



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

1313 Sherman St. Room 215
Denver, CO 80203

April 19, 2023

JC York
J&T Consulting
305 Denver Ave STE D
Ft Lupton CO 80621

RE: File M2008-017; Derr Pit; Technical Revision 8 (TR8) – Revisions to Mining Plan to include mining in Phase 7a without exposing groundwater, Adequacy Review 2

Mr. York:

The Division of Reclamation, Mining and Safety received Technical Revision 08 (TR8) on January 30, 2023. The decision date has been extended to April 28, 2023 by the operator to address adequacy issues identified. **The decision date for this revision is currently set for April 28, 2023. Please be advised that if you are unable to satisfactorily address any concerns identified in this review before the decision date, it will be your responsibility to request an extension of the review period.** If there are outstanding issues that have not been adequately addressed prior to the end of the review period, and no extension has been requested, the Division must deny this revision.

TR8 as submitted proposes to include surface mining of Phase 7 (identified as phase 7a) while not exposing groundwater. This mining will occur concurrently with surface mining of the same nature in Phases 5a and 6a. The initial phase of excavation in these areas is intended create a bench at a depth which would allow the subsequent installation of a slurry wall to bedrock by a long-reach excavator by reducing the remaining depth to bedrock to 80 feet or less.

DRMS sent an adequacy review letter for TR8 on February 9, 2023. The operator's response to the Division's February 9, 2023 adequacy letter was received on April 18, 2023. DRMS has completed the second adequacy review of TR08. As with most revisions of this nature, there are items that will require clarification of the existing information or submittal of additional information. DRMS will require the following revisions/information before this revision can be approved.



DRMS notes that as part of first adequacy response for this revision, the mine phasing has been updated. The northern and eastern phases previously identified in the mining plan as 5, 6 and 7 will be combined into one phase - to be referred to as Phase 5. Phase 5a will refer to mine activity/excavation in that area at least two feet above the static groundwater table, and Phase 5 will refer to mining activity in that area during and after slurry wall installation and mining excavation below static water levels.

Remaining adequacy issues have been numbered to facilitate response.

- 1) Contour data on the Stability Section Map provided appears to be much more recent than the contour data provided on the Exhibit C-1 Existing Conditions/Mining Plan map (as well as other figures where contour data is shown). Please update the contour information on the existing conditions map (and other maps) to be as current as possible at this time.
- 2) Please show locations and anticipated volumes of topsoil and overburden locations for Phase 5a/5 on the mine plan map if you wish to use locations other than what are currently shown to minimize haul distances.
- 3) Please provide a reclamation plan map(s) that illustrates the following tasks by area:
 - a) Phases 1-4 acres where 6" topsoil will be replaced, scarified, and revegetated, including area of reservoir above proposed waterline. (CIRCES software calculates revegetation cost based on acres, seed mix, tilling, mulch/fertilizer, and anticipated failure/re-seed rate)
 - b) Phases 1-4 acres of 3:1 interior slope that will need to be compacted and graded below waterline.
 - c) Phase 5 perimeter acres that will need to have topsoil replaced, graded and seeded above water line. DRMS assumes that the entire area within Phase 5a will need to have topsoil replaced and reseeded for bonding purposes.
- 4) Please also provide the following information to assist in calculating an accurate reclamation cost estimate:
 - a) The Summary of Unit Costs provided states that topsoil will be replaced to a depth of 6" however the text provided states that 12" of topsoil will be replaced in areas to be revegetated – please clarify for consistency.
 - b) DRMS is required to hold 20% of the total installation cost for approved slurry walls until the permit is released – please provide an invoice or other documentation showing the total installation cost of the slurry wall around Phases 1-4 so that cost can be accurately determined.
 - c) Phase 5a outer mined perimeter distance and average height from 3:1 to 4.5:1 break in slope to the top of excavation. This information will be utilized to calculate the average CY of material needed per linear foot of perimeter to re-slope this portion of the mined area. (CIRCES software estimates cost by using CY of material to be moved for each "task", material type, haul distance, and equipment type.) You may also provide the basis for the 303,400 CY of backfill material required provided in your Phase 5a estimate.

- d) Phase 5 outer perimeter distance and average height that will need to be re-sloped from 2H:1V mining face to 4.5H:1V final reclamation grade. You may also provide the basis for the 1,289,100 CY of backfill material required provided in your Phase 5 estimate.
- e) Please provide a reference for the dewatering costs and volumes for the Phase 1-4, and Phase 5 reservoir areas
- f) Please provide the linear feet for the Phase 1-4 proposed Perimeter Drain (if required).

DRMS will be required to bond for 100% of the installation cost of the Phase 5 slurry wall until it is approved by the State Engineer's Office. A technical revision will be required to provide the appropriate design and cost information for DRMS to adjust the reclamation bond appropriately prior to exposing groundwater in Phase 5 – please acknowledge.

DRMS understands that internal slopes for phases 1-4 will be mined at no steeper than 3H:1V inside the existing slurry wall, as stated in this revision, therefore no backfill earthwork will be required for the Phase 1-4 reservoir area. This also means that all internal slopes within Phases 1-4 shall not be steeper than 3H:1V at any time in the mining process unless bond is posted to reslope active mining areas to 3H:1V – please acknowledge.

This concludes the Division's second adequacy review of TR08. This letter shall not be construed to mean that there are no other technical issues with the submittal. Other issues may arise as additional information is supplied.

If you have any questions, please contact me at (303) 866-3567 x8140, or by e-mail at eric.scott@state.co.us.

Sincerely,



Eric Scott
Environmental Protection Specialist