Deficiency	Response
NMDG&F Recommend including creation of ledges and cavities in highwall designs	GCC will taken into consideration for wildife features
NMDG&F Recommend creating undulating or irregular profile and placing talus material along toes of highwalls for habitat for small mammals and reptiles	GCC will taken into consideration for wildife features
NMDG&F incorporating brush and rock/boulder pile to enhance diversity and provide shelter and protection for predators wildlife species	GCC will taken into consideration for wildife features
NMDG&F is concerns about wildlife corridor protection and recommend discussing a land swap with USFS to protect the corridor from development.	GCC is still in negotation with USFS.
SWQB is still waiting the groundwater NOI for Off-spec coal to be placed in CKD pit from Modification 20-1	Groundwater NOI was submitted to NMED in February 2024. NMED provided an additional on-request letter in March 2024. An additional sample was taken on April 12,2024. NMED provided GCC with No Further Action July 3, 2024 Added approval letter in Appendix C.
SWQB Closeout Plan does not specify the floodplain restoration will be included as part of the conceptual restoration design. Design should include flood plain width that are in provided in table 5.1	See section 5.2.1 of the closeout plan
SWQB Riprap sizing equation in section 5.2 should be accounted for future discharges.	See section 5.2.2 of the closeout plan
MMD- provide a topographic map of the anticipated surface configuration of the permit area upon completion of closeout plan	See section 5.2.3 of the closeout plan
MMD Provide response to NMED-SWQB about NOI for off spec coal. Provide timeline when it will be submitted to NMED	Groundwater NOI was submitted to NMED in February 2024. NMED provided an additional on-request letter in March 2024. An additional sample was taken on April 12,2024. NMED provided GCC with No Further Action July 3, 2024 Added approval letter in Appendix C.
MMD- Has GCC conducted any wildlife surveys to see if any of the species listed in table 2-5 are present?	GCC has completed wildlife survey and multiple migratory bird surveys.
MMD-New Permit condition Slope Stability Analysisto be performed for the highwalls & Steep rock slopes anticipated to remain at closeout at Tijeras Mine.	As discussed on 5/10 GCC has concern about permit condition require for all highwalls because of the expenise assoicated with this type analysis. Recommend do the analysis for type of limestone formation instead of a permit condition for every highwall because that would be a cost permit requirement.
MMD- Slope stability approach and monitoring missing. Figure A-6 does not include anything about the slope stability analysis.	Attached is the plan that was approved. Also, the internal SOP from this analysis. This is located in Appendix E
MMD- New Permit condition GCC will be required to submit building inspection report certified by PE for office building and warehouse every five years to demonstrated that the buildings designated for Industrial/Commerial PMLU are fit for occupancy	As discussed on 5/10 GCC has concern about permit condition require of inspection. Which code would this fall under etc. as well as the assoicated cost for PE every 5 years.
MMD-Delineate where concrete slabs will remain in place, the PMLU of I/C, and where they will be reclaimed at closeout. MMD will require minimum of 2 of reclamation cover to be place over conrecte foundation that have been broken up and 3 feet over the ones that remain in place. (Section 5.1)	GCC wll place the required redbed at time of closure of the areas with concrete that will remain in place.
MMD- Elaborate on why 10-feet was chosen for the apachitos cayon bottom width channel design and discuss what storm event this was designed for (100-yr, 24 hr etc.,) (section 5.2)	See section 5.2.1 of the closeout plan
MMD-all permanent stormwater conveyance channels should be designed to withstand a 100-yr/24-hr storm event at miniumum	GCC will design all permanent conveyance channels to withstand a 100-year, 24-hour storm.
MMD- Native Riparian species should be planted after stream restoration has been completed.	Watersheds within the permit area are ephemeral. Most of the reclaimed drainages are upland features with relatively steep gradients and nominal potential for infiltration. The depth to impermeable strata is characteristically well below riparian vegetation rooting depths. Furthermore, most of the upland drainages do not have sufficiently large watershed areas to support riparian vegetation. Never-the-less, as reclamation proceeds reconstructed drainages will be periodically evaluated for their potential as riparian habitat. If potential riparian habitat is identified, appropriate riparian plant species will be planted. Coral Canyon and Apachitos Canyon are the drainages that might potentially support riparian vegetation based on their lower positions in their respective watersheds. They also have lower channel gradients and have the largest watershed area(s) within the permit area, which increases their riparian habitat potential.
MMD- Will any reclamation cover material be placed on any of the haul/exploration roads?	See Section 5.3.4 of the closure plan
MMD- Provide a table outlining the amount of cover material needed at closure for each disturbed area and the amount currently available reclamation cover(Redbed) to demonstrate an adequate amount of cover at closure.	See Section 5.3.4 of the closure plan
MMD recommends GCC seed and mulch redbed stockpiles to encourage soil weathering and development. BMPs located on their site.	Much of the Redbed is in-situ (not excavated). However, when Redbed is removed to access underlying limestone resource, it may be stockpiled for future use as topdressing. When Redbed is stockpiled, MMD guidelines for protecting and encouraging soil weathering and development will be implemented to the extent practicable.
MMD- Apache Plume should be listed as a shrub and not forb	Corrected in the seeding list

MMD- Please explain how 40PLS was determined because it seems low for boardcast	The study used replicated plots with various soil amendments, mulch types and bare soil, and seeding rates of 5, 10 and 20 PLS per square foot. Broadcast seeding was used on all plot types. The plots were monitored for 5 years with all establishing suitable permanent native vegetation communities of various composition. MMD awarded GCC an excellence in mining and reclamation award for this study. Following this study the seeding rate was set at a target rate of 20 PLS per square foot to be conservative. During a subsequent Close Out Plan review the target seeding rate was modified to 40 PLS. This is consistent with government agency suggested seeding rates for broadcasting in wetter climatic regimes. At the Tijeras quarry this higher seeding rate suppresses expression of the native plant diversity designed into the permanent reclamation seed mixture. Keep in mind that the quarry is located in a moisture limited environment. Intense rainfall events combined with low soil infiltration rates create rapid stormwater runoff and limits plant available soil moisture. Expression of seeded plant species is further affected by distribution of rainfall during growing season. Precipitation variability directly impacts germination and establishment of cool and warm season plants.
MMD-Please include location of reference area on map	GCC has attached the current reference area. GCC is proposing new reference area location for approval. Two location have been identified as a potential replacement.
MMD- Table 5-4 proposed vegetation success criteria at 90% shrub density but the permit states 80%	Corrected
MMD- Section 6.3 Groundwater Quality: will the two wells within the permit area be left at closeout to facilitate PMLU I/C use?	Yes
Figures A-3 and A-4 depict The northeast CKD disposal area will have PMLU of I/C while the west cap quarry will have wildlife habitat. Please explain why it will be I/C rather than wildlife.	The northeast CKD disposal area is in the reaction PMLU in Figure A-4. Figure A-3 will be updated to correct PMLU
Bond Calculation Comments Below	
MMD Are all facilities and equipement removal/demolishment account for in FA?	The cost is consider in the FA calculation
MMD Are the restoration effort of Apachitos and Corral Canyon included?	The cost is consider in the FA calculation
MMD Will water wells be left in place at closure?	Wells will be left in place
MMD No cost for hauling cover to any fo the exploration roads?	Haul road have existing berm material that can be pulled over to the roads as needed.
MMD Where are unit cost sourced from (ie. NM, NV)	New Mexico Cost are considered.