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.

MINE NAME: Cresson Project	**MINE/PROSPECTING ID#:** M-1980-244	**MINERAL:** Gold	**COUNTY:** Teller
INSPECTION TYPE: Monitoring	**INSPECTOR(S):** Elliott Russell	**INSP. DATE:** August 10, 2021	**INSP. TIME:** 10:00
OPERATOR: Cripple Creek & Victor Gold Mining Company	**OPERATOR REPRESENTATIVE:** Justin Raglin	**TYPE OF OPERATION:** 112d-3 - Designated Mining Operation	

REASON FOR INSPECTION: Priority	**BOND CALCULATION TYPE:** None	**BOND AMOUNT:** $209,491,188.00
DATE OF COMPLAINT: NA	**POST INSP. CONTACTS:** None	**JOINT INSP. AGENCY:** None
WEATHER: Clear	**INSPECTOR'S SIGNATURE:** 	**SIGNATURE DATE:** September 30, 2021

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.

GENERAL INSPECTION TOPICS

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

(AR) RECORDS---------- N	**(FN) FINANCIAL WARRANTY-------- N**	**(RD) ROADS---------- N**
(HB) HYDROLOGIC BALANCE---------- N	**(BG) BACKFILL & GRADING---------- N**	**(EX) EXPLOSIVES--------- N**
(PW) PROCESSING WASTE/TAILING---- N	**(SF) PROCESSING FACILITIES------- PB x2**	**(TS) TOPSOIL---------- N**
(MP) GENL MINE PLAN COMPLIANCE- N	**(FW) FISH & WILDLIFE---------- N**	**(RV) REVEGETATION---- N**
(SM) SIGNS AND MARKERS---------- N	**(SP) STORM WATER MGT PLAN---- N**	**(RS) RECL PLAN/COMP-- N**
(ES) OVERBURDEN/DEV. WASTE--------- N	**(SC) EROSION/SEDIMENTATION--- Y**	**(ST) STIPULATIONS------- N**
(AT) ACID OR TOXIC MATERIALS------- N	**(OD) OFF-SITE DAMAGE----------N**	

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

PROBLEMS/POSSIBLE VIOLATIONS

INSPECTION TOPIC: Support Facilities On-site
COMPLIANCE PROBLEM #1: A storm event caused Drain Cover Fill to washout in several areas of the Valley Leach Facility 2. The Drain Cover Fill was previously certified as a part of the Environmental Protection Facility and therefore these areas need to be repaired and recertified in accordance with Rule 7.3 and 7.4.
CORRECTIVE ACTIONS: The Operator shall repair and recertify the areas damaged by the storm event within the Valley Leach Facility 2 Environmental Protection Facility by the corrective action date.
CORRECTIVE ACTION DUE DATE: November 29, 2020

INSPECTION TOPIC: Support Facilities On-site
COMPLIANCE PROBLEM #2: Current stormwater controls associated with the High Grade Mill liner were overwhelmed during a storm event and impacted stormwater discharged off of the Valley Leach Facility 1 liner. The permit lacks formal plans or designs to control stormwater in this area. The current mine plan needs to be updated and clarified pursuant to C.R.S. 34-32-112 (2)(f), specifically addressing appropriate sections of Rules 3.1.6, 6.4.21(10), and 7.3.1(3). The Operator must provide sufficient information to describe or identify how the Operator intends to safely control impacted stormwater intercepted by the High Grade Mill liner.
CORRECTIVE ACTIONS: The Operator shall submit a Technical Revision, with the required $1,006 revision fee, to update and clarify the current approved mine plan to reflect existing and proposed activities by the corrective action date.
CORRECTIVE ACTION DUE DATE: January 28, 2022

OBSERVATIONS

The Division of Reclamation, Mining and Safety (DRMS or 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 Dylan Noble, representing the Operator, accompanied the inspection.

This inspection was conducted in response to a stormwater event notification provided by the Operator via email on August 4, 2021. The Operator informed the Division that at 5:00 PM on August 3, 2021, the site experienced a significant rain event which produced 1.47 inches. During the event, a surge of stormwater from the High Grade Mill (HGM) liner area exceeded stormwater controls on Valley Leach Facility 1 (VLF 1) and allowed stormwater that had contacted process material to discharge off secondary containment. This stormwater and material remained on-site, within the permit boundary, and ended back on containment of VLF 2, near the Adsorption, Desorption, and Recovery Facility 2 (ADR 2). The Operator also notified the Division that the storm event caused erosion/washouts of stacked ore on VLF 1 and of Drain Cover Fill (DCF) in others areas on VLF 2, but the material and impacted stormwater remained on liner in these areas. The Operator provided a follow-up report and presentation slides regarding the event on August 6, 2021.

