State of Utah

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Lieutenant Governor

Department of Natural Resources
Division of Oil, Gas and Mining

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Executive Director

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Division Director

December 15, 2021

Jesse Lassley
Tree Farm LLC
PO Box 711820
Salt Lake City, UT 84171

Subject: Initial Review of Notice of Intention to Commence Large Mining Operations, Tree Farm LLC, Silver Mine, M/035/0054, TASK# 10572, Salt Lake County, Utah

Dear Mr. Lassley:

The Division of Oil, Gas and Mining (Division) has reviewed the referenced Notice of Intention to Commence Large Mining Operations (NOI) which was received November 11, 2021. The attached comments will need to be addressed before tentative approval may be granted.

Certain portions of the review are incomplete at this time, due to either lack of information, incomplete information, or inconsistent data in the NOI.

The following areas of the permit have not been reviewed at this time:

- Surety Calculation – outdated (2019) costs were used.

The comments are listed under the applicable Minerals Rule heading; please format your response in a similar fashion. Please address only those items requested in the attached technical review by sending replacement pages for the original NOI using redline and strikeout text. After the NOI is determined technically complete, the Division will ask that you submit two clean copies. Upon final approval, both will be stamped approved, and one copy will be returned for your records.

Please submit your response to this review by February 11, 2022.

The Division's web page at http://ogm.utah.gov under the Minerals Program has a link to the rules under which you are expected to operate and to other information to assist you in complying with program requirements. Thank you for your cooperation. In reply, please refer to file number M/035/0054. Please contact Leslie Heppler at 801-538-5257 if you have questions or concerns regarding this permitting action.

Sincerely,

John Rogers
Environmental Manager

JR:lah:jb
Attachment : Review
cc: jesse@L7development.com ; kwallin@parrbrown.com GBaptist@msd.utah.gov, LMcClenning@msd.utah.gov ScottBaird@SLCO.org lheppler@utah.gov Laura.Briefer@slcgov.com rebecca.hotze@usda.gov roger.kesterson@usda.gov
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**Initial REVIEW OF NOTICEOF INTENTION
TO COMMENCE LARGE MINING OPERATIONS**

Tree Farm LLC
Silver Mine LMO

General Comments:

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
1	All	The submittal should be formatted to easily incorporate additional revisions and amendments.	lah	
2	All	The Division may have additional comments based on the review responses.	lah	
3	All	Please add page numbers to your NOI to facilitate communication. Due to lack of page numbers the Division will reference the .pdf pages.	lah	
4	All	Although not required by rule, a few basic bookmarks should be inserted in the .pdf document including bookmarks to, the NOI text, the appendices, and the figures, to aid in reviewing and referencing.	lah	
5	Appendix	Sub-appendix D within Appendix B is generic data that is not site specific. The seed list might need to be updated at the time of seeding. The section will need to be updated over time. Currently it is 41 pages of generic data.	lah	
6	All	Please remove all blank pages such as, but not limited to, 268/344, 269/344, 271/344, and 272/344, 294/344, 295/344 or make a label for each blank page such as “Page is Intentionally left blank”	lah	
7	All	Per R647-1-102(3), the approval or acceptance of a complete notice of intention shall not relieve an operator from his responsibility to comply with the applicable statutes, rules, regulations, and ordinances of all local, state, and federal agencies with jurisdiction over any aspect of the operator's mining operations. Please complete approval from all applicable agencies and include the proof of approval	lah	
1		There appears to be two Appendix Cs (Lab results and Hydraulic analysis). Please update to minimize confusion.	kmc	
2		There appears to be two Appendix Ds (USDA planting guidelines and Hydrologic analysis). Please update to minimize confusion.	kmc	

R647-4-104 – Operator Information and Surface and Mineral Ownership

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
10	4/344	Please correct the location in sections. Several of the sections have more than 1 quarter. Define to the nearest ¼ of the ¼.	lah	
11	5/344	The adjacent property owners need to match Figure 1. Please distinguish which parcel on the map are USFS and which are BLM on Figure 1.	lah	

