




**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> Elliott R. Russell	<b>INSP. DATE:</b> December 20, 2018	<b>INSP. TIME:</b> 09:00
<b>OPERATOR:</b> Cripple Creek & Victor Gold Mining Company	<b>OPERATOR REPRESENTATIVE:</b> Justin Raglin and Erik Munroe	<b>TYPE OF OPERATION:</b> 112d-3 - Designated Mining Operation	
<b>REASON FOR INSPECTION:</b> Normal I&E Program	<b>BOND CALCULATION TYPE:</b> None	<b>BOND AMOUNT:</b> \$208,491,188.00	
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None	
<b>WEATHER:</b> Clear	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> February 12, 2019	

**GENERAL INSPECTION TOPICS**

This list identifies the environmental and permit parameters inspected. No problems or possible violations were noted during the inspection. The mine operation was found to be in full compliance with Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and/or for Hard Rock, Metal and Designated Mining Operations. Any person engaged in any mining operation shall notify the office of any failure or imminent failure, as soon as reasonably practicable after such person has knowledge of such condition or of any impoundment, embankment, or slope that poses a reasonable potential for danger to any persons or property or to the environment; or any environmental protection facility designed to contain or control chemicals or waste which are acid or toxic-forming, as identified in the permit.

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

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

## **PROBLEMS/POSSIBLE VIOLATIONS**

None observed during the inspection.

## **OBSERVATIONS**

The Division of Reclamation, Mining and Safety (Division) conducted an inspection of the Cresson Project, Permit No. M-1980-244 (Permit), a Regular 112d(3) Designated Mining Operation Reclamation Permit with 6,007 permitted acres and an approved post-mining land use of Rangeland and Wildlife Habitat. The mine, operated by the Cripple Creek & Victor Golding Mining Company (CC&V or Operator), is located southeast of Cripple Creek, Colorado and north of Victor, Colorado. Elliott Russell, with the Division, inspected the site. Justin Raglin and Erik Munroe, representing the Operator, accompanied the inspection. The Operator was also represented by Laurin Colby and Charles Bissue at times during the inspection. This inspection was carried out as a part of the Division's routine inspection program.

The inspection agenda included the following facilities and areas:

- Arequa Gulch Valley Leach Facility (AGVLF, a.k.a. VLF 1);
- Squaw Gulch Valley Leach Facility (SGVLF, a.k.a. VLF 2);
- High Grade Mill (HGM);
- Fuel Island Facility; and
- Active mining areas.

### **Arequa Gulch Valley Leach Facility:**

The Division observed the active leaching operations occurring on the top of the AGVLF (**Photos 7 and 8**). No ponded solution nor issues were observed. The Division also observed the southwest face of the AGVLF from State Highway 67 (**Photo 10**).

The Division inspected an access road which leads off of the northwest side of the AGVLF. This area poses a potential for storm water from AGVLF to leave the lined area. The Operator has previously installed an adequate swale in the access road to keep storm water on the liner and behind the edge of liner berm, however with time this swale has been reduced and appears in need of reworking (**Photo 9**). The Division also recommends the Operator establish edge of liner signage on either side of the access road to alert those using the access road the location of the edge of liner.

### **Squaw Gulch Valley Leach Facility:**

The Division observed the SGVLF from a lookout point on the north side of the AGVLF (**Photos 1 and 2**).

On November 5, 2018, CC&V informed the Division of a washout which occurred on the 9,850' lift of the SGVLF. The Operator stated at approximately 7:30am on November 4, 2018, a 4 inch feeder line broke on the south side of the 9,850' bench and caused a washout. All solution and displaced material remained within the SGVLF. The Division observed the washout (**Photos 3 and 4**) which the Operator stated would be backfilled when the remaining portion of the 9,750' lift is being backfilled. The Operator anticipated this would occur sometime in February.

The Division observed the northwest portion of the SGVLF where, during the normal monitoring inspection on November 29, 2018, the Division had identified the need for edge of liner signs. The edge of liner had been surveyed and adequate signage was posted (**Photo 5**). This observation resolved the compliance problem cited in the November 29, 2018 inspection report.

The Division observed the reject pile area north of the HGM where the liner integrity investigation proposed under TR-100 had recently concluded (**Photo 6**). On December 26, 2018, the Operator submitted the Record of Construction Report VLF2- Removal of the Crushed Ore Stockpile & Liner Integrity Verification Project.

During the inspection of the SGVLF, no ponded solution or issues were observed.

