

Freeport-McMoRan Chino Mines Company P.O. Box 10 Bayard, NM 88023

April 30, 2024

#### Certified Mail # 70190140000026672520

Mr. Kevin Myers Energy, Minerals and Natural Resources Department Mining and Minerals Division (MMD) 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Dear Mr. Myers:

Re: Freeport-McMoRan Chino Mines Company- Updated Closure/Closeout Plan Continental Mine and Hanover Mountain Mines, Permit No. GR002RE, Response to Agencies'

Comments and Request for Additional Information

Freeport-McMoRan Chino Mines Company (Chino) submitted an application to renew the Continental Mine Closure/Closeout Plan (CCP), Permit GR002RE on July 31, 2023. On November 6, 2023, Mining and Minerals Division (MMD) determined the application to be administratively complete. On November 20, 2023, an interagency inspection of Continental and Hanover Mountain Mines was conducted. In a letter dated February 19, 2024, Mining and Minerals Division (MMD) requested supplemental information and submitted a combined agency review comments and Request for Additional Information (RAI) from the following state agencies: New Mexico Mining and Minerals Division (MMD), 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).

Below are agencies comments on the CCP in italics, flowed by Chino's response.

#### Mining and Minerals Division 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.

Access roads that remain are maintained to ensure clear safe access for light vehicle and maintenance vehicle access for post-closure pit sampling. Costs are included in the RCE.

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.

Chino has completed slope stability analysis and slope stability ranges align with the specified factors of safety. Chino would like to discuss any concerns the agency may have regarding slope stability. Note that no infrastructure will be maintained within the Continental Pit.

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.

Based on negotiations when the Cobre Haul Road was permitted, the Agency required the culverts and fill be removed. Any fill removed is used as cover material, and the channel restored to natural grade. Grading design will ensure no ponding water via a clear established flow line for drainages.

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.

No rip rap is warranted after culvert removal. The plan is to restore the drainages to their pre-haul road, native condition. This restoration involves removing fill material placed during construction, re-exposing pre-construction bed material. In many areas, these native channels were incised into bedrock prior to construction. Other areas were naturally armored. Thus, no rip rap is required.

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.

The total length of exploration road disturbance is approximately 15 miles. Exploration roads will be scarified and seeded with the approved closure seed mix.

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.

The "almost 10-million cubic-yards" is an estimate made of the entire East WRF minus the anticipated reject percentage of 15 to 25% from the Continental Test Plot As-Built report (Golder, 2023). The cover material volume required from the EWRF in the CCP is approximately 1.2 million cubic yards, well below the material availability. In the CCP and RCE, the Rita Stockpile (non-carbonate material) is moved to the south because it was placed too far on the crest of the East WRF and if left in place, would have pushed out beyond Fierro Road.

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.

The CCP and subsequent RCE cover handling are based upon multiple documents submitted over the years. Handling of the East WRF source is described in the test plot as-built report (WSP-Golder, 2023), and additional handling is provided in the RCE for the segregation steps. Chino characterized the CHR fill during construction. It is non-acid generating (all came from carbonate hosted foundational rock) and of an appropriate particle-size distribution for cover material. Its handling plan is to pick up the material from the fill areas and move it to the various facilities requiring cover. The agencies agreed to use the CHR fill material as a cover source in the 2021 financial assurance negotiations. We have included Chino's USS stockpile material in multiple CCPs over the years with no additional material handling other than a dozer assist to load and haul it.

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.

The bullfrog pipeline will remain in service for several decades, facilitating the completion of water treatment processes. Bullfrog pipeline has an industrial PMLU. Please see updated Appendix B.1.

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. RE: Agency Comments, Continental Mine Updated CCP, Revision 23-1, Permit No. GR002RE February 19, 2024 Page 3 of 6 Also, the 2022 MMD Revegetation Guidelines at: <a href="https://www.emnrd.nm.gov/mmd/wp-content/uploads/sites/5/2022-1219-MMD-MARP-Revegetation-Guidelines-FINAL.pdf">https://www.emnrd.nm.gov/mmd/wp-content/uploads/sites/5/2022-1219-MMD-MARP-Revegetation-Guidelines-FINAL.pdf</a> 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.

Chino will conduct post-reclamation vegetation monitoring according to Permit Revision GR002RE 15-2. Areas where vegetation has not been successfully established will be reseeded or inter-seeded. Revegetation monitoring will include canopy cover, vegetation diversity, and woody stem density. The canopy cover survey and woody stem density survey will be conducted using the survey techniques approved by MMD. Initial revegetation monitoring will be conducted in the third and sixth year after seeding, and for two years, starting in year 9, monitoring will confirm revegetation success prior to financial assurance release. Chino will submit a vegetation monitoring plan, for MMD approval, at least 90 days before vegetation monitoring is conducted. Results of the vegetation sampling will be provided to MMD. Section 7.3 is altered as described above and replacement pages 45 and 46 are enclosed.

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.

Please see response to comment #2.

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.

Chino Mines appreciates your advice. Please see the attached updated mix matrix/ Table 10.

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.

The Bluebell and Davidson adits, while seeping, were closed previously. They are buried with no access and therefore there are no safety concerns at closure. The current seepage is being addressed under DP-1403 and an updated Corrective Action Plan will permanently address the seepage.

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.

As in all previously approved Continental Mine CCPs, all flat areas greater than 50 feet from pit highwalls (both above and below) will be covered and revegetated. This method for closure of the Hanover Mountain

Mine Pit results in 48% of the surface area (70.7 acres) that will not meet wildlife PMLU. Sheet 24 (Appendix E, attached) shows Hanover Mountain Mine Pit revegetation areas and highwalls.

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.

Please see response to comment #7 and #9.

15. Table 5, Precipitation Data. Update Table 5 with more recent years of 2020, 2021, 2022 and 2023.

Please see the attached updated Table 5 with years 2020-2023.

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.

Items under the 'Removed Prior to 2026' will be removed between 2024-2026. Please see the attached revised Table 8 and Figure 9.

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.

Chino Mines current forecast includes demolition of Mill's 1 and 2 within the next five years. Please see updated Table 8 and Figure 9.

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 asbuilt 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.

Please see the updated mix matrix/ Table 10.

19. Table 11. Proposed Plant Diversity Guidelines. Table has only grasses. Update table to include diversity for forbs, shrubs and grasses.

The repeat of "perennial grasses" in the first column of Table 11 was a spreadsheet error. Please see updated Table 11.

Table 11 Proposed Plant Diversity Guidelines

Class	Seasonality	Number	Minimum Occurrence (% cover)
Perennial Grass	Warm	3	1
Perennial Grass	Cool	2	0.5
Perennial Shrubs	NA	2	1
Perennial Forbs	NA	2	0.1

20. Blank Table 12, Earthwork Costs. Table has no numbers. Remove blank Table 12.

Chino appreciates this correction.

21. Blank Table 14, Earthwork O&M Costs. Table has no numbers. Remove blank Table 14.

Chino appreciates this correction.

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.

The reclamation duration for the NOBS has been reduced from 2.5 years to 0.5 years in Table 15.

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.

Chino appreciates this correction. The South Overburden Stockpile has been removed from Table 15.

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.

Please see response to comment #12.

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.

Chino will provide a revised RCE updated upon the approval of the CCP.

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.

The plan is to rip the Cobre Haul Road surface and seed directly. The "Cover Material (Load, haul, spread)" line on the facility characteristic form is where the costing sheet summarizes the ripping costs, which essentially makes the surface into cover material. We have changed that line on the form to make it clearer (attached).

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.

The acreage for NOBS is 4.35 and no cover material 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.

Chino appreciates this correction. Please see updated sheets 8 and 9.

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. RE: Agency Comments, Continental Mine Updated CCP, Revision 23-1, Permit No. GR002RE February 19, 2024 Page 5 of 6

There are three areas deemed culturally significant: 1) Union Hill Adit, 2) pre-historic site near SWRDF-Dam 3, and 3) pre-historic site near the West WRF (Southwest SWRDF). These areas require protection from disturbance. Prior to construction, a verification that rock placement at the base is stable (larger rocks naturally accumulate at the base of the stockpiles), and/or a modified design for long-term stability will be needed. These types of engineering efforts are anticipated in the overhead component of the RCE.

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.

Figure 15 of the report "Hydrogeologic Setting and Prediction for Hanover Mountain Mine Expansion in Support of Groundwater Discharge Permit-181 Renewal and Modification" July 2022, shows a predicted 50-year Hanover Pit lake elevation (recovered ground water surface elevation) of 6,368 feet. The 5-year mine plan bottom of pit elevation is 6,600 feet. Therefore, no pit lake is expected in the Hanover Mountain Mine under the current 5-year mine plan.

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.

Chino appreciates the need for additional information on when and how these costs were updated. We will update RCE including error checks once CCP is approved by the agency.

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.

Chino appreciates the identification of the apparent discrepancy. The RCE will be updated, including error checks once the CCP is approved by the agencies.

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.

In some cases, SWRDF and EWRF materials must be excavated and moved elsewhere on their respective facilities to keep the regraded facility from crossing Fierro Road, the Poison Spring Drainage, Buckhorn Gulch, and/or cultural sites as discussed in Comment Response #29.

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.

Chino appreciates the identification of the apparent discrepancy. The RCE will be updated, including error checks, once the CCP is approved by the agencies.

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.

Chino appreciates the identification of the apparent discrepancy. The RCE will be updated including error checks once the CCP is approved by the agencies.

#### New Mexico State Forestry Division comments:

1. Based on a review of our files, there are no records of New Mexico State Endangered Plant Species listed in Section 75-6-1 NMSA 1978 within the project area. However, there is potential for the State Endangered Scrophularia macrantha (Mimbres figwort) to occur within the project area. Based on documents shared with this office, surveys for S. macrantha and other potentially occurring special status plant species were conducted in 2012 by Ecosphere biologists. No special status plants were found; however, these surveys were conducted outside of the flowering period of S. macrantha. Detecting the presence of this species would have been difficult to nearly impossible to identify during this timeframe. Therefore, it is recommended that appropriately timed surveys (July-Oct.) for S. macrantha be conducted in areas where proposed new ground disturbance will occur for this permit. If S. macrantha is found, then a permit will be required from the Forestry Division for take of this species and/or consultation to mitigate impacts. More information can be found here: <a href="https://www.emnrd.nm.gov/sfd/rare-plants/request-a-collection-permit/">https://www.emnrd.nm.gov/sfd/rare-plants/request-a-collection-permit/</a>

Chino would like to re-assure the New Mexico State Forestry Division that this is a conceptual plan for Closure and Closeout. No new disturbances will be required. If new disturbances are anticipated during Chino's operations, Chino will ensure surveys are conducted and the process described above is followed.

