July 31, 2012

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BSI
ISO 9001, ISO 14001
OHSAS 18001

Mr. Scott Jones
Vice President Engineering
Taseko Mines Limited
15th Floor, 1040 West Georgia Street
Vancouver, BC V6E 4H8

Dear Scott,

Re: Lake Level Fluctuation Predictions for Fish Lake

INTRODUCTION

Knight Piésold Ltd. (KPL) was requested to determine the potential lake level changes in Fish Lake that would result from activities related to the proposed New Prosperity Project. The lake level fluctuations for Fish Lake were assessed for the following conditions:

- Baseline (pre-mine)
- Post Development:
  - Operations Phase I (Year 1 – Year 16) and II (Years 17-20),
  - Closure Phase I (Year 21 – 30) and II (Year 31 – 47); and
  - Post-closure (Year 48 onwards).

Baseline inflows to Fish Lake were based on a watershed model developed for the project area, as presented in KPL letter VA12-00832 (KPL, 2012a). During mine operations, a portion of the runoff from the natural inflow catchment to Fish Lake will be rerouted and the outlet of the lake will be dammed. Excess outflow (above the normal operating capacity of the lake) will be recirculated upstream to the inlet tributaries or directed to the Tailings Storage Facility (TSF) for Operations Phase I. Beginning in Operations Phase II and continuing through Post-Closure a 4 m wide weir will be constructed at the outlet of the lake. All surplus water not required for the inlet tributaries from the lake will be routed through the weir towards the Open Pit located downstream of Fish Lake.

Details of the water management plan for the project through all phases of the mine life are further discussed in the Water Management Report (KPL, 2012b). This letter outlines the methodology and results related to the lake level fluctuation model.

FISH LAKE LEVEL FLUCTUATION MODEL

A lake level fluctuation model was developed and calibrated to observed streamflow data for the project. Baseline, Operations, Closure and Post-Closure scenarios were then simulated using the calibrated model to estimate Fish Lake level fluctuations. The inputs and assumptions used in the model are summarized below.

Baseline Model Inputs

Available streamflow data for two stations within the Fish Lake watershed, H17b and H6b, were used in the Fish Lake level model. Station H17b is located at the main inlet to Fish Lake in Upper Fish Creek and has an approximate catchment area of 39.8 km^2. There are several other unmonitored tributaries that also feed Fish Lake, resulting in a total catchment area of 67.1 km^2. It was assumed that the runoff at H17b is representative of the inflow tributaries and therefore the total inflow to Fish Lake was determined by prorating the flows at H17b with the total catchment area for Fish Lake. Station H6b is located approximately 3 km downstream of the Fish Lake outlet and runoff at this site is representative of the lake outflows.

Data collected during 2007 are considered the most reliable data available and were used in the analysis presented in this letter. It is recognized that the use of only one year of data somewhat limits the applicability of the results, since flows vary from year to year and accordingly the 2007 data do not represent the full range of possible conditions. However, 2007 appears to be wetter than average and experienced a very wide range of flows, as indicated on Figure 1, and therefore provides a reasonable basis for quantifying the generally expected range of annual lake level fluctuations, and for comparatively assessing pre and post development lake levels. Figure 1 presents flows for the Taseko River at the outlet of the Taseko Lake (Water Survey of Canada gauge 08MA003), which was chosen for its proximity to the project site and its corresponding exposure to similar climatic inputs as the Fish Lake basin.

A baseline watershed model was developed for the project area basins in order to assess the baseline surface and groundwater flow patterns in the area (KPL, 2012a). Precipitation and temperature measured at the regional climate station at Williams Lake A were correlated with climate data collected from the project site stations to develop long-term (1979 through 2009) data sets for the project area. Hydrologic parameters (e.g. groundwater components, evaporation, etc.) in the watershed model were calibrated to achieve a reasonable agreement between the calculated and measured streamflows at various stream gauges in the project area. The calibrated groundwater and evaporation parameters for the Fish Lake component of the watershed model were used as inputs to the Fish Lake level fluctuation model.

