



Tyrone Operations  
P.O. Box 571  
Tyrone, NM 88065

February 19, 2021

**Via Electronic**  
**Certified Mail #9171999991703580009806**  
**Return Receipt Requested**

Mr. David Otori, Permit Lead  
Mining Act Reclamation Program  
Energy, Minerals and Natural Resources Department  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Dear Mr. Otori:

**Re: Amended Application for Permit No. GR083EM Dated August 10, 2020**

As discussed, Tyrone has requested to amend Permit No. GR083EM, to drill an additional 23 holes. Per our conversation on February 17, 2021, our geology department has just recently asked if we could include in this permit the ability to drill an additional hole in roughly half of the sites, which would entail drilling the original hole and reading the data and then potentially drilling another hole within feet of the original hole. If the decision is made not to drill an additional hole the original hole would then be plugged and abandoned as described in the permit. If an additional hole is drilled, both holes will be plugged and abandoned as described in the permit. This process will prevent the drill rig from moving until all drilling is done.

Tyrone has secured drilling permits for 23 holes already in anticipation for this permit. Tyrone will immediately, upon approval of this request, secure an additional 23 well permits from the OSE. We will most likely only use roughly one half of these, but they will be in place and prevent any delay in drilling work.

Tyrone will provide MMD with a plugging record and drillers affidavit from each drilling site as soon as plugging is completed. This change in plans will not increase the number of drilling sites, access road disturbance or overall disturbance in any matter.

Mr. David Ohori  
February 19, 2021  
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Thank you for your consideration and willingness to allow us to include this change into the permit application.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Ty Bays', with a long horizontal flourish extending to the right.

Ty Bays  
Senior Land & Water Resource Analyst

TRB  
20210219-100



Tyrone Operations  
P.O. Box 571  
Tyrone, NM 88065



January 25, 2021

**Certified Mail #9171999991703580009622**  
**Return Receipt Requested**

Mr. David Otori, Permit Lead  
Mining Act Reclamation Program  
Energy, Minerals and Natural Resources Department  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Dear Mr. Otori:

**Re: Amended Application for Permit No. GR083EM Dated August 10, 2020**

As discussed, Tyrone requests to drill an additional 23 holes in the Emma-B Exploration Project. The new holes will be labeled 24 thru 46, which will bring the total number of proposed new holes to 23. All previous holes in this project have been plugged and abandoned and all reclamation has been done except for seeding. It is proposed to seed the original Emma-B and the amended disturbance in the late Spring or early Summer prior to the onset of the monsoon. The holes and associated disturbance will include 3.1 acres of new disturbance. As agreed to on the original Emma Application, Tyrone will agree to all of the same terms and conditions as agreed to for the Emma Permit #GR079EM.

Further, I have attached an amended map showing the two additional holes along with the new road disturbance. If you have any questions, please contact me either by email [tbays@fmi.com](mailto:tbays@fmi.com) or by phone at (575) 912-5757.

Sincerely,

Ty Bays  
Senior Land & Water Resource Analyst

TRB  
Attachments  
20210125-100

# PART 3

## MINIMAL IMPACT EXPLORATION OPERATION

### PERMIT APPLICATION

Accompanying instructions for this permit application are available from MMD, and on MMD webpage:

<http://www.emnrd.state.nm.us/MMD/MARP/MARPAApplicationandReportingForms.htm>

Send 6 copies of the completed application to:

**STATE OF NEW MEXICO**  
**ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT**

Director  
Mining and Minerals Division  
1220 South Saint Francis Drive  
Santa Fe, New Mexico 87505  
Telephone: (505) 476-3400

Webpage: [www.emnrd.state.nm.us/MMD/index.htm](http://www.emnrd.state.nm.us/MMD/index.htm)