#### New Mexico Department of Game and Fish comments:

Section 3.1.3 Continental Pit in the CCP states that "Predictions in (Telesto, 2008a) and (Telesto, 2022) indicate that the open pit lake will be a hydrologic evaporite sink". There are no data provided nor discussion about the pH and water quality of the current pit lake and whether current conditions meet New Mexico standards for wildlife. Additionally, there is also no discussion of any hydrogeological modeling that was performed to predict future, post-closure pit lake water quality.

Note: The reference Telesto, 2008a was made in error and should have instead cited Telesto, 2008c "Condition 84 Supplemental Ground Water Study Continental Mine Expansion, Grant County, New Mexico."

Appendix C "Current and Future Groundwater Flow Simulations and Predictions" and Appendix D "Continental Pit and Hanover Mountain Mine Chemical Mass Balance" of the report "Hydrogeologic Setting and Prediction for Hanover Mountain Mine Expansion in Support of Groundwater Discharge Permit-181 Renewal and Modification (Telesto, 2022) contains detailed descriptions of both hydrogeologic ground water flow modeling as well as geochemical modeling performed on the Continental Pit under both current and future conditions. In summary, these reports found that:

#### Current:

- The chemistry of the Continental Pit Lake currently mimics that of the Continental Underground Workings
- Sulfate, alkalinity as bicarbonate, sodium, magnesium, chloride, and calcium are the major dissolved constituents in the pit lake.
- The pit currently has a pH of approximately 7.52 (March 2024)
- The pit currently meets wildlife habitat standards as per 20.6.4.900.J(1) NMAC (Telesto, 2022 [Appendix D, Table 2])

#### Future:

- Pit lake chemistry is expected to be characterized by a circum-neutral pH solution over the 300-year prediction period due to the predominance of limestone in the wall rock formations (pH values between 6 and 7)
- Pit lake water will have high total dissolved solids.
- The pit lake is predicted to meet wildlife habitat standards as per 20.6.4.900.J(1) NMAC (300 years; Telesto, 2022 [Appendix D, Table 22]).

The Department believes that the hydrogeological complexities at the site and associated, inherent uncertainties will make prediction of future, long-term pit lake water quality extremely difficult. In addition to Acid Mine Drainage (AMD), the potential long-term effects of climate change and prolonged drought could also lead to the development of hazardous water quality conditions for wildlife resulting from evapoconcentration of trace elements in the pit lake water. As a result, the Department recommends that perimeter fencing, designed to prevent terrestrial wildlife from accessing the pit lake water, be installed. To exclude deer and elk, the aboveground fence height should be a minimum of eight feet and an additional two feet of fence should extend below ground level to deter animals from burrowing under, for a total of ten feet. To exclude small mammals, reptiles, and amphibians, the Department also recommends that the perimeter fence is securely wrapped with a two-foot high, solid, smooth, and heavy gauge sheet metal or plastic barrier, preferably with a horizonal lip at the top. In addition, the Department recommends providing nearby sources of clean drinking water to attract wildlife away from the pit lake. The drinker tanks should be designed with textured escape ramps to prevent entrapment and drowning of smaller animals. The Department is available for consultation regarding the different types of appropriate wildlife drinker tanks.

Please see the previous response to comment regarding the fact that the Continental Pit currently, and is expected to continue to, meet wildlife habitat standards. Therefore, Chino disagrees with the necessity of excluding terrestrial wildlife from the pit.

The CCP should address the recent AMD from historic mine workings that entered Hanover Creek. Chino postulated that unusually wet winter conditions may have significantly contributed to this AMD seepage incident. Chino has implemented a temporary fix by creating a channel filled with limestone that diverts the AMD to a created wetland area. The CCP should include a long-term plan to permanently remedy this issue.

Please see comment #12.

The Department generally concurs with the proposed interim seed mix presented in Table 10 and provides the following suggestions.

- 1) Change the common name blue flax to Lewis flax; the scientific name (Linum lewisii) is correct for the native flax species. Blue flax (Linum perenne) is native to Eurasia and has been introduced throughout the United States.
- 2) For globe mallow, only the genus name Sphaeralcea sp. is given. The Department recommends using either of the following native species in the seed mix: copper globe mallow (Sphaeralcea angustifolia) or scarlet globe mallow (Sphaeralcea coccinea).
- 3) Correct the following errors in Table 10: a) 8 species where there is no space between the genus and species names and b) the species name for white prairie clover should be changed from candidia to candida.

The proposed seed mix has been changed as per MMD comment #11. Please re-review Table 10 and provide comment as necessary.

The Department also recommends that only certified weed-free seed be used to avoid inadvertently introducing non-native species to the reclamation site. Any alternate species seeds, used to substitute for primary plant species that are unavailable at the time of reclamation, should also be native. When possible, the Department recommends using seeds that are sourced from the same region and habitat type as the reclamation site or from sites that represent potential future conditions at the reclamation site as climatic conditions change.

Table 10 has been modified to specify that only certified weed-free seeds will be used.

### Mining Environmental Compliance Section (MECS) comments:

 The Updated CCP, dated July 2023, was submitted to the MECS on July 31, 2023. As stated above, it is included as part of the Ground Water Discharge Permit application for renewal of DP-1403. Technical review of the application pursuant to the Water Quality Act (WQA) and the Water Quality Control Commission (WQCC) Regulations, including the Copper Mine Rule (20.6.7 NMAC), is currently in progress. MECS expects to have additional comments based on technical review of the application and associated monitoring and closure plans, including the Updated CCP. As such, any additional comments on the application and Updated CCP will be submitted under separate letterhead directly to Freeport-McMoRan Chino Mines Company with copy to MMD.

Chino appreciates your review.

2. Page 9-10, Section 3.1.5 Waste Rock Facilities. NMED is in the process of reviewing the updated Materials Handling Plan. Based upon the review of the Materials Handling Plan and the renewal and modification application for DP-181, additional monitoring wells may need to be installed to monitor groundwater potentiometrically downgradient of the South Waste Rock Disposal Facility (SWRDF). Any additional monitoring wells will need to be evaluated as post-closure monitoring wells and subsequently addressed in DP-1403 and the Updated CCP cost estimate.

Chino appreciates your review.

3. Page 10-11, Section 3.1.8 Stockpiles. This section describes the High Grade Ore Stockpile, No. 3 Shaft Stockpile, and the Overburden (OB) Stockpiles 1-5. Based on this section, the High Grade Ore and No. 3 Shaft Stockpile are part of the Cobre Haul Road. Given the High Grade Ore and No. 3 Shaft Stockpile may be acid generating or have the potential to generate contaminants in exceedance of 20.6.2.3103 NMAC standards, please indicate how these areas will be addressed at closure.

The High-Grade Ore stockpile has been mostly graded over and incorporated into the CHR. Section 6 "Reclamation Plan and Design Criteria" of the CCP describes closure of all mining facilities. Specifically, closure of the High-Grade Ore stockpile is described in Section 6.1.8 as "At closure, the remnants of the High-Grade Ore Stockpile will either be trucked to the Chino Mine, or regraded and covered in place with the closure of the CHR."

The No. 3 Shaft Stockpile, although also partially incorporated into the CHR, will be closed with the closure of the CHR. Specifically, Sheet 14 of the Reclamation Plan Drawings (CCP, Appendix E, Sta. 30+00 and 35+00), shows that the No. 3 Shaft Stockpile will be graded to a slope 3:1 and covered.

4. Page 43, Section 6.3.2 Management and Treatment Processes. Appendix B, Table B.2 is cited for anticipated stormwater flow rates but Appendix B is related to cost estimates. The citation here should be Appendix B.2. Please verify the citation.

Chino appreciates the correction. Please see updated Page 43.

5. Appendix B, Table B-1. Please verify if the Blackman Seep is the only seep listed to be removed in the sampling plan.

Although listed as a seep, Blackman's Seep is essentially a shallow pond that serves to collect shallow ground water in between Upper Creek Containment Pond 1 and Grape Gulch Pond #3. Blackman's Seep is listed in Table B.2, Appendix B as being removed during reclamation year 9. Table B.2 has been modified to show removal to coincide with the closure of Upper Creek Containment Pond 1 and Grape Gulch Pond #3 (reclamation year 12). Infrastructure associated with all other seeps in Table B.2 will be removed when the individual seeps stop flowing. Table B.2 has been updated to make this clearer.

#### Surface Water Quality Bureau, New Mexico Environment Department Comments:

Mine activities may affect SWOTS as defined in New Mexico's Standards for Interstate and Intrastate Surface Waters (20.6.4.7 NMAC), which include intermittent streams and all tributaries of such waters within the area of mining operations, which are subject to water quality criteria under 20.6.4.98 NMAC. Furthermore, operations must ensure compliance with General Criteria at 20.6.4.13 NMAC. "General criteria are established to sustain and protect existing or attainable uses of surface waters of the State. These general criteria apply to all surface waters of the state at all times... Surface waters of the State shall be free of any water contaminant in such quantity and of such duration as may with reasonable probability injure human health, animal or plant life or property, or unreasonably interfere with the public welfare or the use of property." (20.6.4.13 NMAC)

The Applicant is required to report all spills immediately to the NMED as required by the New Mexico Water Quality Control Commission regulations (20.6.2.1203 NMAC). For non-emergencies during normal business hours, call 505- 428-2500. For non-emergencies after hours, call 866-428-6535 or 505-428-6535 (voice mail, twenty-four hours a day). For emergencies only, call 505-827-9329 twenty-four hours a day (NM Dept of Public Safety).

In addition to the above regulatory standards, SWQB requires the following practices to avoid contamination and to protect surface and groundwater quality:

- Contain process water within the closed-loop system or lined pits. Process water may not be discharged to the ground unless a discharge permit has been secured from the USEPA and/or NMED.
- Utilize a secondary containment system for fuel, oil, hydraulic fluid, lubricants, and other petrochemicals to prevent spills. During the summer monsoon seasons, typically July through September, store these materials outside of the flood-prone zone.
- · Perform all work, when practicable, in the dry season and postpone work during wet and muddy conditions.
- Always keep appropriate spill clean-up materials such as absorbent pads on-site during road construction, site preparations, drilling and reclamation to address potential spills.
- Provide a minimum 50' set-back (buffer) distance from existing drainages to staging areas.
- Install and maintain Best Management Practices (BMPs) both during and after construction to prevent, to the extent practicable, pollutants in stormwater runoff from entering SWOTS.
- · Confirm Army Corps of Engineer's Jurisdictional Determinations for all future permit revisions.
- Final reclamation designs for facilities affecting SWOTS should reestablish approximate original contour, to the maximum extent practicable, to maintain or restore natural pre-mining hydrologic processes.

Chino appreciates the provided information. The entire project area lies within the Mimbres Closed Basin and therefore there are no Waters of the United States.