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
12	5/344	Please notify the local field offices of the BLM and Forest Service that they are the adjacent landowners to the Large Mine Permit. BLM was notified, but at the incorrect office (state office). Forest Service has not been notified at the local field office. The Division currently has an inquiry into the South Jordan Office listed, pdf page 5/344.	lah	

R647-4-105 - Maps, Drawings & Photographs

General Map Comments

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
13	All	The scale on some maps is in Metric and some maps have English units. Please use all English Units.	lah	
14	All	Some maps have scale units related to an inch. If a proper bar scale is used, then the printing at any size will be correct. Please delete the comparison to an inch	lah	
15	Omission	Please include all utilities within 500 feet of the property boundary, this is to include, but not limited to pipelines related to Parleys Creek and all culverts associated.	lah	
16	Omission	Please include all related structures including gates and bridges used in the access, how the property will be accessed as related to public safety and the adjacent neighbors.	lah	
3	Omission	Please add the power poles shown on Figure 3 to Figure 4. Please clarify what will happen to the power poles throughout mining because it appears that they will need to be modified due to mining activities.	kmc	
4	Omission	Please elaborate on the location of mining roads to access the benches shown in Figure 4. These benches are expected to be 50' tall according to Figure 5 and these accesses may need additional safety measures upon reclamation to limit access to the highwalls.	kmc	

105.1 - Topographic base map, boundaries, proposed acres, pre-act disturbance

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
19	Fig 3	Please show the location for the proposed rockfall fencing.	lah	

105.2 - Surface facilities map

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
20	Omission	Please provide more detail on the equipment to be on site, such as a schematic of the crushing plant, with a note the plant will be relocated occasionally during mining to optimize mining.	lah	

105.3 – Drawings (plan and profile), Cross Sections (slopes, roads, pads, etc.), Geology, Hydrology, Biology

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
21	Omission	Please include an additional geologic cross section closer to the mine area, as the adjacent cross section is useful to show the syncline, but not relative to the stratigraphy that would be expected to be exposed in the final pit walls due to the folding in the area. The cross section should support text on page .pdf page 17/344.	lah	
22	Omission	Please show existing road(s) by category of road(s), show proposed haul road to the top of the mine and note if any road will exist when mining is completed.	lah	
23	Fig 3&4 Page 41-42/344	As currently drawn on both figures, the topsoil stockpile will likely be impacted by the ephemeral stream on the west side of the site. Please adjust the location of the stockpile or clarify how the stockpile will be protected from the stream. A well-developed phase plan will help define the location/potential impacts.	mgm	
24	43/344 Fig 5	Please label the maximum final pit angle.	lah	
25	43/344 Fig 5	Please add the hinge line for the bend in the cross sections.	lah	
26	43/344 Fig 5	As shown the pit floor is flat and would not retain even a small rain or snowmelt event. Please modify as needed for storm water.	lah	
27	45/344 Fig 7	Please provide a more detailed geology map of the mine area. Specifically, the geomechanical properties of the rock is needed, as it relates to the proposed excavation. Please include the bedding plane strike and dips, faults, and joints. Due to the adverse dip direction of the bedding planes to the face of the excavation, rock mass rating should be done to quantify the roughness and the "filling" of fractures or voids of the adverse structural geology of the mine site.	lah	
28	270/344	Please label the slopes as 2H:1V, if that is the intent of the operator. In addition, please note the D50 size or mark the figure as a "typical drawing"	lah	
29	62/344, 63/344, 64/344	The drawings are labeled as "Portland Cement South" is it the intent of the Operator to have a cement Plant on site?	lah	

105.4 - Photographs

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
30	57/344	Photograph is too dark to do much good, please provide a photo which shows the access gate. In addition, more photographs would be useful, particularly photographs of the upper mine area. Most photos were taken from the existing roads.	lah	

105.5 – Underground and Surface Mine Development Maps

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
31	6/344 Omission	Please include a definitive statement that there is not going to be any underground mining, if that is the intent of the Operator. Such as "There are no underground workings planned at this site. If the decision is decided to go underground, the permit will be amended or revised at that time"	lah	
32	Fig 3/Page 6/344	The text states that topsoil will be stockpiled in property berms (perimeter of the facility) which will be roughly 6ft tall, 9ft wide, and 28,000ft long. This description does not match the stockpile shown in Figure 3. Please update the figure or the text to include the intermediate and/or final topsoil stockpile locations for all stockpiles during different mine plan phases.	mgm	

