

Freeport-McMoRan Cobre Mining Company P.O. Box 10 Bayard, NM 88023 Thomas L. Shelley
Environmental/Sustainable Development
Telephone: 575-912-5227
e-mail: tshelley@fmi.com

RECEIVED

APR 1 3 2017

MINING & MINERALS DIVISION

April 10, 2017

Certified Mail #70153010000206574359 Return Receipt Requested

Mr. James Hollen
Energy, Minerals and Natural Resources Department
Mining and Minerals Division
1220 South St. Francis Drive
Santa Fe. NM 87505

Dear Mr. Hollen:

Re: Freeport-McMoRan Cobre Mining Company -

GR002RE Revision 15-1, Response to Agency and Public Review Comments

Freeport-McMoRan Cobre Mining Company (Cobre) submitted an update to Cobre's Closure Closeout Plan (CCP) on December 12, 2014. The Mining and Mineral Division (MMD) in a letter dated February 23, 2005 determined the Continental Mine Closeout Plan Application to be approvable under the technical requirements of 19.10.5.506.B of the Rule as well as meets the requirements of Section 69-36-11B(3) of the New Mexico Mining Act and performance and reclamation standards of 19.10.5 NMAC. This CCP is very similar to the approved plan except that the scope of work for the tailing pond reclamation has been expanded and the recently permitted Cobre Haul Road is included. Cobre submitted a letter dated December 23, 2014 supplementing the CCP and requesting to revise Permit No. GR002RE to end standby and return to operating status.

The Mining and Minerals Department (MMD) in a letter dated January 31, 2017 requested Cobre to respond to agency and public review comments. Where the comments included multiple questions within a paragraph, and in the hope that the response will be easier to track, the response is often located directly below the comment. The comments are in italic font and the Cobre response is in block print.

General Comments:

- MMD reviewed the application and deemed it administratively complete, pursuant to §19.10.5.503 B NMAC, in a letter to Cobre dated February 19, 2015. Since then, MMD has reviewed the application and updated CCP and found it to be technically incomplete until receipt of acceptable supplemental information as requested by this letter.
- 2. On February 18, 2015, MMD received (via email) a letter from GRIP requesting a public hearing regarding Revision 15-1 and Cobre's intent to end standby status and resume mining at the Continental Mine. MMD determined that the request was timely and has granted the request from GRIP; however, MMD has not yet determined a date, time or venue for holding the public hearing and anticipates

tentatively that the public hearing may be scheduled during the first quarter of 2017, after MMD has received suitable responses to comments presented herein and before MMD has received the pending environmental determination from NMED pursuant to §19.10.5.506 J (5) NMAC.

3. Cobre's reclamation cost estimate included with the CCP appears to utilize the NPV basis that MMD has agreed to in the past with FMI for the 3A stockpile at Chino, and more recently, the CHR at Cobre. The agreed to NPV basis uses the most recent 25-year timeframe for the indices and use of either the mean or geometric mean (FMI's choice) of that timeframe. Thus, the NPV used by Cobre in the CCP appears approvable. Cobre's cost estimate (direct and indirect) included with the CCP remains under review and MMD is not prepared to make any comments now; however, comments are forthcoming, following completion of our review of the cost estimate.

For clarification, Cobre's reclamation cost estimate did not include a net present value calculation (with the exception of the Chino/Cobre connecting haul road permitted separately at this point). Cobre prefers to obtain approval of the scope of work and the cost estimate in current dollars before completing a net present value calculation for financial assurance.

Reviewing Agency and Public Comments:

Please find the attached letters provided to MMD within a Memorandum from NMED dated April 23, 2015, and including comments from the Ground Water, Surface Water and Air Quality Bureaus ("GWQB" "SWQB" "AQB", respectively). Within the SWQB's comments, it assumes that if the permit requirements are adhered to and best management practices are implemented and maintained, the SWQB doesn't anticipate any negative impacts to surface water quality following a return to operating status at the Continental Mine, no response to SWQB's comments from Cobre is necessary. Page 2 and page 3 of the AQB's April 3, 2015, letter indicates that the potential for emissions from equipment and construction activities that may be associated with construction activity when mining is resumed within the permit area must be considered in determining applicability under §20.2.72 NMAC and may necessitate permit control strategies and conditions regarding air quality impacts that may result from ground disturbing activities and construction and operation of certain mine units within the permit area. Please address these air quality issues raised on page 2 and page 3 of the AQB's letter to MMD. The GWQB indicates within NMED's April 23, 2015, memorandum to MMD that it will review the application for Revision 15-1 and the updated CCP pursuant to Water Quality Act and the Water Quality Control Commission Regulations, including the Copper Mine Rule and, as such, comments will be submitted to FMI by the GWQB under separate letterhead with copy to MMD. To that end, NMED provided its comments on the updated CCP to MMD and FMI in a letter dated June 29, 2016. NMED has granted FMI an extension to January 30, 2017, to respond to comments presented within its June 29, 2016, letter. NMED also indicates within the April 23, 2016, Memorandum that it is not providing MMD with an environmental determination regarding Revision 15-1 or the updated CCP until after additional technical information has been received and is suitable to support its determination. Be advised that a written environmental determination from Mr. James Hollen April 10, 2017 Page 3 of 42

NMED is required by MMD (§19.10.5.506 J (5) NMAC) prior to approving the updated CCP or Permit Revision 15-1.

The Ground Water Quality Bureau (GWQB) in a letter dated June 29, 2016 requested additional information from Cobre under DP-1403. Cobre submitted a letter dated January 20, 2017 responding to their comments. Cobre continues to work directly with the GWQB on groundwater related issues. The Cobre responses to the Surface Water Quality Bureau (SWQB) and the Air Quality Bureau (AQB) comments can be found at the end of this letter.

2. For the attached e-mail dated March 16, 2015, from NMOSE, please respond to each of the four (4) comments based on NMOSE's review of Cobre's updated CCP.

The responses to the NMOSE comments can be found at the end of this letter.

3. Please find the attached letter dated April 27, 2015, from NMDCA. Within the letter to MMD, NMDCA indicates that within its records there are no cultural resources located within the Permit Area that are listed on either the State or the National Registers, but states that numerous cultural resource surveys have been conducted in the permit area with the most recent survey being conducted in August 2012, for the Bureau of Land Management ('BLM") pursuant to the BLM's recent renewal of Cobre's Mine Plan of Operation (Amendment No. 5). NMDCA's letter also indicates that certain areas within the Permit Area where Cobre has proposed new mining disturbance may not have been included within any of the previous or original archaeological survey areas and may need to be surveyed to determine whether any operational or closeout activities could affect any previously unidentified archaeological sites that may be located within these potentially un-surveyed areas.

Additionally, the letter from NMDCA encourages FMI to discuss proposed mine facilities with a professional archaeologist to determine which archaeological sites, if any, might be impacted by mining activities and indicates that Cobre should make an effort for additional consultation with the BLM due to potential adverse effects to sites in the Permit Area that may be eligible for listing on the National Register of Historic Properties. Please address the comments and concerns within the April 27, 2015, letter from NMDCA to MMD.

Furthermore, as part of MMD's required compliance with our tribal consultation policy and the State Tribal Collaboration Act of 2009, MMD reaches out to tribal entities for comments when we process permit applications. In response to MMD's tribal consultation request, we received letters (enclosed) from POA, WMAT and Hopi. The letter from POA dated March 12, 2015, included a request for a face-to-face, government-to-government meeting between the Director of MMD and staff, and the Governor of POA and staff, to discuss sensitive issues surrounding any POA cultural resources that may be affected by the resumption of mining at the Continental Mine. MMD Director Martinez and staff met with POA

and its representatives on April 22, 2015, and during the meeting MMD provided POA with a summary of the updated CCP and status of Revision 15-1 and discussed the process relating to Cobre's request to end standby status and resume active mining. The letter from WMAT, dated March 3, 2015, indicated that while the proposed plans should not have an impact on any of the WMAT's historic and/or traditional cultural properties in the area, but suggests that any ground disturbing activities should by monitored. Hopi's letter of March 6, 2015, requested a copy of the 2012 cultural resources survey report relating to the BLM's recent renewal of Cobre's Mine Plan of Operation (Amendment No. 5). MMD provided a copy of the 2012 cultural resources survey report to Hopi as requested. At this time, no further action is required by Cobre and MMD has enclosed herewith each of the tribal collaboration comment letters for your records.

A cultural resource study was conducted for this project and vetted with the BLM and SHPO. Cobre will comply with all other state and federal requirements and standards including without limitation the Cultural Properties Act, NMSA 1978, Section 18-6-1 to 27 and regulations promulgated pursuant thereto.

3. Please find the attached letter dated April 27, 2015, from GRIP, and address each of the comments provided within the letter.

The responses to GRIP comments can be found at the end of this letter.

Specific Comments

The following are comments relating to each Section of the CCP and are grouped in succession by Section as presented in the updated CCP:

1.1 Purpose

The CCP indicates that estimated closure cost for the facility is \$25.6M in 'hominal dollars' what are nominal dollars?

The term will be removed from the CCP and we apologize for the confusion. The cost estimate practice has not changed and the proposed amount in 2014 dollars is approximately \$25.6 M.

The cost estimate indicates that it is based upon facility conditions anticipated for EOY 2019, is this comprehensive enough to cover all disturbance costs? Should the CCP be revised to indicate a more accurate estimate of maximum disturbance year and revise the CCP to reflect a new date of maximum disturbance at the facility? The Cost Estimate should be revised to reflect MMD's revised Cost Estimating Guidelines and Financial Assurance estimates should reflect these guidelines.

The highest liability year was evaluated based on the mine plan of operation associated with the greatest amount of earthwork. The maximum disturbance is in year five after mining Mr. James Hollen April 10, 2017 Page **5** of **42**

resumes, which remains unchanged. NMED and MMD approved the use of year five as the basis for the financial assurance cost estimate on October 23, 2014.

Cobre met with MMD and NMED on March 14, 2017 to review the financial assurance cost estimate in full and address any questions or concerns. As the capital indirect cost guidelines state, "While this is a guidance document, it is MMD's intent that any proposed deviations from this guidance will need to be thoroughly documented and justified." With that said, Cobre is concerned about the new guidelines and strongly believes that the Cobre proposal is justified.

The new guidelines were released without public and just as importantly, industry input. There are several flaws and simplifications in the guidance as a tool for developing the indirect cost percentage rate for mines in New Mexico, which clearly results in an excessively high indirect percentage rate. Cobre is concerned about how the guidance was prepared and released and believes that other members of the New Mexico Mining Association share this concern. Cobre expects that further discussion on the guidance will be initiated by the Association.

Pg. 5 states that "Adequate cover materials exist on site to meet reclamation conditions for current disturbance, planned mine expansion and unconstructed facilities" What is meant by reclamation conditions? Please provide backing for this statement with an updated cover mass balance sheet that demonstrates there are adequate cover materials existing on site to meet reclamation conditions for current disturbance, planned mine expansion and unconstructed facilities, and that these materials will achieve standards.

At EOY 2019, approximately 4 million cubic yards of reclamation cover material (RCM) is required to reclaim 859 acres of disturbed area. The East WRF currently holds 7.5 million cubic yards of conditionally approved cover material and the five overburden stockpiles contain a total of approximately 2 million cubic yards of cover material (See page 32 of the CCP). Therefore, sufficient RCM is available for reclamation activities described in the 2014 CCP Update.

Pg. 8 indicates that the 2014 Cobre Haul Road ("CHR") Closeout Plan is attached as Appendix B.4 of the revised Cobre CCP. Please revise the 2014 CHR Closeout Plan so that it reflects and updates any required technical changes that may be necessary per comments provided to Cobre in a letter from MMD dated March 2015, and since the CHR was approved by MMD.

Appendices A and B will be resubmitted to reflect permit Revision 14-1.

Pg. 9 Table 2 lists permitted facilities and shows several unconstructed units that are apparently permitted under GR002RE Rev. 01-1; are these permitted unconstructed units covered under financial assurance? Cobre should verify which of these units are covered and which are not covered under the current financial assurance cost estimate. Several unconstructed units were permitted initially; however, it is unclear whether these units are permitted and covered under financial assurance. Cobre should provide additional discussion regarding the status of financial assurance for unconstructed but permitted facilities. These unconstructed units should also be updated and presented upon an updated map showing the boundaries of these mine units and their design limits.

Table 2 has been updated to identify facilities covered by the current financial assurance cost estimate. The table has been separated into Table 2A – Permitted Existing Facility Summary and Table 2B - Permitted Unconstructed Facility Summary. The portions of Table 2A and 2B pertaining to Permit GR002RE Rev. 01-1 has been updated with information from the Cobre haul road and the No. 3 Shaft Stockpile. The financial assurance cost estimate for sites currently not planned to be constructed over the next few years is not included.

Cobre proposes to update the map so it is consistent with other New Mexico Mine design limit boundaries that delineate the approved mine disturbance limits for the entire site. Cobre will submit in the near future a revised Permit Boundary and Cobre Beneficiation Design Limit Map.

Table 2A Permitted Existing Facility Summary

Permit	Permit Section	Permitted Existing Facilities	Financial Assurance Coverage
		Main Tailings Impoundment	Yes, see Appendix B, Section 2.0
		Magnetite Tailings Impoundment	Yes, see Appendix B, Section 3.0
		Waste Rock Facilities (West, Buckhorn, Union Hill, East and West WRFs)	Yes, see Appendix B, Section 4.0
GR002RE 01-1	9	Open Pit (Continental Pit)	Covered by the Open Pit waiver
		Pipelines	Yes, see Appendix B, Section 9.0
		Ancillary Facilities	Yes, see Appendix B, Section 8.0
		Other Non-specified Areas (miscellaneous disturbed areas)	Yes, see Appendix B, Section 9.0
		Hanover-Empire Zinc Mine Area	Reclamation was completed in 2007 and financial assurance release granted in January 2010. See section 3.1.9
		Pearson-Barnes Mine Area	Yes, see Appendix B, Section 9.0
		Continental Pit	Covered by the Open Pit waiver
DP-1403	I	Waste Rock Piles (Waste Rock Facilities; West, Buckhorn, Union Hill, East and South WRFs)	Yes, see Appendix B, Section 4.0
		Main Tailings Impoundment	Yes, see Appendix B, Section 2.0
		Crusher	Yes, see Appendix B, Section 8.0, and Table 4. The crusher will be demolished.

