Protecting the formerly pristine Quesnel Lake, really, the "heart" of Likely

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Mount Polley Mine (MPMC) has applied to continue the discharge of mine effluent into Quesnel Lake, and though it is a complex situation, reviewing and commenting on the application is complicated by the fact that MPMC will not release ALL the water quality (WQ) and operating data in a timely manner. QL is an oligotrophic lake, a big word that means nutrient poor. Previous to the dam breach and present "temporary" mine-water discharge, the biggest influx of nutrients into the lake was the annual return of the salmon runs.

MPMC and MoE focus a lot on potential metal contamination, which is obviously important, but it is likely that turbidity and nutrients (basically fertilizers such as nitrates, ammonia, phosphorus plus assorted micronutrients) discharged by MPMC has had, and will continue to have, a more profound negative impact on the QL aquatic environment. The effluent discharge WQ criteria that MPMC is proposing are in many cases hundreds of times or more **higher** than the background QL WQ. Residents along the lake have noticed and reported increased cloudy water, slime growth, filters clogging, reduced insect hatches, etc., with no corrective response from authorities.

The west arm water residence time is 90 days (10+ years for the whole lake), which means the constituents of the minewater (turbidity, metals, nutrients etc.) build up in the relatively static lake water. I remember visiting the Likely "Hilton" Hotel café in the 1990s, and using the toilets upstairs (an adventure believe me) with the sign: "If its yellow, let it mellow, if its brown, flush it down". My apologies to those that are a bit sensitive, but if you ever "let it mellow", you know that after a few hours the "yellow" starts to smell. Well the situation in QL is somewhat similar, because with the added chemicals and nutrients from MPMC, the lake starts to stew, likely leading to the effects noticed by residents. MPMC is focused solely on meeting BC Water Quality Guidelines, rather than identifying the changes and long-term effects on the formerly pristine QL aquatic environment. Regarding the effects of the dam breach itself, note the statement from UNBC: "*The QRRC team predicts that it will take several years, or **perhaps even decades**, before the full impacts of the breach are realized.*" (International Innovation Newsletter ("Protecting the pristine Quesnel watershed in Canada," January 29, 2016)). And MPMC appears willing to continue compounding the problems?

The Imperial Metals (IMC) website indicates that MPMC's typical Cash Cost Per Pound of Copper (Cu) Produced is about US$1.00/lb of Cu equivalent, which was a pretty good margin in the past (in 2013, IMC had $41 Million Net Income on $188 Million revenue). MPMC also reported known resources in 2013 of 411 Million tonnes at 0.482% Cu equivalent, which at 22,000 tonnes/day could be over 50 years of production. The gross value of that resource at US$2.20/lb Cu is over US$8 Billion, but note that recent Cu prices (as well as IMC shares) have risen about 25%. MPMC may be suffering financially a bit at the moment due to the double-whammy of the dam breach mitigation (somewhat self-inflicted) and low copper prices, but their future is likely quite bright. I cannot predict if IMC would really shut down and walk away from the mine, but in any case they would still be responsible for the cleanup and closure of the mine-site, even with no cash flow coming from MPMC. It is disappointing that a corporation with such huge economic value would not consider spending, in relative terms, a few cents more to minimize impacts on the environment.

I support that MPMC should operate, but it must protect the sensitive QL aquatic environment, which the present proposal does not.

Sincerely,
Doug Watt, Likely, BC
Still considered a "new-comer" by some, though I have now lived here for 2 decades.