

REV.DATE: 5/18/09

FOR MMD USE ONLY:

PROJECT NAME: _____

PERMIT #: _____

DATE RECEIVED: _____

DATE APPROVED: _____

LEAD INSPECTOR: _____

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
Director
and Minerals Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505
Telephone: (505) 476-3400**

**SUBPART 3
MINIMAL IMPACT NEW MINING OPERATIONS
PERMIT APPLICATION**

The following information is required under the New Mexico Mining Act (Sections 69-36-1 through 69-36-20, NMSA 1978) and associated rules. The Mining and Minerals Division of the Energy, Minerals and Natural Resources Department is the administrative agency through which this application is to be processed. See §304, Minimal Impact New Mining Operations, of the New Mexico Mining Act Rules for all regulations associated with Minimal Impact Mining operations.

Permit Application Requirements: (§304.A-C and §601)

- A minimal impact new mining operation will not be considered a minimal impact mining operation if it exceeds **10 acres of disturbed land**, except that pre-existing roads and reclaimed areas within the permit area will not be counted. Reclaimed, for this purpose means all financial assurance has been released, except the amount held to reestablish vegetation pursuant to §1204.
- Permit applications shall be submitted in ample time to have the permit issued before mining operations begin, and operations shall not begin until after the permit is issued.
- Six copies of the completed application need to be submitted.
- Confidential information needs to be **clearly** indicated and submitted separately.

- Check the "YES" or "NO" box for each of the following characteristics as related to the proposed minimal impact mining operation:

YES **NO**

- Located in or having a direct surface impact on wetlands, springs, perennial or intermittent streams, lakes, rivers, reservoirs or riparian areas.
- 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.
- 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.
- Located in a known cemetery or other burial ground.
- Located in an area with cultural resources listed on either the National Register of Historic Places or the State Register of Cultural Properties.
- Having or 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.
- Expected to use or using cyanide, mercury amalgam, heap leaching or dump leaching in its operations.
- Expected to result in point or non-point source surface or subsurface releases of acid or other toxic substances from the permit area.
- Requiring a variance from any part of these Rules as part of the permit application.

IMPORTANT NOTES!

- If you have checked "YES" to any of the above boxes, the mining operation does not qualify as a minimal impact mining operation. Do not continue to fill out the remainder of this form.
- If you do meet the above requirements and have checked "NO" to **all** of the above boxes, continue filling out this application.
- Obtaining a Mining Act permit does not necessarily satisfy the obligation to obtain permits required by other governmental entities.
- PLEASE FILL IN ALL APPLICABLE INFORMATION AS COMPLETELY AS

POSSIBLE.

- PLEASE PRINT OR TYPE ALL INFORMATION.

1. OPERATOR INFORMATION (§304.D.1)

LIST PROJECT NAME: Deming Alpha Mine
NAME OF APPLICANT: _Gila Mining LLC ADDRESS: Mailing address: 201 W. Spruce St P.O. Box 444 Deming, NM 88030 PHONE #: (519)-635-0160 NAME OF OWNER (if different from applicant's name and address): ADDRESS: As above PHONE #:
NAME OF ON-SITE CONTACT OR OPERATOR'S REPRESENTATIVE: Terry Jensen ADDRESS: Mailing address above PHONE #: (519)-635-0160

2. RIGHT TO ENTER INFORMATION (§304.D.1)

- A. Describe or provide evidence for the basis of the applicant's right to enter the property to conduct the mining and reclamation:

Gila has an existing lease with the City of Deming, New Mexico.

- B. List the names and addresses of surface and mineral ownership within the proposed permit area:

1. **Surface Owner(s):**

<u>Name</u>	<u>Address</u>	<u>Phone #</u>
City of Deming Jim Massengill Public Works Director	309 S Gold Ave, Deming, NM 88030	Office:(575)546-8848 Mobile:(575)644-8716

2. **Mineral Owner(s):**

<u>Name</u>	<u>Address</u>	<u>Phone #</u>
City of Deming Jim Massengill Public Works Director	309 S Gold Ave, Deming, NM 88030	Office:(575)546-8848 Mobile:(575)644-8716

- C. List the author(s), title(s), date(s) and report number(s) of any cultural resource survey report(s) submitted to the agency(ies) or landowner(s) listed above:

There are no known or obvious cultural resources on the property. Peru Mill site is not on the National Register of Historic Places or the State Register of Cultural Properties. There are no known cemetery or (human) burial ground located in the proximity of the Peru Mill Tailings Piles. NMED VRP conducted an environment mitigative action which included the stockpiling, grading and covering of the tailing thus removing any historical artifact or significance. Any historically significant buildings and/or artifacts were likely removed during the mitigative and demolition action (2009, Intera).

If by chance any human remains or artifacts are unearthed, then the State of New Mexico and local Pueblo or tribal groups will be immediately informed by GM of this discovery and GM will stop work immediately until instructed how to proceed.

3. MAPS (§304.D.2)

A. Provide a legal description of the site [Township(s), Range(s) and Section(s)]:

Township 023S Range 009W Section 18

B. Provide a topographic map(s) of at least 1 inch = 2,000 feet (or appropriate for the size of disturbance) showing the areas of land to be disturbed by the proposed mining and reclamation. Identify general area shown on the map(s) by Township, Range and Section(s). If the area to be mined contains the following features, show them on the map(s):

1. **Boundary of the proposed permit area** with the existing and proposed area of disturbance
2. Previously disturbed areas
3. Perennial, intermittent and ephemeral streams; springs; wetlands; riparian areas; lakes and reservoirs
4. Proposed and existing roads and other access routes
5. Residences
6. Support facilities
7. Cemeteries, burial grounds; cultural resources listed or eligible for listing on either the National Register of Historic Places or the State Register of Cultural Properties
8. Pipelines
9. Oil, gas, water and monitoring wells on and within two miles of the permit area
10. Identify the location of shafts, adits, trenches, ponds, pits, quarries, stockpiles, waste dumps, etc.

