

## DAILY REPORT #58 – DORIS NORTH INFRASTRUCTURE/ NORTH DAM

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<b>Reviewed by:</b>		<b>Project #:</b>	1CH008.058.0320
<b>Role</b>	<b>Company</b>	<b>Personnel – Position</b>	<b>On Site</b>
Client	Hope Bay Mining Limited (HBML)	Angela Holzapfel – ESR Compliance Manager David Vokey – ESR Coordinator Don Ethelston – HSLP Advisor Dean Wold - Safety Jill Turk – ESR Coordinator Katsky Venter – ESR Manger Michelle Tanquay – ESR Site Manager Stirling Kelly – HSLP Advisor	No Yes No Yes No Yes Yes No
	JDS	Lloyd Jackson – Mechanical Superintendent Doug Fielding – Construction Manager Ishan Fechter – Construction Coordinator Jerry Graham – Construction Manager Kevin Whieldon – Project Coordinator Mark Valeriote – Construction Manager	Yes No No Yes Yes Yes
Engineering Design Consultants	SRK Consulting (Canada) Inc.	John Kurylo – Site Engineer Megan Miller – Site Engineer Lawrence Borowski – Site Engineer Murray McGregor – Site Engineer Iozsef Miskolczi – Site Engineer Lowell Wade – Senior Engineer	No No Yes No Yes No
	EBA Engineering Consultants Ltd.	Jeff Orr – Project Manager Jennifer Stirling – Geologist Thomas Bradshaw – Junior Engineer Ernest Palczewski – Geologist	Yes Yes No No
Earthworks Contractor	Nuna Logistics	Bradford Watkin – QC Manager Doug Haverland – Area Superintendent Gary Sodhi – Field Engineer Georges Cornelissen – Survey Manager Jeff Roberts - Surveyor Jim Cardinal – Foreman Jordan Gunter – Foreman Kevin Oakes – Project Engineer Kevin Kozdrowski – Foreman (Night shift) Kyle Kuntz – Project Engineer Margaret Caley – Surveyor Matt McKay – Civil Supervisor Mike MacMaster – Surveyor Mike Price – Field Engineer Nick Stoneberger – Superintendent Rick Peter – Foreman (Day shift) Ron MacMaster – Surveyor Simon Chipper – Civil Supervisor	No No Yes No Yes No No No Yes No No Yes Yes Yes Out Yes Yes No No
<b>External Distribution List:</b>	SRK: Maritz Rykaart, Lowell Wade, Seema Kang, Silkie Wong EBA: Robert Zschuppe Nuna: Chris Petrovic JDS: Bob Prince-Wright, Calvin Goldschmidt HBML: Dave Power, Gerry Benson		
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## WEATHER (ROBERTS BAY)

<http://www.wunderground.com/weatherstation/WXDailyHistory.asp?ID=INUNAVUT3>

Temperature/Wind Chill (°C)	6AM -38/-38:	12PM:-34/-38	6 PM: -36/-40	12 AM: -39/-39
Precipitation (mm)	<b>Rain:</b> None		<b>Snow:</b> None	
Conditions	<b>Day Shift:</b> Clear, cold, light wind		<b>Night Shift:</b> Clear sky. Calm wind.	
Daily norms (°C)	24 hour high: -34		24 hour low: -39	

## HEALTH, SAFETY AND ENVIRONMENT

- Iozsef Miskolczi and Jennifer Sterling attended the daily tool box meeting.
- Red fox spotted north of the north diversion berm.

## COMMENTS, CORRESPONDENCE AND ACTIVITIES

### DAILY MEETING WITH NUNA AND HBML TEAM:

- The daily meeting was attended by HBML [Katsky Venter], Newmont [Dean Wold], JDS [Gerry Graham, Kevin Whieldon, Mark Valeriot, ]; Nuna [Nick Stoneberger] and SRK [Lawrence Borowski,]

Topic	Status
Health and Safety and Environment	<ul style="list-style-type: none"> <li>• Safety: No issues.</li> <li>• Some discussion on stacks at the gensets. Excessive back pressure. Discussed shortening stacks and regulations that would govern.</li> </ul>
North Dam	<ul style="list-style-type: none"> <li>• Day shift did not place FCM. Thermistors were monitored.</li> <li>• Some work on the south end, snow clearing, peeling back liners and setting up frost fighters.</li> <li>• ~ 27 loads of core material placed during the night shift.</li> <li>• Thickness varied from ~ 250 mm to 350mm. Some discussion regarding thicknesses vs freezeback times.</li> <li>• Plan to start filling in corner from ~ Sta 150 this morning.</li> <li>• Continue work cleaning and repairing GCL on the SE corner today.</li> <li>• Additional transition material to be hauled today.</li> <li>• Multi bead thermistor connections are getting damaged. Need to get procedures in place to ensure that connectors are handled with care.</li> </ul>
Water Management Structures	<ul style="list-style-type: none"> <li>• Crush was placed on slopes for ~ 100 m at the east end.</li> <li>• Bentonite placed for ~ 100 m over liner.</li> <li>• No issues with volume of bentonite being used.</li> <li>• Layfield will be back Monday.</li> <li>• Question of whether boots will be needed for culverts.</li> <li>• Some discussion on sumps. Lids to be constructed as per IFCs</li> <li>• Continue with key trench cleaning and placing bentonite today.</li> </ul>
General	<ul style="list-style-type: none"> <li>• Drilling at quarry 2 to continue. ~ 15,000 cu.m. blast scheduled ~ middle of next week.</li> </ul>

