

January 09, 2011

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

Re: December 2010 –Monthly Monitoring Report for Water License 2AM-DOH0713

Following is the monthly report for December 2010 as required under Doris Water License No. 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 HBML’s intent to start the construction associated with the Doris North mining and milling facilities on October 29, 2009. As construction activities begin, the required monitoring programs will be implemented.

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 December 2010, Doris Camp was in operation for the entire month with water extraction occurring from Doris Lake pump house via SNP Station ST-7, or by direct extraction by water truck from Doris Lake for other domestic uses. Water usage was in compliance with the licence for the month of December. Total water usage is detailed in Table 1.

Table 1. Water Usage for Domestic Camp Use, and Other Uses* in m³, December 2010

Parameters	Doris Camp Domestic and Other Uses	2AM-DOH0713
Water Source	Doris Lake	Compliance Values
Geographical Coordinates	On file	Part E: Item 1
Annual Cumulative	24,473.52*	480,000 m ³ Annually
Monthly Cumulative	1,001.70	40,000 m ³ monthly
Volume Average (Daily)	32.31	1,333 m ³ daily
Maximum	41.52	1,333 m ³ daily
Minimum	9.46	1,333 m ³ daily

* Other uses include core cutting saws, fire truck filling, wash car facilities

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 December 01, 2010. 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 December monitoring are provided in Table 2.

Table 2. Monthly Compliance Sample Results for SNP Monitoring Station ST-7 in mg/L, December 2010

Parameter/SNP Sites	ST-7	Doris: 2AM-DOH0713
ALS Lab Reference #	L959200-1	Maximum Average Concentration (mg/L)
Field Sample Details	ST-7	Part G: Item 3
Sample Date/Time	Dec 01/10 @ 0710 hrs	No Requirement Specified
BOD	<5.0	-
Fecal Coliforms	<1.0	-
Total Oil and Grease	<1.0	-
pH	7.75	-
TSS	<3.0	-
Ammonia-N	<0.050	-
Nitrate-N	<0.050	-
Nitrite-N	<0.050	-
Orthophosphate-P	<0.010	-
Total Phosphate (as P)	0.024	-
Total Aluminium	0.017	-
Total Arsenic	0.00040	-
Total Cadmium	<0.000050	-
Total Copper	0.0021	-
Total Chromium	<0.0050	-
Total Iron	0.035	-
Total Mercury	<0.00010	-
Total Molybdenum	<0.0050	-
Total Nickel	<0.0020	-
Total Lead	0.00010	-
Total Selenium	<0.0020	-
Total Silver	<0.00010	-
Total Thallium	<0.00010	-
Total Zinc	0.0051	-

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 December are provided in Table 3. Additionally; samples collected from the Doris camp potable water system have shown the presence of blue-green algae within the camp distribution system. The water treatment and distribution system was shock chlorinated

twice in October to attempt to clear the algae from the lines, and smaller pore filters were put into operation which has reduced cell counts post-treatment. On-going monitoring is being conducted for the presence of cells throughout the camp water system and an external consultant with expertise in this field has been retained to advise on a course of action that will reduce the risks associated with the presence of blue-green algae. Currently, bottled water is being supplied to camp site residents until the issue is resolved.

Table 3. Sampling Results for Blue-green Algae, December 2010

Parameter/SNP Site	ST-7
ALS Lab Reference #	L960399-1
Field Sample Details	PDC10
Sample Date/Time	Dec 06/10 @ 0700 hrs
Blue-green Algae	52,800 cells/mL

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

During the month of December 2010, water samples were collected at monitoring station ST-8.

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 two separate taps on the discharge lines from the tandem sewage treatment plants now on-line at the Doris Camp. The taps are located in the lines to the tundra discharge at a location installed after the addition of the UV disinfection systems (ST-8 # 1 and ST-8 # 2). The data reported for December at these stations is within compliance values for all parameters with the exception of pH on ST-8#1 which was recorded at 5.60, and Oil and Grease at ST-8#2 was recorded at 5.6 mg/l. The STP operators will investigate the cause of both these non-compliances and take appropriate steps to bring the final effluent back to within discharge criteria. Analytical results are provided in Table 4.

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 2011. Designs will be prepared by a certified engineer and supplied prior to construction.

To enable critical maintenance be performed on the Doris camp sewage treatment plant; an additional MBR (Sanitherm Sanibrane 180) (as is the original plant) was put into service August 17, 2010. From August 17 to August 31, 2010, this second plant underwent commissioning and received partial flows for the remainder of the month. This second plant was installed in such a manner, that the flow to the original plant could be bypassed and directed to it. Additionally; with the installation of the second plant, the influent can be distributed between the two, and thereby reduce hydraulic loading during periods of peak flows. The effluent discharge from the second plant is tied in to the effluent line from the original plant.

Table 4: Water Quality Data Summary for Monitoring Station ST-8 # 1 and ST-8 # 2, December 2010

Parameter/SNP Sites	ST-8 # 1	ST-8 # 2	Doris: 2AM-DOH0713
ALS Lab Reference #	L959200-2	L959200-3	Maximum Average Concentration (mg/L)
Field Sample Details	ST-8 # 1	ST-8 # 2	Part G: Item 3
Sample Date/Time	Dec 01/10 @ 0730 hrs	Dec 01/10 @ 0800 hrs	(b)
BOD ₅	<5.0	<5.0	80 mg/L
TSS (mg/L)	<3.0	<3.0	100 mg/L
Fecal Coliform	<1	<1	10,000 CFU/100mL
pH (pH unit)	5.60	7.28	Between 6-9
Oil & Grease (Visibility)	NVS	NVS	No Visible Sheen
Oil & Grease (mg/L)	<1.0	5.6	5

Station ST-9 was not sampled during the month of December due to freezing conditions.

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

During the month of December 2010, no discharge of water occurred at monitoring station ST-6 in the Robert's Bay Fuel Storage and Containment Area, as all accumulated water was removed in July. No monitoring was conducted at ST-5 (bulk fuel storage facility) at Doris Camp as this facility no longer exists at its present location and the new Plant Site Fuel Storage and Containment Area was under construction.

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 released in cubic meters (m³) through Doris Membrane Plant (ST-8), December 2010

Parameters	Doris Membrane Plant ST-8
Annual Cumulative	8008.0 m ³
Monthly Cumulative	518.0 m ³
Volume Average (Daily)	16.7 m ³
Maximum	26 m ³
Minimum	4.0 m ³

During the month of December, sludge was pressed 17 times from the membrane plant resulting in the removal of approx. 1.93 m³ of sludge from the plant. Sludge pressed was sent for incineration.

5. Environmental Incident Reporting

A total of 1 environmental incident was reported during the month of December. A summary of this incident is provided below:

- December 14, 2010: Approximately 10 litres of (new) motor oil was spilled onto the snow covered ground inside the 5 million litre tank farm lined berm area. This was the result of a punctured 45 gal drum inside a shipping container at that facility. The punctured drum was removed and the oil contaminated snow was shovelled up, placed in a drum, and sent to the waste management area pending appropriate disposal.

Should there be any questions regarding the monthly report for December 2010, 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

Yours sincerely,

Chris Hanks

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