High Grade Mill:

The Division inspected the HGM. Through TR-109, CC&V has been approved to utilize the empty vat-leach tanks for surge capacity of neutral pH solution (**Photo 11**). No problems or issues were noted during the HGM inspection.

Fuel Island:

The Division observed the Fuel Island located between the Main Cresson Pit, East overburden Storage Area (ECOSA) and the Ironclad Facilities. The Fuel Island is a lined facility. The Division observed multiple spill response kits within the fueling area. No problems or issues were observed at the Fuel Island.

Active Mining Areas:

The Cresson Project includes three mining areas with a total of five currently distinct pits.

Main Cresson Mine:

The Main Cresson Mine is divided into two mining areas known as the Main Cresson and the South Cresson. The Main Cresson was observed from the top of the Main Cresson's eastern highwall (**Photo 12**). At the time of the inspection, the Main Cresson's pit floor was at approximately 8,955'. The South Cresson was observed from the top of the Phase V area of the AGVLF (**Photo 13**). At the time of the inspection, the South Cresson's pit floor was at approximately 10,095'.

East Cresson Mine:

The East Cresson Mine includes the Wildhorse Extension (WHEX) Pit. The WHEX was observed from the Grassy Valley Mining Overlook along County Road 82 (**Photo 14**). Within the bottom of the WHEX, two mining areas have developed. These are known as Grassy Valley and Gold Bug. At the time of the inspection, the WHEX was at approximately 9,655'.

North Cresson Mine:

The North Cresson Mine is divided into two mining areas known as Gold Hill and Schist Island. Gold Hill was observed from County Road 82, east of the Mollie Kathleen (**Photo 15**). At the time of the inspection, Gold Hill's pit floor was at approximately 10,215'. Operations within the Schist Island area had just recently commenced. At the time of the inspection, Schist Island area was at approximately 10,180' (**Photos 16**).

This concludes the Division's Inspection Report; a subset of photographs taken during the inspection are included below. For any additional information or 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 x8132**, or by email at [elliott.russell@state.co.us](mailto:elliott.russell@state.co.us).

Inspection Contact Address

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**PHOTOGRAPHS**



**Photo 1.** Southern portion of the top of the AGVLF; looking southwest.



**Photo 2.** Southwest portion of the top of the AGVLF; looking southwest.





**Photo 3.** Southwest face of the AGVLF; looking northeast from State Highway 67.



**Photo 4.** Access road in northwest portion of the AGVLF, edge of liner approximated by the dashed yellow line, area where storm water swale needs some work circled in red; looking south.