Baseline inflows for the lake level fluctuation model include measured flows at H17b, scaled inflows from the remainder of the Fish Lake catchment, and inflows from groundwater. Outflows include evaporation, recharge to groundwater, and lake discharge.

Lake Level Fluctuation Model

The Fish Lake level fluctuation model balances inflows and outflows to determine changes in lake volume. Lake elevations were then determined using the Depth-Area-Capacity curves (DAC), which relate water surface elevations to lake area and volume. The DAC curve for Fish Lake was developed for 1 m increments using AutoCAD and is summarized in Table 1. Linear interpolation was used to determine lake levels at intervals finer than 1 m. The normal operating capacity of Fish Lake was estimated to correspond to a lake volume of approximately 4.4 Mm^3.

Baseline lake outflows were simulated assuming a broad crested weir at the outlet of Fish Lake. The broad crested weir equation was calibrated using measured flow data for 2007 at H6b. Flows over a broad crested weir are defined as:

$$Q = bCH^{(3/2)}$$

Where: Q = outlet discharge [m^3/s]
b = weir width perpendicular to the flow [m]
C = weir coefficient (assumed equal to 1.45, which is representative of wider weirs)
H = height of water above weir crest [m]

In the lake level fluctuation model, the weir crest elevation was set to 1457 masl (metres above sea level), which corresponds to zero discharge observations made in the field. The height of water above the weir crest was calculated as the difference between the weir elevation and the lake elevation. The baseline weir width was set to 5 m based on the measured channel width at H6b.

Post Development Model - Fish Lake Water Management

Following project development, Fish Lake would be cut off from part of its inflow catchment area and the lake outlet would be closed with a dam (KPL, 2012b). The two main inlet tributaries to Fish Lake, Upper Fish Creek and Fish Lake Tributary 1, would therefore have reduced flows. To mitigate flow losses, water would be withdrawn from Fish Lake and recirculated to the inlet tributaries in order to minimize the impacts to fish habitat. Fish Lake recirculation pumping would begin in Operations Phase I and continue through Post-Closure, or until the TSF supernatant water is of suitable water quality to allow discharge to the two main inlet tributaries. After the required recirculation flow to the inlets has been satisfied, any excess outflow from Fish Lake would be pumped to the TSF until the end of Operations Phase I. Pumping to the TSF would cease at the start of Year 17 (Operations Phase II), and the outlet dam would be breached using a 4 m wide weir that would allow the lake to outflow to the Open Pit.

Outflow from Fish Lake was modelled in two ways depending on the project phase. During Operations Phase I, the required recirculation flows to the Fish Lake inlet tributaries and excess water pumped to the TSF were determined based on results from the operational water balance model developed for the project, as presented in the Water Management Report (KPL, 2012b). Starting in Operations Phase II and continuing through Post-Closure (Year 17 onwards), a calibrated weir equation was used to simulate lake outflows. A weir width of 4 m with a crest at an elevation of 1457 masl was assumed for the post-development outlet weir. This weir width is narrower than the 5 m outflow channel width used for the baseline conditions; however, the reduced Fish Lake catchment area during operations results in lower inflows and outflows, and consequently a narrower outlet width will be required to produce lake level fluctuations similar to natural levels.

RESULTS AND DISCUSSION

Baseline Lake Levels

The Fish Lake Level model was validated for baseline conditions by comparing the calculated weir flows with the measured outflows at H6b. The measured and modelled outflows are shown on Figure 2. The close agreement in timing and magnitude of the predicted and measured Fish Lake outflows suggests that the Fish Lake Level model provides a reasonable tool for modelling operational scenarios.

