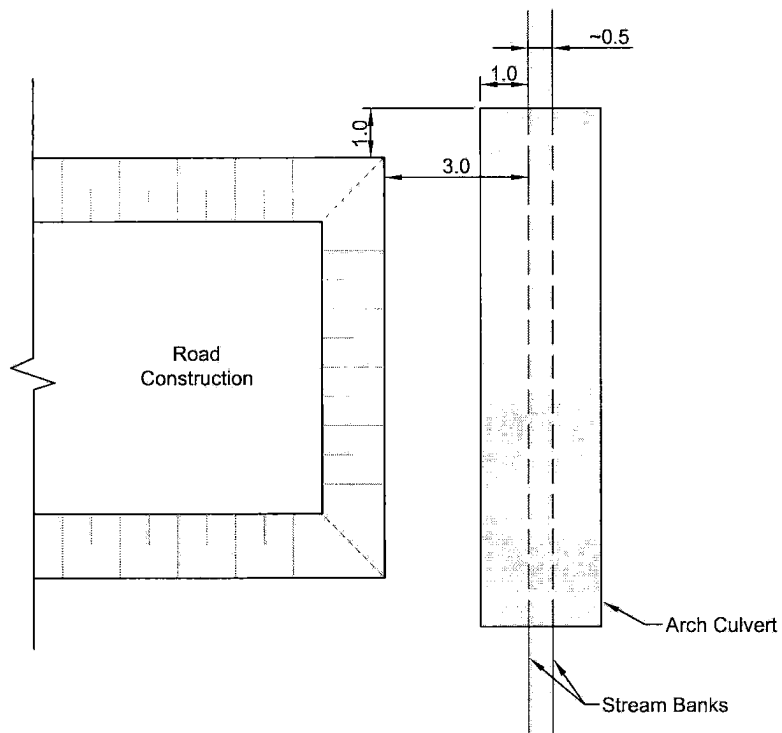
HOPE BAY MINING LTD

Doris Camp - Windy Camp Access Road

Stream Crossing Locations  
Along Proposed  
Road Routes

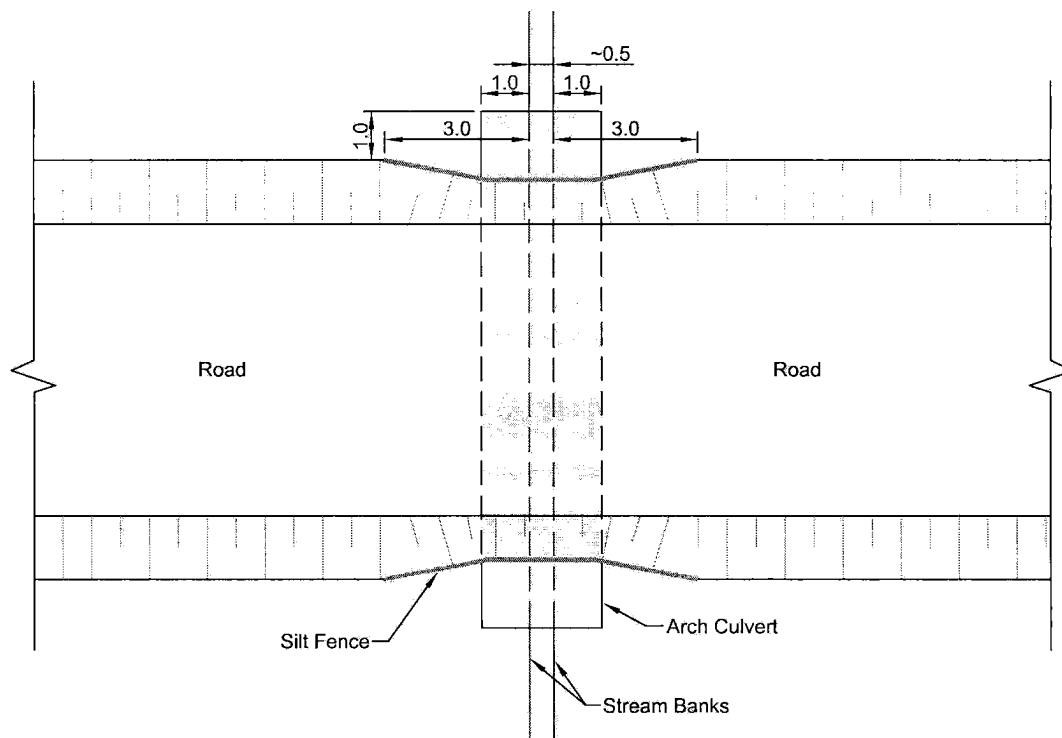
DATE: March 08 APPROVED: MW FIGURE: 9





**Plan View - Culvert Installation Limits**

N.T.S.



