



COLORADO

Division of Reclamation,  
Mining and Safety


Department of Natural Resources

## MINERALS PROGRAM INSPECTION REPORT

PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

<b>MINE NAME:</b> Cresson Project	<b>MINE/PROSPECTING ID#:</b> M-1980-244	<b>MINERAL:</b> Gold	<b>COUNTY:</b> Teller
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Timothy A. Cazier	<b>INSP. DATE:</b> March 28, 2017	<b>INSP. TIME:</b> 10:15
<b>OPERATOR:</b> Cripple Creek & Victor Gold Mining Company	<b>OPERATOR REPRESENTATIVE:</b> Cheyne Mann	<b>TYPE OF OPERATION:</b> 112d-3 - Designated Mining Operation	

<b>REASON FOR INSPECTION:</b> Normal I&E Program	<b>BOND CALCULATION TYPE:</b> Partial Bond	<b>BOND AMOUNT:</b> \$173,934,420.00
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None
<b>WEATHER:</b> Cloudy	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> May 24, 2017

**The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.**

**INSPECTION TOPIC:** Financial Warranty

**PROBLEM/POSSIBLE VIOLATION:** Problem: The financial warranty is not adequate to reclaim the site in accordance with the approved reclamation plan. This is a failure to maintain the proper financial warranty amount to complete reclamation of the affected lands pursuant to C.R.S. 34-32-117(4)(b) of the Act.

**CORRECTIVE ACTIONS:** The permittee shall submit adequate financial warranty (\$33,934,420) within 60 days from the date on this report.

**CORRECTIVE ACTION DUE DATE:** 7/23/17

## **OBSERVATIONS**

The Division conducted a monitoring inspection of the site on March 28, 2017. Messrs. Cheyne Mann, Tyler O'Donnell and Gary Horton represented CC&V during various parts of the inspection. Tim Cazier represented the Division. The planned inspection agenda included the following facilities and areas:

- High Grade Mill (HGM): vat leach secondary containment extension construction;
- Arequa Gulch Valley Leach Facility (AGVLF): northwest corner drainage conditions;
- Squaw Gulch Valley Leach Facility (SGVLF): high volume solution collection system water levels;
- Fuel Island.

### **Site Inspection:**

High Grade Mill: The Division was accompanied by Gary Horton and Steve Blaskovitch at the HGM to perform an exterior walk-around inspection. The primary focus was to observe the method and status of the construction project underway to increase the secondary containment capacity in the vat leach area. The Division observed installation of both the rubber membrane and steel plate (**Photos 1 and 2**). A little over half the steel plate and rubber membrane had been installed. The southeast stairway had been modified to accommodate the containment extension (**Photo 3**). The Division noted the leach tank secondary containment area (**Photo 4**) had no significant reduction in containment storage.

AGVLF: The Division was accompanied by Mr. Mann to inspect the area near the northwest toe of the AGVLF where the Division had observed an area of concern relating to stormwater control where the access road crosses the edge of liner during the October 27, 2016 inspection (*UTM coordinates: Zone 13 S, 485856.96 m E, 4286300.68 m N*). Snow cover had prevented revisiting this area until this inspection. The Division observed what may have been a water bar at one time (**Photo 5**), but the grading was insufficient to prevent stormwater runoff on the upgradient access road from being diverted to the on liner intercept channel (**Photo 6**). Mr. Mann concurred and committed to improving the drainage control in this area. The Division observed no direct evidence of stormwater containment failure, so this was not cited as a problem. However, the Division strongly recommends improvements be completed before the summer storm season begins in order to avoid potential offsite impacts.

While in the area, Mr. Mann showed this inspector improvements made to the area near the AGVLF water tank cited as a problem in the October 2016 inspection report. These repairs appeared adequate and functioning as intended (**Photo 7**).

Squaw Gulch Valley Leach Facility: The Division observed High Volume Solution Collection System (HVSCS) water levels near the Squaw Gulch ADR (ADR2). All levels were below the 94 foot limit.

Fuel Island: While waiting for Mr. Mann to refuel the truck used for this inspection, the Division inspected the fueling facility used by both light trucks and the large mining equipment. Bollards were observed for both small and large vehicles to prevent vehicle collisions with fuel tanks (**Photos 8 and 9**). No spills were observed. However, the Division is aware the facility has a subgrade liner. No edge of liner markers were observed. Mr. Mann concurred the edge of the Fuel Island subgrade liner should be marked to prevent damage during potential construction activity and to know whether or not potential petroleum product spills occur over the liner. The Division will revisit the Fuel Island during a future inspection to verify edge of liner markers are

installed.

On Site Meetings: Mr. Tyler O'Donnell briefed the Division on CC&V's plans to add a mercury retort in the ADR1 under a technical revision. The Division subsequently received (TR-90), and is awaiting responses to the preliminary adequacy review.

Messrs. Mann and O'Donnell indicated the mine wanted to add two additional flotation tanks associated with the off-site concentrate shipping (TR-89) that were not in the TR submittal. We agreed to address the additional tanks in the review process.

The mine is exploring the development of a new informational overlook area, to be constructed near Little Grouse Mountain. The Division suggested this be included in a future TR that is not expected to have any technical issues. Although not directly mining related, new overlook should be addressed in a TR is to formalize what, if any reclamation activities would be completed, prior to reclamation liability release for the site.