#### CHECK OFF LIST TO DETERMINE YOUR PROJECT'S STATUS AS A MINIMAL IMPACT EXPLORATION OPERATION:

- ☐ Yes ☒ No My project **will exceed 1000 cubic yards of excavation**, per permit.
- ☐ Yes ☒ No Surface disturbances for constructed roads, drill pads and mud pits **will exceed 5 acres** total for my project.
- ☐ Yes ☒ No My project is located in or is expected to have a direct surface impact on wetlands, springs, perennial or intermittent streams, lakes, rivers reservoirs or riparian areas.
- ☐ Yes ☒ No My project is located in designated critical habitat areas as determined in accordance with the federal Endangered Species Act of 1973 or in areas determined by the Department of Game and Fish likely to result in an adverse impact on an endangered species designated in accordance with the Wildlife Conservation Act, Sections 17-2-37 through 17-2-46 NMSA 1978 or by the State Forestry Division for the Endangered Plants Act, section 75-6-1 NMSA 1978.
- ☐ Yes ☒ No My project is located in an area designated as Federal Wilderness Area,

Wilderness Study Area, Area of Critical Environmental Concern, or an area within the National Wild and Scenic River System.

- ☐ Yes ☒ No My project is located in a known cemetery or other burial ground.
- ☐ Yes ☒ No My project is located in an area with cultural resources listed on either the National Register of Historic Places or the State Register of Cultural Properties.
- ☐ Yes ☒ No My project will or is expected to have a direct impact on ground water that has a total dissolved solids concentration of less than 10,000 mg/L, except exploratory drilling intersecting ground water may be performed as a minimal impact operation.
- ☐ Yes ☒ No My project is expected to use or using cyanide, mercury amalgam, heap leaching or dump leaching in its operations.
- ☐ Yes ☒ No My project is expected to result in point or non-point source surface or subsurface releases of acid or other toxic substances from the permit area.
- ☐ Yes ☒ No My project requires a variance from any part of the Mining Act Rules as part of the permit application.

If you answer yes to any of the above questions, your project does not qualify as a minimal impact exploration operation.

### Confidential Information

- ☐ Yes ☒ No Is any of the information submitted in this application considered by the applicant to be confidential in nature? If yes, please provide this information separately and marked as "confidential."

### Timeline

- Exploration applications must be provided no less than 45 days prior to the anticipated date of operations desired by the applicant.
- Renewal applications shall be filed at least 30 days preceding expiration of the current permit. Permits are valid for one year.
- Approved permit is valid for one year from the date of approval.

## SECTION 1 – OPERATOR INFORMATION (§304.D.1)

Project Name: Emma-B Amendment

Nearest Town To Project: Tyrone, NM 88065

Applicant Name and Contact Information (entity obligated under the Mining Act):

Name: Freeport-McMoRan Tyrone Mining, LLC.

Address: P.O. Box 571 Tyrone , NM 88065

1/25/2021

Office Phone: (575) 912-5757

Cell Phone: (575) 313-0913

Fax Number: \_\_\_\_\_

Email: tbays@fmi.com

Name of On-Site Contact, Representative, or Consultant:

Name: Ty Bays

Address: Same as above

Office Phone: Same as above

Cell Phone: Same as above

Fax Number: \_\_\_\_\_

Email: \_\_\_\_\_

## SECTION 2 – RIGHT TO ENTER INFORMATION (§302.D.1)

- A. Describe or attach copies of documents that give the applicant the right to enter the property to conduct the exploration and reclamation, include: lease agreements, access agreements, right of way agreements, surface owner agreements, and claim numbers, if applicable.

Attachment \_\_\_\_\_

- B. List the names and addresses of surface and mineral ownership within the proposed permit area. If the mineral is federal mineral, indicate as federal mineral, but provide the name of the claim holder or lease holder.

**Surface Estate Owner(s):**

Name	Address	Phone #
<input type="checkbox"/> U.S. BLM	_____	_____
	_____	
<input type="checkbox"/> U.S. Forest Service	_____	_____
	_____	
<input type="checkbox"/> State of NM	_____	_____
	_____	
<input checked="" type="checkbox"/> Private/Corporate	_____	_____
Name: <u>Freeport-McMoRan Tyr</u>	<u>P.O. Box 571 Tyrone, NM 88065</u>	
<input type="checkbox"/> Other	_____	<u>(575) 912-5757</u>
Name: _____	_____	