The attached figures of 1 and 2 respond to the ten above points identifying the proposed operation and initial minimal impact mine, the permitted area includes the two tailings stockpiles: North Pile and South Pile as illustrated on Figures 1 and 2.

Figure 1 presents a topographic map, and the following:

- *Previously disturbed areas – North and South Pile are identified.*
- *Only the Mimbres River, an ephemeral stream, is approximately 2000 ft west and 2700 south of the southernmost point of the South tailings pile; No other surface water systems were identified.*
- *Nearby Residences are greater than one mile away.*
- *Proposed and existing roads and other access routes are identified.*
- *Pipelines-public water system pipeline is identified.*
- *No shafts, adits, trenches, pits, quarries, were identified within the proposed permit area. Power plant evaporation pond is approximately 6300 east of South Tailings pile.*

Figure 2 illustrates:

- *Boundary of proposed permit area with the existing and proposed area of disturbance*
- *Proposed and existing roads and other access routes*
- *Support Facilities*
- *No oil or gas wells exist in the area.*
- *The municipal water well and three groundwater monitoring wells on the property but not in the proposed permit area.*
- *One groundwater monitoring is located within the proposed permit area.*

4. ENVIRONMENTAL PERMITS HELD FOR OTHER OPERATIONS (§304.D.3)

Provide a list of other environmental permits held for other mining operations within the United States and any violations issued for non-compliance with those permits.

NAMES OR TYPES OF ENVIRONMENTAL PERMITS:

Not Applicable

LIST PERMIT VIOLATIONS; NUMBER, TYPE AND ISSUING AGENCY:

Not Applicable

5. MINING DESCRIPTION (§304.D.4)

- A. Type of mineral or minerals to be mined: *Magnetite, silicates and marketable commodities.*
- B. Check the method of proposed mining: X Surface **or** Underground
- C. Describe the sizes and volumes of the facilities to be used:

Plant Site/Staging Area:

How Many 1 Acreage 1.15

Pits or Quarries: How Many 1 Acreage 8 ; Volume (cu.yds.)

Stockpiles: How Many 1 Acreage <0.5 Volume (cu.yds.)

Waste Dumps: How Many 0 Acreage 0 Volume (cu.yds.) 0
No waste will be created during this operation.

List the following for **New Road(s):**

Road A = Length (ft.) 600 Width (ft.) 10

See Figure 3 for proposed new roads

Total New Road disturbed area = 6,000 sq. Ft. or 0.14 acres

List the following for extension or widening of **Existing Road(s)**:
No existing roads on the site will be modified, extended or widened.

Length (ft.) 0 Width (ft.) 0
 Length (ft.) 0 Width (ft.) 0

Other Disturbances: Type

How Many 0 Acreage 0 Volume (cu.yds.) NA

TOTAL ACREAGE TO BE DISTURBED: <9.8 Acres

During the minimal impacting event a maximum of 10 acres will be disturbed as defined New Mexico Code (§304.A-C and §601).

D. Describe the type of processing that will be conducted on site:

No processing will take place at the site. The project plans entail the excavation of the mill tailings, containerizing the tailings for shipping or load the tailings onto rail cars for out of state processing

E. Describe the typical equipment to be used for the mining operations:

Description	Quantity
<i>Track hoe</i>	<i>1</i>
<i>Backhoe with blade</i>	<i>1</i>
<i>4x4 Trucks/Vehicles</i>	<i>2</i>
<i>Containers</i>	<i>20</i>
<i>23-ton Tri-axil dump truck</i>	<i>2</i>
<i>Water tanks – 20k gallon</i>	<i>2</i>
<i>Conveyors</i>	<i>1</i>
<i>Screening Plant</i>	<i>1</i>
<i>Scales</i>	<i>1</i>
<i>Bobcat/skid-steer</i>	<i>1</i>

6. CHEMICAL USE (§304.D.4)

A. List all chemicals proposed to be used by the mining operation.

<u>Name:</u>	<u>Use:</u>
<u>Diesel</u>	<u>Fuel for trucks, bulldozer and excavator</u>
<u>Gasoline</u>	<u>Fuel for trucks</u>
<u>Motor oil</u>	<u>Maintenance</u>
<u>Hydraulic oil</u>	<u>Maintenance</u>

These chemicals will not be stored within the permit area. GM will contract an excavation company to perform the tailing removal under GM's supervision. No fuel, oil, hydraulic fluid, lubricants and other petrochemicals will be stored on GM's permitted area including the building and 40- foot storage containers.

GM, however, will require the excavation company to have appropriate spill clean-up material on-site in their support vehicle for all phases of this excavation project. GM will report any uncontrolled release to NMED following the requirements set by the New Mexico Water Quality Control Commission regulations (20.6.2.1203 NMAC).

