

December 23, 2011

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P.O. Box 119  
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**Re: November 2011 – Monthly Monitoring Report for Water Licence 2AM-DOH0713**

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Following is the monthly report for November 2011 as required under the Doris North Type A Water Licence No. 2AM-DOH0713. The licence was issued on September 19, 2007 and will expire on September 30, 2013. The water licence is specific to Mining and Milling and associated uses and water usage shall not exceed 480,000 cubic meters (m<sup>3</sup>) 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);
- Part H (Conditions Applying to Modifications); and
- Part J (Conditions Applying to General and Aquatic Effects Monitoring) Items 12 and 14

The report also contains the relevant monitoring requirements as set out in Schedule J of the licence, plus additional requirements from AANDC.

Other conditions stipulated in the licence refer specifically to mining and milling processes for which the facilities have not yet been constructed. As these facilities are constructed and activities commence, the required monitoring programs will be implemented and reported on.

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

**a. Item 7. Construction Monitoring**

Construction monitoring is being undertaken and documented. A summary of this monitoring will be submitted with the annual Construction Monitoring report.

**b. Item 19. Surface Runoff Effluent Quality Limits**

Surface runoff from construction was sampled by SRK as part of the Waste Rock and Ore, and Quarry Monitoring Management Plans. Results will be included in the annual report.

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

### a. Water Usage

Water used for domestic camp use, underground mining and drilling, portable wash cars, construction, and surface drilling is reported in Table 1.

Table 1: Water Usage for Doris North (m<sup>3</sup>), November 2011

Parameters	Water Use
Water Source	Doris Lake
Geographical Coordinates	On file
Monthly Cumulative	1,197 m <sup>3</sup>
Annual Cumulative	28,636 m <sup>3</sup>
2AM-DOH0713 Permitted Water Volume (Total Annual)	480,000m <sup>3</sup>

### 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 November 03, 2011. November monitoring results are provided in Table 2.

Table 2: Monthly Compliance Sample Results for SNP Monitoring Station ST-7 in mg/L, November 2011

Parameter/SNP Sites	ST-7 (mg/L)
ALS Lab Reference #	L1081431-3
Sample Date/Time	Nov 03/11 @ 16:10
BOD	<2.0
Total Cyanide	<0.0050
Free Cyanide	<0.0050
Fecal Coliforms	<1 CFU/100mL
Total Oil and Grease	<1.0
pH (units)	7.62
TSS	11.0
Ammonia-N	<0.050
Nitrate-N	<0.050
Nitrite-N	<0.050
Orthophosphate-P	<0.010
Total Phosphate (as Tot P)	0.026
Total Aluminum	0.052
Total Arsenic	<0.00040
Total Cadmium	<0.000050
Total Copper	0.0017
Total Chromium	<0.0050
Total Iron	0.076
Total Mercury	<0.00010
Total Molybdenum	<0.0050
Total Nickel	<0.0020
Total Lead	0.00014
Total Selenium	<0.00040
Total Silver	<0.00010
Total Thallium	<0.00010
Total Zinc	0.0049
<b>Additional Parameters</b>	
ALS Lab Reference #	L1082093-1
Sample Date/Time	Nov 06/11 @ 18:08
Blue-green Algae	85,400 cells/mL

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

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, ST-8A and ST-8B (formerly ST-8#1 and ST-8#2 respectively), located on the discharge lines after the UV disinfection system from the tandem sewage treatment plants. The effluent at both stations was in compliance for all parameters (Table 3). A notification to move the ST-8 discharge location was provided to the NWB on June 19, 2011 and the new discharge location was put in service on November 02, 2011. Due to a reduction in flows as a result of a lower camp population at Doris camp, the second STP (ST-8B) was taken off-line on November 05, 2011. It will be brought back on line when the camp population increases in January 2012.

Table 3: Water Quality Data Summary for Monitoring Station ST-8A and ST-8B, November 2011

Parameter/SNP Sites	ST-8A	ST-8B	Doris: 2AM-DOH0713 (Part G: Item 3 (b))	
ALS Lab Reference #	L1081431-1	L1081431-2	Maximum Average Concentration	Maximum Allowable Grab Sample Concentration
Sample Date/Time	Nov 03/11 @ 09:20	Nov 03/11 @ 09:15		
BOD <sub>5</sub>	<2.0	<2.0	80 mg/L	80 mg/L
TSS (mg/L)	4.0	4.0	100 mg/L	100 mg/L
Fecal Coliform	<1	<1	10,000 CFU/100mL	10,000 CFU/100mL
pH (pH unit)	6.41	6.82	6-9	9
Oil & Grease (Visible Sheen)	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Oil & Grease (mg/L)	<1.0	1.0	5	10

Station ST-9 was not sampled during the month of November as sampling station has frozen. HBML anticipates that ST-9 will not need to be relocated as a result of the relocation of the ST-8 tundra discharge point.

### 4. Part G: Item 21 (a) Conditions Applying to Waste Management and Waste Management Plans.

The Sedimentation Pond, ST-1, was not discharged during November.