If you have any questions or concerns, please contact me at (575) 694-0013 or Mariana Lafon at 575-912-5234.

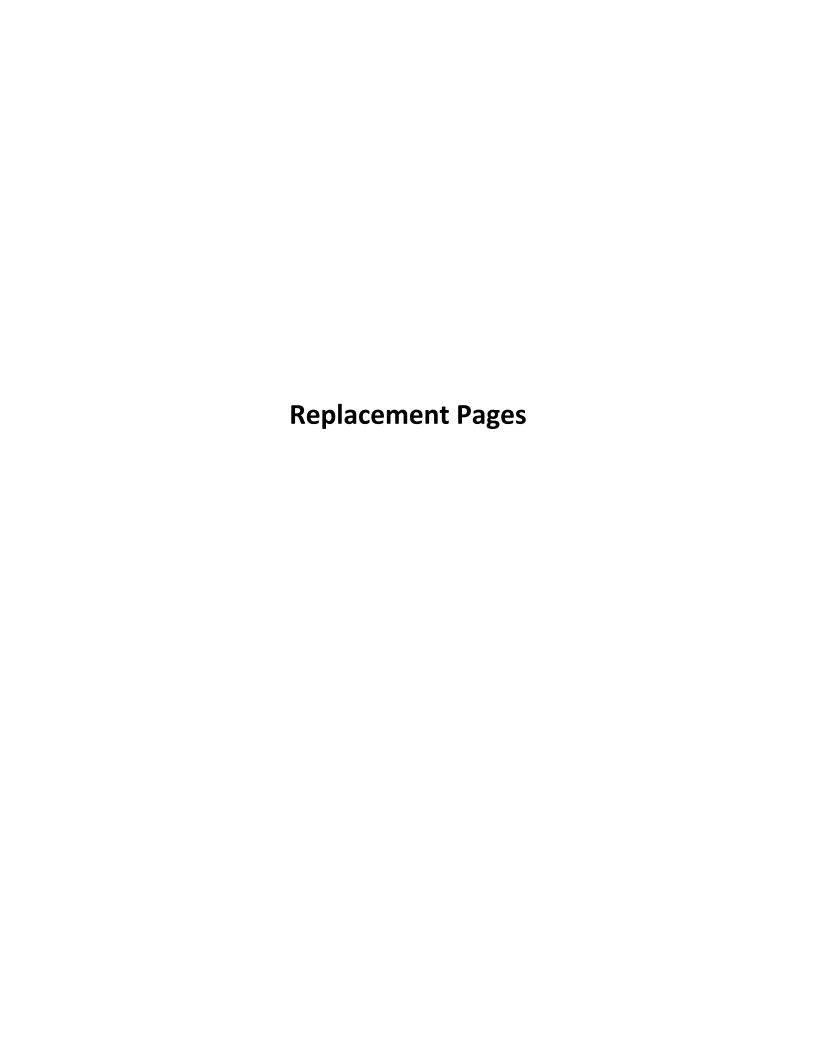
Sincerely,

Tyler R. Johnson, Chief Engineer

**Environmental Services** 

TRJ:ml Enclosures 20240430-005

ec: David Ennis, MMD Anne Maurer, NMED



after facility reclamation as predicted in Condition 83 (Golder, 2009). Seep collection systems locations are shown in Figure 5 through Figure 8.

Stormwater runoff will be sent to detention basins for sediment control and then released. The anticipated flow rates for pre-reclamation are provided in Appendix B.2. Seepage is expected to cease flowing in reclamation year 9 for most of the site and approximately in reclamation year 58 for the MTI (See Appendix G).

## 7.0 CLOSURE AND POST CLOSURE MONITORING, REPORTING, AND CONTINGENCY PLANS

All closure and post-closure ground water, surface water, seep, spring, and piezometer monitoring data will be reported under the appropriate DP. Additionally, as specified under approved modifications to Condition 59 of DP-1403, Continental submits semi-annual potentiometric maps based on monitoring well data to NMED. Continental also submits seepage measurements taken at facility seeps to NMED. The annual test plot study reports are submitted to NMED and MMD in accordance with DP-1403 and Permit GR002RE, respectively. MMD guidelines require monitoring of revegetation during the 12-year postclosure vegetation monitoring period to evaluate revegetation success, and WQCC Regulation 3107.A.11 requires the development of post-closure monitoring and contingency plans that are consistent with the terms and condition of the applicable DP. Additional closure and closeout monitoring and reporting associated with public health and safety, vegetation, wildlife, meteorology, erosion and construction quality assurance (CQA)/construction quality control (CQC) plans are specific in permit GR002RE and DP-1403. Closure and post-closure monitoring and reporting specified in the Copper Mine Rules include: CQA/CQC plans, seepage interceptor system inspections and reporting; water quality monitoring and reporting and reclamation monitoring and reporting.

Post-closure inspection will continue until lands have been released under the NMMA. This section summarizes the general approach that will be used to meet these conditions.

## 7.1 Erosion and Drainage Control Structures

Chino will perform inspections when one or more inches of rain is received in a 24-hour period, as recorded by the Continental Mine weather stations, as well as monthly inspections for the first year, and quarterly inspections until vegetation is established. Chino will monitor for erosion, including substantial rill, gully or sheet erosion on the reclaimed facility surfaces. These areas will be inspected in accordance with nationally recognized standards of the U.S. Natural Resource Conservation Service or alternative, equivalent best management practices, per the permit conditions. As conditioned, Chino will provide the MMD and NMED a report that describes substantial erosion features identified. A corrective action plan will be developed for substantial erosion features within 30 days of identification of the problem and the plan will be implemented as soon as practicable following approval.

#### 7.2 Ground Water and Surface Water Control Facilities

Chino will conduct water quality monitoring according to Permit GR002RE and DP-1403, with cessation of specific monitoring requirements under the conditions specified in the permits. Samples will be collected at established intervals at all monitoring locations required in the NMED discharge permits. Chino reserves the right to request amendments to the sampling frequency outlined in the permits based on water quality trends observed.

Contingency and emergency response plans have also been prepared that contain details for addressing potential failures of individual components in Chino water management system (Telesto, 2014). If an unapproved discharge occurs, Chino will perform appropriate mitigation in accordance with Section 20.6.1203. A.9 NMAC or in accordance with DP-1403 if required by NMED.

## 7.3 Revegetation Success Monitoring

Chino will conduct post-reclamation vegetation monitoring according to Permit Revision GR002RE 15-2. Areas where vegetation has not been successfully established will be reseeded or inter-seeded. Revegetation monitoring will include canopy cover, vegetation

diversity, and woody stem density. The canopy cover survey and woody stem density survey will be conducted using the survey techniques approved by MMD. Initial revegetation monitoring will be conducted in the third and sixth year after seeding, and for two years, starting in year 9, monitoring will confirm revegetation success prior to financial assurance release. Chino will submit a vegetation monitoring plan, for MMD approval, at least 90 days before vegetation monitoring is conducted. Results of the vegetation sampling will be provided to MMD.

## 7.4 Wildlife Monitoring

Pursuant to permit GR002RE, Chino will document wildlife use of reclaimed areas through monitoring, which include deer pellet group counts and bird diversity surveys. The results of the wildlife surveys will not be a condition of or given consideration with regard to FA release.

## 7.5 Public Health and Safety

Pursuant to Section G.2 of the MMD Permit, Chino will submit written details and maps showing the locations of berms and fences that will be placed around the open pit to restrict access by unauthorized personnel and provide for public safety within 180 days of cessation of operations. Quarterly visual inspections will be conducted to monitor stability of the open pit walls to identify potential failure areas, which may adversely impact the environmental and public health or safety. If such potential failure areas are identified through monitoring, Chino will propose measures to mitigate the hazard within 30 days of identification for MMD approval.

## 7.6 Construction Quality Assurance Plan

Pursuant to Permit GR002RE, Chino will submit a CQA Report to be submitted to the MMD for approval no less than 180 days prior to regarding of a facility and placement of any cover material for final closure. The CQA Plan will be supplemented with a CQA Report to be submitted to the MMD within 180 days after completion of construction.

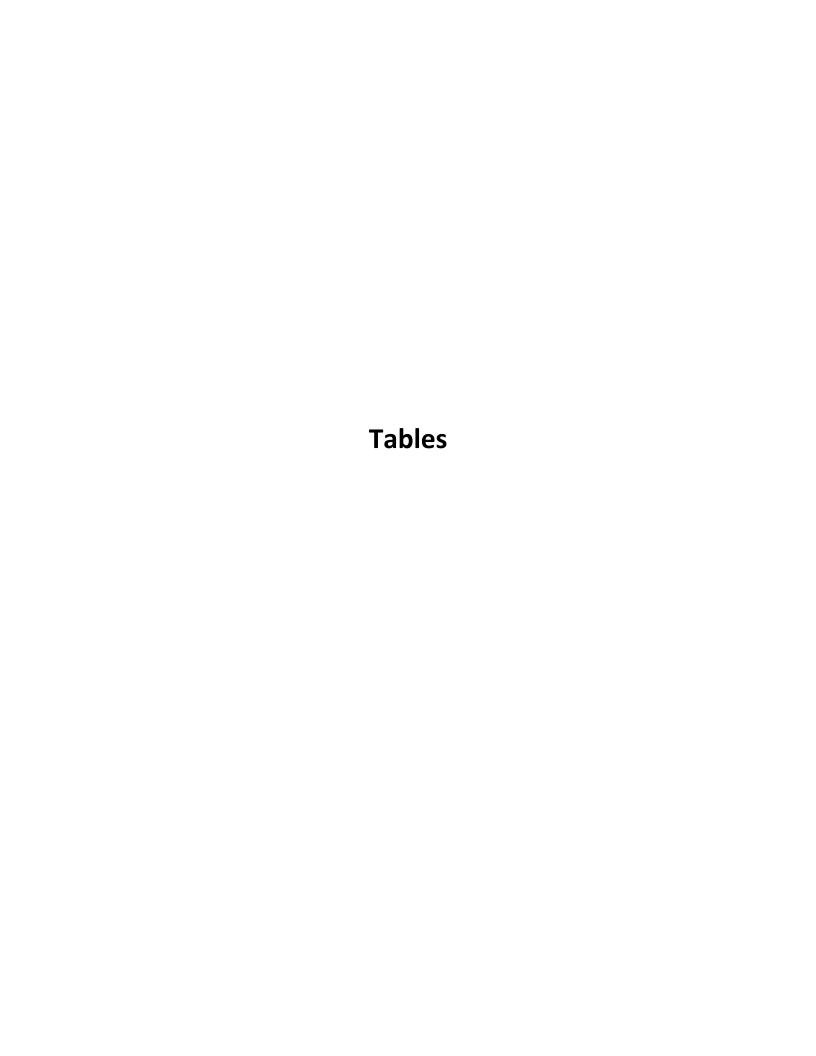


Table 4 EOY 2026 Buildings/Tanks/Structures

Description		Dime	ensions	
Description	L	w	н	Diameter
Diesel Tank	10	20		
Fueling Station	20	50		
Gate House	15	40		
Magnetic Separator	15	20	14	
Mobile Substation	30	50	50	
Pioneer Crusher	35	25	40	
Pump House	20	20		
Pump House and Shed for Thickener	10	10	14	
Scale House (Guard Shack)	10	10	10	
Small Truck Shop	105	40	20	
Stacker Hoist	28	23	18	
Substation	100	120		
Substation No. 2	66	50	30	
Thickener MCC	18	18	12	
Thickener MCC	12	22	15	
Water Tank (x2) <sup>1</sup>			20	15
Water Tank (near stacker and stacker hoist)			120	40