7. GROUND WATER INFORMATION (§304.D.5)

A. Provide an estimate of depth to ground water and the total dissolved solids (T.D.S.) concentration.

Depth to ground water (ft.) 124.36 to 148.63 ft bgs T.D.S: 391 to 891 uS/cm

B. Describe the source of groundwater information: *See Table 1 & 2 City of Deming (Parkhill, 2020)*

C. Describe any dewatering activities to be conducted during mining operations:
Not Applicable

8. PERFORMANCE STANDARDS (§304.D.7)

A. Provide a general description of how the mining and reclamation will be designed and operated using the most appropriate technology and best management practices:

The operation will be divided into three tasks: 1) Tailings excavation, 2) Haulage and Container Loading

and 3) Reclamation.

1. Tailings Excavation

The engineered soil cover material currently on the impoundments will be systematically salvaged (first the gravel, then the compacted soil) and stockpiled separately for later reclamation purposes. The stockpile location for the salvaged engineered cover material is shown on Figure 3. The underlying tailings will be exposed as three benches. As the tailings are removed, three 10' high benches will be maintained as the excavation is advanced south and southwest into the stockpile and eastward as the excavation blocks are expanded.

Using a trackhoe, the excavation will consist of an approximately fifty (50) foot wide by ~360 foot long (~0.4 acre) excavation block into the South stockpile as illustrated on Figure 3. The first excavation will begin on the west side of the south stockpile and proceed eastward as indicated on Figure 3. Tailings will be excavated until native soils are observed, and the ~0.4-acre excavation block as shown on Figure 3 is completely excavated. The April 2020 drilling project indicated that contact between the tailings and native soil is very distinct both in color, grain size and soil type. The trackhoe will load two 23-ton dump trucks.

GM will measure and stake an 8.0-acre area on north side of the south stockpile as the maximum excavation area. The remaining 1.82 acres will be used for operations and loading is illustrated on Figure 3 thus achieving an area less than 9.82 acres of disturbed area as defined by the permit application requirements (§304.A-C and §601).

Before starting any excavation event(s), GM will consult weather forecasting so there will be a minimum of a 48-hour window of no precipitation predicted. The highest precipitation events occur during New Mexico's summer "monsoons" while the remaining months (November through May) average less than 0.5 inches per month in southern New Mexico. Furthermore, the tailings being shipped for this bulk sampling event must be as dry as possible for weight and processing reasons so it also serves GM's interest to be operating in dry weather. To ensure a minimal impact from precipitation events, GM will install earthen berms constructed of clean backfill material around the crest of each excavation as illustrated on Figures 3. Small retention ponds will be constructed at the bottom of exposed tailing blocks to capture any tailing sediment that may migrate during precipitation events. These retention ponds will be excavated into native soil and will be inspected regularly.

If the tailings stockpile receives unexpected, significant precipitation to cause saturated or near saturated conditions on the surface of the tailings stockpile then excavation activities will be delayed until conditions are dry. Excavation activities will be entered from the west side of the stockpile so surface damage such as rutting will not occur. If due to unforeseen events where rutting does occur, GM will repair the surface so no future water channeling and erosion occur.

Windblown tailings or tailings inadvertently spilled during loading or transport will be picked up using a backhoe bucket until native soil is encountered. Heavy equipment will be cleaned of visible tailings prior to transport off the site. Road trucks will not drive over any tailings area and will be limited to the maintained roads between the site entrance/exit and the container trailer hook-up area so no contamination

will take place on the road trucks.

Excavation activities will be limited to ~0.4 acre blocks so as to manage any storm water or fugitive dust issues. Any tailings that accumulate in temporary retention ponds will be picked up using a backhoe bucket until native soil is encountered.

Fugitive dust will be managed. From our drilling work, GM discovered the tailings has an approximate moisture content of $8\% \pm 4\%$. Dust is not expected to be an issue due to the in-situ moisture content and the very limited time period over which the ~0.6-acre excavation blocks will occur.

GM commits to cessation of operations during heavy rain and high-wind events. Travelling on the tailings pile armored surface will be restricted and limited. A 5-mph speed limit will be enforced by GM.

2. Haulage and Container Loading

At the excavation block, the trackhoe will load two 23-ton dump trucks, which will haul excavated tailings to the sea container loading area and/or rail spur loading area shown in Figure 3. The haul distance to the sea container loading area from the south stockpile is variable from 450' to 600'. The distance from the south stockpile to the rail spur loading area is also variable range from 850 to 1000 feet. These are short distances over flat terrain and GM will enforce a truck speed limit of 15 mph during the tailing's transportation. GM will employ dust control measures such as watering the haulage roads on an as-needed basis.

GM will initially excavate and load the tailings into 40' sea containers for transport. As our system evolves, GM will load tailings directly into rail cars at the new rail spur immediately east of the Peru Hill Mill gate. The rail spur location is illustrated on Figure 3. The loading of the sea containers and the rail cars will be completed employing earthen ramps constructed of clean backfill and/or a conveyor system.

The tailings will be trucked from the excavation location to container loading area as shown on Figure 3. The tailings will be dumped into a single-deck vibrating screen which load a hopper. From the April 2020 sampling event, it was learned from the 160 samples the tailing grain is universally less than 1.0 mm. The vibrating screen purpose is to capture errant cover material that may have accidentally been mixed with the tailings. The material capture by the screen is neither a tailing nor a waste. The captured cover material will be transported to the cover stockpile for reuse when the engineered cover is returned to the excavation area. A Bobcat will off the load the hopper and move the tailings up a ramp into a 40 ft cargo container.