**Plan View - After Culvert Installation**

N.T.S.



**HOPE BAY MINING LTD.**

Doris-Windy Access Road

**Culvert Installation  
Typical Plan**

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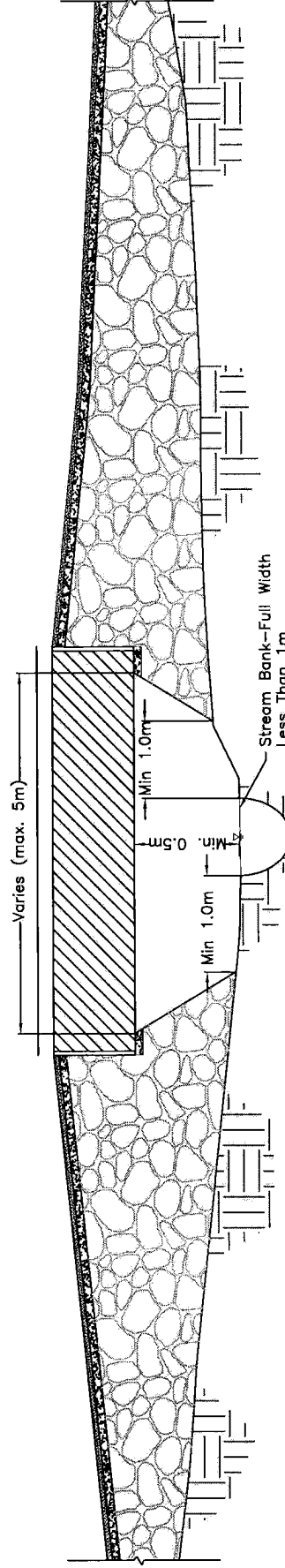
Hope Bay Gold Project

DATE:  
April 2008

APPROVED:  
AT





FIGURE:  
10

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Typical Bridge Detail  
N.T.S.

Legend:

-  SURFACING MATERIAL
-  SELECT SUBGRADE
-  RUN OF QUARRY
-  NATURAL GROUND



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HOPE BAY MINING LTD

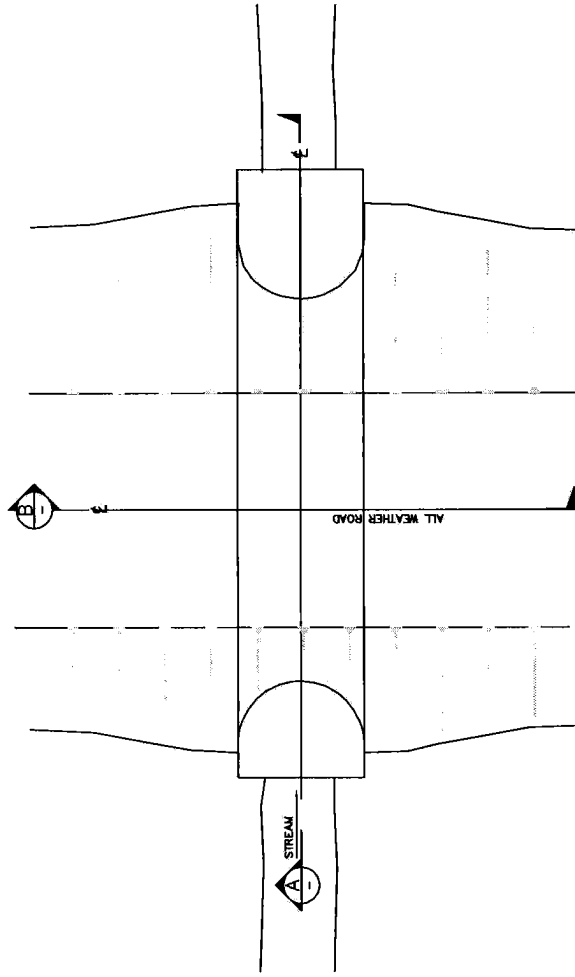
Doris Camp - Windy Camp Access Road

Typical Bridge Detail

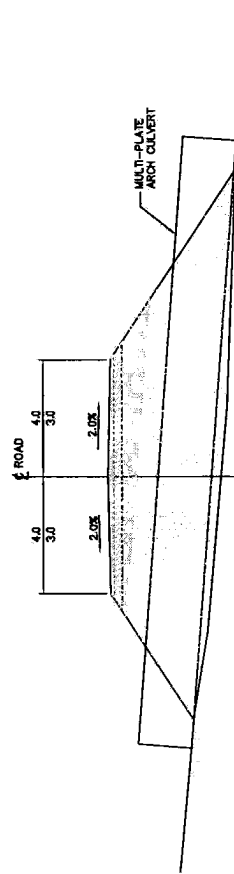
DATE: March 08

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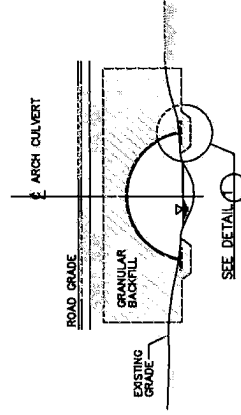
FIGURE: 11