**Lease Holder(s) of Surface Estate (if applicable):**

Name	Address	Phone #
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

**Mineral Estate Owner(s):**

Name	Address	Phone #
<input checked="" type="checkbox"/> Bureau of Land Management	301 Dinosaur Trail Santa Fe, NM 87505	(505) 954-2039
<input type="checkbox"/> US Forest Service	_____	_____
<input type="checkbox"/> State of NM	_____	_____
<input type="checkbox"/> Claim/Lease Holder	_____	_____
Name: _____	_____	
Claim Numbers: _____		
<input type="checkbox"/> Claim/Lease Holder	_____	_____
Name: _____	_____	
Claim Numbers: _____		
<input type="checkbox"/> Other	_____	_____
Name: _____	_____	



C. Has a Cultural Resource Survey been performed on the site? ☒ Yes ☐ No

If yes, please provide the author, title, date and report number, and include a copy of the survey with this application, if possible:

Field is completed and no cultural sites were located. Report is not yet available and applicant will provide a copy upon request when final report is complete.

Attachment \_\_\_\_\_

D. Has a wildlife survey or vegetation survey been performed for the permit area?

☒ Yes ☐ No If yes, please provide the author, title, date and report number, and include a copy of the survey with this application, if possible:

Field work is completed and no threatend or endangered animal or plant specis were identified. Report is not yet available and applicant will provide a coupy upon request when final report is complete. If drilling occurs during the period of May1 thru August 31 a breeding bird survey

Attachment \_\_\_\_\_

## SECTION 3 – MAPS AND PROJECT LOCATION (§302.D.2)

### A. Project Location:

Township 19S Range 15W Section 25

Township 19S Range 15W Section 35

Township 19S Range 15W Section 36

List the drill hole/exploration name and the GPS coordinates for each site.

I.D. Number	Northing / Latitude	Easting / Longitude	I.D. Number	Northing / Latitude	Easting / Longitude
24	32' 36' 52.67"	108' 21' 9.10"	42	32' 37' 8.23"	108' 21' 10.87"
25	32' 36' 52.7"	108' 21' 15.62"	43	32' 37' 8.15"	108' 21' 6.2"
26	32' 36' 53.01"	108' 21' 20.49"	44	32' 37' 10.16"	108' 21' 8.5"
27	32' 36' 56.26"	108' 21' 3.26"	45	32' 37' 14.09"	108' 21' 6.09"
28	32' 26' 56.89"	108' 21' 7.29"	46	32' 37' 14.37"	108' 21' 9.01"
29	32' 36' 56.84"	108' 21' 10.79"			
30	32' 36' 56.41"	108' 21' 15.76"			
31	32' 36' 56.47"	108' 21' 20.44"			
32	32' 36' 56.54"	108' 21' 25.11"			
33	32' 37' 0.49"	108' 21' 25.05"			
34	32' 37' 0.43"	108' 21' 20.37"			
35	32' 37' 0.37"	108' 21' 15.7"			
36	32' 37' 0.81"	108' 21' 10.98"			
37	32' 37' 2.21"	108' 21' 4.26"			
38	32' 37' 4.75"	108' 21' 10.36"			
39	32' 37' 4.38"	108' 21' 20.29"			
40	32' 37' 4.44"	108' 21' 24.97"			
41	32' 37' 9.2"	108' 21' 15.53"			

Coordinate system used to collect GPS data points:

- ☐ NAD83 Geographic  
☐ NAD83 UTM Zone 13 (or 12)  
☐ WGS 1984

- ☐ NAD27 Geographic  
☒ NAD27 UTM Zone 13 (or 12)  
☐ Other: \_\_\_\_\_

Attachment \_\_\_\_\_ (for listing additional boreholes)

### B. Maps (see application form instructions for examples of maps to be included):

Are topographic maps included with the application that show the following items:

- ☒ Yes – The boundary of the proposed exploration project Permit Area
- ☒ Yes – The proposed exploration locations (i.e., borehole locations)
- ☒ Yes – Existing roads, new roads and overland travel routes
- ☒ Yes   ☐ N/A – Areas of proposed road improvement

Attachments 4

Are maps or figures included with the application showing the approximate dimensions and locations of drill pads and other disturbances:

- ☒ Yes – Drill pad dimensions and constructed drill pad locations

Attachments 1

C. Provide detailed driving directions to access the site:

From Silver City, drive 10 miles south on HWY 90S. Turn west onto Tyrone Thompson Canyon county maintained road. Approximately 1 mile west turn onto existing access road. Gate is locked and will require an escort to the area by permittee.