Baseline Fish Lake levels were calculated for 2007, which provides a reasonable measure of the natural range of lake level fluctuations. These results indicate that the lake levels fluctuate within + 0.6 m and -0.2 m of the outlet elevation, as shown on Figure 3. The predicted maximum variation in lake levels for 2007 is approximately equal to 0.8 m, ranging between 1457.6 masl and 1456.8 masl. The model predicts that the lake level falls below the weir invert during the late summer months when lake evaporation exceeds the inflows. This corresponds to zero measured flows at H6B in the late summer, as shown on Figure 2.

Post Development Lake Levels

Flows in and out of Fish Lake will be controlled during operations resulting in moderated lake level fluctuations. To determine if the lake level fluctuations during operations will be comparable to the baseline conditions under similar metrological conditions, the post development water management strategies were superimposed on the 2007 inflow data and used as the input to the post development lake level model. Resulting baseline and post development lake levels are shown on Figure 4. The baseline calculations assumed a 5 m weir lake outlet control whereas the post development calculations assume a 4 m weir lake outlet control. Lake levels during post development were predicted to fluctuate approximately 0.8 m, which is the same range as during baseline conditions.

CONCLUSIONS

A lake level fluctuation model was developed by KPL to assess post development lake level fluctuations in Fish Lake. The model was validated for baseline conditions using measured inflows and outflows for the project area. A close agreement between modelled and measured lake outflows confirms the model to be a reasonable tool for modelling future scenarios. The model results indicate that with the planned water management strategies in place, lake level fluctuations can be maintained at close to natural levels during operations, closure and post-closure conditions.

We trust that the information provided in this letter meets your current requirements. Should you have any questions, please do not hesitate to contact the undersigned.

Yours truly,
KNIGHT PIESOLD LTD.

PROFESSIONAL
PROVINCE OF
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36661
BRITISH COLUMBIA
ENGINEER

<original signed by>
31 July 2012.

Signed:
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Approved:
Ken Brouwer, P.Eng.
Managing Director

Attachments:

Table 1 Rev 0	Fish Lake – Depth Area Capacity Relationships
Figure 1 Rev 0	Taseko River Daily Hydrograph
Figure 2 Rev 0	Fish Lake Level Fluctuation Model – Measured and Modelled Lake Outlet Flows
Figure 3 Rev 0	Fish Lake Level Fluctuation Model – Predicted Baseline Lake Levels
Figure 4 Rev 0	Fish Lake Level Fluctuation Model – Baseline and Post Development Lake Levels

REFERENCES

Knight Piésold Ltd. (KPL, 2012a). Baseline Watershed Model for New Prosperity Project. Letter Ref. No. VA12-00832. May 24, 2012.

Knight Piésold Ltd. (KPL, 2012b). Water Management Report. Ref. No. VA101-266/27-2 (Rev 0). July 2012.

/as

Knight Piésold
CONSULTING

TABLE 1

TASEKO MINES LIMITED
NEW PROSPERITY GOLD-COPPER PROJECT

FISH LAKE
DEPTH-AREA-CAPACITY RELATIONSHIPS

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Area (m^2)	Area ($m^2 \times 10^6$)	Volume (m^3)	Cumulative Volume (m^3)	Elevation (m)	Elevation Change (m)
2,130	0.00	0	0	1,444	-
7,430	0.01	4,513	4,513	1,445	1
21,200	0.02	13,727	18,239	1,446	1
58,537	0.06	38,321	56,560	1,447	1
106,793	0.11	81,465	138,025	1,448	1
158,545	0.16	131,820	269,845	1,449	1
204,563	0.20	181,066	450,911	1,450	1
265,957	0.27	234,590	685,501	1,451	1
337,138	0.34	300,845	986,346	1,452	1
430,929	0.43	383,075	1,369,421	1,453	1
617,481	0.62	521,416	1,890,837	1,454	1
768,586	0.77	691,656	2,582,494	1,455	1
870,394	0.87	818,962	3,401,456	1,456	1
1,148,866	1.15	1,006,415	4,407,871	1,457	1
1,315,000	1.32	1,230,998	5,638,869	1,458	1
1,416,000	1.42	1,365,189	7,004,058	1,459	1
1,581,000	1.58	1,497,742	8,501,800	1,460	1
1,731,000	1.73	1,655,434	10,157,234	1,461	1
TOTAL VOLUME		**10,157,234**			