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

During the month of November, no water was discharged from monitoring station ST-5 (Doris Bulk Fuel Storage Facility), ST-6a (Roberts Bay 5M Litre Fuel Storage Facility) or ST-6b (Roberts Bay Bulk Fuel Storage Facility).

### 6. 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 4 shows the volume of treated effluent released from the Doris Membrane Plant at SNP ST-8 and the volume of sludge removed and incinerated.

Table 4: Treated Sewage Effluent released in cubic meters (m<sup>3</sup>) through Doris Membrane Plant (ST-8) and total sludge volume removed, November 2011

Parameters	Effluent Released ST-8 (m <sup>3</sup> )	Sludge Volume (m <sup>3</sup> )
Monthly Cumulative	745	0.34
Annual Cumulative	8789	26.63

**7. Tailing Impoundment Area Monitoring**

- a. **Part G: Conditions applying to Waste Management and Waste Management Plans.**
  - Item 26: TL-4 discharge criteria
  - Item 27: TL-1 and TL-4 toxicity testing (as per Part J, Item 8)
  - Item 28: TL-3 water quality criteria
  - Item 30: TL-4 discharge volume allowance
- b. **Part J: Conditions Applying to General and Aquatics Effects Monitoring**
  - Item 2: TL-2 continuous flow monitoring
  - Item 8: TL-1 and TL-4 toxicity testing
- c. **Schedule J: SNP Monitoring parameters and frequencies**

Preparatory work on the Tail Lake north dam resumed and was ongoing during the first week of November. This work consisted of removing the temporary gravel cover that was placed over the frozen core structure to ensure the core of the dam remained frozen. Construction of the dam will continue in winter 2012.

**Part J: Conditions Applying to General and Aquatics Effects Monitoring**

**d. Part J: Item 12d Tonnages of Waste Rock Stored on the Temporary Waste Rock Pad**

Tonnages of waste rock material removed from underground and placed on the Temporary Waste Rock Pad to date are detailed in Table 5.

Table 5: Volume (metric tons) of waste rock stored on the Temporary Waste Rock Pad, November 2011

Parameters	Waste Rock on Pad (tonnes)
Waste Stockpile Mass as of Month Prior	164,075
Mass Added this Month	12,110
Mass Removed this Month	0
Total Tonnage	176,185

**a. Part J: Item 12g Tail Lake Ice Thickness**

Ice formed on Tail Lake on October 08, 2011. The first measurement was taken October 20, 2011 and ice thickness of 0.20 m was recorded at (68° 8' 10" N; 106° 34' 18" W). Ice thickness at this location was 0.39 m on November 06, 2011.

**b. Part J: Item 14 Thermal Monitoring Program**

Thermistor monitoring undertaken during the month of November is provided in Table 6.

Table 6: Temperature Readings from Thermistor Monitoring, November 2011

Drill Hole Number/ Station	Thermistor String Serial Number	Location	Date of Reading	CHANNEL (Degrees Celsius)							
				1	2	3	4	5	6	7	8
SRK-14	690007	Tail Lake NW	Nov 02/11	-0.2	-1.4	-3.1	-5.4	-7.3	-8.2		
SRK-22	690003	Airstrip	Nov 02/11	-2.2	-3.8	-5.4	-6.6	-7.3	-7.7		
SRK-24	690001	Quarry 2	Nov 02/11	-0.8	-3.3	-4.9	-6.4	-7.1	-7.2		
SRK-35a	3107	Doris Creek W	Nov 02/11	-6.5	-7.2	-7.7	-8.4	-9.1	-10.0	-11.5	
SRK-35b	3106	Doris Creek E	Nov 02/11	-8.2	-9.1	-9.6	-10.4	-11.0	-12.0	-12.4	
SRK-JT1-09	TS2667	Roberts Bay Jetty	Nov 03/11	-5.3	-5.5	-2.1	-0.8	-1.1	-1.6	-2.6	-
SRK-JT2-09	TS2668	Roberts Bay Jetty	Nov 03/11	-8.4	-5.8	-3.9	-0.9	-2.3	-3.6	-4.2	-4.5

## 8. Environmental Incident Reporting

There was one environmental incident in November:

- November 23, 2011: A spill of approximately 4 litres of antifreeze occurred on the laydown at Robert's Bay (68° 10' 27" N; 106° 36' 58" W) as a result of a leaking heater hose on an articulating truck that was parked there awaiting service. The contaminated snow was shovelled up and placed in a container pending proper disposal. The hose was replaced and the truck returned to service.

Should there be any questions regarding the monthly report for November 2011, please contact Angela Holzapfel at 604-345-3122 or [Angela.Holzapfel@Newmont.com](mailto:Angela.Holzapfel@Newmont.com) or Chris Hanks, VP Environmental Affairs for Hope Bay Mining Limited at 720-917-4489 or [Chris.Hanks@Newmont.com](mailto:Chris.Hanks@Newmont.com).

Yours sincerely,

**Angela Holzapfel**

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