

# 300-889 Harbourside Drive, North Vancouver, B.C. V7P 3S1 phone 604-985-2572 fax 604-980-0731

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

## Re: July 2007-Monthly Monitoring Report for Water License 2BE-HOP0712

Following is the monthly report for July 2007 as required under Water license 2BE-HOP0712.

## **Monitoring Program**

During the month of July 2007, 25 water and effluent samples were collected, as part of the monitoring program. As MHBL uses an external certified laboratory for carryout all the analyses and the sample sizes are quite small, MHBL 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 Table 1. Note: Some of the parameters were not sampled due to the fact that new water license was received on the July 25 via email and additional sampling bottles had to be re-ordered for new parameters. 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 Lat./ Long. coordinates
HOP-1	July 06 2007	L527067-8	Windy Lake water Intake
HOP-2	July 06 2007	L527067-6	RBC surge Tank
HOP-3	July 06 2007	L527067-7	RBC effluent meets Windy Lake
HOP-4	July 03 2007	L527067-1	LTA effluent prior to release
HOP-4	July 03 2007	L527067-2	LTA effluent after treatment oil/water filtration
HOP-5	No discharge	-	Effluent from Bulk fuel farm prior to release
HOP-6	No discharge	-	Patch Lake Fuel Farm Effluent

#### Water usage

During the month of July 2007, Windy camp was in operation for the whole month. Water abstraction pumps were located at Windy Lake (HOP-1), northwest of Patch Lake for drills located at Madrid Project areas, and Peanut Lake for regional drill sites at claim Amarok 3 (UTM: NAD83: 436840E; 7541380N).

There were 4 drill rigs active at Hope Bay for 29 days and 3 drill rigs for 2 days for the month of July. In total, there were 122 drilling days for the July 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 m³ 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 July 2007. The laboratory analytical results are included in this report.

Should there be any questions regarding the monthly report for July 2007, <b>please</b> contact Matthew Kawei, MHBL Exploration Senior Environmental Coordinator.
Email: mkawei@miramarmining.com

Table 2: Water usage in cubic meters (m³) for Windy Lake Camp and Drill rig sites

Details	HOP-1	Remarks	Drills <sup>1</sup>	Remarks	Total	Remarks
Water Source	Windy Lake	Part C: Item 1	Patch Lake/Peanut	Part C: Item 1	Windy Lake Camp & Drill Rigs	2BE-HOP0712: Compliance License
Monthly Cumulative	642	620	305	930	947	1550 m <sup>3</sup> monthly
Volume Average (Daily)	20	20	7.5	30	30.5	50 m³ daily
Median	22	20	10	30	30.5	50 m³ daily
Maximum	26	20	9.8	30	36	50 m³ daily
Minimum	17	20	10	30	24.5	50 m³ daily

Table 3: Effluent Discharge from the WWTF, from Monitoring Stations HOP-1, HOP-2 & HOP-3

Parameter	HOP-1	HOP-2	НОР-3	HOP-1	HOP-2	НОР-3	Hope Bay: 2BE-HOP0712
ALS Lab Reference #	L527067-8	L527067-6	L527067-7	L525966-2	L525966-1	L525966-3	Compliance Values
Field Sample Details	WCRBC SITE C	WCRBC SITE A	WCRBC SITE B	WCRBC SITE B	WCRBC SITE A	WCRBC SITE C	Part D: Item 10
Sample Date/Time	July 06 07@08:32	July 06 07@08:08	July 06 07@08:20	July 12 07@08:55	July 12 07@09:02	July 12 07@09:15	Part J: Item 2
Biochemical Oxygen Demand (BOD <sub>5</sub> )	8	76	8	<2	127	<2	80 mg/L
Total Suspended Solids (mg/L)	<3	38	<3	<3	54	<3	100 mg/L
Fecal Coliforms	<1	250,000	2	<1	Over grown	<1	10 x 10 <sup>4</sup> CFU/100 mL
pH (pH unit)	7.1	7.8	7.0	7.5	7.9	7.8	Between 6 and 9
Oil & Grease (Visibility)	-	-	-	-	-	-	No visible Sheen

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<sup>&</sup>lt;sup>1</sup> Calculated (estimate of water consumed by drilling per day based on Boston License application (~ 2.5 m³/day)

Table 4: Water quality analytical results at HOP-4 for Hope Bay under License # 2BE-HOP0712. All units are reported in mg/L.

Parameters	HOP-4	HOP-4	Remarks	
ALS Lab Reference #	L527067-1	L527067-2	License # 2BE-HOP0712	
Field Sample Details	WCLTA-1	WCLTA-2	Part D: Item 17 &	
Sample Date/Time	July 03 07 @ 09:40	July 03 07@ 09:44	Part J: Item 4	
Oil & Grease (Visibility)	-	-	15,000 μg/Land with no visible sheen	
Benzene	0.0132	< 0.00050	0.37 mg/L (370 μg/L)	
Toluene	0.0276	< 0.00050	0.002 mg/L (2 μg/L)	
Ethylbenzene	0.00058	< 0.00050	0.09 mg/L (90 μg/L)	
Total Petroleum Hydrocarbons	-	-	Not done	
Poly Aromatic Hydrocarbons	-	-	Not done	
Total Phenols	-	-	Not done	
Total Hardness (as CaCO <sub>3</sub> )	960	316	No guidelines provided in permit	
Nitrate-Nitrite	0.2	<0.1	No guidelines provided in permit	
Calcium	132	82.8	No guidelines provided in permit	
Potassium	38.2	5.1	No guidelines provided in permit	
Magnesium	153	26.6	No guidelines provided in permit	
Sodium	668	101	No guidelines provided in permit	
Sulphate	364	30.2	No guidelines provided in permit	
Total Alkalinity (as CaCO <sub>3</sub> )	196	109	No guidelines provided in permit	