Gila Mining, LLC
2619 Wellworth Way
West Friendship, MD 21794
September 19, 2019

Ms. Jennifer Johnson
Reclamation Engineer, E.I.
New Mexico Energy, Minerals & Natural Resources Department
Mining and Minerals Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

RE: Agency Review Comments and Request for Additional Information,
MOI Peru Mill Tailings Minimal Impact Exploration Project,
Permit No. LU038EM-Luna County, New Mexico

Dear Ms. Johnson:

The follow letter is a response to your September 16, 2019 state agencies comments letter to our *Minimum Impact Exploration Operation Permit Application Package* (PAP) (Permit No. LU038EM PAP). The purpose for the request for this permit is to perform initial resource assessment of the Peru Mill (PM) Tailings Pile. Your letter collectively contained the reviewing agency comment letters submitted by the following state agencies: the New Mexico Mining and Mineral Division (MMD), the New Mexico Environment Department ("NMED"), the New Mexico Office of the State Engineer ("NMOSE"), the New Mexico Department of Game and Fish ("NMDG&F"), and the New Mexico Department of Cultural Affairs - Historic Preservation Division ("NMDCA/HPD"). In addition to the State agencies the Ysleta del Sur Pueblo commented on our PAP.

Two revisions are necessary to the PAP.

1. The PAP operator needs to amended from MOI Recovery Systems with Mr. Paul Forshey as point contact to Gila Mining, LLC ("GM") with myself, E. Terry Jensen as point of contact. Mr. Forshey is a management member of GM and will remain involved with this project. The address for GM is found in the above letter head.

2. GM requests the number of planned boreholes be amended from six to fifteen. The proposed borehole locations are illustrated on the attached Figure 1.

Our letter below presents points of clarification and additional information as responses to agencies comments to Permit No. LU038EM PAP. GM's response follows the same organizational order as your September 16, 2019 letter.

The **MMD comments** are presented first in normal font and GM's responses follow in italicized font:

1. Section 4.D says excess drill cuttings will be buried at each drill location. It's unclear how the tailings will be buried or used for backfill. Note that Section 6.D says a bentonite slurry will be used for borehole abandonment. Provide a schematic that shows typical placement of sealant, drill cuttings and cover material to backfill boreholes as well as a clarification on containment and disposal of excess drill cuttings.

Please see Figure 2 attached with this letter for additional details regarding our expectations for the tailings soil profile and our planned borehole abandonment. On the left side of Figure 2 the soil profile illustrates and describes the cover soil types, tailings variations and native soils. The right side of Figure 2 illustrates abandonment profile. As the figure shows the bentonite-cement slurry will be placed at the native soil & tailings

interface to limit vertical migration of fluids (if any) and at the top of the tailings between the tailings and cobble size gravel armor again to limit vertical migration of fluids (precipitation). GM contends this design will sufficiently maintain the State's design to isolate the tailing and mitigate any damage to the tailings cover integrity.

The driller will be instructed to compact the cuttings as the borehole is being backfilled. Any excess drill cuttings (tailings) will be containerized in 55-gallon drums. The cuttings will be sampled using USEPA SW-846 waste laboratory test methods, the drums will be appropriately labeled and stored off the tailings pile until the laboratory results are reported to GM. From those results the excess cutting will be recycled or disposed of following State and Federal guidelines for mining wastes.

2. Provide more explanation about the plugging plan of operation from Section 6.D with an emphasis on the sequence of placing sealant and removal of hollow stem auger flights. There is some concern about the holes staying open before sealant is placed. Some drillers place sealant through the interior diameter of the auger flights, then remove flights in 5-foot sections.

During drilling and sampling, changes in tailings drill cuttings soil type will be logged with respect to depth. Upon completion of the drilling and sampling of the borehole, the driller will be instructed to backfill through the auger the staged native soil to one foot below the bottom of the tailings. During that backfilling the drill will use the augers with the internal plug to tamp and compact the native soils. The driller then tremie the bentonite cement slurry to the bottom of the auger and slowly retreat the auger up two feet to approximately one foot above the bottom of the tailings pile in the borehole. The driller will then be placed on stand-by for one hour allowing the bentonite cement slurry to set. Following the stand-by event, the tailings will be returned to be borehole mirroring the stratigraphic profile observed during drilling. The bottom flight of the hollow stem auger will tamp the cutting in 2-foot intervals to compact the tailings as the borehole is backfilled. A two-foot bentonite-cement plug will be placed at the top of the tailings in the borehole. This plug will be allowed to set for a minimum of 4 hours. The remainder of the borehole will be backfilled with the cobble size gravel armor.

