

DAILY REPORT #83 – DORIS NORTH INFRASTRUCTURE/ NORTH DAM

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Reviewed by:		Project #:	1CH008.058.0320
Role	Company	Personnel – Position	On Site
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 No Yes No Yes Yes No 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 Calvin Goldschmidt – Construction Coordinator	No Yes No No No No 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 Yes No No Yes No
	EBA Engineering Consultants Ltd.	Jeff Orr – Project Manager Jennifer Stirling – Geologist Thomas Bradshaw – Junior Engineer Ernest Palczewski – Geologist	No No Yes Yes
Earthworks Contractor	Nuna Logistics	Benny Vostermans – Foreman (Night shift) Doug Haverland – Area Superintendent Gary Sodhi – Field Engineer Georges Cornelissen – Survey Manager Jeff Roberts - Surveyor Jim Cardinal – Foreman Jordan Gunter – Foreman (Dayshift) Kevin Kozdrowski – Foreman Kyle Kuntz – Project Engineer Margaret Caley – Surveyor Matt McKay – Civil Supervisor Mike MacMaster – Surveyor Mike Price – Field Engineer Rick Peter – Foreman Ron MacMaster – Surveyor Simon Chipper – Civil Supervisor	Yes No No Yes No Yes Yes No No Yes No Yes Yes No No Yes
External Distribution List:	SRK: Maritz Rykaart (On Site), Lowell Wade, Seema Kang, Silkie Wong EBA: Robert Zschuppe Nuna: Chris Petrovic HBML: Dave Power		
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WEATHER (ROBERTS BAY)

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

Temp. / Wind Chill (°C)	6AM: -25/-25	12PM: -20/-20	6 PM: -17/-23	12 AM: -17/-25
Precipitation (mm)	Rain: None		Snow: Traces	
Conditions	Day Shift: Sunny, cool wind.		Night Shift: Overcast, light to moderate wind. Light flurries.	
Daily norms (°C)	24 hour high: -14.8		24 hour low: -27.8	

HEALTH, SAFETY AND ENVIRONMENT

- Megan Miller and Ernest Palczewski attended the dayshift Nuna toolbox meeting.
- Thomas Bradshaw and Iozsef Miskolczi attended the nightshift toolbox meeting.

COMMENTS, CORRESPONDENCE AND ACTIVITIES**DAILY MEETING WITH NUNA AND HBML TEAM:**

- The daily meeting was attended by Nuna [Trevor Sorken, Lucas Evans, Simon Chipper], ESR [Katsky Venter], JDS [Doug Fielding, Calvin Goldschmidt], SRK [Iozsef Miskolczi, Maritz Rykaart, Megan Miller]

Topic	Status
Health and Safety and Environment	<ul style="list-style-type: none"> • No safety incidents. • ESR discussed sources of overburden material for Boston. • ESR asked that the wood chipper be commissioned.
North Dam	<ul style="list-style-type: none"> • GCL was placed yesterday. • Nuna estimates that ~4-5 additional panels of GCL are required. • Nuna said that they have both packers working today and both packers will be working at the dam. • On nightshift GCL overliner material was placed. On the south end this material was not brought up level with the key trench excavation as shown in the drawings. It was discussed that transition material could be used in this area.
Water Management Structures	<ul style="list-style-type: none"> • Work on the diversion berm continued yesterday with HDPE being placed and excavation occurring in the primary road. • Nuna plans on placing the culverts and reopen the Primary Road today. • Once the culverts are installed Nuna plans on starting work on the drifted-in area of the diversion berm.
General	<ul style="list-style-type: none"> • Nuna plans on having the last blast in Quarry 2 on Monday. • The CAT 345 excavator is going to be cleaned tonight of grease etc. prior to being moved to the jetty. • Tomorrow is crew change day for Nuna. • Nuna will be working on the Windy Core box move today.

SURVEY:

Required	<ul style="list-style-type: none"> • Overliner and Transition Material to station 0+85
Data Received	<ul style="list-style-type: none"> • None.
Outstanding	<ul style="list-style-type: none"> • To date as-builts of Doris Diversion Berm (ROQ, underliner crush, liner, overliner crush)
Upcoming	<ul style="list-style-type: none"> • Diversion Berm material as placed • Dam material (ongoing)

NORTH DAM/FROZEN CORE PLANT PAD:**Multi-bead Thermistors**

- No multi-bead thermistor readings were collected.
- The thermistor cable at station 0+40 which requires a new connector was marked with orange flagging.
- The connector of DN-HTS-085-33/5 was examined no further damage (other than the broken bead 8 wire) was noticed.

Frozen Core Plant*Dayshift*

- No activity.
- No operator available.

