Land Survey Advisors
296 Timber Lakes Estates
Heber City, UT 84032
805-450-6330

June 2, 2025

Division of Reclamation, Mining and Safety

RE: Crystal Vitoria Mine, File No. P-2025-004, Notice of Intent to Conduct Prospecting Operations, Notice of Deficiency

Below we have provided responses to the areas of concern from your May 19, 2025 letter.

Section I: General Information

The area of disturbance lies within the NE1/4 of the NW1/4 of Protracted Block 37, Township 12S Range 82W.

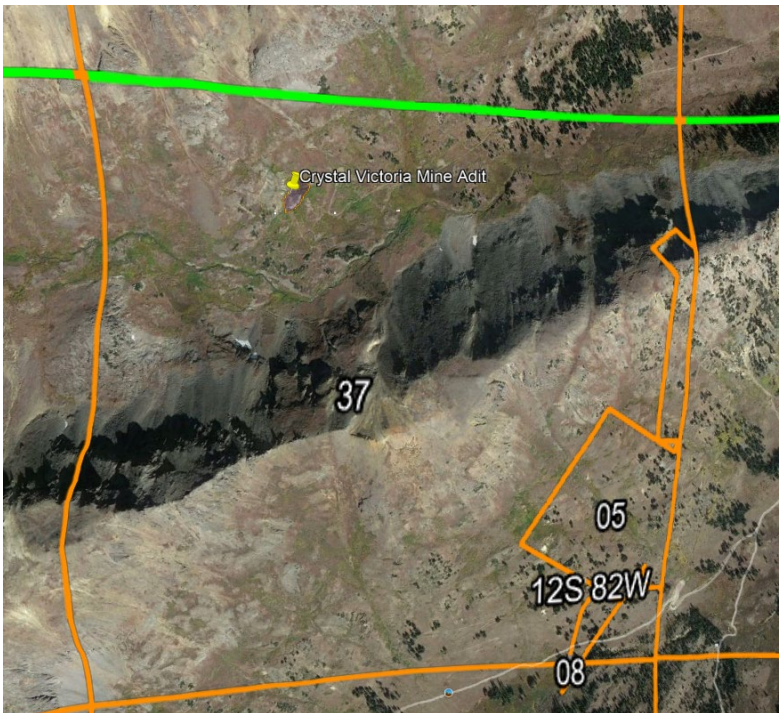

Figure 1: Location of the Crystal Victoria mine - PLSS

Section III: Project Description

1. Question 3 states that approximately 5,000 tons of material will be extracted during the project. Please provide a narrative describing the anticipated makeup of that material as well as a plan on how the materials will be handled and or transported.

   All material extracted during prospecting activities will be either drill core or channel samples taken from the underground workings. If 5,000 feet of core is successfully extracted, the total weight will be closer to 27 US tons of material. This material will be logged by a geologist and loaded on trucks to be assayed off site. Subsequent to assay, the core will be stored off site.

2. In Question 6, A there is one 25x25 ft mud pit listed in the surface disturbance, however that is not discussed in any other section nor shown on any maps. Please provide more information on the location, use and the reclamation of the mud pit.

A 25x25' mud pit will be located 10' outside the portal at 39 degrees 2' 30.35" N 106 degrees 34' 41/15" W. The mud pit will be used to hold drilling fluid, settling cuttings and allowing for mud reuse and treatment. An impermeable pit liner will contain the fluid within the pit. All fluid and barriers will be collected in containers and sent to a recycling facility off site upon completion of the drilling program.

3. Additionally, in Question 6, A it is stated that there will be 12 holes with 5,000 feet depth listed. Through conversations the Division interprets this to mean 5,000 feet of total depth spread out between the 12 holes. Please confirm that the 5,000 feet is a total depth of all 12 holes and provide an estimate of the average depth of each drill hole. Additionally, please provide information regarding the underground location of each drill hole and their approximate angle of drilling.

