State of New Mexico
Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham
Governor

Melanie A. Kenderdine
Cabinet Secretary

Ben Shelton
Deputy Cabinet Secretary

Erin Taylor
Deputy Cabinet Secretary

Erin McCullough, Director
Mining and Minerals Division

Electronic Transmission

September 5, 2025

Sherry Burt-Kested, Environmental Services Manager
Freeport-McMoRan Tyrone Inc.
P.O. Box 571
Tyrone, New Mexico 88065

RE: Agency Comments, Little Burros Exploration Project, Minimal Impact Exploration Permit Application, Permit No. GR097EM

Dear Ms. Burt-Kested,

Pursuant to §19.10.3.302 G. NMAC, the New Mexico Mining and Minerals Division (MMD) has distributed the Minimal Impact Exploration Permit Application to the required state agencies. This application was submitted on July 29, 2025, by Freeport-McMoRan Tyrone Inc. (FMI) for its Little Burros Exploration Project, Permit Application No. GR097EM, located on private property owned by FMI within the boundaries of the claim numbers identified in the application for exploration located approximately 10 miles south of Silver City, NM in Grant County New Mexico.

A Site Inspection was held on August 14, 2025, and was attended by FMI, MMD, the New Mexico Environment Dept. (NMED), and the New Mexico Dept. of Game and Fish (NMDGF).

MMD has the following comments regarding this application:

1. Please provide a copy of the NM Office of the State Engineer (OSE) Form WR-07.
2. Regarding the mud/fluid pit, please ensure that this pit and possible overflow pit are situated on the southwest side of the operation to eliminate the risk of drilling fluids flowing onto the adjacent private property to the northeast.
3. Because this drill pad location is adjacent to another private property owner, MMD recommends that FMI use berms on the north and northeast sides of the operation to eliminate the risk of sediment movement onto the adjacent private property.
4. Describe how the mud/fluid pit will be reclaimed.

5. Prior to issuance of the permit MMD will require FMI to submit a draft of an approved financial assurance (FA) instrument. See table below for FA calculations based on MMD's updated guidance document for estimating reclamation costs (attached).

Little Burros Exploration Project (Minimal Impact) GR097EM Financial Assurance				
Description	Unit	Quantity	Unit Rate ($/unit)	Total Cost ($)
Surface Reclamation 1st Acre	acre	1	12,300	12,300
Surface Reclamation 2nd Acre	acre	1	6,800	6,800
Plug and Abandon Exploration Drill Holes	ft	3,850	25	96,250
			Total FA	**$115,350**

Additionally, please see attached comments from the following agencies:

- New Mexico Environment Dept.
- New Mexico Dept. of Game and Fish
  - Address specific questions about drilling mud pit fencing.
- New Mexico Dept. of Cultural Affairs
- NM Mexico State Forestry Dept.

If you have any questions, please contact me at (505) 467-9589 or via e-mail at: clinton.chisler@emnrd.nm.gov.

Sincerely,

Clint Chisler, Permit Lead
Mining Act Reclamation Program (MARP)

cc: DJ Ennis, Program Manager, MARP
Raechel Roberts, Senior Environmental Scientist, Tyrone Mine
Mine File (GR097EM)

Attachment: MMD Guidance for Estimating Reclamation Costs, July 2025

State of New Mexico
Energy, Minerals and Natural Resources Department

Laura McCarthy, State Forester
Forestry Division

August 4, 2025

Clint Chisler
Permit Lead; Mining and Minerals Division
Energy, Minerals and Natural Resources Department (EMNRD)
1220 S. St. Francis Drive
Santa Fe, NM 87505

RE: Request for Comment, Little Burros Minimal Impact Exploration Permit Application, Permit No. GR097EM

Thank you for the opportunity to comment on the above referenced project. I do not anticipate any impacts to plants listed as State Endangered or Federally Endangered or Threatened as a result of this project, as described in the application.

Please let me know if I can be of further help.

