

**STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION**

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In the Matter of:)	
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PROPOSED AMENDMENT)	No. WQCC 12-01(R)
TO 20.6.2 NMAC (Copper Rule))	
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WRITTEN REBUTTAL TESTIMONY OF TIMOTHY E. EASTEP

My name is Timothy E. Eastep, and I am the Senior Manager for Freeport-McMoRan’s New Mexico Operations, which include Freeport-McMoRan Chino Mines Company, Freeport-McMoRan Tyrone Inc., and Freeport-McMoRan Cobre Mining Company. (“Freeport”). I am presenting this written rebuttal testimony on behalf of Freeport regarding the Petition to Adopt 20.6.7 and Request for Hearing filed by the New Mexico Environment Department (“NMED”) on October 30, 2012, as modified by the Amended Petition filed on February 18, 2013 which includes the new rules for copper mines (“Proposed Rule”). My experience and qualifications are presented in my written direct testimony previously filed in this matter.

I. REBUTTAL TESTIMONY IN RESPONSE TO THE DEPARTMENT’S AMENDED PETITION DATED FEBRUARY 18, 2013

I have reviewed the revisions to the Proposed Rule language presented in the Department’s Amended Petition dated February 18, 2013 and have the following comments and testimony. The Amended Petition withdraws entirely the proposed new financial assurance rule for copper mines, proposed 20.6.8 NMAC and indicates that the Department intends to propose more generally applicable financial assurance regulations in a separate rulemaking proceeding at a later time. The Department has made a corresponding change to Section 20.6.7.11.U NMAC

of the Proposed Rule to require a proposal for financial assurance to be included with a permit application for a copper mine. This provision presumably would replace the existing provision for financial assurance in Section 20.6.2.3107.A(11) NMAC, which authorizes the Department to require financial assurance as part of a closure plan. Currently, discharge permits issued by the Department for copper mines contain conditions specifying certain requirements for financial assurance.

Copper mines are subject to detailed and specific financial assurance requirements under the Mining Act Rules administered by the Mining and Minerals Division of the Energy, Minerals and Natural Resources Department. *See* 19.10.12.1201 to 1211 NMAC. The Department's proposed Section 20.6.8 NMAC, contained in the October 30, 2012 Petition and now withdrawn, mirrored the Mining Act financial assurance rule. The withdrawn financial assurance provisions, Section 20.6.8 NMAC, would have assured that the financial assurance requirements for copper mines under the Water Quality Act continued to comport with the Mining Act Rule requirements, which is very important to Freeport. For example, the Mining Act Rule identifies certain acceptable forms of financial assurance, including third-party guarantees for up to 75% of the total financial assurance. That rule also specifies the criteria that must be met for each form of financial assurance.

Under the Commission's existing rules, the Department has accepted financial assurance proposals that satisfy the Mining Act Rule under the conditions of existing discharge permits. As long as the Department maintains its current practice of accepting a financial assurance proposal for a copper mine as long as the proposal meets the requirements of the Mining Act Rule, Freeport can accept the Department's proposal to withdraw Section 20.6.8 NMAC. Freeport understands why the Department would prefer that the Commission adopt a more

generally applicable rule for financial assurance. Other types of mines subject to the Mining Act must provide financial assurance under the Mining Act Rules, and it will be important that any future financial assurance rules adopted by the Commission and applicable to mines subject to the Mining Act will comport with the Mining Act Rule.

I also have a comment on the changes to the general application requirements, Section 20.6.10 NMAC, as presented in the Amended Petition. One of the goals of the Proposed Rule, at least from Freeport's standpoint, is to streamline the permitting process by adding far more specific requirements for copper mines, including more specific application requirements and specific requirements for design, construction, operation and closure of copper mines compared with the very general requirements in the Commission's existing discharge permits rules. As discussed in the testimony of the Department's witness Mr. Skibitski, this specificity is intended to improve the Department's efficiency in processing permit applications by eliminating the current iterative process under which the Department typically must request additional technical information.

Under the Commission's existing rules, an application for renewal of a discharge permit must be submitted at least 120 days before the permit expires (20.6.2.3106.F NMAC), the Department must review an application to determine whether it is administratively complete within 30 days of receiving the application (20.6.2.3108.D NMAC), and the Department must make available a proposed approval or disapproval, and the conditions for approval, of a discharge permit with 60 days after it makes its administrative completeness determination "and all required technical information is available." 20.6.2.3108.G NMAC.