3. Section 7.D claims that there will be zero acres of disturbance. However, disturbance is likely with two trucks and one drilling rig. Please provide an estimate acreage of disturbance from overland travel, drilling activities, and any other disturbance, even if it seems minimal.

The following table presents our estimate.

Road	**Distance (Ft.)**	**Width (Ft.)**	**Area (Sq. Ft.)**	
South Pile Old Road	1056	5	**5,280**	
Access Path-South	2904	5	**14,520**	
Access Path-North	260	5	**1,300**	
			21,100	Sq. Ft.
			0.48	Acres

Borehole Size	**Borehole Area (Sq. Ft.)**	**# of Borings**	**Area (Sq. Ft.)**	
Borings 4' x 4'	16	15	**240**	
	Total Affected Area		**21,340**	Sq. Ft.
			0.49	Acres

The distances on the above table were estimated using Google Earth Pro. The width is the estimated width between the wheels of the trucks. GM recognizes the conservative nature of our estimate but this estimate re-enforces limited disturbance to the surface of the tailings pile and if double the disturbance would still be less than an acre.

All vehicle operators will be instructed to follow the defined path on the surface of the tailings pile. A 5-mph driving speed will be enforced on the tailings pile to limit the dust, impact to vegetation and tailings cobble size gravel armor.

4. As a future permit condition, plastic will be required to be placed over the ground before drilling begins to contain all cuttings for proper disposal, reduced damage to vegetation, and prevent tailing cuttings from contacting the ground.

To confirm Section 4 comment on future permit condition, during drilling each cuttings soil type will be separated and staged on tarps. These soil types will be backfilled into the borehole following the method(s) described in Section 2 above. As an additional precaution, if wind speeds greater than 15 mph occur during drilling and sampling then each individual cuttings pile will be covered to mitigate dust migration onto the tailings pile surface. Also a 4-foot square heavy grade plastic will surround the temporary casing (See Section 7 below) to further minimize the tailings drill cuttings to the surface cover.

5. Option 3 in Section 6.D indicates 2 feet of top dressing or soil will be placed in borehole above sealant. Therefore, soil should be salvaged by being removed when drilling begins. The alternative is to bring in soil from another location. Please indicate where the 2 feet of soil per borehole will come from and if from the cover, how MOI plans on salvaging the soil.

The tailings piles cover is described in the New Mexico Environment Department Ground Water Quality Bureau comments as "The tailing piles are covered with a 30-inch cap; 24 inches of compacted soil with a 6-inch armoring of compacted cobble-sized gravel." GM will follow that design using the staged drill cutting that comes from the boring for backfilling as described in Sections 1 & 2 above.

6. MMD will require MOI to seed at the cessation of drilling. Therefore, MOI needs to propose a seed mix and application rates for the project. Alternatively, MOI may request that MMD propose a seed mix and application rates.

GM requests that MMD propose the appropriate native seed mix, methods of application and rate of application that will best for the environment on the PM tailings pile. GM requests to review MMD's proposal prior to GM's approval.

7. MMD recommends the use of a temporary surface casing (approximately 2.5-3 feet long) to prevent contact of the cover material in the borehole by tailings being brought to the surface by the auger. Please address.

GM will follow MMD recommendation. For each boring the driller will drive a 3-foot temporary casing into the surface. The augers will be advanced through the casing to minimize the contact of tailings to the cover material. In addition, a 4-foot square heavy grade plastic will surround the temporary casing to further minimize the tailings drill cuttings to the surface cover. The temporary casing will be removed during the abandonment when the backfilling has reached the top of the tailings in the boring.

NMED Mining Environmental Compliance Section, Ground Water Quality Bureau Comments ("MECS")

MECS letter was not organized as number or bulleted comments. Nonetheless GM's responses summarize MECS concerns and responds accordingly.