## SECTION 4 – EXPLORATION DESCRIPTION (§302.D.3 & 4)

A. Anticipated exploration: Start Date: 5/1/2021 End Date: 12/15/2021

B. List the mineral(s)/element(s) to be explored for: Copper

C. Proposed method(s) of exploration:

☐ **Air drilling (air rotary, coring, etc.):**

\_\_\_\_\_ # of holes \_\_\_\_\_ Depth (ft.) \_\_\_\_\_ Diameter (in.)

\_\_\_\_\_ # of drill pads \_\_\_\_\_ Length (ft.) \_\_\_\_\_ Width (ft.)

Will drill pads be graded/bladed or overland: ☒ Graded/bladed ☐ Overland

Will drill pads need some mechanical leveling (grading/blading): ☐ Yes ☐ No

Approx. Weight of Drill Rig (lbs.) 100,000 Number of Axles: 3

Total length of drill stem that can be carried on the rig: \_\_\_\_\_

Is a support pipe truck anticipated? ☐ Yes ☐ No \_\_\_\_\_ Weight (lbs.)

Weight of support compressor (lbs.): \_\_\_\_\_ Trailer mounted? \_\_\_\_\_

Anticipated Drilling Contractor: Layne License No. \_\_\_\_\_

☐ **Mud/fluid drilling:**

23 # of holes 1,500 Depth (ft.) 5" Diameter (in.)

23 # of drill pads 70 Length (ft.) 40 Width (ft.)

Will drill pads be graded/bladed or overland: ☒ Graded/bladed ☐ Overland

Will drill pads need some mechanical leveling (grading/blading): ☒ Yes ☐ No

Will a closed loop system be used or will mud/fluid pits be used? Pits will be used

If mud/fluid pits are proposed:

23 # of pits    10 Length (ft.)    \_\_\_\_\_ Width (ft.)    4 Depth (ft.)

Anticipated excavating equipment: Dozer

How will excavating equipment be transported to the site (i.e., driven, low-boy, etc.):

Driven

Will mud pits be lined?: ☐ Yes    ☒ No

If yes, proposed material to line the mud pits: \_\_\_\_\_

Approx. Weight of Drill Rig (lbs.) 100,000    Number of Axles: 3

Anticipated Drilling Contractor: Layne    License No. \_\_\_\_\_

☐ **Test pits / exploratory trenches:**

\_\_\_\_\_ # of pits    \_\_\_\_\_ Length (ft.)    40 Width (ft.)    \_\_\_\_\_ Depth (ft.)

Anticipated excavating equipment: \_\_\_\_\_

How will excavating equipment be transported to the site (i.e., driven, low-boy, etc.):

☐ **Other methods of exploration** (i.e., cuts, shafts, tunnels, adits, declines, blasting, etc.). Indicate method and details:

**TOTAL ACREAGE TO BE DISTURBED DUE TO DRILL PADS = 1.47 acres**  
(to convert to acres, multiply total square footage of drill pads by 0.0000229)

D. Disposal of drill cuttings

If this exploration project is for uranium or other radioactive elements/minerals, applicant agrees to perform a gamma radiation survey at each drill site prior to, and after, exploration activities. Applicant/Owner/Operator agrees to restore gamma radiation levels at each drill site to pre-exploration levels. ☐ Yes ☐ No ☒ N/A

Will excess drill cuttings be buried at each drill site location or within a single disposal pit?  
☒ At each drill pad location ☐ Within a single disposal pit

If a single disposal pit is proposed, please provide the following:

Description or GPS coordinates of the proposed cuttings disposal pit location:

Dimensions of the single proposed cuttings disposal pit (length, width, and depth):

\_\_\_\_\_ Length (ft.) \_\_\_\_\_ Width (ft.) \_\_\_\_\_ Depth (ft.)