Section 20.6.7.10.C NMAC of the Proposed Rule increases the time frame for submission of a renewal application for a copper mine from 120 day to 270 days in advance of permit

expiration. As indicated in my direct testimony, given the relative complexity of copper mines compared to other types of facilities requiring discharge permits, and experience with current processing time, that change is acceptable to Freeport, at least for a period while we gain experience with implementation of the copper mine rules. In the changes submitted with the Amended Petition, the Department does not propose to change the 270 period, but it proposes to change the time for its technical completeness review from 60 days to 90 days (20.6.7.10.F NMAC) and the time to make available a draft permit after determining that an application is technically complete from 60 days to 90 days (20.6.7.10.H NMAC). Freeport does not believe that these extensions of the permit review time frame are consistent with the goal of streamlining the permit process by adding additional specificity to the rules and will make it difficult for the Department to renew discharge permits within the 270 day period. To illustrate this, the Department may take up to 210 days for the steps of determining administrative completeness, technical completeness, and issuing a permit. This leaves a total only 60 days of the 270 day time period for a permit applicant to respond to any technical deficiencies (20.6.7.10.G(1) NMAC), for the public comment period (20.6.2.3108.J NMAC) and to hold a public hearing, if one is requested and granted (20.6.7.10.H and .I NMAC of the Proposed Rule and 20.6.2.3108.J and .K NMAC). For these reasons, Freeport opposes the changes to allow the Department up to 90 days for a technical completeness review and for issuance of a draft permit (20.6.7.10.F and .H NMAC, as presented in the Amended Petition), and requests that the Commission adopt the language for these subsections as presented in the original Petition filed on October 30.

Other witnesses on behalf of Freeport will present additional comments and testimony on some of the changes contained in the Department's Amended Petition.

II. REBUTTAL TESTIMONY IN RESPONSE TO WRITTEN DIRECT TESTIMONY OF MS. CONNIE TRAVERS

On page 2 of her written direct testimony, Ms. Travers asserts that the Proposed Rule significantly decreases protection of ground water resources at copper mines sites in New Mexico. As presented in the direct written testimony of Freeport's witnesses, however, the Proposed Rule reflects the requirements for ground water protection contained in existing discharge permits for copper mines and adds some new requirements. Ms. Travers' testimony indicates that she reviewed a very limited set of documents as a basis for her testimony, and the list of documents reviewed by Ms. Travers does not include any existing discharge permit conditions. Consequently, I question the basis for her testimony.

On page 3 of her written direct testimony, Ms. Travers states that the Proposed Rule allows mining companies to degrade ground water quality in excess of standards beneath and downgradient of mine facilities to a point or points of compliance regardless of the potential for ground water to be withdrawn and used now or in the future. In my opinion, this statement does not recognize that the Proposed Rule requires specific measures to protect ground water quality, including liner systems for process wastewater impoundments and leach stockpiles and closure measures, including covers, regardless of whether those specific requirements are necessary to comply with ground water quality standards at monitoring well locations. Under the Commission's existing rules, those measures would not be required if a permit applicant can show that they are not necessary to maintain compliance with ground water quality standards at a "place of withdrawal of water for present or reasonably foreseeable future use." 20.6.2.3109.C(2) NMAC. Consequently, the Proposed Rule is at least as protective, if not more protective, than the existing Commission rules, particularly when compared with discharge permits that the Department has issued under the existing rules.

Furthermore, the Commission's existing rules do not specify where monitoring wells must be located, leaving this to the discretion of the Department. *See* 20.6.2.3107.A NMAC. Existing discharge permits contain conditions that specify monitoring well locations where ground water quality is to be monitored for compliance with ground water quality standards. Consequently, the Proposed Rule provisions specifying where monitoring wells must be located may be more protective than the existing rules, which allow the Department to specify monitoring well locations further from discharge locations, and are no less protective than discharge permits that have been issued under the existing rules.