Between VLF 1 and VLF 2 is the HGM. The HGM contains a liner which is almost entirely tied into the VLF liners. Due to the timing of construction of these facilities, the HGM liner predates the VLF 2 and subsequent liner tie-in, so it was built to retain impacted stormwater. This liner is bermed on all sides so it acts as a "bathtub". The Operator handles this retained stormwater by pumping it into a series of concrete sumps on the south end of the HGM liner and then uses gravity to direct the water onto the northern side of VLF 1 to infiltrate the stack and becomes a part of the process solution. The HGM liner area also includes the uphill portions

where high-grade material is stockpiled prior to entering the HGM circuits. The Division estimates the lined area that could be considered the basin for the HGM stormwater control is approximately 25 acres in size.

During the inspection, the HGM liner readout, located near the southwest corner of the Vat Leach containment area, indicated there were 35.1 inches of water on the HGM liner. The Division observed the water being pumped into the concrete sump located in the southwest corner of the HGM pad. This water then flows to the east via pipe into another concrete sump in the southeast corner of the HGM pad (there was once another concrete sump located between the two corner sumps, however this was closed up during the concentrate loadout expansion of the HGM). Water flows through a pipe from the southeast sump down onto VLF 1 in an area between VLF 1 and the HGM, approximately 400 feet east of the HGM water tank (see **Photo 1**). At the time of the inspection, water from the August 3rd storm event was still discharging out of the end this the pipe (see **Photo 2**). In the past, the area immediately next to the end of this pipe was used to infiltrate the stormwater into VLF 1, however it appears over time, the Operator has moved this infiltration area to the southwest, possibly due to decreased infiltration capacity from precipitates or settling fines (see **Photo 3**). Stormwater currently ponds and infiltrates in an area adjacent to the edge of liner, approximately 200 feet southwest of the HGM water tank and 600 feet west-southwest from the discharge pipe (see **Photo 4**). As this ponded water has come into contact with process material, the Operator uses floating bird balls in accordance with their Wildlife Protection Plan. During the storm event, water overtopped the edge of liner berm at two areas; one at the infiltration pond and the other in a pinch-point area approximately 100 feet upgradient where the VLF 1 stack closely approaches the edge of liner. After the storm event, the Operator repaired the two areas where stormwater overtopped the edge of liner berm (see **Photo 5** and **Photo 6**) and excavated a small channel to direct remaining water away from the edge of liner in the pinch-point area (see **Photo 7**). After overtopping the edge of liner, stormwater flowed onto the adjacent access road and then down along the edge of VLF 2 (see **Photos 8-10**). Approximately 1,000 feet down the southern edge of VLF 2, the stormwater came back onto the VLF 2 liner above the first lift; at this location the DCF washed out and both the anchor trench and liner was exposed (see **Photo 11** and **Photo 12**). Stormwater then caused DCF to washout, exposing more liner along two barren solution leading from the ADR 2 (see **Photo 13**). Stormwater, displaced DCF, and sediment fines accumulated in the southern portion of the ADR 2 area, near the VLF 2 Low Volume Solution Collection System building.

The Division also observed the area where stormwater caused DCF to washout and expose the liner on the north end of VLF 2 (see **Photo 14**). This washout was approximately 100 feet in length and appears to originate from a cross-contour light utility truck access road constructed on the DCF. The Operator indicated this washout was between 10,150' and 10,050'.

As discussed with the Operator during the inspection and further discussed in an email from the Division on August 19, 2021, the Operator will need to have the areas which were damaged by stormwater on VLF 2 recertified. This has been cited as Compliance Problem #1. Recertification, in accordance with Rule 7.3 and 7.4, will need to be completed by appropriate quality assurance and control on the repair work to meet the approved specifications and the submittal of a final recertification report is required. In accordance with the approved specifications, DCF will need to be replaced in the areas where the stormwater caused the originally-certified material to washout. Additionally, an evaluation of the exposed liner and anchor trench, recertifying their integrity, will need to be included within the final recertification report.

