



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

July 31, 2017

Sara Glinatsis
Sunrise Mining LLC
P.O. Box 160
Arvada, CO 80001

RE: May Day Idaho Mine Complex, File No. M-1981-185, 112d-2 Amendment (AM-2)
Application Adequacy Review

Dear Ms. Glinatsis:

The Division of Reclamation, Mining and Safety (Division) is in the process of reviewing the above referenced application in order to ensure that it adequately satisfies the requirements of the Colorado Mined Land Reclamation Act (Act) and the associated Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for Hard Rock, Metal, and Designated Mining Operations (Rules). During review of the material submitted, the Division determined that the following issues of concern need to be clarified or addressed.

While it is not required, the Division would appreciate the response to this review to be in one submittal and formatted in a way that the responses can be inserted in their respective exhibits in the previously submitted 3-Ring Binders or replace the Exhibit entirely with the changes bolded. The items that require attention are;

1. Exhibit A- Legal Description

- a) The narrative, including the acreages of the affected lands does not match the acreages and affected lands listed in subsequent exhibits throughout the application. Please submit an updated Exhibit A that is consistent with the narratives in all other Exhibits and Figures. For example not all of the affected areas that are identified on Figure D-1 are listed in the narrative of this exhibit.
- b) The acreages of the affected areas in the narrative does not correspond with the total number of disturbed acres in the application packet of 56 Acres. There are discrepancies noted for the May Day 1, May Day 1 East, May Day 2, May Day 2 East, Chief Portal, Idaho Area, and the "New May Day 3" or "Lamb" area. When submitting an updated Exhibit A, ensure that the acreages are consistent throughout the application including maps and figures. Please also submit figures of each area of affected lands, of appropriate scale and with the appropriate information so the Division can verify the accuracy of the legal description of each section.
- c) Because the permitted area is such an irregular shape, spanning various parcels, please provide the Division with the GPS coordinates of each corner of the permitted area. This information could be submitted as a separate map with the corners labeled, and referenced with their individual coordinates.
- d) As a general comment, when naming areas or features within the permitted area, please keep the naming consistent. For example in some areas the May Day 3 area is referred to as



the “Lamb” area while in others it is the May Day 3. Please go through the application and its Exhibits to ensure that the naming of areas and or features is consistent.

2. **Exhibit C- Pre-mining and Mining Plan Maps of Affected Lands**

For all maps and figures in this Exhibit, it appears that the maps have been sized down to fit on an 8.5” x 11” sheet of paper thus making the scale on the figures inaccurate. Please submit all new figures of an appropriate size for the requirements of this exhibit, so that the scale is accurate and distances can be verified. In addition to submitting the maps and figures for each Exhibit, please submit one set of full sized maps to be included in the permit file.

- a) Please submit a clearer map of all immediately adjoining surface owners of record, because of the complexity of the area, using callouts may not be the best option. Please also clarify the “United States of America” ownership specifically to USFS or BLM. This map should be separate from the map identifying all man-made structures.
- b) While addressed in later sections of this review, please include a separate map of each affected area showing all storm water control structures, and significant water features in this section.
- c) Please submit a map separate from the map identifying all adjoining surface owners of record, which identifies all man-made structures continued on the area of affected lands and within two hundred (200) feet of the affected lands. For clarity, the structures may be numbered, with a narrative or list describing what number corresponds to what structure. This information, along with the other requirements, should also be included in Exhibit S- Permanent Man Made Structures.
- d) In Exhibit G- water information, Figure C-6 is referenced. Figure C-6 was not included in this exhibit, please submit this figure of the appropriate size and scale.

3. **Exhibit D- Mining Plan**

For all maps and figures in this Exhibit, it appears that the maps have been sized down to fit on an 8.5” x 11” sheet of paper thus making the scale on the figures inaccurate. Please submit all new figures of an appropriate size for the requirements of this exhibit, so that the scale is accurate and distances and details can be verified.