M:\1\01\00266\25\A\Data\Task 500 - Baseline watershed model\Lake Fluctuations\[FishLake_Model_July2012 WBM59_2007Data.xlsx]Table1_DAC

NOTES:

1. ONE METRE CONTOURS USED FOR DAC CURVE DEVELOPMENT.

REV	DATE	DESCRIPTION	PREP'D	CHK'D	APP'D
0	03MAY'12	ISSUED WITH LETTER VA12-00743	AM	EER	KJB

M:\1\01\00266\25\A\Data\Task 500 - Baseline watershed model\Lake Fluctuations\[Long Term Regional Flows.xls]Figure4-Operations_2007

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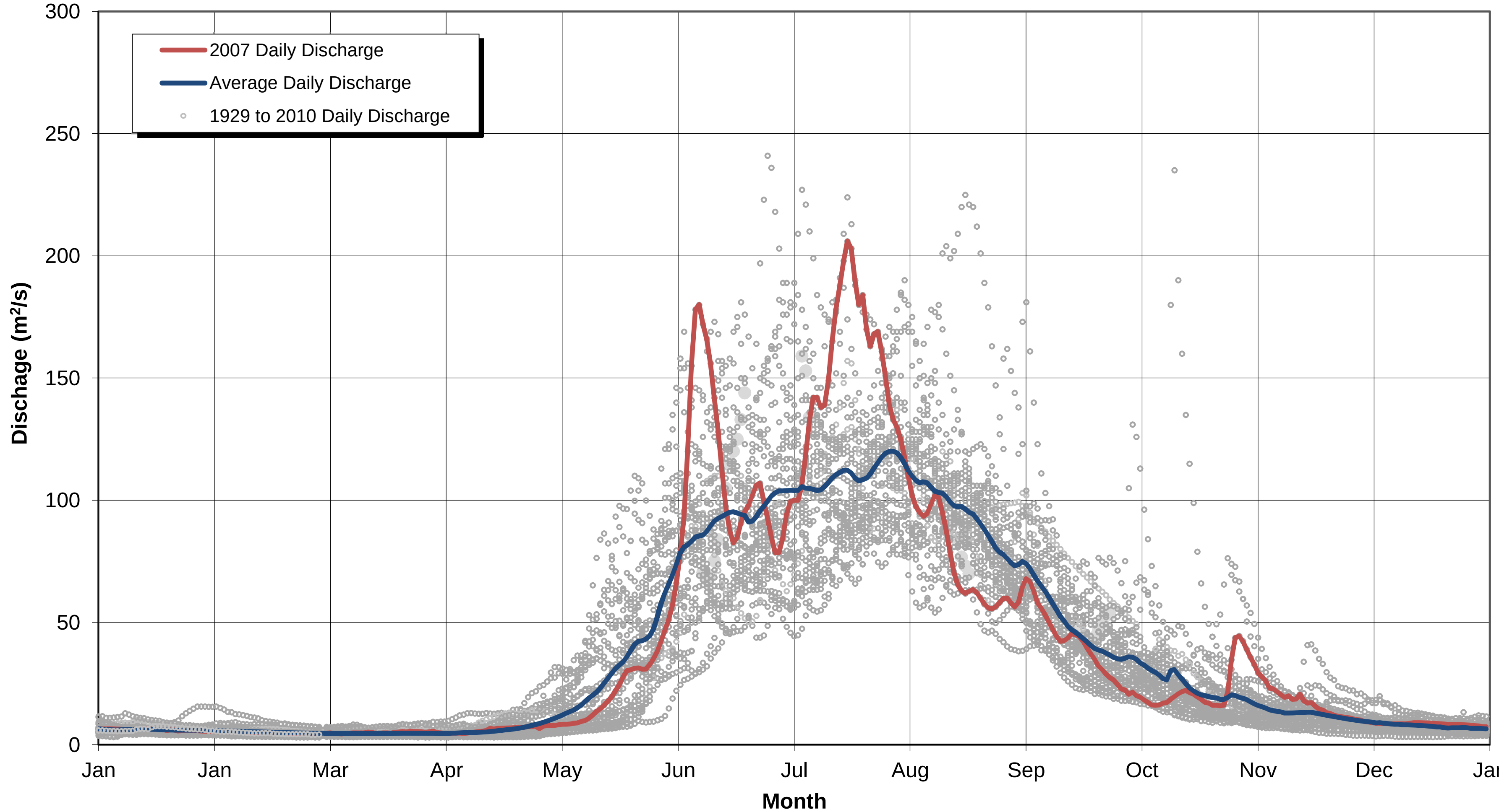