R647-4-106 - Operation Plan

General Operation Comments

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
33	All	The Mine Operation plan is difficult to understand. Mine phase plan map(s) would help the text and tables. There is text regarding the north area and the Division doesn't know what portion is north. The tables try to quantify 100 years of mining. Several well-done phasing maps would eliminate the need for complex text explanations. The numbers in the tables are hard to interpret because the data is only related to the final reclamation. Phase maps would show if it is strictly top-down excavation, or a series of lay backs or pushbacks. The natural steep terrain of the area adds to the complex nature of the operation plan. The Division recommends phase maps to support the text.	lah	

106.1 - Minerals mined

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
34	6/344	Under section 106.1, the text notes "a small volume". Please quantify "a small volume" by an estimated range of percentile.	lah	
35	6/344	It is not clear if the Nugget sandstone will be crushed for engineering material or if it might be mined for decorative stone. Please clarify in 106.1 or 106.2	lah	

106.2 - Type of operations - mining method, onsite processing, deleterious or acid-forming materials

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
36	7/344 Omission	How will the staging of the tree removal be done relative to mining? Please include brief statement, as it relates to the mining Operation and tree removal and erosional issues that can be related to tree removal.	lah	
37	7/344	Please include the industry vibration standards that will be adhered to during Blasting Operations. Include vibration limits for blasting within a given distance of adjacent historic structures and how monitoring will be accomplished according to industry standards. What will be the Maximum Peak Particle Velocity per 8 ms delay?	lah	
38	7/344	Will ANFO be the only explosive product? What if wet drill hole conditions are encountered? Will the explosives be kept on site?	lah	
39	7/344	For reclamation cost estimate purposes, the number of stockpiles on site at any one time need to be quantified. Include the number of different stockpiles, the types of stockpiles and the estimated volumes.	lah	
40	7/344	"Silver" is listed in the NOI as a mineral to be mined. Please provide more information about the nature, characteristics and the intention of the Operator related to the mining of the precious metals, specifically the silver and associated minerals of silver mining. Several of the minerals associated with silver are deleterious. Please re-submit XRF data submitted under the SMO Silver Mine. In addition, please submit supporting information regarding the XRF SMO data, the standard of practice and manufacturer specification need to be followed. XRF data needs to include, but not be limited to: a. A map showing the location of each XRF data point. b. The units of each element, not just the units of the lower limit of detection. c. The latest certificate of calibration for the XRF used for the data collection. d. The methodology used in the data collection.	lah	
41	7/344	Please provide more information about the nature, characteristics and the intention of the Operator related to the mining and processing of the precious metals, specifically the silver and associated minerals of silver mining.	pnb	
42	7/344	Include a reference to the description of the nature of materials to be mined or processed in section 106.4, which is used to justify conclusions regarding the presence or lack of deleterious materials that are naturally occurring and/or process-derived.	pnb	

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
43	7/344	Based on the definition of "deleterious materials", the Division considers fuels, oils, chemicals, and certain other introduced materials to be deleterious. Update this section to identify plans to introduce any of these types of materials as part of the operation.	pnb	
44	Omission	Please include the mining methodology, which is normally assumed to be top-down construction, but the steepness of the slope presents a challenge. Will any of the slopes be temporarily over steepened?	lah	
45	Omission	Please discuss the phasing of the mine site as it relates to the Operation Plan, and specifically to bonding.	lah	

106.3 - Estimated acreages disturbed, reclaimed, annually/sequentially

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
46	8/344	As written, Table 106.3-1 doesn't make sense. Please review all numbers. 634 acres divided by 0.5 acres/yr is not ~100 years. The line for the mine buffer area should be below the 394 acre line and above the 411 acre line. Phase maps would help clarify.	lah	

106.4 - Nature of materials mined or processed (including waste materials), and estimated annual tonnages