- a) For each of the respective phases, please separate the activities to take place and organize them by the affected area. For example, under the heading “May Day 1” describe the activities that will take place during each phase at that respective area. Such details do not exist for any activities taking place at the Idaho affected area. Please include this information, detailing what work will take place at this area.
- b) While the plans and designs of upgrades to the La Plata River Bridge were approved through TR-3, please include the drawings, and a narrative describing the details of the design and construction of the bridge in this section. This information should also be



included in Exhibit U-Environmental Protection Plan. Please also include a construction schedule for when the proposed work will begin and end.

- c) Throughout the narrative the temporary ore and waste rock storage facilities at May Day 1 and May Day 2 are discussed. In the footnotes of this section, either a compacted clay or geotextile liner is referenced to be used at these facilities. Please clarify through a narrative, and detailed drawings of the design specifications of these facilities the details of these temporary storage facilities. Include details on any diversion structures, or water control features associated with the storage facilities. Also included in the narrative should be the detailed discussion of the fate of the waste rock. Inconsistencies throughout the application make it unclear what will happen to the waste rock once it is removed from its underground locations. Please clarify the fate and transport of the waste rock, including what phase of the operations it will take place, where in each affected area it will be temporarily stored, as well as the location of its final placement for reclamation.
- d) While the storm water management plan is referenced in Exhibit G, and provided in an attachment to Exhibit U, please include a summary of the plan, with a list of the Storm Water Control Features in this exhibit. This should also include a new Figure D-9 at the correct scale and with enough detail to clearly identify all Storm Water Control Structures outlined in the narrative.
- e) Throughout the figures, and narratives of this section and the application, the affected area of the "New May Day 3" or Lamb area is mentioned inconsistently. Please clarify in the narrative, and with associated figures for this exhibit what the name of this area will be, as well as the disturbance and mining activities will take place at this affected area. This should also include the discussion of any roads or access points that will be established for this area. Furthermore, please address this area in all other applicable exhibits including but not limited to Exhibit A, Exhibit E, Exhibit G, and Exhibit U.
- f) In the narrative of this section the Bessie G and Lamb ore stockpiles are mentioned however it is not discussed in detail or included in Figure D-4. It is also unclear if these stockpiles fall within the affected lands boundaries. Please clarify in the narrative, and with associated figures for this exhibit the location of these stockpiles as well as what disturbance and mining activities will take place at these affected area. This should also include the discussion of any roads or access points that will be established for this area. Furthermore, please address this area in all other applicable exhibits including but not limited to Exhibit A, Exhibit E, Exhibit G, and Exhibit U.
- g) In the narrative, it is described that all ore materials will be sent offsite for processing at a custom mill. Please identify the custom mill, if in Colorado, that will be used and provide the Division with the facility name, location and contact information for the facility.
- h) The explosives information is referenced to be in the Geotechnical Stability Exhibit, Section 6.5.4. This information should also be included in this section of Exhibit D. Please specify the details of the explosives to be used in the respective phases of the mining operation. These details should include the type, amount, a summary of the blasting methods, associated equipment and storage location within the permitted area. Also include details on what storage containers will be used in accordance with all ATF regulations. If the



explosives are not to be stored on site, and will be kept by a licensed blasting agent as part of their operations, please specify that information.

4. Exhibit E- Reclamation Plan

For all maps and figures in this Exhibit, it appears that the maps have been sized down to fit on an 8.5" x 11" sheet of paper thus making the scale on the figures inaccurate. Please submit all new figures of an appropriate size for the requirements of this exhibit, so that the scale is accurate and distances and details can be verified.