		No. 1 and No. 2 Mills and Concentrator Facilities	Yes, see Appendix B, Section 8.0, and Table 4.
		Underground Mining Operations	Yes, see Section 6.4
		Seepage Interception Systems	Yes, see Section 5.3
		Stormwater Detention Impoundments (Surface Impoundments)	Yes, see Section 5.3 and also Appendix B and C
		Maintenance Area	No, All the shops will be removed except the small truck shop which has industrial PMLU
		No. 3 Shaft Stockpile	Yes, will be mined out or incorporated into the CHR which already has financial assurance in place
DP-1056 (additional facilities not covered in other permits)	III	PLS/Raffinate Pipeline from the Fierro and Humbolt Leach Pads to the Chino SX/EW plant	No because construction is not anticipated in the next five years

¹DP-181 (NMED, 2007) covers discharges from the existing facilities listed in GR002Re 01-1 and DP-1403 and does not list additional facilities ²The No. 3 Shaft Stockpile is covered under the DP-181 renewal application, submitted in 2011, as part of an effort to restructure the existing discharge permits.

Table 2B Permitted Unconstructed Facility Summary

Permit ¹	Permit Section	Permitted Unconstructed Facilities	Financial Assurance Coverage
GR002RE 01-1	9	North Overburden Stockpile	Yes, see Appendix B
		Cobre Haul Road	Yes, see Appendix B.4
		South Overburden St	Yes, see Appendix B
		Hanover Mountain Mine (Hanover Mountain Deposit)	Yes, see Appendix B
		Fierro Leach Pad	No because construction is not anticipated in the next five years

		Fierro Solution Extraction/Electrowinning (SX/EW) plant	No because construction is not anticipated in the next five years
	!	South Waste Rock Disposal Facility (SWRDF)	Yes, see Appendix B
		North Waste Rock Facility	No because construction is not anticipated in the next five years
		Hanover Mountain Mine (Hanover Mountain Deposit)	Yes, see Appendix B
DP-1403	l	SX/EW Plant	No because construction is not anticipated in the next five years
		Humbolt Leach Pad	No because construction is not anticipated in the next five years
		Fierro Leach Pad	No because construction is not anticipated in the next five years
		North Waste Rock Pile	No because construction is not anticipated in the next five years
DP-1056 (additional	111	PLS/Raffinate Pipeline from the Fierro and Humbolt	No because construction is not anticipated in the next five years
facilities not covered in other		Leach Pads to the Chino SX/EW plant	anticipated in the next live years
permits)			

¹DP-181 (NMED, 2007) covers discharges from the existing facilities listed in GR002Re 01-1 and DP-1403 and does not list additional facilities ²The No. 3 Shaft Stockpile is covered under the DP-181 renewal application, submitted in 2011, as part of an effort to restructure the

2.4 BLM Permitting

existing discharge permits.

Indicated that BLM permitting actions involved with the BLM Amendment No. 5 proposes to utilize approximately 36 additional acres of BLM Land for resumption of mining at Cobre, but only uses approximately 8 acres for the CHR construction; what about the status of the other 28 acres of BLM Land? Is there any disturbance proposed for these lands?

A total of 36 acres of BLM administered land was assessed and approved for use under the Cobre MPO Amendment No. 5. The BLM determined that the proposed mining action, analyzed in an environmental assessment, was found to have no significant impacts. A Finding of No Significant Impact was authorized by the BLM on May 15, 2015. No petition to stay the decision under BLM regulations was filed. Below please find the status of the 36 acres of BLM land.

Cobre Amended MPO Location	(Acre)
Hanover Mountain	0.29
North Overburden Stockpile and Haul Road	19
SWRDF	6.3
Connecting Haul Road	8.7
SWRDF Dam 2	0.63
Utility Corridor and Substation	1.3
Total	36

3.1.1 Main Tailings Impoundment

A description is provided within this section for the Main Tailing Impoundment ("MTI"). This description doesn't mention new stockpiling of magnetite tailing material upon the flat surfaces of the MTI and doesn't provide a reclamation plan or cost estimate for dealing with these stockpiled materials; how will this stockpile affect reclamation plans of the greater MTI? Does Cobre have any additional or long-term plans to continue stockpiling magnetite tailings upon the MTI? This Section should be revised to include additional details, if any, regarding magnetite stockpiling on the MTI.

For clarification, relatively little magnetite has been placed on top of the Main Tailings Impoundment. Magnetite is a valuable commodity, so the material hauled from the Magnetite Tailings Impoundment is either 1) local soil and rock mixed with minor amounts of magnetite or 2) copper tailings from Mills 1 or 2 mixed with minor amounts of magnetite tailing. These materials occur around the margins of the Magnetite Tailing Impoundment where storm water has moved the material onto the surface or in the case of copper tailings, was discharged on top of the magnetite impoundment during upset conditions. In any event, these materials are so insignificant (from a volume perspective and are materially similar to the rest of the materials at the surface of the Main Tailings Impoundment) and have been placed on the Main Tailings top surface in a manner that they will not affect the reclamation plans or require additional costs to deal with at closeout.

Cobre has completed the primary movement of these materials but may continue to place small quantities of these materials on the Main Tailings Impoundment when they are encountered at the magnetite tailings.

Cobre will add the following description to Section 3.1.1: "Copper tailing, local soil and rock mixed with minor amounts of magnetite have been placed adjacent to the filter dike on the top surface of the Main Tailings Impoundment and covered with a dust cover of local borrow material."

3.1.2 Magnetite Tailings Impoundment

Magnetite Tailing Impoundment. Approximately 379,000 tons of embankment material exists in the dam structure of this feature; is this suitable for use in reclamation as a cover material? Does Cobre have any plans to characterize the material to determine its suitability as a growth media? In a recent letter dated August 12, 2016, Cobre requested a 15-year extension to its permit issued by the NMOSE for the delisting and removal of the magnetite dam structure which expired in the third quarter of 2016. MMD understands that

Mr. James Hollen April 10, 2017 Page **10** of **42**

in the current 5 year CCP no changes are proposed for the reclamation or reconfiguration of the impoundment; please provide a revised schedule of activities and milestones, similar to one that was provided to NMED and MMD in a letter dated Oct. 29, 2012. Additionally, Cobre should address the status of a pending closeout plan for the magnetite tailing impoundment.

Cobre is confident that the embankment material is suitable to use in reclamation as cover material partly based on how it currently supports abundant vegetation. Cobre will provide more details on the embankment material as part of the final design for the facility if Cobre plans to use the material as cover. However, Appendix B, Section 3.0 clearly states that Cobre assumed that 36 inches of cover will be hauled in to cover the entire facility at closeout after regrading to 3:1 interbench slopes. Therefore for the purposes of the CCP Update, Cobre has not proposed to use the embankment material as cover material at this time.

Cobre has informed MMD both verbally and in writing (by copy to MMD of the correspondence with OSE) that it is going to take at least 15 years or possibly longer to remove the magnetite tailings depending on the market for magnetite sales. The 2012 milestones and schedule were provided because with rail shipments, the magnetite was being removed more quickly and final closeout was eminent. The milestones were aimed at conveying when final closure of the site would take place after magnetite tailing removal. Because rail shipments are no longer occurring, final closure is no longer eminent, but 15 to 20 years in the future. Therefore, setting milestones for the final design for the closeout plan is unnecessary at this time. Final designs are only provided when closeout is eminent. The market continues to sustain a demand for the product and Cobre plans to maintain the magnetite facility to continue this part of its business. The CCP provided for the Magnetite Tailings Dam is adequate.

What Cobre can say about the schedule for magnetite closure follows. At current marketing and removal rates, the magnetite will be removed in approximately 15 to 20 years. Cobre will provide other updates to the Magnetite Tailings closeout plan as removal of the material progresses. When final decommissioning and closeout of the facility are eminent, Cobre will provide a final design and describe and characterize the embankment material if it is proposed to be used as cover.

3.1.3 Continental Pit

Cobre describes a pit lake that began forming in the Continental Pit during March of 2012, due to discontinued dewatering of the Continental Mine underground workings in August 2000, and states that the pit lake will continue to expand, as well as the overall size and configuration of the Continental Pit that contains the pit lake, which will also increase to nearly twice its current size, to approximately 262 acres. Cobre must address the existing pit waiver granted by MMD in 2005 and explain how the expanding pit and the expansion of the pit lake might affect and/or change the terms and conditions upon which the pit waiver for the Continental Pit was granted. MMD may require that Cobre modify the existing pit waiver in consideration of these changes to the Continental Pit. Additionally, this subsection is not clear about when Cobre intends to increase the overall pit size to 262 acres and if this is planned to occur during the next 5-year closeout plan term or during the term of maximum buildout, i.e. when does Cobre intend to expand the Pit to its maximum size? Cobre must also address whether it plans to dewater and drain the pit or, pump and treat this water within the open pit, as these details may be important

Mr. James Hollen April 10, 2017 Page **11** of **42**

considerations for reevaluating the extension of MMD's Conditional Pit Waiver through the next 5-year Closeout Plan term.

The proposed pit configuration and the pit waiver in this CCP are the same as that analyzed in the conditionally approved pit waiver and CCP. The Cobre permits already allow for the Continental Pit to cover approximately 262 acres. The approved 2005 MMD conditionally approved pit waiver was analyzed using this pit configuration that included an open pit water body equivalent in size to that described in the 2014 CCP. The proposed closeout plan does not consider pumping because the pit creates an area of open pit hydrologic containment. In the past to support the waiver, NMED has determined that applicable standards are met for this facility. Cobre is working with NMED to ensure that all regulatory surface and ground water rules are met. The current mine plan is scheduled to first mine the Hanover Mountain Deposit which will take over five years under current economic conditions followed by the Continental Mine.

Since the time of the pit waiver, Cobre has completed the studies required by Conditions 84 and 85 of DP-1403 for the current and expanded conditions of the Continental Pit. These studies refined the estimates on the formation of a pit lake and indicate that the lake will be a terminal sink under both current and expanded pit conditions. The lake is projected to have a surface area of 49 to 54 acres for the current and expanded pits, respectively. These areas are near the upper range stated in the 2005 pit waiver (47 acres). The conditional studies also confirmed the supposition in the waiver that the backfilling options would be environmentally unsound as compared to the planned closure scenarios presented in the CCP. Thus, the environmental conditions upon which the waiver relied are no different than those evaluated in 2005, and the waiver conditions still apply.

3.1.4 Waste Rock Facilities

Describes Cobre's waste rock facilities ("WRF") as being five contiguous stockpiles; however, it should be noted that until these stockpiles are eventually coalesced into a single unit, MMD recognizes each waste rock facility as separate, individual mine-units within the MMD Permit Boundary, with an understanding that these individual units must be reclaimed pursuant to Section 9.F of Permit GR002RE Rev. 01-1, but will eventually become one single contiguous mine unit during the construction of the South Waste Rock Disposal Facility. Cobre should redress this Subsection to include more detail about the timeframe for the proposed coalescence and expansion of the WRF is from approximately 300 acres as currently configured to approximately 400 acres as estimated and must also revise Section 9.F of Permit GR002RE Rev. 01-1 to more accurately portray this expansion in the MMD Permit.

The proposed mine plan is the highest liability year in a five year period evaluated under the CCP. The SWRDF is located within the design limit boundary of GR002RE Revision 01-1. The SWRDF design in the 2014 CCP is the same as that evaluated and approved in prior permitting actions with MMD and NMED. Cobre on January 9, 2017 submitted a report that discusses the sequencing of the South Waste Rock Disposal Facility in more detail. Please see this report for details. Cobre maintains that the CCP need only identify the highest cost closeout scenario and financial assurance for that scenario. As explained below, the CCP does accomplish this and therefore completes this objective.

Mr. James Hollen April 10, 2017 Page **12** of **42**

This subsection also states that test plots were constructed on the East WRF and the West WRF per Condition 77 of DP- 1403 to evaluate cover performance, erosion rates and revegetation success; Cobre should also mention that the test plots are also a requirement of Section 9.M.I of Permit GR002RE Rev. 01- 1 and include this information within the subsection.

Cobre will add the following statement to Section 3.1.4: "The test plot study is a requirement of Section 9.M.I of Permit GR002RE, Rev. 01- 1."

3.1.5 Other Stockpiles

Describes other stockpiles, including several overburden stockpiles (OB 1 through OB5) that are proposed for use as reclamation cover materials at closeout. These stockpiles have been poorly characterized and have unknown or a questionable depositional history being some of the earliest stockpiled overburden materials at Cobre and are composed of Hermosa Mountain Colorado Fm. materials derived from surface stripping operations during the initiation and early advancement stages of the Continental Pit. This material (Hermosa Mtn. Colorado Fm. Overburden) is currently the subject of the ongoing test plot program at Cobre and, to date, these materials that were specifically derived from OB-3 and used to construct the test plots on the WWRDF and from OB-5 to construct the test plots on the MTI, have not performed as expected. The underperformance of these materials has been an ongoing issue relative to revegetation since these test plots were first seeded in June 2008, and suggests that there are inherent acidity issues related to the material derived from these OB Stockpiles (OB-3 and OB-5) possibly due to the poorly characterized nature of the material and the unknown depositional history of OB-3 and OB-5. Does Cobre intend to pursue any additional characterization or testing of this material, or pursuing different material handling techniques to identify, segregate and remove the less acidic materials from these stockpiles?