Also on page 3 of her testimony, Ms. Travers asserts that the current regulatory framework for ground water protection in New Mexico requires a variance for degradation of ground water quality above standards during mine operations and that variances require a showing of an "unreasonable burden," are based upon site-specific information, and are routinely granted. The point is also raised on page 16 of her testimony. Ms. Travers does not identify any particularly variance proceeding or indicate that she reviewed the record of any variance proceeding. I am familiar with the discharge permits issued by the Department for Freeport's New Mexico copper mines. Although exceedances of ground water quality standards have been measured at monitoring well locations associated with most of these discharge permits, the Department has never required a variance to renew any of the discharge permits for existing facilities. Over the thirty plus years of discharge permit history for these copper mines, I am aware of only two recent variance petitions, both of which were for unlined leach stockpiles located within open pit areas. The first of these variance petitions was filed in 2007 and the second in 2011. Both of these variance petitions required several months of negotiations with the Department to substantiate the technical basis for variances and design requirements

acceptable to the Department. Based on my experience, and the very limited history of variance petitions for copper mines, the Commission does not “routinely” grant variance petitions. The “unreasonable burden” standard that must be met to convince the Commission to grant a variance is vague and subjective, and I suspect that it would be difficult to convince the Commission to grant a variance over the Department’s objection. To further illustrate this point, despite the Department’s support for the 2007 variance petition filed by Chino for its proposed Lee Hill leach stockpile, the Commission’s voted 6-5 in favor of granting the variance. Moreover, although the two variance petitions discussed above presented site-specific information, the Commission’s rule requirements for variance petitions are not specific on the site-specific information required. The only site-specific information required is a description of the facility or activity for which a variance is sought, the address of the facility, and a description of the water body or watercourse affected by the discharge. 20.6.2.1210 NMAC, and the neither the statute nor the rule language indicates that the Commission must find a site-specific reason to conclude that the regulation imposes an “unreasonable burden” as required by the Water Quality Act, Section 74-6-4.G NMSA 1978.

Also on page 3 of her testimony, Ms. Travers asserts that under the existing rules, upon closure, a company can apply for alternative abatement standards, and a decision to grant alternative abatement standards is based on site-specific circumstances, in contrast to the Proposed Rule. Ms. Travers does not identify any provision of the Proposed Rule that changes the circumstances under which an abatement plan is required as specified in the Commission’s abatement rules. *See* 20.6.2.4104 NMAC. Moreover, the Proposed Rule does not change any of the criteria required for the Commission to grant a petition for alternative abatement standards.

See 20.6.4103.F NMAC. Consequently, I fail to see how the Proposed Rule affects the existing abatement rule requirements.

On page 9 of her testimony, Ms. Travers notes that existing leach stockpiles are not required to meet the engineering design requirements of the Proposed Rule. The Proposed Rule requires installation of a liner system underneath new leach stockpiles, including expansions of existing leach stockpiles, unless the leach stockpile is located within the open pit surface drainage area, in which case the Department can consider an alternative design. 20.6.7.20.A NMAC. The Department has issued and renewed discharge permits for numerous existing leach stockpiles at the Chino and Tyrone Mines. None of these existing leach stockpiles meet the liner system requirements specified in the Proposed Rule, so the Proposed Rule requirements, if adopted by the Commission, would mandate additional new ground water protection requirements for new leach stockpiles. The existing leach stockpiles typically contain hundreds of millions of tons of leach ore, which would have to be moved in order to install liner systems meeting the requirements of the Proposed Rule. This would be economically infeasible, and imposing a liner system requirement on existing leach stockpiles would result in their closure. Consequently, the Proposed Rule allows these existing leach stockpiles to operate under the same conditions that they currently are permitted. The current permit conditions for operation of these stockpiles typically include requirements regarding the collection and conveyance of leach solutions and corrective action requirements if ground water contamination has been detected in excess of applicable standards. The current permit conditions also include requirements for abatement plans consistent with the Commission's abatement rules and closure requirements. Importantly, the Department has never required that a variance be granted before it has renewed the discharge permits for the existing leach stockpiles at any of Freeport's existing copper mines,

even when ground water quality standards have been exceeded at the specified monitoring well locations. Many of the discharge permits have been renewed multiple times.

On page 12 of her testimony, Ms. Travers raises a concern that the Proposed Rule does not specifically require consideration of the potential to adversely affect non-mining ground water uses. This point also is raised on page 16 of her testimony. The Proposed Rule, however, contains new requirements for setbacks from existing wells or springs that supply drinking water that apply to new copper mine facilities. Section 20.6.7.19 NMAC. The Proposed Rule also requires a determination by the Department that a discharge permit “poses neither a hazard to public health nor undue risk to property.” Section 20.6.7.10.J NMAC. A “hazard to public health” is defined to exist when water that is used or reasonably expected to be used in the future as a human drinking water supply exceeds one or more of the numerical standards of Section 20.6.2.3103.A NMAC at the time and place of such use. 20.6.2.7.Z NMAC. Under these provisions, the Department still is obligated to consider impacts on non-mining water uses outside of the mine property when it issues a discharge permit. I also would note that the 2009 Commission decision on which Ms. Travers relies is under appeal, and as indicated in legal briefs previously filed, the Court of Appeals has issued a decision stating that the Commission could choose to adopt a “point of compliance” approach under the Water Quality Act.

