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Comments: Re: Stibnite Gold Project EIS #50516 - ANTIMONY CRITICALITY

I write to submit a public comment following release of the Draft Environmental Impact Statement (DEIS) (No. 20200165) for Midas Gold Inc's Stibnite Project. My comments are focused on support of the project's production of antimony concentrates from a criticality and sustainability perspective.

I submit this comment from my individual knowledge of and expertise in the antimony industry. I have been working in various commercial roles for almost two decades in the field of mineral concentrate marketing and trading as well as mining investment, working closely with many antimony mining and processing companies in various jurisdictions globally.

To summarize, my comments herein focus on the following four points in support of the Stibnite Project:

(1) STIBNITE'S ANTIMONY RESOURCE IS OF SIGNIFICANT SCALE: Antimony concentrates from the Stibnite project would be a significant source of global antimony supply, ranking in the top 10 antimony concentrate producing mines globally.

(2) ANTIMONY IS A CRITICAL MINERAL: Antimony is a critical mineral for the United States, in that it is an essential industrial metal for which the United States is import dependent for 85% of its needs.

(3) ANTIMONY PRODUCTION IS CONCENTRATED IN ONLY 3 COUNTRIES: Not only is the United States predominantly import dependent, but production of antimony is concentrated in only 3 (three) countries that produce over 90% of antimony mined material on global basis. Further these three countries are defined as high-governance risk countries by the World Bank: China, Russia, and Tajikistan.

(4) INCREASING REQUIREMENTS FOR SOCIALLY RESPONSIBLE SOURCING: The objective of seeing antimony mined under verifiable environmentally and socially responsible practices will be better achieved on a global basis if the Stibnite Project proceeds.

Taken together, the above facts underscore the important role that the Stibnite Project can contribute to the antimony industry in the United States.

Further details on these above points are as follows:

1. STIBNITE'S ANTIMONY RESOURCE IS OF SIGNIFICANT SCALE

The world production of antimony, including from primary mined ores and recycled products, is estimated to be between 175,000-220,000 metric tons per year. Of this, approximately 20% is from recycled lead-antimony batteries, leaving production from primary mine production of 140,000-160,000 metric tons per year. This places antimony in the category of a minor metal, compared to the scale of metals as copper, zinc, lead, nickel, and aluminum raw materials, where many millions of tons are mined globally each year.

The Stibnite Project has a reported estimated recoverable mineral resource consisting of 100 to 200 million pounds of antimony. On a metric ton basis, this 45,000 to 90,000 metric ton recoverable quantity would likely result an annual production of at least 5,000 metric tons per year of antimony contained in antimony concentrate basis an estimate mine life of 8 to 12 years. This quantity would see the Stibnite project comprise 3.5% of current 2020 global mined output and rank in the top 10 antimony concentrate producing mines worldwide. As such, the Stibnite Project would be considered a globally significant antimony mine should it enter production.

2. ANTIMONY IS A CRITICAL MINERAL

Antimony is an important industrial mineral used an array of end uses, including flame-retardants, batteries and munitions, and various ceramics, glass and rubber products. For the United States, antimony has been defined as a critical mineral, meeting the following three characteristics under Executive Order 13817:

- (1) Being essential to the economic and national security of the United States;
- (2) Having supply chains that are vulnerable to disruption;
- (3) Serving an essential function in the manufacturing of a product, the absence of which would have significant consequences for the United States economy or national security

The details of the criticality of antimony are on the public record, but the simply fact is that the United States is entirely dependent on foreign sources of primary-mined antimony. There are currently no antimony mines operating in the United States. Further, only 14-15% of the United States 2019 antimony demand was met by domestically recycled materials and there is little ability to increase antimony production through increased recycling efforts.

Finally, several others nations around the world are reviewing critical mineral strategies and have similarly identified antimony as having supply risks. Policy recommendations from several countries, the United States included, call for strategic stockpiling of antimony, such that demand for antimony in coming years could increase not only with economic growth, but also to fill strategic reserves.

3. ANTIMONY PRODUCTION IS CONCENTRATED IN ONLY 3 COUNTRIES:

Over 90% of antimony primary mine output come from only three countries according to the USGS for 2019: China (62.5%), Russia (19%), and Tajikistan (10%). Very simply put, supply diversification of primary mine production of antimony in the world is lacking.

It is beyond my purview to comment on geopolitical strategic issues, but relevant to any review of the risks of global antimony supply would be analysis of governance risk in the countries of predominant production. The World Bank's Worldwide Governance Indicators (WGI) offers one such metric, wherein the three predominant antimony producing countries are ranked in the lower percentile of almost all six metrics of governance that are surveyed (see the following chart: World Bank's Worldwide Governance Indicators Ranking, 2019). Generally, it would be a fair conclusion to state that the risk of supply disruption is greater in high governance risk countries.

4. INCREASING REQUIREMENTS FOR SOCIALLY RESPONSIBLE SOURCING

Beyond criticality and supply diversification, a global trend with metals is the move towards supply chain transparency to ensure social and environmental operating standards are met from mine through to final product. Such efforts are complicated when mines are located in remote locations and in high-governance risk jurisdictions. Clearly the objective of seeing antimony that is mined under verifiable environmentally and socially responsible practices will be better achieved on a global basis if the Stibnite Project proceeds.

A final and related point is that proposed production of an antimony sulphide flotation concentrate from the Stibnite Project with an Sb content of 55-60% on a dry metric basis would rank as a high-grade and easily treated feedstock material in comparison to what is produced by many currently operating mines.

In conclusion, the opportunity to proactively meet important criticality and sustainability challenges in the antimony industry should be considered as an important merit in support of the Stibnite Project.

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References:

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