

November 3, 2009

Technical Advisor – Mining  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU X0B 1J0

**Re: October 2009 –Monthly Monitoring Report for Water License 2AM-DOH0713**

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Following is the monthly report for October 2009 as required under Doris Water License No/Type 2AM-DOH0713 Type “A”. The license was issued on September 19, 2007 and will expire on September 30, 2013. The water license is specific for Mining and Milling and associated uses. The quantity of water usages shall not exceed 480,000 cubic meters annually.

This monthly report provides information on Part D (Conditions Applying to Construction) Item 19, Part E (Conditions applying to Water Use) Item 1, Part G (Conditions Applying to Waste Management and Waste Management Plans) Item 3 and 22 (e), and Part H (Conditions Applying to Modifications). The report also contains the relevant monitoring requirements as set out in Schedule J of the licence, plus additional requirements from INAC.

Other conditions stipulated in the license refer specially to mining and milling processes. These facilities have not been constructed at this time, due to the deferral of the Doris North Project by Hope Bay Mining Ltd. (HBML) and therefore, no monitoring has taken place to comply with conditions. The Nunavut Water Board (NWB) was notified of this deferral on September 11, 2008 and is after ongoing discussions, at this time considering a letter from HBML dated April 21, 2009 outlining the clauses that can not be complied with due to the deferral of the Doris North Project.

**1. Part D: Item 19 Conditions Applying to Construction**

No surface runoff from construction occurred for sampling during the period.

**2. Part E: Item 1. Conditions Applying to Water Use**

**a. Water Usage**

During the month of October 2009, Doris Camp was in operation for the entire month with water extraction occurring from Doris Lake via SNP Station ST-7 or by direct extraction by water truck at the Doris Lake pump house shoreline. Water usage was in compliance with the licence for the month of October. Total water usage is detailed in Table 1.

Table 1. Water Usage for Domestic Camp Use, Dust Suppression and Other Uses\* in m<sup>3</sup>, October 2009

Parameters	Doris Camp Domestic and Other Use	2AM-DOH0713
Water Source	Doris Lake	Compliance Values
Geographical Coordinates	On file	Part E: Item 1
Annual Cumulative	5,481.49	480,000 m <sup>3</sup> Annually
Monthly Cumulative	592.66	40,000 m <sup>3</sup> monthly
Volume Average (Daily)	19.12	1,333 m <sup>3</sup> daily
Maximum	47.3	1,333 m <sup>3</sup> daily
Minimum	6.93	1,333 m <sup>3</sup> daily

\* Other uses include core cutting saws, fire truck filling, and washroom facilities at Doris Camp heli pad

## b. Water Quality Monitoring: Schedule J and Special Requirements

Monthly compliance samples in accordance with Schedule J requirements of the licence were taken from monitoring station ST-7 on October 07/09. Sampling for cyanide is not presently being conducted at this monitoring station as no processes are occurring to generate cyanide at site. Results of the October monitoring are provided in Table 2.

Table 2. Monthly Compliance Sample Results for SNP Monitoring Station ST-7, October 2009

Parameter/SNP Sites	ST-7	Doris: 2AM-DOH0713
ALS Lab Reference #	L827713-1	Maximum Average Concentration (mg/L)
Field Sample Details	ST-7	Part G: Item 3
Sample Date/Time	Oct 07/09 7:00am	No Requirement Specified
BOD	3.5	-
Fecal Coliforms	<1	-
Total Oil and Grease	<1.0	-
pH	7.35	-
TSS	6	-
Ammonia-N	<0.050	-
Nitrate-N	<0.050	-
Nitrite-N	<0.050	-
Orthophosphate-P	<0.010	-
Total Phosphate (as P)	0.027	-
Total Aluminium	0.065	-
Total Arsenic	<0.00040	-
Total Cadmium	<0.000050	-
Total Copper	0.0029	-
Total Chromium	<0.0050	-
Total Iron	0.111	-
Total Mercury	<0.00010	-
Total Molybdenum	<0.0050	-
Total Nickel	<0.0020	-
Total Lead	<0.00049	-
Total Selenium	0.00074	-
Total Silver	<0.00010	-
Total Thallium	0.00013	-
Total Zinc	0.0094	-

Results of the technical review in April 2009 by INAC with regards to the Doris Camp planned water system modifications included recommendations for monthly reporting of sample analysis of the blue-green algae in the raw water from Doris Lake. Results of this sampling for October are provided in Table 3.