Additionally, the Division is citing Compliance Problem #2 regarding the current stormwater controls associated with the High Grade Mill liner. The stormwater management associated with the HGM platform will need to be revised to ensure containment of impacted stormwater. The use of an infiltration pond on VLF 1 immediately adjacent to the edge of liner is inappropriate. If the Operator intends to relocate the infiltration pond farther upgradient away from the edge of liner, potentially where original infiltration activities occurred,

then the Operator will need to submit a detailed plan and suitable designs with adequate overflow protection and a secondary emergency infiltration area. The Operator will need submit a plan to address the accumulation of precipices and fines to ensure adequate infiltration through time. As discussed with the Operator during the inspection, the Operator may want to consider an alternative plan to handle this stormwater, such as removing a portion of the western HGM liner berm near the southwest corner of the HGM area to allow intercepted stormwater to flow freely onto VLF 2 and eliminating the need to pump the water into the concrete sumps and infiltrating ponded water into VLF 1.

After the inspection, on August 19, 2021, the Operator provided the Division with the results of water samples of the impacted stormwater that discharged off of secondary containment. The third party analytical report of the samples showed WAD Cyanide levels were below the 0.01 mg/L detectable limit. The Operator also provided a photograph showing the cleanup of material that was deposited off-liner. Lastly, within the August 19, 2021 report, the Operator referenced the analytical results of the soil samples collected during the stormwater event will be provided to the Division once received. At the time of this inspection report, the Division has yet to receive these soil sample results.

This concludes the Division's Inspection Report; a subset of photographs taken during the time of the inspection are included below. 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 x8132**, or by email at elliott.russell@state.co.us.

PHOTOGRAPHS

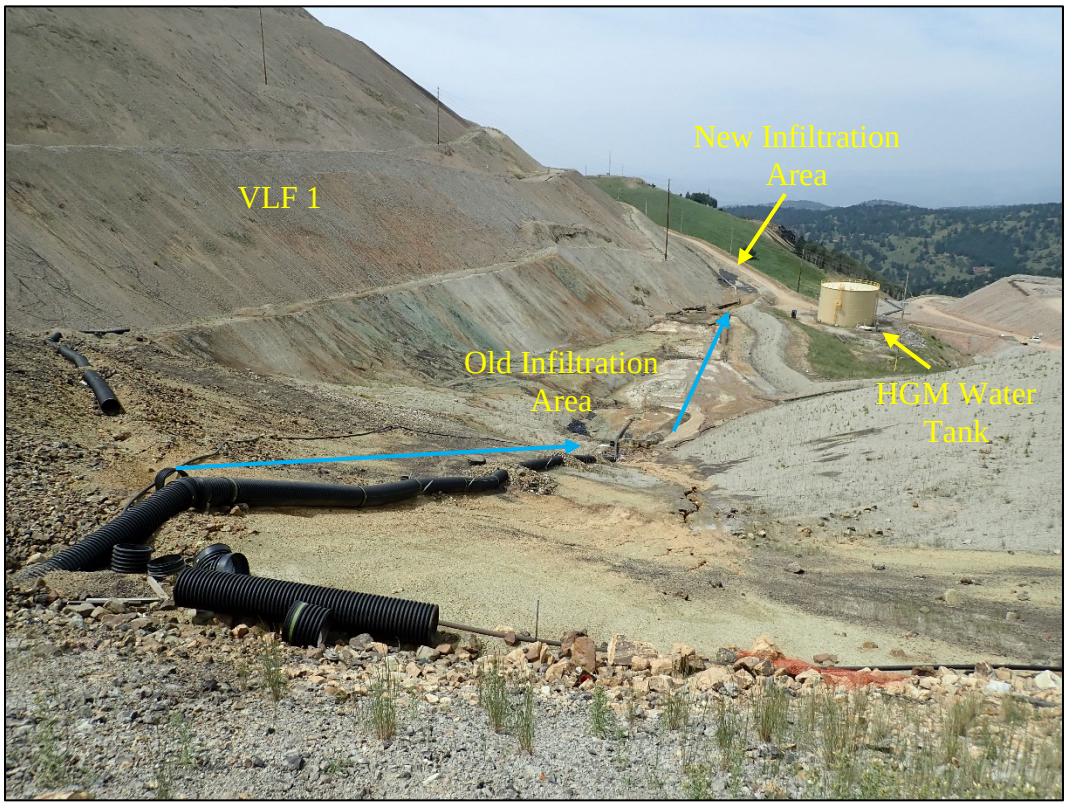

Photo 1. Path of stormwater in the area between HGM and VLF 1; looking west.

Photo 2. Stormwater pipe discharge; looking east.

Photo 3. Remnants of an old infiltration area (left), and current stormwater flows (right); looking west.