As requested, the boreholes will be abandoned in accordance with the OSE regulations for dry holes. No water will be used to advance the hollow stem auger/spilt spoon sampling borings.

GM has reviewed the 2009 Voluntary Remediation Completion Report and specifically Appendix D soil boring logs. Seventeen boring logs are contained in Appendix D. No perched water was identified in these borings to

a depth of 26.5 feet below the bottom of the tailings pile. These borings were drilled immediately north of the tailings pile as part of an investigation of the operating plant area. In addition, GM acquired a copy of the drillers log for groundwater MW-3. No perched water conditions were identified during that well installation. It is important to note the aquifer was intersected at 140 feet bgs and is overlain by a 37-foot-thick red clay. Available groundwater measurements are all less than 140 feet thus the aquifer is interpreted to be a confined system. Given that information and MECS comments it is unlikely that groundwater will be intersected during this exploration drilling. If, however perched groundwater is encountered then all drilling will be terminated and that boring will be abandoned in accordance to well plugging requirements under 19.27.4 NMAC following the guideline document "General Concerns Related to NMOSE Regulation of Exploratory Borehole Drilling Encountering Groundwater and Associated Plugging of these Borings".

Upon the completion of the drilling and sampling of each borehole the cap will be restored to similar preexisting conditions. The borehole abandonment procedures will follow the right-hand side illustration presented on Figure 1 and described in Section 1, 2, 4 & 5 of the MMD comment responses of this letter. Furthermore, any disturbance or tracks caused by the drilling rig or service trucks will be minimized by an enforced speed limit and repaired by raking and seeding using a native seed mix as proposed in Section 6 of the MMD comment responses.

NMED Surface Water Quality Bureau Comments:

The summary portion of the comments letter expressed concern regarding "excess core material". The response to this issue in found in MMD response Section 1 & 2.

NMED Surface Water Quality Bureau listed their comments as listed bullets. GM comment responses follow each bulleted comment.

- Impacts by the drill rig or service vehicles to the revegetated cover material on the tailing's impoundment should be reclaimed using appropriate seed mixes or coarse aggregate material to prevent future erosion,

GM will repair by raking and seeding using a native seed mix as proposed in Section 6 of the MMD comment responses.

- Burial pits for excess cutting should be covered with suitable material that will promote vegetative growth.

Burial pits are not planned for this exploration event. Any excess cuttings will be containerized in 55-gallon drums. The cuttings will be sampled and if necessary, will be disposed of as a mining waste following State and Federal guidelines.

- Drilling should be delayed if the cover material of the impoundment is wet or saturated from precipitation to prevent rutting and potential for future water channeling and erosion.

If the tailings pile receives significant precipitation to cause saturated or near saturated conditions on the surface of the tailings pile then drilling will be delayed until conditions are where no surface damage such as rutting occurs. If due to unforeseen events where rutting does occur GM will repair the surface so no future water channeling and erosion occur.

- Fuel, oil, hydraulic fluid, lubricants, and other petrochemicals must have a secondary containment system to prevent spills.

Fuel, oil, hydraulic fluid, lubricants, and other petrochemicals will be contained in a support vehicle. Where appropriate during operations if any of these liquids in their primary containment vessel are required to be removed from the support vehicle containment then they will be placed on heavy gauge plastic with a containment berm.

In addition, heavy gauge plastic will be placed under the full length of the drill rig to capture any fluid drips or uncontrolled releases of fuel, hydraulic fluid or oil.

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

GM will require the driller to have the appropriate spill clean-up material on-site in their support vehicle for all phases of this exploration drill project.

- Report all spills immediately to the NMED as required by the New Mexico Water Quality Control Commission regulations (20.6.2.1203 NMAC).

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).

NMED Air Quality Bureau Comments:

The follow are NMED Air Quality Bureau comments.

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. Current requirements which may be applicable in this mining project include, but are not limited to the following:

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."

In addition, pursuant to Subsection A of 19.10.3.302 NMAC, Minimal Impact Exploration Operations:

"A minimal impact exploration operation will not exceed 1000 cubic yards of excavation per permit. Disturbances for constructed roads, drill pads and mud pits shall be no more than 5 acres total and will not be counted in the excavated materials. The type of road construction, the number and type of drill pads, and other disturbances when considered with site specific conditions will be major factors in determining eligibility for minimal impact status which is in the discretion of the director."

