

DAILY REPORT #71 – DORIS NORTH INFRASTRUCTURE/ NORTH DAM

Prepared by:	John Kurylo Lawrence Borowski	Date:	2012.03.16
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	Yes Yes In Out In No Out Out
	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	No In yes Out 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	Yes No Yes No No No
	EBA Engineering Consultants Ltd.	Jeff Orr – Project Manager Jennifer Stirling – Geologist Thomas Bradshaw – Junior Engineer Ernest Palczewski – Geologist	Out Yes No In
Earthworks Contractor	Nuna Logistics	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	Yes Out In Yes Yes In No Yes Yes Yes No No In No Out Yes Yes
External Distribution List:	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: -33/-50	12PM : -30/-42	6PM:-30/-41	12AM:-30/-47
Precipitation (mm)	Rain: None		Snow: None	
Conditions	Day Shift: Clear, light winds, cold		Night Shift: Cold, moderate wind, clear	
Daily norms (°C)	24 hour high: -29C		24 hour low: -31C	

HEALTH, SAFETY AND ENVIRONMENT

- John Kurylo attended the nightly Nuna toolbox meeting.
- Earnest Palczewski arrived to site today and Jeff Orr left site.
- SRK / EBA continues to use a pickup provided by Nuna on dayshift and provided by JDS on nightshift.

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

- The daily meeting was attended by HBML [Michelle Tanguay, Angela Holzapfel] Newmont [Sterling Kelly], JDS [Gerry Graham, Ishan Fechter, Mark Valeriote]; Nuna [Doug Haverland, Kyle Kuntz] and SRK [Lawrence Borowski, Jeff Orr, John Kurylo].

Topic	Status
Health and Safety and Environment	<ul style="list-style-type: none"> • Workers are continuing to fasten seat belts behind their backs. They are being warned at safety meetings • Worker left a vehicle in reverse when he jumped out and didn't place chocks. Vehicle rolled into a building. • ESR: enquired as to how water levels at Tail Lake were being measured and whether a staff gauge could be installed upstream of the dam. • ESR enquired about thermistor at the jetty. Existing thermistor cannot be salvaged. New thermistor will be installed near the existing thermistor. A discussion followed on the fate of the jetty itself. • Vehicles are still idling close to sleeping quarters.
North Dam	<ul style="list-style-type: none"> • Placed ROQ between Sta 110 and Sta 0+62 • Hauled and stockpiled separation material. • Cable crossing at Sta 0+85 installed. • Excavated ROQ on east side of dam and placed on west side. • Hauled and placed ROQ. • Some snow clearing
Water Management Structures	<ul style="list-style-type: none"> • Completed second lift of ROQ in key trench between Sta 5+30 and Sta 5+85 • Hauled ROQ from Quarry 2. • Drifting snow and winds precluded any snow cleanup in the trenches or placing any liners.
General	<ul style="list-style-type: none"> • One drill working at Quarry 2, day shift and night shift • Blast Saturday or Sunday. • IFC Drawings for North Dam Instrumentation received.

SURVEY:

Required	
Data Received	<ul style="list-style-type: none"> • North Dam Mar 1st to 15th (Rec'd Mar 16th) • QC Cross sections of work in progress North Dam (Rec'd Mar 17th) • Frozen core volumes (Rec'd Mar 17th)
Outstanding	<ul style="list-style-type: none"> •
Upcoming	<ul style="list-style-type: none"> • Survey of FCM after placement (ongoing). • Survey of Doris North Diversion berm (ongoing).

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

- The following multi-bead thermistors were read:
 - ND-HTS-040-31.5, ND-HTS-040-33.5, ND-VTS-040-KT
 - ND-HTS-060-28.8, ND-HTS-060-31.0, ND-HTS-060-33.5, ND-VTS-060-KT, ND-VTS-060-DS
 - ND-HTS-085-25.3, ND-HTS-085-29.4, ND-HTS-085-33.5, ND-VTS-085-KT, ND-VTS-085-DS
 - ND-VTS-130-28.8, ND-VTS-130-31.0, ND-VTS-130-33.5, ND-VTS-130-KT, ND-VTS-130-DS
 - ND-HTS-175-32.5

Frozen Core Plant*Dayshift*

- No activity at the plant.
- Transition material was hauled from outside Quarry #2 by the batch plant to the FCP Pad and stockpiled.