0	30JUL'12	ISSUED WITH LETTER	AS	JGC	KJB
REV	DATE	DESCRIPTION	PREP'D	CHK'D	APP'D

TASEKO MINES LIMITED

NEW PROSPERITY GOLD-COPPER PROJECT

TASEKO RIVER DAILY HYDROGRAPH

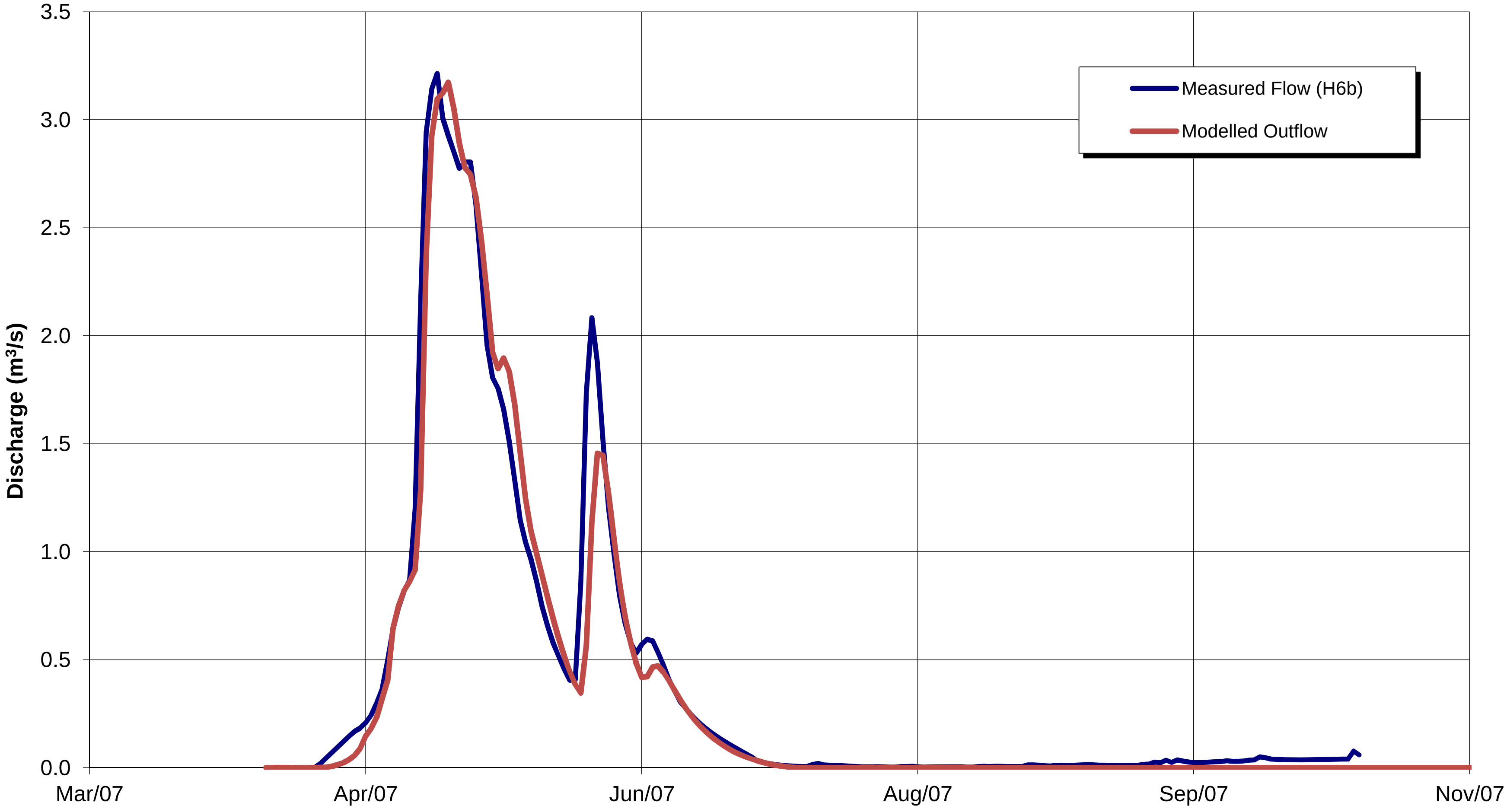
Knight Piésold CONSULTING

P/A NO. VA101-266/25

REF. NO. VA12-00743

FIGURE 1

REV 0



NOTES:
1. MEASURED FLOW AT H6b ARE AVALIABLE FOR 19 APR 2007 TO 25 OCT 2007.
2. MODELLED FISH LAKE OUTFLOWS ARE BASED ON THE BROAD CRESTED WEIR EQUATION.