GM's responses to the above follow.

As the PAP indicates no permanent and/or stationary structures/ equipment will be placed on the tailings pile. All equipment and vehicles are mobile. For the drilling and sampling event equipment/vehicles are licensed, mobile over the road equipment that have passed the requisite air standards for such vehicles. The calculated impact (boreholes and driving on the surface) to the surface of the tailings pile is less than 1 acre. Approximately one cubic yard of cuttings will be generated during this drilling and sampling event of which the majority will be returned to the borehole as described in MMD Section 1& 2.

Fugitive dust is not expected to be an issue. The drilling method employs a hollow stem auger. No air or water will be sent down the drill flights during drilling. The drill cuttings are expected to be dry. These cuttings will be staged on tarps or heavy gage plastic. If significant wind including gusts of greater than 15 mph occur, then the staged cuttings will be covered to mitigate fugitive dust migration onto the tailings pile surface. Travelling on the tailings pile armored surface will be defined and limited. A 5-mph speed limit will be enforced by GM.

NMDCA/HPD Comments:

NMCA/HPD concern was the Site becoming a historical site. GM's response to that concern follows.

As indicated no known cemetery or (human) burial ground is located in the subsurface of the Peru Mill Tailings Pile. Three buildings are located adjacent to the tailings pile; City of Deming municipal well pump building, inoperative weigh station building and measures approximately 130 feet x 32 feet by 40 feet high. The steel building was part of the Peru Mill. Currently the steel building is empty with no operating equipment stored inside the building. None of the buildings on the property will be impacted during the course of this exploration drilling project.

NMOSE Comments:

GM's responses summarize NMOSE concerns and responds accordingly.

Surface and ground water are not expected to be intersected or impacted during Gila Mining's exploration event. If in the unlikely event perched groundwater is discovered then depth of the perched water will be logged and all drilling will be terminated and that boring will be abandoned in accordance to well plugging requirements under 19.27.4 NMAC following the guideline document "General Concerns Related to NMOSE Regulation of Exploratory Borehole Drilling Encountering Groundwater and Associated Plugging of these Borings".

Borehole abandonment will follow the plan defined in Figure 2 and MMD response Section 1,2, 4 & 5.

NMDG&F Comments:

The following are responses to NMDG&F comments.

*NMDG&F expressed concern regarding banner-tailed kangaroo rat (Dipodomys spectabilis) mounds that were identified residing on the surface of the tailings. In response prior to drilling the banner-tailed kangaroo rat mounds will be flagged and create a 50 foot minimum buffer zone (Sept 23, 2019-*Ronald Kellermueller message confirming buffer minimum*) will be created to isolate the kangaroo rat's habitat from any effects of the exploration drilling.*

NMDG&F expressed a concern regarding the invasive plant, African rue (Peganum harmala). To eliminate that concern GM will do its best to guide all vehicles on the tailings pile away from the invasive weed. In addition, prior to exiting the site the undercarriage and tires will be inspected for any evidence of the weed. If evidence of the weed is found on any vehicle then all vehicles will be power washed to remove the plant.

Finally, in regards to the post-drilling cleanup and reclamation comment GM will follow the borehole abandonment program defined in the MMD Section 1,2,4 &5. In addition, Gila Mining will seed impacted area with the native seed mix define by MMD as indicated in MMD Section 6.

Ysleta del Sur Pueblo
The Pueblo had no concerns but for the record GM states the following.

It is highly unlikely anything will be found that affect traditional, religious or culturally significant sites of the Pueblo. If by chance any human remains or artifacts are unearthed the State of New Mexico and the Pueblo will be immediately informed of this discovery.

New Mexico Energy, Minerals, and Natural Resources Department
The comment excludes the necessity of an archaeological survey.