<sup>&</sup>lt;sup>1</sup>To be removed during expansion of the Hanover Mountain Mine pit

 Table 5
 Precipitation Data

Chatian	V	V	7 (64)							Annua	al Precip	itation (	in/yr)						
Station	Х	Y	Z (ft)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Buckhorn Gulch	-108.0939	32.8281	6659.3	NA	NA	NA	NA	NA	23.93	17.56	NA	NA	NA	NA	NA	NA	NA	NA	NA
East Waste Rock Facility	-108.0855	32.8392	6823.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.35	11.83	20.17	6.00
Pewabic Drainage	-108.0749	32.8194	6728.6	NA	NA	NA	NA	NA	20.58	NA	17.53	18.99	15.88	18.94	NA	NA	NA	NA	NA
Upper Creek Contamination Pond	-108.0853	32.8535	6785.6	NA	NA	NA	NA	NA	NA	NA	NA	22.82	17.53	17.20	NA	NA	NA	NA	NA
NE Hanover Mountain	-108.0739	32.8657	6923.7	NA	NA	NA	NA	NA	NA	NA	21.96	25.11	14.23	17.67	NA	NA	NA	NA	NA
Main Tailings Impoundment	-108.0887	32.8539	6926.6	33.26	11.68	25.70	20.14	7.86	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surge Tank	-108.0856	32.8523	6952.9	NA	NA	NA	NA	NA	NA	NA	17.91	NA	NA	19.76	NA	NA	NA	NA	NA
Reclaim Pond	-108.0926	32.8595	7024.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21.70	16.55	16.76	18.02	NA
Pearson Barnes/Cobre Stockpile	-108.0964	32.8408	7033.2	1.09	13.54	16.66	NA	NA	NA	15.96	13.41	14.76	11.81	NA	NA	14.05	15.47	17.56	NA
Reclaim Area	-108.1000	32.8615	7190.2	NA	NA	NA	NA	NA	NA	NA	18.04	8.11	NA	NA	NA	NA	NA	NA	NA
Mean Annual F	Mean Annual Precipitation						20.14	7.86	22.26	16.76	17.77	17.96	14.86	18.39	21.70	13.65	14.69	18.58	6.00

<sup>\*</sup> Coordinate System GCS North American 1983

Table 8 Building/Tank/Structure Closure Plan

Structure	EOY 2026 Closure Plan
Concentrate Storage Tank	Removed Between 2024 and 2026
Diesel Tank	Removed at Closure
Fueling Station	Removed at Closure
Gate House	Removed at Closure
Magnetic Separator	Removed at Closure
Mill Building #1 and Concentrator	Removed Between 2024 and 2026
Mill Building #2	Removed Between 2024 and 2026
Mobile Substation	Removed at Closure
No. 2 Mill Secondary Crusher Building	Removed Between 2024 and 2024
No. 2 Mill Stacker	Removed Between 2024 and 2025
Ore Bin (large)	Removed Between 2024 and 2026
Ore Bin (large)	Removed Between 2024 and 2026
Ore Bin (small)	Removed Between 2024 and 2026
Pioneer Crusher	Removed at Closure
Primary Crusher	Removed Between 2024 and 2026
Pump House	Removed at Closure
Pump House and Shed for Thickener	Removed at Closure
Scale House (Guard Shack)	Removed at Closure
Small Truck Shop	Removed and Replaced Industrial PMLU
Stacker Hoist	Removed at Closure
Substation	Industrial PMLU
Substation No. 2	Removed and Replaced Industrial PMLU
Thickener MCC	Removed at Closure
Thickener MCC	Removed at Closure
Thickener Tank (100-ft diam.)	Removed Between 2024 and 2026
Thickener Tank (60-ft diam.)	Removed Between 2024 and 2026
Water Tank (X2)	Removed at Closure
Water Tank (near stacker and stacker hoist)	Industrial PMLU

 Table 10
 Proposed Interim Seed Mix and Rates

cane bluestem (Bothriochloa barbinodis) sideoats grama (Bouteloua curtipendula) Arizona cottontop (Digitaria californica) Grass 3.07 Arizona cottontop (Digitaria californica) Grass Curly mesquite (Hilaria berlangeri) Grass James' galleta (Pleuraphis jamesii) Grass little bluestem (Schizachyrium scoparium) Grass Jubtotal Intermediate Season Grasses plains lovegrass (Eragrostis intermedia) Subtotal Grass Subtotal Grass Subtotal Grass 3.21 Sand dropseed (Sporobolus cryptandrus) Grass Subtotal Forbs Western yarrow (Achillea millefolim var. occidentalis) Porb Ja.27 prickly poppy (Argemone polyanthemos) Forb 2.02 purple prairie clover (Dalea purpurea) Forb 1.45 sulfur flower buckwheat (Eriogionum umbellatum) Forb 2.40 hairy goldenaster (Heterotheca villosa) Forb 1.76 Palmer's penstemon (Penstemon palmeri) Gesert globemallow (Sphaeralcea grossulariifolia) Forb 1.15 Subtotal Forb 3.12 white sagebrush (Artemisia ludoviciana) Forb 3.18 catclaw acacia (Senegalia greggii) Shrub 3.18 catclaw acacia (Senegalia greggii) Shrub 0.29 whitethorn acacia (Vachellia constricta) Subtotal Subtotal			Rate (lbs/ac) <sup>1,2</sup>
Warm Season Grasses			
cane bluestem (Bothriochloa barbinodis)	Grass	3.46	0.20
sideoats grama (Bouteloua curtipendula)	Grass	3.07	0.70
Arizona cottontop ( <i>Digitaria californica</i> )	Grass	3.37	0.15
curly mesquite ( <i>Hilaria berlangeri</i> )	Grass	2.79	0.45
James' galleta ( <i>Pleuraphis jamesii</i> )	Grass	1.83	0.50
little bluestem (Schizachyrium scoparium)	Grass	2.09	0.35
Subtotal		16.61	2.35
Intermediate Season Grasses			
plains lovegrass (Eragrostis intermedia)	Grass	3.21	0.04
sand dropseed (Sporobolus cryptandrus)	Grass	3.65	0.03
Subtotal		6.86	0.07
Forbs			
western yarrow (Achillea millefolim var. occidentalis)	Forb	3.27	0.05
prickly poppy (Argemone polyanthemos)	Forb	2.02	1.10
purple prairie clover (Dalea purpurea)	Forb	1.45	3.00
sulfur flower buckwheat (Eriogionum umbellatum)	Forb	2.40	0.50
hairy goldenaster (Heterotheca villosa)	Forb	2.70	0.35
pale evening primrose (Oenothera pallida)	Forb	1.76	0.15
Palmer's penstemon (Penstemon palmeri)	Forb	3.08	0.22
desert globemallow (Sphaeralcea grossulariifolia)	Forb	1.15	0.10
Subtotal		17.83	5.47
Shrubs			
fringed sage (Artemesia fridgida)	Shrub	3.12	0.03
white sagebrush (Artemisia ludoviciana)	Shrub	3.10	0.03
fourwing saltbrush (Atriplex canescens)	Shrub	1.67	1.40
rubber rabbitbush (Ericameria nauseosus)	Shrub	3.18	0.20
catclaw acacia ( <i>Senegalia greggii)</i>	Shrub	0.29	0.70
whitethorn acacia (Vachellia constricta)	Shrub	0.26	0.45
Subtotal		11.62	2.81
Total Pure Live Seed		52.92	10.70

Notes:

<sup>&</sup>lt;sup>1</sup>Seed mix and rates subject to change based on future investigations and availability. Rate is in pounds of pure live seed per acre; Substitutions may change seeding rates

<sup>&</sup>lt;sup>2</sup>Only certified weed-free seed will be used

<sup>&</sup>lt;sup>3</sup>When possible, seeds will be sourced from the same region and habitat as the reclamation site

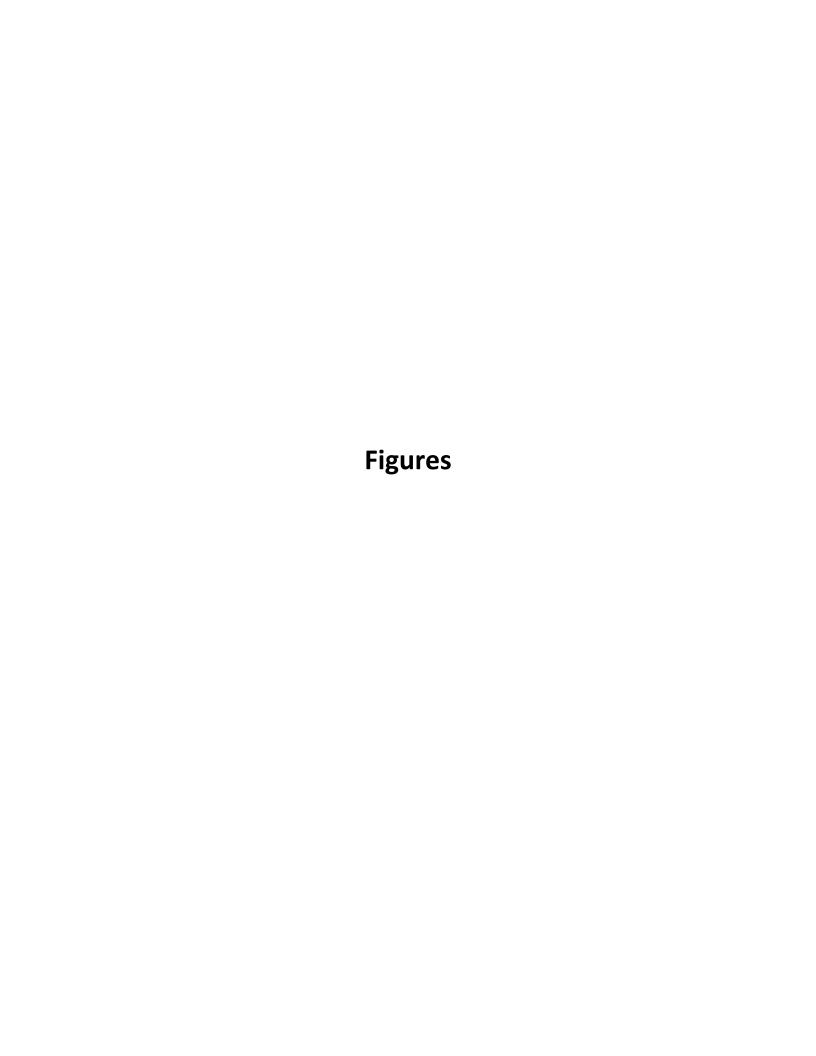
 Table 11
 Proposed Plant Diversity Guidelines