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
47	8/344	Can 2,000,000 tons be extracted from the 0.5 acre average quoted above at the top of the page? The time frame lined out in the text and the chart needs more detail to understand the actual time frame as mining progresses. Phase maps would help, along with details regarding bench height and such things of triple benching. The depth of the cuts has not really been well defined. The 0.5 acre average with 2,000,000 tons could possibly be achieved, but more detail is needed.	lah	
48	9/344	In describing the nature of the materials to be mined/processed, justify the conclusion that no deleterious or acid-forming materials will be present. 1) Discuss the general neutralizing mineralogy and capacity of the various materials to be mined. 2) Discuss the presence or lack thereof of acid generating mineralogy. Discuss whether any elements (metals, sulfur, radionuclides, silica, etc.) are present in materials to be mined/processed at levels that could be considered deleterious. This discussion will require some additional chemical/elemental analyses of materials to be mined/processed from meaningful locations within the large mine disturbance area. This information is also important for the general discussion of impacts and reclamation (see section 109 and 110.4). Contact the Division for more specific information.	pnb	

106.5 - Existing soil types, location, amount

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
49	11/344	To better describe the extent of available topsoil as required in rule R647-4-106.5, please provide the estimated amount/volume (cubic yards) of topsoil that will be salvaged from each of the eight soil types. This information could be added to table 106.5-1. The average depth of the A horizon for the entire mine area is roughly 12.6 inches, and possibly much thicker in the drainages. As much topsoil as feasible should be salvaged in order to have as much plant growth material available for final reclamation and to increase the likelihood of successful revegetation and therefore final bond release.	mgm	

106.6 - Plan for protecting and re-depositing soils, unsuitable suitable

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
50	12/344	The text states that "a sufficient quantity of suitable soils, 331,540 cubic yards…will be removed". Please clarify if this quantity of suitable soils is purely made up of the natural topsoil on site or if it includes a mixture of topsoil, wash fines, and/or outside material. Adding topsoil volumes to table 106.5-1 would help meet this request.	mgm	
51	12/344	Please add a statement stating that any soil amendments or other growth material that may be brought into the site will seek Division approval beforehand. The text mentions the use of wash fines and amended soils. The use of wash fines, outside/commercial topsoil, and any soil amendments need to be demonstrated to be suitable and approved by the Division. Until approved by the Division, any other material that is not the natural topsoil should be stockpiled separately and not mixed in with the natural topsoil stockpiles. The Division recognizes the plan of creating a test pad for the wash fines and will await the results to determine in the wash fines are suitable to be used with the topsoil.	mgm	
52	12/344	The text states that topsoil and wash fines that are not stored within the facility berms will be stored on site. Please include the location(s) of such stockpiles and show them in Figure 3.	mgm	
53	13/344	The last paragraph of this section could be taken out of the text since it is explained in the previous paragraph and in section 110.5. If left in, please add *"minimum" of 6 inches of topsoil…*	mgm	

106.7 - Existing vegetation - species and amount

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
54	13/344 Fig 9	Please add the other four transect locations to Figure 9. Only transects 1, 2, 3, 7, 8, 9 are shown on the map.	mgm	

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
55	14/344 Table 106.7-1	Though the Division understands vegetation covers listed in the Aerial Canopy Cover column of table 106.7-1, the revegetation success standards are not clearly stated in regard to the five different vegetation types on the site or specific mine areas (floor, benches, roads, etc.). Whether it be in a table and/or map, please propose post-mine vegetation percent covers for revegetation success standards.	mgm	

106.8 - Depth to groundwater, extent of overburden, geologic setting

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
56	195/344	Water wells refer to "below ground surface." Please refer to the water levels in feet as it relates to mean sea level (amsl). The Division would like the ground water related to the collar elevation given for the wells.	lah	

106.9 - Location & size of ore and waste piles, tailings, ponds

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
57	17/344	Will there be any wash ponds on site for the processing of the fines?	lah	
58	18/344	As noted in the text the pit floors will be sloped towards the highwall, but this is not shown the cross sections.	lah	
59	19/344	The Hydraulic analysis in Appendix D does not appear to include the entire area of the impact of the mine watershed. Please update this watershed to include analysis of impacts of the whole disturbance area and update the storm water design. A detailed review of the Appendix D will be done after the watershed areas and ponds are resized.	kmc	

106.10 - Amounts of material extracted or moved (including ore, waste, topsoil, subsoil, etc.)

