

May 26, 2010

Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU
X0B 1J0

Attn: Phyllis Beaulieu, Manager of Licensing
Dionne Filiatrault, Executive Director

Dear Ms. Beaulieu and Ms. Filiatrault;

Application for Amendment No. 5 of Water Licence No. 2BE-HOP0712

We are pleased to submit a copy of our amendment application No. 5 for Type B Water Licence No. 2BE-HOP0712. Please find the following documents enclosed:

- Water Licence Application form designating this submission as an **AMENDMENT**;
- Water Licence Application Supplementary Questionnaire for Exploration/Remote camp;
- Executive Summary in English and Inuinnaqtun;
- Project Description;
- Engineering drawings for the camp pad layout and associated water intake and sewage discharge lines, and the tank farm design.

As HBML currently hopes to commence related construction in September 2010, and to begin housing personnel at the Windy Camp as early as January 2011, your earliest attention to this application is greatly appreciated.

As well, the Board requested that HBML provide an update on future planned applications relating to 2BE-HOP0712. HBML is currently developing an amendment application to proceed with bulk sampling at Doris Central and Patch Lake. We will be in contact with the Board in respect of these plans in due course but it is currently anticipated that this application will be submitted during Fall 2010. The NWB is also currently considering two other applications by HBML to amend 2BE-HOP0712:

- Amendment No. 3: amendment regarding drilling water sources; and
- Amendment No. 4: amendment regarding discharge of water from Quarry A, B, and D.

Should you have any questions regarding this submission or require any additional information, please do not hesitate to contact me directly.

Sincerely,

Chris Hanks
Director, Environmental & Social Responsibility
Hope Bay Mining Ltd.

cc. Stephanie Autut, NIRB
KIA



P.O. Box 119
GJOA HAVEN, NU X0B 1J0
TEL: (867) 360-6338
FAX: (867) 360-6369

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NUNAVUT IMALIRIYIN KATIMAYINGI
NUNAVUT WATER BOARD
OFFICE DES EAUX DU NUNAVUT

WATER LICENCE APPLICATION FORM

Application for: (check one)

☐ **New**
☐ **Renewal**
☒ **Amendment**
☐ **Assignment**
☐ **Cancellation**

LICENCE NO:

(for NWB use only)

1. NAME AND MAILING ADDRESS OF APPLICANT/LICENSEE Hope Bay Mining Ltd. 300-889 Harbourside Drive North Vancouver, BC V7P 3S1 Phone: 604 985 2572 Fax: 604 980 0731 E-mail: chris.hanks@newmont.com	2. ADDRESS OF CORPORATE OFFICE IN CANADA (if applicable) Phone: Fax: E-mail:
3. LOCATION OF UNDERTAKING (describe and attach a topographical map, indicating the main components of the Undertaking) Latitude: (68°3'48" N) Longitude: (106°37'12" W) NTS Map Sheet No. <u>77A/03</u> Scale: <u>1:50,000</u>	
4. DESCRIPTION OF UNDERTAKING (attach plans and drawings) <u>HBML is proposing to relocate Windy Camp to a quarry site (Quarry D) along the Doris-Windy all-weather road once excavation of the quarry is complete. As with Windy Camp, the relocated camp will be used to support regional exploration activities in the Hope Bay belt. Camp site layout and location are shown in the attached drawings. Fuel tanks from the Windy Camp site and the Patch Lake Tank Farm will be moved to the new site. The membrane technology sewage plant approved by the Nunavut Water Board in 2009 for use at Boston Camp will be installed at this new site. Water and sewage treatment plants will be sized for 180 persons. The fresh water intake and greywater outfall for the new site will be at the same location as for the original Windy Camp. Domestic water use will be increased to 63 cubic meters per day.</u>	
5. TYPE OF PRIMARY UNDERTAKING (A supplementary questionnaire <u>must</u> be submitted with the application for undertakings listed in " bold ")	
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Mining and Milling (includes exploration/drilling) <input type="checkbox"/> Municipal (includes camps/lodges) <input type="checkbox"/> Power </div> <div style="width: 48%;"> <input type="checkbox"/> Agricultural <input type="checkbox"/> Conservation <input type="checkbox"/> Recreational <input type="checkbox"/> Miscellaneous (describe below): </div> </div>	

See Schedule II of *Northwest Territories Waters Regulations* for Description of Undertakings

6. WATER USE

- ☒ To obtain water
 ☐ Flood control
☐ To cross a watercourse
 ☐ To divert a watercourse
☐ To modify the bed or bank of a watercourse
 ☐ To alter the flow of , or store, water
☐ Other (describe):

7. QUANTITY OF WATER INVOLVED (cubic metres per day including both quantity to be used and quality to be returned to source)

Water use ☐ 100m³/day or less
☒ Greater than 100m³/day; if greater, indicate quantities to be used for each purpose (camp, drilling, etc.)

63 c.m/day camp use (increased from 20 c.m/day permitted by licence, this is to match the STP capacity)

80 c.m/day drilling (as permitted by 2BE-HOP0712)

Water returned to source

0 m³/day

8. WASTE (for each type of waste describe: composition, quantity (cubic metres per day), methods of treatment and disposal, etc.)

- ☒ Sewage
 ☒ Waste oil
☒ Solid Waste
 ☒ Greywater
☐ Hazardous
 ☒ Sludges
☒ Bulky Items/Scrap Metal
 ☐ Other describe):

Note that no changes are proposed to waste disposal practices - these will continue as per the current licence terms and conditions.

9. OTHER PERSONS OR PROPERTIES AFFECTED BY THIS UNDERTAKING (give name, mailing address and location; attach if necessary)**Land Use Permit**

DIAND ☐ Yes ☒ No If no, date expected _____

Regional Inuit Association ☒ Yes ☐ No If no, date expected _____

Commissioner ☐ Yes ☒ No If no, date expected _____

10. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES (direct, indirect, cumulative impacts, etc.) There will be no significant changes to environmental impacts of the Windy Camp as a result of the proposed changes.

NIRB Screening ☐ Yes ☒ No If no, date expected _____

11. INUIT WATER RIGHTS

Will the project or activity substantially affect the quality, quantity, or flow of water flowing through Inuit Owned Lands and the rights of Inuit under Article 20 of the Nunavut Land Claims Agreement?

No

If yes, has the applicant entered into an agreement with the Designated Inuit organization to pay compensation for any loss or damage that may be caused by the alteration. If no compensation agreement has been made, how will compensation be determined? N/A

12. CONTRACTORS AND SUB-CONTRACTORS (name, address and functions)

Nuna Logistics: 9839 31st Ave., Edmonton, AB T6N 1C5 - General Contractor

13. STUDIES UNDERTAKEN TO DATE (list and attach copies of studies, reports, research, etc.)

Studies performed to date include (copies are included with this package):

-Stream Crossing Assessment for Doris-Windy Road

-Doris-Windy All Weather Road: Geochemical Monitoring of Quarry Rock

-Doris Camp-Windy Camp Access Road Technical Report

-Geochemical Characterization of Quarry Materials for the Doris-Windy All-Weather Road, Hope Bay Project (previously submitted with Amendment No. 4 package).