During the close-out meeting with Mr. Mann, the following items were discussed:

- a) Drainage grading improvements need to be completed on the northwest corner toe of the AGVLF as observed and discussed in the field during this inspection.
- b) A brief discussion regarding the reclamation bond for the Cresson Project was had with Mr. Erik Munroe. Briefly, CC&V made a commitment as part of the Amendment 10 (AM-10) approval to provide bi-annual bond updates to the Division (to be submitted with the annual report in even numbered years). Additionally, the third phase of the bond approved under AM-10 was to be submitted when construction began on phase 2 of the SGVLF construction. Both these milestones occurred during the lengthy review process associated with Amendment 11 (AM-11). Mr. Mann was made aware that the Cresson Project is currently under bonded. A summary of the current bond deficit is summarized below and cited as a problem in the "Bond Review" section.
- c) Wildlife fencing: CC&V was evaluating fence options: chain link (preferred for deterring people from accessing the mine area) vs wire mesh (preferred by CPW for wildlife protection). It should be noted that the TR required by the Division as part of the AM-11 review process is due in approvable form by June 8, 2017.
- d) County Road 82 Hazard Signage: During the closeout meeting, CC&V committed to working with Teller County to provide adequate hazard signage along CR 82 in the vicinity where the WHEX highwall is close to the county road. Subsequent to the inspection, communications between the Division and Teller County Transportation, it was conveyed that Teller County could not authorize any signage in the CR 82 right-of-way as the hazard (WHEX highwall) is outside the right-of-way. CC&V reiterated their commitment to completing the necessary grading to reduce the hazard to vehicles leaving the CR 82 right-of-way, once the ground thawed.
- e) Chicago Tunnel / Poverty Gulch Area Acreage Release: CC&V is modifying the AM-11 CCMOD with Teller County to address concerns raised by the City of Cripple Creek during the AM-11 review process by the DRMS. This inspector recommended CC&V hold off on submitting the acreage release request that will be required for the anticipated AM-12 so that permit boundaries are consistent until the County's process is complete. Subsequent to this inspection, the Division received an

acreage reduction request, and after that, notice from Teller County that the CCMOD modification is still in process. This may require additional adjustments to the Cresson Project permit boundary.

**Bond Review:** The bond currently held by the Division is \$173,934,420.00. The approval of AM-11 revised the bond to \$207,437,344.00. As of May 28<sup>th</sup>, the Division has not yet received the additional bond resulting a bond deficit of \$33,934,420.00. The site is under bonded with respect to phase 3 of the AM-10 bond (discussed above in Item (b) under the close out meeting) and no activity proposed and approved under AM-11 may begin until the additional bond is received. **The current under bonded condition is cited as a problem on page 1 of this report.**

**Summary and Recommendations:**

1. The Division strongly recommends stormwater improvements be completed on the northwest corner of the AGVLF toe before the summer storm season begins in order to avoid potential offsite impacts.
2. CC&V committed to installing edge of liner markers at the Fuel Island.
3. The project is currently under bonded. This is cited as a problem.
4. Status of AM-11 commitments:
  - a. The "Hydrologic Evaluation", Item #6 is due to the Division on May 25, 2017.
  - b. The "Vehicle Interaction on CR 82 with WHEX Highwall", Item #51 is due, as a technical revision on June 30, 2017.
  - c. The wildlife fencing TR (Item #40) is due in approvable form on June 8, 2017.

Please contact Tim Cazier (303-866-3567, ext. 8169) if you have any questions regarding this report.

## **PHOTOGRAPHS**



Photo 1. Vat leach tank secondary containment construction (steel plate & rubber membrane).



Photo 2. Vat leach tank secondary containment construction (rubber membrane).



**PHOTOGRAPHS (cont.)**



Photo 3. Southeast stairway been modified to accommodate the containment extension.



Photo 4. Clear secondary containment.



**PHOTOGRAPHS (cont.)**



Photo 5. NW toe of AGVLF access road Xing – possible, but ineffective water bar (looking SW).



Photo 6. NW toe of AGVLF access road Xing – possible, but ineffective water bar (looking NE).



**PHOTOGRAPHS (cont.)**



Photo 7. Completed repairs to stormwater intercept channel near AGVLF water tank.



Photo 8. Standard bollards protecting fuel tanks from light trucks.



### PHOTOGRAPHS (cont.)



Photo 9. Large bollards protecting fuel tanks from mine equipment.

### GENERAL INSPECTION TOPICS

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

(AR) RECORDS----- <u>Y</u>	(FN) FINANCIAL WARRANTY----- <b>PB</b>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>N</u>
(PW) PROCESSING WASTE/TAILING---- <u>Y</u>	(SF) PROCESSING FACILITIES----- <u>Y</u>	(TS) TOPSOIL----- <u>N</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>Y</u>	(RV) REVEGETATION---- <u>N</u>
(SM) SIGNS AND MARKERS----- <u>N</u>	(SP) STORM WATER MGT PLAN---- <u>NA</u>	(CI) COMPLETE INSP---- <u>N</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(RS) RECL PLAN/COMP-- <u>N</u>
(AT) ACID OR TOXIC MATERIALS----- <u>Y</u>	(OD) OFF-SITE DAMAGE----- <u>Y</u>	(ST) STIPULATIONS----- <u>N</u>

Y = Inspected and found in compliance / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

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