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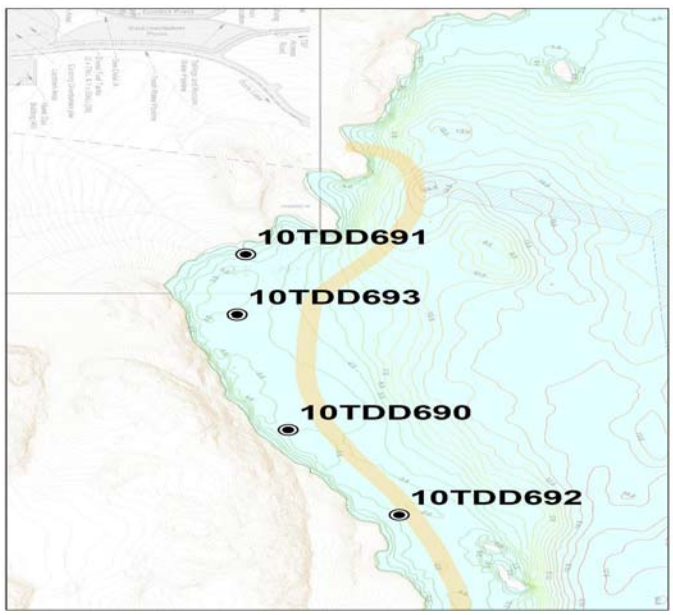
February 08, 2010

Melissa Joy
Water Resource Officer Kitikmeot Region
Indian and Northern Affairs Canada
PO Box 278
Kugluktuk, NU X0B 0E0
joym@inac.gc.ca

Re: 2BE-HOP0713: Follow-up Report - Notice of Artesian Flow, January 21 – 23, 2010

Dear Ms. Joy,

Hope Bay Mining Ltd. (HBML) had reported to you on January 25, 2010, five instances of temporary artesian flow encountered during exploration drilling that occurred January 21-23, 2010, in the area covered by water license 2BE-HOP0712. On February 03, 2010 you requested additional details to be included in the Follow-up Report. Appended to this report is the requested information.



Date	Drill Hole	Coordinates
Jan 21/10	Orbit 24: Hole # 10TDD690	0433453 E 7557936 N
Jan 22/10	Orbit 21: Hole # 10TDD691	0433393 E 7558382 N
Jan 22/10	GeoTech 2: Hole # 10TDD692	0433610 E 7557719 N
Jan 22/10	Orbit 23: Hole # 10TDD693	0433381 E 7558229 N

The water quality results from samples taken from the discharge at the drills is included here and compared with water quality samples taken from the lake.

ALS Lab #	**L853597-1**	**L853597-2**	**L853597-3**	**L853597-4**	**L853597-5**	**L856731-1**	**L856731-2**	**L856731-3**	**L856731-4**
Sample Date	**Jan 10/10**	**Jan 10/10**	**Jan 10/10**	**Jan 10/10**	**Jan 10/10**	**Jan 22/10**	**Jan 22/10**	**Jan 22/10**	**Jan 23/10**
Location	**Doris Lake**	**Doris Lake**	**Doris Lake**	**Doris Lake**	**Doris Lake**	**Doris Lake**	**Doris Lake**	**Doris Lake**	**Doris Lake**
Sample ID #/ Drill #	**DL-HOP #1**	**DL-HOP#2**	**DL-HOP#3**	**DL-HOP#4**	**DL-HOP#5**	**ORB 21**	**GEO 2**	**ORB 23**	**ORB 24**
Mercury (Hg) Total	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Aluminum (Al) Total	0.016	0.012	0.019	0.012	0.014	0.107	**11.6**	0.832	29.7
Antimony (Sb) Total	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.0080	<0.0016	<0.0080
Arsenic (As) Total	0.00062	0.00057	0.00061	0.00062	0.00053	0.00046	0.0080	0.0021	<0.0080
Barium (BA) Total	0.0033	<0.0030	0.0030	<0.0030	<0.0030	0.0035	**0.313**	0.0153	0.464
Beryllium (BE) Total	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.020	<0.0040	<0.020
Boron (B) Total	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	**0.370**	0.241	0.229
Cadmium (Cd) Total	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.0010	<0.00020	<0.0010
Chromium (Cr) Total	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.016	0.0072	0.061
Cobalt (Co) Total	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0040	<0.0020	0.0272
Copper (Cu) Total	0.0019	0.0018	0.0019	0.0017	0.0035	0.0051	0.034	0.0143	0.279
Lead (Pb) Total	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.0033	0.00930	0.0160
Lithium (Li) Total	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.12	<0.024	<0.12
Molybdenum	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0459	0.0290	0.0477