14. THE FOLLOWING DOCUMENTS MUST BE INCLUDED WITH THE APPLICATION FOR THE REGULATORY PROCESS TO BEGIN

Supplementary Questionnaire (where applicable: see section 5) ☐ Yes ☐ No If no, date expected _____

Inuktitut and/or Inuinnaqtun/English Summary of Project ☐ Yes ☒ No If no, date expected June 15, 2010

Application fee of \$30.00 (Payee Receiver General for Canada) ☒ Yes ☐ No If no, date expected Paid

Water Use fee of \$30.00 (unless otherwise indicated in Section 9 of the *NWT Waters Regulations*; Payee Receiver General for Canada)

☒ Yes ☐ No If no, date expected Paid

15. PROPOSED TIME SCHEDULE (unless otherwise indicated, the NWB will consider the application for a five (5) year term)

☐ one year or less (or) ☒ Multi Year

Start Date: May 20, 2007 Completion Date: June 30, 2012

Chris Hanks

Name (Print)

Director, Environment
and Social Responsibility

Title (Print)

May 26, 2010

Signature

Date

For Nunavut Water Board office use only

APPLICATION FEE Amount: \$ _____ Pay ID No.: _____

WATER USE DEPOSIT Amount: \$ _____ Pay ID No.: _____

Executive Summary
Application for Amendment No. 5 of Water Licence No. 2BE HOP0712

Hope Bay Mining Ltd. is moving Windy Camp and associated facilities (including fuel tanks originally installed at Patch Lake) to Quarry D. This was partially done to address concerns expressed over the years by INAC and KIA that the existing Windy Camp was too close to Windy Lake. HBML has discussed the use of quarry D as a camp location with the KIA Lands Department and they agree that this is a good choice. HBML proposes to use the waste water treatment plant approved by the NWB in 2009 for use at Boston Camp. This facility will replace the facility originally described to the Nunavut Water Board in the 2007 Water Licence Application for 2BE-HOP0712.

Project Description

Application for Amendment No. 5 Water Licence No. 2BE HOP0712 (the “Water Licence”)

Description and Reason for Change

Hope Bay Mining Ltd. (HBML) is moving Windy Camp to Quarry D, a location that is more than 30 m from the high water mark of Windy Lake. This move will allow HBML to move forward with the reclamation of the current Windy site while continuing to use the new Windy Camp as the base for exploration activities throughout the Hope Bay Belt.

The new camp will house up to 180 individuals supporting geological exploration in the Hope Bay belt outside of the Doris North area. Facilities at the site will include living quarters, utility services, and offices. Utility services, used to support the living quarters and offices, will include a sewage treatment plant, a water treatment plant, gensets and switchgear, fire water tank, fire water system, and fuel tanks. The gensets and switchgear will be enclosed in containers, and the fuel tank farm and supply pumps will be located in a contained area. The fuel tank farm will include all fuel tanks originally planned to be installed at Windy Camp and at Patch Lake. These will be installed at a bermed, lined location that will meet all applicable regulatory requirements. The office buildings, including the contractor's office, test lab, and geology office and core logging building will be used for those persons involved in regional exploration and the development of future mines in the local vicinity.

With respect to the Waste Water Treatment Facility described in the Water Licence, HBML proposes to instead utilize the membrane technology plant approved by the NWB in 2009 for use at Boston Camp. This facility will replace the Rotodisk Facility originally described to the NWB. Consistent with Part E, Item 5, HBML will submit to the NWB for approval, within 90 days of the issuance of the Amendment, an Operation and Maintenance Manual for the Waste Water Treatment Facility prepared in accordance with the *“Guidelines for the Preparation of an Operation and Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories; 1996”* and adapted for the use of a mechanical sewage treatment facility.

HBML will consider the impact of the proposed facility modifications on its Spill Contingency Plan and Abandonment and Reclamation Plan and will revise these plans as required. Any updated plans will be submitted to the NWB.

Potential for Impacts on Water and Environmental Effects

The 2001 Water Licence Renewal for Windy Camp underwent a screening in accordance with Article 12 of the *Nunavut Land Claims Agreement* ("NLCA"). On December 4, 2001 the Nunavut Impact Review Board ("NIRB") issued a screening decision allowing construction and operations to proceed subject to project specific terms and conditions. The proposed amendment is consistent with the terms of this screening decision. When the Water Licence was renewed in 2007, the Nunavut Water Board indicated that the project was exempt from screening by the NIRB in accordance with Schedule 12.1 of the NLCA (see enclosed NWB decision dated July 20, 2007).

It is HBML's opinion that the proposed Windy Camp and related facility relocation will not change the environmental impact of the Windy Camp and associated facilities in any significant manner. In particular:

- Quarry D does not include any archeological sites. Any potential sites in the vicinity of the camp will not be disturbed.
- HBML has consulted with Rescan to confirm that the new location, including the re-routing of associated infrastructure, will not cause any additional impacts to water, fish habitat or wildlife.
- No waste will be deposited to waters nor will it be deposited under conditions in which the waste may enter waters in Nunavut.
- Water intake points and discharge points will not be revised. The existing fresh water intake, 100 feet from shore and 60 feet deep, will continue to be equipped with a mesh screen to protect fish.

Proposed Construction Timeline

It is proposed that water intake and waste disposal lines will be installed beginning in September 2010. HBML plans to begin constructing the pad the camp will be built on in November 2010. All work is planned to be complete by the end of January 2010.



P.O. Box 119
GJOA HAVEN, NU X0B 1J0
TEL: (867) 360-6338
FAX: (867) 360-6369

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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: Hope Bay Mining Ltd.

Licence No: 2BE-HOP0712
(For NWB Use Only)

ADMINISTRATIVE INFORMATION

1. Environment Manager: **Chris Hanks – Director Environmental Social Responsibility**
Cell: **(720) 917-4489** E-mail: **chris.hanks@newmont.com**

2. Project Manager: **Russ Eby** Tel: **(604) 759-4684** Cell: **(907) 250-5701**
E-mail: **russ.eby@newmont.com**

3. Does the applicant hold the necessary property rights?

Yes. Surface rights are administered by the KIA under land use license KTL303C056 and mineral rights are administered by INAC under mining lease 4649 (Madrid 2). HBML's surface and mineral rights are in good standing with the KIA and INAC, respectively.

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: **May 20, 2007** Completion: **June 30, 2012 (Term of current license)**

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?

The maximum capacity of the camp is governed by the sewage treatment plant (STP) which is designed for a 180 person camp. There will be 180 beds at the camp.

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

The Nunavut Water Board first issued a water license for the Windy Camp in 1996. The original Windy Camp, located on the east shore of Windy Lake, has provided support services for regional exploration activities for the central and northern areas of the Hope Bay belt since that time. Windy Camp included camp facilities, offices, workshops, fuel storage, and core storage areas. It was closed in 2008 and temporary shutdown activities were undertaken.

CAMP LOCATION

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

The new location for Windy Camp is in Quarry D. The site is located on a topographical high and ranges in elevation between about 44 m and 60m above sea level. The quarry will be developed down to a level of 47 m, which is the elevation at which the camp will be constructed. Overall the site is in the Windy Lake catchment and Windy Lake, the nearest water body (at elevation 10 m above sea level), is approximately 500 m due west from the proposed camp. The site will free drain towards to the north. Air photo interpretation confirms that the soils in this area are consistent with other locations where detailed investigations have been carried out. The soils consist of marine silt and clay, and the lack of frost polygons suggest that the material is likely not ice rich. The entire site is cold permafrost with average ground temperatures of about -8 °C and an active layer of about 0.5 m thick. Total permafrost depth is about 500 m.

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 existing Windy Camp is located on the eastern shore of Windy Lake. The landowner , the Kitikmeot Inuit Association, had requested that HBML relocate the camp such that it would be at least 30 m from Windy Lake's high water mark. Quarry D was chosen as the camp location because it is ideally suited to construct a new camp, is sufficiently close to the old site to be functional, and it is outside of the potential zone of influence of a future open pit at Naartok. See attached drawings for site location.

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

- | | |
|---|--|
| <input checked="" type="checkbox"/> Crown Lands | Permit Number (s)/Expiry Date: ML-4649/Oct. 12, 2022 |
| <input type="checkbox"/> Commissioners Lands | Permit Number (s)/Expiry Date: |
| <input checked="" type="checkbox"/> Inuit Owned Lands | Permit Number (s)/Expiry Date: KTL303C056/Jan. 30, 2011 |

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

- **Umingmaktok is approximately 68 km NW of Windy Camp**

- **Cambridge Bay is approximately 134 km NNE of Windy Camp**

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

HBML has notified and discussed this project with the KIA. HBML will consult the nearby communities soon.