Sincerely,

Erika Rowe
Endangered Plant Program Coordinator
EMNRD-Forestry Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505
erika.rowe@emnrd.nm.gov / (505)699-6371
http://www.emnrd.state.nm.us/SFD/

State of New Mexico
Energy, Minerals and Natural Resources Department

Mike Tompson, Acting Director
Mining and Minerals Division

Electronic Transmission

August 1, 2025

Courtney Wands
Department of Cultural Affairs
Historic Preservation Division
407 Galisteo Street, Suite 236
Santa Fe, NM 87501

HPD Log #126053
Received 8/1/2025

RE: Request for Comment, Little Burros Minimal Impact Exploration Permit Application, Permit No. GR097EM

Dear Ms. Wands,

Pursuant to §19.10.3 NMAC, the New Mexico Mining and Minerals Division (MMD) has determined that a Minimal Impact Exploration Permit Application (Application) submitted on July 29, 2025 is Administratively Complete. The application was submitted by Freeport-McMoRan (FMI) for its Little Burros Exploration Project and proposes to drill 1 borehole and disturb up to 2 acres of private property owned by FMI within the boundaries of the claim numbers identified in the application for exploration located approximately 10 miles south of Silver City, NM in Grant County, New Mexico.

Per §19.10.3.302 G. NMAC, MMD is requesting comments from your agency regarding this application. If your agency has any comments on this project, please respond within 20 days of this letter. The Little Burros Exploration Project Application is attached to this letter and will soon be posted on the MMD Website with all associated information at the following location under the Grant Co. Section:

https://www.emnrd.nm.gov/mmd/mining-act-reclamation-program/part-3-minimal-impact-exploration/

A site inspection will be scheduled for the afternoon of August 14, 2025, and all consulting agencies are invited. If you have any questions or concerns regarding the site inspection or this Application, please contact me at (505) 467-9589 or via e-mail at: clinton.chisler@emnrd.nm.gov.

Sincerely,

Clint Chisler, Permit Lead
Mining Act Reclamation Program (MARP)

Surveyed under NMCRIS 158639. No properties, no effect to historic resources.

for the New Mexico State Historic Preservation Officer

cc: DJ Ennis, Program Manager, MARP

Mine File (GR097EM)

GOVERNOR
Michelle Lujan Grisham

DIRECTOR AND SECRETARY
TO THE COMMISSION
Michael B. Sloane

STATE OF NEW MEXICO
DEPARTMENT OF GAME & FISH

One Wildlife Way, Santa Fe, NM 87507

Tel: (505) 476-8000 | Fax: (505) 476-8180

For information call: (888) 248-6866

wildlife.dgf.nm.gov

21 August 2025

Clint Chisler, Permit Lead
Mining Act Reclamation Program
New Mexico Mining and Minerals Division (MMD)
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Little Burros Minimal Impact Exploration Project Permit Application, Tyrone Mine, Permit No. GR097EM; NMDGF No. NMERT-4893.

Dear Mr. Chisler,

The New Mexico Department of Game and Fish (Department) has reviewed the exploration project referenced above. Freeport-McMoRan Tyrone Inc. (Tyrone) is proposing to drill one exploratory bore hole, to a maximum depth of approximately 3,900 feet, from a single pad site. Tyrone is also proposing the construction of a new access road that is approximately 1,540 feet in length and 15 feet wide. The project area is in Grant County, Township 19S, Range 15W, Section 12. The proposed drilling project is anticipated to disturb a total area of approximately one acre. An additional one acre of disturbance has been added as contingency to accommodate unanticipated circumstances and operational flexibility for reclamation. Staff from the Department, MMD, New Mexico Environment Department, and Tyrone conducted a site inspection on 14 August 2025. The Department provides the following recommendations to minimize potential impacts of the proposed action to wildlife and wildlife habitat.

The permit application states that, to prevent wildlife entrapment, plastic tarps will be placed over the drilling mud pits. The Department supports the use of tarps to prevent birds and bats from contacting drilling fluids and recommends that they be securely anchored over the pits. The permit application also appears to state that upright metal panels will be used for the perimeter fencing around the mud pits. However, this is not entirely clear as described in the permit application. The proposed use of metal panels is described in the context of how pit perimeter fencing will be installed and secured. The proposed use of tarps is described in the context of what material will be used for a pit perimeter fence. The Department requests clarification from Tyrone regarding what material will be used for perimeter fencing. The Department would support the use of solid metal panels, instead of mesh material, as a more effective way to exclude small terrestrial animals from accessing the mud pits. The Department continues to recommend that Tyrone use a closed-loop drilling system. The Department acknowledges the redundancy of this request with previous comments provided to Tyrone, but still strongly supports the use of these systems and their associated environmental benefits. In particular, closed-loop systems eliminate the need to build fences or install netting or similar

materials to exclude wildlife from mud pits, reduce the amount of surface disturbance associated with the drill pad sites, and consume significantly less water.