Nightshift

- No overliner material was produced
- Cleanup and maintenance activities for most of the nightshift

Dam Shell*Dayshift*

- ROQ material was placed with the CAT D8 dozer and the CAT 330 excavator.
 - A lift of ROQ material was placed on the downstream side of the dam to the elevation of the transition material along the crest of the core. This lift was extended to approximately station 0+85.
 - A second lift of ROQ material was placed on the upstream slope of the core. As this material was placed the CAT 330 excavator sloped the upstream side. This material was to station 1+30 at the end of nightshift.
 - Only 3 to 4 CAT 730 haul trucks were available for this haul.
 - The 10T vibratory compactor compacted the placed material.
- The excavator cleared snow and sloped the upstream side of the dam.

Nightshift

- Placement of the second lift of ROQ continued on the upstream side. Placement progressed to about Station 1+10 by the end of the nightshift.
- Vibratory compaction of the placed ROQ was done toward the end of the shift.
- Transition material was placed in the south end of the core, covering the overliner material placed yesterday.
 - The upstream side of the keytrench was filled in with transition material, as per the exception from the design discussed in the morning EPCM meeting.
 - The material was placed in three lifts, each compacted.
 - The overliner core was scarred in one spot and cracked at the tie-in with the keytrench wall on the south end as a result of excavator movement. See Photo 9 for details.
- The snow and loose ROQ at the south end of the dam, outside of the keytrench footprint, was loaded into trucks and hauled away.
 - The ROQ and snow mix was hauled to the Doris overburden dump, while the snow free of rock was hauled to the snow stockpile on Tail Lake, just upstream of the dam.

Key Trench/ Central Core*Dayshift*

- No activity.
- Freeze back of the single bead thermistors placed in the last lift of core material was monitored. Two of the beads had not achieved freeze back by the end of the shift.

Nightshift

- Freeze-back of the frozen core placed on Monday night was monitored. SB6 located around Station 0+60 was indicating around zero degrees in the deep part of the core, while SB 20 was indicating a slow cooling to about +2 degrees by the end of the nightshift.

Field Geotechnical Testing, Laboratory and Sampling**SINGLE BEAD THERMISTOR STATUS**

Installed Today			Active			Destroyed / Abandoned		
ID	Station	US/DS/Center	ID	Station	US/DS/Center	ID	Station	US/DS/Center
			SB9	0+60	CL			
			SB20	0+65	CL			
			SB6	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
None	None	None

MOISTURE CONTENT SUMMARY

Collected	Testing In Progress	Completed
None	None	None

DRILLED CORE

Collected	Testing In Progress	Completed
None	None	None

COMPACTION TESTING SUMMARY

Number of Tests	Material	Tested By	Shift	Notes
0	N/A	EP	Day	No FCM Placed
0	N/A	TB	Night	No FCM placed

DORIS NORTH DIVERSION BERM:

- The excavation through the Primary Road was completed and two 24" culverts were installed.
 - Crush material was placed over the culverts and compacted with the plate tamper.
- HDPE and geotextile were placed to station 027.
- The bentonite 'plug' was placed to station 060.
- After the culvert installation the corner from station 0 to 027 was sloped, and crush material was placed in the base of the key trench to bring the floor up to design grade.
- Using a tuck trench to reduce the size of the diversion berm where it runs parallel to the Primary Road, and therefore not reduce the road width, was suggested by Nuna. SRK is okay with this option provided the liner is properly secured. Nuna is to send an email with details of what they propose.
 - Further discussions were had on this area, the slope was steepened and moved slightly west and so that the tuck trench is not needed.

QUARRY #2:

- One drill continues to drill on both day and night shifts.
- The CAT 385 excavator was used to load ROQ material from the upper bench of the Quarry.
- A loader was used to load ROQ from the floor of Quarry 2.

GENERAL:

- Due to the diversion berm culvert installation the primary road traffic was diverted through the overburden dump.

PHOTOS:



Photo 1: Progress photo of North Dam from photo point 1. Looking south west.



Photo 2: Progress photo of North Dam from photo point 2. Looking north west.



Photo 3: CAT D8 dozer placing ROQ on the north dam. Photo looking north.



Photo 4: ROQ placement at the north dam. Note the few large pieces in the working face in front of the dozer. These pieces were removed with the CAT 330 excavator.



Photo 5: Placement of upper geotextile at the diversion berm/



Photo 6: Diversion berm, looking west at culverts installed through the Primary Road.



Photo 7: Diversion Berm culverts laid across road, prior to backfilling.



Photo 8: North Dam – Haultruck dumping a load of transition material. Photo looking south-west from about Station. 0+90.



