

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES
MINING AND MINERALS DIVISION**

**IN THE MATTER OF THE APPLICATION BY
FREEPORT-MCMORAN TYRONE INC. FOR MINE EXPANSION
AND UPDATED CLOSEOUT PLAN FOR THE LITTLE ROCK MINE,
REVISION 14-1, PERMIT NO. GR007RE**

HEARING OFFICER REPORT

Applicant Freeport-McMoRan Tyrone Inc. (FMI) submitted to the Energy, Minerals and Natural Resources Department (EMNRD) an application to revise its permit to allow expansion of the Little Rock Mine and provide an Updated Closeout Plan. (Additional procedural history is evident in the record and will not be set out in this Report.)

On September 2, 2015, the undersigned Hearing Officer accepted testimony and public comment in the Grant County Commission Meeting Room in Silver City, New Mexico as part of continued information gathering necessary for the Director of the EMNRD Mining and Minerals Division (MMD) to reach a decision on the permit revision application and updated closeout plan under Section 19.10.5 NMAC.

The hearing was conducted pursuant to Section 19.10.9.905 NMAC, Hearing Procedures. All comment was taken under oath and subject to questioning by others present. Written comment and testimony was also submitted and accepted. The hearing, which was recorded and transcribed by Truenea Teasley of Huseby Court Reporters, started at 5:30 p.m. and ended at 6:48 p.m., including one break. EMNRD staff distributed a Fact Sheet with information about the mine and permitting process.

All information to be considered by the Director is maintained in the Division's Santa Fe offices; primary documents are also available on the Department's webpage.

Notice of the hearing and opportunity to provide comment was sent by mail, email and posted on the EMNRD webpage. The Hearing Officer also announced that following the hearing, written comment would be accepted by the Division through September 23, 2015.

The Director did not request a recommendation for action from the Hearing Officer under Section 19.10.9.905.A(3); so this Report does not include a review of written comments submitted during the hearing or directly to MMD, or the post-hearing submittal from FMI, or any other part of the Department's administrative record.

For Applicant FMI

Lynn Lande, Chief Environmental Engineer for FMI, works in the Environmental sustainability Department and her focus is mine reclamation. A closeout plan is a reclamation plan.

Ms. Lande introduced two other FMI representatives who would join her for questioning: **Martin Soltero**, Tyrone Environmental Manager, and **Tom Shelley**, Reclamations Manager for New Mexico Operations.

Ms. Lande first offered an overview of the mine: The Little Rock Mine is located 11 southwest of Silver City, one mile from the Tyrone Mine. Mining in the area has occurred since the 1890s. Beginning in the 1990s Tyrone worked to acquire and permit the Mine. In 2010, Tyrone requested that the Mine come off standby to return to operation, and reclaimed an historic stockpile, the Copper Leach Stockpile. Tyrone started up the Mine in 2011, and in 2014 submitted an application to expand the Mine.

The Little Rock Mine is a typical copper mine operation; rock is broken up using explosives, and the trucks are loaded with a large shovel. The material is delivered to the Tyrone Mine, where the copper is processed. No processing occurs at the Little Rock Mine, although they have just started piling overburden material there, on the west side. Tr. pp. 8-9.

The current permitted mine boundary is 610 acres. FMI is proposing an expansion of 70 acres, for a total of 680 acres. The area of operational activity is currently permitted at 200 acres, with a haul road that brings the current plan to 260 acres. FMI is proposing an expansion to 470 acres, mostly on the east side of the Mine; the operational activity area would be 330 acres, and the haul road would be extended. Ms. Lande noted on a map how the actual crest of the pit would change. Tr. pp. 10-12.

As to financial assurance, costs are calculated for the highest cost mine configuration in a five-year period. In this case, the most expensive year was identified as 2017, a year with more vegetation costs, more regrading costs and more reseeded costs. The current plan and proposed plan are similar; the major difference is the size of the mine. Operational reclamation costs were estimated earlier at approximately 1.5 million dollars with a plan for post-mining land use to be wildlife habitat. The property would include outcrops, flat surfaces, high walls, vegetation, an open pit lake with good quality water, safety berms around the entire mine and fencing. The haul road would be revegetated, and the plan includes long-term ground water monitoring, reporting and maintenance. The revised costs come to 1.9 million dollars. Tr. pp. 12-15.

Ms. Lande displayed a potentiometric map and noted that ground water flows to the east at the Mine. Water flows from Little Rock Mine toward the Tyrone main open pit.

Ms. Lande also showed the stockpile that was reclaimed five years ago on the south end of the mine, using material from older stockpiles devoid of mineralization. The material they are backfilling at Little Rock Mine is being tested to ensure it will not have an impact on ground water. Tr. pp. 15-17.

On questioning, the FMI panel stated that the stockpile on site is not a leach stockpile, and will not affect ground water quality. Wild animals will be allowed access to the pit lake, which may have excessive fluoride; livestock will be excluded by cattle fencing. BLM and the Forest Service are not the only landowners at the site; privately-owned property runs near the pit and to the south. Tr. pp. 18-22.

For GRIP

Allyson Siwik is the Executive Director of the Gila Resource Information Project, a nonprofit environmental group that promotes community health by protecting the environment and natural resources in southwestern New Mexico. GRIP has been involved in hearings and permitting for Grant County mines since 1998. GRIP is a member of the New Mexico Mining Act Network and works with partners on Mining Act issues at the state level.