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
60	18/344 Table 106.10-1	Table 106.10-1 shows that roughly 100,000 cy of topsoil will be removed, but in section 106.6 it is stated that 331,540 cy of topsoil will be removed. Include overburden, waste, or non-topsoil material in the table. Please update the table/text – all extracted/moved material should be quantified.	mgm	

R647-4-109 - Impact Assessment

109.1 – Projected impacts to surface & groundwater systems

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
61	20/344 Omission	How many feet of vertical separation is projected?	lah	

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
62		As needed, update this section to reflect the additional section 106.4 requirements, as it relates to deleterious materials.	pnb	
63	21/344	Please make sure that all BMPs are shown on the Figure and that the SWPPP in Appendix E is certified and turned into Utah Department of Environmental Quality.	kmc	
64	21/344	The Hydraulic Analysis provided in Appendix C as summarized in Section 106.8 discussed that encountering ground water was not expected. The Appendix provides several nearby wells that were between 5'-30' (Mount Air Water Corporation) and 200' deep that encountered water (indicated to be another basin). This Mine is expected to excavate well over 1000' in some areas. Please elaborate in this section what the mine would do if groundwater is encountered. An appropriate place would be Section 109.1 Groundwater. In addition, this section in the 3 bullet states "There will be about feet in vertical separation between the quarry activities and the potential to encounter groundwater." The feet in this line should be added for consistency. Section 109.5.2.f.i should also be updated for consistency because it states that a 10' buffer will be maintained from groundwater but the groundwater depth is unknown according to Appendix C.	kmc	
65	21/344	Please provide a copy of the SPCC for inclusion in the plan when complete. This will also help bonding estimates.	kmc	

109.2 – Potential impacts to State and Federal threatened & endangered wildlife/habitat

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
66	23/344	More information may be required regarding the status of the two potential Golden Eagle nests on site. The nests should be monitored and confirmed abandoned for the year before commencement of disturbance.	mgm	
67	24/344	Wildlife Habitat. Throughout the text of this section, it is mentioned that the level of impact to wildlife habitat (mainly elk, deer, and moose) is difficult to determine without further data or studies. Without proposed and specific mitigation actions for potential impacts on wildlife habitat, more information is needed to better understand the impacts that will occur. Please obtain and include, as written in the text, data from the Utah Division of Wildlife Resources.	mgm	

109.4 – Projected impacts on slope stability, erosion control, air quality, public health, and safety

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
68	27/344	The notice describes discharging off site, please include a placeholder for the discharge permit approval letter.	lah	

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
69	28/344	Update this section to reflect additional information regarding any deleterious materials in sections 106.2 and 106.4, as needed.	pnb	
70	28/344	Please provide a copy of the AO for inclusion in the plan when complete. This will help the Division address Dust Concerns.	kmc	

109.5 - Actions to mitigate any the impacts (109.1 thru 109.4)

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
71	29/344	Please propose mitigation actions if golden eagles or other raptors are observed occupying the two potential golden eagle nests on site. If any takings or other USFWS permits are required, please include a placeholder for the permit approvals.	mgm	
72	29/344	Please propose mitigation actions for the loss of wildlife habitat.	mgm	
73	30/344	Section 109.5.2.a. Please elaborate on how storm water will be treated. Section 106.6 indicates that storm water will be conveyed through the storm water detention basin vegetated to help remove contaminants. These sections should be consistent.	kmc	
74	30/344	Section 109.5.2.f states that groundwater ponds will be lined with clay but in Section 106.6 it states that they will be vegetated to help remove contaminants. Please update for consistency.	kmc	

R647-4-110 - Reclamation Plan

110.1 - Current & post mining land use

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
75	30/344	It is unclear how future recreational development will be accomplished with a final highwall of 1H:1V slopes. Please clarify.	lah	
76	30/344	Please include “wildlife habitat” as part of the current and post mining land use. Given the survey results that show use by wildlife, it is known that there is currently wildlife habitat in the site. Without approved plans for development of the land after mining, the Division must assume that the land will be reclaimed to its pre mining land use and will meet the standards for wildlife habitat.	mgm	

110.2 – Reclamation of roads, highwalls, slopes, impoundments, drainages, pits, ponds, piles, shafts & adits, etc

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
77		Please show on the maps the roads to be reclaimed and which roads will be left for post mining land use. Typically, one narrowed road is left post mining. If more roads are needed for post mining please provide justification for the additional roads. It is assumed many of the roads used to access the top of the mine will be mined out on the way down the excavated pit, but many roads will be needed because of the ridges and drainages.	lah	

110.3 - Facilities to be left for post mining use (buildings, utilities, roads, pads, ponds, pits, equipment, etc.)