Table 3. Sampling Results for Blue-green Algae, October 2009

Parameter/SNP Site	ST-7
ALS Lab Reference #	L827713-1
Field Sample Details	ST-7
Sample Date/Time	Oct 07/09 7:00am
Blue-green Algae	15,300 cells/mL

### 3. Part G: Item 3(b) Conditions Applying to Waste Management and Waste Management Plans.

During the month of October 2009, water samples were collected once at monitoring station ST-8. Station ST-9 could not be sampled due to frozen conditions.

Sampling point ST-8 is located within the Doris Camp Sewage Treatment Plant, which is located directly east of the main building complex. Effluent samples were collected from a tap on the discharge line to the tundra at a location installed after the addition of a UV disinfection system (ST-8A). The data reported for October at SNP ST-8A is within compliance values for all parameters. As indicated in the September SNP report, all parameters were within compliance with the exception of visible sheen for oil and grease. This issue was followed up with the STP operator and the cause could not be determined. Subsequent sampling for the month of October did not show the presence of an oil sheen.

HBML acknowledges that discharge point ST-8 was originally intended to be a temporary discharge point that would be moved to the tailings storage facility after such a facility was constructed. HBML has deferred the construction of the tailings storage facility until a production decision is made by HBML. HBML proposes that the ST-8 discharge point remain until the tailings storage is constructed. To alleviate any risks associated with ponding and permafrost degradation HBML has proposed to build a rock diffuser during the first half of 2010 when the tundra is frozen. Designs will be prepared by a certified engineer and supplied prior to construction.

### 4. Part G: Item 22 (e) Conditions Applying to Waste Management and Waste Management Plans.

During the month of October 2009, there was no accumulated water and no discharge occurred at monitoring station ST-6 in the Robert's Bay Fuel Storage and Containment Area.

No monitoring was conducted at ST-5 (bulk fuel storage facility) at Doris Camp as there was no accumulation of water and no discharges occurred.

## Part G: Conditions applying to Waste Management and Waste Management Plans (Item 3b)

### a. Part G: Item 3e (Treated Sewage Effluent Release in cubic meters)

Table 5 shows treated effluent released from the Doris Membrane Plant at SNP ST-8.

Table 5: Treated Sewage Effluent release in cubic meters (m<sup>3</sup>) through Doris Membrane Plant (ST-8), October 2009

Parameters	Doris Membrane Plant ST-8
Annual Cumulative	4906.0 m <sup>3</sup>
Monthly Cumulative	444.0m <sup>3</sup>
Volume Average (Daily)	14.32 m <sup>3</sup>
Maximum	21.0m <sup>3</sup>
Minimum	9.0 m <sup>3</sup>

During the month of October, sludge was pressed 11 times from the membrane plant resulting in the removal of approx. 1.25 m<sup>3</sup> of sludge from the plant. Sludge pressed was sent for incineration.

## **5. Environmental Incident Reporting**

A total of 5 environmental incidents were reported during the month of October. A summary of these incidents is provided below:

- October 10, 2009: Approximately 1 liter of antifreeze leaked from the service truck while parked in the vicinity of the generator building and STP at Doris camp, due to a leaking radiator hose. The hose clamp was tightened and the spilled product shovelled up and placed in appropriate containment at a contractor's equipment garage.
- October 10, 2009: Drilling contractor had improperly stored construction debris on the side of road in the vicinity of the jetty at Robert's Bay. It was retrieved and stored inside a seacan pending off-site disposal.
- October 16, 2009: Approximately 10 litres of black water drained onto the roadway in the vicinity of the NW corner of Doris camp from the vacuum truck, due to improper purging of the hose after use. It was cleaned up and disposed of promptly.
- October 16, 2009: A bag containing food waste was found at the lay down area in the vicinity of the jetty in Robert's Bay (improper waste storage). It was removed from the area and disposed of appropriately.
- October 16, 2009: Approximately 1 litre of diesel oil was spilled over the "old" incinerator being moved at Robert's Bay as a result of the fuel filter becoming dislodged. The spilled product was soaked up, with very little actually coming in contact with the ground.

Should there be any questions regarding the monthly report for October 2009, please contact Chris Hanks, Director, Environment and Social Responsibility, Hope Bay Mining Limited on phone number: 1-720-917-4489 or email: [Chris.Hanks@Newmont.com](mailto:Chris.Hanks@Newmont.com)

Yours sincerely,

**Chris Hanks**

Director, Environment and Social Responsibility  
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