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. This camp is located close to the original Windy Camp and will continue to use Windy Lake as a water source as is permitted by the current license 2BE-HOP0712.

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: _____

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?

This is an amendment application. Drill cuttings treated as per requirements of the current license.

20. Describe what will be done with drill water?

This is an amendment application. Drill water treated as per requirements of the current license.

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.

This is an amendment application. Drill additives to be used are in line with the requirements of the current license.

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

No core testing will be done on site.

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.

HBML's current Spill Contingency Plan, submitted in March 2010, is on file with the NWB in hard copy and digital format.

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

Hydrocarbon spill kits will be positioned in all areas where there is the likelihood for a spill to occur such as: the tank farm and containment berms, the camp site, the main generator sets, the helicopter pad, the equipment parking area(s), and the incinerator.

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

**For diesel: 2 x 75,000 L AST, 6 x 70,000 L AST tank, 1 x 50,000 L AST tank
For gasoline: 1,243 L total capacity tidy tanks (gasoline arrives on site in 45 gallon drums and is transferred to the tanks as needed)**

MSDS sheets are available on site.

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

Raw water is pumped from Windy Lake.

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

- ☒ Domestic Use: **63 cu.m/day** Water Source: **Windy Lake**
☒ Drilling: **80 cu.m/day** Water Source: **Nearest water source**
☐ 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:

No changes from existing license. Water intake for Windy Camps is 100' from shore and 60' deep. The pump intake is screened to meet DFO requirements. The pipeline is 2" in diameter and is heat traced.

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

Raw water and treated tap water are sampled weekly, or more as required, for: Hg, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Pb, Li, Mo, Ni, Se, Ag, Tl, Sn, Ti, U, V, Zn, Ca, Fe, Mg, Mn, K, Na, ammonia-N, biological oxygen demand, fecal coliforms, nitrate (as N), nitrite (as N), oil and grease (visible sheen), oil and grease, phosphorus, total suspended solids, Cl, Ca, Mg, K, Na, F, ion balance, TDS, hardness (as CaCO₃), nitrate and nitrite as N, sulfate, pH, conductivity, bicarbonate, carbonate, hydroxide, alkalinity.

30. Will drinking water be treated? How?

Water will first be pre-treated (cartridge filtration). This will be followed by UV disinfection and chlorination .

31. Will water be stored on site?

Treated water will be stored temporarily in two tanks with a volume of 5 m³ each. These tanks are part of the water treatment plant. The firewater storage tank volume is 518 m³.

WASTE TREATMENT AND DISPOSAL

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

- ☒ Camp Sewage (blackwater) **Camp sewage will be discharged to a new sewage treatment plant (STP) that will treat sewage by membrane bio-reactor and UV disinfection. It will have a maximum capacity for 180 people per day and a discharge rate of 63 m³/day. This new STP will discharge treated wastewater to HOP-2, the approved outflow location for 2BE-HOP0712.**

-
- ☒ Camp Greywater **Camp greywater will also be treated in the STP. See above.**
-

- ☒ Solid Waste **Solid waste that can be burned will be incinerated. Waste that cannot be burned will be sorted on site before being backhauled from site.**

Backhauled waste is taken by barge or by air to approved disposal facilities for proper disposal.

- ☒ Bulky Items/Scrap Metal **Waste that cannot be burned will be sorted on site before being backhauled from site. Backhauled waste is taken by barge or by air to approved disposal facilities for proper disposal.**
-

- ☒ Waste Oil/Hazardous Waste **Waste oil is burned in an oil furnace. Hazardous waste is removed from site by barge or by air and sent to a disposal facility certified to handle the waste.**
-

- ☒ Empty Barrels/Fuel Drums **Empty barrels and fuel drums are removed from site by barge or by air and sent to a disposal facility certified to handle the waste.**
-

- ☐ Other:
-

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

The incineration system will be a diesel fired incinerator. Waste to be incinerated includes food waste, paper, and untreated wood products.

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

Please see responses to question 32.

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

Not applicable.

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

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?

All methods have been in place for a number of years. No problems are expected. Contingency plans are in place as set out in the Standard Operating Procedures for each system and the Spill Contingency Plan, for example.

ABANDONMENT AND RESTORATION

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

As previously, the specific tasks associated with the final abandonment and restoration activities of the camp site can be summarized as follows:

- **Collection and disposal of hazardous and non-hazardous wastes;**
- **Decommissioning and rehabilitation of fuel storage area;**
- **Demolition or relocation of site structures;**
- **Remediation of any contaminated soils;**
- **Rehabilitation of any permafrost degradation areas; and**
- **Site re-vegetation and drainage control.**

As previously, appropriate environmental monitoring will be implemented at the completion of each phase to ensure conformance with closure objectives.

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: _____

No baseline information has been collected as a direct requirement of this water license, however, considerable baseline data has been collected as a component of the Doris North Environmental Impact Statement. Environmental, socio-economic, and traditional knowledge studies are ongoing and this data is being used to create a baseline dataset for the Hope Bay Belt. See the Final Environmental Impact Statement, Doris North Project, Nunavut, Canada, submitted by Miramar Hope Bay Ltd. October 2005 to the Nunavut Impact Review Board.

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*
- ✓ *NWNSRTA – 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*

Engineering Drawings for the Windy Camp, Hope Bay Project, Nunavut, Canada

ACTIVE DRAWING STATUS

DWG NUMBER	DRAWING TITLE	REVISION	DATE	STATUS	OLD/REPLACED REVISIONS		
W-00	Engineering Drawings for the Windy Camp	1	May 12, 2010	For Permitting Only	Rev 0, May 6, 2010	Rev B, May 4, 2010	Rev A, Apr. 27, 2010
W-01	General Arrangement	1	May 12, 2010	For Permitting Only	Rev 0, May 6, 2010	Rev B, May 4, 2010	Rev A, Apr. 27, 2010
W-02	Windy Camp General Arrangement Plan	1	May 12, 2010	For Permitting Only	Rev 0, May 6, 2010	Rev B, May 4, 2010	Rev A, Apr. 27, 2010
W-03	Quarry D Development Plan	1	May 12, 2010	For Permitting Only	Rev 0, May 6, 2010	Rev B, May 4, 2010	Rev A, Apr. 27, 2010
W-04	Overburden Stockpile Plan	1	May 12, 2010	For Permitting Only	Rev 0, May 6, 2010	Rev B, May 4, 2010	Rev A, Apr. 27, 2010
W-05	Quarry D Sections and Typical Details	1	May 12, 2010	For Permitting Only	Rev 0, May 6, 2010	Rev B, May 4, 2010	Rev A, Apr. 27, 2010