- a) Please submit a detailed narrative, separated by specific affected area that details the specific reclamation tasks to be completed at each of the areas. The details should include the equipment to be used and approximate volumes of material associated with each task. For the areas that have portals to the underground workings, please provide details on the methods of closure to be utilized at each of the portals. In this narrative please also address a tentative schedule for reclamation. The schedule does not need to be tied to any specific date, but should address the length of time each phase and or task of reclamation should take.
- b) Please also identify, at each of the affected area, what structures are to remain post-reclamation, and what structures are to be removed. Due to concerns that the demolished materials may come in contact with water and affect the hydrologic balance after reclamation, underground disposal will not be allowed. Please specify which structures will be removed and salvaged, and which will be demolished and disposed of. For Reclamation Cost Estimate purposes please identify the name and distance from the site of the preferred landfill to be used.
- c) Please provide additional details of the Noxious Weed Control Program to be utilized on site. The plan should specify methods of control, such as chemical or mechanical, and any associated equipment, spray schedules and target species.
- d) In the narrative it is described that the affected lands will be stabilized to control erosion. With the items addressed above, please provide details as to how each affected area will be stabilized for erosion control. If the methods are to include straw wattles or other forms of erosion control, specify the amount needed at each area.
- e) In the "Topsoil" section, and other sections in the narrative it is indicated that topsoil salvaging and stockpiling will not take place. Any available topsoil shall be salvaged to the greatest extent possible. If no topsoil is present, the operator must commit to adding some form of soil amendment to the areas to be revegetated. Please commit to salvaging and protecting any available topsoil and / or the addition of soil amendments. The plan should specify what type, and at what rate the amendments will be applied, and also the method of application. This section should also include a description of the seed bed preparation, such as discing the top 6" that will take place at the affected areas prior to seeding efforts.
- f) In the section "Methods and Rates of Seeding and Planting" no one method of seeding was specified. Please commit to either broadcast or hydroseeding. If broadcast seeding, a straw mulch applied at the rate of 2 tons per acre will be required, however if hydroseeding will be used, then hydromulch will be required. Please note that for slopes steeper than 2H: 1V it is



highly recommended to use hydroseeding and hydromulch to increase the success of the vegetation.

- g) At each of the affected areas, please include the amount of acres to be revegetated as well as a total number of acres across the site. This information can be presented in a table or annotated on the Reclamation Plan Maps included in Exhibit F.
- h) Table E-1 specifies the species and seeding rates for each species in the NRCS approved seed mix. Please include the variety of each species, for example Slender wheatgrass-Native, Slender wheatgrass –Pryor or Slender wheatgrass- San Luis. Providing this information will assist Division Staff in the accuracy of the Reclamation Cost Estimate.
- i) Table E-2 identifies the recommended tree and shrub species for transplanting. Please include in this table the total number of each species to be transplanted, as well as the average number or transplants per acre. Providing this information will assist Division Staff in the accuracy of the Reclamation Cost Estimate.
- j) For all monitoring and production wells on site, please identify if they are to be “Plugged and Abandoned” (P&A) or identify another method of reclamation in compliance with the State Engineer’s Office. This information should also be included in Exhibit G.

5. Exhibit F- Reclamation Plan Maps

For all maps and figures in this Exhibit, it appears that the maps have been sized down to fit on an 8.5” x 11” sheet of paper thus making the scale on the figures inaccurate. Please submit all new figures of an appropriate size for the requirements of this exhibit, so that the scale is accurate and distances and details can be verified.

- a) Some maps of the affected areas were included. Please include a detailed map of each of the affected areas, indicating the final reclamation topography, areas to be revegetated with any and all structures that are to remain post reclamation. The areas include but are not limited to the Base of Operations, May Day 1, May Day 1 East, May Day 2, May Day 2 East, the Idaho area, May Day 3, Chief manway, and the access roads.
- b) Please also include a final reclamation map of the entire permit area, showing the final reclamation topography of the site.

6. Exhibit G- Water Information

For all maps and figures in this Exhibit, it appears that the maps have been sized down to fit on an 8.5” x 11” sheet of paper thus making the scale on the figures inaccurate. Please submit all new figures of an appropriate size for the requirements of this exhibit, so that the scale is accurate and distances and details can be verified. Specifically, figures G-1 and G-2.

Please note that this review includes all the Exhibits and their attachments with the exception of the Surface and Groundwater Characterization study, complete with the five quarters of water quality data. The information contained within that attachment will be reviewed, and addressed under a separate cover. The review of that information may



generate additional adequacy items pertaining to this exhibit as well as Exhibit U and others.