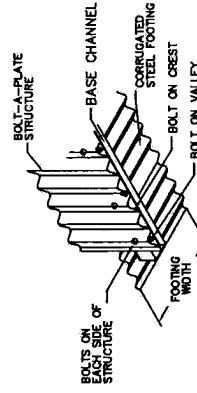
PLAN  
TYPICAL ARCH CULVERT STREAM CROSSING  
NTS



SECTION  
NTS  
A



SECTION  
NTS  
B



DETAIL  
NTS  
1  
STEEL FOOTING

REFERENCE

Drawing supplied by SNC Lavalin  
(334499-1410-41D1-0005.dwg).



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HOPE BAY MINING LTD

Doris Camp - Windy Camp Access Road

Typical Arch Culvert Detail

DATE: April 08  
APPROVED: MR  
FIGURE: 12

**MEMORANDUM**

TO: Chris Hanks

FROM: Brad Armstrong

DATE: October 9, 2008

RE: Consideration of Application of *Nunavut Waters and Nunavut Surface Rights Tribunal Act* to the Windy Camp Road

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This is a consolidation of our previous advice to you concerning whether Hope Bay Mining Ltd. (“HBML”) must seek a water licence under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (the “Act”) in connection with the construction and operation of the Windy Camp Road.

According to Section 11 of the Act, no person shall use, or permit the use of, waters in Nunavut except in accordance with the conditions of a licence. The only exceptions are where the use is specifically authorized by regulation or for domestic use, use in certain fire or flooding emergencies or use in a national park.

The term “use” is defined as a direct or indirect use of any kind, including, but not limited to,

- (a) any use of water power and geothermal resources;
- (b) any diversion or obstruction of waters;
- (c) any alteration of the flow of waters; and
- (d) any alteration of the bed or banks of a river, stream, lake or other body of water, whether or not the body of water is seasonal.

We understand from the description of the Windy Camp Road in the Technical Report respecting the proposed Windy Camp Road that was prepared by SRK Consulting Engineers and Scientists and dated May 2008 (the “Technical Report”) that the project will not “use” waters in any of the ways set out in the Act. In particular, we understand that the four proposed stream crossings have been specifically designed to prevent any disruption of water flow or alteration of the bed or banks of the relevant streams.

Section 12 of the Act also prohibits the deposit of waste in waters in Nunavut except in accordance with the conditions of a licence. “Waste” is defined in the Act as “any substance that, by itself or in combination with other substances found in water, would have the effect of altering the quality of any water to which the substance is added to an extent that is detrimental to its use by people or by any animal, fish or plant, or any water that would have that effect because of the quantity or concentration of the substances contained in it or because it has been treated or changed, by heat or other means.”

Further, the term “waste” specifically includes: any substance or water that, for the purposes of the *Canada Water Act*, is deemed to be waste; any substance or class of substances specified by the regulations; water containing any substance or class of substances in a quantity or concentration that is equal to or greater than that prescribed by the regulations; and water that has been subjected to a treatment or change described by the regulations.

We understand from the Technical Report and from further discussion with you that the construction and operation plans for the Windy Camp Road do not contemplate any deposit of waste into waters. Specifically, we understand that there will be measures put into place that will prevent the deposition of sediment into water bodies and that the geochemistry of the proposed road materials indicates that the materials are not acid-generating and will not result in the deposit of waste into water.

Based on this analysis, we are of the opinion that HBML does not require a water licence under the Act in respect of the construction and operation of the Windy Camp Road. As indicated, our opinion is based on the Technical Report and other information that you have provided to us, and we ask that you notify us of any change in plans.





# NOTIFICATION FORM

Fisheries and Oceans Canada  
Nunavut Operational Statement

Version 3.0

## PROPONENT INFORMATION

NAME: Hope Bay Mining Ltd.  
CITY/TOWN: North Vancouver  
TEL. NO. (RESIDENCE): Chris Hanks  
FAX NO: 303-798-4359

STREET ADDRESS: #300 – 889 Harbourside Drive  
PROVINCE/TERRITORY: BC  
TEL. NO. (WORK): 720-917-4489  
EMAIL ADDRESS: chris.hanks@newmont.com

POSTAL CODE: V7P 3S1

## CONTRACTOR INFORMATION (provide this information if a Contractor is working on behalf of the Proponent)

NAME: SNC Lavalin Inc.  
CITY/TOWN: Vancouver  
TEL. NO. (RESIDENCE): Tony Wachmann  
FAX NO: 604-662-7688

