

# STATE OF COLORADO

## DIVISION OF RECLAMATION, MINING AND SAFETY

Department of Natural Resources

1313 Sherman St., Room 215  
Denver, Colorado 80203  
Phone: (303) 866-3567  
FAX: (303) 832-8106



John W. Hickenlooper  
Governor  
John W. Hickenlooper.  
Governor

Mike King  
Executive Director

Loretta E. Piñeda  
Director

May 10, 2013

Mr. Mike Pfister  
Sandborn Sand and Gravel dba/Golden Cross Aggregate  
2001 Platte Drive  
PO Box 1180  
Fairplay, CO 80440

RE: Gloria Z Pit (Permit M-1984-094), located in S29 and S32, T9S, R77W  
Permit Amendment Application AM-02, Adequacy Review

Dear Mr. Pfister:

The Division of Reclamation, Mining and Safety (Division) has completed its adequacy review of the above referenced Permit Amendment application.. The application was received on February 22, 2013 and was called complete on March 7, 2013. All comment and review periods began on March 7, 2013. The decision date for this application is June 5, 2013. **Please be advised that if you are unable to satisfactorily address any concerns identified in this review before the decision date, the Division will deny this application.**

We understand that the State Engineers Office is currently reviewing the SWSP. All comments are pending the approval of the SWSP.

The review consisted of comparing the application content with specific requirements of Rules 1.4.4, 6.1, 6.2, 6.4, and 6.5 of the Minerals Rules and Regulations of the Colorado Mined Land Reclamation Board for Hard Rock, Metal, and Designated Mining Operations. The application was substantially adequate, however, as with most applications there are a few items that will require the submittal of additional information or clarification of the existing information. Inadequacies are identified under the respective exhibit heading along with suggested corrective actions to correct them.

### Application Form

1. As required by Rule 1.6.5(2), please provide proof that the public notice required by 1.6.2(1)(d) was published.
2. As required by Rule 1.6.2(1)(g), please provide the proof that the notices required by 1.6.2(1)(e)(i) and (ii) were sent to the Owners of Record. This requirement would be satisfied by submitting copies of certified mail receipts or proof of personal service (Rule 1.4.1(4)).

**6.4.1 Exhibit A – Legal Description**

3. Per rule 6.4.1(2) please include the main entrance to the mine site.

**6.4.2 Exhibit B – Index Map**

No comment.

**6.4.3 Exhibit C – Pre-Mining and Mining Plan Map(s) of Affected Lands**

4. On Maps C-1, C-2, and F-1, there are two pink lines. The thicker pink line appears to be the proposed permit boundary, but it is not clear what the thinner pink line (in the southeast area) represents. Please clarify.

**6.4.4 Exhibit D – Mining Plan**

5. Please clarify the relative long-term contributions to the operation of gravel mining and gold mining.
6. Section 4: Please see comments under 6.5
7. Section 7 (Map C-2): Collection Ditch #2 does not extend along the east side of the permit boundary. DRMS realizes that this is the area of pre-law disturbance, but the mine plan indicates that portions of this area are currently in use, and will be included in the reclamation work. The sediment control system for the mine should include this area in order to protect the river from sediment and runoff while the mine is active.
8. Please resolve the apparent discrepancy in the total area to be disturbed at any one time as it is indicated on pages 20 and 24 (23.1 acres) and page 23 (21.89 acres).

**6.4.5 Exhibit E – Reclamation Plan**

9. Please resolve the apparent discrepancy mentioned in comment 8, above.
10. The Collection Ditch #2 shown on Map F-1 should include the eastern portion of the site, as stated in the comments above (6.4.4).
11. On Map F-1, there is an area indicated as “some trailers may remain”. Please include a discussion regarding this area, the purpose of the trailers, and why the trailers may remain after reclamation.

**6.4.6 Exhibit F – Reclamation Plan Map**

12. Page 29 references cross-sections on Maps F-2 and C-3. The permit application did not include Maps F-2 or C-3 or cross sections. DRMS understands this may be a relict. Please revise the text.
13. On map F-1, there are two pink lines. The thicker pink line appears to be the proposed permit boundary, but it is not clear what the thinner pink line (in the southeast area) represents. Please clarify.