The aggregated core will not exceed 5,000 feet across all twelve underground drill holes. The average depth of each hole will be 400 feet. The underground location of each of the twelve drill holes is yet to be determined by our geologist and will depend upon the assay results from a channel sampling program. It is anticipated the holes will all be horizontal or slightly inclined to intercept vein structures to the northwest. Both 'Jack's' and 'Vic's' structure (see map below) are oriented northeast to southwest. Each drill hole will terminate at an elevation above the furthest downslope water monitoring hole which lies 240 feet below (11,775' MSL) the underground workings (12,015' MSL).

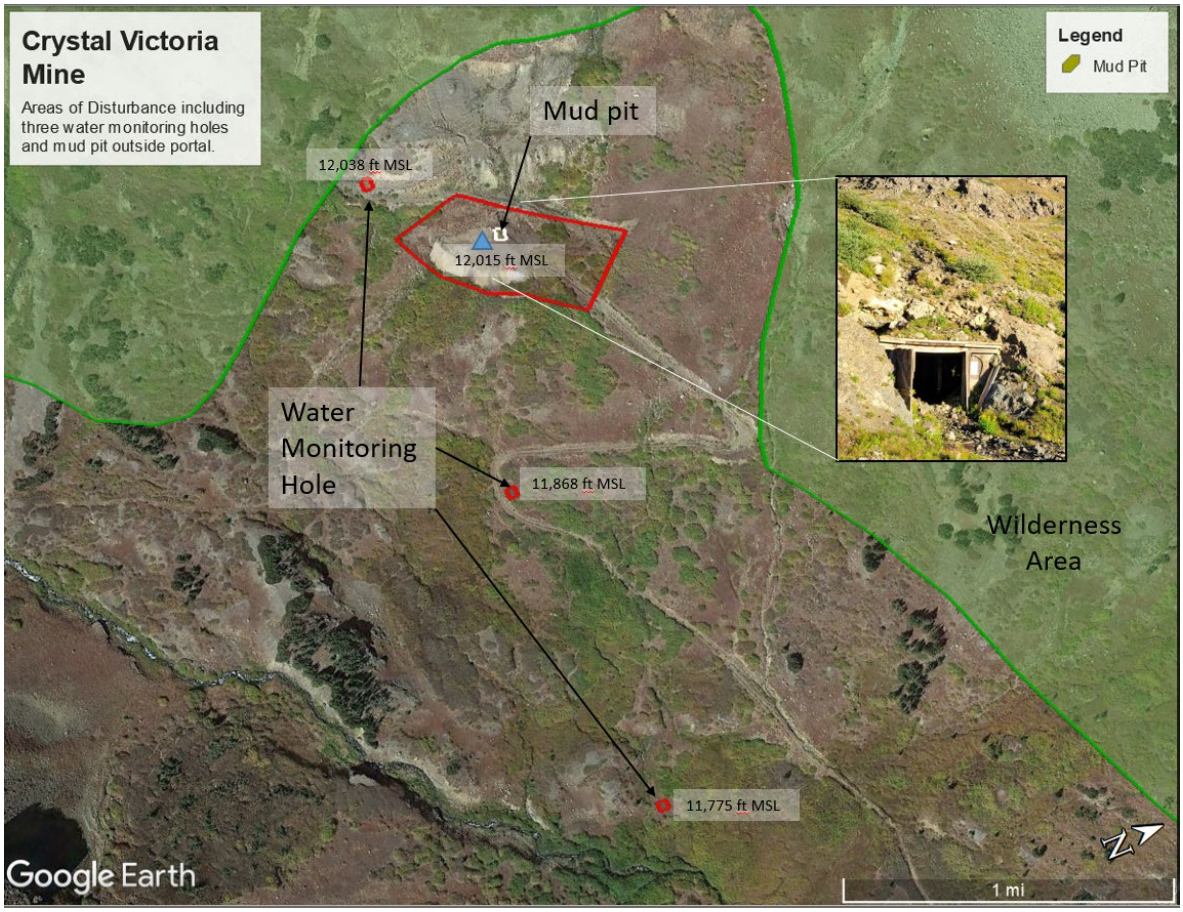

Figure 2: Mining Plan

4. The application materials propose that drill water will be absorbed into the water table for the underground drilling operations however cuttings management is not discussed. Please provide a narrative detailing the materials handling operations for the underground drilling portion of the project.