**TOTAL ACREAGE TO BE DISTURBED DUE TO DISPOSAL PIT = \_\_\_\_\_ acres**  
(to convert to acres, multiply total square footage of disposal pit by 0.0000229)

E. Other Supporting Equipment (check all that apply):

<input checked="" type="checkbox"/> 4x4 Trucks/Vehicles	Quantity: 4
<input checked="" type="checkbox"/> Water Truck	Weight (lbs.): 25,000
<input type="checkbox"/> Geophysical Truck	Weight (lbs.):
<input checked="" type="checkbox"/> Pipe Truck (rig support)	Weight (lbs.): 65,000
<input checked="" type="checkbox"/> Bulldozer	Type: Cat D6
<input checked="" type="checkbox"/> Backhoe	Type: Cat 420
<input type="checkbox"/> Trackhoe	Type:
<input type="checkbox"/> Scaper/Grader	Type:
<input type="checkbox"/> Trailers	Quantity/Type:
<input checked="" type="checkbox"/> Portable Toilet	Quantity: 1
<input type="checkbox"/> Other	List:

F. Roads and Overland Travel:

List of new roads to be constructed for this exploration project:

Description of <i>NEW</i> Roads	Length (ft.)	Width (ft.)	Total Acres (length x width x 0.0000229)
Emma-B Amendment Roads	4,750	15	1.63
<b>TOTAL ACRES DISTURBED BY NEW ROAD CONSTRUCTION :</b>			<b>1.63</b>

Describe how new roads will be constructed:

Dozer

List for extension or widening of existing roads:

Description of Modification to <i>EXISTING</i> Roads	Length (ft.)	Width (ft.)	Total Acres (length x width x 0.0000229)
Emma-B Amendment Modification of existing roads			
<b>TOTAL ACRES DISTURBED BY ROAD IMPROVEMENTS :</b>			<b>0</b>

Describe how existing roads will be extended or widened:

Existing roads will be bladed for rocks and debris for safe passage.

List for routes of overland travel:

Description of <i>OVERLAND TRAVEL</i> Routes	Length (ft.)	Width (ft.)	Total Acres (length x width x 0.0000229)
<b>TOTAL ACRES DISTURBED BY OVERLAND TRAVEL :</b>			<b>0</b>

**G. Support Facilities**

Describe (location and size) any support facility disturbances (equipment staging, equipment and material storage and/or lay down areas, vehicle parking, temporary housing and/or trailers) to be created or situated on the site during exploration operations.

**H. TOTAL ACREAGE TO BE DISTURBED BY PROJECT = 3.1 acres**  
(include all disturbed acreage from drill pads, cuttings disposal pit, new roads, improved roads and overland travel routes)



## SECTION 5 – CHEMICAL USE (§302.D.4)

A. Check any and all chemicals that will be used for this project.

<input checked="" type="checkbox"/> Drilling Mud (i.e., EZ Mud)	Type/Quantity: EZ Mud Gold 35 gallon buckets
<input checked="" type="checkbox"/> Diesel Fuel	Quantity: 7,500 gallons
<input type="checkbox"/> Down-hole Lubricants	Type/Quantity:
<input type="checkbox"/> Lost Circulation Materials	Type/Quantity:
<input checked="" type="checkbox"/> Oils/Grease	Quantity: 15 tubes of grease/25 gal 15/40
<input type="checkbox"/> Gasoline	Quantity:
<input checked="" type="checkbox"/> Hydraulic Fluid	Quantity: 10 gallons
<input type="checkbox"/> Ethylene Glycol	Quantity:
<input checked="" type="checkbox"/> Cement	Type/Quantity: Portland II / 800 bags
<input checked="" type="checkbox"/> Water	Source: Tyrone Mine
<input checked="" type="checkbox"/> Bentonite	Quantity: Quick Gel / 80 50lb bags
<input type="checkbox"/> Fertilizer	Type/Quantity:
<input checked="" type="checkbox"/> Other	Type/Quantity: Soda Ash / 5 50lb bags

B. Describe, in detail, a plan for the containment, use and disposal of all chemicals listed above:

Drilling products are used down-hole with excess going into the sump with water. Portland II cement is used to abandon/plug holes. Petroleum products will be used for equipment and all disposal will be offsite.

C. Describe where equipment fueling/refueling will occur:

Drill rig refueling will be done on-site via pickup with fuel tank. Spills will be cleaned up and contaminated soil will be disposed of at Tyrone Mine until final disposal.