- a) In the Statement of Effect on Surface Water and or Groundwater, the sampling methods for surface and groundwater samples are discussed and referenced to be detailed further in Exhibit U, Attachment U-4 and U-5. The referenced exhibits are incorrect, as Exhibit U, Attachment U-4 is the Mine Rock Geochemical Analysis, and Attachment U-5 doesn't exist. Please correct the references, as well as include the information in this section. Please also include a narrative describing each of the wells used for sampling, detailing their depth, diameter, and related surface structure and other pertinent information. A map is included in Exhibit U-2, please also include that map in this section as well.
- b) Also in the Statement of Effect on Surface Water and or Groundwater please submit a narrative and figures if necessary detailing a plan on how water from runoff from disturbed areas, piled materials, and operating surfaces will be managed to protect against impacts to surface or groundwater. This information should also be detailed in the Storm Water Management Plan and Exhibit U.
- c) In the Project Water Requirements, a 1904 and 2006 water rights are referenced. Please provide copies of these water rights.
- d) Also in the Project Water Requirements no pond is discussed, however in Exhibit H the development of a historic tailings pond into a fresh water augmentation pond is mentioned. The pond is also mentioned in Exhibit I, Soils information to be built in the Idaho area. Similarly in the Storm Water Management Plan, the construction of a lined pond at the Idaho mill site is discussed as a Storm Water Control Structure. Please Clarify if the referenced pond is to be constructed and what its purpose will be. This should include details on its construction, water supply, and potential outfall or discharge to the La Plata River. Furthermore if the pond is to be constructed, it will need to be discussed in several exhibits and added to the appropriate maps and figures. If it is a storm water control structure, it will need to be a certified Environmental Protection Facility and be designed and certified by a licensed engineer and discussed in the Environmental Protection Plan narrative. If it is an augmentation pond, submit a narrative identifying the source of water supplying the pond.
- e) The Operator discusses diverting approximately 1 Cubic Foot per Second of water from "a source near the Idaho spring". Please clarify the source, and use of that water including any storage facilities and discharge points. This should also include a narrative an associated figures with the plan and any structures that will be used to divert this water.
- f) At another point in the Project Water Requirements the use of two 5,000 gallon bladders of water for fire suppression at the Idaho mill site is mentioned however is not mentioned in any other Exhibit. Please clarify, in conjunction with the adequacy items above, the existence of the bladders, the source of that water, and projected use as well.



- g) While the full Storm Water Management Plan is provided as an attachment to Exhibit U, the information should also be summarized in this section.
- h) In the Discharge and Storm water Management Permit section two separate discharge permits are mentioned. As part of the Storm Water Management Plan summary referenced above, as well as in Exhibit U and its attachment please identify the location of the Storm Water Discharge point.
- i) Also, it is stated that the Operator has received a CDPS Industrial Individual Wastewater Discharge Permit however at no point in the application is the production, management, storage or discharge of industrial wastewater discussed. Please clarify if there will be a discharge of industrial water as it relates to mining activities. If there will be a discharge, submit a narrative to discuss a management plan, the production of the water in the discharge, any storage facilities associated with it and the quantity and quality of that discharge.
- j) Preliminary discussions with CDPHE indicate that a discharge permit may be required for the Idaho Spring. Please clarify whether or not the discharge permit will be required by CDPHE and if so, include a copy of the permit or proof that it has been applied for.

7. Exhibit H- Wildlife Information

- a) The development of a historic tailings pond into a 1 acre fresh water augmentation pond located at the Idaho Mill site is discussed in this section as mentioned in the above adequacy items. Please clarify the details of this proposed pond.
- b) Underground milling activities are mentioned in this Exhibit. This is apparently from a previously submitted Exhibit H. Because milling is not permitted on site, please update and submit the direct and indirect impacts of the proposed mining operation on wildlife, based on the currently submitted mining and reclamation plans.
- c) As a requirement of this section, as well as more detailed requirements in Section 6.4.21 (18), the Operator is required to contact Colorado Parks and Wildlife (CPW) for recommendations. While a letter from CPW was included, it is dated 3/8/2011. Please contact CPW and obtain a new letter or recommendations, or a letter stating that the previously submitted documentation is still valid. This information should also be included in Exhibit U, specifically section 6.4.21 (18).

