Data Submitted (UTC 11): 9/13/2020 6:00:00 AM First name: Donald Last name: Vernon Organization: Title: Comments: The attached file contains my comments on the proposed tailings storage facility at Stibnite Gold Project.

Midas Gold Comments on Proposed Tailings Storage Facility

Midas Gold has proposed pumping tailings into a tailings storage facility (TSF) in the upper Meadow Creek valley. The proposed facility would store 100,000,000 tons of tailings in a 423 acre facility that has an embankment height of 460 feet. Construction of the TSF would be accomplished over 10 years.

Tailings dams frequently fail, resulting in the discharge of significant quantities of tailings into the natural environment, thereby causing grievous casualties and serious economic and environmental losses. Tailings dams are some of the largest structures built by geotechnical engineers. Nevertheless, on a global scale, incidents of tailings dam failures have occurred often. At this point it is imperative to assess Midas Gold experience with construction and operations of a tailings dam. Based upon the information on Midas Gold[rsquo]s website, the company does not operate any tailings storage facilities. In a high risk facility such as the proposed TSF, experienced mining companies have TSF facility failures. Midas Gold[rsquo]s in experience with tailings storage facilities is insufficient and unacceptable to have this project approved.

In the reported 18,000 mines around the world, the failure rate in the past 100[thinsp]years is estimated at 1.2%. The failure rate of the traditional water storage dam is 0.01%. On average, three of the world[rsquo]s 3,500 tailings dams fail every year. Who pays for the cleanup and restoration caused by tailings dam failure? The owners do. Let[rsquo]s review and assess Midas Gold[rsquo]s Condensed Consolidated Interim Statements of Financial Position for December 31, 2019. Total Assets were reported as \$90,504,860 and total liabilities were \$57,761,884. The total equity was \$32,742,976. Tailings storage facility failures can easily cost over \$100s of millions. If failure occurred at the proposed TSF, Midas Gold lacks the money to cleanup and restore the damage caused by the failure. Without the financial means to address damage from the TSF, Midas Golds finances are inadequate and insufficient for this project to be approved.

Rather than beginning a discussion about why Midas Gold should not be approved, the following discussion is about current mining practices that reduce the risk of tailings dam failure which Midas Gold must implement as part of EIS record of decision. Filtered, unsaturated, compacted tailings must be used instead of the proposed approach for tailings management. Tailings dams are complex systems that have evolved over the years. They are also unforgiving systems, in terms of the number of things that have to go right. Their reliability is contingent on consistently flawless execution in planning, in subsurface investigation, in analysis and design, in construction quality, in operational diligence, in monitoring, in regulatory actions, and in risk management at every level. All of these activities are subject to human error. Filtered, unsaturated, compacted tailings must be used instead of the proposed approach for tailings management to reduce the risk of the tailings storage facility failure. Demonstrated technology for producing and placing filtered tailings (sometimes termed [Idquo]dry stack[rdquo] tailings) is well-known in the mining industry. Using various kinds of equipment, the water content of the tailings is reduced before they leave the mill. The specified degree of water removal can vary, but is sufficient to allow transport by truck or conveyor to the tailings storage facility and compaction at the facility. Compaction is necessary to prevent liquefaction flow-slides that can and have occurred in loosely placed dewatered materials.

Before Midas Gold rejects the filtered tailings approach as too costly, the project economics should include tailings storage facility failure and cleanup in the proposed project site including addressing recovery of endangered salmon. Comparisons of capital and operating costs alone invariably favor conventional methods.

But this takes a limited view. Cost estimates for conventional tailings dams do not include the costs, direct or indirect, associated with failure potential. Neither do standard costing procedures consider externalities, like added costs that accrue to the industry as a whole, some of them difficult or impossible to quantify. Full consideration of life cycle costs including closure, environmental liabilities, and other externalities will provide a more complete economic picture of the Midas Gold Project.

Filtered tailings technology adopts a different approach to chemical stability. Rather than arresting the reaction, it retards the transport of reaction products. Seepage gradients are greatly diminished by eliminating surface water infiltration. This has a beneficial effect not only on sulfide reaction products; it also equally reduces transport of soluble constituents such as arsenic, sulfates and selenium, if present in the tailings. Moreover, the technology for alternative dry covers is well advanced. Using different cover designs for different climatic conditions, soil covers (used for reclamation) placed over the tailings deposit further reduce infiltration, retard oxygen entry, or both. Cover placement and reclamation can proceed concurrently with operation.

Following the review of the Mt. Polley tailings storage facility failure (Report on Mount Polley Tailings Storage Facility Breach, January 30, 2015) filtered tailings technology should be actively encouraged for new tailings facilities at proposed mines. Filtered tailings technology needs to be implemented as the cornerstone of tailings management at Midas Gold as part of the EIS Record of Decision.

To enhance validation of safety and regulation of all phases of tailings management at Midas Gold, an Independent Tailings Review Board (ITRB) must also be incorporated in the EIS Record of Decision.

The appointment of ITRB is to provide third-party advice on the design, construction, operation and closure of the Midas Gold TSF. These boards have become increasingly common and are recognized to provide value.[thinsp] The Midas Gold ITRB should be asked to provide opinions on the following:

* Whether the design, construction and operation of the TSF are consistent with satisfactory long-term performance.

* Whether design and construction have been performed in accordance with the Board[rsquo]s expectation of good practice.

* Whether safety and operation of the TSF conform to the Board[rsquo]s expectation of good practice.

* Whether there are weaknesses that would reasonably be expected to have a material adverse effect on the integrity of the TSF, human health, safety, and successful operation of the facility for its intended purpose.

Experience has shown that the effectiveness of an ITRB in specific circumstances depends on the following:

- * That it not be used exclusively as a means for obtaining regulatory approval.
- * That it not be used for transfer of corporate liability by requesting indemnification from Board members.
- * That it be free from external influence or conflict of interest.
- * That there be means to assure that its recommendations are acted upon.

No ITRB can function successfully without unqualified support and commitment at the highest corporate levels. While it is essential that the Board be organized by Mine Operations, it is equally essential that its reports go to senior corporate management and Regulators. To establish and strengthen credibility, Board reports should also be open to other stakeholders. An important mechanism for accountability in response to Board recommendations is the creation of an Action Log that reviews corporate response to Board recommendations at each successive meeting.