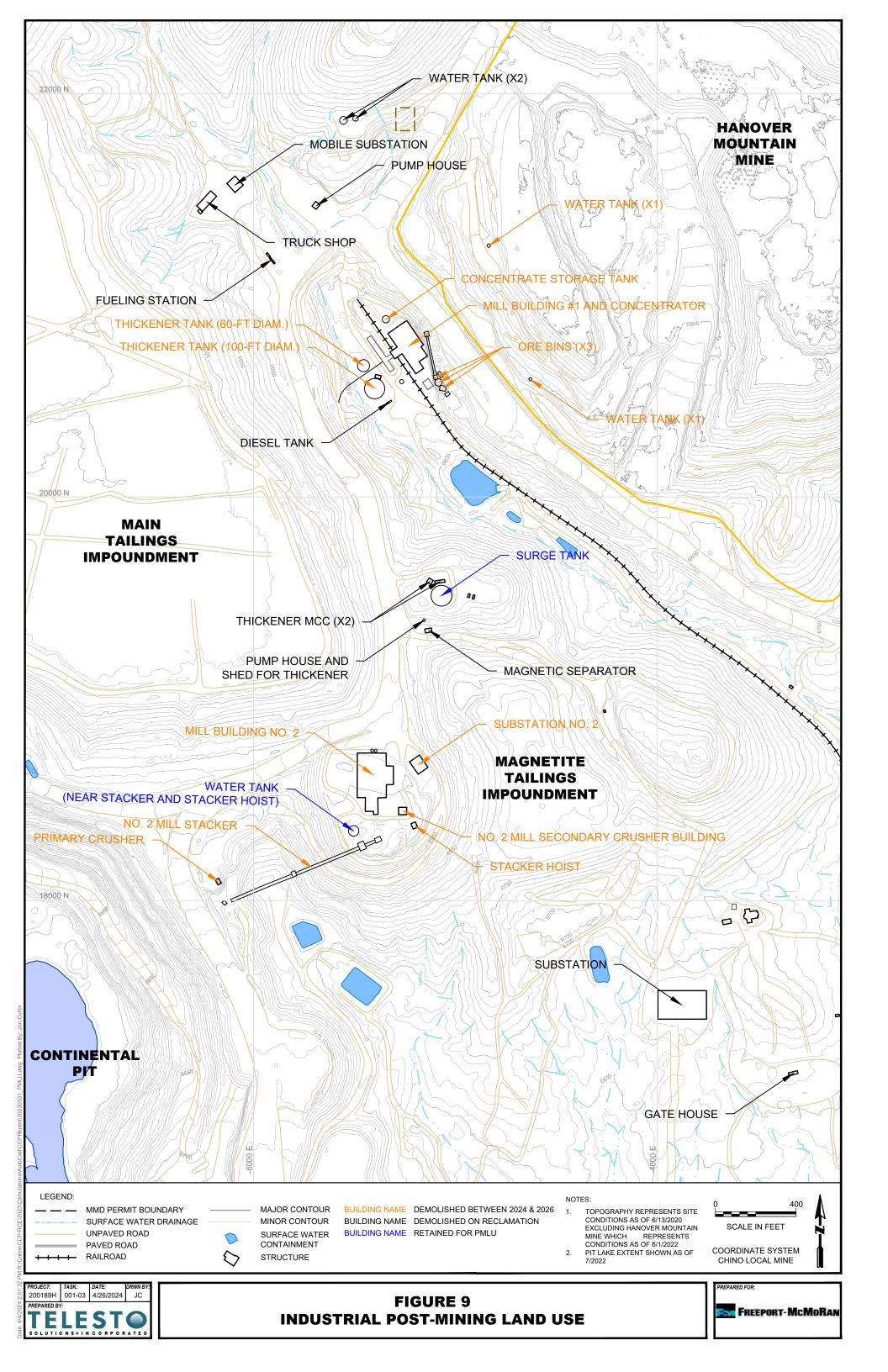
Class	Seasonality	Number	Minimum Occurrence (% cover)
Perennial Grass	Warm	3	1
Perennial Grass	Cool	2	0.5
Perennial Shrub	NA	2	1
Perennial Forb	NA	2	0.1

Table 15 **Closure Schedule** 

Facility*	Anticipated Duration (Years)**
South Waste Rock Disposal Facility	2.5
Low Grade WRF and High Grade Ore Stockpile	2.5
Main Tailings Impoundment and Reclaim Pond	2
Magnetite Tailings Impoundment	1.5
Hanover Mountain Deposit	3.5
Surface Impoundments	0.5
Haul Roads	0.5
Exploration Roads	0.5
Pearson-Barnes Mine Area	0.5
Continental Pit	1.5
North Overburden Stockpile	0.5
Overburden Stockpile 1, 2, 3, 4, 5	1.5
Topsoil Stockpile	1.5
Water Management	12
Building/Structural Demolition (non-Industrial PMLU Areas)	2.5

<sup>\*</sup> Reclamation is not to exceed 200 acres/year
\*\* Estimated duration for reclamation does not include regulatory design





## Appendix B. 1 Water Management Cost Estimate

Continental Mine Water Management Worksheet #1 4/3/24 Water Management Cost Estimate

Variables	
Description	Variable
Steel Tank Life Expectancy (yr)	50
Lined Pond Life Expectancy (yr)	30
Small Concrete Dam Life Expectancy (yr)	50
Pump Life Expectancy (yr)	20
HDPE Pipeline Life Expectancy (yr)	100
Pump / Motor Efficiency	0.70
Reclaim Pond Pump Fuel Consumption Rate (gal/hr)	1.0
Chezy Head Loss Coefficient	150
Power Pole Spacing (ft)	100
Annual Pond Maintenance to Capital Factor	1.5%
Annual Pump Maintenance to Capital Factor	1.5%
Annual Pipeline Maintenance to Capital Factor	1.0%
Annual Electrical Infrastructure Maintenance to Capital Factor	1.5%
Estimated average stormwater runoff non-revegetated (CN=85, gal/year/acre)	48,155
Estimated average stormwater runoff, after 12-year vegetation establishment period (Condition 87 CN=62, gal/year/acre)	2,530
Original CCP Year (2014)	-12
Original Reclamation Start Year (2026) ["0" refers to the beginning of the first year]	0
Reclamation Finished	5
Vegetation Established Assume Stormwater Released Year	12

#### PONDS AND TANKS

Location	Construction Type	Capacity (gallons)	Capacity (cy)	Pond Area (acres)	Age in 2014 (yr)	Age at Reclamation (yr)	Removal Year** (yr)	First Replacement Year (yr)	Number of Replacements	Direct Cost New and Replacement (\$/ea)	Capital Cost New and Replacement (\$)	Direct Cost O&M Ponds (\$/yr)	Direct Cost O&M Ponds (\$)
SWRF Dam 1 (181-2003-Dam 1)	concrete dam, unlined	1,116,800	5,530	-	19	31	12	-	0	\$91,640	\$0	\$1,375	\$17,870
SWRF Dam 2 (181-2003-Dam 2)	concrete dam, unlined	827,700	4,098	=	19	31	12	=	0	\$91,640	\$0	\$1,375	\$17,870
SWRF Dam 3 (181-2003-Dam 3)	concrete dam, unlined	2,925,300	14,485	-	19	31	12	-	0	\$91,640	\$0	\$1,375	\$17,870
Decant Pond #4	HDPE lined	972,500	4,815	0.62	19	31	12	0	1	\$138,154	\$138,154	\$2,072	\$26,940
Upper Creek Containment Pond #1	HDPE lined	1,879,200	9,305	1.29	0	12	12	=	0	\$285,784	\$0	\$4,287	\$55,728
Grape Gulch Pond #3	HDPE lined	911,600	4,514	0.38	29	41	12	0	1	\$88,315	\$88,315	\$1,325	\$17,221
Blackman's Seep	unlined	25,000	124	=	29	41	9	0	1	\$288	\$288	\$4	\$43
Surge Tank***	steel	352,500	1,745	-	49	61	-	0	1	\$0	\$0	\$5,111	\$511,067
Magnetite Seepage Pond	HDPE lined	9,600	48	0.20	29	41	12	0	1	\$41,057	\$41,057	\$616	\$8,006
*Reclaim Pond and North Tailings Decant require no maintenance beyond what is al	lready included in the Earthwork cost	estimate for the site as	s a whole.		•		•	Direc	et Annual Costs (\$/yr)	-	-	\$17,538	-
**Removal costs are included in earthwork portion of the cost estimate.									Direct Cost Subtotals	-	\$267,814	-	\$672,615

20240403\_ContMine\_WaterMgmtRCE Reclamation and O&M Costs Sheet 1 Page 1 of 3

<sup>\*\*\*</sup>Surge Tank is Industrial PMLU and, therefore, is not removed. Surge tank will not need replacement as its condition is suitable for its current use case, with repairs and maintenance continuing as part of O&M.