During drilling operations, it is also important to prevent wildlife from entering and becoming trapped in stockpiled drill pipes. Capping piping is the most effective way to prevent wildlife entry. At a minimum, the Department recommends that each section of pipe should be visually inspected prior to use to verify that wild animals are not inside.

To minimize the likelihood of adverse impacts to migratory birds, nests, eggs, or nestlings, the Department recommends that ground disturbance and vegetation removal activities be conducted outside of the primary migratory bird breeding season. This season runs from 15 April - 1 September for upland songbirds, willow flycatcher (*Empidonax traillii*), yellow-billed cuckoo (*Coccyzus americanus*), and other riparian songbirds; 1 March - 1 September for most raptors; 1 January - 15 July for golden eagle (*Aquila chysaetos canadensis*) and great horned owl (*Bubo virginianus*); and 1 March - 15 September for low-elevation deserts. If ground disturbing and clearing activities must be conducted during the breeding season, the area should be surveyed for active nest sites (with birds or eggs present in the nesting territory) and avoid disturbing active nests until young have fledged. For active nests, establish adequate buffer zones to minimize disturbance to nesting birds. Buffer distances should be at least 100 feet from songbird and raven nests; 0.25 miles from most raptor nests; and 0.5 miles for ferruginous hawk (*Buteo regalis*), golden eagle, peregrine falcon (*Falco peregrinus*), and prairie falcon (*Falco mexicanus*) nests. Active nest sites in trees or shrubs that must be removed should be mitigated by qualified biologists or wildlife rehabilitators. Department biologists are available to consult on nest site mitigation and can facilitate contact with qualified personnel.

The Department recommends that, to the maximum extent feasible, large mature trees are left undisturbed during road and drill pad construction. Tree species that should be left undisturbed include alligator juniper (*Juniperus deppeana*), piñon pine (*Pinus edulis*), and all species of oak (*Quercus* spp.).

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

Thank you for the opportunity to review and comment on the proposed exploration project. If you have any questions, please contact Ron Kellermueller, Mining and Energy Habitat Specialist, at (505) 270-6612 or ronald.kellermueller@dgf.nm.gov.

Sincerely,

Virginia Seamster

Digitally signed by Virginia Seamster
Date: 2025.08.21 15:59:21 -06'00'

Virginia Seamster, Ph.D.
Assistant Chief, Ecological and Environmental Planning Section

cc: USFWS NMES Field Office

Electronic Transmission

MEMORANDUM

Date: August 27, 2025

To: David Ennis, Program Manager, Mining Act Reclamation Program

Through: Amber Rheubottom, Mining Act Team Leader, Mining Environmental Compliance Section (MECS)

From: Davena Crosley, Surface Water Quality Bureau (SWQB)
Sufi Mustafa, Air Quality Bureau (AQB)
Sean Madden (MECS)

Subject: **New Mexico Environment Department (NMED) Comments, Little Burros Project, Grant County, New Mexico, Mining Act Permit No. GR097EM**

The New Mexico Environment Department (NMED) received correspondence from the Mining and Minerals Division (MMD) on August 1, 2025, requesting that NMED review and provide comments on the above-referenced MMD permitting action. Pursuant to the Mining Act, the operation is an exploration project. MMD requested comments on the application within 20 days of receipt of the request for comments. NMED requested an extension.

Background

Freeport-McMoRan Tyrone (Applicant) is proposing to drill 1 exploration drill holes with a disturbance of 2 acres.

Air Quality Bureau

The AQB comments are attached.

Surface Water Quality Bureau

The SWQB comments are attached.

Mining Environmental Compliance Section

No Comments.

NMED Summary Comment

NMED has determined the proposed activities will be protective of the environment if done in accordance with the approved permits and pollution controls as presented.

If you have any questions, please contact Amber Rheubottom at (505) 660-2379.

cc: Joseph Fox, Program Manager, NMED-MECS
Brad Reid, Team Leader, NMED-MECS
Sean Madden, NMED-MECS
Shelly Lemon, Bureau Chief, NMED-SWQB
Cindy Hollenberg, Bureau Chief, NMED-AQB
Clint Chisler, EMNRD-MARP

MEMORANDUM

DATE: August 25, 2025

TO: Amber Rheubottom, Mining Act Team Leader, Mining Environmental Compliance Section, NMED

FROM: Sufi Mustafa, Staff Manager, Air Dispersion Modeling and Emission Inventory Section, Air Quality Bureau.

