

410 – 325 Howe Street Vancouver, BC, V6C 1Z7 Canada

June 13<sup>th</sup>, 2022

Colorado Division of Reclamation, Mining and Safety

Attn: Lucas West

1313 Sherman St Room 25 Denver, CO 80203

## RE: Klondike Basin Exploratory Drilling Project- COSLB Section 16, File No. P-2022-007, Objection Forwarded to Applicant

Mr. West,

In response to the objection forwarded to Tarsis and its representatives on June 8<sup>th</sup>, 2022, please find below our responses regarding cuttings handling, acid generating potential and considerations for uranium mineralization.

## **Cuttings General**

Total cuttings volumes are anticipated to be small for this project. Tarsis is employing a recirculatory system (SRU) that minimizes and segregates cuttings and facilitates water recirculation. This effectively creates a closed loop drilling system wherein water is recycled and cuttings are segregated for disposal. Of the drill hole void, the majority of the volume is being retained as drill core and taken off site for processing on a daily basis.

## **Acid Generating Minerals**

There is little to no potential for acid to be generated by the cuttings from this drill program. The Klondike exploratory drill program is targeting copper hydrated and/or carbonate material (malachite, azurite, chrysocolla); none of these mineral species are acid generating upon oxidation/exposure at surface. Tarsis does not expect to intercept any significant acid generating material such as iron sulfides. If sulfide material is encountered, the volumes are likely to be minimal in content (e.g., on the order of 1-5% vol within the rock) over small intervals of the hole. The small amount of cuttings generated from these intercepts would be diluted by the relatively larger volumes of cuttings generated from the barren surrounding rock. It should also be noted that much of the lithology within these sedimentary sequences are calcium-carbonate cemented sandstones, siltstones, etc., and are acid-buffering in nature.

## **Radioactive Minerals**

Uranium-vanadium mineralization does occur sporadically within the project area. Known occurrences are small and pod-like in nature, and it is highly unlikely that substantial radioactive material is



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encountered during drilling. Similar to the concern for acid-generating minerals, the dilution of the cuttings derived from small intercepts of uranium-bearing rocks by the cuttings derived from barren surrounding rock will minimize potential exposure at surface. No specific monitoring of drill core or cuttings will be implemented for this program with respect to Uranium mineralization. However, all cuttings will be disposed of in onsite sumps and buried with >18" of clean soil from the excavation. This is considered standard practice for management of low-level radiation materials management in the region, and minimizes the amount of handling and interaction with the material.

Regards,

Rob Duncan VP Exploration Alianza Minerals Ltd