

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Michelle Lujan Grisham**  
Governor

**Dylan M. Fuge**  
Deputy Cabinet Secretary

**Albert C.S. Chang**, Director  
Mining and Minerals Division



**Via ELECTRONIC MAIL**

February 19, 2024

Tyler R. Johnson, Chief Environmental Engineer  
Environmental Services  
Freeport-McMoRan Chino Mines Company  
P.O. Box 10  
Bayard, NM 88023

**RE: Agency Review Comments and Request for Additional Information,  
Updated Closure/Closeout Plan (CCP) Continental and Hanover Mountain Mines,  
Revision 23-1, Permit No. GR002RE**

Dear Mr. Johnson,

The New Mexico Mining and Minerals Division (MMD) has reviewed the July 31, 2023 submittal from Freeport-McMoRan Chino Mines Company (Chino) titled, Continental Mine Closure/Closeout Plan Update (Application) prepared by Telesto Solutions Incorporated for Revision 23-1 of MMD Permit GR002RE.

On November 6, 2023, MMD determined the Application to be administratively complete and sent request for comment letters to state and federal agencies. An interagency inspection was conducted on November 30, 2023. MMD granted two extension of time requests for two agencies, and MMD received agency comments by February 2, 2024.

Enclosed with this letter are the reviewing agency comment letters submitted by the following state agencies: the New Mexico Environment Department (NMED), the New Mexico Department of Game and Fish (NMDGF), and the New Mexico Department of Cultural Affairs - Historic Preservation Division (NMDCA/HPD), and the New Mexico State Forestry Division (NMSFD). Because part of this project is proposed to take place on U.S. Forest Service (USFS) and Bureau of Land Management (BLM) lands, Permittee is required to follow the USFS and BLM processes in addition to NM Mining Act and its rules. No comments were received from the New Mexico Office of the State Engineer (NMOSE) and BLM. Additionally, please find comments from MMD based on review of this application.

MMD reviewed the permit application package and found it to be *technically incomplete* pending receipt of acceptable responses including supplemental information identified in this letter.

**MMD Comments:**

1. Page 30-31, Section 6.1.3 Continental Pit. This section does not mention any access roads or maintenance of roads after closure Please clarify if roads will be maintained for sampling access of pit lake or sump.
2. Page 30-31, Section 6.1.3 Continental Pit. This section indicates highwalls will be sufficiently stable. Please provide a citation to the most recent geotechnical report on pit wall stability.
3. Page 34-35, Section 6.1.6 Cobre Haul Road, Appendix E – Figure 15. The Planned CCP Activities appear to remove culverts in excavated fill areas and the Figure 15 shows fill areas with removed culverts. The changes shown in Figure 15 may result in ponding water behind the fill and not follow Section 6.1.6. Please clarify if drainages will have fill placed and culvert's removal.
4. Page 34-35, Section 6.1.6 Cobre Haul Road, Appendix E – Figure 15. The Planned CCP Activities appear to remove culverts in excavated fill areas without designing riprap and placing riprap in drainages. Please provide an explanation of how drainages will need armoring or some other erosion prevention design feature after culvert removal.
5. Page 35, Section 6.1.7 Exploration Roads. This section provides a plan to close out exploration roads. Provide an estimate of the length of roads that would be closed.
6. Page 40, Section 6.2 Cover Design and Materials. This section maintains the abundance of East Waste Rock Facility (EWRF). Provide clarification about the assumptions used for rejecting a percentage of EWRF cover material due to high rock fragments, acid generating material, and when EWRF material is buried beneath Hanover Mountain Mine material.
7. Pages 40-41, Section 6.2 Cover Design and Materials. This section mentions previous submittals (2021) about the Cobre Haul Road (CHR) as cover material. Since three types of cover materials are proposed as cover from three sources and locations, the cover material handling plan needs material-specific adjustments. Provide a description of the handling plan differences necessary for three cover materials sourced from CHR, EWRF at Continental and Upper South Stockpile at the Chino Mine.
8. Pages 42-43, Section 6.3.2 Management and Treatment Process, Appendix B Table B-4, and Appendix B.1 Water management cost estimate pipeline. The text in this Section 6.3.2 and Table B-4 indicates the bullfrog pipeline continuing for many decades, and the Appendix B.1 has its removal at year 12 of reclamation. Please clarify if the bullfrog pipeline will be removed at 12 years after closure of the mine.
9. Page 45, Section 7.3 Revegetation Success monitoring. This section indicates monitoring will be conducted in the third and sixth years and for two consecutive years prior to release. Please see the Revision 15-2 of GR002RE Appendix C revegetation guidelines.