### SURVEY:

Required	•
Data Received	<ul style="list-style-type: none"> <li>• Survey of FCM March 1<sup>st</sup> and March 2<sup>nd</sup> (night)</li> <li>• Frozen core volumes to March 2<sup>nd</sup>.</li> </ul>

<b>Outstanding</b>	•	
<b>Upcoming</b>	<ul style="list-style-type: none"> <li>• Survey of FCM after placement (ongoing).</li> <li>• Survey of Doris North Diversion berm (ongoing).</li> </ul>	

## **NORTH DAM/FROZEN CORE PLANT PAD:**

### **Multi-Bead Thermistors**

- Multi-bead thermistors were downloaded. The connector of ND-HTS-175-32.5 is broken and could not be connected to the datalogger for download.
- The thermistor strings at Sta. 0+40 were untangled and coiled up.

### **Frozen Core Plant**

#### *Dayshift*

- Difficulty starting up the burner in the morning.
- Plant started at 2:00 pm, and produced FCM until 4:30 pm
- Four loads of FCM produced.
- Temperature of mix +37C

#### *Nightshift*

- No FCM was produced.
- Maintenance and cleanup activities throughout the nightshift.

### **Dam Shell**

#### *Dayshift*

- No activity.

#### *Nightshift*

- ROQ was placed on the downstream side, in a lift close to 1 m thick, from Sta. 1+20 to Sta. 0+90. No compaction was observed.

### **Key Trench/ Central Core**

#### *Dayshift*

- Cleaned small section at NE corner for today's pour.
- FCM placed in a small wedge from Sta 1+40 to Sta 1+80
- Thickness varied to a maximum of 300 mm.
- Upstream slope was over built, packed, then cut with the excavator and raked. The resulting slope of 2.5:1 was achieved using a level mounted on a triangle with the correct slope.
- All test results were within specification limits.
- Water was not pooling on the final surface after compaction.
- Hauled and placed transition material on the downstream part of the dam until the burner issue was resolved.
- One single bead thermister installed.

#### *Nightshift*

- No core placement on nightshift.
- Single-bead thermistors were monitored throughout the nightshift.
- Freeze-back was reached around 4 AM in the south end of the lift placed the previous night, while the north end of the same lift was just below zero degrees.
- One frozen core sample was collected.
- Laborers were maintaining the hoarding on the upstream edge of the keytrench, where two Frost Fighters were set up to melt the ice and the 5/8 crush over the GCL liner. No actual removal of any

thawed material was observed.

- A volume of packed snow was noted at Sta.0+60 lodged between the transition material and the frozen core. This snow will have to be removed by manual labor to eliminate the risk of damaging the thermistor cables.

#### **Field Geotechnical Testing, Laboratory and Sampling**

#### **SINGLE BEAD THERMISTER SUMMARY**

Installed Today			Active					
Id	Station	U/S, D/S, CL	Id	Station	U/S, D/S, CL	Id	Station	U/S, D/S, CL
SB20	1+45	U/S	SB4	1+45	U/S			
			SB5	1+10	U/S			
			SB3	0+70	CL			

- A summary of today's material testing progress is presented in the tables below.

#### **PARTICLE SIZE DISTRIBUTION SUMMARY**

Collected	Testing In Progress	Completed
		HB12-FCP-CORE-PSD63-QA-20120303 HB12-FCP-CORE-PSD64-QA-20120303

#### **MOISTURE CONTENT SUMMARY**

Collected	Testing In Progress	Completed
HB12-FCP-CORE-MC251-QA-20120303 HB12-ND-CORE-MC252-QA-20120303 HB12-ND-CORE-MC253-QA-20120303		HB12-FCP-CORE-MC245-QA-20120302 HB12-FCP-CORE-MC247-QA-20120302 HB12-FCP-CORE-MC248-QA-20120302 HB12-FCP-CORE-MC251-QA-20120303 HB12-ND-CORE-MC252-QA-20120303 HB12-ND-CORE-MC253-QA-20120303