Request for Review and Comment, Freeport McMoRan, Little Burrow, Grant County, New Mexico Mining Act Permit No. GR097M

The New Mexico Air Quality Bureau (AQB) has completed its review of the above-mentioned mining project. Pursuant to the New Mexico Mining Act Rules, the AQB provides the following comments.

Details

Freeport-McMoRan (FMI) for its Little Burros Exploration Project and proposes to drill 1 borehole, create one drill pad and one mud pit. This project will disturb up to 2 acres of private property owned by FMI. The exploration area is located approximately 10 miles south of Silver City, NM in Grant County, New Mexico.

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.

20.2.15 NMAC, *Pumice, Mica and Perlite Processing.* Including 20.2.15.110 NMAC, *Other*

Particulate Control: "The owner or operator of pumice, mica or perlite process equipment shall

not permit, cause, suffer or allow any material to be handled, transported, stored or disposed of or a building or road to be used, constructed, altered or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne."

Paragraph (1) of Subsection A of 20.2.72.200 NMAC, *Application for Construction, Modification, NSPS, and NESHAP - Permits and Revisions*, states that air quality permits must be obtained by:

"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. 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."

Further, Paragraph (3) of this subsection states that air quality permits must be obtained by:

"Any person constructing or modifying any source or installing any equipment which is subject to 20.2.77 NMAC, *New Source Performance Standards*, 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."

The above is not intended to be an exhaustive list of all requirements that could apply. The applicant should be aware that this evaluation does not supersede the requirements of any current federal or state air quality requirement.

Fugitive Dust

Air emissions from this project should be evaluated to determine if an air quality permit is required pursuant to 20.2.72.200.A NMAC (e.g. 10 lb/hour or 25 TPY). Fugitive dust is a common problem at mining sites and this project will temporarily impact air quality as a result of these emissions. However, with the appropriate dust control measures in place, the increased levels should be minimal. Disturbed surface areas, within and adjacent to the project area, should be reclaimed to avoid long-term problems with erosion and fugitive dust. EPA's *Compilation of Air Pollutant Emission Factors, AP-42, "Miscellaneous Sources"* lists a variety of control strategies that can be included in a comprehensive facility dust control plan. A few possible control strategies are listed below:

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.

Recommendation

The Air Quality Bureau does not have any objection to this permit request.

This written evaluation does not supersede the applicability of any forthcoming state or federal regulations.

If you have any questions, please contact me on 505 629 6186.

MEMORANDUM

DATE: August 25, 2025

TO: Amber Rheubottom, Mining Environmental Compliance Section, Groundwater Quality Bureau

FROM: Davena Crosley, Watershed Protection Section, Surface Water Quality Bureau

SUBJECT: **Request for Review and Comment, Little Burros Minimal Impact Exploration Permit Application, Grant County, New Mexico Mining Act Permit No. GR097EM**

The New Mexico Environment Department (NMED)-Surface Water Quality Bureau (SWQB) received the subject request for comments on August 6, 2025, regarding a minimal impact exploration project submitted by Freeport-McMoRan (FMI) (Applicant). The project is located in Grant County, approximately 10 miles south of Silver City, New Mexico on private property owned by FMI within the boundaries of the claim XXX patented mining claims. The project proposes to bore one (1), 3.5-inch diameter hole to a maximum depth of 3850 feet from one (1), 100-foot x 100-foot drill pad (approximately 0.4 acres of disturbance) to explore for copper, Molybdenum, gold, lead, and zinc. Existing roads will be utilized to access drill locations however widening of existing roads will disturb approximately 0.07 acres. Additional new road construction will disturb approximately 0.53 acres. Total project disturbance is estimated at one (1) acre. FMI has planned an additional 1 acre of unplanned disturbance contingency, but the planned disturbance is 1 acre. No drilling is proposed within 100 feet of any perennial, intermittent, or ephemeral stream. SWQB is providing the following comments pursuant to 19.10.4 New Mexico Administrative Code (NMAC):

This project will disturb one or more acres and storm water discharges may be covered under both/either the U.S. Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) or under the Multi-Sector General Permit (MSGP) under Sector G Metal Mining. The Applicant must contact the EPA to determine whether this project is subject to NPDES permitting. For the MSGP, contact Nasim Jahan (jahan.nasim@epa.gov), (214) 665-7522. For the CGP, contact Suzanna Perea (perea.suzanna@epa.gov), (214) 665-7217. Additional information about the NPDES program for EPA Region 6 is available online: https://www.epa.gov/npdes-permits/npdes-stormwater-program-region-6.