D. Describe how hazardous material spills/leaks will be handled:

Any spills/leaks will be reported and cleaned up and removed from the site and sent to appropriate disposal areas.

E. Identify spill cleanup materials that will be kept on-site (check all that apply):

☒ Bentonite clay or cat litter

☒ Adsorbent pads, rolls, mats, socks, pillows, dikes, etc.

☒ Drum or barrel for containing contaminated soil/adsorbent materials

☐ Other/list: \_\_\_\_\_

☐ Other/list: \_\_\_\_\_

☐ Other/list: \_\_\_\_\_

F. Applicant/owner/representative agrees to immediately notify the State of New Mexico immediately of any spills of hazardous materials (see page 1 of this application for phone numbers to notify): ☒ Yes ☐ No

## SECTION 6 – GROUNDWATER/SURFACE WATER INFORMATION (§302.D.5)

- A. Provide an estimate of depth to ground water and the total dissolved solids (TDS) concentration.

Depth to groundwater (ft.): 500 TDS concentration (mg/L): Up to 1756 mg/

Describe the source of this information:

Area monitor wells

- B. Will dewatering activities be conducted: ☐ Yes ☒ No

If yes, please describe:

- C. Is groundwater anticipated to be encountered during exploration: ☒ Yes ☐ No

**If YES:**

Have you completed Form WR-07 (Application for permit to drill a well with no consumptive use of water) and mailed it to the District Office of the State Engineer? ☒ Yes

Have you completed Form WD-08 (Well plugging plan of operations) and mailed it to the District Office of the State Engineer? ☒ Yes

Attachment \_\_\_\_\_ (copies of the completed WR-07 and WD-08 forms)

- D. Exploration Borehole Abandonment

### **Dry Boreholes**

- ☐ Dry hole abandonment (option 1): 100% bentonite pellets/chips (i.e. HOLEPLUG® manufactured by Baroid Industrial Products), dropped from surface then hydrated in place according to the manufacturer's recommendations, emplaced from total depth to within 12 feet of the original ground surface, followed by 10 feet of neat cement, followed by 2 feet of topsoil/topdressing.

- ☒ Dry hole abandonment (option 2): Neat cement slurry, mixed according to the manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 2 feet of the original ground surface, followed by 2 feet of topsoil/topdressing.
- ☐ Dry hole abandonment (option 3): Cement + 6% bentonite slurry, mixed according to the manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 2 feet of the original ground surface, followed by 2 feet of topsoil/topdressing.
- ☐ Dry hole abandonment (option 4): High-density bentonite clay ( $\geq 20\%$  active solids; i.e. QUIK-GROUT® manufactured by Baroid Industrial Products), mixed according to the manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 12 feet of the original ground surface, followed by 10 feet of neat cement, followed by 2 feet of topsoil/topdressing.
- ☐ Dry hole abandonment (option 5): Other materials / describe and justify use:

### **Wet Boreholes**

- ☐ Wet hole abandonment (option 1): Neat cement slurry, mixed according to the manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 2 feet of the original ground surface, followed by 2 feet of topsoil/topdressing.
- ☐ Wet hole abandonment (option 2): High-density bentonite clay ( $\geq 20\%$  active solids; i.e. QUIK-GROUT® manufactured by Baroid Industrial Products), mixed according to the manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 12 feet of the original ground surface, followed by 10 feet of neat cement, followed by 2 feet of topsoil/topdressing.
- ☐ Wet hole abandonment (option 3): Other sealing material approved by the Office of the State Engineer. Describe and include well plugging plan approval by the State Engineer:

- D. Applicant agrees to contain any water produced from the exploration borehole at the drill site and acknowledges that discharge of this water to a watercourse may be a violation of the Federal Clean Water Act: ☒ Yes ☐ No

E. Is any drilling proposed to occur within the channel of any perennial, intermittent, or ephemeral streams?    ☐ Yes    ☒ No

F. Is any drilling anticipated to occur within 100 feet of any perennial, intermittent, or ephemeral streams?    ☐ Yes    ☒ No

## SECTION 7 – RECLAMATION & OPERATION PLAN (§302.D.6 AND 302.I.K)

### A. Salvage/Preservation of Topsoil

Before any grading/blading or similar activities occur in relation to this project, operator agrees to salvage and preserve all topsoil and topdressing for use in future reclamation of this project ☐ Yes ☐ No