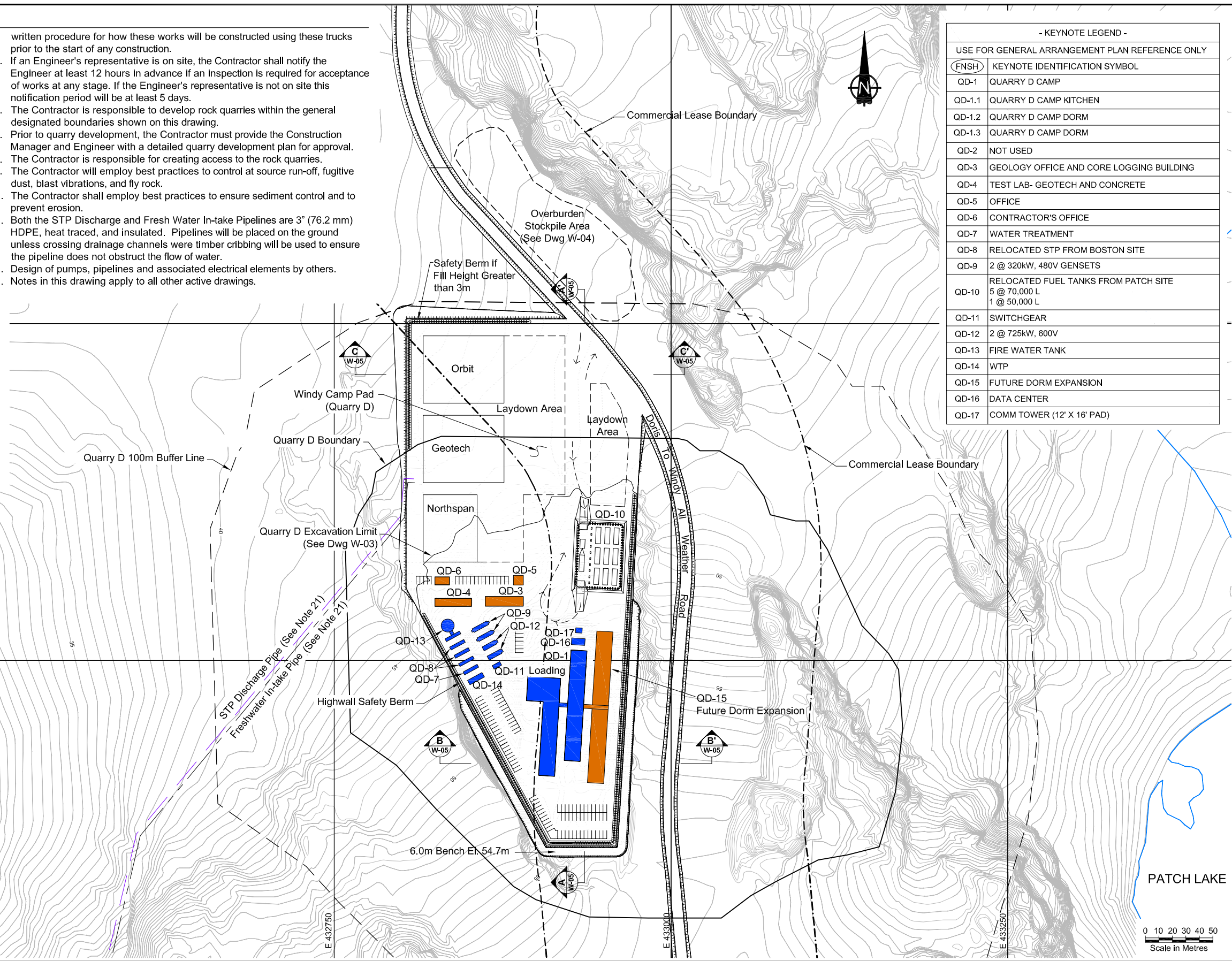
HOPE BAY MINING LTD.



PROJECT NO: 1CH008.027
ISSUED FOR CONSTRUCTION
Revision 1
MAY 12, 2010
W-00

1. Topographic contour data for the terrain model were provided by Hope Bay Mining, and is based on 2007 Aerial Photography. Contour intervals are 0.5m.
2. The designs are based on the contour information shown on these drawings. It is however the Contractor's responsibility to confirm that the contours are a fair reflection of the ground levels in the vicinity of the works, and to advise the Construction Manager and Engineer of any differences.
3. The co-ordinate system is UTM NAD 83, Zone 13.
4. All dimensions are in metric units, unless specifically mentioned.
5. All drawings are scaled appropriately for D-Size construction drawings. Scales may not be correct if these drawings are reproduced and presented in any other size format.
6. The Engineer will provide the Construction Manager and Contractor with digital design files of the road for setting out the works. The Engineer will instruct the Contractor to survey random spot checks to confirm whether the works have been set out correct.
7. All engineering specifications for execution of the works are listed on the drawings or references to external documents are provided.
8. There have not been any geotechnical investigations conducted to confirm subsurface soil conditions, including depth to bedrock in rock quarries.
9. The Contractor and Construction Manager shall familiarize themselves with all appropriate Licences and/or Permits pertaining to execution of the Works. The Engineer will not be responsible for any infringements.
10. The Contractor is to take due care that no wildlife or birds' nest are disturbed during construction. The Construction Manager is to be immediately notified if such sites are found.
11. The Contractor will employ best practices to identify archaeological sites, and maintain archaeological site exclusion boundaries of 30m minimum radius from any of these works.
12. These works must be executed in accordance with the standard HBML health and safety, and environmental standards and protocols. It is the Contractors responsibility to familiarize himself with these documents.
13. Construction of the camp pad may not commence without on-site presence of an Engineers' representative. The Contractor shall notify the Engineer at least 5 days in advance of intended construction start-up.
14. The placement of rockfill material will be by CAT 773 and CAT 730 haul trucks. The Contractor must supply the Construction Manager and Engineer with a

- written procedure for how these works will be constructed using these trucks prior to the start of any construction.
15. If an Engineer's representative is on site, the Contractor shall notify the Engineer at least 12 hours in advance if an inspection is required for acceptance of works at any stage. If the Engineer's representative is not on site this notification period will be at least 5 days.
16. The Contractor is responsible to develop rock quarries within the general designated boundaries shown on this drawing.
17. Prior to quarry development, the Contractor must provide the Construction Manager and Engineer with a detailed quarry development plan for approval.
18. The Contractor is responsible for creating access to the rock quarries.
19. The Contractor will employ best practices to control at source run-off, fugitive dust, blast vibrations, and fly rock.
20. The Contractor shall employ best practices to ensure sediment control and to prevent erosion.
21. Both the STP Discharge and Fresh Water In-take Pipelines are 3" (76.2 mm) HDPE, heat traced, and insulated. Pipelines will be placed on the ground unless crossing drainage channels were timber cribbing will be used to ensure the pipeline does not obstruct the flow of water.
22. Design of pumps, pipelines and associated electrical elements by others.
23. Notes in this drawing apply to all other active drawings.



- KEYNOTE LEGEND -	
USE FOR GENERAL ARRANGEMENT PLAN REFERENCE ONLY	
(FNSH)	KEYNOTE IDENTIFICATION SYMBOL
QD-1	QUARRY D CAMP
QD-1.1	QUARRY D CAMP KITCHEN
QD-1.2	QUARRY D CAMP DORM
QD-1.3	QUARRY D CAMP DORM
QD-2	NOT USED
QD-3	GEOLOGY OFFICE AND CORE LOGGING BUILDING
QD-4	TEST LAB- GEOTECH AND CONCRETE
QD-5	OFFICE
QD-6	CONTRACTOR'S OFFICE
QD-7	WATER TREATMENT
QD-8	RELOCATED STP FROM BOSTON SITE
QD-9	2 @ 320kW, 480V GENSETS
QD-10	RELOCATED FUEL TANKS FROM PATCH SITE 5 @ 70,000 L 1 @ 50,000 L
QD-11	SWITCHGEAR
QD-12	2 @ 725kW, 600V
QD-13	FIRE WATER TANK
QD-14	WTP
QD-15	FUTURE DORM EXPANSION
QD-16	DATA CENTER
QD-17	COMM TOWER (12' X 16' PAD)

