



**COLORADO**

**Division of Reclamation,  
Mining and Safety**

Department of Natural Resources

1313 Sherman Street, Room 215  
Denver, CO 80203

December 15, 2015

Mr. Jack Henris  
Cripple Creek & Victor Gold Mining Company  
100 N. 3rd Street  
P. O. Box 191  
Victor, CO 80860

**Re: Cripple Creek & Victor Mining, Co., Cresson Project, M-1980-244;  
Review of Responses to Comments for Quality Assurance Monitoring & Test Results Final  
Report for Squaw Gulch VLF Phase 1 (9,450 to 9,550 Bench)**

Dear Mr. Henris:

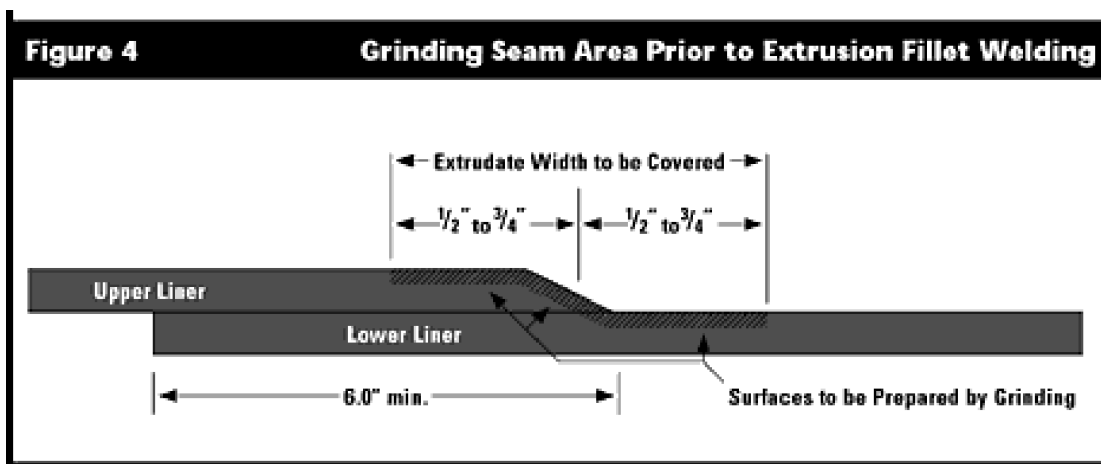
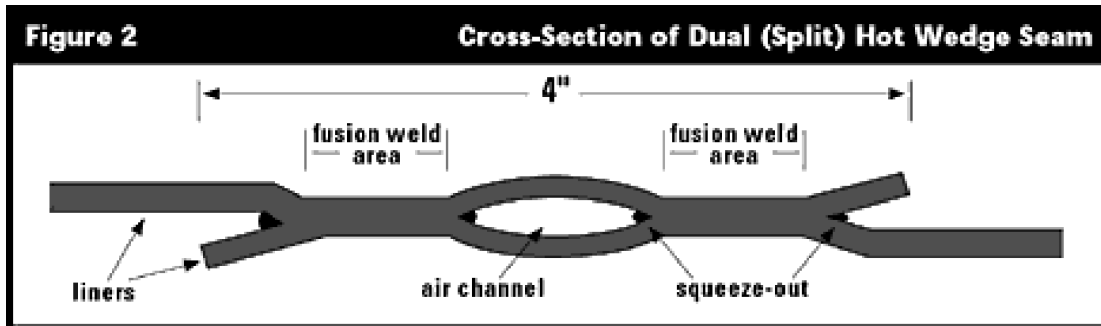
The Division of Reclamation, Mining and Safety (Division) has completed the review of the Final Report Addendum Squaw Gulch Valley Leach Facility Quality Assurance Monitoring and Test Results for the Squaw Gulch VLF Phase 1 (9,450 to 9,550 Bench) dated December 2015. This second round of comments reflects the Division's concern as it relates to Rule 7.3.2(2) of Mineral Rules and Regulations of The Colorado Mined Land Reclamation Board for Hard Rock, Metal, and Designated Mining Operations (requiring the Operator to provide a certified verification by a professional engineer that will confirm that the facility was constructed in accordance with the approved design plan) and Subsection 7.06 of Sections 1400.1 and 1400.2 of the Technical Specifications for the Squaw Gulch VLF (requiring the Construction Certification Report to contain "changes to the design DRAWINGS or project SPECIFICATIONS and the justification for these changes"). The Division's assertion that the inadequate responses to the following comments remain are premised on the Division being satisfied that a professional engineer has properly certified that the Squaw Gulch VLF was constructed in accordance with the approved specifications and that any changes or deviations from these specifications are properly justified. The following comments require additional clarification prior to the Division accepting the submitted report (Please note the original numbering sequence has been retained for tracking purposes):

