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To: Mount Polley Independent Expert Engineering Investigation and Review Panel

5B – 940 Blanshard Street, Victoria BC, V8W 3E6

By Email – Secretariat to the Review Panel

Mr. Kevin Richter

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Mr. Richter:

Sir, I appreciate this opportunity to share with you and the commission some thoughts and hopes in reference to supporting the mining community in BC, Canada, following the unfortunate event at the Mt. Polley site this last August.

Thoughts:

1. The mine site had experience with radar monitoring since 2008 – on the pit side.
2. Staff turnover is an ongoing issue and reflects in management's ability to secure knowledge or practice with instruments and investments in safety and monitoring capacities.
3. When the site returned to full operation, instruments should have been updated and or new scans of any at-risk areas undertaken.
4. The tailings facility embankment walls are all suitable for radar monitoring in section, area of known risk, by visual event notice. Geocoding the data itinerant views of the complete facility are possible and very affordable.
5. When there was noted any tension or other cracks in the embankment or access road – a complete review of the slope (embankment wall) should have been done. Even if necessary to bring in the instrument and staff – over several weeks a thorough view of the embankment could have been realized.
6. Not offering to act or bring known and site-familiar technology to bare on any “event” or known issue was unfortunate and likely a violation of site safety methods and BC Mining practices..
7. Terrestrial InSAR instruments are available on lease for < \$24,000 a month.
8. Terrestrial InSAR instruments are available on for purchase for less than \$280,000

...on a 3 year depreciation at 98% availability this works out to ONLY < \$11.00 an hour/year of investment for the means and ability to monitor static embankments, active walls or embankments, and cover events or environmentally influenced occurrences.

9. There is every capacity to use satellite InSAR for whole area (tailings facility) views and terrestrial InSAR for section or known areas of risk/interest.
10. Satellite reporting on an annual basis of 1 overflight each 30-45 days, will allow for differential interferograms of record and as a baseline – at <\$90,000 a year.

These costs are negligible in the view of NOT having them, allowing ongoing operations – with ever changing management and operational staff – and having a specific event – likely initiated by insufficient oversight/enviro-operational activity, create a situation of high risk, failure, and operational and asset loss.

11. Annual reviews and cursory geotechnical reports are generally after events or operational actions – and result in repairs, or suggested fixes – whilst no real-time monitoring is available to assess the true risk present.

Hopes and readily achievable and operationally AFFRODABLE options.

1. Baseline scans from satellite interferometers should be done now.
2. A current DTM of the tailings facility can also be derived from his data
3. Differential overflights should be done while the embankment is excavated, worked on and completed.
4. A GB InSAR system should be obtained for current, repair coverage, and post repair – refilling of the structure monitoring. (IDSNA based in Golden, Co., USA, and Montreal, Canada can be sources for short term lease and or direct purchase for site monitoring instruments.)
5. Sharing of this dataset among the site staff, consultants, and local community can serve as a basis for constructive support, forward looking transparency and trust re-building with all stakeholders.
6. IF SAFETY is really No. 1 in the eyes of the Ministry. Any mitigation or repair of the embankment, refilling, and forward looking monitoring regimens WITHOUT real-time interferometric datasets – is just not a good, or value-full option.
7. The basic and affordable operational expenses for PROACTIVE structure monitoring pale in comparison to any costs related to lost-time, environmental events, loss of operations, and general site safety inhibitions.

I am prepared to offer operational choices, economic comparisons and efficiencies of use and best practice with real-time monitoring – that has been used across BC as a mine saving, worker protecting, and asset assuring resource since 2007.

Respectfully,

john S. metzger