8. Exhibit I- Soils Information

For the map in this Exhibit, it appears that the maps have been sized down to fit on an 8.5" x 11" sheet of paper thus making the scale on the figures inaccurate. Please submit a new figures of an appropriate size for the requirements of this exhibit, so that the scale is accurate and distances and details can be verified.



9. Exhibit K- Climate

- a) Please provide a new Exhibit K that adequately addresses each item in required in Rule 6.4.21 (13). This information should also be included in Exhibit U, Section 13.

10. Exhibit L- Reclamation Costs

- a) The Division recognizes that some of the updates required in this review as well as subsequent reviews may alter the reclamation cost estimates. Please submit an updated Exhibit L to reflect these changes. Also please include details such as the type and approximate model of the equipment to be used for each task at each affected area, where applicable include the volume of materials associated with each task such as cubic yards of material to be graded to achieve the final topography, and details on the demolition and removal of structures. These details should also include details on the methods, and materials required for the portal closure of any and all underground portals.

11. Exhibit M- Other Permits and Licenses

- a) The discussion of the obtained water rights through Water Division 7 that is included in this section has different case numbers than what was included in Exhibit G. Please clarify this discrepancy, and as outlined in Item 6 (c) of this review, please submit a copy of both water rights discussed in this amendment.
- b) If already obtained, please include copies of all other permits and license including all discharge permits, well permits including the production well, as well as the Army Corps of Engineers Nationwide permit. If the permits have been applied for but not obtained please provide documentation affirming that the permits have been applied for. This information is found in Exhibit U, but should also be included in this Exhibit.

12. Exhibit N- Source of Legal Right to Enter

- a) A report titled "Wildcat Mining Property Locations and Legal Descriptions" is included in this exhibit. The report identifies several landowners that appears to be outdated according to records kept by the La Plata County Assessor's Office. Please clarify, with the updated Figure C-2 as identified in Item 2 of this review, the accuracy of this information, and update this exhibit as necessary. If the information is in conflict with information provided in other Exhibits please update the applicable exhibits to reflect these changes.



13. Exhibit O- Owners of Record of Affected Land (Surface Area) and Owners of Substance to be Mined

- a) In Conjunction with the adequacy item 6 (a) for Exhibit C and item 12 (a) Exhibit N, Please include that information in this exhibit. Ideally, this would be in the form of a new map at the appropriate scale to identify all the separate parcels which are numbered and referenced to a table or narrative indicating the name and mailing address for the surface owner as well as the minerals ownership for that parcel. This information should be formatted in a way that is clear, concise and easy to follow.

14. Exhibit Q- Proof of Mailing Notices to Board of County Commissioners and Soil Conservation District

- a) While the proof of mailing notices to the La Plata County Board of County Commissioners and the Soil Conservation District were included in other places in the application, please include that information in this Exhibit.

15. Exhibit R- Proof of Filing with County Clerk and Recorder

- a) Please include the proof that this application was filed with the La Plata County Clerk and Recorder in this Exhibit.

16. Exhibit S- Permanent Man-made structures

- a) The structures are identified in this exhibit, please include the updated Figure C-2 as outlined in Item 2 (c) of this review. Also please submit any signed structure agreements that have been reached with the owners of those structures. This exhibit mentions that engineering and hydrogeologic evaluations by a registered professional engineer and hydrogeologist have been submitted. No evaluations have been received by the Division, please include those evaluations that should be clearly referenced to the specific structure, as part of this Exhibit.

17. Exhibit U- Designated Mining Operation Environmental Protection plan

For all maps and figures in this Exhibit, it appears that the maps have been sized down to fit on an 8.5" x 11" sheet of paper thus making the scale on the figures inaccurate. Please submit all new figures of an appropriate size for the requirements of this exhibit, so that the scale is accurate and distances and details can be verified.