As Cobre mentioned in response 1.1, the primary source of cover material is from the East WRF, which contains a sufficient volume of RCM. Vegetation has established on the East WRF test plot. Cobre conducted quantitative vegetation monitoring in 2016 and the results of this survey will be included in the 2016 Annual Test Plot Report.

Since 1999, Cobre has collected and analyzed over 150 soil samples from Hermosa Mountain Colorado Formation in association with the test plot program and Pearson-Barnes reclamation site. Cobre recently proposed to further characterize the materials from Overburden (OB)-3 and OB-5 Stockpiles and evaluate their response to a lime amendment. Cobre submitted a draft workplan to MMD on November 10, 2016 and is looking forward to hearing from MMD to commence this work.

3.1.10 Pearson-Barnes Mine Area

Here, Cobre mentions that by EOY 2019, the Pearson Barnes Site ("PB") will likely be in its existing configuration and would require additional reclamation efforts in accordance with existing closure agreements (see joint NMED-MMD Letter dated April 11, 2011). Given the transient nature of mine plans, the possibility exists that, due to unforeseen changes to the current proposal to cover the PB area with approx. 95 feet to 145 feet of

Mr. James Hollen April 10, 2017 Page **13** of **42**

mostly alkaline waste rock material having excess buffering capacity may not be realized within an appropriate time frame or in the manner proposed (buried in waste rock). Further, the current design of the SWRDF does not include covering the PB area. Cobre must address these uncertainties and develop plans for final reclamation procedures at PB, currently, it's not clear if the area will remain in the currently reclaimed configuration, mined out and removed with the advancement of the Continental Pit mining or covered in up to 145 feet of alkaline waste rock as has also been previously proposed.

The NMED-MMD letter dated April 11, 2011, states (referring to the PB area) that "Final closure would be in accordance with the cover and vegetation requirements of the Supplemental Discharge Permit for Closure, DP-1403 and MMD Permit No. GR002RE." The cover and vegetation requirements are fulfilled by the reclamation activities listed on Table 5 of the CCP. At EOY 2019, Pearson Barnes will be in its existing configuration. Mining would not have commenced at the Continental Pit to produce the quantity of carbonate waste rock required to fully bury the Pearson-Barnes area. Since this facility is already graded to a 3:1 slope, reclamation activities will include hauling in cover material (36-inches thick), cover grading, scarification and revegetation.

The PB area also appears to be included within the design limit area of the Continental Pit. Cobre should revise the design limit boundary of the Continental Pit to exclude the PB area. There are other disturbed areas located between the Continental Pit design limit boundary, the SWRDF design limit boundary and the Fierro Leach Pad design limit boundary that do not appear to be included within any design limit or mine unit boundary, as well as other mine units in this general vicinity that appear to overlap. Cobre should provide a description and update these areas to include them within a revised design limit and mine unit boundary map where applicable.

This approved design limit boundary map was used to delineate current and future resources. The Continental Pit design limit boundary reflects the resource potential associated with the open pit itself, which potentially extends to the PB area. Cobre proposes to update the map so it is consistent with other New Mexico Mine design limit boundaries that delineate the approved mine disturbance limits for the entire site. Cobre will submit in the near future a revised Permit Boundary and Cobre Beneficiation Design Limit Map.

3.1.11 Other Ancillary Facilities, Buildings and Systems

Describes other ancillary facilities, buildings and systems; i.e. pipelines, wells etc., are these "ancillary" facilities included in the cost estimate and covered by financial assurance? Cobre must address the recent addition to infrastructure relating to the construction and support of the CHR and include the Kearney Pipeline within relevant PMLU sections addressed in the CCP; it is our understanding the Cobre recognizes this pipeline as an improvement to existing mining- related infrastructure at the mine and that Cobre intends to leave the pipeline in place post mine closure in support of PMLU activities approved in the area. Cobre must also address any areas that are outside of the permit boundary and that are defined as "affected areas" pursuant to §19.10.1.7.A.3 NMAC, and Section M.1.3 of Permit GR002RE Rev. 01-1. A workplan dated March 1, 2006, was submitted to MMD for review; however, in this workplan Cobre indicated that its approach would be to review and evaluate relevant environmental investigations of

Mr. James Hollen April 10, 2017 Page **14** of **42**

environmental elements potentially affected by Cobre mining and mineral processing operations and to provide a summary of these investigations, including the identification of any data gaps or areas that have not been covered by other investigations and that may be relevant to the Affected Areas Study.

The Cobre Haul Road and a majority of the proposed Kearney pipeline are all within Cobre's MMD permit boundary. As stated in the comment, the Kearney pipe line will be part of Cobre's industrial PMLU thus no additional costs for this is included in this CCP.

While no formal submittal associated with the affected areas study has been completed, to date, Cobre has not identified any affected areas under 10.19.1.7.A.3 NMAC that will require financial assurance.

3.2 Description of Planned Mine Facilities

This section describes Hanover Mountain ("HM") excavation area and how by 2019, will not be completely mined out and that stormwater runoff from the unit would be contained within the unit at the HM excavation area; Cobre should describe where this stormwater will be routed and stored within the HM excavation area and how it intends to manage stormwater within the Unit, e.g. re-routing stormwater into channels or other conveyances within Cobre's existing water management plan, and address whether Cobre anticipates that the HM excavation area will become a pit feature or could eventually contain a pit lake feature. Ifno pit is anticipated by Cobre, when (approx.) does Cobre intend to initiate reclamation of the HM excavation area and begin backfilling this excavation area? Cobre cannot leave an un-reclaimed pit feature within the HM excavation area.

Stormwater is and will continue to be managed in a manner that is protective of surface and groundwater quality. The Hanover Mountain Mine will not result in the formation of an open pit water body. Some small seepage faces may occur on mine walls as the area is mined, but these very small quantities of water will evaporate upon reaching the excavated surface. During mining, precipitation and snow melt runoff on the Hanover Mountain mined surface will be minimal as there is no run-on (only incident precipitation). If necessary stormwater will be directed to Cobre's water management system. Post-closeout, incident precipitation will mostly evaporate and a small amount will recharge to groundwater which is contained within the zone of open pit hydrologic containment created by the Continental Pit (See potentiometric map Figure 15). The amount of recharge from the reclaimed Hanover Mountain Mine (i.e., 0.35 in/yr) is less than 2 percent of the total flow to the Continental Mine Pit Lake and therefore, will have little impact on the lake. The configuration shown in the CCP Update corresponds to the configuration five years after Hanover Mountain mining begins; however, mining will continue beyond that and the Hanover Mountain Mine will be configured to discharge to the south.

This Section also describes the North Overburden Stockpile ("NOBS") where Cobre intends to stockpile overburden and other topsoil resources as these materials are stripped from the HM excavation area and from the Cobre Haul Road ("CHR"); given this material may remain stockpiled for at least 10 to 20 years, how does Cobre intend to assure that these reclamation cover resources are protected from erosion, properly stored and maintained (e.g. application of temporary veg cover, other BMP's) as viable cover materials, particularly any topsoil that is stripped and salvaged from HM and the CHR areas?

Mr. James Hollen April 10, 2017 Page **15** of **42**

For future reclamation activities, Cobre as well as Freeport's other nearby mines store reclamation cover material (RCM) in stockpiles. Those RCM are often safeguarded with signage and institutional restrictions. The North Overburden Stockpile site will be constructed with BMPs (constructed from cleared and grubbed vegetation). To date reclamation stockpiles have been stable, properly maintained, and often naturally vegetate over time.

MMD may require the construction of additional test plots using the Colorado Fm. overburden and reclamation cover materials that are to be stripped and salvaged from HM in furtherance of testing suitability of reclamation cover materials available at Cobre.

Cobre has completed a great deal of valuable work on identifying and managing cover materials. The key to success in managing Hanover Mountain cover materials is the material handling criteria and procedures presented in the report titled Aquifer Evaluation and Management of the South Waste Rock Disposal Facility at the Continental Mine dated January 2017. This report not only describes a proposed management procedure for the SWRDF materials, but also provides a proposal for segregating "Not Potentially Acid Generating cover" (NPAG cover) which is the material referenced in this comment. Please refer to this report (particularly Section 4.4.1 of this report) as well as the Hanover Mountain Soils and Borrow Material Characterization report, March 15, 2015 for details. Many of the existing Hanover Mountain Deposit drill roads are constructed on these materials and have naturally revegetated. The information gathered from these locations and summarized in the reports above may be used to evaluate cover performance in lieu of new test plots.

Cobre describes coalescing the existing WRDF's by dumping additional waste rock on undisturbed areas located between these individual existing units to form the South Waste Rock Disposal Facility ("SWRDF"). Recently, Cobre expanded upon this proposal and provided a conceptual plan to NMED and MMD illustrating how it intends to build-out the SWRDF by initially placing carbonate materials within the exposed drainages to act as a buffering medium. Cobre would then stack additional waste rock over the carbonates by segregating various waste materials and categorically differentiating these materials using a material handling plan that is based upon visually identifying and segregating the material based upon its potential or, potential lack thereof, for the materials ability to either produce acid or to neutralize acid. Finally, Cobre would cover the entire unit of stacked waste of the greater coalesced SWRDF using a growth media comprised of overburden materials stripped from Hanover Mountain and stored in the NOBS. This handling procedure would create a layered depositional sequence based on various potential placement options of various types of waste rock. Cobre must supplement this Section within the CCP to include its conceptual plan describing the staged development of the SWRDF.

As indicated in your comment, at a meeting in your office, Cobre reviewed the Aquifer Evaluation and Management of the South Waste Rock Disposal Facility at the Continental Mine with MMD and NMED before submitting it on January 9, 2017. Cobre will update the CCP to reference this report and include the conceptual plan as it relates to closeout of the SWRDF.

A description of planned mine activities within this section should be modified to include the recently revised long-term plans including an explanation for the time frame required for mining the remaining magnetite from the Magnetite Tailings Impoundment. In a letter to the NM Office of the State Engineer, dated August 12, 2016, Cobre requested a 15year extension towards the delisting and the eventual removal of the Magnetite Tailings Impoundment Dam. Within the letter, Cobre indicated that to date, it estimates that its mining contractor has removed approximately 700,000 tons of magnetite since 2012, yet current estimates suggest that the Impoundment contains approximately 1,000,000 tons of magnetite remaining within the impoundment that is to be mined out to fully remove this material and to be able to decommission the dam structure and initiate reclamation of this Unit. Cobre indicates that its mining contractor plans to increase its rate of mining to approximately 66,000 tons per year in the future; however, Cobre states that this is contingent upon its mining contractor's ability to pursue and secure contracts to accomplish this. Given the transient nature of mine plans, the possibility exists that, due to unforeseen changes the current proposal to mine this material out may not be realized within an appropriate time frame or in the manner proposed given that it is based upon Cobre's mining contractor's ability to secure contracts for the sale of this material.

Further, Cobre bases its reclamation plan and cost estimate upon its outdated 2004 Closeout Plan and cost estimate as there is currently no up-to-date closeout plan or cost estimate covering the Unit. Additionally, Cobre has yet to submit its material handling and characterization report for this Unit. Cobre must address these uncertainties and develop plans for final reclamation procedures at the Magnetite Tailings Impoundment. Currently, it's not clear if the area will remain in the currently un-reclaimed configuration as an active mining unit, or mined out and reclaimed with the advancement of mining within the Unit. Cobre must provide a schedule and update the CCP accordingly.

Please see response to Section 3.1.2 above for matters concerning a schedule for magnetite tailings removal. Cobre has demonstrated over many years that the magnetite is a marketable commodity and ships it at a rate the market and site facilities can safely sustain. Cobre's obligation under the New Mexico Mining Act is to maintain its permits and ensure that adequate financial assurance is in place to reclaim the facility in the unlikely event of a default not to meet some arbitrarily determined "appropriate time frame" to complete mining activities.

The footprint of the magnetite tailings facility has not changed and the embankment is essentially the same. The CCP has in fact been updated using these facts and applying updated costs for this structure, therefore it is incorrect to say that the CCP submitted in December 2014 is not updated. We have applied the highest cost scenario. As more magnetite and facility embankment is removed over time, the costs for regrading the embankment and tailing material will decrease. Therefore, the CCP provides more than adequate financial assurance.

5.1.1 Tailings Impoundments

Describes tailing impoundments at Cobre and indicates that, for the Main Tailing Impoundment ('MTI") Cobre has no intention to resume tailing deposition to the MTI; however, Cobre has recently deposited magnetite tailings that were mined out from the Magnetite Tailing Impoundment and placed the tailing material on the top surface of the MTI. Cobre must address the potential for continued deposition of additional tailing

Mr. James Hollen April 10, 2017 Page 17 of 42

material on the MTI and provide a basis for this in the CCP and cost estimate for reclaiming this additional material being placed on the top surface of the MTI.

To clarify, Cobre did not write or imply that we "have no intention to resume tailing deposition to the MTI". Cobre's statement in the first paragraph of 3.1.1 of the CCP Update is that we do not intend to deposit new milled tailings on the MTI through year 2019, but may do so in the future. We have requested and been authorized by the appropriate state agencies to place the materials described previously from the magnetite tailings facility on the top surface of the MTI.

Cobre will add the following sentence to Section 5.1.1: "The copper tailing, local soil and rock mixed with minor amounts of magnetite that have been placed on the top surface of the Main Tailings Impoundment and covered with a dust cover of local borrow material do not require any other special activities for closeout and are treated the same as the rest of the tailing dam in this closeout plan ."