Continental Mine
Water Management Cost Estimate
Water Management Worksheet #1

 $H_f = \frac{10.44 \, Q^{1.85}}{C^{1.85} \, D_i^{4.865}}$ 

PUMPS						First Replacement Year (yr)											
From	То	Number	Age in 2014 (yr)	Age at Reclamation (yr)	Removal Year (yr)	[-1 means full replacement not taking place, but rebuilding of pump takes place throughout its operation under O&M]	Number of Replacements	Average Combined Operational Pumping Rate (gpm)	Starting Elevation (ft)	Maximum Elevation (ft)	Head Loss (ft)	Head on Pump (ft)	Power (HP)	Operational Kilowatts (kW)	Stormwater Capture Area, Pumped Water only (acres)	Average Seepage through Reclamation year 5 (gal/year)	
SWRF Dam 1 (181-2003-Dam 1)	SWRF Dam 3 (181-2003-Dam 3)	2	11	23	12	-1	1	1760	6650	6719	61	130	82	61	120.9	0	\$72,600
SWRF Dam 2 (181-2003-Dam 2)	SWRF Dam 3 (181-2003-Dam 3)	2	11	23	12	-1	1	1940	6613	6715	54	156	109	81	48.7	0	\$72,600
SWRF Dam 3 (181-2003-Dam 3)	Bullfrog Pipeline	2	11	23	12	-1	1	940	6556	6745	11	200	68	51	96.9	0	\$60,500
Decant Pond #4	Booster Pump 2	2	20	32	12	-1	1	3000	6688	6700	1	13	14	10	0	18,001,800	\$60,500
Booster Pump 2	Surge Tank	2	20	32	12	-1	1	3000	6700	6925	10	235	254	189	0	0	\$60,500
Decant Pond #4	Reclaim Pond	2	20	32	5	-1	1	1760	6688	7000	31	343	218	162	0	0	\$72,600
Magnetite Interceptor Trench	Magnetite Tailings Seepage Pond	1	20	32	5	-1	1	100	6670	6695	0	25	1	1	0	146643	\$18,150
Magnetite Seepage Pond	Decant Pond #4	2	20	32	12	-1	1	100	6695	6750	7	62	2	2	13.1	0	\$36,300
Estrada Seep	Decant Pond #4	2	5	17	5	-1	1	45	6575	6688	19	132	2	2	0	762541	\$24,200
Union Hill Adit Seep	Decant Pond #4	2	5	17	5	-1	1	30	6575	6688	96	209	2	2	0	169454	\$24,200
Poison Spring Cut-Off Wall	Decant Pond #4	1	-9	3	58	17	3	20	6570	6688	36	154	1	1	0	10,512,000	\$12,100
Upper Creek Containment Pond #1	Surge Tank	2	-4	8	12	-1	1	1980	6810	6925	358	473	338	252	53.7	0	\$72,600
Grape Gulch Pond #3	Surge Tank	2	20	32	12	-1	1	1100	6775	6925	14	164	65	49	6.5	0	\$72,600
Blackman's Seep	Upper Creek Containment Pond 1	1	20	32	9	-1	1	125	6775	6810	0	35	2	1	0	0	\$18,150
Surge Tank	Reclaim Pond	2	6	18	9	-1	1	3497	6925	7000	26	101	128	95	0	0	\$72,600
Reclaim Pond	Surge Tank	1	6	18	5	-1	1	1240	7000	7010	46	56	25	19	316.1	0	\$36,300
tailings pipeline flushing	-																,
Mill No 1	Tailings Impoundment Top	1						4318	6825	7000	13	188	293	219			,
Mill No 2	Tailings Impoundment Top	1						4318	6950	7000	13	63	98	73			,

<sup>\*</sup>Surge tank to bullfrog pipeline is gravity fed and thus pumping costs are not included.

PUMPS(continued)				Closure Pre Complet (Through Reclamation				Post Closure Post Co	mpleted Reclamation (Re	eclamation Year 6 to 58	)					
From	То	Average Pumping Rate (gal/yr)	Operating Time (hr/yr)	Annual Electrical Usage (kWh/yr)	Direct Annual Operational Cost (\$/yr)	Direct Operational Cost (\$)	Average Pumping Rate (gal/yr)	Operating Time (hr/yr)	Annual Electrical Usage (kWh/yr)	Direct Annual Operational Cost (\$/yr)	Direct Operational Cost (\$)	Direct Pump Cost New and Replacement (O&M) (\$)	Direct Cost Maintenance Over Yrs 0-12 (\$/yr)	Direct Cost O&M (\$)	Direct Cost Removal, Included in Pipeline Demo (\$)	
SWRF Dam 1 (181-2003-Dam 1)	SWRF Dam 3 (181-2003-Dam 3)	5,821,940	55.1	3,381	\$198	\$1,191	305,877	3	178	\$10	\$73	\$72,600	\$5,585	\$72,600	\$0	\$1,264
SWRF Dam 2 (181-2003-Dam 2)	SWRF Dam 3 (181-2003-Dam 3)	2,345,149	20.1	1,636	\$96	\$576	123,211	1	86	\$5	\$35	\$72,600	\$5,585	\$72,600	\$0	\$611
SWRF Dam 3 (181-2003-Dam 3)	Bullfrog Pipeline	12,833,308	227.5	11,520	\$676	\$4,057	8,412,245	149	7,552	\$443	\$3,103	\$60,500	\$4,654	\$60,500	\$0	\$7,160
Decant Pond #4	Booster Pump 2	19,711,268	109.5	1,105	\$65	\$389	1,709,468	9	96	\$6	\$39	\$60,500	\$4,654	\$60,500	\$0	\$429
Booster Pump 2	Surge Tank	19,711,268	109.5	20,750	\$1,218	\$7,308	19,711,268	110	20,750	\$1,218	\$8,526	\$60,500	\$4,654	\$60,500	\$0	\$15,834
Decant Pond #4	Reclaim Pond	0	0.0	0	\$0	\$0	0	0	0	\$0	\$0	\$72,600	\$5,585	\$33,508	\$0	\$0
Magnetite Interceptor Trench	Magnetite Tailings Seepage Pond	146,643	24.4	17	\$1	\$6	146,643	24	17	\$1	\$0	\$18,150	\$1,396	\$8,377	\$0	\$6
Magnetite Seepage Pond	Decant Pond #4	777,473	129.6	216	\$13	\$76	179,786	30	50	\$3	\$21	\$36,300	\$2,792	\$36,300	\$0	\$96
Estrada Seep	Decant Pond #4	762,541	282.4	450	\$26	\$159	0	0	0	\$0	\$0	\$24,200	\$1,862	\$11,169	\$0	\$159
Union Hill Adit Seep	Decant Pond #4	169,454	94.1	159	\$9	\$56	0	0	0	\$0	\$0	\$24,200	\$1,862	\$11,169	\$0	\$56
Poison Spring Cut-Off Wall	Decant Pond #4	10,512,000	8,760.0	7,267	\$427	\$2,559	10,512,000	8,760	7,267	\$427	\$22,609	\$36,300	\$0	\$0	\$0	\$25,168
Upper Creek Containment Pond #1	Surge Tank	2,585,924	21.8	5,485	\$322	\$1,932	135,861	1.1	288	\$17	\$118	\$72,600	\$5,585	\$72,600	\$0	\$2,050
Grape Gulch Pond #3	Surge Tank	313,008	4.7	231	\$14	\$81	16,445	0	12	\$1	\$5	\$72,600	\$5,585	\$72,600	\$0	\$86
Blackman's Seep	Upper Creek Containment Pond 1	0	0.0	0	\$0	\$0	0	0	0	\$0	\$0	\$18,150	\$1,396	\$13,962	\$0	\$0
Surge Tank	Reclaim Pond	0	0.0	0	\$0	\$0	0	0	0	\$0	\$0	\$72,600	\$5,585	\$55,846	\$0	\$0
Reclaim Pond	Surge Tank	15,221,796	204.6	-	\$802	\$4,812	799,733	11	42	\$2	\$0	\$36,300	\$2,792	\$16,754	\$0	\$4,812
tailings pipeline flushing																ļ
Mill No 1	Tailings Impoundment Top	5,764,479	22.2	4,865												
Mill No 2	Tailings Impoundment Top	6,800,790	26.2	1,928												
	Direct Annual Costs (\$/yr):	-	-	-	\$3,867	-	-	-	-	\$2,133	-	-	\$59,569	-	-	-
	Direct Cost Subtotals:	=	=	-	=	\$23,203	-	=	=	=	\$34,529	\$0	-	\$658,985	\$0	\$57,732

Water Management Cost Estimate

Water Management Worksheet #1

#### PIPELINES

From	То	Material	Length (ft)	Inside Diameter (in)	Age in 2014 (yr)	Age at Reclamation (yr)	Removal Year (After Closure) (yr)	Reclamation Replacement Year (vr)	Number of Replacements	Direct Cost New and Replacement (\$/ft)	Direct Cost Removal (Demo) (\$/ft)	Direct Cost New and Replacement (\$/ea)	Direct Cost New and Replacement (\$)	Direct Cost O&M (\$/yr)	Direct Cost O&M (\$)	Capital Cost Removal (Demo)
SWRF Dam 1 (181-2003-Dam 1)	SWRF Dam 3 (181-2003-Dam 3)	HDPE	4,466	10	11	23	12	-	0	\$19.02	\$3.75	\$84,943	\$0	\$849	\$11,043	\$16,748
SWRF Dam 2 (181-2003-Dam 2)	SWRF Dam 3 (181-2003-Dam 3)	HDPE	3,300	10	11	23	12	-	0	\$19.02	\$3.75	\$62,766	\$0	\$628	\$8,160	\$12,375
SWRF Dam 3 (181-2003-Dam 3)	Bullfrog Pipeline	HDPE	220	6	11	23	12	-	0	\$7.60	\$3.75	\$1,672	\$0	\$17	\$217	\$825
Decant Pond #4	Booster Pump 2	HDPE	100	15	20	32	12	-	0	\$25.93	\$3.75	\$2,593	\$0	\$26	\$337	\$375
Booster Pump 2	Surge Tank	HDPE	1,936	15	20	32	12	-	0	\$25.93	\$3.75	\$50,200	\$0	\$502	\$6,526	\$7,260
Decant Pond #4	Reclaim Pond	HDPE	5,502	12	20	32	5	-	0	\$15.77	\$3.75	\$86,767	\$0	\$868	\$5,206	\$20,633
Magnetite Interceptor Trench	Magnetite Tailings Seepage Pond	HDPE	200	5	20	32	5	-	0	\$7.60	\$3.75	\$1,520	\$0	\$15	\$91	\$750
Magnetite Seepage Pond	Decant Pond #4	HDPE	1,188	4	20	32	12	-	0	\$6.13	\$3.75	\$7,282	\$0	\$73	\$947	\$4,455
Estrada Seep	Decant Pond #4	HDPE	3,470	3	20	32	5	-	0	\$6.13	\$3.75	\$21,271	\$0	\$213	\$1,276	\$13,013
Union Hill Adit Seep	Decant Pond #4	HDPE	5,250	2	20	32	5	-	0	\$6.13	\$3.75	\$32,183	\$0	\$322	\$1,931	\$19,688
Poison Spring Cut-Off Wall	Decant Pond #4	HDPE	4,200	2	-9	3	58	-	0	\$6.13	\$3.75	\$25,746	\$0	\$257	\$15,190	\$15,750
Upper Creek Containment Pond #1	Surge Tank	HDPE	1,770	6	20	32	12	-	0	\$7.60	\$3.75	\$13,452	\$0	\$135	\$1,749	\$6,638
Upper Creek Containment Pond #1	Surge Tank	HDPE	1,770	8	20	32	12	-	0	\$10.22	\$3.75	\$18,089	\$0	\$181	\$2,352	\$6,638
Grape Gulch Pond #3	Surge Tank	HDPE	861	8	20	32	12	-	0	\$10.22	\$3.75	\$8,799	\$0	\$88	\$1,144	\$3,229
Blackman's Seep	Upper Creek Containment Pond 1	HDPE	100	5	20	32	9	-	0	\$7.60	\$3.75	\$760	\$0	\$8	\$76	\$375
Surge Tank	Chino via Bullfrog Pipeline *	HDPE	31,850	8	3	15	-	85	1	\$10.22	-	\$325,507	\$325,507	\$3,255	\$322,252	\$0
Surge Tank	Reclaim Pond	HDPE	3,923	15	20	32	9	-	0	\$27.63	\$3.75	\$108,392	\$0	\$1,084	\$10,839	\$14,711
Reclaim Pond	Surge Tank	HDPE	3,855	9	20	32	5	-	0	\$10.22	\$3.75	\$39,398	\$0		\$2,364	\$14,456
tailings pipeline flushing														\$394		
Mill No 1	Tailings Impoundment Top	HDPE	6,850	21												
Mill No 2	Tailings Impoundment Top	HDPE	6,850	21												
*Bullfrog pipeline has an Industrial I	PMLU	•		•							I	Direct Annual Costs (\$/yr):	-	\$8,913	-	-
												Direct Cost Subtotals:	\$325,507	-	\$391,699	\$157,916

