



## COLORADO

Division of Reclamation,  
Mining and Safety

Department of Natural Resources

1313 Sherman Street, Room 215  
Denver, CO 80203

October 10, 2014

Mr. Randy McClure  
Rio Grande Silver, Inc.  
PO Box 610  
Creede, CO 81130

**Re: Bulldog Mine Operation, Permit No. M-1977-215, Amendment AM-02, Technical Adequacy Review Letter**

Dear Mr. McClure,

The Division has been reviewing Amendment AM-02 for the Bulldog Mine, which consists of the applicable amendment exhibits, and mainly contains the Environmental Protection Plan (EPP). Overall the maps and text are very well prepared. The Division has a few questions and comments, however, which must be addressed before the amendment can be considered adequate for approval. Exhibits not mentioned in this letter are considered adequate at this time. Please address each of items below.

Exhibit O - The list of landowners in Exhibit O does not include the U.S. Forest Service. The USFS is the land management agency of most of the public land surrounding and also within the Bulldog Mine permitted area. Please revise this list of landowners to include the USFS.

The Map O-1 delineates patented and deeded land parcels, and although the lands owned by Rio Grande Silver (RGS) are differentiated, none of the other parcels are identified by its respective owner. Because individual parcel ownership was documented in Amendment AM-01, and since no disturbances are planned for those parcels (and no objections have been received by the Division), this map does not need to be revised to show the owner(s) of each parcel at this time. If this information becomes needed for this amendment in the future, I will contact you in that regard. No response is needed at this time.

The EPP in Exhibit U contains all of the topics that the Division considers to be required at this time. The EPP is straightforward and very detailed, including the discussion and engineering in the stormwater section, which is appreciated. The methods of rock characterization that are described are appropriate for this site. It appears that some testing has been performed, but more will be required to be carried out. The constituents of interest are listed on Table 5, but there may be a typo in the list: "LOI" should possibly be corrected to reflect a lithium compound. Please clarify.

Exhibit U, Part (8)(b) - Map G-1 was provided to depict the locations of water wells within a two-mile radius of the mine. This map is sufficient and no further changes are needed. Also provided was Map G-2 which illustrated the southeast-trending known extent of veins and fractures, and the groundwater flow, though the gradient (vertical angle of the flow) is not described. The groundwater elevation in the Bulldog mine workings (approximately 9240 feet) is about 400 feet higher than the elevation of the town of Creede (approximately 8840 feet). Since the groundwater flows to the southeast, toward the town of Creede and



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Willow Creek, please clarify whether there are seeps or springs to the southeast of the Bulldog Mine, whose flow or quality can be attributed to the groundwater in the Bulldog Mine. If there are none, please explain whether the mine impounds the water, or if a different hydrologic situation exists. Another question related to this issue is raised in a paragraph below.

Exhibit U, Part (9)(c) - The list of groundwater analytes and detection limits appears appropriate. Though the groundwater monitoring program in this EPP is not yet approved as of the date of this letter, the Division encourages Rio Grande Silver to commence (or continue) sampling groundwater according to this proposed plan.

Exhibit U, Part (11)(b) and (c) – The locations of surface water monitoring sites and list of analytes appear appropriate. Though the surface water monitoring program in this EPP is not yet approved as of the date of this letter, the Division encourages Rio Grande Silver to commence (or continue) sampling surface water according to this proposed plan.

Exhibit U, Part (12) – The EPP states that there are six groundwater sampling sites, one monitoring well (named “HW-1”) and five “drive points.” The text gives only three names of the individual drive points given: DP-3, DP-5, and DP-6. Map G-3 contains the locations of DP-3, DP-4 and DP-5. Please clarify and/or correct this discrepancy in the number, location, and naming of the drive points.

As noted above, groundwater flows to the southeast, toward the town of Creede and Willow Creek. There are no proposed monitoring wells or sampling sites located southeast (down-gradient) of the Bulldog Mine. Is there a reason for not proposing a sampling well in this vicinity?

The EPP proposes that Rio Grande Silver will take water samples on a quarterly basis. This is acceptable to the Division. The plan further proposes that Rio Grande Silver will provide WQ sampling analyses to the Division on an annual basis. The Division does not agree to this submittal schedule. Reports from quarterly sampling must be submitted quarterly and timely to the Division. An annual submittal of the summary of the quarterly results, in addition to the quarterly submittals, is acceptable.

Rule 8.3.2(a), Emergency Response Plan – Please provide an updated list of contact persons for your ERP.

Appendix 1, Figures 3, 4 and 5, Water Quality Analyses – As part of the EPP documentation, Rio Grande Silver has submitted a collection of recent water quality analyses under Appendix 1. However, Rio Grande Silver has marked all of these 433 pages as “confidential.” This is an unusual topic of document for an operator to label as confidential, and the Division does not feel that it is appropriate or correct. The Division would like to refer the operator to the following sections of the Hard Rock Rules and Regulations. Please see Rule 1.3(3) for discussion of confidentiality of permit documents. Please also see Rule 5.2.1(2) which discusses (within the more restrictive context of prospecting NOIs) the various topics that could be considered to be confidential. Water quality information does not appear in the text of those rules. The operator’s response to this issue should either include a statement that the water quality reports may be

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considered non-confidential, or an adequate explanation justifying the position as to why they should remain confidential.

Exhibit Q, Proof of Mailing Notice to Board of County Commissioners and to Conservation District – The amendment application included the two proofs of certified mailing to those entities. Please provide to this office copies of the signed green receipts of delivery of those two notices.

The Bulldog Mine permit was initially approved with a post-mining plan of “recreation.” It appears from the published and mailed notices for this amendment that the operator wishes for the post-mining land use to be changed to “wildlife habitat.” Please clarify the intended post-mining land use.

Exhibit R, Proof of Filing Amendment with County Clerk and Recorder – The receipt that was obtained from the county and provided to the Division was sufficient for the filing of the initial amendment materials. Please note that all subsequent amendment materials submitted to the Division, including revised maps and exhibits, and other responses to adequacy reviews, must be additionally filed with the county. Please ensure that you file a copy of all additional materials with the county clerk, obtain a receipt therefor, and provide the receipt to this office.

As a reminder, all hard copies of the materials you provide in regard to this amendment should be marked with the permit number and amendment, and mailed to the Division’s Denver office (see address at the bottom of page 1). Please include two sets of materials, with one set labeled for the Durango Field Office.

The decision date for this amendment is October 24, 2014. I am required to state that if the amendment is not adequate for approval by the close of business on that date, it may be denied. If additional time is needed to prepare and submit the necessary response materials, please contact this office to discuss an extension.

I look forward to receiving your responses to this adequacy review.

Sincerely,



Bob Oswald  
Environmental Protection Specialist

EC: Russ Means, DRMS Grand Junction