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October 14, 2007

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

**Re: June 2007–Monthly Monitoring Report for Water License 2BB-BOS0712**

Following is the monthly report for June 2007 as required under Water license 2BB-BOS0712.

**Monitoring Program**

During the month of June 2007, 35 water and effluent samples were collected, as part of the monitoring program. As MHLB uses an external certified laboratory for carryout all the analyses and the sample sizes are quite small, MHLB uses the QAQC data produced by the laboratory to determine the accuracy and precision of the issued results. A summary of the monthly sampling for water license is provided in Microbiological samples at most times were arriving late to the external laboratories because of the delays in shipment and logistical problems getting them to a laboratory within 24 hours period.

Table 1: SNP Water sampling summary

Station Number	Sampling Date	Lab Reference #	Comment and UTM NAD83 coordinates
BOS-1	June 24 2007	L521873-10	Spyder Lake water Intake
BOS-2	No discharge	-	Containment Pond Discharge
BOS-3	June 24 2007	L521873-8	RBC effluent
BOS-4	June 24 2007	L521873-9	RBC effluent meets Spyder Lake
BOS-5	No discharge	-	Effluent from Bulk fuel farm prior to release
BOS-6	No discharge	-	Effluent from Land Treatment Area
BOS-7	No discharge	-	Landfill Leachate
BOS-8	No discharge	-	Waste Rock and Ore Storage Pad
Stickleback Lake # A	June 17 2007	L521873-11	Water samples @ Stickleback Lake
Stickleback Lake # B	June 17 2007	L521873-12	Water samples @ Stickleback Lake
Stickleback Lake # C	June 17 2007	L521873-13	Water samples @ Stickleback Lake
Flying Squirrel Lake # D	June 17 2007	L521873-14	Water samples @ Flying Squirrel Lake

**Water usage**

During the month of June 2007, Boston Camp was in operation for the whole month. Water abstraction pump for camp use was located on the southeast bank of Spyder Lake (BOS-1) and the water pump for drilling purposes was located at Stickleback Lake and Flying Squirrel Lake.

There were 2 drill rigs active at Boston for 6 days and 1 rig for 24 days for the month of June. In total, there were 36 active drill days for June 2007. The water consumption for the drill rigs were calculated from water usage used to renew Boston Project Water License. A volume of 2.5 m<sup>3</sup> per drill per day was assumed using the total number of drill rigs active at any given day in a month.

Table 2 provides the water volume usage as required under Part J, Item 6 of the water licenses.

## **Results**

Water sampling and analysis results are provided in Table 3 for samples related to the SNP sampling requirements for the month of June 2007. Table 4 provides data related to Part F: Item 7 of the license relating to water quality before and after drilling on ice. The data provided in Table 4 was that of after drilling at Stickleback and Flying Squirrel Lake. The laboratory analytical results will be made available upon request.

Should there be any questions regarding the monthly report for June 2007, **please** contact Matthew Kawei, MHL Exploration Senior Environmental Coordinator.

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Table 2: Water usage in cubic meters (m<sup>3</sup>) for Boston Camp activities

Details	BOS-1	Drills <sup>1</sup>	Total	Remarks
Water Source	Spyder Lake	Spyder Lake/Stickleback/Flying Squirrel	Boston Camp & Drill Rigs	2BB-BOS0712: Compliance License
Monthly Cumulative	258	90	348	3,000 m <sup>3</sup> monthly
Volume Average (Daily)	8.6	3	11.6	100 m <sup>3</sup> daily
Median	9	2.5	11.5	100 m <sup>3</sup> daily
Maximum	14	5	18	100 m <sup>3</sup> daily
Minimum	5	2.5	7.5	100 m <sup>3</sup> daily

Table 3: Effluent Discharge from the WWTF, from Monitoring Stations BOS-1, BOS-3 & BOS-4