The loading procedure will evolve to a mobile conveyor system. Using the conveyor, the tailings will be dumped into the single-deck vibrating screen which load a hopper with a conveyor loading hopper. From the conveyor hopper the tailings will travel through the screen system and travel up a 24" belt along 32-35 ft extendable conveyor into the 40 ft cargo container. To prevent dust discharge from the undersize of the screen a fabric dust barrier will be installed between the conveyor feed hopper and the bottom of the vibrating screen discharge cone. The conveyor is inclined (as shown in the Figure 4) at a shallow angle to allow the conveyor to clear the inside top of the container. The conveyor will be moved ahead as the

conveyor is loaded to evenly distribute the material over the length of the container. After the container is fully loaded a retainer board and plastic sheeting will be inserted across the door to prevent spillage. After the loading is complete, the container truck is moved over to the highway scale to verify that it is not overloaded. The conveyor system is illustrated on Figure 4.

3. Reclamation

GM's current excavation plan is to minimize the impact to the cover and maximize the reclamation task. The April 2020 sampling event has taught GM the difference between the soils and native soils is obvious, distinct by soil color and grain size. When the excavation area reaches native soils, the area will be graded to a minimal slope. Soil samples will be collected to confirm the native soils arsenic, lead and zinc concentrations are below the established NMVRP soil screening levels (1,000 mg/Kg for lead, 69,000 mg/Kg for zinc, and 70 mg/Kg for arsenic). Upon receipt of confirmation results that the native soils are below the established soil screening levels, an engineered cover will be installed using the stockpiled old cover material. The cover material will be raked and prepared for seeding. The surface will be broadcast seeded using a standard seed mix (see Section 9H) recommended by New Mexico Energy, Minerals, & Natural Resources Department (EMNRD). The reclaimed areas will be continuously monitored for vegetative success which will include water, straw and mulch. The optimum time for reseeding is prior to the monsoon season and late winter months. This reclamation effort will continue successively move east as the excavated area moves east. Reseeding will occur as necessary to achieve vegetative goals.

Additional reclamation details are described in Section 9.

- B. Provide a general description of how the mining and reclamation will be designed and operated to assure protection of human health and safety, the environment, wildlife, and domestic animals:

Mining and reclamation goals include prevention of hazards to public health and safety and minimization of environmental damage to surrounding land. The property will be fenced and gated to limit access to operations thus limiting public exposure and providing barrier for safety. Personnel working within the excavation, loading and reclamation areas will be required to wear appropriate personal protection equipment (PPE) while working within the boundaries of the site. All equipment working within the excavation and loading areas will be washed before leaving the site.

Best management practices will be implemented during operation and at reclamation. A Storm Water Pollution Prevention Plan (SWPPP) will be developed for the site. Earthen berms and sediment control structures such as small retention ponds at the base of the exposed tailings will be constructed. GM will pickup any visible tailings that have been mobilized during storm events. GM will not operate during heavy rain or high-wind events. Visual inspections of best management practices will be conducted regularly.

- C. Provide a general description of how the mining and reclamation will be designed and operated to safeguard the public from unauthorized entry into shafts, adits and tunnels and to prevent falls from highwalls or pit edges:

This operation will be a surface operation only with no shafts, adits or tunnels. The surface operation will be fenced and gated and signage will be installed to warn the public of the operation. Access to the site will be controlled.

- D. Provide a general description of how the mining and reclamation will be designed and operated so the disturbed area will not contribute suspended solids above background levels, or where applicable the Water Quality Control Commission's standards, to intermittent and perennial streams.

No intermittent or perennial streams are located near the proposed project area, which is relatively flat. The ground surface gradient surrounding the tailing stockpile is near flat gradient of 0.005 from north to south. The closest surface water body is Mimbres River, an ephemeral stream, which is approximately 2000 ft west (cross-gradient to any potential surface water flow) and 2700 south of the southernmost point of the South stockpile.

- E. Provide a general description of how the mining and reclamation will be designed and operated to control erosion:

GM's long-term reclamation goals include protection of water resources, surface soil stabilization, revegetation, and an eventual return of the land to a final stage of succession climax, ecological community. GM will employ best management practices for stormwater and sediment control for stormwater protection and prevention of impacted surface water. These controls include earthen swales to control surface water flow and to facilitate revegetation. These man-made water traps may be installed to provide erosion control and moisture retention to support vegetative growth.

9. RECLAMATION PLAN (§304.D.8)

The operation will be operated and reclaimed to a self-sustaining ecosystem appropriate for the life zone of the surrounding areas following closure unless conflicting with the approved post-mining land use.

- A. List adjacent land use other than mining (i.e. grazing):

The current use is aggregate mining, occasional grazing and wildlife area.

- B. List the proposed post mining land use (i.e. wildlife):

The City of Deming owns this property. Proposals have been discussed from various organizations with the City to expand the area as an industrial park which might include a solar farm. At this time the City has not shared their plans, so GM assumes the current use will be a continuation of the aggregate mining, continued development of industrial area.

C. Describe how reclamation activities will avoid adverse impact to cultural resources:

During the preparation of the drilling permit, investigations indicated no cultural resources or historic properties would be impacted by the establishment of mining operations. Any and all archeological, paleontological, or cultural artifacts discovered during operations will result in cessation of excavation and EMNRD will be notified immediately.

D. Describe any backfilling and grading operations to be performed after mining:

Reclamation will consist of placement of 18" of the salvaged engineered cover material from the stockpile over the native area where the former tailings area was located. The salvaged engineered cover material will be applied evenly to the surface and contoured to the surrounding terrain as much as practicable. Slopes will not exceed 3H:1V.