TASEKO MINES LIMITED

NEW PROSPERITY GOLD-COPPER PROJECT

FISH LAKE LEVEL FLUCTUATION MODEL
MEASURED AND MODELLED LAKE OUTLET FLOWS

Knight Piésold CONSULTING

P/A NO. VA101-266/25

REF. NO. VA12-00743

FIGURE 2

REV 0

REV	DATE	DESCRIPTION	PREP'D	CHK'D	APP'D
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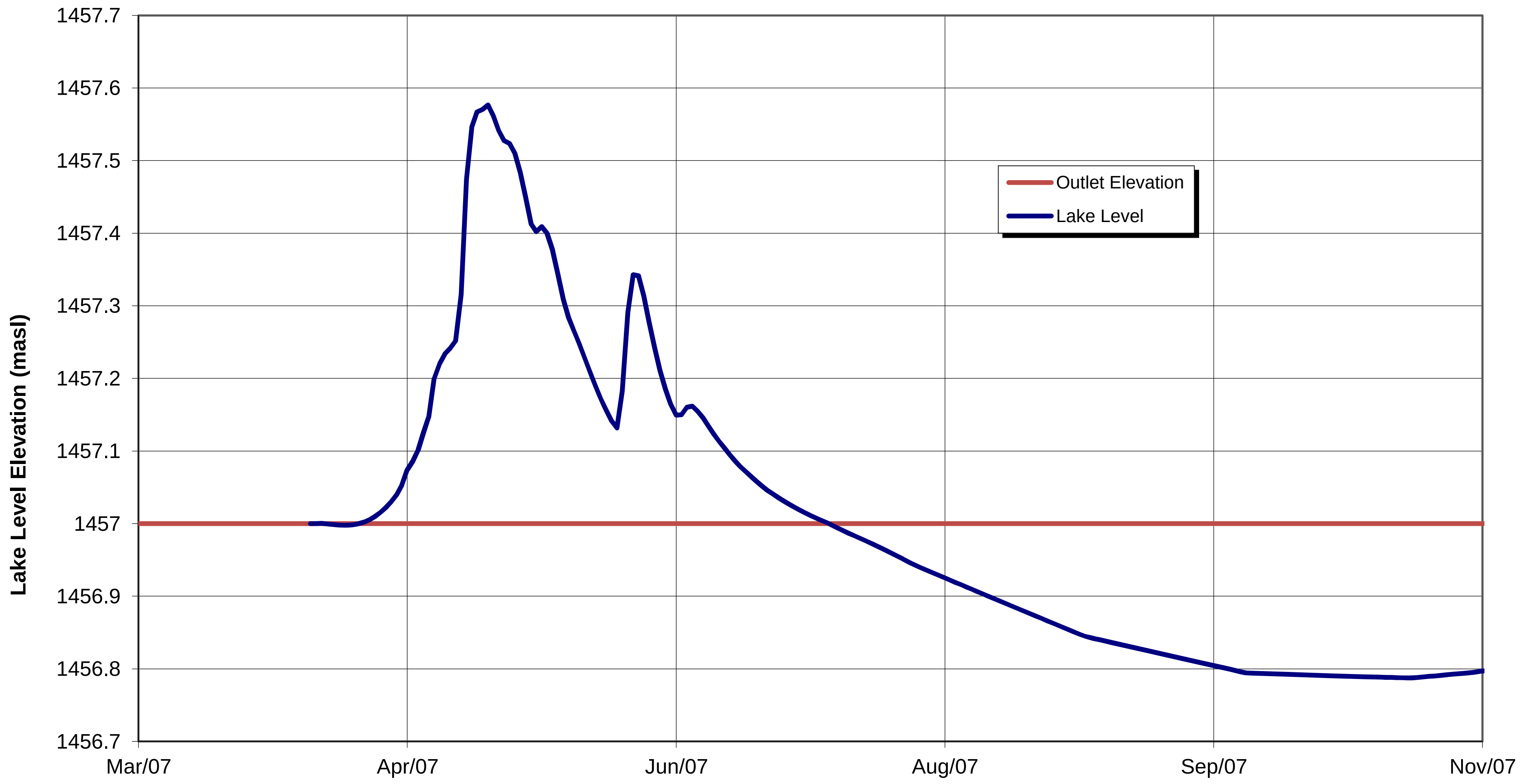

NOTES:
1. LAKE LEVEL ELEVATIONS ARE CALCULATED BASED ON THE BROAD CRESTED WEIR EQUATION.

REV	DATE	DESCRIPTION	PREP'D	CHK'D	APP'D
0	09JUL'12	ISSUED WITH LETTER	AS	VM	KJB

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NEW PROSPERITY GOLD-COPPER PROJECT