- a) At various points throughout this Exhibit and the application, designated storage containers small amounts of designated chemicals is mentioned. Storing these in a locked storage unit will not be sufficient, a designated chemical storage facility must be used. This facility can be a designed and constructed facility or a pre-fabricated



storage facility with secondary containment. Please provide a map indicating the location of these storage facilities, as well as detailed drawings of the secondary containment devices and storm water control features associated with the facilities. Please also include information about any and all fuel storage containers that will be on site. The narrative should include demonstration that the secondary containment will be adequate, as well as details on the referenced Spill Response Kits and bermed storage areas.

- b) As part of the Designated Chemicals and Materials Handling section, the distance to water courses and depth to groundwater is referenced to be in Section 6.4.21(8), please include that information in this section of the exhibit, as well as in the narrative in the above adequacy item.
- c) As part of the Environmental Protection Plan, the storage facilities for fuel and designated chemicals, surface and groundwater monitoring points, storm water control structures which include but are not limited to any run on diversion ditches, settling ponds or check dams, as well as the lined ore pad at the base of operations will be considered Environmental Protection Facilities (EPF's). In the facilities evaluation section of this exhibit please include a list of all EPF's, a narrative detailing how the EPF will function to prevent any possible contamination of the environment with an associated map detailing their location. For each EPF provide details and drawings of the design by a licensed engineer as well as the commitment to submitting the as built certifications after construction. Such details should also include a construction schedule indicating when the construction of the facilities will be taking place. These details, narratives, figures and drawings should address all items outlined in Rule 6.4.21 (7). The details of the storm water control structures should also address the items outlined in Rule 6.4.21 (10). Please also include these details in any and all other applicable exhibits, such as including the details of the Storm Water Control Structures in Exhibit G- Water Information.
- d) Detailed hydrogeologic and geochemical data is referenced to be in Exhibit G-Water Information, however that exhibit references a separate attachment. This information should be summarized and included in Exhibit G, as well Section 6.4.21(8). Please provide that information in both locations.
- e) The map associated with Section 6.4.21(8)-Groundwater information is referenced to be located in Exhibit G. No such map was submitted, please submit the referenced map with all the required information.
- f) The information required by section 6.4.21 (9) (b) and (c) is referenced to be in Exhibit G, which then references that Surface and Groundwater characterization document that was provided as an attachment to this document. Please include a summary of the information, that adequately addresses items (b) and (c) in this section. This information should also include the analyte list, analytical detection limits, and ground water quality parameters to be accepted by the Division. This information should also be included in Section 6.4.21(11) that adequately addresses items (a)-(c).



- g) In section 6.4.21 (10) (ii and iii) the Storm Water Management Plan is referenced. Please also include a summary of that plan including design specifications, certified by a licensed engineer, for each type of Storm Water Control Structure. As referenced above please also include a clear map at the appropriate scale and detail showing the location of all Storm Water Control Structures associated with the plan.
- h) The Receiving Stream for the surface waters associated with the site has been established as the La Plata River, and its use classifications were included in the application. The actual numeric standards however, were not included. Please include a table depicting the numeric standards for each constituent in the Receiving Stream and reference the specific Water Quality Control Division Regulation which the numeric standards were found. Please also include the average concentration per constituent, for the collected surface water samples throughout the site to be able to demonstrate that the surface waters are within the numeric standards of the Receiving Stream.
- i) A brief summary of the climatological information was included in Exhibit K. Please submit a new Exhibit K and include that information in Section 6.4.21(13). The climate data should adequately address the requirements outlined in Rule 6.4.21(13) (a), and (b).
- j) In Exhibit D, Attachment 1, Whole Rock Characterization, the periodic testing of ore and waste rock is discussed to be an ongoing practice. Please discuss a summary of the sampling protocol, tests to be performed and a list of analytes that the tests will include. Please submit this information as part of the narrative for section 6.4.21(14). Furthermore, the Division would like the Operator to commit to including these sample results as part of the annual reporting requirements.
- k) Please include discussions of all Environmental Protection Facilities that have been identified throughout this review in Section 6.4.21(15). The information for each facility should include a tentative construction schedule. This schedule can be approximate and not tied to any specific date, but please provide an estimation on the length of time each facility will need to be constructed.
- l) For all of the EPF's discussed in this review, please discuss any and all Quality Assurance and Quality Control measures that will be employed to ensure the facilities are constructed as designed. Include this information in section 6.4.21(16).
- m) In conjunction with the adequacy comments in Item 4 (e) and 8 of this review, please address the requirements of Rule 6.4.21(17) (a) and (b) in section 6.4.21(17) of the narrative. This information should also be included in Exhibit E and Exhibit I.