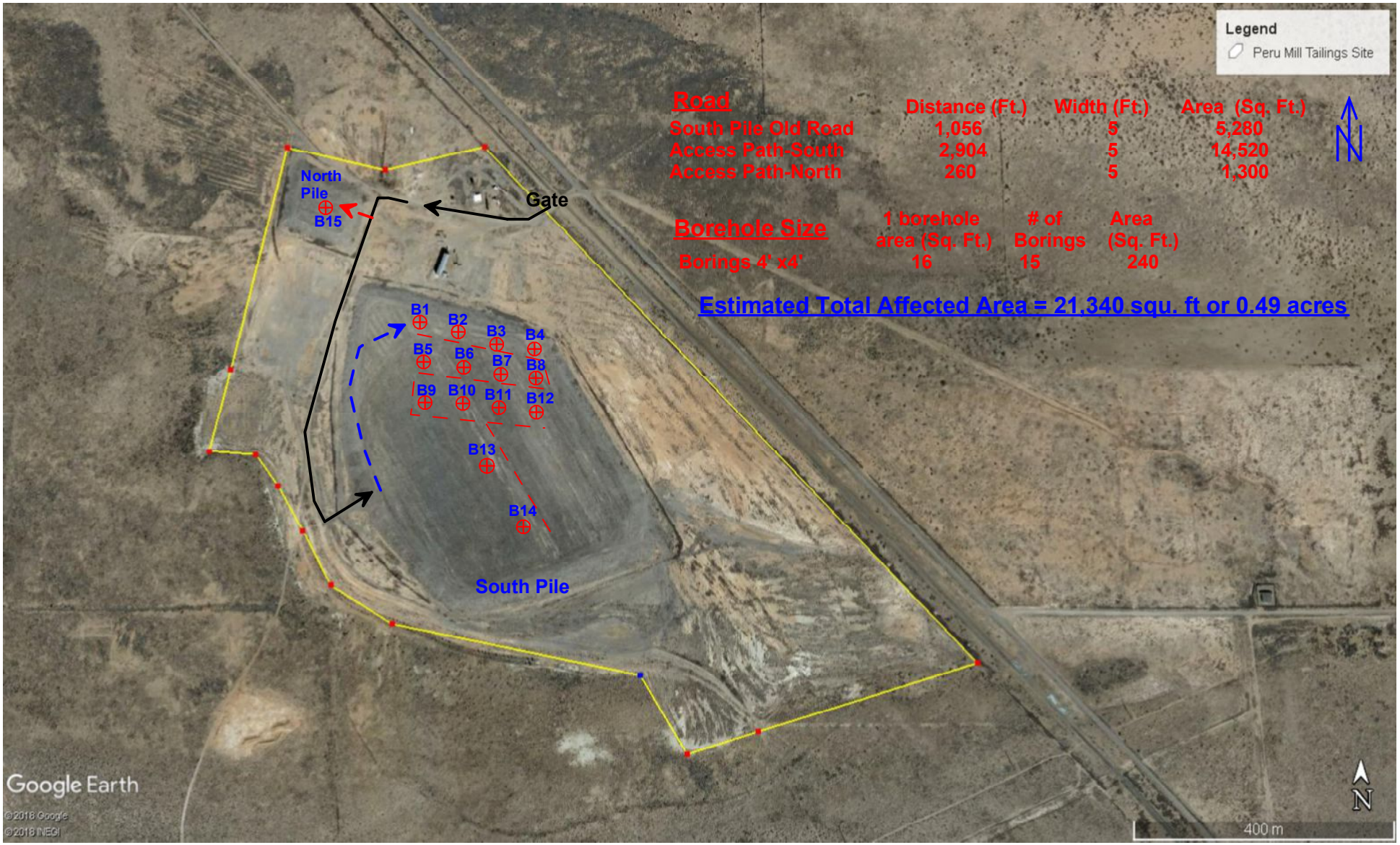
If additional comments or concerns arise from this letter's responses then please do not hesitate in reaching out so GM can respond. As stated, GM looks forward to a positive working relationship with the State of New Mexico.