Nightshift

- The plant was started up around 20:15 and broke down around 22:15.
 - The water pump dial was set at 53 when the plan started up and then increased to 54.
 - Temperatures at the plant were around +28C.
 - Around 21:10 the water level was reduced back to 53.
 - The plant started to have troubles around 22:00. It appeared that there was probably a short in a wire in the hopper. The crew worked on flipping over and cleaning out the hopper. Electricians are expected to be required in the morning to take a look at the plant.
- Starting around 4:00 am Transition material was hauled from outside Quarry #2 / by the Batch Plant to the FCP Pad. Transition material at the FCP was end dumped.

Dam Shell*Dayshift*

- Snow removal during the morning, east core bank ~ Sta 1+ 70. Switched to ROQ placement on the west side before noon. ROQ placement is reaching Sta 0+60 where the next set of thermistors is located.

Nightshift

- ROQ material was packed on the downstream from ~1+30 to 0+60.

- No compaction was observed on this material (packer was not working on nightshift).
 - ROQ material was placed with a D6.
- Reject material was removed in areas from the upstream dam shell. Minor work with the excavator clearing buried 5/8 and HDPE material continued on the south end of the dam around station 1+1- and 0+70.
- The 308 excavator, supported by two labourers, was used at the end of the shift to clear snow off of the lower GCL around station 2+00 to 1+60. Currently the GCL around the fillet hinge areas, that was previously exposed, is covered with sheets of plywood for protection / to assist with cleaning. Some ROQ over the underlying Transition material on the upstream slope (i.e. Transition material I believe was placed in 2011), around station 2+00 to 1+60 was excavated. See Photo 15 for additional details.

Key Trench/ Central Core

Dayshift

- Thermistor #28, installed in yesterday's pour read 18.1 (-2.01) at 2:00 pm. JDS and Nuna advised that the next pour could progress from ~ Sta 1+70 (Grade) to end of yesterday's pour at Sta 0+64.
- Area cleaned with skid steer.
- Skid steer then moved to south end of core.
- Workers excavated around the remaining thermistor by hand at the south end between Sta 0+55 and Sta 0+25. Freezeback has not occurred in this area.
- Excavator moved to ~ Sta 0+55 and started removing snow from the bank. Snow was loaded on 730s and hauled to the snow dump at the lake.

Nightshift

- FCM was placed from station ~1+45 to 1+10. Note that ~ from section 1+95 TO 1+30 is now at final grade.
- As of March 16th **10,039 m³** of FCM have been placed at the North Dam in 2012. On March 16th, 47.8 m³ of material was placed.
- Single bead thermistors were monitored.
 - The section from 0+55 to the south end (around 0+20) was noted as being ~-0.5C at the end of nightshift. The large snow drifts that were previously over this area have now been mostly removed.
 - As noted in Daily #70, due to the slow freezeback being noted in the area of the single bead (see notes above) it was decided by SRK that, as the area has been left for over 48 hours that the skid steer would be allowed onto the surface to clean off more of snow that is insulating this area.
 - Placement over this entire area will not result until freezeback has been reached at the single bead location. This is due to the fact that the heat in the lift placed in this SSE area is required to dissipate before it is trapped in by an overlying lift.
 - At the end of nightshift the lift placed at the start of shift was around +1.5C
- Drilled core HB12-ND-CORE-DC80-20120316 was drilled today around station 0+75 CL. This was from the lift placed on March 15th dayshift.
- SRK completed a preliminary review of the recent North Dam as-built sections. See a few example sections in Figure 3. Note that the North end of the core is at final GCL core grade and with every lift progressing other S additional areas come to grade. The most significant work still left at the dam is to fill in the underbuilt upstream slope around the SSE end of the da. Specifically from Station 0+50 to 0+70 the underbuilt slope is currently the most notable.