On page 13 of her testimony, Ms. Travers asserts that the Proposed Rule does not require abatement to meet water quality standards even if they are exceeded at and downgradient of a monitoring well location. Under the Proposed Rule, an exceedance of ground water quality standards triggers the contingency requirements in Section 20.6.7.30.A and .B NMAC. Under those provisions, the Department may require an abatement plan consistent with the abatement rules. This is no different from existing discharge permits, which contain conditions triggering

notice and corrective action, and under which the Department has the authority to require submission of abatement plans. My understanding is that if an exceedance can be addressed and corrected in a relatively short period of time, the Department typically would not require an abatement plan, and this is the reason why submission of an abatement plan is not mandatory in all circumstances. It would be a waste of both a permittee's and the Department's resources to comply with the full site investigation and stage 2 abatement plan requirements if there is a straightforward and readily implementable solution. Moreover, if ground water monitoring indicates that a simple corrective action did not result in compliance with applicable standards, the Department could require an abatement plan in the future.

On pages 20 through 24 of her testimony and the exhibit showing proposed changes to the Proposed Rule, Ms. Travers recommends an alternative approach to the Proposed Rule, including requiring variances for any exceedance of ground water quality standards at a place of withdrawal of water for present or reasonably foreseeable future use. For the reasons discussed above and in Freeport's legal briefs previously filed, and for the following additional reasons, Freeport opposes this approach. Ms. Travers asserts that her approach would not impose overly burdensome restrictions on industry. The copper mining industry needs reasonable certainty regarding permitting requirements to justify the high level of investment in exploration and mine development costs. Investments in mine exploration, development and expansion run into hundreds of millions of dollars. That is why permitting requirements should be transparent, readily ascertainable by the engineers responsible for designs, and not be subject to changing regulatory requirements or individual preferences. Moreover, as discussed in Freeport's direct testimony, including Ms. Lande's, ground water impacts from copper mining are virtually unavoidable, so variances likely would be required for any future copper mines. Consequently,

the approach proposed by Ms. Travers would discourage exploration for minerals and the development of future copper mines in New Mexico. Moreover, while Ms. Travers' proposed approach likely would require variances for virtually all new and existing copper mines, this has not been the practice under the existing regulatory program, under which variances have rarely been required, even for permitting of unlined copper mine facilities. Indeed, requiring variances in virtually all circumstances would defeat the purpose of adopting rules with very detailed and specific requirements, as the variance process would eliminate the relative certainty provided by those rules, and numerous variance proceedings would drain Department resources negotiating variance conditions and preparing for and participating in hearings. Moreover, while I disagree with Ms. Travers' testimony that variances are routinely granted by the Commission, if Ms. Travers is correct, then the variance approach she proposes would merely add new process burdens while not affecting the ground water protection requirements that would be imposed under the Proposed Rule without the need for variances. Furthermore, nothing in Ms. Travers' testimony indicates that she investigated industry practices or considered the feasibility of requiring liner systems for waste rock stockpiles and tailings impoundments or requiring compliance with ground water quality standards inside an open pit in recommending changes to the Proposed Rule.

In addition to the changes above, Ms. Travers proposes to add some additional public notice and hearing provisions. As discussed in my direct testimony, the Proposed Rule incorporates the existing public participation requirements under the existing Commission rules, 20.6.2.3108 NMAC. With at least two rounds of public notice to be provided in multiple forms and the opportunity to submit comments and request a public hearing, the public participation requirements already are thorough and extensive, and additional public notice requirements

would impose undue burdens on permit applicants and the Department without any clear benefits. For all of the reasons discussed above, Freeport opposes all of the changes to the Proposed Rule suggested in Ms. Travers' testimony and the exhibits presented by the Attorney General.