Describe how topsoil will be salvaged prior to initiation of exploration activities (check all that apply):

- ☐ N/A – no construction work will occur, therefore no soil salvage is needed.
- ☒ Excavated from drill pads and stored at each drill pad
- ☒ Excavated from road improvements/construction and stored adjacent to road
- ☒ Excavated from mud/fluid pits and storage at each pit
- ☐ Other, describe:

### B. Erosion Control

Describe the best management practices that will be implemented to control erosion:

- |  |                |                                 |
|--|----------------|---------------------------------|
| <input type="checkbox"/> Silt fencing                | Location:      |                                 |
|  |                |                                 |
| <input type="checkbox"/> Straw waddles               | Location:      |                                 |
|  |                |                                 |
| <input type="checkbox"/> Straw bales                 | Location:      |                                 |
|  |                |                                 |
| <input type="checkbox"/> Ditches/swales              | Location:      |                                 |
|  |                |                                 |
| <input checked="" type="checkbox"/> Berms/dikes/dams | Location:      | Drill pads, roads and mud pits. |
|  |                |                                 |
| <input type="checkbox"/> Sediment basins             | Location:      |                                 |
|  |                |                                 |
| <input type="checkbox"/> Other or N/A                | Type/Location: |                                 |
|  |                |                                 |

C. Wildlife Protection / Noxious Weed Prevention

Will the perimeter of drill pits be fenced to prevent wildlife entrapment? ☒ Yes ☐ No

Proposed pit perimeter fence material:

Temporary plastic tarps over mud pits unless in use. Pits will be backfilled upon completion of drilling.

Describe how the pit perimeter fencing will be installed and secured (i.e., T-posts, wooden stakes, etc.):

Plastic tarps will be placed over mud pits while in use. Mud pits will be covered when drilling is completed.

Will at least one side of the interior of the drill pits be sloped at 3:1 as a ramp for wildlife escape? ☐ Yes ☐ No

If No, will another type of constructed escape ramp be installed? Describe:

Applicant/Owner/Operator commits to pressure-washing or steam-clean all equipment prior to entering the permit area: ☒ Yes ☐ No

D. Reclamation Details

Describe in general how re-contouring or re-establishment of the surface topography will be restored:

Back fill regrade drill sites and ripping if necessary. Roads will be regraded and ripped to prevent erosion. All sites will be re-seeded.

Describe how the reclamation of portals, adits, drilling fluid/mud and/or waste pits, shafts, ponds, roads and other disturbances will be performed:

N/A

Is seeding of the reclaimed areas proposed: ☒ Yes ☐ No

If no, provide a justification as to why no revegetation is needed:

Plant mix to be used in the re-establishment of vegetation:

☐ US Forest Service specified mix applied through broadcast at their recommended rate

☐ BLM specified mix applied through broadcast at their recommended rate

☒ Other:

Plant Name	Seeding Rate (lbs./acre)
Blue Grama	1
Sideoats Grama	2
Sand Dropseed	.25
Indian Ricegrass	2
Purple Prairie Clover	2
Scarlet Globemallow	1
Winter Cover Crop of Tritcale	10

Broadcast applied or drill-seeded: ☐ Broadcast ☒ Drill-seeded



Scarification Methods (check all that apply):

- ☐ Primary tillage to greater than 6-inches depth of all constructed drill pads and roads
- ☐ Secondary tillage of all constructed drill pads and roads, and/or overland travel routes
- ☒ Chain drag or tire drag over seeds in areas used for overland travel
- ☐ Light raking of soil over seeds in areas used for overland travel
- ☐ None
- ☒ Other/describe:

Rip with blade 4-6 inches prior to seeding.