18. Attachment U-3, Storm Water Management Plan

- a) Throughout this section, the map SWMP-1 is referenced to be in attachment U-3 of Exhibit U. That figure is not included, please submit figure SWMP-1 showing the



referenced information and at the appropriate scale. Please note that for clarity's sake it may be better to use multiple figures to display the referenced information.

- b) In the introduction, project Description and all throughout the plan, several figures are referenced. Those figures however do not correspond to the information in the narrative. Please submit the corrected figures, or correct the narrative to reference the correct figures.
- c) In the Nature of the Construction (Mining) Activities section, item c discusses the construction of a lined pond at the former Idaho Mill site. Please clarify if the pond is or is not to be constructed, if it is, including design specification and location information with appropriate maps and figures. This information should be consistent with the information presented Exhibit G and Exhibit U. If the pond is not going to be constructed please clarify that.
- d) In the Nature of the Construction (Mining) Activities section, item d the Little Deadwood gulch channel and culvert design and installation criteria are said to be summarized in Exhibit U, Attachment U-3, Figure SWMP-1. Those figures and summaries are not provided in the referenced location. Please submit that information along with the applicable maps and figures.
- e) Storm water BMP's are discussed to be installed throughout the site. Please submit a narrative, discussing what BMP's are to be installed at each of the affected areas and where on those areas they are to be constructed. The narrative will also need to include more details on the design, construction and function of each type of storm water control device. This information should be separated out by affected area sections such as the May Day 1, May Day 2, Etc. In addition to a new site wide Storm Water Control Plan Map, please also include zoomed in maps and figures depicting the BMP's at each of the areas.
- f) In the narrative of the SWMP it is noted that no upland diversion ditches are discussed to be constructed at any of the affected areas. Please either design and add them to narratives and maps mentioned above to be constructed or provide a justification as to why upland diversion ditches will not be used, and clarify how Run-on surface flow will be conveyed away from the affected areas to prevent any contamination of that flow.
- g) In the Estimates of the total affected area section, none of the acreages for the affected areas are consistent with the entire application. Please either adjust these acreages to be consistent with Exhibits A and D or clarify as to why there is a discrepancy between the numbers.
- h) In the Non-storm water discharge section the Idaho Spring is discussed. It is also mentioned in other places in the application however it is not included in Exhibit G and is unclear in Exhibit U. In each applicable exhibit, in its appropriate location, discuss the Idaho Spring. These locations include but are not limited to Project Water Sources in Exhibit G, Surface and Groundwater sections of Exhibit U as well as the Storm Water Management Plan.



- i) Also in the Non-storm water discharge section it is mentioned that BMP's will be utilized to control run on issues relating to the Idaho Spring and to ensure that flows from the Idaho Spring do not discharge to the La Plata River. It is unclear if this includes the flows from the spring itself, or storm water flows around the spring. It is the Division's understanding that the Idaho Spring does discharge into the La Plata River and that preventing that process would create a pond in that area. Please clarify and discuss the discrepancy of this section.
- j) In the Storm Water Controls section, item b refers to a "mud cleanout area" to be constructed with an illustration of the cleanout being found in BMP illustrations attachment D-1. No illustration, or set of BMP illustrations were included in this plan. Please include any and all illustrations of all storm water BMP's. Also please clarify what vehicles will be utilizing the mud cleanout area, will it be just construction vehicles or will it used throughout the life of the mine for ore hauling vehicles and other various mining equipment?