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
SB29	1+15	U/S	SB27	0+38	U/S	SB30	0+70	CL
						SB28	0+72	U/S

SB17
SB18
SB14
SB11

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

PARTICLE SIZE DISTRIBUTION SUMMARY

Collected	Testing In Progress	Completed
HB12-ND-CORE-PSD71-QA-20120316		HB12-ND-CORE-PSD71-QA-20120316

MOISTURE CONTENT SUMMARY

Collected	Testing In Progress	Completed
HB12-FCP-CORE-MC345-20120316 HB12-FCP-CORE-MC346-20120316 HB12-ND-CORE-MC347-20120316 HB12-ND-CORE-MC348-20120316		HB12-FCP-CORE-MC345-20120316 HB12-FCP-CORE-MC346-20120316 HB12-ND-CORE-MC347-20120316 HB12-ND-CORE-MC348-20120316

DRILLED CORE

Collected	Testing In Progress	Completed
HB12-ND-CORE-DC80-20120316	HB12-ND-CORE-DC80-20120316	

DORIS NORTH DIVERSION BERM:

- Two excavators and a labour crew worked cleaning the key trench.
- Trench was clean and inspected between Sta 2+95 and Sta 3+30.
- Bentonite below liner placed between Sta 2+95 and Sta 3+30
- Cleaned over liner bentonite between Sta 3+30 and ~ Sta 4+40
- Liner placement will commence tomorrow.

DORIS SUMPS:

- Second lid has been fabricated.

QUARRY 2:

- One drill working during day shift and one drill working on nightshift (i.e. one drill working 24 hours).

GENERAL:

- Weather improved significantly. Temperatures remained~ -30, but winds had diminished significantly from winds Wednesday and Thursday.

- SRK's truck remains down. SRK is currently sharing a truck with Nuna supervisor and field engineering crew on dayshift. Additional vehicles are available on nightshift due to the smaller crew size.
- Today's shift change proceeded as scheduled.
- The D8 spread the snow stockpile further ESE onto Tails Lake.

PHOTOS:



Photo 1: Construction progress. Photo taken from Point 3, Facing NNE



Photo 2: View of construction progress at the North Dam, looking down the centerline facing south



Photo 3: Clearing ramp at SE corner of dam



Photo 4: Some snow clearing over GCL at south end of core.



Photo 5; Cleaning Sta 2+95 to Sta 3+30 at the DN Diversion Berm



Photo 6: Sta 2+95 to Sta 3+3 cleaned at the Diversion Berm



Photo 7: Bentonite placed Sta 2+95 to Sta 3+30 at the berm



Photo 8: Moving forward. Over 1 m snow in trench of berm at ~ Sta 2+50



Photo 9: Cleaning snow off geotextile Stn 3+30 to Stn 4+45 at the berm



Photo 10: Preparing for overliner bentonite around Stn 3+30 to Stn 4+45 at the berm

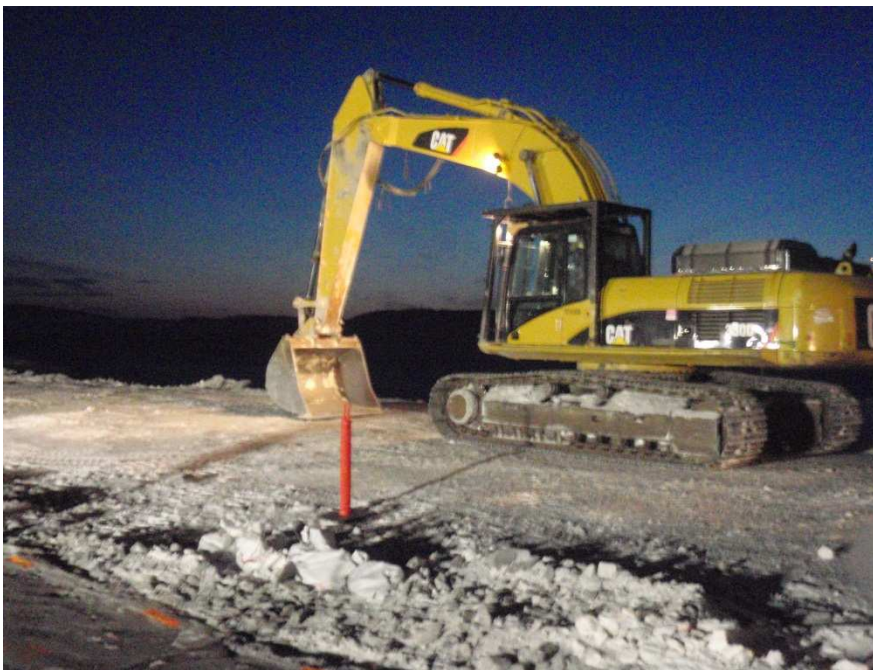


Photo 11: Excavator working on spreading and smoothing ROQ on the upstream



Photo 12: Excavator spreading FCM and labourers sloping side slope.



