

February 2, 2024

Ms. Lori Smith  
Cripple Creek & Victor Gold Mining Company  
P.O. Box 191  
Victor, CO 80860

**Re: Additional Information Required, Grassy Valley Groundwater and Surface Water Monitoring Report December 2023; Permit No. M-1980-244**

Dear Ms. Smith:

On January 25 2023, the Division of Reclamation, Mining and Safety (Division/DRMS) received the monthly sample report for surface water and groundwater samples collected in Grassy Valley in December 2023. After review of the submission the Division has additional items that need to be addressed or clarified.

1. A review of Table 1 and the associated field sheets for monitoring wells GVMW-4A, 15A and 15C indicates the wells could not be sampled.

For GVMW-4A the field sheet states the depth is beyond pumping capabilities. Does the Operator know how productive 4A is? The field sheet indicates a shallow water level of 42 feet. If the well were determined to be productive couldn't the well be sampled using volumetric methods, assuming the water level stabilized at a depth suitable for the pump?

The field sheets for all wells mentioned above indicate the casing is broken or there is a blockage. Please describe what the Operator's plans are to verify the integrity of the wells and what the next steps are to ensure the wells are not cross contaminating water bearing zones or providing preferential pathways for contamination into the subsurface.

2. Provide an explanation why some completed groundwater field forms have recorded Dissolved Oxygen (DO) and others do not?
3. Table 1 indicates GVMW-7B was not sampled because there was insufficient water to collect a sample. A review of the field sheet shows there was ~4.4 feet of water in the well. Why was the water in the well not purged to dryness and revisited and sampled, or an attempt to collect a sample, in accordance with QAPP's low yielding well methodology?



4. The field sheet for GVMW-8A indicates 7.5 gallons were removed during purging. The flows indicated on the field sheet along with the time spent purging only 5.7 gallons were removed, a clarification is required.
5. Provide an explanation why the water level in GVMW-8B dropped one foot by adjusting the pump when it appears the water level was already stable. The well was purged for 40 minutes at 1.7 gpm which would have removed 68 gallons from the well, yet the actual volume pumped portion reads ~3.5 gallons, a clarification is needed.
6. Clarification is needed for the following items related to the field sheet for GVMW-10. The last two time intervals read "1:49" yet the parameters measured are different. The well appears to have been purged for 38 minutes at 2.09 gpm which would indicate ~79 gallons were removed from the well but the actual volume pumped is 30 gallons.
7. On the field sheet for GVMW-24A it's indicated the well was purged for 52 minutes at 1.4 gpm which would result in 72.8 gallons being removed from the well. While the volumetric purge portion of the field sheet has not been completed, if GVMW-24A is a 2-inch diameter well then 3 casing volumes for a volumetric purge totals ~63 gallons. Additionally, when the sampler returned to the well after purging dry at 230.3 feet the water level was 221.4 feet, 28.6 feet of water in the well, a sample was not collected as there was insufficient volume to pump. Why was it determined there was insufficient volume to pump when the water level was higher than when pumping ceased the day before? Also, clarify why a sample was not collected when it appears sufficient volume was removed for sampling a 2-inch well using a volumetric purge method.
8. A summary table needs to be provided that shows each parameter exceedance of a limit, the location of the exceedance, and the corresponding concentration limit, e.g. GVMW-10, Uranium, 0.0875 mg/L, 0.03 mg/L.
9. A review of the graphs for GVMW-25 indicates there were detections of both Cyanide (Free) and Cyanide (WAD). However, a review of the laboratory reports it does not appear the parameters were actual detections. Provide an explanation of the laboratory qualifies from the laboratory report and an explanation of how it relates to whether or not the parameters were actually detected in the sample. Additionally, the Operator should provide a section in the cover letter that addresses similar items to preclude having to address them through adequacy.
10. The graphs need to be updated to clearly indicate where parameter concentrations are detected in sample (a concentration above the laboratory reporting limit) versus concentrations that are less than the laboratory reporting limit.

Please respond to these items within 30 days of the date on this letter, by **March 3, 2024**. The Division reserves the right to further supplement this document with additional items and details as necessary

If you need additional information or have any questions, please contact me by email at [patrick.lennberg@state.co.us](mailto:patrick.lennberg@state.co.us).

Sincerely,

A handwritten signature in blue ink, appearing to read "Patrick Lennberg". The signature is stylized with a large, looped "L" and a cursive "G".

Patrick Lennberg  
Environmental Protection Specialist

cc: Katie Blake, CC&V  
Anthony Matarrese, CC&V  
Johnna Gonzalez, CC&V  
Elliott Russell, DRMS  
Michael Cunningham, DRMS  
Tim Cazier, DRMS  
Nikie Gagnon, DRMS