This project area contains ephemeral arroyos, but no intermittent or perennial water bodies or streams are within the planned disturbance area. New Mexico surface water quality standards apply to all Surface Waters of the State including ephemeral streams at 20.6.4.13 NMAC and 20.6.4.97 NMAC and have designated uses for livestock watering, wildlife habitat, limited aquatic life, and secondary contact. Surface waters of the state shall be free of any water contaminant in such quantity and of such duration as may with reasonable probability injure human health, animal or plant life or property, or unreasonably interfere with the public welfare or the use of property (20.6.4.13 NMAC). Mine exploration activities that have the potential to contribute pollutants to waters of the state must be implemented with appropriate and reasonable Best Management Practices (BMPs) in order to prevent impacts to water quality. Any discharge of a water contaminant, in such quantity as may with reasonable probability injure or be

detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property, must be reported to the Environment Department within twenty-four hours (20.6.2.1203 NMAC).

Appropriate and reasonable BMPs include, but are not limited to, the following:

- Spill clean-up materials such as absorbent pads must be available on-site at all times during road construction, site preparations, and drilling activities to address potential spills.

- Fuel, oil, hydraulic fluid, lubricants, and other petrochemicals must have a secondary containment system to prevent spills. Store these materials outside of the flood-prone zone.

- Process water must be contained within a closed-loop system or lined pits. A discharge of process water may require a discharge permit from NMED or the U.S. Environmental Protection Agency.

- Drilling cores must be collected and disposed of properly.

- Pressure wash and/or steam clean all mobile equipment used in the project area before the start of the project and inspect daily for leaks. A written log of inspections and maintenance should be completed.

- The use of overland travel and site selection, design, and construction of drill pads, reserve pits, and roads should comply with the guidelines described in the Bureau of Land Management "Gold Book" [1]. Suspend construction, maintenance activities, or off-road travel during periods when the soil is too wet to adequately support heavy equipment without causing surface disturbance. The operator should commit to repair any surface disturbance they caused.

- Implement Best Management Practices to prevent direct impacts to watercourses, including springs, wetlands, and arroyos. For temporary surface disturbances during exploration and reclamation activities, the operator should implement erosion control measures that are designed, constructed and maintained using professionally recognized standards (e.g., Natural Resource Conservation Service standards, the Bureau of Land Management "Gold Book", or the National Best Management Practices for Water Quality on National Forest System Lands).

- The applicant should ensure that stormwater entering the project area ("run-on") is diverted from soil storage piles and should place piles uphill of excavations when possible.

- Roads, pads, and other facility structures should be set back a minimum of 100 feet from any watercourses, including springs, wetlands, and arroyos.

[1] https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/operations-and-production/the-gold-book

GUIDANCE FOR ESTIMATING RECLAMATION COSTS

PART 3 – MINIMAL IMPACT EXPLORATION AND MINIMAL IMPACT MINING
PART 4 – REGULAR EXPLORATION PERMIT APPLICATIONS

A major goal of the New Mexico Mining Act is to ensure the adequate reclamation of all areas disturbed by exploration and mining operations. The primary mechanism for accomplishing this is a permitting and enforcement process that requires the posting of financial assurance ("FA") sufficient to ensure completion of a reclamation plan. The FA serves as a guarantee that reclamation will be completed, and, in the event of FA forfeiture, monies will be used by the regulatory authority to contract for the necessary reclamation work.

The Mining Act Reclamation Program Rules require that an applicant for an exploration or mining permit provide "*an estimate of the proposed financial assurance required by 19.10.12 NMAC*". The purpose of this guidance is to provide an expedited approach for calculating the costs associated with reclaiming a simple exploration site and/or a simple surface mining operation. The applicant's calculated cost estimate for the post-exploration or post-mining site reclamation will be considered by the Director for determining the amount of FA the applicant is required to post prior to receiving approval for any operations.

This cost estimation guidance is based upon the costs of a third party to perform the reclamation. Following this simplified process will aid in expediting the review process.

COST ESTIMATION COMPONENTS

This approach for estimating the costs to reclaim a simple exploration or mining site involves adding together the component costs of; (1) drill hole abandonment, (2) reclaiming and reseeding all surface disturbances.