Best regards,

E. Terry Jensen
Chief Operating Officer
Gila Mining, LLC

Attachments:
Figure 1: Borehole Location Map & Affected Area Estimate

Figure 2: Tailings Soil Profile &Planned Borehole Abandonment Profile



Boring Location - ⊕

Access Road

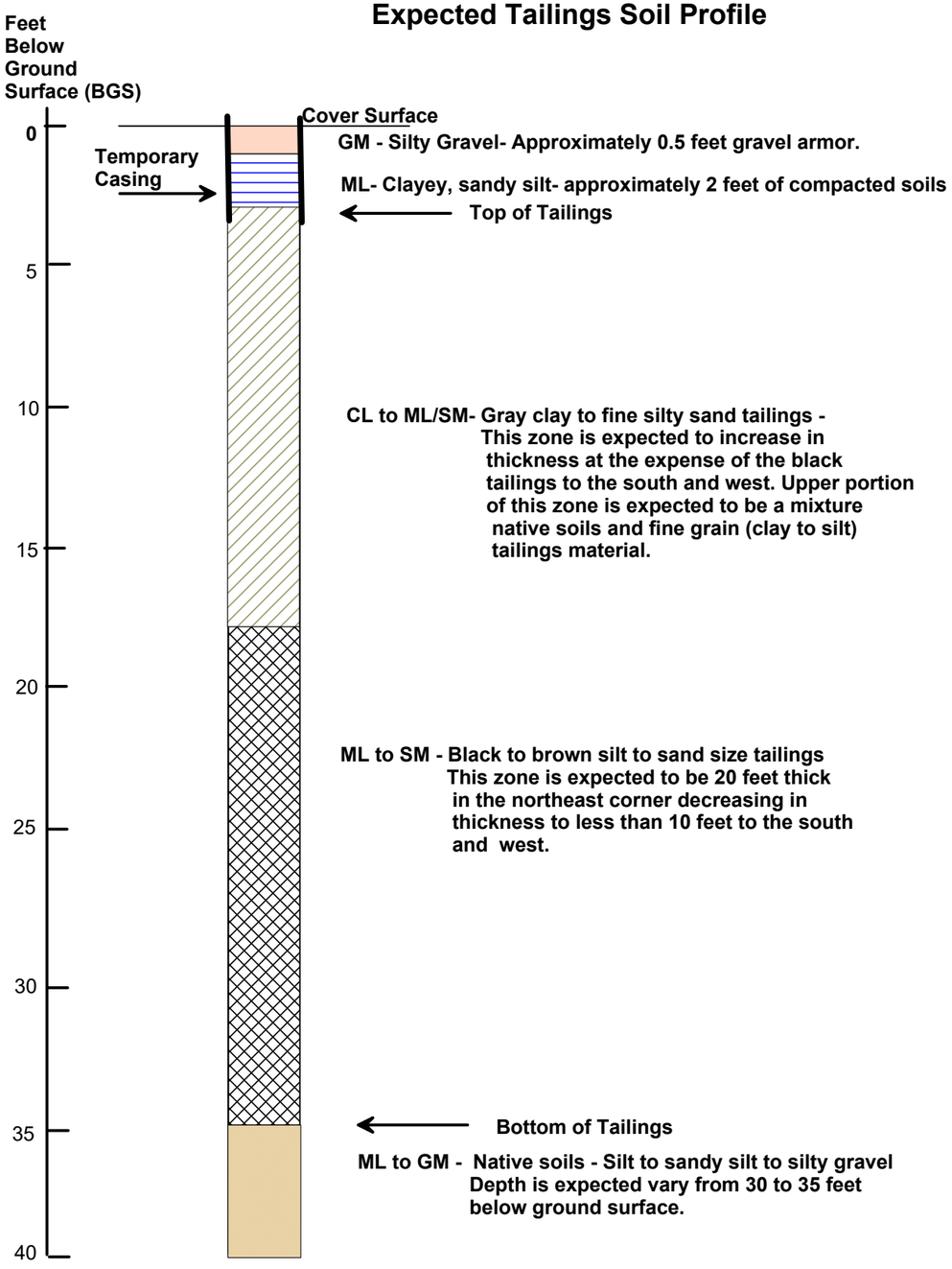
Top of Tailings = Old Road

Borehole to borehole access path

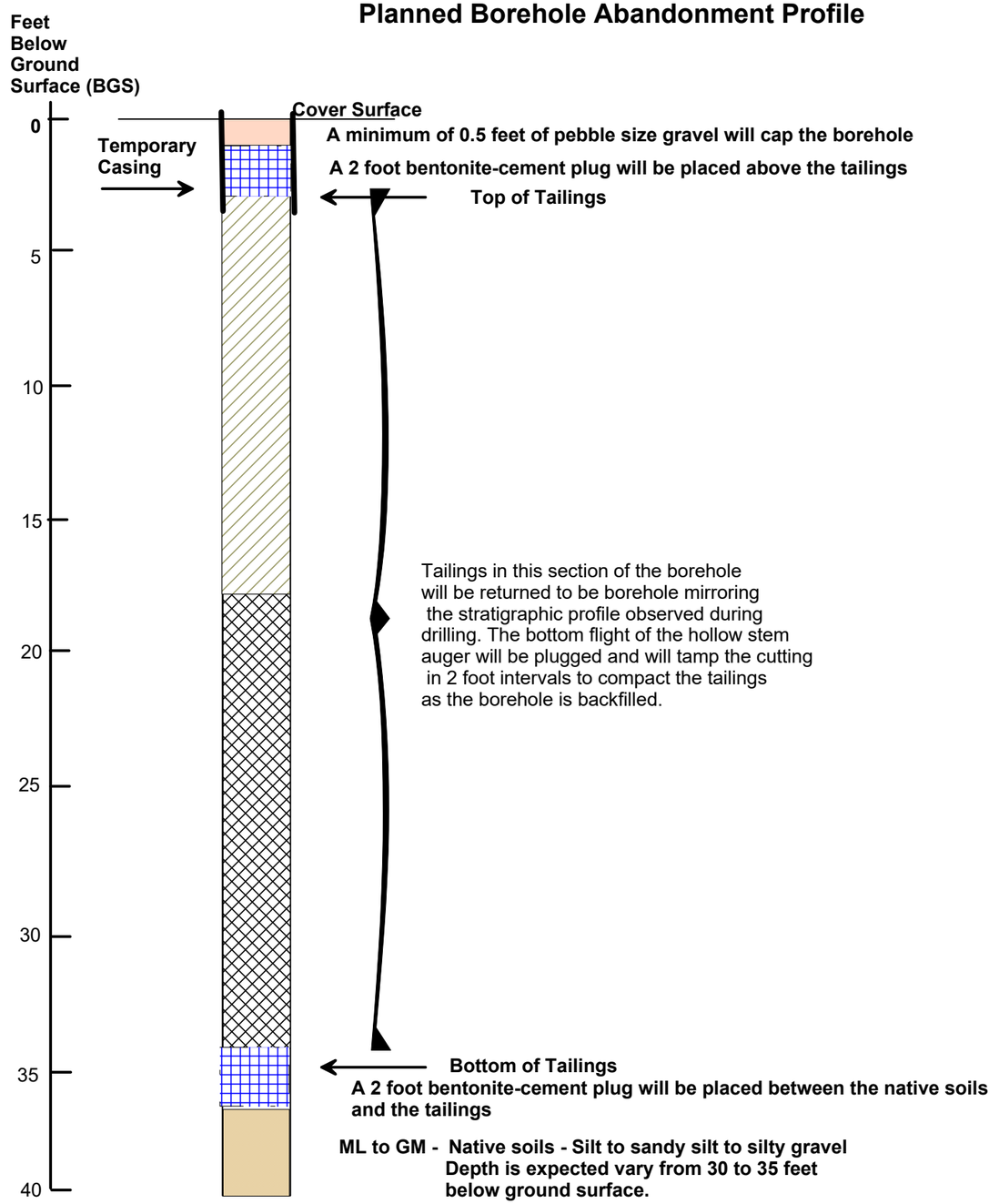
Scale

Project No.: 17-022 Date: September 2019 Drawn by: ETJ Reviewed by: RSG	Project: Peru Mill Tailings Dump Phase 1-Tailings Investigation G3 Gauvreau GeoEnvironmental Group	Client: Gila Mining, LLC	**Figure 1** Borehole Location Map & Affected Area Estimate

Expected Tailings Soil Profile



Planned Borehole Abandonment Profile



Project No.: 17-022 Date: September 2019 Drawn by: ETJ Reviewed by: RSG	Project: Peru Mill Tailings Dump Phase 1-Tailings Investigation Gauvreau GeoEnvironmental Group	Client: Gila MIning, LLC	**Figure 2** **Tailings Soil Profile**