(Mo) Total									
Nickel (Ni) Total	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0115	0.0076	0.0394
Selenium (Se) Total	0.00054	0.00054	0.00057	0.00060	0.00069	<0.00080	<0.0080	<0.0016	0.0091
Silver (Ag) Total	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.010	<0.0020	<0.010
Thallium (Ti) Total	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.0020	<0.00040	<0.0020
Tin (Sn) Total	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Titanium (Ti) Total	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0028	0.196	0.0426	**0.900**
Uranium (U) Total	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.0020	<0.00040	<0.0020
Vanadium (V) Total	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.014	0.0040	0.102
Zinc (Zn) Total	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0415	<0.080	**0.109**	0.096
Calcium (Ca) Total	10.9	9.97	9.92	10.2	9.88	12.6	204	**53.8**	**124**
Iron (Fe) Total	0.021	0.016	0.027	0.019	0.028	1.26	14.6	11.7	**78.2**
Magnesium (Mg) Total	8.73	8.05	7.90	8.31	7.94	10.4	**158**	**44.6**	**97.8**
Manganese (Mn) Total	0.0035	<0.0020	<0.0020	<0.0020	<0.0020	0.0126	0.357	0.153	**1.13**
Potassium (K) Total	3.02	2.69	2.79	2.86	2.84	3.64	**34.7**	10.1	**27.3**
Sodium (Na) Total	43.8	39.8	40.2	40.8	39.5	48.8	**990**	**251**	**578**
Total Suspended Solids	5.0	5.0	4.0	4.0	<3.0	6.0	**404**	**42.0**	**3040**
Chloride (Cl)	82.2	74.0	73.7	73.7	72.9	76.5	**2490**	**452**	**841**
Calcium (Ca) Dissolved	10.4	9.50	9.65	9.54	9.41	10.2	**231**	**46.1**	**67.3**
Magnesium (Mg) Dissolved	8.35	7.71	7.83	7.66	7.52	7.92	**179**	**36.3**	**60.2**
Potassium (K) Dissolved	2.84	2.60	2.35	2.35	2.36	2.86	**39.0**	9.14	**18.7**

Sodium (Na) Dissolved	38.8	34.9	33.7	35.0	34.7	38.5	**1150**	**252**	**443**
Fluoride (F)	0.065	0.060	0.060	0.059	0.060	0.060	<0.50	0.088	0.149
TDS (Calculated)	169	153	151	152	150	160	**4390**	**924**	**1580**
Hardness (as CaCO3)	60.4	55.5	56.3	55.4	54.5	58.1	**1310**	265	**416**
Nitrate (as N)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.065
Nitrate + Nitrite (as N)	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.50	<0.071	<0.071
Nitrite (as N)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.50	<0.050	<0.050
Sulfate (SO4)	3.64	3.26	3.25	3.24	3.21	3.40	**260**	**102**	**84.0**
pH	7.61	7.61	7.59	7.61	7.61	7.61	8.00	7.74	7.89
Conductivity (EC)	356	322	322	323	317	340	**8190**	**1770**	**3000**
Bicarbonate (HCO3)	45.6	42.0	41.2	40.7	40.4	42.7	76.6	52.9	126
Carbonate (CO3)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hydroxide (OH)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Alkalinity, Total (as CaCO3)	37.4	34.4	33.7	33.4	33.1	35.0	**62.8**	43.3	**104**

DL-HOP samples were collected pre-drilling
ORB 21, GEO 2, ORB 23, and ORB 24 were collected as a result of the water discharge at the drills

The volumes of water discharged to the ice are included in the following table.

Drill Water Intersection Summary Table

Date	Drill	Depth of Encounter	Estimated Flow	Duration of Flow	Volume Estimate	Comments	Samples Obtained
Jan 21/10 12pm	Orbit 24 Hole # 10TDD690	316m	4-5gpm	4 hours	$4m^3$	Overflow of sedimented water on to ice	No
Jan 22/10 12am	Orbit # 21 Hole #10TDD691	209m	1-2gpm	0.5hours	$1m^3$	Water relatively clear	Yes - 1 L, partial parameters
Jan 22/10 12pm	Geo # 2 Hole 10TDD692	319m	1-2gpm	3 hours	$1.5m^3$	Tasted mildly saline (jt), opaque, grey	Yes – full water quality suite
Jan 22/10 2pm	Orbit # 23 Hole 10TDD693	258m	2gpm	1.5hours	$0.75\ m^3$	Did not taste saline (jt), light tea-coloured, some flow onto surrounding ice	Yes - full water quality suite
Jan 23/10 1:30am	Orbit # 24 Hole 10TDD690	412m	15 gpm – then tapered when rods in hole	1.5hours	$5m^3$	Very dirty highly sedimented water, again overflowing onto ice	Yes – full water quality suite

