

March 14, 2023

Barbara Brunk  
Resource Conservation Partners, LLC  
P.O. Box 1522  
Longmont, CO 80502

**RE: Adequacy Review No. 2; Technical Revision (TR-1) – Revise Mining and Reclamation Plans and Maps to Account for Acreage Release Areas in AR-1; Irwin/Thomas Mine, Permit No. M-2016-054**

Dear Ms. Brunk,

On March 6, 2023, the Division of Reclamation, Mining and Safety (Division/DRMS) received your responses to the Division's preliminary adequacy review dated January 6, 2023. After review of your responses the Division has identified the additional items that need to be addressed.

1. The requested update to map C-5 did not reflect the nomenclature for the monitoring wells at the site. Please provide a Groundwater Monitoring Well map that shows the locations and names of the monitoring wells used for the collection of groundwater levels at the site. Please note if MW-2 and 4 can be included into the monitoring program the map will need to be updated accordingly.
2. Please provide on a map the coordinates for all the permit boundary corners. The corners may be numbered on the map and a table provided listing the coordinates.
3. What order will the mine cells of MA-1 be mined? On map C-5 the mining sequence only notes that Cell 1A will be mined and backfilled prior to Cells 2 and 3.
4. Please clarify Note 2 on map C-5 that lists a permit area less than what the Division on file, 232.84 acres.
5. In the Division's Preliminary Adequacy Review item #13b the Division incorrectly listed the acreage associated with MA-1. The Division also notes the inspection report for AR-1 has the incorrect acreages listed. Please provide a table that lists the current total acreage for each mining area along with the anticipated total disturbed acreage. Include in the table a total that sums to current permit acreage.



6. The Reclamation Plan Map needs to be updated to clearly reflect the installation of the perimeter underdrain along the southern portion of the MA-1 to mitigate the modeled groundwater mounding. The existing utility underdrains to the west of the side should also be reflected on this map.
7. What was the diameter the perimeter underdrain used in the model?
8. What is the estimated timing for the installation of the perimeter underdrain? Please commit to submitting the design drawings as a Technical Revision.
9. In Appendix H the model uses data from monitoring wells MW-2 and MW-4. Please clarify, as it is unclear to Division, who owns these wells and if they can be added to the site monitoring program.
10. The utility underdrains constructed in September 2022 to the west of the site need to be shown on the Exhibit C and Final Reclamation Plan maps. Please clarify who owns these underdrains. How will mining at the site potentially impact these underdrains and has a signed structure agreement been obtained for them? If no structure agreement has been obtained then one needs to be attempted. If one cannot be obtained then a geotechnical stability analysis needs to be performed for the underdrains.
11. The Division acknowledges the following: Section 21 of the 2018 City of Longmont PUD states, "The mind portion of any mining pod in any phase shall be limited to that shown on the approved plan. If mining is underway in more than one pod at a time, the combined mining area shall not exceed 35 acres. For purposes of interpreting this condition, "combined mining area" shall mean any area that has been disturbed in preparation of mining, or in which mining is underway, or in which grading for reclamation for is underway. Once grading of a reclaimed mining pod is completed, it will no longer be considered as part of the combined mining area. ". The PUD limits the disturbed mining area to 35 acres at any one time in MA-1. Does the Operator want to revise the bonding and Mining Plan to account for this stipulation?
12. The reclamation plan for MA-1 consists of a constructed slurry wall around Cells 2 and 3 with the remaining cells being backfilled to ground surface. What is the total volume of material that will be generated onsite that will be available for backfilling, not including topsoil material? What is the estimated volume of material that will need to be imported to complete backfilling? Has a potential source for backfill material been identified? Under the current Mining Plan the Division requires a cost estimate for importing this material in order to calculate maximum potential reclamation liability to the State. However if the Operator were to use a phased bonding approach, see previous comment, the maximum liability at any one time would be limited to 35 acres. Attachment D will need to be updated or revised to account for importing material.

This concludes the Division's Adequacy Review No. 2 of TR-1. The Division reserves the right to further supplement this document with additional items and/or details as necessary.

The decision date for this revision is currently set for **March 19, 2023**. If additional time is needed to address any adequacy items, an extension request must be received by our Office prior to the decision date.

If you need additional information or have any questions, please contact me by telephone at **303-866-3567 x8114**, or by email at [patrick.lennberg@state.co.us](mailto:patrick.lennberg@state.co.us).

Sincerely,



Patrick Lennberg  
Environmental Protection Specialist

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