2010 - Construction Program

2011 - Construction Program

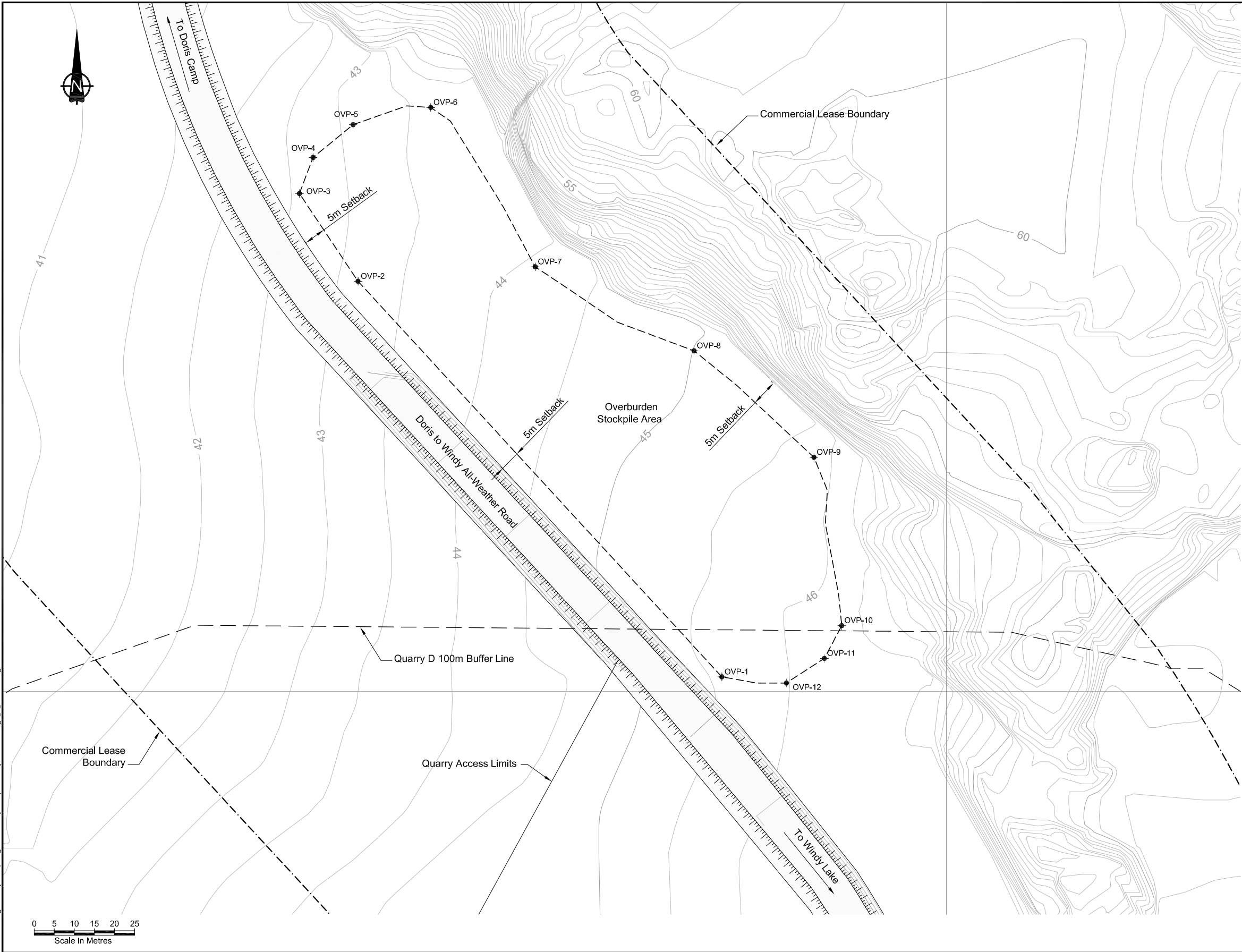
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1. The Contractor is responsible for creating access to the works in the quarry within the limits as shown on the Drawings.
2. The Contractor shall employ best practices to control at source runoff, fugitive dust, blast vibrations and fly rocks.
3. Snow, ice and overburden overlying the bedrock within the designated quarry footprint shall be excavated to prior to drilling and blasting. The overburden shall be excavated with a maximum tolerance of 0.30m above surface of bedrock.
4. The Quarry D final finished bedrock surface shall be drilled and blasted to the specified elevation and grade. The finished grade of the blasted bedrock surface has a maximum tolerance of 0.30m. The Contractor shall ensure the blasted floor have natural drainage (1% grade). All blasted material shall be excavated to expose intact rock surface for survey and approval by the Engineer. Additional small scale rock breaking or blasting might be required to ensure natural drainage in the intact rock foundation. Once the intact rock surface is surveyed and approved, the Contractor could backfill the floor for traffic and other purposes.
5. The configuration of the quarry shall be blasted within the coordinates and elevation provided in the stakeout table with the criteria that a minimum of 1m shall be maintain between the lowest part of the quarry floor and the original ground around the quarry. A survey shall be completed on the north edge of the proposed quarry to identify the bedrock and overburden contact to ensure the specified El. 47.5m is suitable to meet the 1m criteria above. The Contractor shall notify the Engineer immediately if there are any discrepancies to the specifications.
6. Overburden pockets within the quarry limits that extends below the specified finish grade shall be excavated a minimum 1m below grade and backfilled with engineered fill to provide protection of the permafrost as shown in Detail 4, Dwg W-05. Furthermore, the Contractor shall provide the Engineer the assistance and equipment required to perform a rudimentary sub-surface investigation to identify bedrock and overburden contact upon request at a mutually agreed time. The Engineer reserves the right to adjust the specification based on the finding from the investigation. Survey of the overburden pocket surface outline shall be carried by as deemed necessary by the Engineer for construction of further works.
7. Notes in this drawing apply to all other active drawings.

[illegible]



OVERBURDEN STOCKPILE STAKEOUT TABLE:

Point ID	Easting	Northing
OVP-1	432944	7552004
OVP-2	432854	7552102
OVP-3	432839	7552124
OVP-4	432842	7552133
OVP-5	432852	7552141
OVP-6	432872	7552145
OVP-7	432898	7552106
OVP-8	432937	7552085
OVP-9	432967	7552058
OVP-10	432974	7552016
OVP-11	432970	7552008
OVP-12	432960	7552002