III. REBUTTAL TESTIMONY IN RESPONSE TO WRITTEN DIRECT TESTIMONY IN RESPONSE TO WRITTEN DIRECT ESTIMONY OF DR. BRUCE THOMSON

On page 5 of his testimony, Dr. Thomson asserts that ground water is the source of 100% of the water used for mining and industry in Grant County. While the existing mines in Grant County rely heavily on ground water, including ground water captured in open pits and interceptor well systems around the mines, the mines have substantial surface water rights which are utilized in part for their water supply. For example, the Tyrone Mine, located entirely in Grant County has approximately 11,791 acre feet of surface water rights and continues to utilize those rights for a portion of its industrial water supply. Over 50% of Tyrone's current water supply is provided on a surface water permit and historically this percentage has been even greater. Consequently, the 100% figure asserted by Dr. Thomson is not correct.

Toward the end of his testimony, Dr. Thomson appears to criticize the use of water by copper mines. Large copper mines do use large volumes of water, but they also recycle most of their water and are implementing water conservation practices, as discussed in Ms. Lande's direct testimony. Indeed, access to adequate water supplies tend to be a limiting factor for copper mine development. Dr. Thomson's testimony does not appear to consider the economic and community benefits that copper mines provide in conjunction with their water use. That said, water rights and water use is regulated in New Mexico by the Office of the State Engineer and is not directly addressed in the Proposed Rule. The Proposed Rule, however, does address the protection of ground water quality and, as discussed above, maintain the same measures

required by existing copper mine discharge permits while adding new requirements and providing much more specificity and certainty.

V. REBUTTAL TESTIMONY IN RESPONSE TO WRITTEN DIRECT TESTIMONY OF MR. JIM KUIPERS AND MS. SALLY SMITH

On page 3 of his testimony, Mr. Kuipers references the potential for copper mine discharges to adversely impact ground water and expresses concerns that the Proposed Rule reduces requirements for hydrologic containment. As discussed above, the Proposed Rule does not reduce or eliminate the measures previously required by the Department in its existing discharge permits and adds new, specific requirements. Mr. Kuipers also suggests that decisions regarding pollution controls should be made on a site-specific basis and not by rule. As discussed in Freeport's legal briefs previously filed, however, as a result of the 2009 amendments to the Water Quality Act, the Commission is required to specify the measures to be used by copper mines to prevent water pollution. Consequently, the Proposed Rule is following the requirements under the Water Quality Act. Nevertheless, the permit application requirements add new specific provisions requiring that permit applicants provide site-specific information that the Department can use to assess an application. On the same page, Mr. Kuipers suggests that specific rule requirements eliminate the incentive to develop new technologies. To the contrary, the Proposed Rule imposes specific pollution control requirements, and with or without these rule requirements, the mining industry has every incentive to research new pollution control technologies that will reduce pollution control costs, such as the costs of installing liner systems and long-term water treatment costs.

On page 5, Mr. Kuipers criticizes the use of the term "leachate" because that term refers to a process solution. The terms "effluent" and "leachate" have long had a broader meaning under the Commission's rules. *See* 20.6.2.3104 NMAC (requiring a discharge permit when a

person causes or allows “effluent or leachate” to discharge so that it may move directly or indirectly into ground water). On page 5 and continuing on page 6, Mr. Kuipers criticizes the Proposed Rule for not requiring a variance to allowed continued operation of existing facilities that have caused ground water contamination. As I have discussed above, however, the Department has renewed numerous discharge permits for such existing facilities under the existing Commission rules without requiring a variance.

On page 6, Mr. Kuipers raises a concern whether pumping can be maintained for as long as sources of pollution remain at copper mines. The Department has included conditions in existing permits requiring financial assurance for long-term post-closure water treatment that are designed to ensure that funds are available to continue pumping. As long as funds are available, there is no technical reason why pumping cannot be maintained indefinitely. Further, if the predictions regarding the need for future water supplies come to pass, there is every reason to believe that the value of treated water will increase in the future, providing further incentive to continue pumping and providing potential revenue to offset treatment costs. That said, the Proposed Rule contains the same requirements for installation of covers as have been imposed by the Department in existing discharge permits. The intent of the covers is to reduce infiltration of precipitation through mined materials and, consequently, to reduce the volume of water requiring long-term treatment.