Parameter	BOS-1	BOS-3	BOS-4	2BB-BOS0712
ALS Lab Reference #	L521873-10	L521873-8	L521873-9	Part D: Item 10
Field Sample Details	SNP#1652-1	SNP#1652-3	SNP#1652-4	Part J: Item 2
Sample Date/Time	June 24 07 @ 11:02	June 24 07 @ 11:10	June 24 07 @ 11:00	Compliance Values
Biochemical Oxygen Demand (BOD <sub>5</sub> )	<2	207	<2	80 mg/L
Total Suspended Solids (mg/L)	4	88	5	100 mg/L
Fecal Coliforms	<1	1,400,000	<1	10 x 10 <sup>4</sup> CFU/100 mL
pH (pH unit)	7.0	7.7	7.0	Between 6 and 9
Oil & Grease (Visibility)	No visible sheen	No visible sheen	No visible sheen	No visible Sheen

<sup>1</sup> Calculated (estimate of water consumed by drilling per day based on Boston License application (~ 2.5 m<sup>3</sup>/day)

Table 4: Water quality data for after drilling at Stickleback Lake and Flying Squirrel Lake as required under Part F: Item 7. All units in mg/L

Parameters	Stickleback Lake	Stickleback Lake	Stickleback Lake	Flying Squirrel Lake	Remarks
ALS Lab Ref #	L521873-11	L521873-12	L521873-13	L521873-14	License # 2BE-HOP0712
Field Sample Details	Stickleback Lake #A	Stickleback Lake #B	Stickleback Lake #C	Flying Squirrel Lake #D	Part J: Item 5
Sample Date/Time	June 17 2007	June 17 2007	June 17 2007	June 17 2007	Effluent Quality Standards
Total Suspended Solids	11	3	3	<3	mg/L
pH	6.8	6.9	6.7	5.6	pH unit
Electrical Conductivity	34.9	52.4	21.1	1.8	µS/cm
Iron	0.346	0.215	0.165	0.019	No guidelines provided in permit
Manganese	0.022	0.041	0.008	<0.001	No guidelines provided in permit
Silver	<0.0004	<0.0004	<0.0004	<0.0004	No guidelines provided in permit
Aluminium	0.07	0.04	<0.02	<0.02	No guidelines provided in permit
Trace Arsenic	0.0033	0.0009	<0.0004	<0.0004	No guidelines provided in permit
Boron	<0.02	<0.02	<0.02	<0.02	No guidelines provided in permit
Barium	0.0075	0.0095	0.0043	0.0004	No guidelines provided in permit
Beryllium	<0.001	<0.001	<0.001	<0.001	No guidelines provided in permit
Bismuth	<0.0001	<0.0001	<0.0001	<0.0001	No guidelines provided in permit
Cadmium	0.0003	0.0003	0.0003	<0.0002	No guidelines provided in permit
Cobalt	0.0007	0.0002	<0.0002	<0.0002	No guidelines provided in permit
Chromium	0.0010	<0.0008	<0.0008	<0.0008	No guidelines provided in permit
Copper	0.004	0.002	0.002	<0.001	No guidelines provided in permit
Molybdenum	<0.0001	<0.0001	<0.0001	<0.0001	No guidelines provided in permit
Nickel	0.0020	0.0009	0.0004	<0.0002	No guidelines provided in permit
Lead	0.0011	0.0027	0.0005	0.0002	No guidelines provided in permit
Antimony	0.0007	<0.0004	<0.0004	<0.0004	No guidelines provided in permit
Selenium	<0.0004	<0.0004	<0.0004	<0.0004	No guidelines provided in permit
Tin	<0.0004	<0.0004	<0.0004	<0.0004	No guidelines provided in permit
Strontium	0.0135	0.0180	0.0055	0.0004	No guidelines provided in permit
Titanium	<0.005	<0.005	<0.005	<0.005	No guidelines provided in permit
Thallium	<0.0001	<0.0001	<0.0001	<0.0001	No guidelines provided in permit
Uranium	<0.0001	<0.0001	<0.0001	<0.0001	No guidelines provided in permit
Vanadium	0.0002	<0.0002	<0.0002	<0.0002	No guidelines provided in permit
Zinc	0.026	0.046	0.011	0.008	No guidelines provided in permit
Mercury	-	-	-	-	Not done