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
78	31/344	The storm water impoundments need to be left in place until vegetation is established.	lah	
79	31/344	As written, no stockpiles will remain at the time of final reclamation, but bonding needs to assume the worst case scenario. The plan needs to include verbiage regarding the regrading of the stockpiles if needed, prior to final reclamation.	lah	

110.4 - Description or treatment/location/disposition of deleterious or acid forming materials, including map

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
80	32/344	Update this section to reflect additional information regarding any deleterious materials in sections 106.2 and 106.4, as needed. For example, discuss the removal and disposal of any introduced deleterious materials (e.g. fuels, oil, chemicals, etc.).	pnb	

110.5 - Revegetation planting-regrading, growth medium, seed bed prep, seed mixture w/ rates and timing

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
81	31-34/344	Related to the comment in section 106.6. Please add a statement that any soil amendments or outside growth material will be demonstrated to be suitable and approved by the Division before its application. The use of amendments, outside material, and wash fines is mentioned throughout this section.	mgm	
82	32/344	Soil Material Replacement. Please remove the second paragraph. This information is provided in section 106.5 and is not required for the Reclamation Plan section.	mgm	
83	32/344	Seed Bed Preparation. The minimum ripping depth should be 12 inches. Highly compacted areas should be ripped to 18 inches, such as the pit floor.	mgm	

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
84	32/344	Related to the comment in section 106.7. Please clarify how the revegetation goal of 36 percent was determined for the benches. Define which area boundaries are being used to calculate the revegetation goals, e.g.: mine operations areas (benches, floor, roads, etc.) or vegetation types (deciduous woodlands, conifer forests, etc.). This could be addressed in this section or in 106.7.	mgm	
85	33/344 Table 110.5-1	Please include either 0.2 lbs of Mountain Sagebrush, Artemisia tridentata ssp. Vaseyana, or 2 lbs of Antelope Bitterbrush, Purshia tridentata. Given that the site is within crucial and substantial habitat for multiple ungulates, more than one shrub species should be planted to provide more forage, especially for winter habitat.	mgm	
86	Omission	The Division understands and accepts the plan of using the same seed mix and application rate on the topsoil stockpiles as for the final revegetation. An interim seed mix with more aggressive species that can quickly grow and protect the stockpiles may be more beneficial and cheaper for the stockpiles. The Division can recommend an interim seed mix upon request.	mgm	
87	33/344	Seeding Method. When will shrubs be seeded? It is stated that grass and forb species will be seeded in the late fall, this is also acceptable for shrub species.	mgm	

R647-4-112 - Variance

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
88		No variances requested.	lah	

R647-4-113 – Surety

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
89	Omission	The phasing of the mine site is important in terms of the bond costs. At the completion of mining, the disturbance is probably not the worst-case scenario for the reclamation bond estimate. If some slopes need to be blasted and pushed down or it there is many roads that need to be ripped or other sort of a partially mined pit is not down to final grade.	lah	
90	331/344	Please update bond unit costs from 2019 to 2021	kmc	
91	331/344	Update the Bond summary sheet to reflect RS means year and the appropriate escalation factor, i.e., use the escalation factor and the RS Means number for the year the actual bond is to be submitted. (2022 if submitted after December 2021).	lah	

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
92	331/344	Please show the 411 acres to be revegetated on a map. The Division understands that this will not include the Highwalls/access road. This is also provided on Table 106.1 on page 9/344. Ideally, all of these acres would be shown on a map for ease of reference in the bond calculations.	kmc	
93	332/344	Please fix the spelling of crusher.	lah	
94	All	A detailed review of the Bond will be done after the unit costs are updated.	lah	