On pages 6-7, Mr. Kuipers discusses the August 17 discussion draft of the copper mine rules and suggests that that draft was the product of the technical committee discussions and contained engineering design requirements recommended by Freeport consultants. Ms. Smith, on page 3 of her testimony, also suggests that the August 17 discussion draft was a product of collaborative technical committee discussions. I participated in all of the technical committee

meetings and am familiar with the presentations given by Freeport's consultants at those meetings. Although I would agree that the committee discussions were cordial and useful, nevertheless the August 17 discussion draft does not reflect Freeport's positions or technical recommendations on many of the technical points now in dispute. For example, neither the Freeport representatives nor Freeport's consultants recommended the use of liners as standard requirements for waste rock stockpiles. Indeed, Freeport submitted comments throughout the technical committee process recommending other measures, many of which are included in Freeport's existing discharge permits, such as waste rock characterization and material handling plans as an alternative to liners. Similarly, Freeport's consultant, Mr. Scott, specifically recommended against a requirement for liners for tailings facilities. Freeport's consultants provided detailed technical presentations supporting its technical positions, yet many of our consultants' technical recommendations, as well as our written comments on the discussion drafts, were ignored and were not reflected in the August 17 discussion draft or the preceding drafts. Instead of responding with technical information or arguments on areas of disagreement, other parties to the technical committee discussions typically responded with legal and policy arguments. For these reasons, I disagree with Mr. Kuipers' characterization of the August 17 discussion draft and the technical committee discussions.

Ms. Smith, on page 5 of her testimony, contends that removal of the variance requirements from the Proposed Rule is contrary to the Tyrone Settlement. While GRIP participated in all of the discussions leading to the Tyrone Settlement, GRIP elected not to sign the Settlement Agreement. During the Advisory Committee process, GRIP expressed concerns on several occasions with the variance provisions under consideration as part of the rule, which suggests that one reason that GRIP would not sign the settlement agreement was that it has

reservations about the use of variances for common mining practices. The prospect that common mining designs or practices could be approved under such a regulatory framework in an efficient or effective way is doubtful. Moreover, during the technical and advisory committee meetings on the development of the copper mine rule, GRIP took the position that the Tyrone Settlement applies only to the Tyrone Mine, and that the Tyrone Settlement therefore should not dictate the requirements of the copper mine rule. Consequently, in my opinion, it is out of place for GRIP to now criticize the Proposed Rule for not following the Tyrone Settlement. Because the Department chose not to include detailed procedural requirements for variances in the Proposed Rule, the Department and Tyrone amended the Tyrone Settlement in December 2012 to remove those specific requirements relating to the Copper Rules. Consequently, I see no conflict between the Tyrone Settlement and the Proposed Rule.

For the reasons discussed above and in Freeport's direct testimony and the rebuttal testimony of its other witnesses, Freeport opposes the changes to the Proposed Rule sought by GRIP.

VI. REBUTTAL TESTIMONY IN RESPONSE TO WRITTEN DIRECT TESTIMONY OF MR. BRIAN SHEILDS

On page 2 of his testimony, Mr. Shields suggests changes consistent with the August 17 discussion draft for similar reasons as expressed in the testimony of Mr. Kuipers and Ms. Smith. Freeport opposes those changes for the reasons discussed above and in the direct testimony of Freeport in support of the Proposed Rule.

Mr. Shields recommends the inclusion of provisions in the Proposed Rule encouraging, but not requiring, the use of "Green Infrastructure and Low Impact Development" (GI/LID) guidelines for copper mines. Freeport does not support the inclusion of references to voluntary measures in the Proposed Rule. Moreover, stormwater pollution prevention requirements for

copper mines in New Mexico are governed primarily by permits issued under authority of the federal Clean Water Act and administered by the U.S. Environmental Protection Agency (EPA). Consequently, EPA is primarily responsible for guidance on best management practices for stormwater pollution prevention. Consequently, Freeport opposes Mr. Shield's recommendation to reference the GI/LID guidance in the Proposed Rule.

In response to Mr. Shield's recommendation for revised public notice language, as discussed in my direct testimony, the Proposed Rule does not supplant the existing public notice and participation provisions in 20.6.2.3108 NMAC. When read in conjunction with that existing section, the Proposed Rule provides a clear and complete set of public notice requirements. The existing public notice requirements are well understood and provide broad public notice of proposed permitting actions in numerous forms. While Mr. Shield's testimony, on page 4, acknowledges that it is more straight-forward and efficient to have consistent public notice procedures for all discharge permits, he proposes several changes to the Proposed Rule that would expand public notice requirements for copper mines beyond the current rule requirements, including expansion of the area for individual registered mail notices from 1/3 mile to one mile, addition of a map requirement, and other notice requirements. While these requirements may seem innocuous, in my experience they could require a large number of additional notices at large copper mines. In my experience, with the existing public notice requirements, mine permitting activities seldom go unnoticed, particularly when coupled with the public notices required under the Mining Act. With today's ready access to information via websites and the internet, the interested public has relatively easy access to detailed information regarding proposed copper mine permits. Based on my experience, I see no need to expand the public

notice requirements for copper mine discharge permits and the resulting additional burdens on permit applicants.