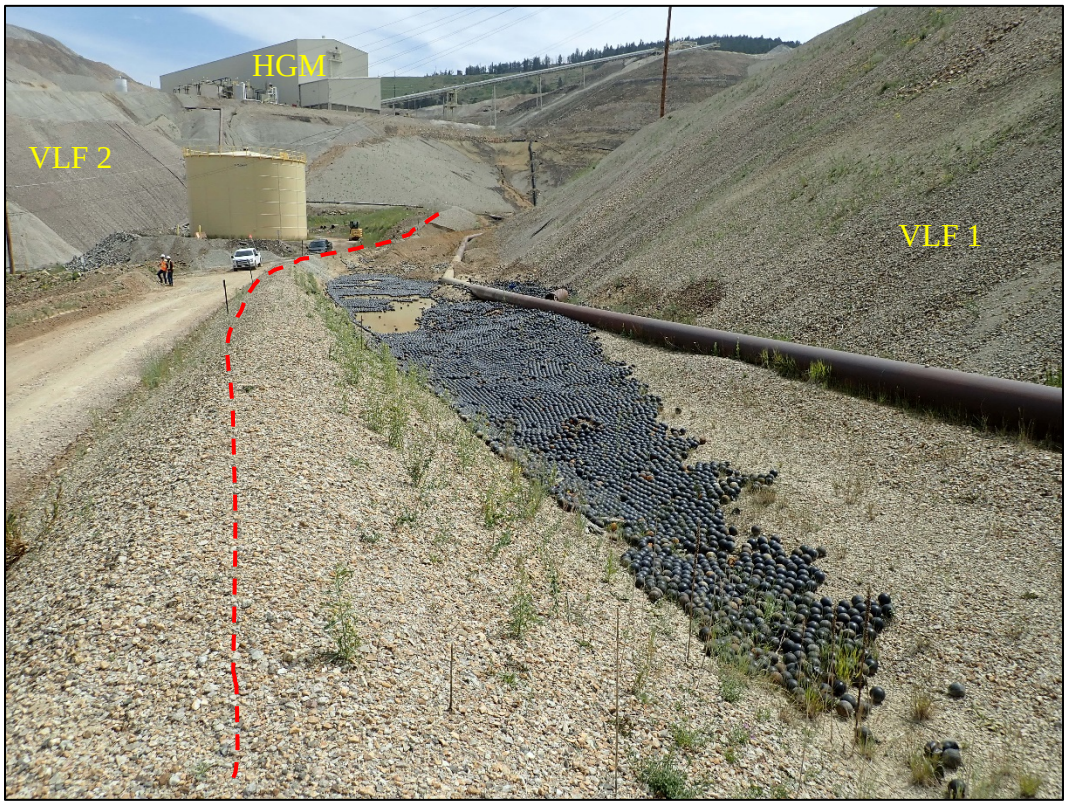

Photo 4. Infiltration pond and Edge of Liner (red); looking northeast.

Photo 5. Repaired edge of liner berm where one overtopping occurred; looking southwest.

Photo 6. Repaired edge of liner berm where one overtopping occurred; looking southwest.

Photo 7. Excavated channel to direct flows away from edge of liner in the pinch-point area; looking northeast.