**Report text:**

1. Sect 2.1.1, Collapsed Workings: The response is adequate.
2. Sect 6.3.2, Seaming Observations: The response is partially adequate. The Division accepts installation recommendations from Agru for a minimum overlap of 75 mm (3"), but we are confused as to how 3 inches on the top layer and 3 inches on the bottom layer add up to 6 inches. The standard overlap diagrams shown below (Figure 2 for a hot wedge seam and Figure 4 for an extrusion weld seam) would suggest an eight-inch overlap (Figure 2) and a 12-inch overlap (Figure 4) if we understand the statement in the response. Please confirm



this is what is meant or provide a sketch explaining how two three-inch overlaps results in a six-inch overlap.



3. Sect 7.1, 5th bullet: The Division was never under the impression that the 2H:1V slope was the pad. The combination of the statement that the “berm is lined with geomembrane” and some in-the-field discussion with Ron DiDonato during the December 9, 2015 inspection provided the Division with an adequate explanation. No further response is necessary.
4. Sect 7.2, 2nd bullet: The response is adequate.

#### Drawings:

5. Drawing A400: The response that “Revision 4 was never re-issued for construction” conflicts with the revision block on Drawing A400 submitted in the October which states on 07/15/15 “Revised Collection Pipes/Re-Issued for Construction”. Please provide an explanation.

#### Appendices:

9. Appendix D – The response is adequate.

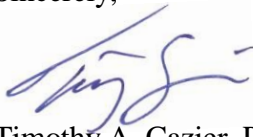
18. Appendix M – Please address the following Appendix M comments:

- a. M.1 Tables: The Division reviewed the original M.1 tables assuming the purpose of these tables was to assist in demonstrating the facility (SGVLF – Phase 1) was constructed in accordance with the approved design plan as required by Rule 7.3.2(2). The Division’s review discovered some inconsistencies in Table M.1 and asked as to the purpose of portions of the table that appear to reflect as constructed conditions. The response did not address the purpose, but apparently eliminated the discrepancies. The response is minimally adequate.
- b. M.1 Figures:
  - i. Note 2 – The response is adequate. However, the Division believes it appropriate to remind the Certifying Engineer and CQA field staff that it is important to be familiar with project specifications so as to avoid this kind of discrepancy in the future.
  - ii. Note 3 on Figure UG27 states “25 CY of approved 4020 mix concrete and 45 CY of 300 psi mix concrete was placed as substitution for cemented rockfill.” The response is unacceptable. Again, the Division cannot overemphasize the need for the Certifying Engineer to be familiar with the approved designs and specifications. Having excess material that does not meet the required specification is NOT justification for using the excess material. It must be demonstrated to the Division’s satisfaction that the admittedly lower compressive strength flowable fill material used in the remediation of Underground Working #6320 will have no adverse impact on the on the function and/or integrity of the VLF liner system over the design life of the VLF in the vicinity of UG #6320. Furthermore, it is not acceptable to change the unspecified “4020 Mix Concrete” to “Approved 4001” mix without any explanation. If it cannot be demonstrated to the Division’s satisfaction that the future integrity of the VLF liner has not been or will not be adversely impacted by this substitution of substandard material, the Division will require UG #6320 be re-excavated and remediation performed to meet the approved Drawings and Specifications.
  - iii. Survey data graphics on Figures UG11 and UG25 – The response is adequate.
- c. Appendices M.2 – M.6: Appendices M.2 – M.6 were adequate as originally submitted.
- d. Appendices M.7 and M.8: The response is adequate.

Pursuant to Rule 7.3.1(5), no chemicals used in the extractive metallurgical process or toxic or acid-forming materials ... shall be placed in constructed facilities until the Board or Office accepts the certification of the facility, or phase thereof, that precedes placement.

If you have any questions or need further information, please contact me at (303)866-3567 x8169.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Tim Cazier', is positioned above the printed name.

Timothy A. Cazier, P.E.  
Environmental Protection Specialist

ec: Wally Erickson, DRMS  
Amy Eschberger, DRMS  
Elliott Russell, DRMS  
DRMS file