Photo 9: North Dam – Excavator spreading the transition material placed on top of the overliner core. Note the scarred surface of the overliner as a result of excavator traffic.



Photo 10: North Dam – south-west view of the completed transition material placement in the south end of the frozen core.



Photo 11: North Dam – progress photo of the second lift of ROQ placed on the upstream side. Note the transition and the first lift of ROQ were stopped around Station 0+90 waiting for completion of the GCL and overliner core placement. Photo looking north from Sta. 0+70



Photo 12: North Dam – Excavator loading snow into a haul truck at the south end of the dam. Photo looking south-east from Station 0+50.



Photo 13: North Dam – excavator cleaning the ROQ shell slope on the downstream side.

FIGURES:

Figure 1: Dayshift North Dam Progress Figure

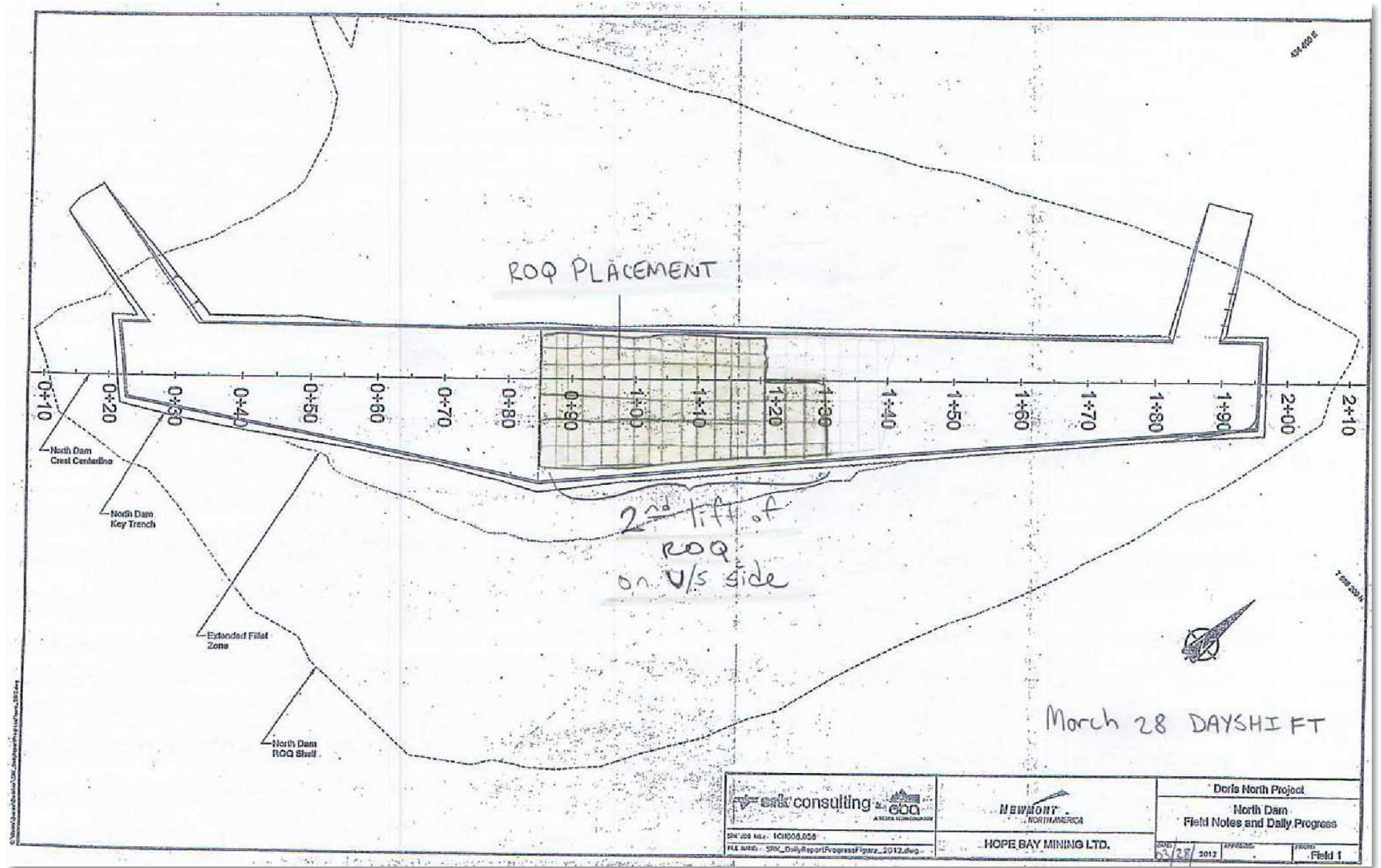


Figure 2: Nightshift North Dam Progress Figure