Also, the 2022 MMD Revegetation Guidelines at: <https://www.emnrd.nm.gov/mmd/wp-content/uploads/sites/5/2022-1219-MMD-MARP-Revegetation-Guidelines-FINAL.pdf>

Provide text consistent with vegetation success meeting standards in specific Closeout Plan for 2 of the last 4 years of the 12-year revegetation period from Revision 15-2 of GR002RE. The last 4 years correspond to years 9 through 12 or thereafter.

10. Page 45, Section 7.5 – Public Health and Safety. This section describes monitoring open pit walls for potential failure areas. Provide the date and citation of the most recent stability evaluation of the Continental pit.
11. Page 46, Section 8.1 Wildlife Habitat Post-Mining Land Use and Table 10 Interim Seed Mix. The approved seed mix has yet to have much success at Continental. MMD recommends using the most recent test plot seed mix found on Table 3 of WSP's Cover System Test Plots As-Built Report dated November 2, 2023. A list of potential substitutions may be useful, in case one or more seeds are unavailable in a given year.
12. Page 48, Section 8.4 Ancillary, Facilities, Structures and Systems. The Bluebell and Davidson Adits are not specifically mentioned in this section while it generally states safeguarding all adits according to previous permit conditions. Please provide specific mention of Bluebell and Davidson adits and what the plan would be for closure/closeout these in the next 5 years.
13. Page 48, Section 8.5, Site-Specific Revegetation Success Guidelines. Section 8.5 proposes to not meet wildlife PMLU with vegetation and proposes high walls as suitable wildlife habitat for overall SSE. The Hanover Mountain Mine Pit does not have a pit waiver, which is limited to the Continental Mine Pit. Provide map and acreage of the proposed area that will not meet the wildlife PMLU.
14. Page 50, Section 9.2.1 – Revegetation Maintenance. This section estimates revegetation failure to be 2% every year based on observation of reclaimed areas. Based on the multiple test plot failures and Pearson Barnes Reclamation, MMD requires 10% vegetation failure. Please revise the basis for revegetation maintenance to include 10% failure during years 0-11.
15. Table 5, Precipitation Data. Update Table 5 with more recent years of 2020, 2021, 2022 and 2023.
16. Table 8 and Figure 9, Building/Tank/Structure Closure Plan. This table has several items as *Removed Prior to 2026* and *Removed at Closure*. Please clarify if the Removed Prior to 2026 means structures have been removed in 2023 or will be removed sometime between 2024-2026.
17. Table 8 and Figure 9, Building/Tank/Structure Closure Plan. Consider adding another category indicating if any demolition is anticipated in the *next 5 years*, such as the No. 2 Mill Stacker and Secondary Crusher Building.

18. Table 10. Proposed Interim Seed Mix and Rates. Current seeding rate would be about 32 seeds per square foot. MMD recommends change interim seed mix to the a existing test plot approved seed mix (about 53 seeds per square foot) in the WSP November 2023 as-built report. Test Seeding rate for a mix should target 40 to 60 seeds per square foot. Change the Table 10 seed mix to the November 2023 test plot seed mix.
19. Table 11. Proposed Plant Diversity Guidelines. Table has only grasses. Update table to include diversity for forbs, shrubs and grasses.
20. Blank Table 12 , Earthwork Costs. Table has no numbers. Remove blank Table 12.
21. Blank Table 14, Earthwork O&M Costs. Table has no numbers. Remove blank Table 14.
22. Table 15, Closure Schedule. North Overburden Stockpile (NOBS) reclamation schedule anticipates 2.5 years. This appears to be an overestimate because the disturbance of NOBS is far less than originally planned. Provide a revised reclamation duration for NOBS.
23. Table 15, Closure Schedule. South Overburden Stockpile has 2.5 years for the anticipated duration. Provide figure or citation with the location of this stockpile.
24. Appendix B, Table B-3. Water management table does not include seepage from Davidson and Bluebell adits. Provide a revised table with the adits estimate seepage.
25. Appendix B, Table B-7 and Appendix G, Table 4. Diesel cost is \$3.21 in Appendix G and \$3.92 in Appendix B. Provide one diesel cost basis for this RCE.
26. Appendix D, Cobre Haul Road facility characteristic Form. This form mentions cover material, when elsewhere in the Updated CCP (Section 6.1.6), ripping to 18-24 inches is the plan. Clarify if cover is to be placed on the Cobre Haul Road.
27. Appendix D, NOBS facility characteristics form. This form indicates 2.63 acres to be reclaimed with cover, when it seems smaller in the field and much of the area has had the waste rock removed from NOBS. Please check the acreage for NOBS and whether any cover will be placed.
28. Appendix E, Sheet 3 and Sheet 8. Pushdown of SWRDF crosses Fierro Road. Clarify if the pushdown will cover parts of Fierro Road, and if so, will the segment of the road be re-built.
29. Appendix E, Sheet 8. Plan shows converging flow at southwest end of section G. One area flows northwest and another southeast with a slope length than may be over 300 feet. Another area at southern part of the SWRDF reclamation sheet appears to have steep drop offs west of SWRDF Dam 3. Provide explanation if these areas need additional design features prior to final drawings for construction.