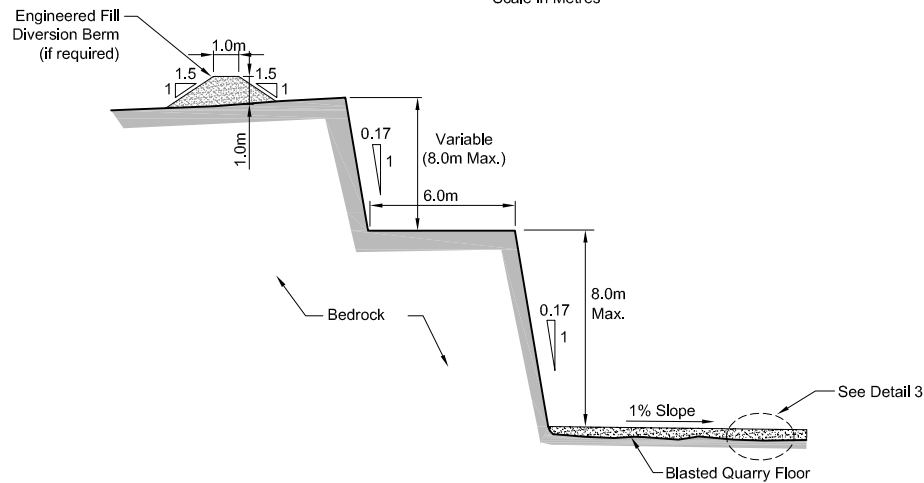
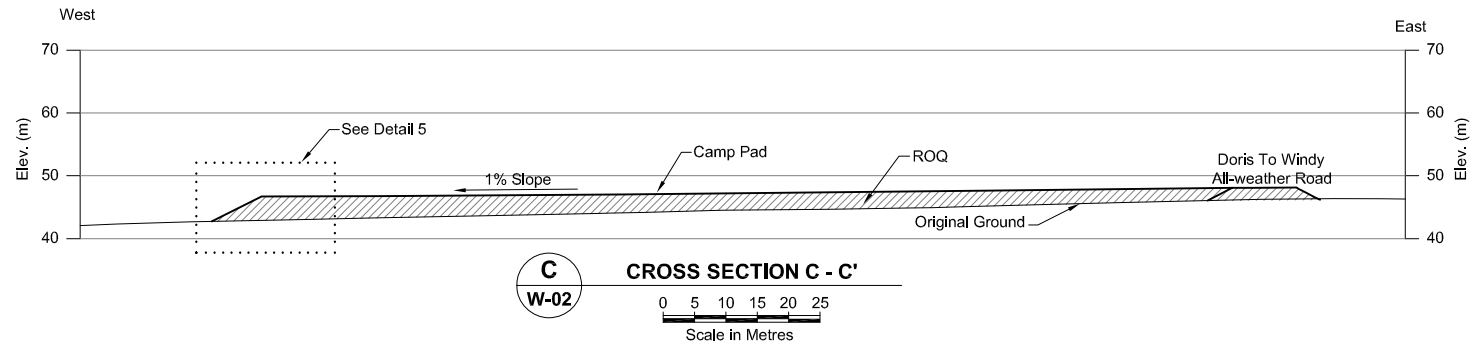
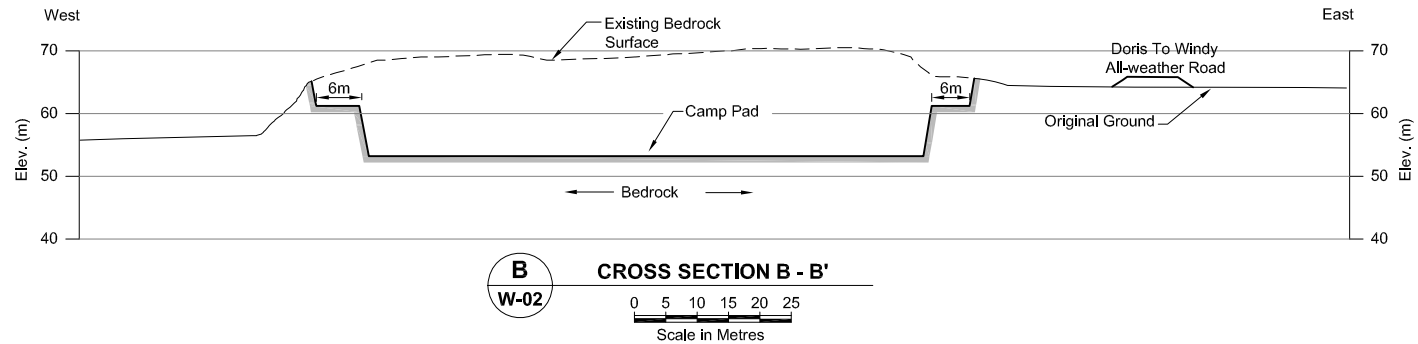
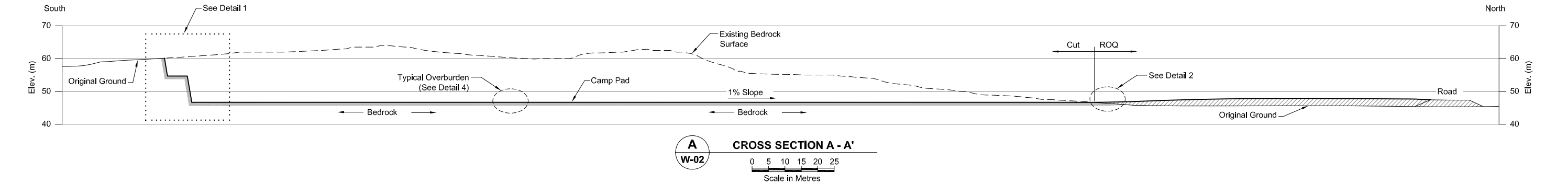
NOTES

1. The Contractor is responsible for creating access to the work in the overburden stockpile area.
2. The Contractor will employ best practice to control at source runoff, dust, sediment, erosion and slope stability.
3. Snow and ice shall be cleared off the working stockpile areas prior to placement of any overburden material.
4. Overburden material should be placed in lifts not exceeding 1.5m thick. The overall final configuration of the overburden stockpile shall not exceed 3H:1V slope and 5m overall height. A minimum 5m set back shall be taken from stockpile boundary and nearby features.
5. The Contractor is responsible for the operation and maintenance of the overburden stockpile.
6. The overburden stockpile has an estimated storage capacity of 21,000 cubic meters of material. If the overburden from the quarry exceed this amount, the Contractor shall notify the Engineer immediately.

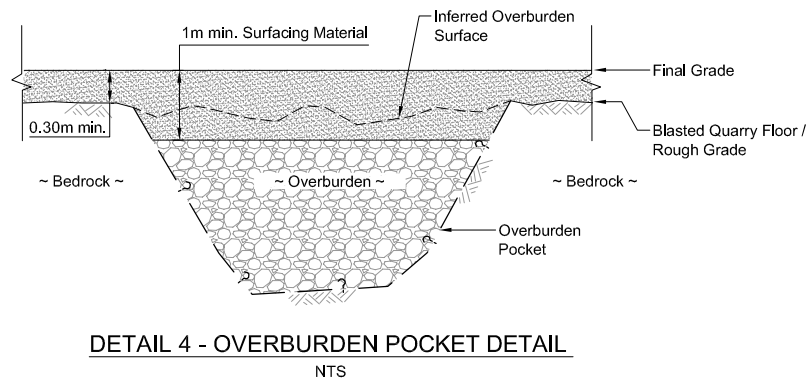
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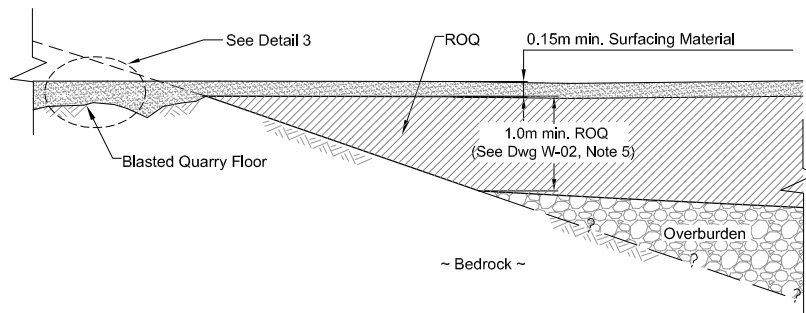
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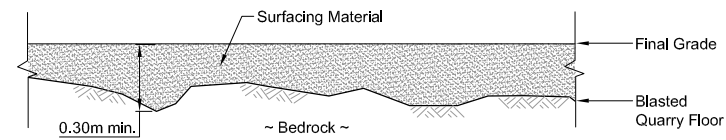
DETAIL 1 - TYPICAL SECTION IN BEDROCK
NTS



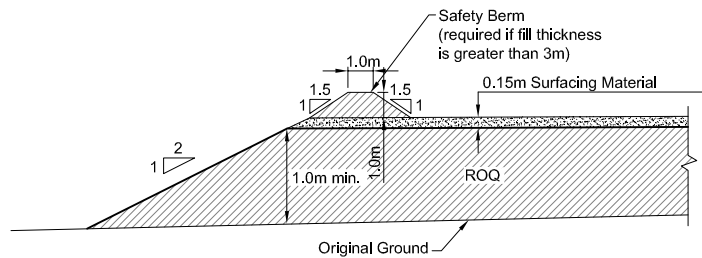
DETAIL 4 - OVERBURDEN POCKET DETAIL
NTS



DETAIL 2 - TYPICAL QUARRY TOE DETAIL
NTS



DETAIL 3 - TYPICAL LEVELLING COURSE
NTS





DETAIL 5 - TYPICAL PAD FILL
NTS

NOTES

1. The original ground is shown on these drawings. The Contractor is responsible to establish the overburden and bedrock contact for blasting operation and volume estimates.
2. The inclination of the highwall shall be minimum 0.17H:1V.
3. A 6m wide safety catchment bench must be established on highwall that exceeds 8m in height.
4. The finished highwall surfaces have a maximum 0.30m tolerance.
5. Scaling, rock breaking and other safety practice might be required on the highwall to minimize rock fall and eliminate slope failure. The Contractor is responsible to carry these safety measures according to best practices and to HBML health and safety protocols.