STREET ADDRESS: #2500 – 1075 West Georgia Street  
PROVINCE/TERRITORY: BC  
TEL. NO. (WORK): 604-662-3555  
EMAIL ADDRESS: tony.wachmann@sncclavalin.com

POSTAL CODE: V6E 3C9

## PROJECT INFORMATION

Select Operational Statements that are being used (check all applicable boxes):

☐ Bridge Maintenance  
☒ Clear-Span Bridges  
☐ Culvert Maintenance

☐ Ice and Snow Fill Bridges  
☐ Moorings

☐ Routine Maintenance Dredging  
☐ Temporary Stream Crossing

Select the type of water body or watercourse at or near your project:

☒ River, Stream, Creek  
☐ Lake (8 hectares or greater)  
☐ Pond or wetland (pond is less than 8 hectares)

☐ Marine (Ocean or Sea)  
☐ Estuary

## PROJECT LOCATION (S) (fill out this section if the project location is different from Proponent Information; append multiple project locations on an additional sheet if necessary)

Name of water body or watercourse

The four stream crossings are all unnamed water courses

Coordinates of the Project (UTM co-ordinate or Degrees, Minutes, Seconds), if available

Easting: 432481  
Latitude:

Northing: 7554772  
Longitude:

Crossing # 1: Easting 432735; Northing 7556883

Crossing #2: Easting 432678; Northing 7555643

Crossing #3: Easting 432481; Northing 7554772

Crossing #4: Easting 433445; Northing 7552123

Legal Description

(Plan, Block, Lot, Concession, Township, Municipality)

Directions to Access the Project Site

(i.e., Route or highway number, etc.)

The proposed access road will be constructed on Inuit Owned Land, Parcel BB-60, on exploration Agreement BB60-00-01, Tok 1, held formerly between Miramar Hope Bay Limited and NTI

The site can only be accessed by air. The company has charter flights landing at an all-weather airstrip at Doris, located about 4 km north of the northernmost stream crossing illustrated on the attached Figure 9. Charter flights depart from Yellowknife, NT, or alternatively Cambridge Bay, NU. Transport from the Doris airstrip to the project location will be via helicopter.

Proposed Start Date  
(YYYY/MM/DD): 2008-07-15

Proposed Completion Date  
(YYYY/MM/DD): 2009-09-15

We ask that you notify DFO, preferably 10 working days before starting your work, by filling out and sending in, by mail or by fax, this notification form to the DFO office in your area. This information is requested in order to evaluate the effectiveness of the work carried out in relation to the Operational Statement.

I, Christopher C. Hanks (print name) certify that the information given on this form is, to the best of my knowledge, correct and complete.

Signature

Christopher C. Hanks

Date

June 18, 2008

**Note:** If you cannot meet all of the conditions and cannot incorporate all of the measures in the Operational Statement then your project may result in a violation of subsection 35(1) of the *Fisheries Act* and you could be subject to enforcement action. In this case, you should contact the DFO office in your area if you wish to obtain DFO's opinion on the possible options you should consider to avoid contravention of the *Fisheries Act*.

Information about the above-noted proposed work or undertaking is collected by DFO under the authority of the *Fisheries Act* for the purpose of administering the fish habitat protection provisions of the *Fisheries Act*. Personal information will be protected under the provisions of the *Privacy Act* and will be stored in the Personal Information Bank DFO-SCI-605. Under the *Privacy Act*, individuals have a right to, and on request shall be given access to, any personal information about them contained in a personal information bank. Instructions for obtaining personal information are contained in the Government of Canada's Info Source publications available at [www.infosource.gc.ca](http://www.infosource.gc.ca) or in Government of Canada offices. Information other than "personal" information may be accessible or protected as required by the provisions of the *Access to Information Act*.



Canada

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## FISHERIES AND OCEANS CANADA OFFICE IN NUNAVUT

### Fisheries and Oceans Canada – Eastern Arctic Area

P.O. Box 358

Iqaluit, Nunavut X0A 0H0

Tel.: (867) 979-8000 Fax:

(867) 979-8039

Email: [nunavuthabitat@dfo-mpo.gc.ca](mailto:nunavuthabitat@dfo-mpo.gc.ca)

*Aussi disponible en français*

[http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/modernizing-moderniser/epmp-pmpe/index\\_f.asp](http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/modernizing-moderniser/epmp-pmpe/index_f.asp)

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This Operational Statement (Version 3.0) may be updated as required by Fisheries and Oceans Canada. It is your responsibility to use the most recent version. Please refer to the Operational Statements web site at [http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/modernizing-moderniser/epmp-pmpe/index\\_e.asp](http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/modernizing-moderniser/epmp-pmpe/index_e.asp) to ensure that a more recent version has not been released.