Further, relating to the MTI, there is the Reclaim Pond located to the north and upgradient of the MTI and serves as a surface water impoundment feature at Cobre that captures surface water run-on from surrounding natural ground surfaces and prevents this storm-related run-on from flowing directly onto the top surfaces of the MTI. However, it is unclear as to how much of this surface water is seeping into the main body of the MTI from the Reclaim Pond due to inflow into the MTI directly from the water impounded in the Reclaim Pond. Cobre has indicated in the past that inflow to the MTI from water impounded within the Reclaim Pond is negligible, nonetheless, any infiltration allowed into the MTI from the Reclaim Pond has the potential to create long-term problems i.e. structural integrity of the MTI dam, surface water infiltration through the MTI and into groundwater. Does Cobre have any plans for creating any surface water diversions or otherwise re-routing the surface water run-on flowing into the Reclaim Pond to further reduce the water content infiltrating into the MTI? Cobre should address closeout and reclamation of the Reclaim Pond and include a reclamation plan and cost estimate for this feature within its closeout plans for the greater MTI within the CCP.

Cobre's updated CCP does, in fact, address all of the comments above. Some of the statements in this comment are unfortunately incorrect and un-supported. Cobre manages the water in the reclaim pond according to protocols agreed upon with the Office of the State Engineer Dam Safety Bureau. The water is dutifully managed to minimize ponding and therefore also minimizes infiltration. Furthermore, the minimal infiltration that may occur does not compromise stability which is monitored carefully and regularly and found to be adequate. The closeout plan documents Cobre's plans to divert run-on from the Upper Poison Spring Drainage into Grape Gulch as well as convey runoff from the reclaimed surface as discussed in Section 5.3 of the 2014 CCP. Cobre's reclamation plan and cost estimate for the Reclaim Pond are discussed in Section 5 of the 2014 CCP.

Cobre suggests within the CCP that the buttressed outslopes of the MT I are consistent with its wildlife PMLU and thus, the buttressed outslopes comprising the main dam feature of the MTI are stable in their current configuration and will remain as such (un-reclaimed) at closeout

Cobre must address reclamation and revegetation of the outslopes within its reclamation plans for the MTI and consider decreasing the steep slope angles which are currently.

more-or-less at or only slightly above angle of repose, as well as revegetation of these outslopes pursuant to Appendix C of GR002RE-01 -1 and include these additional reclamation elements for the MTI within the CCP. If layback of the buttressed outslopes of the MTI has the potential to affect the eventual footprint for final buildout of the Continental Pit, or if the layback affects the boundaries of any other mine units adjacent to the Continental Pit, Cobre should consider whether any of these potential changes might affect the approved Pit Waiver for the Continental Pit. Cobre must also address how it intends to reclaim the extensive windblown tailing deposits that are blanketing most of these outslopes and the buttresses of the MTI, in the CCP. MMD agrees with Cobre regarding the potential for the wildlife PMLU designation for the outslopes; however, not in the current configuration (unvegetated, steep slopes, presence of windblown tailing material and no storm water control etc.). Cobre indicates within the CCP that drainage channels are to be integrated into the MTI buttresses; however, no explanation or description is included._ Cobre describes the Weber Pond Area as a feature existing upon the top surface of the MTI and indicates that it contains valuable wildlife habitat and that this area in general should be un-reclaimed and left preserved in its current state. Please provide additional details regarding the description of the Weber Pond Area i.e. what is its purpose, and explain why this area contains such valuable wildlife habitat within the MTI and why it should not be reclaimed with the MTI but left in its present condition.

The comments above indicate a significant misunderstanding of the scope of work Cobre has included in the CCP Update for the MTI reclamation. In fact, Cobre has greatly expanded the scope of reclamation activities for MTI slopes as compared to the currently approved reclamation plan. Everything in the agency comments is in fact included in the CCP update and cost estimate.

There seems to be confusion over the difference between a buttress and the rock and earthen fill embankment of the MTI. The difference is explained in Section 3.1.1 under Description of Existing Mine Facilities.

The rock/earthen embankment (i.e., outslope) is the original embankment of the MTI. The slope of the existing embankment ranges from 1.4:1 to 2.5:1. The updated CCP proposes to regrade the majority of the embankment to an interbench slope of 3:1 and cover with three feet of cover (see Section 5.1.1, Table 5 and Design Drawing Sheets 3, 4, 6 and 7). Regrading and covering these slopes also addresses MMD's concern on windblown tailing on these slopes.

There is only one relatively small segment of the MTI embankment that is proposed to remain in its current configuration – the southwest segment (comprising 3.25 acres a minor percentage of the entire embankment) immediately adjacent to the Continental Pit. Cobre does not propose to regrade this small segment because it is too close to the Continental Pit. MMD has agreed to not require reclamation in locations like these at other mines in Grant County because of safety and water management concerns on the edge of the open pit. This slope area has revegetated on its own and the slope materials are not potentially acid generating. Therefore, this current configuration provides valuable wildlife habitat in conjunction with adjacent reclaimed sites and is consistent with other natural landforms around the mine. Weber Pond is not "on top of the MTI" as implied in the MMD comment, but the discussion above provides the basics of the justification to leave this minor segment as is.

Mr. James Hollen April 10, 2017 Page **19** of **42**

There is a buttress that was constructed in 2007 (called out on Design Drawing Sheet 6). The buttress was designed and constructed for geotechnical purposes and is already built at an overall slope of 3:1 and was revegetated. Because this buttress was designed and constructed for geotechnical purposes, Cobre determined that it is unwise to modify it. The buttress is already providing adequate wildlife habitat and there is no reason to modify it other than to break the slope with a drainage channel to improve post closure water management and reduce potential for erosion (see Design Drawing Sheet 4 for the typical cross section of the buttress area with overall 3:1 slope). Costs were included for this channel in the CCP.

5.1.3 Continental Pit

Cobre should address whether the water contained in the pit lake within the Continental Pit is subject to surface water quality standards pursuant to 20.6.4 NMAC? Cobre maintains that the pit lake water is not subject to any regulatory groundwater quality standards and it is unclear whether surface water quality standards are applicable to the pit lake. Further, this Section doesn't mention any wildlife preclusion measures describing how Cobre intends to discourage wildlife from the using the pit lake.

Cobre's opinion is that surface water quality standards should not apply to the referenced pit lake. The comments provided by the Surface Water Quality Bureau to MMD (see below) seem to indicate that they may be of the same opinion. NMED has rendered a favorable determination in the past supporting the waiver from the requirement of a self-sustaining ecosystem for the Continental Pit. NMED is expected to render a determination at a later date when their review of the facts of the site are complete.

The pit lake is likely to be of acceptable quality for wildlife (see additional responses below to similar comments) and should not present a hazard requiring exclusion under permit GR002RE. That said, the fences proposed for human safety will preclude large mammals from the pit.

5.1.4 Hanover Mountain

Cobre addresses the potential for ARD emanating from the exposed pit walls of the Hanover Mountain deposit by reclaiming only the accessible flat surfaces at each 50' interval of the pit benches by ripping and seeding these areas. If these flat surfaces as well as the exposed pit walls above each bench will be exposed mineralized rock that is likely ARD producing and is devoid of any soil medium capable of supporting vegetation, how does Cobre intend to abate the ARD emanating from the pit walls above each bench surface and successfully revegetate the flat surfaces below by only ripping and seeding exposed mine rock without any soils or other suitable growth media present in these areas? Aside from covering and revegetating these benched surfaces, how does Cobre intend to otherwise eliminate ARD from the pit walls from adversely affecting the revegetation efforts on the flat surfaces? Cobre describes Hanover Mountain as being mined out by EOY 2019, in addition to making several other similar estimations throughout the CCP in anticipation that EOY 2019, will represent Cobre's maximum extent of mining disturbance at the mine; Cobre must revise this estimate where applicable throughout the CCP if Cobre's estimate that EOY 2019, as its maximum disturbance threshold for

Mr. James Hollen April 10, 2017 Page **20** of **42**

maximum mining disturbance is not achievable and utilize a more generalized time frame that is based on more realistic outcomes instead of mining rates and schedules that are difficult to meet given the transient nature of mining relative to financial situations that arise and alter mine plans and closure estimates; it doesn't seem practical to base the CCP upon specific dates and unachievable goals, especially with the CCP being updated incrementally every 5 years.

The Hanover Mountain reclamation plan is consistent with the approved CCP. The majority of the surface in the Hanover Mountain mined area will be reclaimed with three feet of cover material. Cobre is proposing to reclaim all the safely accessible benches and minimize water contact with the exposed Colorado Formation. The mine will not intersect the water table and storm water is not expected to emanate from steep pit walls in significant quantities. Cobre acknowledges that there could be some ARD in these areas but it will flow onto the mine floor rubble that is not safely accessible and not covered. This minor amount of water will evaporate, be absorbed by the floor rubble or infiltrate. It is not expected to flow onto the covered portions; however, the CCP contains costs for monitoring and maintenance so that if an issue arises, minor adjustments can be made to keep the water from impacting the cover. Facility characteristics, reclamation designs, and the reclamation cost estimate presented in this 2014 CCP Update are based on projected conditions at the Continental Mine by EOY 2019 (this is assumed to be five years after mining resumes). The planned configuration and reclamation of the mine at EOY 2019 is depicted in Drawing Sheets 1 through 10. The configuration for EOY 2019 (or year 5 after mining resumes) is the year with the greatest area of disturbance requiring reclamation. Consequently, the cost estimate presented in the CCP represents the highest cost year over the next 5 years of mining at the site. The NMED and MMD approved using the EOY 2019 configuration for the 2014 Updated CCP on October 23, 2014.

5.1.4 Roads

The CCP indicates in this Section that any haul and/or exploration or other access roads that are located outside of the post mining land use area will be reclaimed. Cobre must list and identify on a map, any haul and/or exploration or other access roads that are located outside of the post mining land use area and not necessary for post closure access that are to be reclaimed. Aside from the access road to remain within the footprint of the reclaimed CHR at post closure, MMD is unaware of any additional roads that may be necessary at post closure.

The reference for this comment should be Section 5.1.5. The site map with all reclaimed surfaces shaded is presented on Drawing Sheet Number 3 of the CCP Update. MMD is correct that essentially all the haul roads are shown to be reclaimed with the minor exception of the haul road interior to Continental Pit. The cost estimate provides for all of this reclamation; however, it should be noted that smaller access roads to much of the reclaimed area for maintenance and monitoring purposes will be needed.

5.1.4 Borrow Areas

Cobre estimates that adequate borrow sources for overburden are available or will become available at closure from various sources at the mine including the stripping of overburden at the Hanover Mountain Unit. Cobre indicates further that all existing borrow sources at the mine at closeout will be completely consumed and will be removed for use in various reclamation and closure activities and thus, no reclamation of these areas will

Mr. James Hollen April 10, 2017 Page **21** of **42**

be necessary. Cobre should provide additional details and a plan for reclamation of these borrow source areas if these areas are not fully exhausted at reclamation and will require reclamation.

Cobre plans to borrow all the RCM stored in the cover material stockpiles/borrow sources during reclamation. Material on the cover material stockpiles/borrow sources will be excavated in a manner that will require no grading prior to seeding. The borrow stockpiles/borrow source that remain will be ripped and seeded as indicated on Table 5.

5.2 Cover Design and Materials

Cobre cites Condition 76 and Condition 77 of NMED DP-1403 as being the only regulatory conditions requiring a comprehensive cover performance evaluation and the cover, erosion and revegetation test plot study; however, given that the CCP represents closure and closeout plans covering both NMED and MMD permits, Cobre should also indicate within the Section that Conditions 76 and 77 of DP-1403 are incorporated into Section 8 of as requirements of MMD Permit GR002RE-01. Cobre should also cite MMD Condition M.I of Permit GR002RE-OI within this Section, which is like NMED DP-1403 Condition 77, and requires the cover, erosion and revegetation test plot study.

Cobre acknowledges that the MMD requires a cover, erosion and revegetation test plot study and a comprehensive cover performance evaluation pursuant to Section 9.M.1 of GR002RE Rev 01-01.

Further within this Section, Cobre indicates that run-of-mine carbonate waste rock materials show a propensity to be an effective reclamation cover material but doesn't include any description or other details within the Section describing the blended leached cap and carbonate materials currently being tested in the Test Plots at the WWRDF at Cobre. To date, the test plot studies ongoing at the WWRDF have shown that the blended leached cap and carbonate cover materials may perform better as a growth media and could have a greater propensity for becoming a more effective cover material than the carbonate materials alone. Cobre should include a description within this section also summarizing the blended leached cap and carbonate cover materials.

Cobre has demonstrated that the carbonate material supports plant growth based on the preliminary results from the vegetation monitoring conducted on the Cobre test plots in 2016. In addition to the carbonate in-situ test plots at the East WRDF, Cobre constructed a test plot with Colorado Formation as well as carbonate rock blended with Colorado Formation materials. Cobre agrees that the blended plot also supports vegetation.

Section 5.2 also suggests that Cobre intends to enhance the availability of suitable cover material and states that where practicable, pre-stripping of native soils and regolith will happen prior to existing overburden materials that may be available from the base of the NOBS area within the mass balance cover calculations. Cobre should also include discussion of any pre-stripping operations planned for the NOBS within this Section, including an estimate for the quantity of suitable existing cover material that is available for salvaging from the NOBS and include these estimates within the mass balance cover calculations.

The NOBS is located on hillsides and a narrow canyon. The native soils in the NOBS area are thin and not practicable for salvage. During clearing and grubbing if salvageable topsoil is encountered it will be spotted on the edge of the cleared area but within the BMPs. The

2014 CCP provides costs to utilize the material remaining in the NOBS or exposed after NOBS removal for reclamation of the area.