#### ELECTRICAL INFRASTRUCTURE

From	То	Line (ft)	Number of Poles	Removal Year	Direct Cost Pole and Crossarm (\$)	Direct Cost Wiring Installation (\$)	Number Transformer Stations	Direct Cost Transformer (\$)	Direct Cost Electrical Panel (\$)	Direct Cost New (\$)	Direct Cost Maintenance (\$/yr)	Direct Cost O&M (\$)	Capital Cost Removal (\$)
SWRF Dam 1 (181-2003-Dam 1)	SWRF Dam 2 (181-2003-Dam 2)	1,166	13	12	\$30,285	\$5,055	2	\$2,936	\$24,200	\$62,475	\$937	\$12,183	\$3,626
SWRF Dam 2 (181-2003-Dam 2)	SWRF Dam 3 (181-2003-Dam 3)	3,300	34	12	\$79,207	\$14,305	2	\$2,936	\$24,200	\$120,648	\$1,810	\$23,526	\$9,484
SWRF Dam 3 (181-2003-Dam 3)	Road	220	4	12	\$9,318	\$954	2	\$2,936	\$24,200	\$37,408	\$561	\$7,295	\$1,116
Decant Pond #4	Surge Tank	2,036	22	12	\$51,252	\$8,826	2	\$2,936	\$24,200	\$87,213	\$1,308	\$17,007	\$6,137
Upper Creek Containment Pond #1,	-												
Grape Gulch Pond #3, and	Office Area	582	7	12	\$16,307	\$2,523	1	\$1,468	\$12,100	\$32,398	\$486	\$6,318	\$1,953
Blackman's Seep													
Surge Tank	Upper Creek Containment Pond 1	1,770	19	12	\$44,263	\$7,673	1	\$1,468	\$12,100	\$65,503	\$983	\$12,773	\$5,300
Magnetite Tailings Seepage Pond	Decant Pond #4	1,188	13	5	\$30,285	\$5,150	1	\$1,468	\$12,100	\$49,003	\$735	\$4,410	\$3,626
Estrada Seep	Road	500	6	5	\$13,978	\$2,167	1	\$1,468	\$12,100	\$29,713	\$446	\$2,674	\$1,674
Union Hill Adit Seep	Road	727	9	5	\$20,967	\$3,151	1	\$1,468	\$12,100	\$37,686	\$565	\$3,392	\$2,510
Office Area	Road	2,327	25	12	\$58,241	\$10,087	1	\$1,468	\$12,100	\$81,896	\$1,228	\$15,970	\$6,974
								Direct	Annual Costs (\$/yr):	-	\$9,059	-	-
								D	irect Cost Subtotals:	-	-	\$105,547	\$42,399

#### ENVIRONMENTAL SAMPLING, ANALYSIS AND REPORTING (1)

Shipping and Analysis					Reporting						
Shipping (coolers per sample)	Shipping Cost (\$/cooler)	Shipping Cost (\$/sample)	Analysis (\$/sample)	Analysis and Shipping Cost (\$/sample)	Labor (hours/sample)	Reporting (hour/sample)	Rate (\$/hour)	Review Work per Sample (hours)	Review Work Rate (\$/hour)	Reporting Cost (\$/sample)	Total Sample Cost (\$/sample)
0.14	\$ 484	\$ 69	\$ 339	\$ 408	1.0	0.5	\$ 73	0.1	\$ 85	\$ 120	\$ 528

<sup>(1)</sup> Sampling vehicles and equipment are assumed to be included in the routine duty for site personnel.

#### SAMPLING SCHEDULE AND COST

		Tailings			Stockpiles		In	tercept We	ells		Sampling			,	Yearly
		Semi-			Semi-			Semi-		Total Well	Events	Co	ost		Cost
Year 0	Quarterly	Annual	Annual	Quarterly	Annual	Annual	Quarterly	Annual	Annual	Locations	Per Year	(\$/sar	nple)		(\$)
0-5	1			4			2			7	4	\$	528	\$	14,784
5 - 12		1			4			2		7	2	\$	528	\$	7,392
12-99			1			4			2	7	1	\$	528	\$	3,696
											Total Co	st Year	s 0-99	\$	450,912

Energy Labs Unit Rates:

23 Constituents. Energy Laboratories, Inc., Quote March 2018-2019 (www.energylab.com) \* 1.21 for 2019-2023 inflation(3)

Alkalinity Total as CaCO3 \$ 12 Anions by Ion Chromatography \$ 36

Chloride Fluoride

Sulfate

Total Dissolved Solids \$ 24 Nitrogen - Nitrate+Nitrite as N \$ 54 Metals by ICP/ICPMS, total \$ 194

Aluminum

Arsenic

Cadmium

Calcium

Chromium

Cobalt

Copper

Iron

Lead

Magnesium

Manganese

Nickel Potassium

Selenium

Sodium Zinc

Sample Prep \$ 18.15

\$ 339

#### Water Management Cash Flow

Continental Mine Water Management Worksheet #3 4/3/2024

Component	Current Cost
Water Management Capital	\$818,508
Capital Removal	\$260,410
O&M	\$2,747,598
Total	\$3,827,000

		Water Mar	nagement	
Cash Flow	Water Management	Capital	O&M	Total Water
FIOW	Capital	Removal		Management
Year	Current Cost	Current Cost	Current Cost	Current Cost
1	\$348,159	\$0	\$133,171	\$481,330
2	\$0	\$0	\$133,171	\$133,171
3	\$0 \$0	\$0 \$0	\$133,171 \$133,171	\$133,171 \$133,171
5	\$0	\$0 \$0	\$133,171	\$133,171
6	\$0	\$99,254	\$124,486	\$223,740
7	\$0	\$0	\$102,869	\$102,869
8	\$0	\$0	\$102,869	\$102,869
9	\$0	\$0	\$102,869	\$102,869
10	\$0 \$0	\$19,612 \$0	\$102,869 \$93,379	\$122,481 \$93,379
12	\$0	\$0	\$93,379	\$93,379
13	\$0	\$121,069	\$89,036	\$210,105
14	\$0	\$0	\$14,976	\$14,976
15	\$0	\$0	\$14,976	\$14,976
16	\$0	\$0	\$14,976	\$14,976
17 18	\$0 \$15,730	\$0 \$0	\$14,976 \$14,976	\$14,976 \$30,706
19	\$13,730	\$0	\$14,976 \$14.976	\$14,976
20	\$0	\$0	\$14,976	\$14,976
21	\$0	\$0	\$14,976	\$14,976
22	\$0	\$0	\$14,976	\$14,976
23	\$0	\$0	\$14,976	\$14,976
24	\$0	\$0	\$14,976	\$14,976
25 26	\$0 \$0	\$0 \$0	\$14,976 \$14,976	\$14,976 \$14,976
27	\$0	\$0	\$14,976	\$14,976 \$14,976
28	\$0	\$0	\$14,976	\$14,976
29	\$0	\$0	\$14,976	\$14,976
30	\$0	\$0	\$14,976	\$14,976
31	\$0	\$0	\$14,976	\$14,976
32	\$0 \$0	\$0 \$0	\$14,976 \$14,976	\$14,976 \$14,976
34	\$0 \$0	\$0	\$14,976	\$14,976 \$14,976
35	\$0	\$0	\$14,976	\$14,976
36	\$0	\$0	\$14,976	\$14,976
37	\$0	\$0	\$14,976	\$14,976
38	\$15,730	\$0	\$14,976	\$30,706
39 40	\$0 \$0	\$0 \$0	\$14,976 \$14,976	\$14,976 \$14,976
40	\$0 \$0	\$0 \$0	\$14,976 \$14,976	\$14,976 \$14,976
42	\$0	\$0	\$14,976	\$14,976
43	\$0	\$0	\$14,976	\$14,976
44	\$0	\$0	\$14,976	\$14,976
45	\$0	\$0	\$14,976	\$14,976
46 47	\$0 \$0	\$0 \$0	\$14,976 \$14,976	\$14,976 \$14,976
48	\$0 \$0	\$0 \$0	\$14,976 \$14,976	\$14,976 \$14,976
49	\$0	\$0	\$14,976	\$14,976
50	\$0	\$0	\$14,976	\$14,976
51	\$0	\$0	\$14,976	\$14,976
52	\$0	\$0	\$14,976	\$14,976
53	\$0 \$0	\$0 \$0	\$14,976	\$14,976 \$14,076
54 55	\$0 \$0	\$0 \$0	\$14,976 \$14,976	\$14,976 \$14,976
56	\$0 \$0	\$0 \$0	\$14,976	\$14,976
57	\$0	\$0	\$14,976	\$14,976
58	\$15,730	\$0	\$14,976	\$30,706
59	\$0	\$20,475	\$14,976	\$35,451
60	\$0	\$0	\$14,173	\$14,173

#### Water Management Cash Flow

Continental Mine Water Management Worksheet #3 4/3/2024

Component	Current Cost
Water Management Capital	\$818,508
Capital Removal	\$260,410
O&M	\$2,747,598
Total	\$3,827,000