   All material extracted during prospecting activities will be either drill core or channel samples taken from the underground workings. If 5,000 feet of core is successfully extracted, the total weight will be closer to 27 US tons of material. This material will be logged by a geologist and loaded on trucks to be assayed off site. Subsequent to assay, the core will be stored off site.

5. Question 6, D states that "rock dumps will also be limited to this same 1 acre area of disturbance." Please clarify if rock dumping on the surface is proposed as a part of the prospecting operation.

   Because an adequate space exists to support underground drilling operations, material aside from drill cuttings will not be dumped on the surface as part of the prospecting operation.

6, E briefly discusses the Groundwater Monitoring holes that are proposed to be installed. Please provide a narrative supported by a drawing showing the elevational location of the wells compared to the underground workings and extent of the underground drilling operations ensuring that the depth of the monitoring wells is below the target exploration zone and potential mining area. Also, please provide a Water Quality Sampling and Analysis Plan with QA/QC measures and analyte sampling list (for Surface and Groundwater samples) for review to be carried out after the holes are completed. The sampling and analysis plan should also include well construction information and sampling protocols to be used in the monitoring program.

The average depth of each drill hole will be 400 feet. The underground location of each of the twelve drill holes is yet to be determined by our geologist and will depend upon the assay results from a channel sampling program. It is anticipated the holes will all be horizontal or slightly inclined to intercept vein structures to the northwest. Both 'Jack's' and 'Vic's' structure (see map below) are oriented northeast to southwest. Each drill hole will terminate at an elevation above the furthest downslope water monitoring hole 'C' which lies 240 feet below (11,775' MSL) the underground workings (12,015' MSL). Monitoring hole 'B' lies 148 feet below the adit.