Photo 13 (mid left): SSE underbuilt corner after some snow cleaning (still waiting for freeze back).

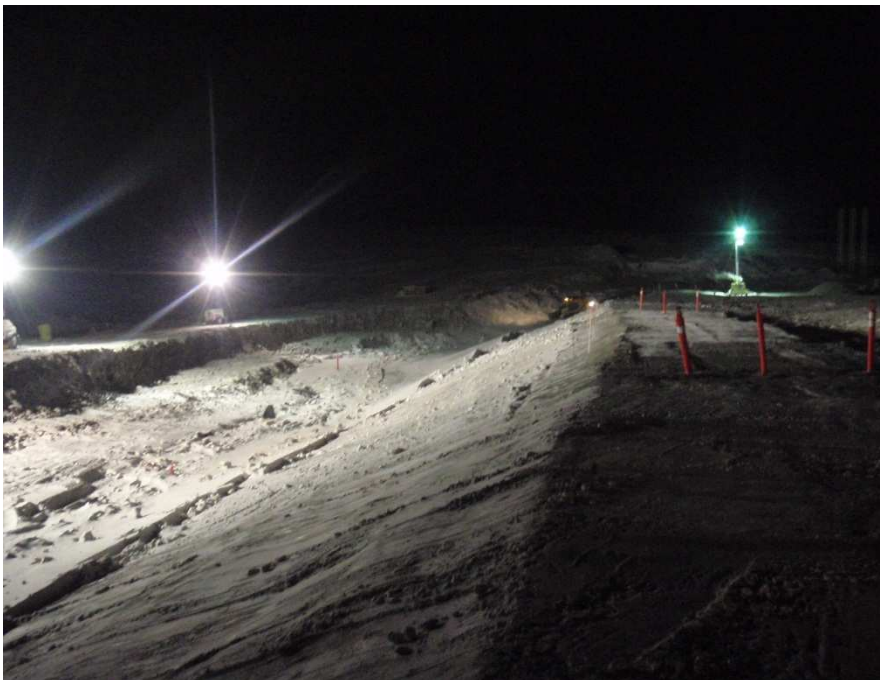


Photo 14 (mid right): ~SW view down dam core. Looking at upstream slope. Additional snow clearing on the upstream slope is still required in the coming days.



Photo 13: ~NE view of FCM placed on nightshift around 1+45 to 1+10

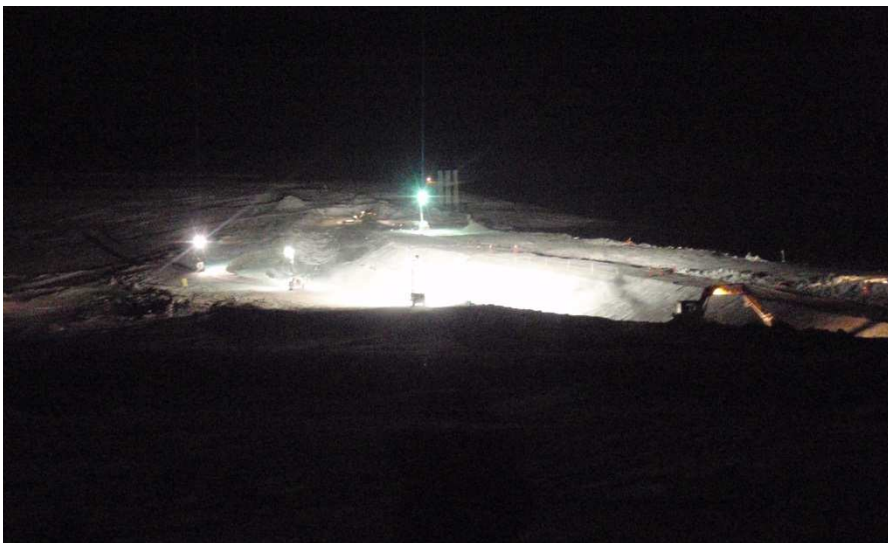


Photo 14: ~ E view of North Dam area. Taken from outside the FCP Pad.