5.3 Water Management and Water Quality Monitoring

Cobre states within this Section that waters not meeting applicable standards for discharge as required by DP-1403 and the groundwater abatement process will not be discharged but will be 'managed''. Cobre should provide additional details explaining how it intends to manage any impacted water that doesn't meet applicable standards for discharge and indicate whether Cobre anticipates that such water management will involve construction of any additional infrastructure or mining-related facilities that may require reclamation during closeout and if any, include these water management facilities in the CCP.

Water management within the Hanover Mountain Deposit ("HMD") is also described within this Section, including a statement indicating that Cobre intends to capture runoff from the HMD but makes no distinction of how or where it intends to capture and store any runoff and whether this may require construction of additional facilities, e.g.downdrains, channels, ponds, pipelines

etc., or any significant other infrastructure that may require reclamation during closeout activities. Cobre should provide additional discussion within this Section addressing the eventual fate of any runoff or potentially impacted runoff emanating from the HMD unit, how Cobrc intends to manage this runoff and whether it may require construction of additional facilities that could require reclamation during closeout. Furthermore, Cobre should provide more discussion relating to how Cobre intends to remove, store or otherwise manage any captured runoff given that no pit or pit lake is contemplated for post-mining land use and Cobre intends to reclaim the HMD as wildlife habitat to meet standards for self-sustaining ecosystem.

On page 33, Cobre indicates that water collection systems required by DP-1403 will remain in place at locations throughout the permitted mine area as long as required for the collection and containment of any impacted water from disturbed areas of the mine that do not meet applicable standards for discharge. Cobre should include additional discussion within this Section providing details regarding how and where and any duration of time that it intends to store impacted water and whether such activity may require construction of additional facilities or other infrastructure requiring reclamation during closeout activities. Cobre indicates that after these impacted waters are determined to meet applicable standards for discharge, it intends to discharge the water, then remove and reclaim any associated water collection systems and reclaim the associated disturbance and implies that additional disturbance for such infrastructure is contemplated and reclamation of these water management facilities should be included within the closeout plan and cost estimate. The discussion should also address how Cobre intends to preclude wildlife from these storage and collection systems during the duration in which Cobre intends to store this impacted water.

The updated CCP provides all of the information requested in this comment as explained below. The cost to reclaim any unnecessary infrastructure for closeout is included in the cost estimate. The cost for new infrastructure for post-closeout water management is also included in the closeout cost estimate. The Cobre Mine has been on Standby Status and is successfully managing mine affected water and storm water. The water management system utilizes surface water impoundments to control stormwater and collect seepage (Figure 5 through Figure 8) that cannot be discharged. Collected stormwater and seepage are sent

Mr. James Hollen April 10, 2017 Page 23 of 42

through the Bullfrog Pipeline to Chino for inclusion in the Chino water management system. A list of surface impoundments with their type and status at EOY 2019 can be found in Table 3. Section 5.3 of the 2014 CCP discusses the water management system. Cobre does not intend to build additional permanent infrastructure that will required additional closeout activities for HMD. If additional permanent infrastructure is necessary, the CCP will be updated.

As far as other operating collection systems are concerned, Cobre has provided additional discussion in Appendix C, Water Management Cost Estimate Summary Report in the 2014 CCP Update. In summary, impacted stormwater and seeps are currently captured at Cobre in ponds and tanks and piped to Chino for treatment and/or inclusion in Chino's process water stream. Following reclamation and establishment of revegetation, infiltration will be reduced, waste rock facility seeps are expected to decrease and eventually cease flowing, stormwater runoff from reclaimed surfaces will no long be impacted and will be released (Appendix C.1), and the MTI seeps are expected to decrease and eventually cease flowing (Appendix C.2). The reduction in the aforementioned sources will result in a decrease in the amount of water requiring management. Facilities and post closeout uses, based on EOY 2019 mine plan, are shown in Table C.1. Water quality monitoring is assumed to continue for a 100-year period. All of these components are included in the Water Management Cost Estimate.

The Water Management System is designed and operated to minimize water storage and minimize wildlife concerns. Operating and maintenance costs are also included to ensure that all the systems are performing as designed. In summary, the seepage collections (that currently require wildlife monitoring during operations) will dry up (or be eliminated through mine operations and closeout activities) within a fairly short time after closeout activities. The remaining water bodies will not present a hazard to wildlife.

6.3 Continental Pit Waiver

Here, Cobre states that "Studies and information collected since the conditional waiver was issued in 2005, support the assumptions and circumstances upon which the condition [sic] waiver approval was granted" and suggests that Cobre has included within the CCP, the closeout measures required by conditions in DP-1403, including Condition 84 and Condition 85 of the Conditional Waiver approval. Condition 84 required a study to supplement existing groundwater studies and evaluate the hydrologic conditions beneath the Continental Mine Facility. Condition 85 requires a study to address the hydrogeologic characterization of the pit lake water chemistry. Based on the assumed outcomes of the studies required by Condition 84 and Condition 85 of the Conditional Waiver approval, it is not clear within the CCP as to whether the pit lake and water quality conclusions and outcomes modelled by those studies have been validated, given that no pit lake was present within the Continental Pit during evaluation of the studies required by Condition 84 and Condition 85 or during the approval process of the Continental Pit Waiver.

Cobre should provide a summary of the outcomes of these studies and indicate whether the modelling in which the studies are based have been validated and will meet the current setting and conditions of the Continental Pit and pit lake relative to the approved pit waiver.

Additionally, regarding the expected outcome of the mining configuration of the HMD; it is unclear in the CCP whether mining of the HMD will result in a pit feature within this mine unit or whether Cobre expects a pit lake to form within the pit. Cobre mentions in Subsection 5.1.4 that highwalls are expected as a final mining configuration within the

Mr. James Hollen April 10, 2017 Page **24** of **42**

HMD unit and proposes elsewhere to leave certain areas of the pit benches and highwalls in an un-revegetated state as "valuable" wildlife habitat. Cobre should provide additional discussion regarding the expected mining configuration of the HMD and address the potential for creation of a pit or pit lake feature within the mine unit given no pit waiver exists for the HMD.

As stated in other responses above in regard to the Continental Pit, there are no significant differences in the conditions today from those contemplated for the 2005 pit waiver. The water depth and flows are on the order of those predicted for the waiver in 2005. The pit lake has only recently expressed itself at the surface of the Continental Mine.

A quantitative analyses can be conducted after sufficient time has passed to collect meaningful pit lake data for validation. Cobre has conducted a qualitative comparison. Visual observations of water elevations in the pit lake indicate that water manifested in the pit approximately 12 years after dewatering of the underground workings stopped. This matched well with the predicted timeframe required to fill the underground workings to the bottom of the pit. Water quality was measured in the pit lake in 2014 and the results correspond very favorably with modelled values. In general, the year 10 model predictions are comparable or slightly higher than the 2014 measurements for metals. Selenium was measured to be significantly (an order of magnitude) lower than predicted in the pit lake model. In order to formally validate the model, inputs such as climate variables used in the model would have to be compared to those that occurred and appropriate adjustments made.

In the case of the Hanover Mountain mine area, Cobre does not expect a pit lake to form because as stated above the deeper water table is not intersected. Since groundwater is not encountered during mining operations, total evaporation exceeds surface water capture within the mine disturbance area. All of these questions are being addressed in their proper venue in the NMED permitting process. See response 3.2 for additional information concerning the HMD configuration and water management plan.

6.4 Other Ancillary Facilities, Structures, and Systems

On page 36 of this Section, Cobre indicates that all exploration holes have been closed in accordance with OSE conditions except for some located on Hanover Mountain. Cobre asserts that these drill holes will eventually be mined out when mining commences at Hanover Mountain; however, Cobre doesn't make any statements regarding the fate of these open drill holes if mining is further delayed or never commences at Hanover Mountain. Cobre should provide additional details regarding the status of these drill holes and commit to properly plugging and abandoning these drill holes in the event should mining never commence or if proper plugging and abandonment of these drill holes are delayed for several more years.

This closure plan was developed for the next five years and the cost estimate is based on the most expensive reclamation year. This is determined by the configuration of the mine in the five-year period. In the event mining does not occur on Hanover Mountain, there will be enough money in financial assurance to plug and abandon the exploration holes occurring on this Mountain.

6.5 Revegetation Success Guidelines

Cobre makes an argument within this Subsection that the rocky buttresses of the MTI make excellent habitat and will be left in its current configuration to provide valuable

wildlife habitat. The CCP indicates that although these areas have sparse vegetation and are unlikely to meet revegetation success and diversity criteria of Permit GR002RE 01-1. Cobre asserts that these un-reclaimed buttresses of the MTI are to remain as currently configured because they represent a "critical component" of the overall SSE and will provide valuable wildlife habitat diversity. It has been noted during site inspections of the MTI that the buttresses forming the outslopes of the MTI are covered with sparse vegetation (mostly shrubs) among sand dunes composed of fugitive wind-blown tailing materials that have been blown from the MTI and deposited along the buttressed outslopes of the MTI prior to Cobre's installation of the temporary dust cover over the top of the MTI. From MMD's perspective, the lack of any significant vegetation coupled with the presence of sand dunes composed of fugitive tailing dust along these outslopes hardly qualifies on any level as a "critical component" of the overall SSE and should be reclaimed. Cobre should revise this Subsection to include a reclamation plan for dealing with the windblown fugitive tailings that includes the outslopes. Additionally, Cobre should revise the Affected Areas Section of this CCP to include additional details describing how it intends to contain or otherwise handle the fugitive tailings.

Please see response 5.1.1 for additional information. MMD's comment here seems to be referring to the southeastern outslope of the MTI where dunes are present. The CCP includes a regrading plan (sheet 5-13) and a cost estimate for reclaiming this outslope. Cobre has financial assurance in place for regrading and seeding this area.

Cobre in this statement is referring to the approximately 3.25 acres rock embankment at the south-western part of the MTI just above Weber Pond. This area has not been affected by windblown tailings and currently serves as a satisfactory habitat for rabbits and other small mammals. This steeper rocky slope also is consistent with natural landforms in the vicinity of Cobre – which explicity conforms to the goal of reclamation to conform to surround life zones. Cobre believes some habitat diversity represented in a reclamation plan is not unusual.

7.4 Wildlife Monitoring

Following the submittal of the CCP to MMD, Cobre requested to reduce the post-closure wildlife monitoring schedule approved by MMD in 2006, to coincide with the quantitative vegetation monitoring schedule to correlate wildlife use trends with vegetation cover density. The goal of the study pursuant to Section 9.0.3 of Permit GR002RE 0l-1 is to understand wildlife use trends during establishment of a reclaimed area. Cobre asserts that the reduction in frequency of the scheduled monitoring is necessary due to it becoming predictable and redundant because wildlife typically do not begin utilizing reclaimed areas until after vegetation becomes established. Cobre proposes to conduct the wildlife monitoring study six years after seeding and two consecutive years of the four final years prior to bond release and should revise this Subsection of the CCP to reflect these proposed changes and provide a brief description of the new proposed post-closure wildlife monitoring process. MMD concurs with this proposal.

Thank you for the comment.

8.1 Capital, Operation and Maintenance Cost Estimates

Cobre states that NPV calculations to be applied to the cost estimate will be provided upon the agencies approval of the scope and the costs. For MMD to adequately evaluate the scope and the costs, MMD will need more time to evaluate this aspect of the CCP, and will provide comments on the proposed cost estimate at a later date. Cobre indicates that

Mr. James Hollen April 10, 2017 Page **26** of **42**

inflation and discount rates used in the NPV calculation will be based on available agency guidance. To that end, MMD has revised its 1996 Cost Estimating Guidelines and a copy of the revised, 2016, guidelines are enclosed for use in developing inflation and NPV discount rates. Cobre should update and revise costs to reflect current dollar costs based upon the most up-to-date unit rates.

Cobre awaits MMD's evaluation and comments on the cost estimate. Cobre received a copy of the guidance released in 2016. To our knowledge, it does not contain revisions to MMD's guidance on NPV calculations, but instead focuses on indirect costs.

Table 2-Permitted Facility Summary

Table 2 provides a listing of several permitted, unconstructed facilities but doesn't include the CHR, please revise Table 2 to include the CHR. Table 2 also lists a "No. 3 Shaft Stockpile" however, it is unclear within the CCP as to where this Stockpile is covered under any reclamation plans, cost estimate or whether it is included within the financial assurance; Cobre should provide a description of this Stockpile within the CCP and address it within the cost estimate and financial assurance, in addition to indicating this stockpile with a revised design limits and mine units map.

Table 2 has been updated to identify facilities covered by the current financial assurance cost estimate. The table has also been separated into Table 2A-Permitted Existing Facility Summary and Table 2B-Permitted Unconstructed Facility Summary. The portion of Table 2A and 2B pertaining to Permit GR002RE Rev. 01-1 has been updated with information from the Cobre haul road and the No. 3 Shaft Stockpile. Cobre will include the No. 3 Shaft Stockpile within the revised design limit map referenced in other responses above.

Section 3.1.5 on page 15 describes the No. 3 Shaft Stockpile. Material in the No. 3 Shaft Stockpile came from the construction of the No. 3 Shaft. The shaft was constructed through the Abo and Syrena formations down to the top of Lake Valley and Oswaldo host ore zones. The stockpile material was characterized by Shepherd Miller Inc.in 1999 (Shepherd Miller Inc, Baseline Survey, 1999). Based on results from static and kinetic geochemical testing, this stockpile is considered non-acid generating. The CCP update assumed that the stockpile will be mined out and/or incorporated into a haul road prior to the fifth year of mining. The CCP includes the cost for reclaiming the haul road.