Mulch Use:

- ☐ Certified weed-free straw mulch will be placed over areas that have been tilled/disc'd or ripped at a rate of 2 tons per acre, and will be crimped in place
- ☐ No mulch is proposed

E. Reclamation Timeline

Applicant/Owner/Operator commits to reclamation of the disturbed area as soon as possible following the completion or abandonment of the exploration operation, unless the disturbed area is included within a complete permit application for a new mining permit:

- ☒ Yes    ☐ No

Anticipated Start of Reclamation:

- ☐ 0-30 days after completion of drilling
- ☒ 31-60 days after completion of drilling
- ☐ Other/specify: \_\_\_\_\_

## SECTION 8 – PERMIT FEES AND FINANCIAL ASSURANCE (§302.1.2 AND 5)

- A. Financial assurance must be posted with Mining and Minerals Division prior to approval of this application. The acceptable forms of financial assurance are surety bonds, letters of credit, and certificates of deposit. Provide an estimate of, and an instrument for, the proposed financial assurance required by Subpart 3.

- ☐ Surety Bond  
☒ Letter of Credit  
☐ Cash Account / Certificate of Deposit

☒ Estimated amount of financial assurance: See attached

Or

- ☐ Applicant will provide the amount of financial assurance calculated by MMD.

- B. Attach the permit fees as determined pursuant to Subpart 2. The application fee for a minimal impact exploration permit is \$500.00.

- ☐ Money Order/Cashier's Check  
☒ Check

Check Number : \_\_\_\_\_

Financial Institution: Bank of America, N.A.

## SECTION 9 – CERTIFICATION REQUIREMENT (§302.I.3 & 4)

I certify that I have personally examined and am familiar with the information submitted herein, and based on my inquiry of those individuals responsible for obtaining the information; I believe the submitted information is true, accurate, and complete. I agree to comply with the reclamation requirements set forth in this permit application and related correspondence, the New Mexico Mining Act and the Rules. Further, I certify that I am not in violation of any other obligation under the New Mexico Mining Act or the Rules adopted pursuant to that Act and I allow the Director to enter the permit area, without delay, for the purposes of conducting inspections during exploration and reclamation.

Signature of Permittee or Authorized Agent: \_\_\_\_\_



Name (type or print): \_\_\_\_\_

*Ty Bays*

Title/Position: \_\_\_\_\_

*Sr. Land & Water Resource Analyst*

Date: \_\_\_\_\_

*1/25/2021*

Site#	Latitude	Longitude	Depth	Width	Permit #
2021-01	32° 36' 52.67"	108° 21' 9.10"	1500'	5"	24
2021-02	32° 36' 52.7"	108° 21' 15.62"	1500'	5"	25
2021-03	32° 36' 53.01"	108° 21' 20.49"	1500'	5"	26
2021-04	32° 36' 56.26"	108° 21' 3.26"	1500'	5"	27
2021-05	32° 36' 56.89"	108° 21' 7.29"	1500'	5"	28
2021-06	32° 36' 56.84"	108° 21' 10.79"	1500'	5"	29
2021-07	32° 36' 56.41"	108° 21' 15.76"	1500'	5"	30
2021-08	32° 36' 56.47"	108° 21' 20.44"	1500'	5"	31
2021-09	32° 36' 56.54"	108° 21' 25.11"	1500'	5"	32
2021-10	32° 37' 0.49"	108° 21' 25.05"	1500'	5"	33
2021-11	32° 37' 0.43"	108° 21' 20.37"	1500'	5"	34
2021-12	32° 37' 0.37"	108° 21' 15.7"	1500'	5"	35
2021-13	32° 37' 0.81"	108° 21' 10.98"	1500'	5"	36
2021-14	32° 37' 2.21"	108° 21' 4.26"	1500'	5"	37
2021-15	32° 37' 4.75"	108° 21' 10.36"	1500'	5"	38
2021-16	32° 37' 4.38"	108° 21' 20.29"	1500'	5"	39
2021-17	32° 37' 4.44"	108° 21' 24.97"	1500'	5"	40
2021-18	32° 37' 9.2"	108° 21' 15.53"	1500'	5"	41
2021-19	32° 37' 8.23"	108° 21' 10.87"	1500'	5"	42
2021-20	32° 37' 8.15"	108° 21' 6.2"	1500'	5"	43
2021-21	32° 37' 10.16"	108° 21' 8.5"	1500'	5"	44
2021-22	32° 37' 14.09"	108° 21' 6.09"	1500'	5"	45
2021-23	32° 37' 14.37"	108° 21' 9.01"	1500'	5"	46

# 2021 Emma Proposed Drilling Sites and Roads