FISH LAKE LEVEL FLUCTUATION MODEL
PREDICTED BASELINE LAKE LEVELS

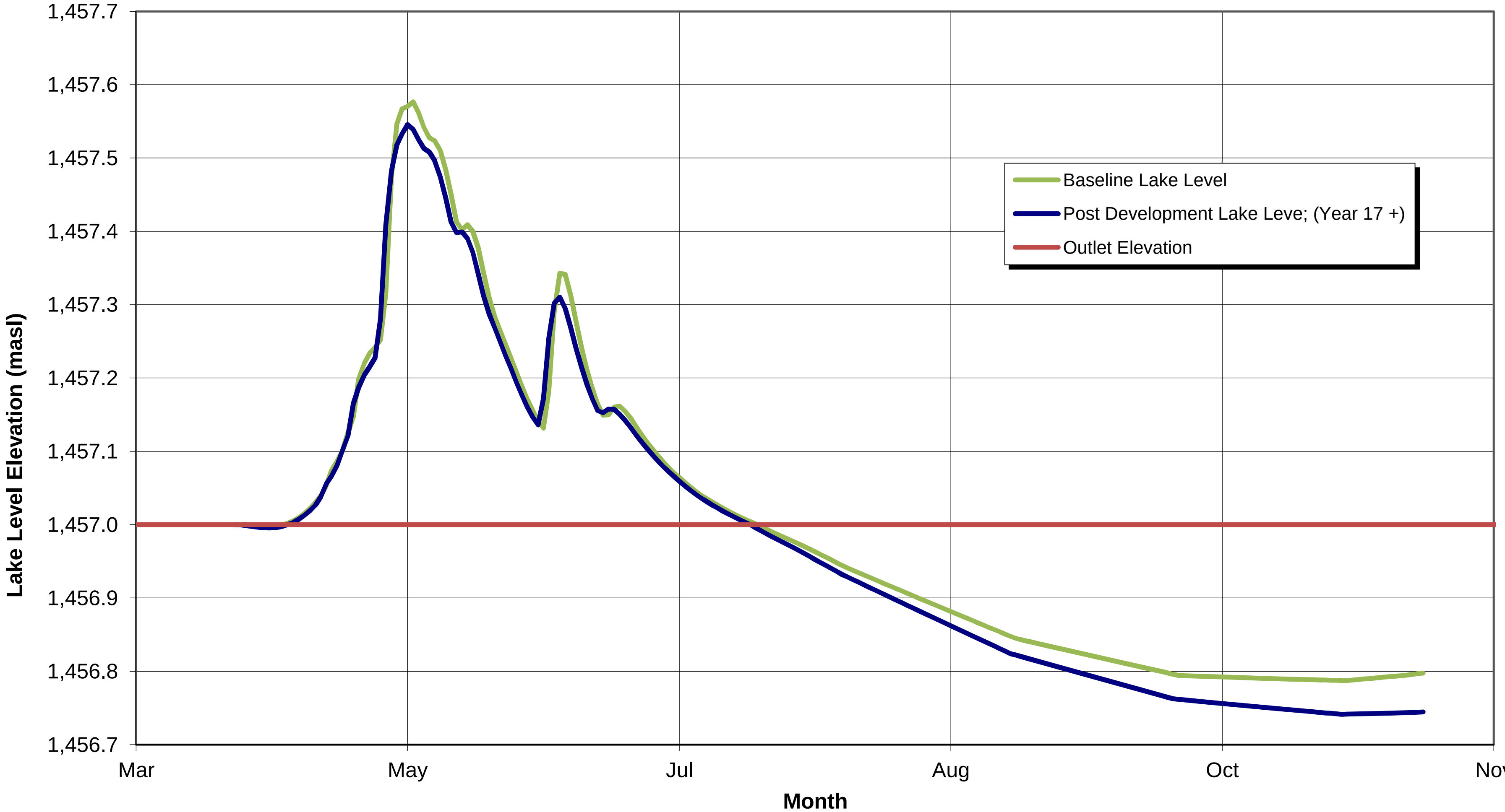
Knight Piésold CONSULTING

P/A NO. VA101-266/25

REF. NO. VA12-00743

FIGURE 3

REV 0



NOTES:

1. LAKE LEVEL ELEVATIONS ARE CALCULATED BASED ON THE BROAD CRESTED WEIR EQUATION.
2. UNDER POST DEVELOPMENT CONDITIONS (WHICH INCLUDE OPERATION PHASE II, CLOSURE PHASE I AND II AND POST-CLOSURE), FISH LAKE LOSSES FOR OPERATIONAL FLOW REQUIREMENTS WERE CALCULATED USING GOLDSIM (PUMPING RATES TO UPSTREAM INFLOW CHANNELS).
3. MEASURED 2007 FLOWS FOR H17b WERE PRORATED BY CATCHMENT AREA FOR BOTH BASELINE AND POST DEVELOPMENT IN COMBINATION WITH THE WATER MANAGEMENT STRATEGIES USED IN POST DEVELOPMENT.

REV	DATE	DESCRIPTION	PREP'D	CHK'D	APP'D
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TASEKO MINES LIMITED

NEW PROSPERITY GOLD-COPPER PROJECT

FISH LAKE LEVEL FLUCTUATION MODEL
BASELINE AND POST-DEVELOPMENT LAKE LEVELS

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P/A NO. VA101-266/25

REF. NO. VA12-00743

FIGURE 4

REV 0