Photo 15 (left): DC 80, taken from 0+75 CL.

FIGURES:

Figure 1 – North Dam Progress – Dayshift

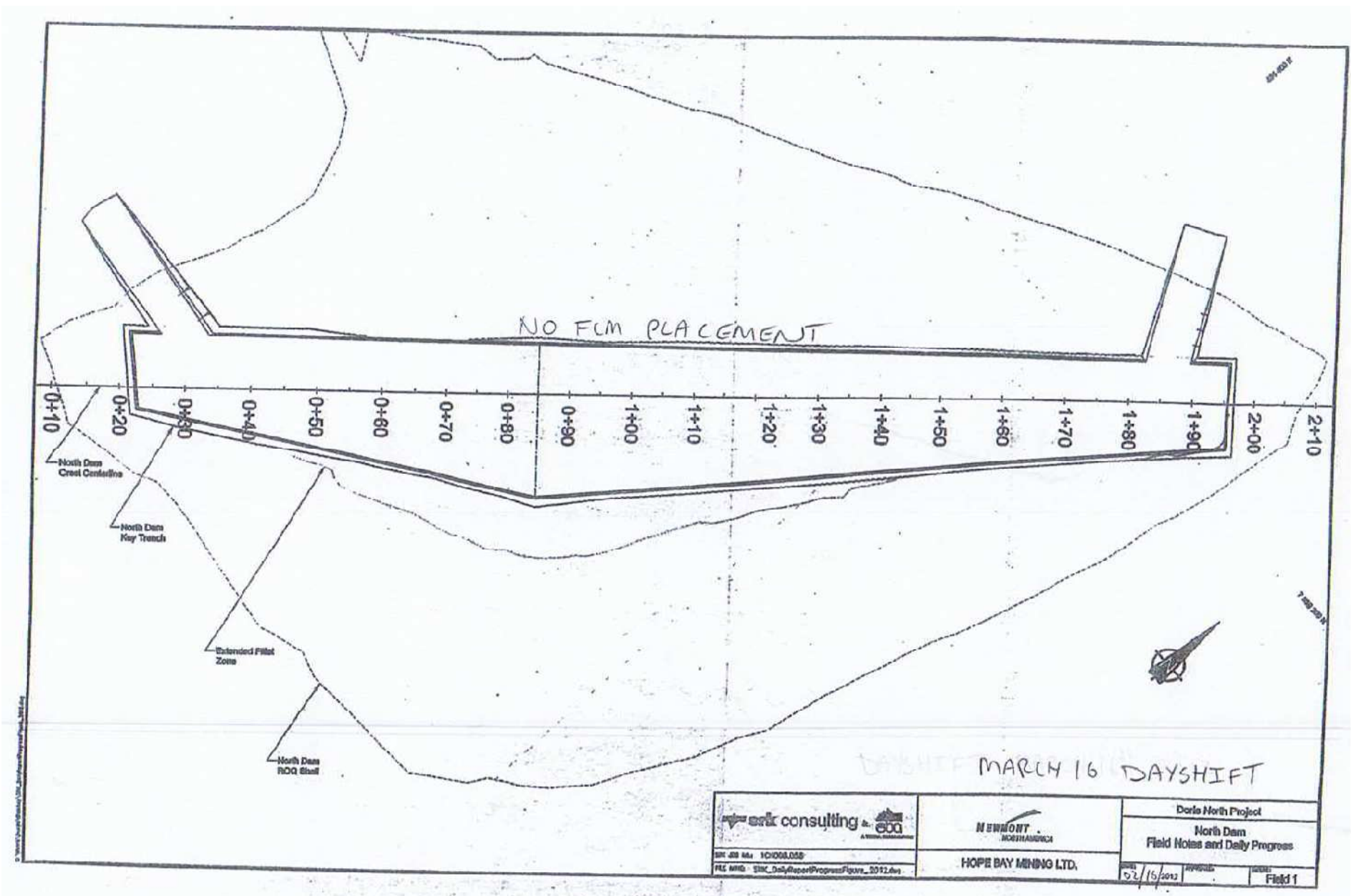