Swales will be installed at reclamation to consist of a low profile (e.g., one-foot high) earthen rise with an upslope swale. These surfaces also capture and retain wind-blown seed. Reclamation of excavated areas and access roads will be implemented at the end of each minimum impact mining operation. All effort will be applied to minimize slope gradients and to apply managed cover from the existing stockpile to mitigate erosion. GM will revegetate disturbed areas using plant species compatible with soil physiology to establish long-term, productive plant communities compatible with existing land use and minimizing noxious and invasive plant species. GM will further reestablish topography compatible with the surrounding landscape. All effort will be applied to minimize slope gradients to mitigate erosion and the final slopes of all reclaimed areas will not exceed 3H: 1V

Periodic monitoring of reclaimed areas for vegetative success will begin upon completion of the reclamation effort and include each successively excavated area as each area is reclaimed.

All new operation roads on native material will be ripped to a minimum of 18", scarified using the furrow technique and revegetated. Furrows allow for capture and preservation of moisture and naturally transported seed from existing shrubs and grasses by prevailing west-southwest winds. The optimum time for seeding is prior to the monsoon season and late winter months.

E. Describe what mitigation steps will be taken to reconstruct or protect the hydrologic balance of the site after mining:

Best management practices such as earthen berms, swales, straw wattles, and/or silt fences for prevention of sediment and water run-on / runoff will be constructed as-needed and maintained

until revegetation is established. These engineering controls will be used to control and maintain proper drainage in and around the disturbed areas during excavation operations and reclamation.

- F. Describe how topsoil or topdressing will be salvaged, stockpiled and distributed for the re-establishment of vegetation:

The engineered cover on the tailings stockpile will be salvaged and will be stored in a separate stockpile until which time the material is used where necessary for reclamation. Slope gradients will be minimized and accumulated managed cover will be beneficially used to mitigate erosion. The salvaged engineered cover material will be excavated from the stockpile at reclamation and will be applied evenly to the surface and contoured to match the surrounding landscape as much as practicable.

- G. Describe what kind of seed bed preparation will take place prior to seeding. What soil amendments will be added? Scarification of the seed bed needs to take place. Will this involve discing or ripping?

After placement of a minimum of 18" of the salvaged cover material over the former tailings area, the material will be scarified using the furrow technique and sloped to be consistent with the regional landscape. The furrow technique consists of using a tractor and plow to create deep depressions or "furrows" in the topsoil perpendicular to slope. Furrows allow for capture and preservation of moisture and naturally transported seed from existing shrubs and grasses by prevailing west-southwest winds. Scarification is a key element of high-altitude revegetation. Once established, the furrows must remain intact without vehicular damage.

- H. Describe in detail the plant species to be used in the re-establishment of vegetation:

<u>Species</u>	<u>LBS/AC PLS</u>
<i>Blue grama</i>	0.5
<i>Spike dropseed</i>	0.2
<i>Sideoats grama</i>	0.5
<i>Desert globemallow</i>	5.0
<i>Fourwing saltbush</i>	4.0
<i>White-thorn acacia</i>	7.0
TOTAL	17.2

Recommendations from Drilling Permit.

- I. Will the seeds be broadcast or drilled into the seed bed?

The seed will be broadcast so as to preserve the furrows to maximize seed and moisture retention.

In order to remain effective, the furrows must remain intact without degradation by overland, vehicular traffic.

- J. Describe the type of managed cover material to be applied after seeding and its application rate:

Managed cover will consist of vegetative material cleared and grubbed from the area and stockpiled for reclamation. Managed cover will be used to mitigate surface erosion and to establish regional wildlife habitat.

- K. What structures will be on the site and how will they be removed or reclaimed? (Buildings, portals, adits, shafts, bore holes, ponds, etc.):

No portals, adits, shafts, bore holes, ponds or ponds exist. None are planned during this excavation. The steel-sided building will be used during the excavation and loading for storage. Upon completion, the building will be returned to the City.

- L. What roads are part of the mine site and how will they be reclaimed? Please provide an estimate of road square footage and explain if reclamation will involve ripping, scarification, backfilling, recontouring, and re-top-soiling, etc.:

A single road enters the property, beginning at west side Peru Mill Road, then approximately 100 yards West of the property gate, the road splits with one heading along the north side of the field and another cutting through the center of the field travelling west between the south and north tailing stock piles to the current operating aggregate mining location. From there the road curves south and proceeds off-site. These existing roads will be utilized to provide access to the tailings south stockpiles. This road will be used by GM and the aggregate company. The road will provide future access to permitted tailings piles while minimizing impact to previously excavated and reclaimed areas. Reclamation of operation roads not used by the aggregate company will be implemented at the end of the tailing's pile removal by deep ripping to a minimum of 18" depth followed by reseeding.

- M. What will be the time frame for reclamation, (e.g. time of year, during mining, after mining, etc)?

Reclamation will occur after excavation down to native soil material. Reseeding and reclamation work is expected to occur in early spring, just prior to monsoon rains.

All excavation equipment and materials will be removed upon completion of excavation activities and closure of the area. The optimum time for seeding is just prior to the monsoon season and late winter months.

Proposed reclamation dates: Begin: 4 /1/2021 End: 3/31/2022

Immediately after each excavation area operation ceases and ultimately after all activity is completed.