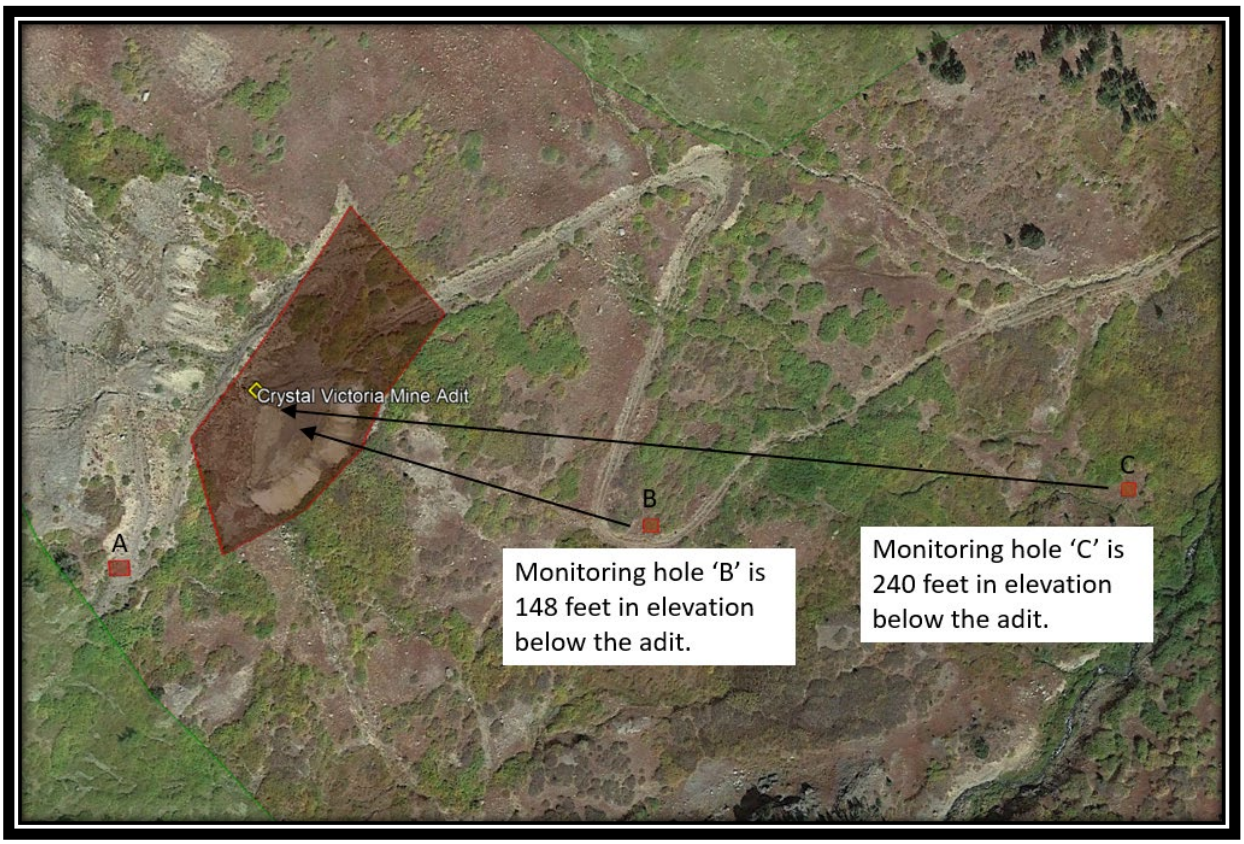

Figure 3: Water monitoring hole elevation in relation to the adit

Section IV: Operation and Reclamation Measures

8. Questions 3 and 7, respectively discuss topsoil redistribution and revegetation, however based on the information contained within the application materials no disturbance requiring revegetation is proposed. Please clarify if topsoil replacement and revegetation will be required, and if so, please provide a detailed description of any equipment needed for topsoil replacement, seeding method, mulching (if needed), etc.

No topsoil exists on proposed disturbance area. Topsoil replacement and revegetation will not be required.

9. Question 4 states that "if deemed necessary, the drill holes will be plugged and abandoned during reclamation if they are making water." Please provide a specific Plugging and abandonment method should the underground drill holes encounter water. Please note that pursuant to Rule 5.4.2(1), any drill hole which evidences artesian flow of groundwater to the surface shall be plugged with neat cement grout, or a similar material sufficient to prevent such artesian flow, as

approved by the office. Also, if water is encountered, please commit to ceasing the activity and contacting the Division immediately as a potential Modification to the NOI may be required.

None of the thousands of feet of historic drilling encountered water. Because all proposed future drilling will be in the same areas and at similar orientations it is not expected we will encounter water. If a new drill hole encounters water the hole will be injected and sealed with neat cement grout to prevent the flow of water and materials through the hole in accordance with Rule 5.4.2(1). The Division will be immediately contacted in the event an artesian flow occurs.

10. Additionally, though the groundwater monitoring holes will remain open, a plugging and abandonment method must be submitted to be included in the Reclamation Cost Estimate. Please provide more information regarding the plugging and abandoning of the Groundwater Monitoring holes, and their estimated completion depth.

    Upon completion of the water monitoring program all locks, caps and PVC pipes will be removed and the monitoring holes filled with local rock and soil. The estimated completion depth of each water monitoring hole will be 25 feet.

11. Based on the condition of the locking gate on the adit, the Division will include the replacement of the portal gate in the Reclamation Cost Estimate and required Financial Warranty. To supplement your response to Question 5, please provide the dimensions of the gate so that it may be included in the estimate.

    The dimensions of the portal gate are approximately 8 feet in height and 12 feet in width. Per Forest Service recommendation, a combination lock will replace the current portal gate and vehicle gate locks.

12. A seed mix was provided in the application materials, however for operations on lands administered by the US Forest Service, a Forest Service approved seed mix must be used. Please contact the Forest Service Office ensure the seed mix provided is acceptable, if it is not, please submit a revised seed mix with seeding rate in PLS/Acre.

    Because the proposed disturbance area does not contain topsoil, replacement, seeding and remediation will not take place.

Respectfully,

Michael Murphy
Owner/Operator, Land Survey Advisors LLC
LandSurveyAdvisors@gmail.com, 805-450-6330