



July 23, 2019

Mark A. Steen
Colorado Milling Company, LLC
P.O. Box 1523
Longmont, CO 80502

**Re: Gold Hill Mill, Permit No. M-1994-117, Amendment Application (Revision No. AM-01),
Adequacy Review No. 5**

Mr. Steen:

The Division of Reclamation, Mining and Safety (Division) has completed its fifth adequacy review of the materials submitted for the above referenced amendment application (AM-01), which was filed on January 4, 2018. During the June 26, 2019 Board hearing, the decision date for this application was extended to **September 24, 2019** (90 days from the date of the hearing).

After reviewing the operator's adequacy response submitted on June 24, 2019, the Division has identified adequacy items requiring clarification or additional information. These items are identified below under their respective exhibit heading, and are numbered sequentially. The item numbers referenced in this letter correlate with the Division's adequacy items identified in its review letter dated May 21, 2019.

Exhibit C – Mining Plan (Rule 6.3.3):

- 1) The operator's response to Item no. 1(a) states the requested mine pool drawdown plan cannot be developed and submitted to the Division until a pumping test has been conducted at the site. Therefore, the Division has the following comments regarding this item:
 - a. Please provide a pumping test plan detailing the proposed procedures. This plan should include a detailed description of how water pumped from the workings will be managed during testing, and whether a discharge permit will be required from the CDPHE, WQCD.
 - b. Because the site is still under a Temporary Suspension by the BLM, please commit to demonstrating to the Division, prior to initiating the pumping test, that the BLM has authorized this activity to occur at the site.
 - c. Please be advised, submittal of the requested mine pool drawdown plan will be a stipulation of AM-01 approval, requiring this plan be submitted in the form of a Technical Revision for Division review and approval, prior to mill operations commencing at the site. Please acknowledge your acceptance of this stipulation.



- 2) The operator's response to Item no. 1(d) states the operator is awaiting the results of the Deere & Ault's mine pool control plan and monitoring plan to determine if it is necessary to maintain the water levels in the mine workings below the design standard for the Times Mine Bulkhead.

Please be advised, until the Division has reviewed and approved the new engineer bulkhead evaluation based on the results of the proposed pumping test, and including different recommendations than those included in the evaluation submitted to the Division on May 17, 2019, the operator must commit to maintaining water levels in the mine workings below the design standard for the bulkhead, 17.6 feet of head or an elevation of 8,360 feet during operations, including weekly monitoring of water levels.

- 3) The operator's response to Item no. 1(e) states the operator is awaiting the results of the Deer & Ault's mine pool control plan and monitoring plan to determine the actual Times Mine Bulkhead pressure and the effects of different water levels in the Times and Wynona Mines on the bulkhead pressure.

Please be advised, until the Division has reviewed and approved the new engineer bulkhead evaluation based on the results of the proposed pumping test, and including different recommendations than those included in the evaluation submitted to the Division on May 17, 2019, the operator must commit to maintaining the bulkhead pressure below the design standard for the bulkhead, 7.6 psi (with 17.6 feet of head) during operations, including weekly monitoring of bulkhead pressure.

- 4) The operator's response to Item no. 1(f) states the operator is awaiting the results of the Deere & Ault's mine pool control plan and monitoring plan to determine the frequency of the inspection of the Times Mine bulkhead.

Please be advised, until the Division has reviewed and approved the new engineer bulkhead evaluation based on the results of the proposed pumping test, and including different recommendations than those included in the evaluation submitted to the Division on May 17, 2019, the operator must commit to inspecting the bulkhead on a weekly basis during operations to document conditions, including any increases in seepage or the development of any concentrated areas of flow.

- 5) The operator's response to Item no. 1(g) states the operator has discussed the potential for concrete degradation of the Times Mine Bulkhead with Deere & Ault and prefer to let them address the need to sample the water quality on a quarterly basis to evaluate the potential for concrete degradation of the bulkhead.

Please be advised, until the Division has reviewed and approved the new engineer bulkhead evaluation based on the results of the proposed pumping test, and including different recommendations than those included in the evaluation submitted to the Division on May 17, 2019, the operator must commit to monitoring water quality in the Times Mine on a quarterly basis (for the sampling parameters approved in AM-01) to evaluate potential concrete degradation of the bulkhead, and submitting these results to the Division in the quarterly groundwater monitoring report.