Mr. Shields also proposes adding an additional disclosure requirement to the permit application requirements regarding information relating to Section 74-6-5.E NMSA 1978. Freeport acknowledges the existing statutory requirement, but sees no need to single out copper mines for an additional application requirement. This disclosure requirement should not be included in the copper mine rule, but if the Department believes that it needs to include such a requirement as part of permit applications, the Department should propose it as a requirement for all discharge permit applications.

Mr. Shields does not present any technical testimony in support of the other proposed changes, other than that they were included in the August 17 discussion draft. For the reasons discussed above and in Freeport's direct testimony in support of the Proposed Rule, Freeport opposes the changes proposed by Mr. Shields.

VII. REBUTTAL TESTIMONY IN RESPONSE TO WRITTEN DIRECT TESTIMONY OF MR. WILLIAM OLSON

My rebuttal of Mr. Olson's written testimony is more general, as his testimony consists largely of his legal interpretation of the Water Quality Act, and his legal points are addressed in the legal briefs previously filed by counsel for Freeport in this matter and which likely will be further addressed in post-hearing legal argument and briefs. In particular, Mr. Olson objects to the adoption of the Proposed Rule on the grounds that it would incorporate a point of compliance approach, which would violate the Water Quality Act. As discussed in Freeport's legal briefs, the Court of Appeals already concluded that the Commission can adopt a point of compliance approach as a reasonable interpretation of its authority to require measurement of compliance

with ground water quality standards at places of withdrawal of water for present or reasonably foreseeable future use.

Importantly, as discussed above and elsewhere in Freeport's testimony, the Proposed Rule requirements would impose the same measures and the same monitoring systems that the Department has required in existing discharge permits for copper mines over the years, including during the time when Mr. Olson was the Chief of the Ground Water Quality Bureau, plus it adds some new requirements. Indeed, Mr. Olson personally signed numerous discharge permits for Freeport's copper mine facilities which (1) authorized the continued use of unlined leach stockpiles, waste rock stockpiles, and tailings impoundments, (2) authorized the continued operation of these facilities when the permits themselves expressly acknowledged existing exceedances of ground water quality standards, but without requiring a variance or a public hearing on the permit, (3) specified monitoring well locations downgradient of the discharging facilities where compliance with ground water quality standards is measured, and (4) did not make or require any site-specific determination on the location of "places of withdrawal of water for present or reasonably foreseeable future use."

For example, Mr. Olson signed Discharge Permit DP-484 in January 2005, included in the record as Exhibit Scott-E. This permit authorizes the operation of Tailing Pond 7 at the Chino Mine, an unlined tailings facility (acknowledged on page 5 of the permit) that uses an interceptor well system to contain seepage. The first discharge permit was issued for this facility in 1987. The permit states that "NMED's purpose in issuing this Discharge Permit . . . is to control discharges of water contaminants from the Tailing Pond 7 into ground water and surface water, so as to protect ground and surface water for actual and potential future use as domestic and agricultural water supply and other uses, and to abate pollution of ground and surface

water.” The permit further states NMED’s determination that the requirements of 20.6.2.3109.C NMAC have been met. On page 3 of the discharge permit, it states that “Contaminated ground water from Tailings Pond 7 exceeds water quality standards under the WQCC regulations under Section 20.6.2.3103 NMAC for TDS and sulfate.” The permit document does not refer to any variance issued by Commission, and to my knowledge, the Department issued the permit without requiring a variance from the Commission. The permit conditions specify monitoring locations on paged 6 and 7. A diagram showing the locations of the monitoring wells downgradient of the tailing impoundment is presented in Mr. Blandford’s rebuttal testimony. The interceptor well system is described on page 11 of the permit document.

