



December 9, 2022

Pamela Franch Hora
Tetra Tech, Inc.
1900 S Sunset, Suite 1-E
Longmont, CO 80501

**RE: Home Office Mine, M-1977-439
Amendment 4 (AM4)
Adequacy Questions 2**

Dear Ms. Hora:

On November 18, 2022, the Division of Reclamation, Mining and Safety received your adequacy response for the AM4 package for the Home Office Pit, File No. M-1977-439. The following questions will address adequacy issues and any missing information that is need to complete the amendment application. This information needs to be addressed and/or received before the Division can approve the application:

Rule 1.6.2(1)(g) – General Application Procedures - Adequate as submitted.

Rule 6.4 - Specific Exhibit Requirements - 112 Reclamation Operation

6.4.1 EXHIBIT A - Legal Description - Adequate as submitted.

6.4.2 EXHIBIT B - Index Map – Adequate as submitted.

6.4.3 EXHIBIT C - Pre-mining & Mining Plan Map(s) of Affected Lands

1. Issue Resolved
2. Issue Resolved
3. Issue Resolved
4. Issue Resolved
5. Issue Resolved
6. Issue Resolved

6.4.4 EXHIBIT D - Mining Plan

7. Issue Resolved
8. Issue Resolved
9. Issue Resolved
10. Issue Resolved
11. Issue Resolved
12. Issue Resolved



- 13. Issue Resolved
- 14. Issue Resolved
- 15. Issue Resolved
- 16. Issue Resolved
- 17. Issue Resolved
- 18. Issue Resolved
- 19. Issue Resolved
- 20. Issue Resolved
- 21. Issue Resolved
- 22. Issue Resolved
- 23. Issue Resolved

6.4.5 EXHIBIT E - Reclamation Plan

- 24. Issue Resolved
- 25. Issue Resolved
- 26. Issue Resolved
- 27. Issue Resolved
- 28. Issue Resolved
- 29. Issue Resolved
- 30. The following questions are for Exhibit E (Stage F), page 17:
 - a. Issue Resolved
 - b. Issue Resolved
 - c. Issue Resolved
 - d. Issue Resolved

6.4.6 EXHIBIT F - Reclamation Plan Map -

- 31. Issue Resolved
- 32. Issue Resolved
- 33. Issue Resolved
- 34. Issue Resolved
- 35. Issue Resolved

6.4.7 EXHIBIT G - Water Information

- 36. Exhibit G was reviewed to ensure consistency with the information submitted in AM4. The most current version of Exhibit G is from AM1 in 1987. The following questions refer to the 1987 Exhibit G:
 - a. Issue Resolved
 - b. Issue Resolved
 - c. Issue Resolved
 - d. Issue Resolved
- 37. Issue Resolved

38. Issue Resolved

39. The adequacy response stated that “mining and reclamation are completed in accordance with mining and reclamation plans in effect at the time of mining” but did not address how each pond will safely convey the expected 100-year flood event throughout the life of the mine including final reclamation.

The analysis should quantify the velocity and volume of flows expected, the elevation of the event and its relation to the elevation of any proposed spillways and reservoir embankments. The flood control plan should propose mitigation measures such as inflow and outflow channels and/or other appropriate measures. If specific measures are not known at this time, please commit to submitting them later in a technical revision.