Figures and Tables

Figure 2 represents a map depicting surface disturbance areas that are within the Permit Boundary of GR002RE. Figure 2 should be updated or replaced by a more recent disturbance map dated April 28, 2016, as this figure includes a more recent depiction of surface disturbance within the permit area, including the CHR.

To clarify, Figure 2 represents the Continental Mine MMD permit boundary and not the surface disturbance area. Cobre will continue to provide the MMD with updated surface disturbance maps each year pursuant to 19.10.5.510 NMAC.

Several other figures (Figure 2 through Figure 5, and Figure 8) within the CCP show 3 small enclosed areas that are evidently intended to be excluded from the boundaries of Permit GR002RE; however, it is unclear as to what Cobre's intentions or reasons are for excluding these areas from the Permit Boundary of GR002RE. Please explain the

Mr. James Hollen April 10, 2017 Page **27** of **42**

excluded areas shown on Figure 2 through Figure 5 and on Figure 8 and provide a basis for their exclusion from the Permit Boundary of GR002RE.

Pursuant to Permit Section 5 of Permit GR002RE Rev 01-1, the excluded areas represent historic mines, which do not meet the definition of existing mining operations and therefore are not required to be part of the existing mine permit. As stated above, minor modifications to the Permit Boundary will be submitted in the near future to be considered as part of this revision.

Surface Water Quality Bureau Comment:

The Surface Water Quality Bureau has reviewed the request from Freeport-McMoRan entitled Request to revise Permit GR002RE to Return to Operating Status for the Continental Mine and Mill located near Fierro, New Mexico. Surface water in the area include Hanover Creek, a small drainage adjacent the mine that runs perennially for short distances where ground water surfaces in the drainage bottom. There are also several perennial springs in the area. Both Hanover Creek and the perennial springs are unclassified perennial waters-of-the- state and are presumed to support the uses specified in Section 101(a)(2) of the federal Clean Water Act. These include: primary contact, livestock watering, warm-water aquatic life and wildlife habitat (NMAC 20.6.4.99). A Multi-Sector General Permit is currently in place to address point-source pollution from within the permitted mine boundary and prevent contamination to surface waters. The 2014 update to the dosure/closeout plan details the management of stormwater and seepage which is collected and sent via pipeline to the Chino facility for inclusion in their water management system.

Assuming the permit requirements are adhered to and best management practices are implemented and maintained, the SWQB does not anticipate any negative impacts to surface waterquality following a return to operating status at the Continental Mine and Mill."

Cobre appreciates your comments and will continue to comply with all applicable surface water permit requirements.

Ground Water Quality Bureau Comment:

The updated Closure/Closeout Plan and revised financial assurance estimate was submitted to NMED as part of the renewal application for Discharge Permit 1403 (DP-1403) ("Application"). The Application was submitted to NMED by Freeport-McMoRan Copper and Gold - Continental Mine in August 2009 and supplemented with additional information on December 12, 2014. These documents will be incorporated into the administrative record for 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 underway. As such, comments will be submitted under separate letterhead directly to Freeport-McMoRan Copper and Gold - Continental Mine with copy to MMD as these reports are critical to development of the draft Ground Water Discharge Permit. NMED will coordinate response to these documents with MMD prior to issuance of a comment letter(s) to Freeport-McMoRan Copper and Gold - Continental Mine.

The Ground Water Quality Bureau (GWQB) in a letter dated June 29, 2016 requested additional information from Cobre under DP-1403. Cobre submitted a letter dated January

Mr. James Hollen April 10, 2017 Page 28 of 42

20, 2017 responding to the comments. Cobre continues to work directly with the GWQB on groundwater related issues.

Air Quality Bureau Comment:

The AQB has issued NSR Air Quality Permit No. 0298M5 which combined the following Construction Permit into a single Construction Permit for the Chino and Cobre operations: NSR 1089-MI (Cobre Mine); NSR 1964-MIR I (Hanover Solution Extraction Plant); NSR 376-M5R3, R2, RI, M4, M3, M2 (Chino Mine - Hurley Facility); NSR 298-M3, M4, M4RI, M4R2 (Ivanhoe Concentrator); and GCP-2-3629 (Chino Mine Screening Plant). After issuance of 298M5 on 1/20/2012, the permit 1089, 1964, 376 and 3629 above are void.

Details

Cobre owns and operates existing mining operations located in southwestern New Mexico, including the Cobre Continental Mine and all associated facilities. The Continental Mine is located near Fierro, in Grant County, New Mexico. Cobre has submitted an application to revise mining Permit GR002RE to end standby status and return to operating status. Cobre intends to commence surface mining operations and transport ore to Freeport- McMoRan Chino Mining Company for milling and leaching, with an anticipated start date of mid-2016. Cobre is not requesting any changes to already approved units, its permit boundary or design limits with this application.

The updated Closure/Closeout Plan describes the closeout measures to address disturbances at Cobre that will be undertaken to end standby status and return to operating status.

Air Quality Requirements

The New Mexico Mining Act of 1993 states that "Nothing in the New Mexico Mining Act shall supersede current or future requirements and standards of any other applicable federal or state law." Thus, the applicant is expected to comply with all requirements of federal and state laws pertaining to air quality. Current requirements which may be applicable in this mining project include, but are not limited to the following:

Subsection A of 20.2.72.200 NMAC, Application For Construction, Modification, NSPS, And NESHAP -Permits And Revisions, states that: 'Permits must be obtained from the Department by:

- 2. "any person constructing a stationary source which has a potential emission rate greater than 10 pounds per hour or 25 tons per year of any regulated air contaminant for which there is a National or New Mexico Ambient Air Quality Standard (e.g. PM, TSP). If the specified threshold in this subsection is exceeded for any one regulated air contaminant, all regulated air contaminants with National or New Mexico Ambient Air Quality Standards emitted are subject to permit review [...]"; and
- (3) "Any person constructing or modifying any source or installing any equipment which is subject to 20.2.77 NMAC, New Source Performance Standards {e.g. Subpart GOO-Standards of Performance for Nonmetallic Mineral Processing Plants}, 20.2.78 NMAC, Emission Standards for Hazardous Air Pollutants, or any other New Mexico Air Quality Control Regulation which contains emission limitations for any regulated air contaminant;"

Also, Paragraph (1) of Subsection A of 20.2.73.200 NMAC, Notice Of Intent states that:

"Any owner or operator intending to construct a new stationary source which has a potential emission rate greater than 10 tons per year of any regulated air contaminant or 1 ton per year of lead shall file a Notice Of Intent with the department."

Permitting Requirements for Regulated Equipment and Sources of Fugitive Dust (e.g.PM,TSP)

The Air Quality Bureau regulates particulate matter emissions from stationary sources that process mined materials via: 20.2.15 NMAC, Pumice, Mica, and Perlite Processing; 20.2.19 NMAC, Potash, Salt or Sodium Sulfate Processing Equipment -PM; 20.2.42 NMAC, Coal Mining and Preparation Plants -PM; and 20.2.72 NMAC, Construction Permits. The emissions from equipment and activities such as crushers, screens, conveyors, baghouses, material drop and transfer points, haul roads, and storage piles must all be considered in determining applicability under 20.2.72 NMAC. Please contact the Permit Section for additional guidance.

Fugitive dust is a common problem at mining sites. Fugitive dust emissions are regulated generally by 20.2.72.200.A NMAC (e.g., 10 lbs./hour or 25 TPY). However, specific strategies to control fugitive dust may be left up to the discretion of the owner I operator of the source. The following control strategies can be included in a comprehensive facility dust control plan (from EPA's Compilation of Air Pollutant Emission Factors, AP-42):

Unpaved haul roads and traffic areas: paving of permanent and semi-permanent roads, application of surfactant, watering, and traffic controls, such as speed limits and traffic volume restrictions.

Paved roads: covering of loads in trucks to eliminate truck spillage, paving of access areas to sites, vacuum sweeping, water flushing, and broom sweeping and flushing.

Material handling: wind speed reduction and wet suppression, including watering and application of surfactants (wet suppression should not confound track out problems).

Bulldozing: wet suppression of materials to "optimum moisture" for compaction . Scraping: wet suppression of scraper travel routes.

Storage piles: enclosure or covering of piles, application of surfactants.

Miscellaneous fugitive dust sources: watering, application of surfactants or reduction of surface wind speed with windbreaks or source enclosures.

The above is not intended to be an exhaustive list of all requirements that could apply. The applicant should be aware that this determination does not supersede the requirements of any current federal or state air quality requirement. The Air Quality Bureau or the US Environmental Protection Agency may implement additional requirements, regulations and standards for the control of fugitive dust sources in the future. This written determination does not preclude the applicability of any forthcoming state or federal regulations.

Mr. James Hollen April 10, 2017 Page 30 of 42

Cobre appreciates the AQB review of the Cobre CCP. Cobre is working closely with AQB to comply with NSR Permit NSR 0298M8R1. Cobre is proposing minor changes to the mine permit boundary and design limits; please see response under 3.1.10 above. These changes are not expected to change the air quality permit.

Response to EMNRD-Forestry Division:

Thank you for giving me the opportunity to review and comment on the permit revisions and the updated closeout plan for the Freeport-McMoRan Copper and Gold, Cobre Mining Company in Grant County, New Mexico (Permit No. GR002RE, Revision 15-1). I do not anticipate any impacts to state listed endangered plant species from the revisions or closeout plan as described. However, I highly recommend the development and inclusion of a weed management plan to address the management and eradication of invasive species once reclamation has taken place.

Cobre will develop a Class A and B noxious weed management plan for areas identified in the construction or borrow areas.

The Office of the State Engineer Comments:

On February 24, 2015, the Hydrology Bureau of the New Mexico Office of the State Engineer (NMOSE) received from MMD a request for review and comment on an updated closeout plan for the Revision 15-1 of Permit No. GR002RE, Continental Mine (Revision). Operated by the Freeport-McMoRan Copper & Gold Continental Mining Inc., the Continental Mine is located in Grant County. The mine is north of the highway 152 and about 2 miles north of Hanover. The Revision consists of a updated closure/closeout plan dated December 2014 (Updated CCP). The Updated CCP was prepared by Telesto Solutions Incorporated (Telesto). NMOSE has reviewed the Revision and has the following comments.

Page 5, Section 1.3.3, 2"d bulleted item. Continental Pit a Hydrologic Sink. The Updated CCP indicates that the Continental Pit will function as an evaporatative sink. Stage 1Abatement Plan (2005), and Stage 1Abatement Report (2011) plus an updated groundwater study in 2008 by Telesto identified the Continental Pit as a hydrologic sink. The 2008 study constructed a 37-layer groundwater flow model with 12 material properties for geologic units or structures. Overall, the Updated CCP may overstate the evaporation associated with pit lake and Barringer fault as an barrier to flow. Based on the results of the groundwater flow model and depiction of potentiometric surface, the conceptual model may need some reconsideration and clarification. Specifically, the following points are made from reviewing portions of supporting documents for Updated CCP:

1.A. The evaporative losses may be overestimated in Supplemental Groundwater Study (Telesto October 2008, page 4 and Table 2-1) or Dynamic Systems Model (DSM) by using the lake evaporation of 55.8 inches per year. This estimate includes adjustment of the Chino Mine pan evaporation by multiplying by 0.7. Referencing the SCS 1972 map for gross lake evaporation, the estimate would be 45 inches per year. These estimates do not include the rainfall, which would decrease the effect of potential evaporation mentioned in Section 10.1.2 (Telesto October 2008, pages 48-49, test for flow-through conditions) to a net evaporation. Section 6.7.1 (Telesto October 2008, page 29), the aerial recharge was limited to approximately 2.7 to 5.7 percent of mean annual precipitation. A net evapotranspiration (ET) is mentioned for the groundwater flow model (Section 6.7.2), yet ET may not be the appropriate parameter for the pit area. Thus, for the DSM of the pit area or other pit lake estimates, a net evaporation should be considered for estimating pit lake elevation.

To address the reviewer's comment, let's first establish common terminology:

- Lake Evaporation the total amount of water that leaves a lake's surface,
- Pan Evaporation the total amount of water that leaves a standard, Class AA evaporation pan
- Evapotranspiration the total amount of water leaving the surface of plant leaves
- Precipitation the total amount of water received from the atmosphere in terms of rain or snow (minimal at the Continental Mine).
- Net evaporation the sum of the total amount of water removed by evaporation minus precipitation

The hydrologic predictions in the pit lake modeling were performed using a water balance approach where all of the inputs (i.e., groundwater inflow, precipitation, runoff) minus all of the outputs (i.e., evaporation, groundwater outflow-when present) equals the change in storage. Two general scenarios were considered: 1) pit lakes with no backfill and 2) pit lakes with backfill. Figure 1 (Telesto, 2008b) summarizes the inputs and outputs from the no-backfill scenarios. As shown in Figure 1, the evaporation component should be the lake evaporation (total evaporation) as the precipitation is counted as an input term. Utilizing the net evaporation, as the commentor suggests, would be double counting precipitation input and would be incorrect.

Figure 2 and Figure 3 show the National Oceanic and Atmospheric Administrations (NOAA) and the Soil Conservation Service's (SCS's) estimates of evaporation from a shallow water body, respectively. NOAA shows that the anticipated gross (i.e., total) evaporation from a shallow lake near the Continental Pit would be 55 inches/year. The SCS shows a similar value of 65 inches/year (not 45 inches/year). Thus, using 55.8 inches/year for the total surface evaporation from the lake is correct and supported by public information. Additionally, Cobre installed an evaporation pan at the site. For 2014, the total pan evaporation was 79 inches. These data were used to calibrate the Penman-Monteith evaporation equation for the Continental Mine area. This allowed for an estimate of pan evaporation based upon other commonly measured climate variables. The resulting average pan evaporation was 80 inches/year lending further support to the evaporation values used in the analysis.