10. OTHER REQUIRED PERMITS FOR THIS OPERATION (§304.D.9)

- A. Provide a list of other permits required for the operation and the anticipated schedule for receipt of these.

<u>Permit Name & Issuing Agency</u>	<u>Date or anticipated date of receipt</u>
_____	_____
_____	_____
_____	_____
_____	_____

11. FINANCIAL ASSURANCE AND PERMIT FEES (§304.E & F)

- A. Provide a financial assurance estimate based on the cost of reclaiming the site by a third party. Include supporting calculations. Operations with less than 2 acres total disturbance are not required to provide financial assurance.
- B. Attach the permit fees as determined pursuant to Subpart 2. The permit application fee for a minimal impact new mine is \$1,000.00.

12. CERTIFICATION REQUIREMENT (§304.J.5)

Each application shall be signed and notarized by an applicant for the operation with the following certification made:

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 requirements of the permit, these Rules, and the Act. Further, I hereby allow the Director to enter the permit area for the purpose of conducting inspections until release of financial assurance.

Signature of Applicant: *E. Terry Jensen*

Name (typed or print): *E. Terry Jensen*

Title/Position: *Chief Operating Officer*

Date: *02/09/2021*

Signature of Notary: *[Handwritten Signature]*

Witnessed as to execution only

Barrett M. Beaudoin

A notary public in and for the province of Ontario, unlimited duration



**Dean Cservenyi LLP
Paralegals**

73 Water Street North, Suite 503
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**No legal advice
sought or given**

February 2021

Deming Alpha Mine

Attachments

Table 1 -Sept 2020 Groundwater Field Data

Table 2-Sept 2020 Groundwater Analytical Results

Figure 1 – Topo Map-Permit 1 to 2000

Figure 2 – Peru Mill Surface Operations Impact Map

Figure 3--Excavation and Loading Area

Figure 4 -Container & conveyor setup

References

INTERA, 2009, *VOLUNTARY REMEDIATION COMPLETION REPORT; The Former Peru Hill Mill Facility, Deming, New Mexico*, Prepared for: The New Mexico Environment Department Voluntary Remediation Program, Prepared by: INTERA Incorporated

PARKHILL, 2020, Peru Hill Mill Groundwater Monitoring Summary Report, for City of Deming; Parkhill, 333 Rio Rancho Blvd. Ne, Suite 400, Rio Rancho, New Mexico 87124

TABLES

Table 1: Groundwater Field Data

Peru Hill Mill, Groundwater Monitoring Summary Report, September 24, 2020 Sampling Event*

Well I.D.	Sampling Date	Depth to Water (fbtoc)	Total Depth (fbtoc)	Purge Volume (gallons)	Temp. (oC)	pH	Specific Conductivity (µS/cm)
MW-1	9/24/2020	143.28	172.2	15.0	2.1	7.69	391
MW-2	9/24/2020	136.68	168.0	16.0	23.0	7.56	387
MW-3	9/24/2020	148.63	164.5	8.0	22.9	7.64	397
MW-4	9/24/2020	124.36	153.4	15.0	24.4	7.50	825

Notes:

fbtoc: Feet below top of PVC well casing

Purge Volume: Volume of water purged prior to sample collection

* **Parkhill, 2020**

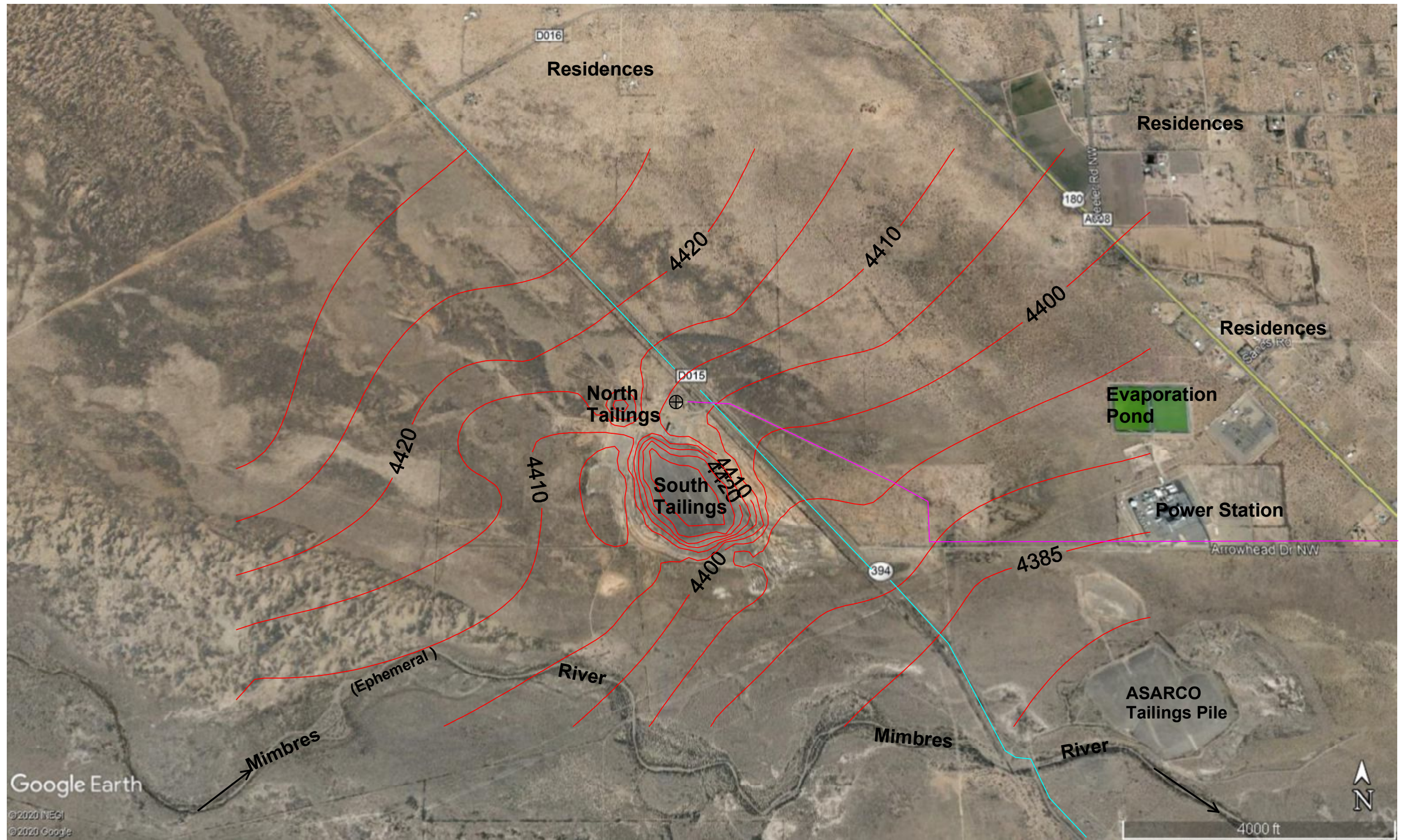
Table 2: Analytical Results

Peru Hill Mill, Groundwater Monitoring Summary Report, September 24, 2020 Sampling Event*

Parameter	Analytical Method	Analytical Results (mg/L)					Laboratory Reporting Limit (mg/L)	Standard (mg/L)
		MW-1	MW-2	MW-3	MW-4	Dupe		
Aluminum, Al	EPA 200.7	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	5.0
Barium, Ba		0.033	0.042	0.030	0.039	0.030	0.0020	2.0
Beryllium, Be		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.004
Cadmium, Cd		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.005
Chromium, Cr III		<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	0.0060	0.05
Chromium 6, Cr VI	3500 Cr C-2011	0.00212	0.00234	0.00178	0.00193	0.00170	0.000500	0.1
Cobalt, Co	EPA 200.7	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	0.0060	0.05
Iron, Fe		<0.020	<0.020	<0.020	<0.020	<0.020	0.020	1.0
Manganese, Mn		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.2
Molybdenum, Mo		<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	0.0080	1.0
Nickel, Ni		<0.010	<0.010	<0.010	<0.010	<0.010	0.010	0.2
Silver, Ag		<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	0.05
Zinc, Zn		<0.010	<0.010	<0.010	<0.010	<0.010	0.010	10.0
Antimony, Sb	EPA 200.8	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	0.006
Arsenic, As		0.0026	0.0029	0.0026	0.0019	0.0026	0.0010	0.01
Copper, Cu		0.0021	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	1.0
Lead, Pb		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	0.015
Selenium, Se		<0.0010	<0.0010	<0.0010	0.0035	<0.0010	0.0010	0.05
Mercury, Hg	EPA 245.1	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	0.002

* Parkhill, 2020

FIGURES



5' Contour —
 Peru Mill Rd. —
 Municipal Well ⊕
 Municipal Water Pipeline —

Access Road —
 Contour 1" =2000'

Project No.: 2020-1
 Date: January 2021
 Drawn by: ETJ
 Reviewed by: SPF

Project: Peru Mill Tailings
 **Gila Mining, LLC**

Operations Permit

**Figure 1
 Topographic Map**



Permitted Excavation & Reclamation Area

Operations Area (~90 acres)

