

6132.1000 MINE WASTE CHARACTERIZATION.

Subpart 1. **Mine waste characterization conference.** Persons intending to submit an application for a permit to mine shall meet with the commissioner to outline chemical and mineralogical analyses and laboratory tests to be conducted for mine waste characterization. This characterization will be used by the commissioner in the evaluation of the applicant's mining and reclamation plan.

Subp. 2. **Mine waste characterization.** Mine waste characterization shall be conducted by persons with demonstrated proficiency in such analysis and approved by the commissioner. The characterization shall be based on chemical, physical, and mineralogical analyses and laboratory tests of material generated by exploration, preproduction sampling, and process testing.

A. The mine waste characterization shall include:

- (1) chemical analysis of mine waste;
- (2) mineralogical and petrological analysis of mine waste; and
- (3) laboratory tests describing acid generation and dissolved solids release from mine waste.

B. For reagents associated with tailings or leached ore materials, the following information shall be provided:

- (1) chemical composition;
- (2) mass of chemical used;
- (3) degradation and transport characteristics; and
- (4) effects on mineral dissolution as measured in item A, subitem (3), or item C, subitem (3).

C. Based on the results of the analyses and tests of items A and B, the commissioner may require additional mine waste characterization including, but not limited to, the following:

- (1) particle size distribution;
- (2) chemical composition, mineralogical composition, and specific surface area as a function of particle size; and
- (3) laboratory dissolution tests to describe the effect of rock composition, in particular, acid-producing and acid-consuming mineral content, on acid generation and dissolved solids release.

Subp. 3. **Results of characterization.** The results of the mine waste characterization shall be submitted as follows:

A. to the commissioner as a part of the permit to mine at the following times:

(1) on submission of an application for a permit to mine under part 6132.1100, subpart 6, item B, subitem (1); and

(2) throughout the life of the operation as part of the annual report under part 6132.1300, subpart 2, item E; and

B. to regulatory agencies establishing water quality and compliance monitoring standards.

Statutory Authority: *MS s 93.44 to 93.51; 103G.222*

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