GRIP is very concerned that at this late date in the permitting process there are many significant issues still unresolved. The reclamation plan is far from complete because there is no approved cover material. There has been discussion in correspondence among FMI, MMD and NMED, but the company has not yet demonstrated that the leach top meets reclamation standards to protect ground water quality. There is still no comprehensive stormwater plan. There has been discussion as to whether a waiver for the open pit will be required. Ms. Siwik acknowledged that the

company will be partially reclaiming the pit. NMED has identified issues that need to be worked out for the Closure/Closeout Plan. Tr. pp. 23-24.

GRIP appreciates that a surety bond will be kept in place to cover the 1.9 million dollar reclamation plan. However, they believe some contingency plan should be developed, including the use of Gila conglomerate in reclamation activities. GRIP encourages MMD to require additional reclamation costs for approved cover material. GRIP is very concerned there is not sufficient monitoring of ground water quality downgradient of faults. Mine-impacted water has crossed the Sprouse-Copleand Fault on the east side of the mine, and monitors should be in place to assure the faults are truly low-permeability barriers. Tr. pp. 25-26.

Ms. Siwik also addressed the company's financial situation: FMI is 20 billion dollars in debt companywide, and with continued low global copper prices, has announced cuts in its North American operations. Cuts will include 50% of Tyrone's employees, 210 employees will be cut by layoffs. She understands that the company needs to control costs and that the better off the company is, the better off the local area is. GRIP also recognizes the terrific work FMI has done with accelerated reclamation. But cost-cutting should not come at the expense of reclamation. We need to protect ground water quality, wildlife and the environment. She urged MMD to strictly enforce the requirements of the Mining Act. Tr. pp. 27-28.

Steve Blodgett is a consultant from J. Kuipers and Associates, working with GRIP on the Grant County mines since 2002. He made a couple of field trips to the Little Rock Mine years ago. He does not dispute that the leach cap material planned for use as reclamation soil can probably provide an adequate growth medium for some plants under

certain circumstances. Their larger concern is that there has been demonstrated success over the last ten years with Gila conglomerate material, which is widely available throughout the Manges Valley. It is disturbing to learn that the test plots are testing only leach cap material at different thicknesses and different slopes; it would make sense to have some plots with Gila conglomerate for comparison.

Additionally, it appears the company has decided, contrary to MMD's advice, not to apply amendments such as compost or mulch to enhance revegetation. That's unfortunate because there is widespread experience throughout the mining industry around the world that amendments always improve reclamation. It cause short-term problems such as increased weed growth and loss of diversity, but those maintenance problems can be managed over time. Tr. pp. 28-30.

Existing financial assurance from FMI is currently \$2,944,583. Based on the updated closure plan, FMI is estimating a total reclamation cost of \$1.922 million. FMI may be planning to request a reduction in financial assurance of approximately a million dollars as a consequence. GRIP believes it's appropriate to maintain the existing financial assurance because there is no contingency for test plots using Gila conglomerate, and that testing should be completed. Apparently it will take seven years to get the initial data on the plots; at that time it may be appropriate to request a reduction in financial assurance. Tr. pp. 30-31.

NMED has noted that there is no comprehensive stormwater plan for the Little Rock mine; they believe this is a major deficiency, but it appears it will be rectified by the end of September. Their final concern relates to the formation of another pit lake. Although the pit will be partially backfilled, there will be leach cap material there

with .15 percent copper, albeit in oxide form that is not readily mobile in water. If the water level in the pit fluctuates with climate change over the next 80 years as it approaches equilibrium, when the water level drops, there will be soluble metal salts precipitating out of the massive sulfides that underlie the pit. If the water level rises again, the salts will be remobilized and metal will go into solution. It is generally bad environmental policy to create another pit lake. Tr. pp. 31-32.

Sally Smith, also with GRIP, spoke for the 79-plus bird species, 18 or more mammals, and 5 or more reptiles that have been documented in the area and would be attracted to an open pit, which may become an attractive nuisance and a danger to wildlife. The mines have already had the experience of tailings ponds becoming a danger to wildlife, resulting in an extended legal battle and significant fees for past bird kills.

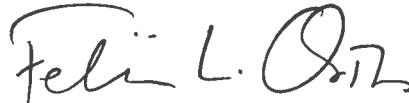
Wildlife damage is a known factor in pit lake creation around the country. In the 80 years it will take for the pit to fill, climate unpredictability may create a situation in which the lake's metal content changes. Further, there is no sufficient map showing habitat creation. Reclamation has been done well, but habitat is limited. Cattle are often attracted to mine sites. Wildlife must be strongly considered in moving forward with the project. Tr. pp. 33-34.

Public Comment

Carol Morrison has been coming to MMD meetings for 10-12 years. She learned that some fines were held in abeyance and on the books for four years. We need a good relationship in the community and with the mines. MMD should protect the environment, soil, water, and wildlife, including humans. She shares GRIP's concerns about the pit lake, ground water and reclamation cover. Tr. pp. 35-36.

No other comment, testimony or exhibits were offered. The hearing sign-in sheets and written public comment submitted during the hearing have already been delivered to the Department.

Respectfully submitted,

A handwritten signature in black ink that reads "Felicia L. Orth". The signature is written in a cursive style with a large, looped "O" at the end.

Felicia L. Orth, Hearing Officer