#### **6.4.7 Exhibit G – Water Information**

14. Page 32 states that “no excavation for the mining operation will get closer than 100 feet to the closest bank to the Middle Fork” of the South Platte River. The collection ditches and the sediment pond shown on Maps C-2 and F-1 are both within the 100-ft buffer setback from the river. Please clarify.
15. Page 34 states that the Sediment Pond is “designed to contain the 100 year event, with a significant safety factor”. Please include information on what the safety factor is, and how it was derived.
16. Please add the text that appears to be missing from the next to the last sentence on Page 34.

#### **6.4.8 Exhibit H – Wildlife Information**

No comment.

##### **6.4.8.1 Exhibit I – Soils Information**

No comment.

#### **6.4.9 Exhibit J – Vegetation Information**

No comment.

##### **6.4.11 Exhibit K – Climate Information**

No comment.

##### **6.4.12 Exhibit L – Reclamation Costs**

17. The Division is reviewing the reclamation cost estimate and will provide comments when the review is complete.

##### **6.4.13 Exhibit M – Other Permits and Licenses**

No comment.

##### **6.4.14 Exhibit N – Source of Legal Right to Enter**

No comment.

##### **6.4.15 Exhibit O – Owner(s) of Record of Affected Land (Surface Area) and Owners of Substance to be Mined**

No comment.

##### **6.4.16 Exhibit P – Municipalities Within Two Miles**

No comment.

**6.4.17 Exhibit Q – Proof of Mailing Notices to Board of County Commissioners and Soil Conservation District**

No comment.

**6.4.18 Exhibit R – Proof of Filing with County Clerk and Recorder**

No comment.

**6.4.19 Exhibit S – Permanent Man-made Structures**

No comment.

**6.5 GEOTECHNICAL STABILITY EXHIBIT**

18. DRMS has concerns regarding the stability of the proposed highwall. The mine plan proposes highwalls of 55-95 feet at angles of 80 degrees from horizontal. Although there is some cementation in the alluvium present at the site, the material is still unconsolidated and should not be considered “stable” at slopes greater than 3:1. It may be possible, in the short term, to utilize selected slopes at steeper angles, but more detailed parameters should be established for each highwall.

- a. Please specify the maximum depths of the excavations.
- b. Please specify the maximum time an excavation will remain open, and clarify the meaning of “extended period of time”.
- c. Please provide an evaluation of the effect on highwall stability of vibrations from truck traffic and excavating equipment, and from water infiltrating the gravel.
- d. Please describe the specific monitoring/observation plan for highwall stability.

19. Please add to the Geotechnical Stability Exhibit a description of the MSHA requirements that specifically relate to the highwall and explain how the operation will meet those requirements. Two examples of MSHA requirements that appear applicable are:

- a. Pit or Quarry Wall Perimeters (30 CFR 56.3131): “In places where persons work or travel in performing their assigned tasks, loose or unconsolidated material shall be sloped to the angle of repose or stripped back for at least 10 feet from the top of the pit or quarry wall. Other conditions at or near the perimeter of the pit or quarry wall which create a fall-of-material hazard to persons shall be corrected.”
- b. A bench located immediately above the area where miners work or travel is to be maintained in a condition adequate for retaining material that may slide, ravel, or slough onto the bench from the wall, bank, or slope, and that adequate escape routes be available in the event of slope failure.

This concludes the Division’s preliminary adequacy review of this application. Please remember that the decision deadline for this application is June 5, 2013. As previously mentioned, if you are unable to provide satisfactory

responses to any inadequacies prior to this date, **it will be your responsibility to request an extension of time to allow for continued review of this application.** If there are still unresolved issues when the decision date arrives and no extension has been requested, the application will be denied.

If you have any questions, please contact me at (303) 866-3567.

Sincerely,

A handwritten signature in black ink that reads "Tom Kaldenbach". The signature is written in a cursive, slightly slanted style.

Tom Kaldenbach  
Senior Environmental Protection Specialist

cc: Greg Lewicki, Greg Lewicki and Associates  
TC Wait, DRMS