40. The following questions are for the water information submitted with the AM4 application and refer to Stage G:

- a. Commitment to monthly water level monitoring of all wells the applicant has access to, along with a map of well locations to be monitored and a concise presentation of historic data for those wells with explanations of observed impacts to those wells shown in historic data (i.e. pumping unlined pits, installation of clay liners, underdrains, etc.) Monthly monitoring data should be presented quarterly to DRMS with historic trends shown for at least the last 12 months for each well.
- b. Discussion of why the two wells shown in Exhibit G downgradient of phases G1 and G2 (identified as 246541, and 49917-F) are not likely to be impacted by shadowing from lined reservoirs.
- c. Presentation of historic groundwater level data in the form of GW contour maps to show, where possible, historic GW flow directions and levels/depth below ground surface, along with impacts to the historic patterns due to mining and reclamation. These should place an emphasis on current data to demonstrate minimization of mounding and shadowing impacts.
- d. Section 2.3 Mitigation – of the provided Exhibit G states that “in the event of a well owner compliant within 600’ of the affected area” MM will submit a report to DRMS within 30 days. DRMS does not restrict the radius of impact to 600’ and will require MM to commit to reporting any complaints by well owners to DRMS within 48 hrs or less. MM will be required to initiate an investigation into the complaint immediately, and submit the results to DRMS for evaluation within 30 days.
- e. Section 2.3 also states that “if a well goes dry, MM will implement mitigation measures within 7 days.” In the event that a well owner reports that their well has become unusable, MM should commit to notify DRMS and implement mitigation measures immediately (as soon as practically possible). MM will need to concurrently commence an investigation into the status of the complaint. The results of this investigation as well as any proposed remediation or rationale for discontinuing mitigation will be submitted to DRMS for approval within 30 days.
- f. Due to the mounding impacts already observed and at least partly mitigated along the west side of phase G1, the permittee should provide advance designs for additional underdrains that could be installed if excessive groundwater mounding is observed on the north side of G1 and/or the west side of G2. These additional underdrains could then be

rapidly installed (to commence within no more than 30 days) if excessive mounding is identified in these areas during monthly monitoring. Trigger levels may be identified (for example, GW rising to within 3' of the ground surface, or other adverse mounding impacts observed) to trigger implementation of additional corrective actions such as underdrain installation.

- g. Some discussion should be provided to justify the depths of the underdrains, both installed and proposed.

6.4.8 EXHIBIT H - Wildlife Information - Adequate as submitted.

6.4.9 EXHIBIT I - Soils Information - Adequate as submitted.

6.4.10 EXHIBIT J - Vegetation Information - Adequate as submitted.

6.4.11 EXHIBIT K - Climate - Adequate as submitted.

6.4.12 EXHIBIT L - Reclamation Costs

- 41. A cost estimate was not completed at this time because a significant amount of information needed to complete an estimate was requested in this adequacy review. A cost estimate will be completed when the information is received and Martin Marietta will have an opportunity to review/comment on it.

6.4.13 EXHIBIT M - Other Permits and Licenses (Statement Req'd) - Adequate as submitted.

6.4.14 EXHIBIT N - Source of Legal Right to Enter - Adequate as submitted.

6.4.15 EXHIBIT O - Owner(s) of Record of Affected Land and Substance to be Mined - Adequate as submitted.

6.4.16 EXHIBIT P - Municipalities Within Two Miles - Adequate as submitted.

6.4.17 EXHIBIT Q - Proof of Mailing of Notices to Board of County - Adequate as submitted.

6.4.18 EXHIBIT R - Proof of Filing with County Clerk and Recorder - Adequate as submitted.

6.4.19 EXHIBIT S - Permanent Man-made Structures Adequate as submitted.

As of this letter, there is still one objection on file from Mr. Seaworth.

Please note that the decision date for this application is December 14, 2022. 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. Also, the review time may not exceed 365 days from when the application was filed, which was January 10, 2022 (Rule 1.4.1(9)). If more time beyond

the 365th day is needed to adequately address the above issues, the matter can be set for a Board hearing at which time the Board may deny, approve with or without conditions (Rule 1.4.1(9)).

All corrected pages must also be provided to Larimer County Clerk & Recorder.

If you have any questions, please contact me at (720) 774-0040 or brock.bowles@state.co.us.

Sincerely,



Brock Bowles
Environmental Protection Specialist

CC: Julie Mikulas, Martin Marietta Materials, Inc.
Jared Evert, DRMS
Patrick Lennberg, DRMS