W-04	Overburden Stockpile Plan								
W-03	Quarry D Development								
W-02	Windy Camp General Arrangement Plan								
W-01	General Arrangement								
W-00	Engineering Drawings for the Doris North Windy Camp								
DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE	NO.	DESCRIPTION	CHK'D	APP'D	DATE	
REFERENCE DRAWINGS				REVISIONS					
				1	FOR PERMITTING ONLY	LW		12May10	
				0	ISSUED FOR CONSTRUCTION	LW	EMR	6May10	
				B	ISSUED FOR COMMENT	LW	EMR	4May10	
				A	ISSUED FOR COMMENT	AT	EMR	27Apr10	

 ENGINEERS AND SCIENTISTS		 NORTH AMERICA		HOPE BAY PROJECT	
				DRAWING TITLE: Quarry D Sections and Typical Details	
DESIGN: AT CHECKED: EMR		DRAWN: NV APPROVED:		REVIEWED: AT DATE: May 12, 2010	
FILE NAME: WCQ Dwg3_4_5 Rev1.dwg		SRK JOB NO.: 1CH008 027		HOPE BAY MINING LIMITED	
PROFESSIONAL ENGINEERS STAMP		DRAWING NO.: W-05		SHEET 5 OF 5	REVISION NO. 1

Engineering Drawings for the Windy Camp Fuel Tank Farm, Doris North Project, Nunavut, Canada

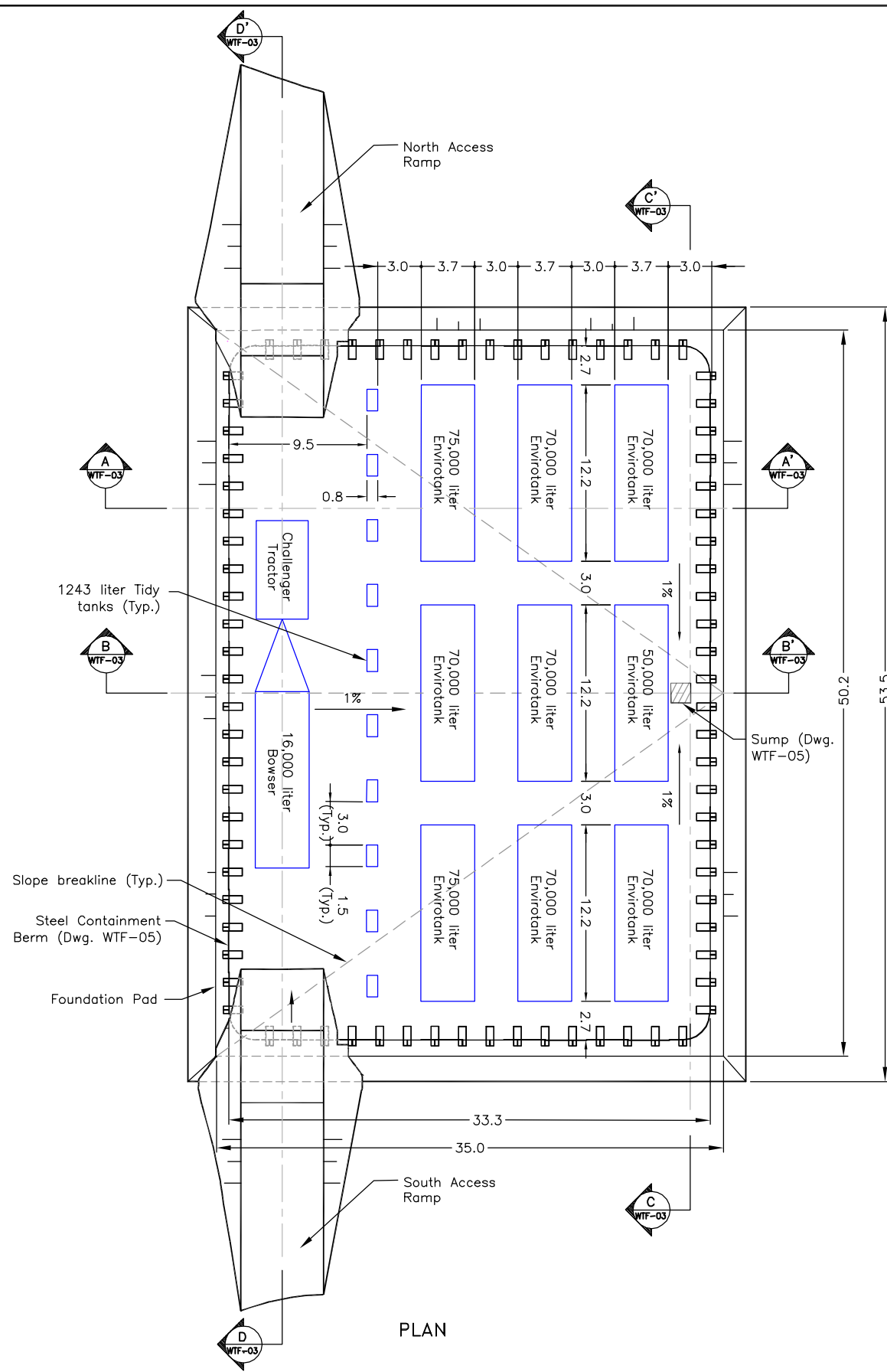
ACTIVE DRAWING STATUS

DWG NUMBER	DRAWING TITLE	REVISION	DATE	STATUS
WTF-01	Windy Tank Farm General Arrangement	A	Apr. 20, 2010	Issued for Comment
WTF-02	Windy Tank Farm Plan	A	Apr. 20, 2010	Issued for Comment
WTF-03	Sections, Details and Material Specifications	A	Apr. 20, 2010	Issued for Comment
WTF-04	Steel Containment Berm Layout, Details and Material List	A	Apr. 20, 2010	Issued for Comment
WTF-05	Sump Layout and Details	A	Apr. 20, 2010	Issued for Comment
WTF-06	Sump Details	A	Apr. 20, 2010	Issued for Comment

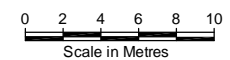
HOPE BAY MINING LTD.

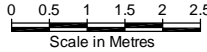
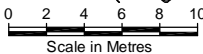
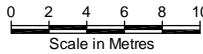
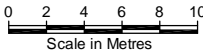


PROJECT NO: 1CH008.027
ISSUED FOR COMMENT
Revision A
APRIL 20, 2010

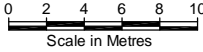


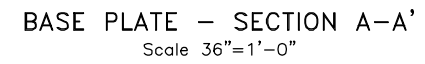
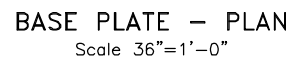
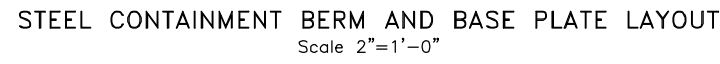
- Notes:

[illegible]



1. Drawings are scaled appropriately for D-Size construction drawings. Scales may not be correct if these drawings are reproduced and presented in any other size format.
2. The blasted floor should carry a 1% grade to the location of the sump. The Liner Protecting Material should be a constant thickness as directed by the Engineer.
3. Prior to placement of any construction material, the receiving surface must be free of snow and ice.
4. The Engineer must approve all surfaces prior to placement of any construction material.
5. Snow and ice on stockpiled construction material must be removed prior to loading for construction use.
6. In areas where staged construction is required, each subsequent lift must be adequately keyed in to the preceding lift. The Engineer will approve such staged construction.
7. Compaction will be a field specification, based on trial compaction tests to be carried out by the Contractor to the satisfaction of the Engineer.
8. The Contractor will be responsible to keep the secondary containment area dry and free of snow and ice during the entire construction period.
9. The Contractor is to take due care so as not to damage the liner during construction. Special temporary liner protection measures must be taken in the event that construction equipment must pass over a liner before the final protective cover has been placed. The Engineer is to be notified of these occurrences.
10. If an Engineers' representative is on site the Contractor shall notify the Engineer at least 2 hours in advance if an inspection is required for acceptance of works at any stage. If the Engineers' representative is not on site, this notification period will be at least 5 days.