	Water Management								
Cash Flow	Water Management Capital	Capital Removal	О&М	Total Water Management					
Year	Current Cost	Current Cost	Current Cost	Current Cost					
61	\$0	\$0	\$14,173	\$14,173					
62	\$0	\$0	\$14,173	\$14,173					
63	\$0	\$0	\$14,173	\$14,173					
64	\$0	\$0	\$14,173	\$14,173					
65	\$0	\$0	\$14,173	\$14,173					
66	\$0	\$0	\$14,173	\$14,173					
67	\$0	\$0	\$14,173	\$14,173					
68	\$0	\$0	\$14,173	\$14,173					
69	\$0	\$0	\$14,173	\$14,173					
70	\$0	\$0	\$14,173	\$14,173					
71	\$0	\$0	\$14,173	\$14,173					
72	\$0 \$0	\$0 \$0	\$14,173	\$14,173					
74	\$0 \$0	\$0 \$0	\$14,173 \$14,173	\$14,173 \$14,173					
75	\$0 \$0	\$0 \$0	\$14,173	\$14,173					
76	\$0	\$0	\$14,173	\$14,173					
77	\$0	\$0	\$14,173	\$14,173					
78	\$0	\$0	\$14,173	\$14,173					
79	\$0	\$0	\$14,173	\$14,173					
80	\$0	\$0	\$14,173	\$14,173					
81	\$0	\$0	\$14,173	\$14,173					
82	\$0	\$0	\$14,173	\$14,173					
83	\$0	\$0	\$14,173	\$14,173					
84	\$0	\$0	\$14,173	\$14,173					
85	\$0	\$0	\$14,173	\$14,173					
86	\$423,159	\$0	\$14,173	\$437,332					
87	\$0	\$0	\$14,173	\$14,173					
88	\$0	\$0	\$14,173	\$14,173					
89	\$0	\$0	\$14,173	\$14,173					
90	\$0	\$0	\$14,173	\$14,173					
91	\$0	\$0	\$14,173	\$14,173					
92	\$0	\$0	\$14,173	\$14,173					
93	\$0	\$0	\$14,173	\$14,173					
	\$0	\$0	\$14,173	\$14,173					
95 96	\$0 \$0	\$0 \$0	\$14,173 \$14,173	\$14,173 \$14,173					
96	\$0 \$0	\$0 \$0	\$14,173 \$14,173	\$14,173 \$14,173					
98	\$0 \$0	\$0 \$0	\$14,173	\$14,173					
99	\$0 \$0	\$0 \$0	\$14,173	\$14,173					
100	\$0	\$0 \$0	\$14,173	\$14,173					
Total	\$818,508	\$260,410	\$2,747,598	\$3,826,515					
1 Otal	ψ010,500	Ψ200,410	Ψ2,171,370	Ψυ,020,υ13					

#### Water Management and Operations and Maintenance Cost Summary

Capital		<b>Current Value</b>
DIRECT COSTS	Water Management Capital (Ponds)	\$629,621
DIRECT COSTS	Capital Removal (Pipelines and Electrical Infrastructure)	\$200,315
INDIRECT COSTS	Indirect Percentage 30.0%	\$248,981
	Total Capital	\$1,078,917
Operations and Main	tenance	
DIRECT COSTS	Ponds and Tanks, Pumps, Pipelines, Electrical Infrastructure	\$1,828,846
DIRECT COSTS	Electricity and Fuel (Pump Operation), Environmental Sampling	\$508,644
INDIRECT COSTS	Indirect Percentage 17.5%	\$409,061
	Total O&M	\$2,746,551
TOTAL COST		\$3,825,000

Note: Indirect costs are based on 2019 agreement between FMI and the agencies (see Appendix D), and include but are not limited to mobilization and demobilization, engineering redesign fee, contingencies, contractor profit and overhead, project management fee, and state procurement cost.

### **Water Treatment Unit Costs**

	·	Unit Cost	RS Means	
Activity	Unit	(\$/unit)	Item Number (1)	Description
Utility Pole Demo	ea	\$196.86	024113800100	Selective demolition, utility poles & cross arms, utility poles, wood, 20'-30' high
Cross Arm Demo	ea	\$82.08	024113800300	Selective demolition, utility poles & cross arms, cross arms, wood, 4'-6' long
Wood Electrical Utility Poles a.)	ea	\$819.46	337116336020	Electrical utility pole, wood pole CCA/ACA-treated, 30', class 1, type C, excludes excavation, backfill and cast in place concrete
Utility Pole Installation b.)	ea	\$1,207.34	337116236010	Electrical utility pole, digging holes in rock, average
Utility Pole Installation d.)	ea	\$302.82	337116337600	Electrical utility pole, poles, wood, cross arms with hardware & insulators, 4' long, excludes excavation, backfill and cast in place concrete
Electrical Wiring Installation a.)	wire mile	\$560.52	337139130110	Overhead line conductors & devices, conductors, primary circuits, material handling & spotting
Electrical Wiring Installation b.)	wire mile	\$22,055.94	337139130150	Overhead line conductors & devices, conductors, primary circuits, per wire, 210 to 636 kcmil
Electrical Wiring Installation c.)	mile	\$271.96	337139130810	Overhead line conductors & devices, disposal of surplus material, high voltage conductors
Potential Transformers	ea	\$1,467.78	337126264100	Station capacitors, potential transformers, 13 to 26 kV
Pipeline Demolition (Flushing and Cover)	lf	\$3.75	026510300320	Sludge/water removal at \$0.13/ft assuming 18-inch pipe diameter 1/3 full, scaled based on RS Means unit cost to remove sludge/water from 9,000-12,000 (average 10,500) gallon tank at \$338.44/each; placement of cover material over pipe at \$3.62/ft after sludge/water removal
Excavation of Soil	су	\$6.99	G10301201600 <sup>(2)</sup>	3/4 C.Y. backhoe, three 8 C.Y. dump trucks, 1 mi round trip; unit rate not presented online, therefore use RS Means 2019 Handbook [hardcopy], 33rd edition with unit rate of \$8.40/cy x 0.854 [Las Cruces adjustment] = \$7.17/cy
Reservoir Liners HDPE	sf	\$2.35	310519531200	Pond and reservoir liners, membrane lining systems HDPE, 100,000 S.F. or more, 60 mil thick, per S.F.
Small Concrete Dam	lf	\$91,640	323213103100	Cast-in place retaining walls, reinforced concrete cantilever, 33 degree slope embankment, 10' high, includes excavation, backfill & reinforcing; 250 ft is the assumed length of retaining wall (dam) @ \$366.56/lineal ft (RS Means online data)
Water Treatment Tank	ea	\$340,712	331623131000	Steel water storage tanks, ground level, ht./diam. less than 1,250,000 gallons, excl. foundation
Pump	ea	\$12,100	-	Engineering Judgment 15 to 30 gpm - includes pump control, control panel, installation, and flow meter
Pump	ea	\$18,150	=	Engineering Judgment 50 gpm - includes pump control, control panel, installation, and flow meter
Pump	ea	\$30,250	-	Engineering Judgment 100 to 700 gpm - includes pump control, control panel, installation, and flow meter
Pump	ea	\$36,300	-	Engineering Judgment 800 to 2000 gpm - includes pump control, control panel, installation, and flow meter
Water Supply Piping	lf	\$6.13	331413350100	Water supply distribution piping, piping HDPE, butt fusion joints, 40' lengths, 4" diameter, SDR 21
Water Supply Piping	lf	\$7.60	331413350200	Water supply distribution piping, piping HDPE, butt fusion joints, 40' lengths, 6" diameter, SDR 21
Water Supply Piping	lf	\$10.22	331413350300	Water supply distribution piping, piping HDPE, butt fusion joints, 40' lengths, 8" diameter, SDR 21
Water Supply Piping	1f	\$19.02	331413350400	Water supply distribution piping, piping HDPE, butt fusion joints, 40' lengths, 10" diameter, SDR 21
Water Supply Piping	lf	\$15.77	331413350500	Water supply distribution piping, piping HDPE, butt fusion joints, 40' lengths, 12" diameter, SDR 21
Water Supply Piping	1f	\$27.63	331413350600	Water supply distribution piping, piping HDPE, butt fusion joints, 40' lengths, 14" diameter, SDR 21
Water Supply Piping	lf	\$25.93	331413350700	Water supply distribution piping, piping HDPE, butt fusion joints, 40' lengths, 16" diameter, SDR 21
Facility Water Distribution Piping	1f	\$386.77	221113481210 and 221113481780	Steel Pipe Schedule 40, black 24" diameter (RS Means 221113481210) \$445 (material) + \$108.35 (labor); unit cost without coupling and hanger (RS Means 221113481780) is reduced 35% for material and 10% for labor
Electric Rate	kWh	\$0.0587	-	Industrial rate data 7/23/2023 (http://www.electricitylocal.com/states/new-mexico/silver-city/)
Electric Panel Cost	ea	\$12,100	_	Engineering Judgment
Diesel Fuel Cost (\$/gal)	gal	\$3.92	-	Diesel fuel cost is estimated by correlating historical local quotes with public data: R:\Cobre\CCP- RCE\2023\Products\Reports\RCE\App D Supporting Data for Cost Estimation\D6 Fuel Cost\20210902 Fuel Cost\230601 Q12023FuelQuote.xlsx
Environmental Sampler	hr	\$73	-	Engineering Judgment
Environmental Sampling Reviewer	hr	\$85	-	Engineering Judgment
Environmental Sampling	sample	\$339	-	23 Constituents. Energy Laboratories, Inc., Quote March 2018-2019 (www.energylab.com) * 1.21 for 2019-2023 inflation <sup>(3)</sup>
Shipping Environmental Sampling	cooler	\$484	-	Overnight UPS \$400 (2019 rate) for a 10 lb. package 30"x18"x18" Silver City, NM to Casper, WY Energy Labs

<sup>(1)</sup> RS Means Online unit cost includes CCI adjustment for Las Cruces New Mexico - 2023 R.S. Means Online (www.rsmeansonline.com)

<sup>(2)</sup> RS Means Online., 2023 (base rate, CCI adj. 0.832 for Las Cruces)

# Appendix D Facility Characteristics Form

## 2023 Continental Mine Closure/Closeout Plan (CCP)

## **Facility Characteristics Form**

### Cobre Haul Road<sup>1</sup>

Function	Planned Site Traffic		
Notes	Haul road from Continental Mine to Chino.		
Construction Method	Cut & fill.		
Physical Characteristics	120 feet wide driving surface with roadside berms.		
Engineering Measures	Maintenance and stormwater management.		

## Matrix of Costs Capital Cost/Facility

	EOY 2026
EOY 2026 Reclaimed Area (acres)	100
Item	Capital Cost
Rip and scarify in place materials for cover	\$683,011
Regrade	\$32,105
Seed & Mulch	\$115,829
Other <sup>1</sup>	\$0
Capital Cost Totals	\$830,945
Capital Cost/Acre	\$8,309

<sup>&</sup>lt;sup>1</sup>Cobre Haul Road Closeout Plan was submitted previously. Costs are updated for 2019.

## Appendix E Reclamation Plan Drawings

