



**COLORADO**  
Division of Reclamation,  
Mining and Safety  
Department of Natural Resources

June 9, 2021

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

**RE: Division Adequacy Review; First (1<sup>st</sup>) Quarter 2021 Groundwater and Surface Water Report;  
Cresson Project, Permit No. M-1980-244**

Dear Ms. Harmon,

On April 28, 2021, the Division of Reclamation, Mining and Safety (Division/DRMS) received your First (1<sup>st</sup>) Quarter 2021 Groundwater and Surface Water Report. After review of the report the Division has the following list of items that need to be addressed by the operator.

**FIRST QUARTER 2021 MONITORING REPORT:**

1. Please state why no rinsate or rinse blanks were collected from the decontaminated field equipment? In Section 6.3 of the QAPP, provided in AM-13, it states the field technician will collect a minimum of 5 rinse blanks per quarter. Additionally, please clarify how many sampling locations are sampled with reusable equipment.
2. The blanks that were collected are they field blanks, which are collected in the field during sampling to quantify ambient conditions during sampling, or are they trip blanks, to quantify possible sources of contamination from shipping and the laboratory? If they are field blanks, they should be associated with a sample location, please identify the location these samples are associated with.
3. CRMW-3C, from the field sheet, it appears that the sample was collected by turning on the pump long enough to collect enough volume for water quality parameters and sample volume.
  - Why was the well not purged long enough to accurately determine parameter stabilization? If the well is sampled using volume based well purging then the field sheet needs to document the calculation used to determine the well volume and show that parameters were collected after each well volume was removed.
  - Additional clarification is needed. It appears the well was purged for one minute removing 0.4 gallons which resulted in a water level drop of 16 feet. The Division calculated that a well diameter of less than 1-inch would be required to see a 16 foot drop in water level with the removal of 0.4 gallons.



4. In Section 8.5 of the QAPP, provided in AM-13, it states the criteria for parameter stabilization over three consecutive measurements. Explain why the following seven wells were sampled before parameters stabilized:
  - CRMW-5A, 5B, 5C, 5D,
  - GVMW-22B,
  - SGMW-6B, and
  - VIN-2B
5. CRMW-3A, the first field sheet for this well indicates it was purged at a rate of one liter per eight seconds (1L/8s) for three minutes, which would yield approximately six gallons of purge water. Why were there no parameters collected during the purging process? The Division calculated the casing volume, using the static water level from the first field sheet and the total depth from the second field sheet, for the well to be either 10.4 gallons for a 4-inch well (0.65 gal/ft) or 2.6 gallons if it is a 2-inch well (0.16 gal/ft).
6. CRMW-3B, the first field sheet for this well indicates that it was purged at a rate of one liter per eight seconds (1L/8s) for 15 minutes which would be approximately 30 gallons of purge water. Why were there no parameters collected during the purging process? Additionally, the field sheet indicates the well was revisited later the same day and purged dry, why was this done?
7. CRMW-3B, second field sheet states the well was purged 3x volume yet there is only one set of parameters. Explain where the other set of parameters are? According to the QAPP water quality parameters are to be collected at a minimum of once per casing volume.
8. For monitoring wells GVMW-8B and PGMW-2, provide the missing dry at depth.
9. GVMW-22A, did the operator attempt to collect separate samples from GVMW-22A on two different occasions, once on February 1 and again on March 23 and if so why?
10. GVMW-22A, the March field sheet states the well casing was frozen, is this referring to the protective outside casing or was the inside well casing frozen?
11. The analytical table for CRMW-3C has the standard value for Manganese (Mn) listed as 8.1 mg/L, this is incorrect the standard for Mn at this well is 3.0 mg/L, please correct.
12. Uranium in CRMW-5A has almost doubled in concentration since the beginning of monitoring. Currently this is the only well being monitored at the site that has an exceedance of this constituent, please provide an explanation for the exceedance
13. CRMW-5D had a pH exceedance that was not documented in the text of the report nor was a trend graph provided. Please update the text and provide the missing graph. Please note the pH

exceedance was not documented in the Water Quality Exceedance Notification dated March 17, 2021.

14. SGMW-6B had a Beryllium (Be) exceedance that was not documented in the text of the report nor was a trend graph provided. Please update the text and provide the missing graph. Please note the Be exceedance was not documented in the Water Quality Exceedance Notification dated April 27, 2021.
15. Over the past year, at CRMW-3C, concentrations of Fluoride and Manganese have increase dramatically please provide an explanation to account for the increase. Other wells at the site that may be influenced by historical mining activities do not exhibit such an increase.

This concludes the Division's Adequacy Review of the First Quarter 2021 Groundwater and Surface Water Report. The Division reserves the right to further supplement this document with additional items and/or details as necessary.

The due date for your response has been set for August 8, 2021.

If you need additional information or have any questions, please contact me at Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, by telephone at **303-866-3567 x8114**, or by email at [patrick.lennberg@state.co.us](mailto:patrick.lennberg@state.co.us). If you need additional information or have any questions, please let me know.

Sincerely,



Patrick Lennberg  
Environmental Protection Specialist

ec: Justin Raglin, Cripple Creek & Victor Gold Mine  
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