For one of the backfill scenarios considered, the conceptual backfill would be such that roots of plants could reach the phreatic surface in the pit. Thus, for the backfill scenarios with vegetation the evaporation term was replaced with an evapotranspiration term because there would be no free-standing water. Again, precipitation was included in the water balance and using a net evaportranspiration value would be double counting and incorrect.

Cobre would like to note that none of the reviewer's comments are relative to the 2014 CCP.

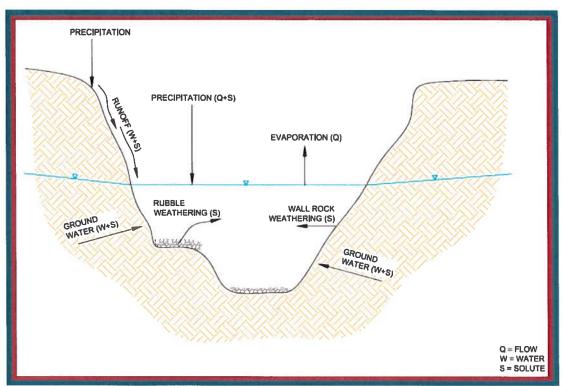


Figure 1 Conceptual Model of the Open Pit Lake

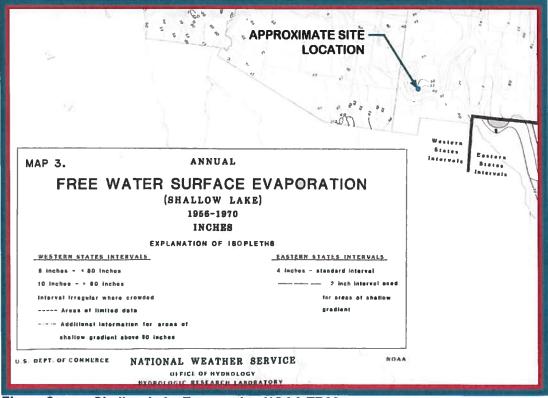


Figure 2 Shallow Lake Evaporation NOAA TR33

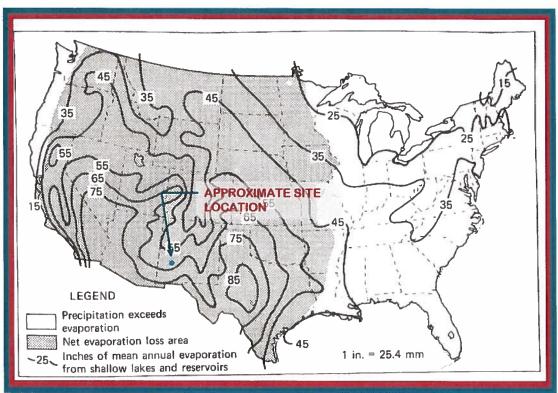


Figure 3 Land Surface Evaporation - SCS 1972 (replace)

1.B. The 1990s dewatering rate may underestimate inflow to the re-pressurized hydrologic system. The 1993-1997 estimates of 119.6 to 150.6 gpm (.Telesto October 2008, Section 5.4.1, page 21) for annual dewatering rates of Continental underground mine workings may underestimate because of decades of dewatering that preceded 1993-1997 rates. After additional adjustments based on other underground seeps from the 1990s, the range of pit inflow became 119 to 178 gpm. During calibration (Sectin 7.3.3, Telesto October 2008), certain model parameters were adjusted so the simulated mine inflow rate of 183.5 gpm was within or near the target range of 119 to 178 gpm. Relatively small changes for the pit inflow would affect the size of the pit lake. Provide an estimate of uncertainty for the pit inflow amount.

To clarify, nothing has "repressurized the hydrologic system" since the 1990s. No new influxes of water have occurred nor has the system "filled up." The empty voids of the underground workings and open pit still act as a sink to "depressurize" the hydraulic system. Thus, the comment is noted but not pertinent to estimating dewatering rates.

To further clarify, the Condition 84 report (Telesto, 2008a) describes the development of the numerical model used to predict inflow to the Continental Pit under various scenarios. The inflow to the underground workings was one of many calibration targets used in the model. Historical pumping records indicate that the pumping rates ranged from 119 to 178 gpm when factoring in an estimate of the non-measured component of groundwater outflow removed through the ventilation system (not additional seeps as described above). The sensitivity of the model input parameters to that calibration target is discussed in Section 9.1. The calibration results of 183.5 gpm is within a relative percent difference of 3% of the target

Mr. James Hollen April 10, 2017 Page **34** of **42**

range. Well within the range of uncertainty for the ventilation system. The model's ability to closely match the inflow and other calibration targets lends validity to its predictive capabilities for use in the pit lake predictions (Telesto, 2008b). As discussed in Section 5.5.1 of the pit lake predictions (Telesto, 2008b), the ground water inflow to the pit lake (as predicted by the numerical model) was increased and decreased by 10% (3 times more than the difference in calibration flow target). Section 5.5.1 discusses the resultant change in predicted pit lake elevations and water chemistry.

1.C. Barringer Fault is characterized as a low permeability barrier (Section 5.2.6, Telesto October 2008, page 18). Figure 5.1 (Telesto October 2008) suggest a partial flowthrough or recharge zone on the south side of the Continental pit that flows southeast. Section 5.2.6 (October 2008 Telesto) cites the TH-98-5 test hole 24-hour aquifer test as another basis for low hydraulic conductivity could be related to the fault zone without ruling out other features that may show a similar response. In Table 7.1 and Section 7.2 (page 38, Telesto October 2008) for calibration purposes, the initial value of hydraulic conductivity for the Barringer Fault were lowered three orders of magnitude from field measurements. Figures 14 and 15 (Updated CCP) show groundwater flow across Barringer Fault. Equipotential lines are widely and narrowly spaced on either side of fault. Overall, without consideration for underground mine workings that may provide hydraulic connections, the entire length of the Barringer Fault appears to have variable properties rather than simply a low permeability feature.

As with any geologic formation, hydraulic properties vary from location to location. Hydraulic conductivity values can range over two orders of magnitude. The values used in an analysis, however, have to be commensurate with the scale at which the analysis is conducted and to which the formation of interest relates to other formations. On the whole, the Barringer Fault has a lower hydraulic conductivity than the surrounding formations with exception of the Hanover-Fierro Stock.

1.D If the Barringer Fault is conceptualized as a low permeability barrier to ground water flow along its entire length, the fault cuts Continental Pit, such that a pit lake would straddle the fault. So, some explanation would be required why no leakage would occur from the part of pit lake that may form south of the Barringer Fault.

The monitoring well network constructed around the open pit was used to define the area of open pit hydrologic containment. The ground water monitoring well data shows that the ground water elevation around the open pit is higher than the water levels predicted and measured in the open pit surface water body. Thus, the open pit is defined as an evaporative sink in accordance with the Copper Rule (20.6.7.33)

1.E Note that Continental Pit bottom elevation cited as 6,725 feet (Section 5.3.5, page 20, Telesto October 2008) is incorrect, and 6,275 feet is correct (page 49, Section 10.1.2, Telesto October 2008). Figure 6 from Updated CCP show Continental Pit bottom at approximately 6,275 feet.

Cobre appreciates the notification of this obvious typo in the Telesto report.

2. Table 8; Figure 13; Figure 14; Figure 15; Section 9.1 — Appendix B; Table B.3; Table 8.5; Wells-Stockpile Worksheet #15; Wells-Stockpile Worksheet #17; Wells-Stockpile Worksheet #18; Appendix B.2.7; Table 2-Appendix B.3; Cost estimate for wells addresses 7 wells for monitoring to be plugged at the end of 99 years. Cost

Mr. James Hollen April 10, 2017 Page **35** of **42**

estimate should address final disposition (i.e., plugged, continued use, frequency of replacement) of entire 40-well network.

As discussed in Section 6.4, Cobre plans to use only seven wells during the post-closure maintenance and monitoring period post-closure. The remaining wells are assumed to be closed as part of ongoing operations prior to the closure period. NMED is reviewing the CCP and the ground water monitoring well network.

3. Appendix C — Water Management worksheet#2. Two of seven wells are listed as interceptor wells for sampling. Pumping wells may need replacement during Updated CCP's 99-year post mining period for this cost estimate.

Pumps are replaced in the cost estimate. Cobre's water quality is cirum-neutral and the wells will last the entire closure period.

4. Section 5.1.3, page 29 & 33; Table 3; Reclamation Drawing Sheet 10 and Table C-i. As indicated in Updated CCP, surface water features have been and will be created by mining of the Continental Pit and the Hanover Pit. These surface water features may need permits pursuant to 19.26.2.15 NMAC (excerpt of reguations cited below) for non jurisdictional structure as an excavation that fills with water. The timing of the permits may depend on when pit lake forms. Also, some of the other impoundments listed in Table 3 may need permits pursuant to 19.26.2.15 NMAC. Applicant should contact NMOSE District 3 (Deming) for permitting, if necessary, of non jurisdictional impoundments

Comment noted.

Department of Cultural Affairs Historic Preservation Division Comments:

According to our records, there are no cultural resources listed on either the National Register of Historic Places or the State Register of Cultural Properties within the permit area. Although there are no cultural resources listed on the State or National Register, numerous cultural resource surveys have been conducted in the permit area. Most recently, a cultural resources survey for the proposed haul road was conducted by Dos Rios Consultants in August 2012 for the Bureau of Land management (BLM), Las Cruces District Office.

According to the application submitted by Freeport-McMoRan Cobre Mining Company, planned mine facilities include mining at the Hanover Mountain deposit, expanding the existing waste rock facilities into the expanded southern waste rock facility, creation of the northern overburden stockpile and development of new internal haul roads. As mentioned above, numerous cultural resource surveys have been conducted in the permit area and the planned mine facilities along with closeout activities, could adversely affect many archaeological sites.

HPD encourages Freeport-McMoRan to discuss proposed mine facilities with a professional archaeologist to determine which archaeological sites might be impacted by mining activities. Any activities on lands managed by the Bureau or Land Management are subject to review under Section 106 of the National Historic Preservation Act and the BLM must be consulted regarding potential affects to cultural resources. In addition, permits from the Army Corp of Engineers and EPA must also comply with Section 106 and effects on historic properties must be considered.

Mr. James Hollen April 10, 2017 Page 36 of 42

Cobre appreciates your comment. Planned mine facilities will have No Effect on Historic Properties. Cobre will continue to work with the BLM on issues regarding potential effect to cultural resources.

The Hopi Tribe Comments:

As we stated in the enclosed letter dated October 14, 2014, the Hopi Cultural Preservation Office is interested in consulting on any proposal in New Mexico with the potential to adversely affect prehistoric sites. We are not aware of any Hopi Traditional Cultural Properties in this project area.

However, to enable us to determine if this application may affect cultural resources significant to the Hopi Tribe, please provide us with a copy of the cultural resources survey of the area of potential effect for review and comment. If prehistoric cultural resources are identified and will be adversely affected by project activities, we request continuing consultation on this proposal including being provided with a copy of any proposed treatment plans for review and comment.

Cobre appreciates your comment. Planned mine facilities will have No Effect on Historic Properties. Cobre will continue to work with the BLM on issues regarding potential effect to cultural resources.

The Pueblo of Acoma Comments:

Acoma accepts your invitation to engage in government-to-government consultation on the amended application for Revision 15-1 to the Continental Mine Permit No. GR002RE. While this project is located outside the Acoma Culture Province. The area of exclusive Acoma Aboriginal Title lands, Acoma has many ties to the south in the vicinity of proposed mine site. The consultation must be in person to discuss sensitive issues surrounding the Pueblo of Acoma cultural resources that may be affected by the application. Acoma is happy to host the consultation, or, if necessary, to travel to your offices in Santa Fe or Chestnut Law Office, PA, in Albuquerque. Please contact Ann Rodger, Attorney at (505) 842-5864 when you and other agency representatives would be available for this consultation.

Cobre appreciates your comment. Planned mine facilities will have No Effect on Historic Properties. Cobre will continue to work with the BLM on issues regarding potential effect to cultural resources.

Response to White Mountain Apache tribe:

The White Mountain Apache Tribe Historic Preservation Office appreciates receiving information on the proposed project, February 24, 2015. In regards to this, please attend to the following checked items below:

There is no need to send additional information unless project planning or implantation results in the discovery of sites and or items having known or suspected Apache cultural affiliation.

Cobre appreciates your comment. Planned mine facilities will have No Effect on Historic Properties. Cobre will continue to work with the BLM on issues regarding potential effect to cultural resources.

Response to Gila Resources Information Project:

EOY 2019 Mine Configuration

 Please clarify that EOY 2019 planned configuration will in fact be the "year with the greatest area of disturbance requiring reclamation." Cobre is unlikely to begin operations in 2016, so it doesn't seem possible that EOY2019 will really be the year with the greatest area of disturbance.

The CCP and financial assurance cost estimate is evaluated using a five-year mine plan. With agency oversite, the highest liability year is evaluated and chosen. As pointed out above, mining did not begin in 2016, however, the mine plan remains unchanged and correspondingly the highest liability year analysis remains unchanged even if the actually mine schedule is pushed out. In summary EOY 2019 is really equivalent to the fifth year of mining depending on when mining begins.

Main Tailings Impoundment

1. The CCP states on p. 13 "Tailings samples have been classified as Not Potentially-Acid Generating (NPAG). GR002RE approves the upper foot of tailings material for use in a three-foot thick cover." Have test plots proven that tailings materials is an adequate cover material for reclamation? Has MMD approved this tailings material as cover for closure/closeout reclamation of the MTI?

The main MTI test plots utilize 1 foot of tailings material as part of the cover system. Initial evaluation indicate that these test plots area performing well.