- 6) The operator's response to Item No. 2 states the operation will be limited to processing no more than 5,000 tons of ore at this time (due to limited capacity of the tailings impoundment), and will therefore, require a

total of 5,000 tons of water with mill recycling (assuming 1 ton water/1 ton ore) or 20,000 tons of water without mill recycling (assuming 4 tons water/1 ton ore). Please specify how much water will be used in conjunction with the operation in units of volume (gallons), not units of weight (tons), so the Division can easily compare this value to the amount of water the operator is authorized (per Water Court Decree) to withdraw from Left Hand Creek, which is also given in units of volume (3,388,850 gallons during irrigation season). Please be sure the estimated volume in gallons has been properly converted from tons using the appropriate conversion factor, and not a 1 ton water = 1 gallon water conversion, which is incorrect.

Exhibit E – Map (Rule 6.3.5):

- 7) The operator's response to Item no. 3(a) regarding the Mining Plan Maps, included a legal description and revised Figure E-1 for the proposed permit area near Left Hand Creek. These documents show the proposed permit area near the creek to consist of 0.218 acres. This acreage varies from what was proposed in the application for this area (0.256 acres) and from what was shown in this area on the previous E-1 map (0.035 acres + 0.218 acres = 0.253 acres). Please correct and/or explain this discrepancy in the proposed permit area near the creek. Does the operator still request a total permit area increase of 0.797 acres in AM-01, as initially proposed? Or has this value changed since the most recent survey was completed?
- 8) Please submit a revised Figure E-1 which conforms to the following criteria required by Rule 6.2.1(2):
 - a. Show name of Applicant.
 - b. Must be prepared and signed by a registered land surveyor, professional engineer, or other qualified person.
 - c. Give date prepared.
 - d. Identify and outline the proposed permit boundary, as also required by Rule 6.3.5(2)(a). The revised map does not adequately identify the proposed permit boundary. Two potential methods for properly identifying the permit boundary include using a unique outline and an appropriate legend to describe what the outline represents, or using arrows and text to indicate the location of the permit boundary. Please be sure all portions of the permit boundary shown on the map are identified (pump station area and waterline area).
 - e. Include an appropriate map title. The revised map is titled "E-1A Permit Area", which does not appropriately indicate the type of map. The Division suggests revising the title to "E-1A Mining Plan Map for Permit Area near Left Hand Creek", or at a minimum "E-1A Mining Plan Map".
- 9) The operator's response to Item no. 3(b) regarding the Reclamation Plan Maps states that none of the requested features have ever been shown on any of the Reclamation Plan Maps that have been submitted to the DRMS. Further down, the operator refers to Rule 1.10(2) which states the Applicant will not be required to submit any information which duplicates applicable previous submittals. The Division agrees with the operator's statement that none of the requested features have been shown on previous Reclamation Plan Maps for the site. Therefore, the Reclamation Plan Map must be a stand-alone comprehensive map that

portrays all components of the reclamation plan for the affected lands shown on the map. The Division will not approve AM-01 without an updated Reclamation Plan Map that conforms to the requirements of Rules 6.2.1 and 6.3.5.

Please submit a revised Reclamation Plan Map (Figure E-5) which includes the following information required by Rule 6.3.5(3):

- a. Show the gradient of all reclaimed slopes (horizontal:vertical) sufficient to describe the post mine topography.
- b. Indicate where vegetation will not be established and the general area(s) for shrub or tree planting.
- c. State the average thickness of replaced overburden by reclamation area or phase.
- d. State the average thickness of replaced topsoil by reclamation area or phase.

Additional Item(s):

- 10) Please remember that, pursuant to Rule 1.6.2(1)(c), any changes or additions to the application on file in our office must also be reflected in the public review copy which was placed with the County Clerk and Recorder. Pursuant to Rule 6.4.18, you must provide our office with an affidavit or receipt indicating the date this was done.

This completes the Division's fifth adequacy review of your amendment application. As stated above, the application decision date for AM-01 has been extended to September 24, 2019. However, please ensure the Division adequate time to complete the review process by submitting your response no later than one week prior to the decision date, by **September 17, 2019**.

If you have any questions, you may contact me by telephone at 303-866-3567, ext. 8129, or by email at amy.eschberger@state.co.us.

Sincerely,



Amy Eschberger
Environmental Protection Specialist

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