**Photo 5.** Overview of the SGVLF; looking northwest.



**Photo 6.** Overview of the SGVLF, top of 9,850 lift outlined in dashed yellow; looking north.





**Photo 7.** Washout on the 9,850' bench of the SGVLF bench circled in red; looking northeast from State Highway 67.

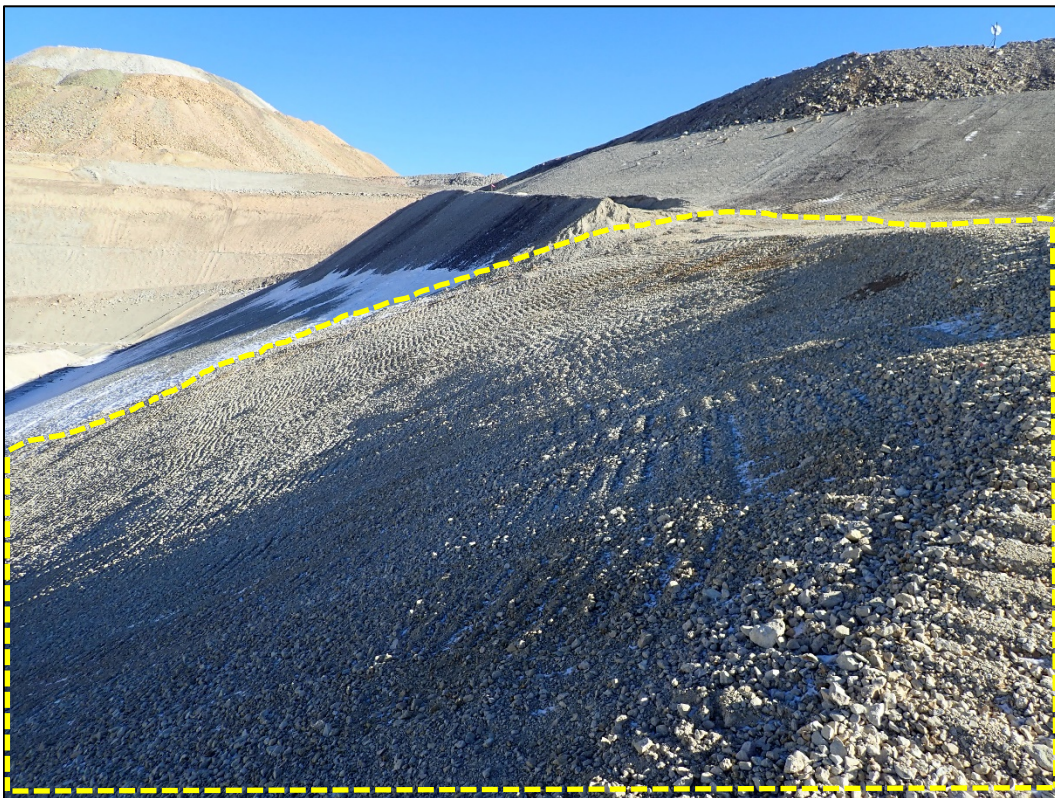


**Photo 8.** Washout on the 9,850' bench of the SGVLF bench circled in red; looking northwest.





**Photo 9.** Recently installed Edge of Liner signs in the northwest portion of SGVLF; looking southwest.

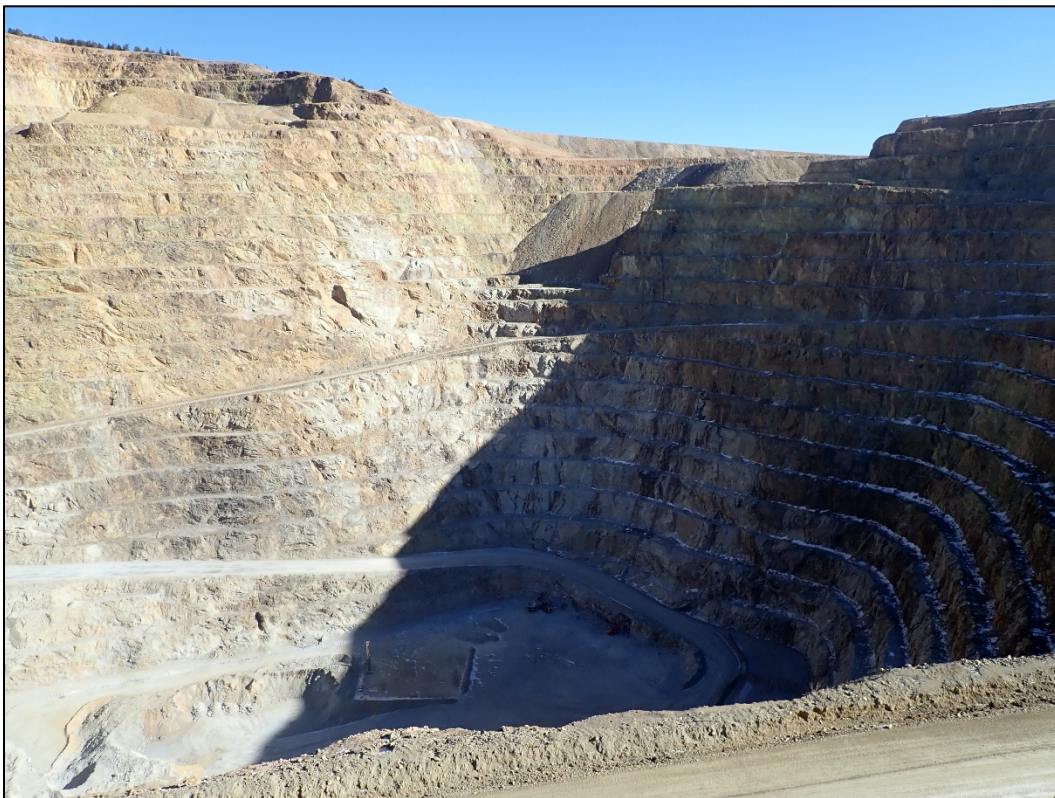


**Photo 10.** Reject Pile Area where TR-100 liner integrity investigation was conducted; looking northeast.





**Photo 11.**HGM vat leach tanks; looking northeast.



**Photo 12.** Overview of the Main Cresson mine; looking east





**Photo 13** Overview of the South Cresson mine; looking east..



**Photo 14.** Overview of the WHEX; looking southwest.





**Photo 15.** Overview of the Gold Hill mine; looking southeast.



**Photo 16.** Development of the Schist Island mine; looking south.