19. Rule 6.5 Geotechnical Stability –Blasting

- a) The narrative on Page 3 of the Exhibit describes the reclamation of the Little Deadwood Gulch at the May Day 2 Area and the Chief area to be approved and that construction is pending. However it is the Division's understanding that the reclamation of Little Deadwood Gulch as well as the restoration of the Chief portal was completed in 2016. Please clarify if the work has been completed and, if not, what work is still necessary at the areas.
- b) The narrative addresses blasting effects based on an engineering study performed by Mr. Terry Morris, P.E.. That engineering study was performed for blasting in the May Day 2 underground workings and the details of Exhibit D outline blasting taking place at the May Day 1. Please have a new analysis performed by a 3rd party engineer to address the possible blasting effects from blasting at the May Day 1 area. The analysis should include but is not limited to a narrative on the scaled distance calculations, details on the expected ground vibrations as well as a map showing the distance to the nearest structures from the blast area.
- c) To demonstrate the accuracy of the engineering study mentioned above, the Division would like Sunrise to commit to collecting ground vibration data at three locations, (May Day 1 Portal, La Plata River Bridge and Base of Operations) for the first 5 blasts. This will establish a baseline for ground vibration limits and ensure the accuracy of the maximum charge per delay calculations.
- d) While blasting is also discussed in Exhibit D- Mining Plan, as well as in the geotechnical stability Exhibit, further detail is needed. Please submit a narrative further detailing the blasting plan, including the methods of blasting, general direction and size of blasts, type and size of blasts, Etc. The Operator should also commit to recording the blast data suggestion in the "blasting effects" section of this Exhibit. These records should be maintained on site for a minimum of three years



after the blast, and as part of the annual report submittal, include a list of dates on which blasting activities occurred.

- e) While it is not required, the Division highly suggests that Sunrise commit to sending notice of some kind to the adjacent land owners notifying them that blasting activities will be commencing, and for how long the activity will be taking place.
- f) Also, as described in the narrative the stabilization work at the May Day 1 was completed and the "as built certifications" were submitted, however an engineering evaluation of the portal, the work performed and the existing highwall was not submitted. Please submit an engineering evaluation by a licensed 3rd party engineer addressing the stability of the portal and the existing highwall. This should also include an evaluation on the effects on the portal structures from blasting activities.
- g) In addition to the engineering evaluation, please submit a narrative detailing the monitoring plan for monitoring the stability of the May Day 1 portal during mining operations. This narrative should include any necessary drawings or figures necessary to adequately demonstrate how the stability of the portal will be monitored.

Please submit your responses to the above listed issues by **Friday, September 01, 2017** in order to allow the Division sufficient time for review. Note that this review is not considered final, and any other material submitted must be reviewed which may generate additional clarifications and / or corrections. The current decision date for the Amendment is Friday September 29, 2017. If an extension will be required, it must be requested in writing by the applicant and, received by the Division's Denver Office by no later than **Friday September 1, 2017**. If the requested information, nor an extension requested is received by the above listed date, your amendment application may be denied.

As stated above, this review includes all the Exhibits and their attachments with the exception of the Surface and Groundwater Characterization study, complete with the five quarters of water quality data. The information contained within that attachment will be reviewed, and addressed under a separate cover. The review of that information may generate additional adequacy items pertaining to Exhibit G, Exhibit U and possibly others.

The Division will continue to review your application and will contact you if additional information is needed. Recent correspondence indicated that Sunrise may wish to make minor changes to the application that are not addressed in this review. If such changes are to occur, please address them in a cover letter, as well as in their respective Exhibits so the changes can be properly reviewed.

If you require additional information, or have questions or concerns, please contact me at the Division's Grand Junction Field Office, by phone at (970)-243-6368 or by email at lucas.west@state.co.us.

Sincerely,





Lucas West

Environmental Protection Specialist
Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, CO 80203
Phone: (970)-243-6368

Cc: Russ Means, Senior Environmental Protection Specialist
Jeff Fugate, DRMS Minerals AGO