Similar examples of permits that the Department issued during Mr. Olson’s tenure as Ground Water Quality Bureau Chief and signed by Mr. Olson including DP-376 (2010 renewal) authorizing the continued operation of Chino’s existing unlined Lampbright Leach Stockpile, DP-459 (2005 renewal) authorizing the continued operation of an unlined existing leach stockpile system within the Chino open pit, DP-493 (2006 renewal) authorizing the continued operation of a large unlined impoundment within the area of the Chino open pit for storage of a mixture of impacted stormwater and process water, DP-526 (2006 renewal) authorizing the continued operation of the unlined West and South leach and waste rock stockpiles at Chino, DP-181(2007 renewal) authorizing the continued operation of unlined waste rock stockpiles, an unlined tailings impoundment, and an open pit at the Cobre Mine, DP-166 (2005 renewal and 2010 modification) authorizing the continued operation of the Tyrone open pits and SX-EW plant and authorizing expansion of the Copper Mountain Pit, DP-286 (2010 renewal) authorizing continued operation of the unlined No. 3 leach system and associated interceptor well system installed for corrective action/abatement, and DP-383 (2004 renewal), DP-396 (2007 renewal),

DP-435 (2006 renewal), DP455 (2004 renewal, 2008 modification and 2010 renewal) and DP-670 (2004 renewal), all of which approved the continued operation of unlined leach and waste rock stockpiles at Tyrone. Each of these permits include similar statements as made in DP-484 regarding NMED's purpose to protect ground water and stated that NMED had determined that the requirements of 20.6.2.3109.C NMAC had been met. Each of these permits specifically identifies exceedances of ground water quality standards associated with the permitted facilities. None of these permits indicate that Tyrone was required to seek a variance from the Commission as a condition of NMED's issuance of the permit. None of these permits indicate that the permittee was required to make a demonstration that ground water impacted above standards was not located at a "place of withdrawal of water for present or reasonably foreseeable future use."

As discussed above, only two variances have been sought by Freeport copper mines in recent years, both for new or expanded leach stockpiles to be designed and constructed without liners. Both of the written petitions for those variances noted the pending Tyrone litigation over the Department's position and interpretation of the "place of withdrawal" language and reserved Chino's and Tyrone's respective rights to maintain their positions contrary to the Department's position.

This testimony rebuts Mr. Olson's testimony regarding the Department's actual permitting practices and the claimed 46 year history of absolute protection of all ground water discussed on page 11. It shows that the Department has repeatedly issued discharge permits under the Water Quality Act and the Commission's existing discharge permit regulations, including permits signed by Mr. Olson, under circumstances which, if Mr. Olson's testimony is to be believed, would violate the requirements of the Water Quality Act. It also illustrates that the Department has issued numerous discharge permits for facilities, such as unlined tailings

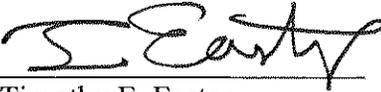
impoundments and waste rock stockpiles, under the Water Quality Act and the existing discharge permit regulations, yet Mr. Olson objects to allowing unlined facilities to be permitted under the Proposed Rule on the grounds that the Proposed Rule would violate the Water Quality Act. In this instance, actions speak louder than words.

On page 23 of his testimony, Mr. Olson contends that construction of lined facilities is feasible and practical. This testimony is already rebutted by the direct testimony of other Freeport witnesses. However, I wish to point out that the sole basis cited for Mr. Olson's testimony on this point is a presentation from the owner of a relatively small proposed copper mine that has not yet even submitted a permit application. Furthermore, this presentation can only be described as pre-feasibility or conceptual as no field work or assessment of the site conditions had been completed because of the ongoing NEPA permitting process. I also note that Mr. Olson's testimony ignores the many pollution prevention measures required under the Proposed Rule for unlined facilities, and his testimony simplistically seems to contend that the only adequate pollution prevention measure is installation of a liner system. There are many other measures that are effective, such as material characterization and material handling plans for waste rock, as discussed in the testimony of Freeport's witnesses and that have been approved by the Department for new waste rock facilities authorized for construction and operation without any liner system.

For the reasons expressed in this rebuttal testimony and in the direct and rebuttal testimony of Freeport's witnesses, Freeport opposes all of the changes to the Proposed Rule language recommended by Mr. Olson.

VIII. CONCLUSION

In conclusion, I urge the Commission to adopt the Proposed Rule as presented in the Amended Petition, including the minor changes as recommended in Freeport's direct testimony regarding the rule language presented with the October 30, 2012 Petition as well as the changes to the language presented with the Amended Petition as discussed in my testimony above and the testimony of the other witnesses testifying on behalf of Freeport. This concludes my written rebuttal testimony.



Timothy E. Eastep