30. Appendix E, Sheet 13. Cross sections of Hanover Mountain Mine show a depression without indicating the groundwater level. Provide a revised cross section with the groundwater level indicated.
31. Appendix H, Section 3 Table 4 Miscellaneous Unit Costs. It's unclear what year costs were updated for several rows such as revegetation and down drain dissipater. Was 2019 calculation redone in 2023 or some other year? Update reference column or add footnotes in Tables 3 and 4 with the year of unit cost update or escalated calculation.
32. Appendix G, Table 6. This Table 6 and the initial report's Table 12 have discrepancies in the numbers leading up to the total, which appear to be correct. For example, Pits subtotal and Cobre Haul Road dollar amounts are different between the two tables. EWRF 30% of direct in Table 6 is about 90%. Recheck item entries for Table 6 dollar amounts and formulas to find the errors.
33. Appendix H - Appendix A Engineering Take-off/Quantities. The second page tallies sub areas or destination for cover materials. The SWRDF and EWRF have volumes that are far greater than the volume needed for cover. Provide an explanation about whether these volumes include additional cut and fill that is not associated with cover volume.
34. Appendix H- Appendix E Cost Spreadsheet – Revegetation Costs page 2 of 11. The revegetation costs do not seem to add up to the final column. Recheck the formulas used and the amounts of the final column.
35. Appendix H – Appendix E Cost Spreadsheet. The Excel spreadsheets are far easier for reviewers to evaluate the reclamation cost estimates than fine pdf or paper versions. Provide the Excel spreadsheets with the reclamation cost estimates.

**Please respond to the MMD comments and attached comments from NMED, NMDGF, NMDCA/HPD and NMSFD by March 30, 2024.**

As the technical issues above are resolved, MMD will draft permit conditions for the Revision 23-1 that include a pending Modification 21-2 related to the test plots and demonstration plots additional studies language from a previous permit's Section 8.M(1) issued in September 2018.

This permit revision 23-1 will be a revision that includes the re-issue of the previous permit modifications and revisions that are still relevant under a single document.

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Should you have any questions, comments, or require additional information concerning this letter or any enclosures, please call (505) 490-0726, or email [kevin.myers@emnrd.nm.gov](mailto:kevin.myers@emnrd.nm.gov).

Sincerely,



Kevin Myers, Permit Lead  
Mining Act Reclamation Program (MARF)

Enclosures:

November 29, 2023 email response from USFS to MMD  
December 5, 2023 letter from NMDCA/HPD to MMD  
December 5, 2023 letter from NMSFD to MMD  
January 26, 2024 letter from NMDGF to MMD  
February 5, 2024 letter from NMED (includes AQB, SWQB and MECS) to MMD

cc: DJ Ennis, Program Manager, MARP  
Carmen Rose, Supervisor, MARP  
Anne Maurer, Mining Act Team Leader, MECS, GWQB-NMED  
Sherry Burt-Kested, Manager, Environmental Services, FMI-Chino Mine  
Mariana Lafon, FMI-Chino Mine  
Christian Krueger, FMI-Chino Mine  
Allyson Siwik, Executive Director, Gila Resources Information Project  
Mine File (GR002RE)