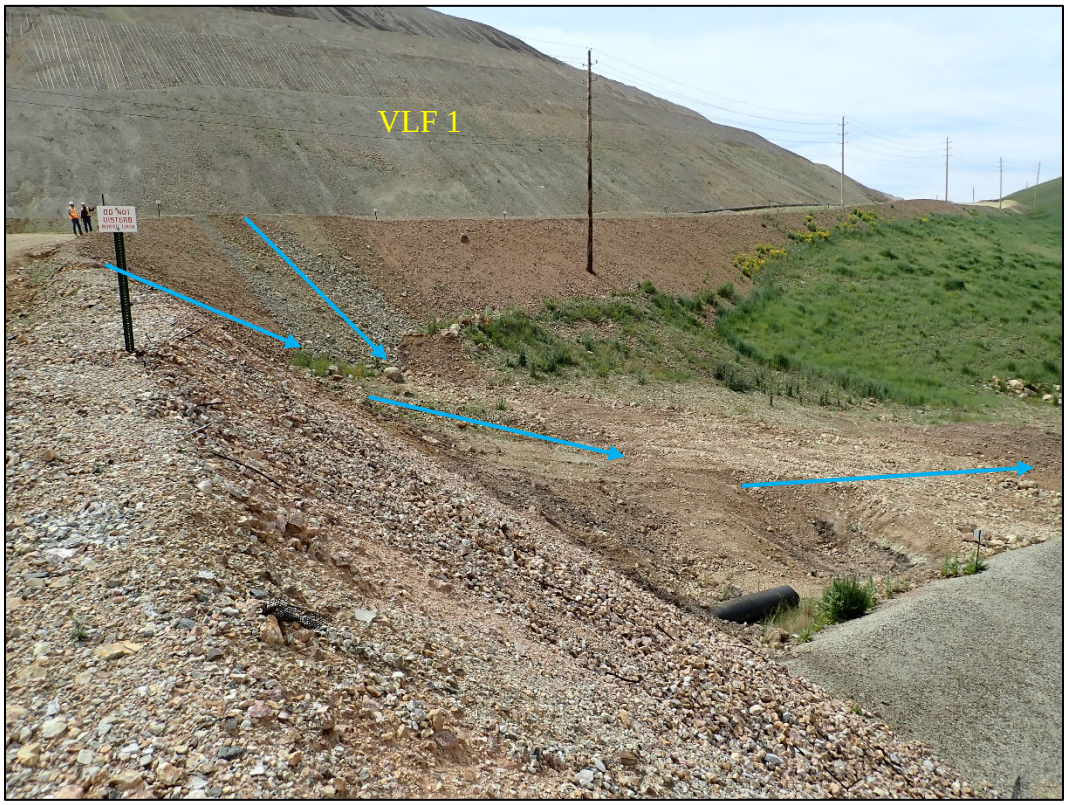

Photo 8. Path of stormwater after overtopping occurred; looking south.

Photo 9. Path of stormwater adjacent to the southern edge of VLF 2; looking west.

Photo 10. Path of stormwater adjacent to the southern edge of VLF 2; looking east.

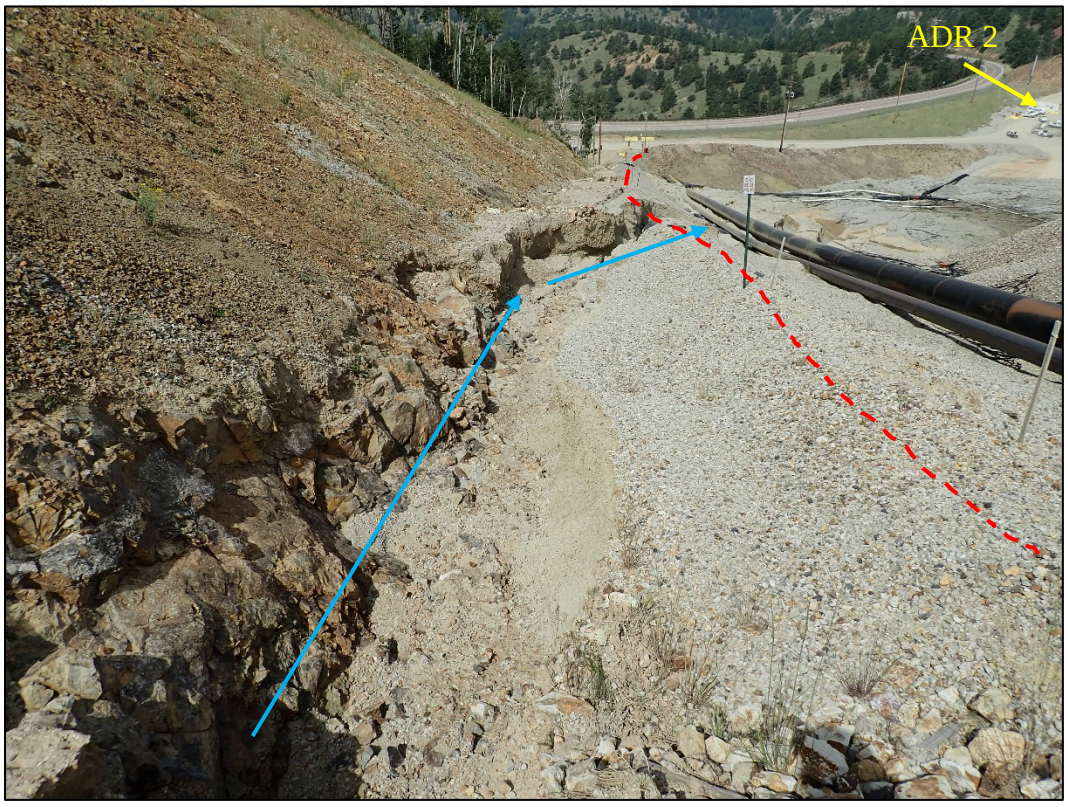

Photo 11. Area where stormwater reentered containment onto VLF 2; looking west.

Photo 12. Area where stormwater reentered containment, exposing edge of liner and anchor trench; looking west.

Photo 13. Path of stormwater approaching the ADR 2 area; looking east.

Photo 14. Additional washout of DCF within VLF 2; looking north.

Inspection Contact Address

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