X Municipal Well + Groundwater Monitoring Well

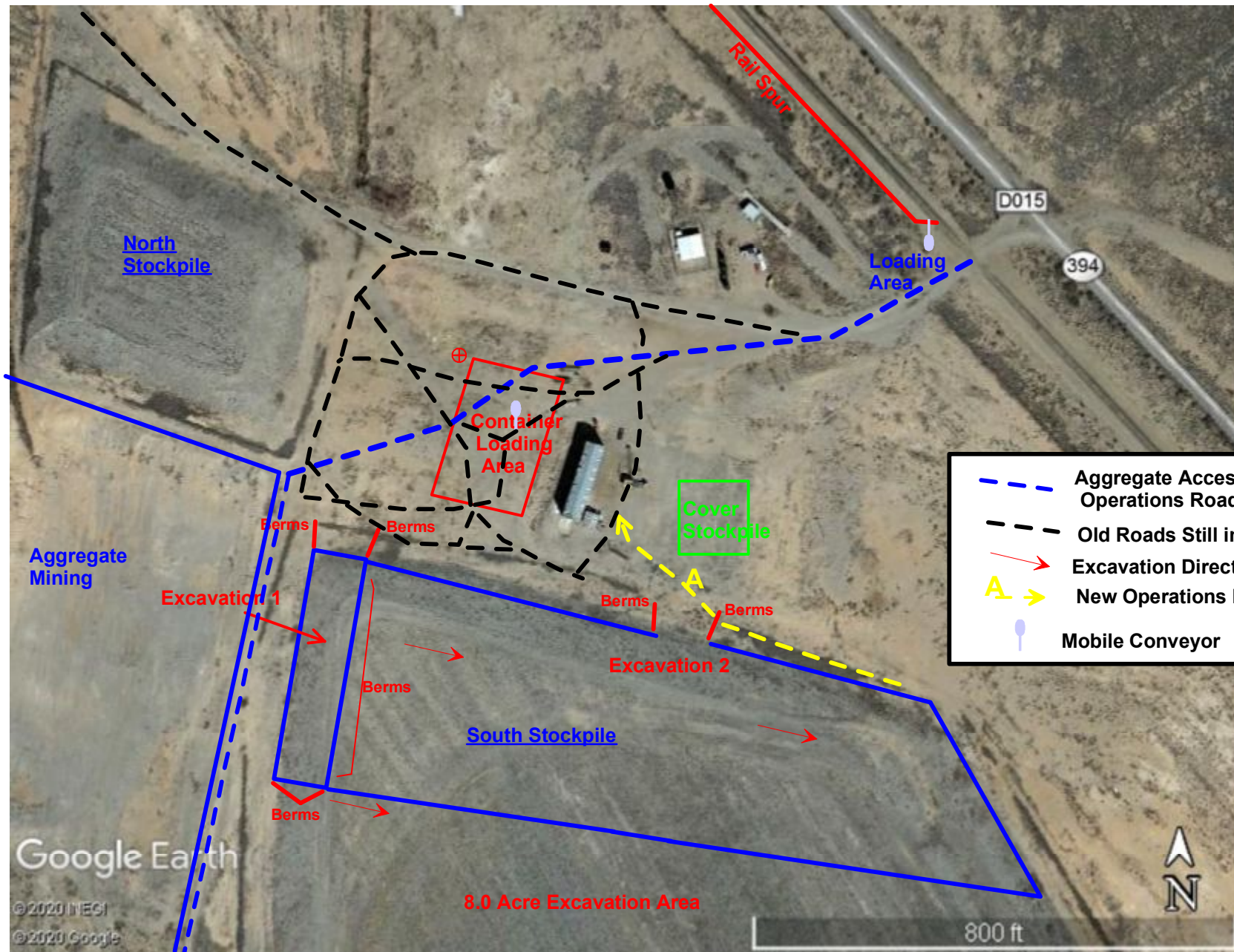
1 Tailings Container Loading Area ~ 1.0 acres

2 Office Area ~ 0.15 acre

Scale

Aggregate Access Road

Project No.:2020-1	Date: January 2021	Project: Peru Mill Tailings	Operations Permit	Figure 2 Surface Operations Impact Map
Drawn by: ETJ Reviewed by: RSG & SPF	Gila Mining, LLC			



Google Earth
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- - - Aggregate Access & Operations Road
- - - Old Roads Still in Use
- Excavation Direction
- A → New Operations Road
- ⌋ Mobile Conveyor

⊕ Groundwater Monitoring Well

Project No.:2020-1
Date: January 2021
Drawn by: ETJ Reviewed by: RSG & SPF

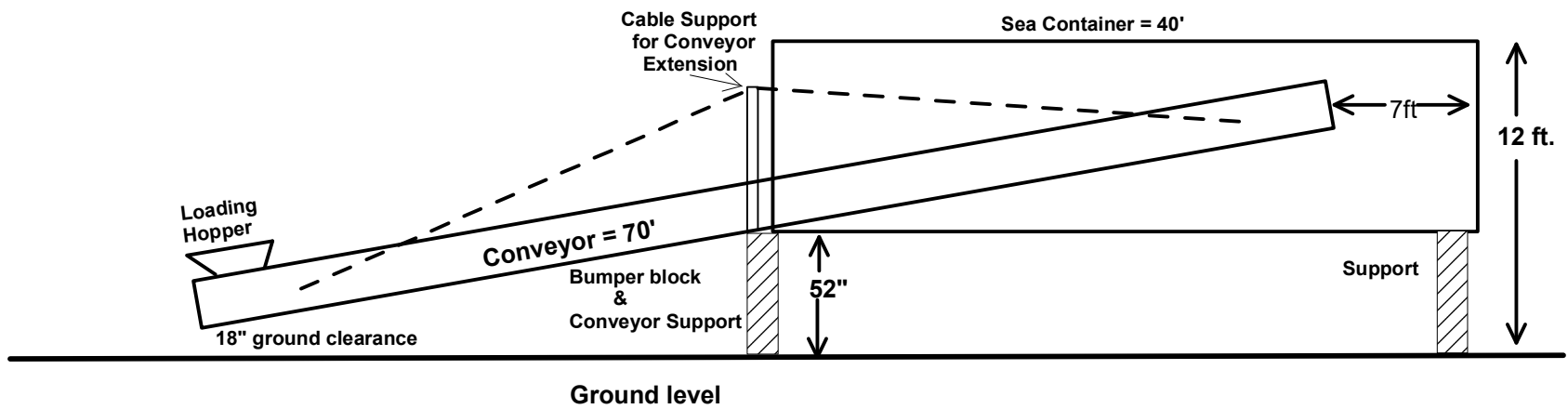
Project: Peru Mill Tailings




Gila Mining, LLC

Operations Permit

Figure 3
Operations Plan Map



Project No.:2020-1	Project: Peru Mill Tailings	Minimal Impact Operations Permit Application	Figure 4 Conveyor Loading & Container System
Date: January 2021			
Drawn by: ETJ Reviewed by: RSG & SPF	 Gila Mining, LLC		