Figure 2 – North Dam Progress – Nightshift

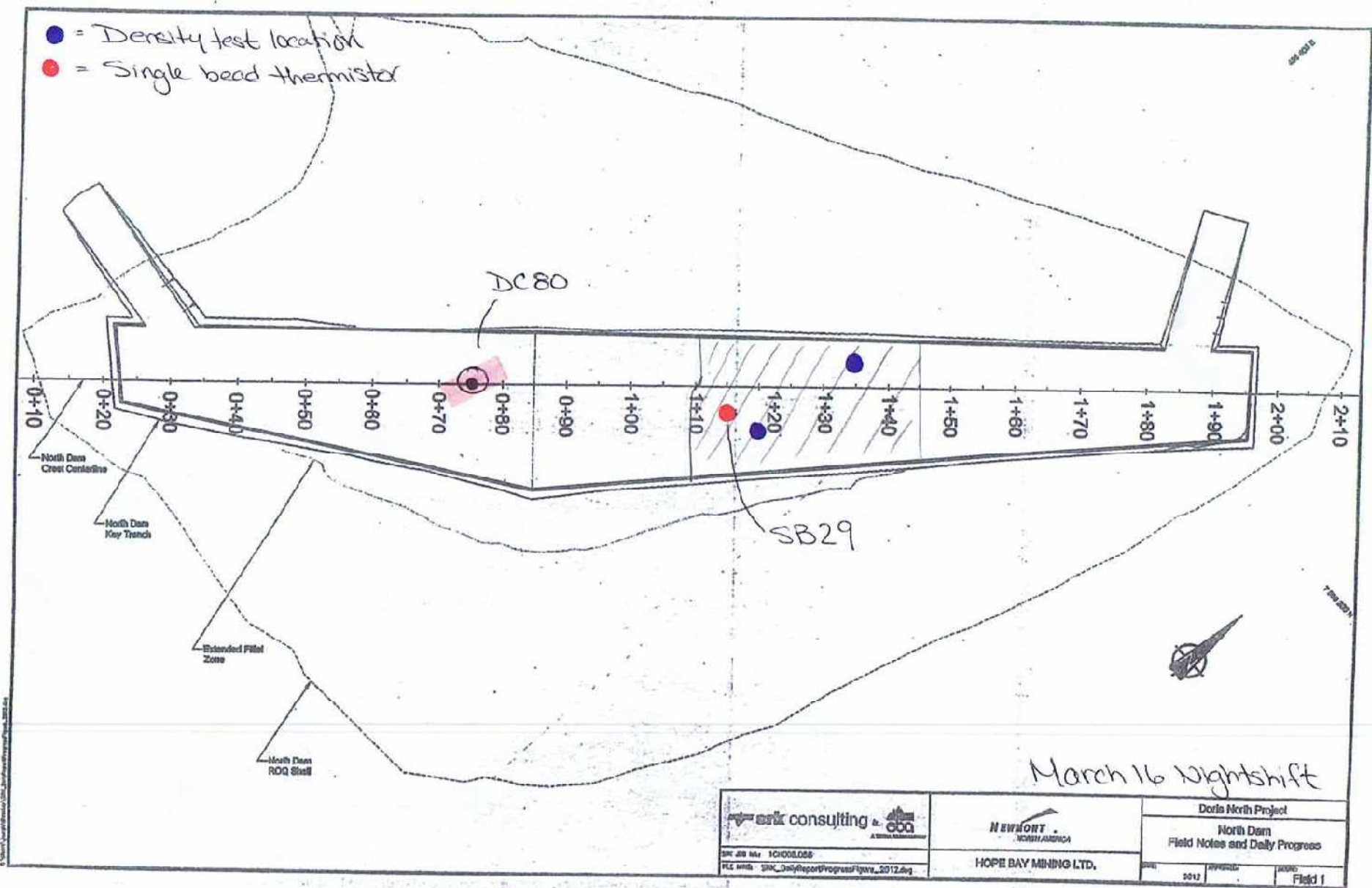


Figure 3 – Select North Dam As-Built Sections (sections for placement up to 2012/03/15)