While reported as artesian flow, staff geologists reviewing this concluded that the occurrences were most likely the result of all drills working within a distance of about 400m along the same underground structure. They described it as a “water return” or “blow back” instead of artesian flow. During drilling, freshwater is pumped down into the drill hole. This water may have caused over-pressuring of the structure resulting flow back up the hole when drilling is stopped. The drillers reported using more water than normal and suspected some subsurface losses.

No salt was used for this on-ice drilling program. Approximately 60 liters of polymer flocculent was used per location, and becomes entrained in the drill cuttings that is removed and disposed of at the approved disposal area(s) (MSDS attached). It is felt that the discharged water is most likely drill water (Orbit 21) or a mixture of drill water and slightly saline groundwater (GEO-2).

Water Quality analysis of the water samples collected from the drill holes results in TDS concentrations that range from 160 to 4390 mg/l. TDS is generally a good indication of the source of water.

<u>TDS Concentrations in PPM of different water sources</u>

Fresh: <1,000 ppm TDS
Brackish: 1,000-5,000 ppm TDS
Highly Brackish: 5,000-15,000 ppm TDS

Saline: 15,000-30,000 ppm TDS
Sea Water: 30,000-40,000 ppm TDS
Brine: 40,000-300,000+ ppm TDS

Using TDS as an indicator suggests that the water that discharged at the surface of the drill holes was most likely a combination of Drill water and slightly saline groundwater. Upon completion of these drill holes, each was capped in accordance with the Standard Operating Procedure (SOP) (attached).

Considering the volume of water in question (0.75 – 5 m^3), the decreasing flow rate from the holed, the quality of water (TDS Ranges from 160 – 4390 ppm) and the fact that the water discharged from the holes is now in frozen form, HBML believes the risk to surface water quality and aquatic life, associated with these discharges is small due to the following reasons:

- Any cuttings that were discharged onto the ice will be scraped up and disposed of in the tailings disposal area. When the ice marked with cuttings is cleaned up, much of the drill water discharge will be removed with it and therefore greatly reduce the volume of drill water entering the water column at break-up.

- When the ice melts during break-up it will be at a time that the addition of fresh water from the ice melt will be at the maximum rate and will therefore dilute any drill water entering into the water column.

Since these initial occurrences had been reported two more instances of "blow back" have occurred and are summarized in the following table:

Drill Water Intersection Table

Date	Drill	Depth of Encounter	Estimated Flow	Duration of Flow	Volume Estimate	Comments	Samples Obtained
Feb 01/10 6pm	Orbit 21 Hole # 10TDD691	640m	8 gpm	0.5 hours	1 m^3	Overflow of sedimented water on to ice. Slight saline taste.	Yes – full water quality suite
Feb 05/10 4 pm	Orbit # 24 Hole #10TDD694	474m	8 gpm	0.5 hours	1 m^3	Water light tea coloured, slightly opague.	Yes – full water quality suite

The coordinates of hole #10TDD694 are 7559040 N; 0434095 E. Water samples collected to date are being shipped offsite Feb 08/10 for rush lab analysis.

The final outcomes of this report include the following:

- All holes are plugged according to the attached procedures.

- The majority of ice formed from water that was discharged from the drill holes will be scraped up and disposed of in the cuttings sump.

- Future holes will be monitored very closely to determine whether actual artesian conditions occur or whether discharges are due to "blow back".

- All future holes that have flow rates that do not dissipate over several hours will be plugged immediately.

Should you have any questions or concerns regarding this notice, please do not hesitate to contact me at bill.patterson@newmont.com

Sincerely,

Bill Patterson

Digitally signed by Bill Patterson
DN: CN = Bill Patterson, C = US, O = Hope Bay Mining Limited, OU = Environmental Compliance Manager
Date: 2010.02.08 13:48:12 -07'00'

Bill Patterson
Environmental Compliance Manager
Hope Bay Mining Ltd.

cc. Phyllis Beaulieu, Nunavut Water Board