DRILL HOLE ABANDONMENT

Each drill hole shall be plugged from total depth to within 2 feet of the original ground surface or the collar of the hole, whichever is lower, with a column of cement, high-density bentonite clay or other materials specified in the permit. If the approved plugging material is not cement, then the top ten feet of the column of plugging material must be a cement plug, the top of which must be placed at 2 feet below ground surface. The remaining top 2 feet of the drill hole shall then be backfilled with topdressing or top soil from the top of the cement plug to the original ground surface elevation. The hole shall be plugged as soon as practicable and satisfy

the requirements of the New Mexico Office of the State Engineer, and the New Mexico Environment Department, for proper plugging of such holes.

Estimated costs for abandoning boreholes using bentonite-cement grout ranges from approximately $20.00 to $35.00 per foot. **For the purposes of estimating a simplified cost of abandoning boreholes, the MMD cost is $25.00/foot.** The FA cost estimate could be higher or lower based on site-specific characteristics.

Wet drill holes must be sealed pursuant to the Office of the State Engineer's Rules and Regulations (19.27.4.36 NMAC) which states, "*Any person drilling a mine drill hole that encounters a water bearing stratum shall plug that hole in accordance with Subsection C of 19.27.4.30 NMAC or Subsection K of 19.27.4.31 NMAC*."

All wet drill holes must be plugged and abandoned by displacing neat cement slurry, cement grout mix, or other pre-approved plugging mud through a tremie pipe placed bottom upwards to ten feet from the ground surface. Twenty-four hours after displacement of the plugging mud plugs will be "felt for" to insure that they have been properly seated. The top 10 feet should be neat cement slurry, bentonite based plugging material, or other sealant approved by the state engineer. If artesian, the entire hole needs to be plugged with a neat cement slurry and the well plugging witnessed by the state engineer.

Shallow, dry drill holes could potentially be filled with hydrated bentonite chips to 12 feet below ground surface, pending authorization by MMD in the applicant's permit. The top 12 feet should be a cement plug followed by 2 feet of soil or topdressing, unless otherwise approved by MMD and the state engineer.

RECLAIMING AND RESEEDING ALL SURFACE DISTURBANCES

Costs associated with a third party to backfill and grade, scarify and/or rip, and re-seed all disturbances. (This component includes drying out the mud pit prior to regrading.)

Sum the total amount of all acreage expected to be disturbed during exploration or mining operations. For exploration and mining sites, consideration must be given to the site-specific conditions such as dimensions of all anticipated drill pits, access roads, borrow areas, drainage crossings, culvert removals and compacted overland routes. Additional costs will be considered on a site-specific basis dependent upon the need to control runoff, inhibit fugitive dust, and contain and dispose of all waste associated with the exploration and mine reclamation

activities. After adding up all the anticipated disturbances in units of acres apply the following cost per acre:

$12,300 for the first acre
$6,800 per acre for each additional acre

Note: The per acre cost includes a 40% add-on to cover the indirect costs. Additionally, assistance from the Mining and Minerals Division, the Natural Resources Conservation Service, other agencies, universities, and revegetation contractors can be consulted for local conditions, best plant species, planting times, fertilizers, and revegetation costs.

COST SUMMARY

Required financial assurance can now be determined by adding together the drill hole abandonment and the reclamation and reseeding costs as described above.

In the event the operator feels that a lesser amount of financial assurance is justified than what this guidance suggests, they must justify their position by providing MMD with a complete and detailed financial assurance worksheet.

Escalation rates for mining operations, only, shall be applied to the financial assurance calculation for a minimum of five years. This is to cover the cost of future reclamation. The escalation rate is based on the Consumer Price Index (CPI), averaged over the last 20 years. The 20 year average for the CPI is 3.5%.

See examples on the next page.

An example of a simple exploration reclamation scenario and resulting financial assurance amount follows.

Post-Exploration Reclamation Cost Estimating – Example

Proposal to drill 7 drill holes to 220 feet each and disturb a total of 3.13 acres:

- Cost of abandoning 7 drill holes;
  (7 x 220 feet) x $25.00/feet = $38,500.00

- Cost of reclaiming 3.13 acres of disturbance;
  $12,300 (first acre) + (2.13 (additional acres) x $6,800) = $26,784.00

- Total FA required;
  $38,500.00 + $26,784.00 **= $65,284.00**

An example of a simple mining reclamation scenario and resulting financial assurance amount follows.

Mining Reclamation Cost Estimating – Example

Cost of reclaiming 10 acres of disturbance:

- $12,300 (first acre) + (9 (additional acres) x $6,800) = $73,500.00

- Total FA required with escalation over 5 years;
  $73,500 x $(1+ 3.5\%)^5$ = **$87,294.94**