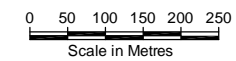
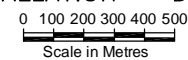
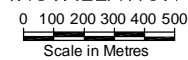
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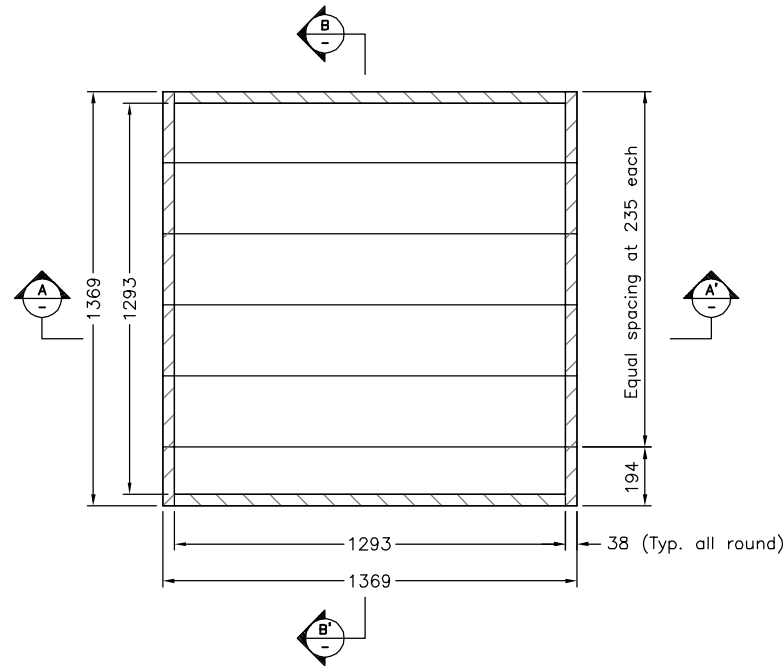


Notes:

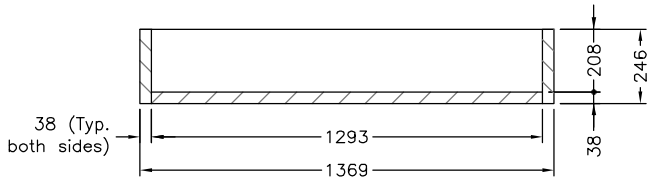
1. Drawings are scaled appropriately for D-Size construction drawings. Scales may not be correct if these drawings are reproduced and presented in any other size format.
2. This drawing is in imperial units.
3. The Steel Containment berm is a prefabricated modular system manufactured by WESTEEL Limited, Winnipeg, Manitoba, Canada. The product is a 33" high rectangular Zero Ground Disturbance C-Ring system.
4. This drawing is intended to illustrate the Steel Containment berm layout to assist the Contractor in understanding the facility layout. Complete details of the system can be found in the suppliers Installation and Assembly Manual, which must be consulted for actual installation information pertaining to the system.
5. The Steel Containment berm must be installed by a qualified and approved WESTEEL Contractor.
6. The Contractor must confirm with the manufacturer that the Steel Containment berm materials list are in fact appropriate to execute the intended design.

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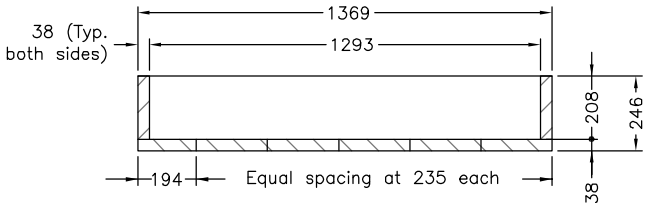
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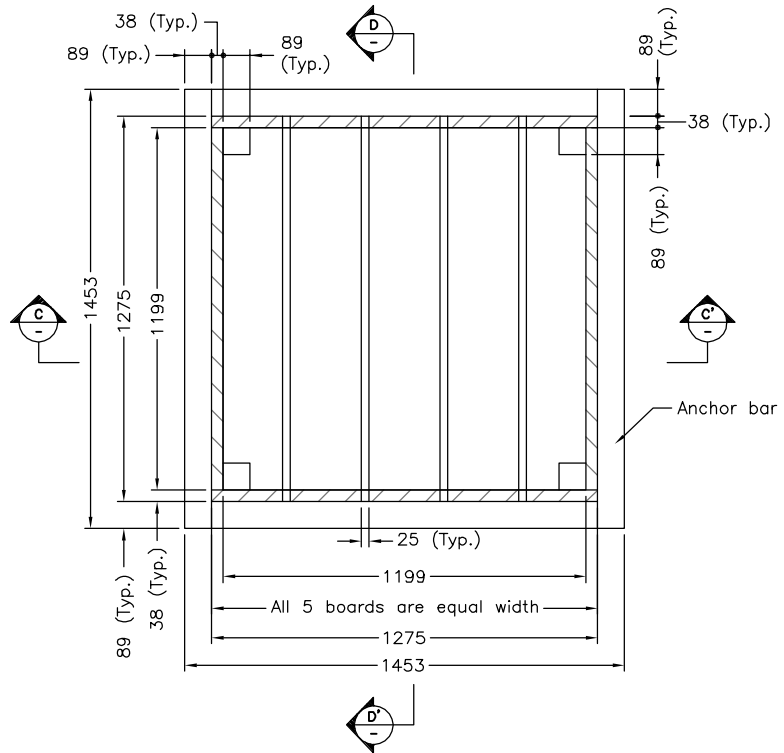
EXTERNAL SUMP CAGE – PLAN LAYOUT



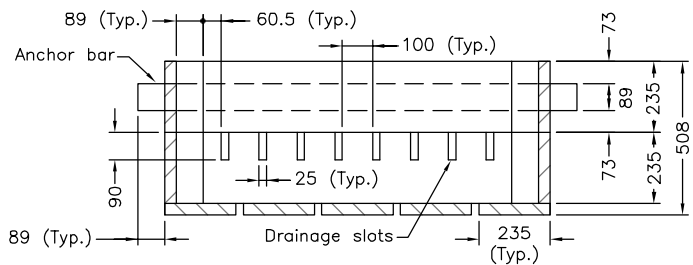
EXTERNAL SUMP CAGE – SECTION A-A'



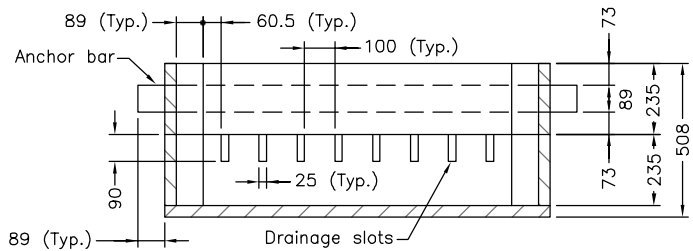
EXTERNAL SUMP CAGE – SECTION B-B'



INTERNAL SUMP CAGE – PLAN LAYOUT

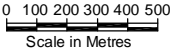


INTERNAL SUMP – SECTION C-C'



INTERNAL SUMP – SECTION D-D'

- Notes:
1. Drawings are scaled appropriately for D-Size construction drawings. Scales may not be correct if these drawings are reproduced and presented in any other size format.
 2. Sump cage lumber must be standard pressure treated dimensional lumber.
 3. The sump cage dimensions used in the Drawings are based on the actual standard dimensions of dimensional lumber, as indicated in the table of quantities. Should the lumber dimensions deviate from these values, the Engineer is to be informed immediately.
 4. The sump cages must be assembled using wood screws compatible with the wood treatment method. All screws shall have flat heads and must be completely countersunk. To prevent wood splitting all screws must have a pilot hole drilled.
 5. The Contractor is free to determine his own screw spacing; however, the Engineer will confirm suitability.
 6. The Contractor must satisfy himself that the materials list is adequate to execute the intended design.



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