#### **DRILLED CORE**

Collected	Testing In Progress	Completed
HB12-ND-CORE-DC62-20120303 HB12-ND-CORE-DC63-20120303		HB12-ND-CORE-DC60-20120302 HB12-ND-CORE-DC61-20120302 HB12-ND-CORE-DC62-20120303

#### **DORIS NORTH DIVERSION BERM:**

- Snow clearing in key trench continued.
- Completed placing crush over liners/bentonite in the key trench between stations 0+580 and 0+687.
- Crew placed geotextile over HDPE starting ~ Sta.560 and working west.
- Snow was not removed from the trench when the geotextile was placed. At present there is too much snow in the key trench to remove by hand. The plan now is to prepare a working surface over the berm sufficient for access by an excavator. The geotextile will be pulled back and the snow removed with the excavator.
- Seams were welded to the bottom of the slope.

**DORIS SUMPS:**

- No activity: sumps are covered with tarps

**QUARRY #2:**

- Two drills working on dayshift only.
- ROQ was loaded and hauled to the North Dam. Initially the CAT 385 excavator was used for loading the haul trucks, but had to be switched out by the CAT 345 because of a minor hydraulic leak.

**GENERAL:**

- Snow clearing and grading on the roads around the camp.

## PHOTOS:



**Photo 1:** Progress photo from photo point 1, facing SSE



**Photo 2:** Progress photo from photo point 2, facing NNW



**Photo 3:** Progress photo from photo point 3, facing NNE



**Photo 4:** Sump 1



**Photo 5:** Sump 2





**Photo 6:** FCM work area, Sta 140 to Sta 180



**Photo 7:** Work area cleaned prior to placing FCM.



**Photo 8:** Placing FCM.



**Photo 9:** Placing geotextile. Note snow in keytrench that will be removed.

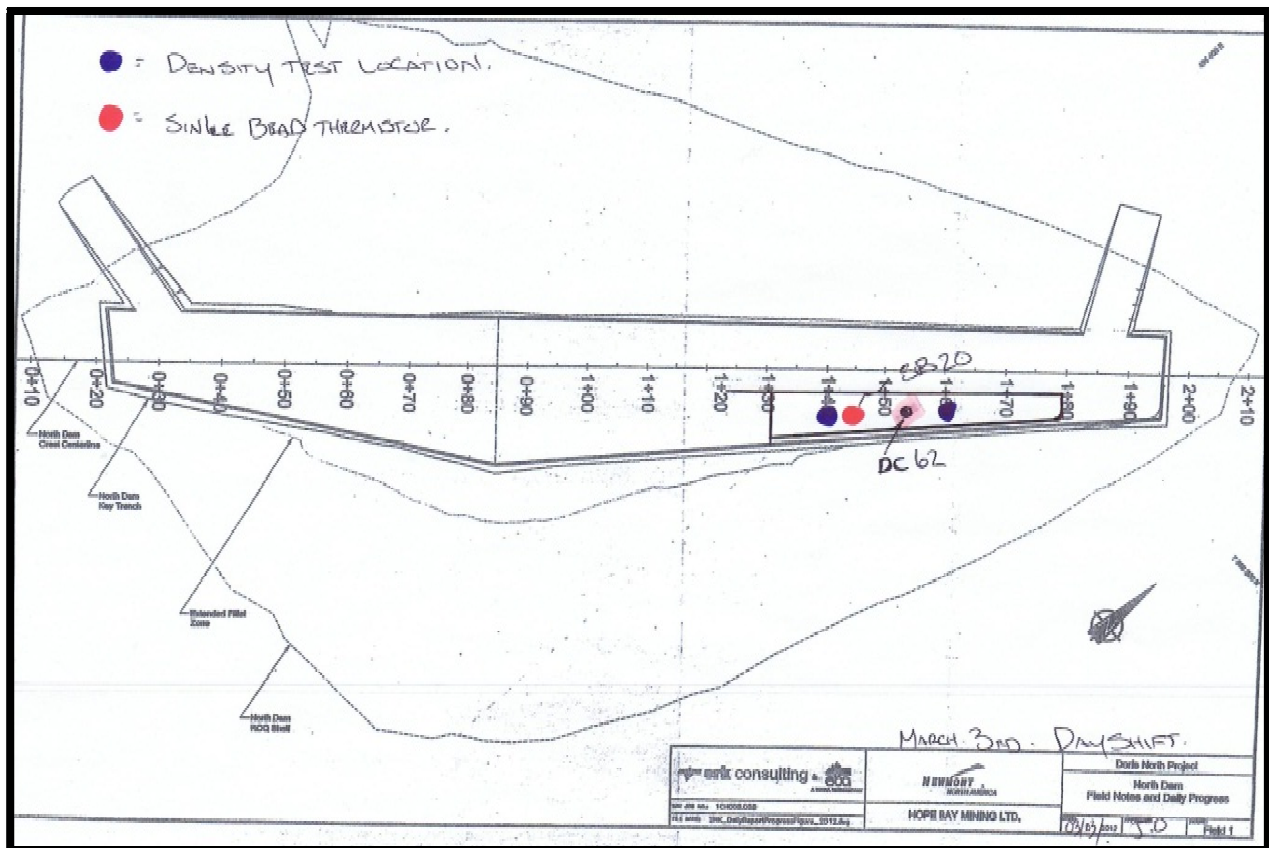




**Photo 8:** CAT D8 dozer placing ROQ on the downstream of the dam.



**Photo 9:** Snow piled up against the core around Sta. 0+60. This snow will have to be removed before transition material can be placed.

**FIGURES:****Figure 1 – North Dam Progress – Dayshift**

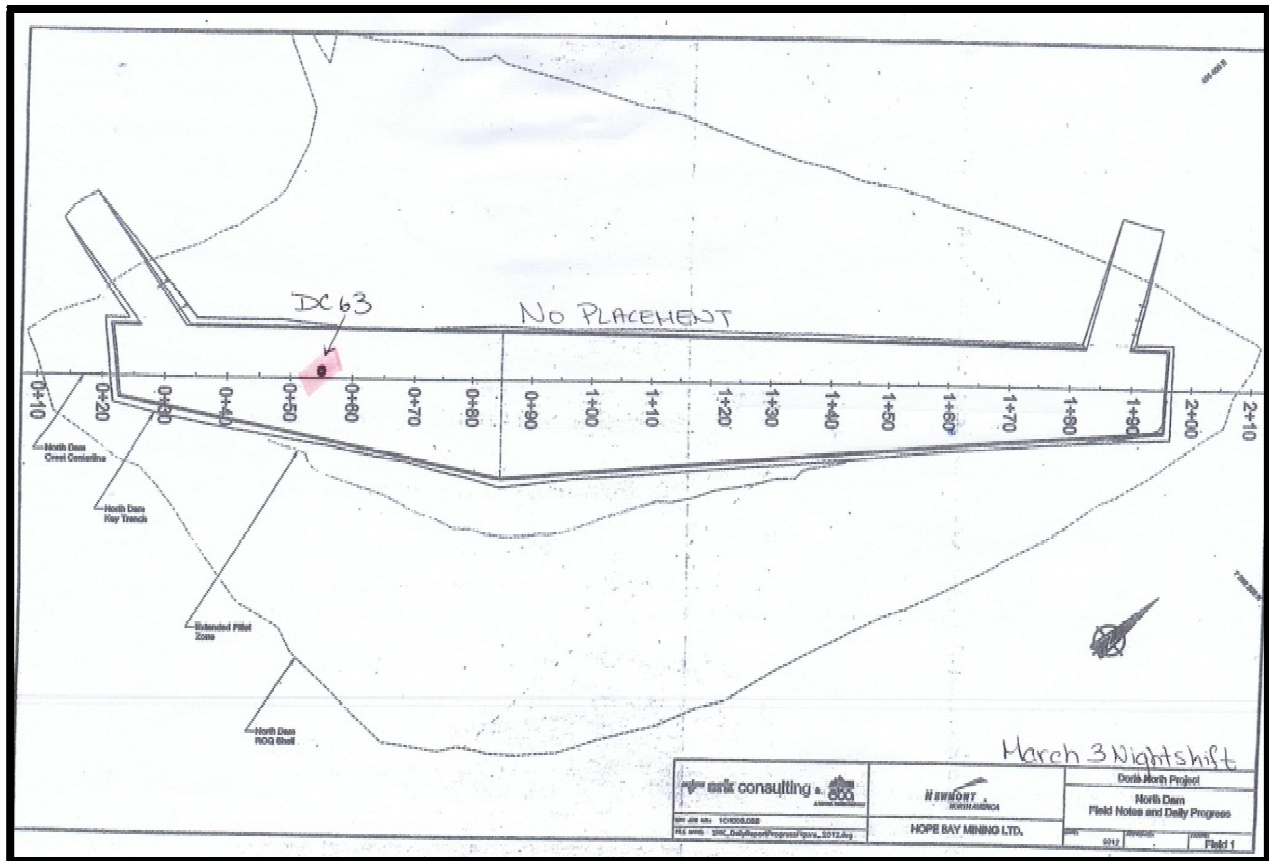


Figure 2 – North Dam Progress – Nightshift