The MMD approved the upper 12 inches of tailing material as part of the reclamation cover in GR002RE, Section 2(b): "The upper 12 inches of acid neutralizing tailing material may be included as part of the minimum cover thickness requirement, unless the results of the studies described in Condition M.1 and M.5 indicate that the upper 12 inches of material is not suitable for a self-sustaining ecosystem." Geochemical test results show that the tailings are net-acid neutralizing (Telesto, 2008a, 2009b), satisfying the acid-neutralizing criteria of the approval. Results of the studies associated with Conditions M.1 [test plots, (Golder, 2006a, 2016)] and M.5 [Supplemental Borrow Materials Investigation, (Golder 2006b)] are underway and complete, respectively. Both studies have shown the tailings material to be suitable.

Continental Pit

1. Nowhere in any of the CCP documents is the final depth of the pit lake estimated. An estimate of 190. I years is given for the lake to reach "equilibrium hydrologic conditions" which is then contradicted in the text cited from Condition 85 stating that "... there is a chance that after filling for over 200 years the pit water level (as predicted) would reach the elevation of the drift to the historical Union Hill/Republic Underground Workings. If this were to occur, then the drift would have to be plugged for the pit to remain a terminal sink." The predicted final elevation of the Continental Pit Lake should be provided in the CCP.

Filling of the Continental Pit Lake to equilibrium conditions will not occur within the 5-year timeframe of the 2014 CCP. The final predicted Continental Pit Lake depth/elevation can be found in Telesto (2008) and see response 6 below.

2. The water quality predicted for the Continental Pit Lake "...is expected to have a near- neutral pH (7.0) and a chemical composition dominated by calcium and bicarbonate. Metal concentrations are predicted to be low as a result of the near-neutral pH." However, the 2011 report states that, "Selenium is the only constituent that is predicted to be out of compliance with NMED surface water regulations for wildlife use within the 300-year simulation period." This is not unexpected because selenium, an amphoteric element, is soluble at both low and high pH. Given that the pit lake will act as wildlife habitat for migrating waterfowl, selenium in the water will pose a hazard to any birds or other wildlife drinking pit lake water.

Several statements in this comment are misleading and unsupported. The Continental Pit Lake chemistry predictions are conservative (i.e., on the high-end of the probable range) (Telesto, 2008) and it is more likely that standards will be achieved. This is supported by actual sampling of the pit lake which indicates that Selenium is significantly lower than predicted in the geochemical model. It is not accurate to portray the water quality in this pit as being a hazard to wildlife.

3. Continuing the discussion above, a pit lake will become an "attractive nuisance" to wildlife, particularly migratory waterfowl. Over time, other wildlife (coyote, deer, rabbits, small mammals) can be expected to breach the chain-link fences around the pit and drink pit water. What are other methods that could be implemented to prevent wildlife from accessing the pit lake and drinking potentially hazardous pit lake water?

See response to Comment 2 and responses to related comments from MMD above.

4. Allowing the formation of a "terminal sink pit lake" is irresponsible environmental management. According to the CCP, Cobre has no plans to pump and treat water in the Continental Pit and has applied for and received a waiver to be exempted from meeting NMAC 20.66.2.3103 water quality standards in the pit lake as well as an exemption from creating an SSE (Self-Sustaining Ecosystem) at the pit.

A terminal sink pit lake is already in existence at Cobre with or without continued mining. Cobre is working with State and federal agencies to ensure that mining can proceed in a responsible and economic manner. The language in the comment is not accurate. Cobre has not applied to NMED for a waiver from meeting NMAC 20.6.2.3103 water quality standards but it is true that these standards do not apply to groundwater within the area of open pit hydrologic containment. Contrary to the commenter's statement, most qualified hydrologists agree that hydrologic containment at mine areas and open pits is a good environmental management practice and that an evaporative sink is a very good way to achieve that goal.

5. Finally, allowing a pit lake to form in a desert environment is a waste of valuable groundwater. No estimates are provided as to the final volume of water in the Continental Pit Lake, but we can assume that hundreds of millions of gallons of MIW (Mine Influenced Waters) will end up in the pit lake, with evaporation or the poisoning an occasional bird or deer its only function. Were options analyzed for preventing a pit lake from forming?

Because the current and future open pit intersects the water table, an open pit water body will form. As described in the Continental Pit predictive report (Telesto, 2008), backfilling

Mr. James Hollen April 10, 2017 Page **39** of **42**

options were evaluated for the current and expanded pit scenarios. Allowing a pit lake to form proved more environmentally sound than backfilling the pit. Additionally, 20.6.7.33 D (1) NMAC states that open pits that are shown to be a "hydrologic evaporative sink" are not subject to NMAC 20.6.2.3103 water quality standards. Long-term geochemical model results and actual pit lake sampling indicate that surface water livestock and wildlife habitat quality standards are likely to be met. Cobre has demonstrated that the Continental Pit is currently and will remain an evaporative sink far into the future and this is a positive environmental control, not a negative one.

6. What is the possibility that rising water in the Continental Pit will reach the level of the Union Hill/Republic adit and flood additional underground workings? Is it possible that water from the Continental Pit will flow into the bottom of the Hanover Mountain pit at the 6700' MSL elevation?

Based upon the 2014 CCP, the probability of the Continental Pit Lake reaching the elevation of the Union Hill/Republic workings is near zero. The predicted maximum elevation of the current and expanded Continental Pit are 6,593 and 6,479 feet, respectively (Telesto, 2008). The anticipated maximum elevation is predicted to occur sometime beyond 200 years in the future. Once the Continental Pit is expanded, the predicted lake elevation will be over 100 feet below the intersection with the projected drift elevation.

Other Facilities

Section 3.1.5 on page 15 of the CCP provides conflicting information regarding availability of suitable cover material for 'other stockpiles." "The principal finding of the borrow materials investigation was that traditional topsoil resources were limited in the vicinity of the Continental Mine. Area soils found were considered marginally suitable, mainly because they are shallow and/or occur on steep slopes. Salvaging and stockpiling identified the limited topsoil resources within the footprints of planned facility expansions is included in the plan, where practicable." But yet that section concludes by stating, "There are adequate volumes of reclamation cover material at the Continental Mine for all existing and planned operations." Cobre should clarify these contradictory statements. Is there or isn't there sufficient cover material for stockpiles?

There is sufficient cover material for reclamation at Cobre. At EOY 2019, approximately 4 million cubic yards of RCM is required to reclaim 859 acres of disturbed areas. The primary source of cover material identified in the CCP is from the East WRF, which holds approximately 7.5 million cubic yards of suitable RCM. The five overburden stockpiles contain an additional 2 million cubic yards of cover material. Thus, there is sufficient cover material for the existing disturbance and current mine plan.

Hanover Mountain

In the Updated 2014 CCP, Sheet 10 (Hanover Mountain deposit reclaimed post end of year 2019 mining) shows that the lowest elevation to be mined on Hanover Mountain will be 6700 feet MSL on the southeast flank of the mountain. Cross section A-A' shows a series of benches surrounding this low point, and plan views of the Hanover deposit show that the Cobre Haul Road (CHR) will exit the mountain just south of this low point. The Description of Planned Mining Facilities section of the CCP indicates that stormwater will be contained within the Hanover Mountain excavation area at EOY 2019. Unless stormwater is pumped from this low point, a small pit lake will form at the 6700 foot level on Hanover Mountain upon completion of mining, even if mining does not intercept the water table. This issue needs clarification to guarantee that a second pit lake does not form when mining of the Hanover Mountain deposit is finished.

The current life of mine plan for Hanover Mountain mine indicates that no "pit" or depression (referred to as a sump in these responses) at the bottom will remain. Once mining is complete storm water from the reclaimed surface will flow into the Hanover Creek watershed (Cobre, 2012). Because mining is not quite finished in the 5-year timeframe dictated by the submittal date, a temporary low point is shown at the fifth year of mining. However within a short period beyond year 5, the remaining ore and waste rock in the southern pit wall will be mined out yielding the configuration described above. Yearly runoff predictions from the reclaimed/covered Hanover Mountain mine range between 2.4 and 4.8 acre-feet/year. The potential for the bottom of the Hanover Mountain mine stormwater sump to evaporate water is over 17 acre-feet/year. Thus, no small pit lake is anticipated to form.

2. Will stormwater be pumped out of the 6700 foot level to a pond? Will stormwater be directed into Grape Gulch?

Storm water runoff generated within the Hanover Mountain Deposit boundary will report to a sump at the bottom of the excavation during mining or be directed to containments in Grape Gulch. If accumulated stormwater is inhibiting mining, it will be pumped and incorporated into Cobre's water management system (either by gravity flow or pumping to Grape Gulch containments during operations). At the end of mining and after reclamation, stormwater will be released to the Hanover Creek watershed.

3. What is the highest water level predicted for the Continental Pit lake when it achieves hydrologic equilibrium? From Figure 12-A (Generalized Geology) it appears that both the Continental Pit and Hanover Mountain are on the downthrown side of the Barringer Fault. If the "equilibrium" water level is above 6700 feet MSL, will there be an impact on the bottom of the Hanover Mountain excavation from groundwater flooding?

See previous responses on Grip comment 6 under Continental Pit.

4. From the information provided, it appears that a second pit lake will form in the bottom of the Hanover Mountain excavation, even if it is only seasonal.

From all the information provided through the various reports, it is highly unlikely for a seasonal pit lake to form due to the large evaporation rates, low precipitation rates, and sump configuration.

5. The exposed rock material in the Hanover Mountain excavation will be Colorado Shale, which as noted elsewhere, contains sulfide minerals and is not buffered by alkalinity from carbonate rocks. Consequently, one would expect the water quality of any 'bit lake" forming at the Hanover Mountain excavation to be poor, with low pH values and elevated levels of Mn, S04, TDS, Zn, and Se.

Please see response No. 5.1.4.

Standby Status

1. After a century of intermittent mining, Cobre is a marginally economic ore deposit. Given the current (April 2015) economic conditions (the price of copper is down 40% since 2011 and down 30% over the last 9 months) and the prospects for a continued depressed copper market, FMI stated at a recent Community Partnership meeting, that Cobre is unlikely to reopen in 2016 despite its application to come off of standby status. Cobre is nearing the end of its 20 years on standby status and GRIP is very concerned about the possibility of FMI walking away from the Cobre mine without reclaiming the mine site. If no mining occurs at Cobre by the end of this 20-year period, FMI should be required to implement all elements of the Cobre Closure/Closeout Plan according to the schedule specified in the CCP.

This comment does not accurately reflect reality of the current and future mineral potential in the mine area, nor does it reflect the reality of the likelihood that Cobre will resume mining. Cobre's goal is to come off standby and resume copper production as soon as economically possible in accordance with all state and federal requirements. Cobre is a good example why the standby rules should be updated to reflect the realities of a fluctuating copper market. While on standby all mining and environmental permits conditions are kept up to date and available for public review. Regular mine inspections from various environmental agencies have been conducted. The state of New Mexico maintains financial assurance in the very unlikely scenario that a mining company could default. This application includes an updated financial assurance cost estimate.

Reclamation Performance Objectives

1. Fugitive dust should be included as a performance objective for stockpiles on p. 28.

Reclamation performance objectives focus on obtaining a self-sustaining ecosystem. Cobre meets all applicable air quality permit criteria both during operations and closeout activities.

2. Stockpile Cover and Revegetation discussion on p. 29 is missing mention of cover thickness and revegetation.

Details of the stockpile cover thickness and revegetation is discussed in Section 5.2 on page 31 of the CCP.

3. Hanover Mountain Deposit Cover and Revegetation discussion on p. 30 is missing any mention of revegetation.

Table 5 summarizes the reclamation activities planned for the Hanover Mountain deposit including revegetation.

Cover Design and Materials

 Discussion on p. 31 indicates that soils, non-acid generating OB, carbonate rock, tailings and leach cap materials are adequate sources of cover for areas disturbed by mining activities. Has MMD approved these materials as cover?

Cobre is in the process of having different sources of cover material approved through the test plot study pursuant to Section M.1 Revision 01-01 of GR002RE

Post-mining Land Use Designation

Mr. James Hollen April 10, 2017 Page 42 of 42

1. First paragraph in discussion of Industrial PMLU on page 35 seems to be incomplete. Sentence is cut off.

The first paragraph of Section 6.2 Industrial PMLU should read "The EOY 2019 buildings and their PMLU are listed in Table 4 and the MMD conditions for Industrial PMLU can be found in Permit GR002RE 1-1 J.1."

Revegetation Success Guidelines

 Discussion on p. 37 states that highwalls of the Hanover Mountain deposit provide valuable wildlife habitat. In what way? This is an assertion that is not backed up by any evidence.

In this same paragraph, Cobre discusses that the high walls and rocky areas adjacent to highwalls mimic the natural talus slopes and bluffed terrain in the surrounding region. Bluffs and talus slopes provide valuable habitat to a variety of animals including birds, reptiles and mammals.

Please contact me at (575) 912-5773 if you have any questions on these responses.

Sincerely,

Thomas L. Shelley, Manager

Freeport-McMoRan Cobre Mining Company

TLS: rlm 20170410-200

xc: Fernando Martinez, Director - MMD

Holland Shepherd, Program Manager – MARP/MMD

Kurt Vollbrecht, Program Manager - NMED/GWQB-MECS

Matthew Wunder, Ph.D., Chief, Division of Ecological & Env. Planning - NMDG&F

Bob Estes, Ph.D., Archaeologist, Historic Preservation Division - NMDCA

Alan Cuddy, Hydrology Bureau - NMOSE

Douglas Haywood, Project Manager - BLM, Las Cruces District Office

John Baumberger, Lands & Minerals Specialist - Gila National Forest,

S.C. Ranger District

Allyson Siwik, Executive Director - GRIP