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):** Timothy Cazier	**INSP. DATE:** July 29, 2020	**INSP. TIME:** 09:00
OPERATOR: Cripple Creek & Victor Gold Mining Company	**OPERATOR REPRESENTATIVE:** Katie Blake, Jeana Ratcliff	**TYPE OF OPERATION:** 112d-3 - Designated Mining Operation	

REASON FOR INSPECTION: Normal I&E Program	**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 3, 2020

GENERAL INSPECTION TOPICS

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. 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---------- Y	(FN) FINANCIAL WARRANTY-------- Y	(RD) ROADS---------- Y
(HB) HYDROLOGIC BALANCE---------- Y	(BG) BACKFILL & GRADING---------- Y	(EX) EXPLOSIVES--------- Y
(PW) PROCESSING WASTE/TAILING---- N	(SF) PROCESSING FACILITIES------- Y	(TS) TOPSOIL---------- N
(MP) GENL MINE PLAN COMPLIANCE- Y	(FW) FISH & WILDLIFE---------- Y	(RV) REVEGETATION---- Y
(SM) SIGNS AND MARKERS---------- Y	(SP) STORM WATER MGT PLAN---- NA	(RS) RECL PLAN/COMP-- Y
(ES) OVERBURDEN/DEV. WASTE--------- Y	(SC) EROSION/SEDIMENTATION--- Y	(ST) STIPULATIONS------- N
(AT) ACID OR TOXIC MATERIALS------- Y	(OD) OFF-SITE DAMAGE----------N	

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

OBSERVATIONS

Tim Cazier (DRMS) conducted a regular monitoring inspection of the site on Wednesday, July 29, 2020. Mses. Katie Blake and Jeana Ratcliff represented CC&V for the duration of the inspection. The planned inspection agenda included the following facilities and areas:

- AGVLF/VLF1 Water levels;
- High Grade Mill (HGM);
- Squaw Gulch Valley Leach Facility (SGVLF, a.k.a. VLF2) Phase 2 Construction;
- ECOSA Seep;
- Altman Backfill erosion identified during the May 18, 2020 aerial inspection.

Due to COVID-19 protocols, DRMS staff are currently required to perform inspections in separate vehicles from site Operators.

WHEX Backfill: Prior to meeting with CC&V representatives, I stopped at the CR 82 overlook east of the WHEX pit. **Photo 1** shows the progression of the WHEX pit backfill.

Arequa Gulch Valley Leach Facility (VLF 1): Messrs. Charles Bissue and Jay Ballard accompanied the DRMS to VLF 1. HVSCS and LVSCS water levels were checked on VLF 1. Water levels in the HVSCS were below the 80 percent level. Water levels in the LVSCS sumps were below the maximum allowed 24 inches (See **Attachment A**). Each LVSCS facility has a log book where site personnel are to record the LVSCS levels at least once daily. Logs were checked and up to date.

VLF 1 was also checked for solution ponding limits based on the approved wildlife protection plan limiting ponding to areas less than 3 feet by 3 feet. The 10,200 (see **Photo 2**), 10,300 (see **Photo 3**) and 10,400 (see **Photo 4**) levels had been recently ripped and were not being actively leached. The mine has been focusing on leaching the VLF 1 outslopes (see **Photo 5**) using sprinklers in the summer for two years now.

High Grade Mill: Messrs. Charles Bissue and Andrew Orser accompanied the DRMS on the mill exterior walk-around inspection. The purpose was to perform a visual inspection for leaks, spills and secondary containment problems. Both the east and west sides of the mill exterior were inspected, as well as the area around the concentrate storage facility (Con Barn). Some water and minor amount of sludge were observed in the Vat Leach tank area on the west side of the HGM (see **Photo 6**). Mr. Orser stated the water was a result of recent rain and the sludge was from the rain washing off sediment in the vat leach area. CC&V had scheduled maintenance to remove the water and sludge. As it was being addressed and did not appear to significantly impact storage volume, it was not cited as a problem. The east side of the HGM was clear of water and debris (see **Photo 7**). The sump on the southwest corner of the HGM platform was observed to have clear water estimated to be between 1.5 and 2 feet deep (see **Photo 8**).

Squaw Gulch Valley Leach Facility (VLF 2): Mr. Steve Blaskovich accompanied the DRMS to the crest of the pad on the north side of VLF 2 to observe construction. Both drain cover fill (DCF) and soil liner fill (SLF) were being placed (see **Photos 9** and **10**). Mr. Blaskovich indicated the DCF was a minimum of four feet thick where the articulated haul trucks were driving over it. The specification minimum thickness is 42 inches. No problems were observed.

East Cresson Overburden Storage Area (ECOSA) Seep: The seepage area had some ponded water (see **Photo 11**), but near zero inflow was observed (see **Photo 12**). Ms. Ratcliff stated 2 ¾ water truck loads had been

pumped out of the seep in July, much less than in 2019.

Altman Backfill erosion: The erosion features identified from our May aerial inspection (reference May 18, 2020 inspection report Photo 13A) were investigated. The attached **Figure 1** shows the area in detail. The alluvial fan deposit at the base of the largest erosion gully was measured to be 29 feet at its widest (see **Photo 13**) and 73 feet long (see **Photo 14**). Three primary gullies appeared to the contributors to the fan deposit (see **Photo 15**). The gullies ranged in size from 28 to 52 inches wide and 14 inches to 38 inches deep (see **Photo 16**). Groin erosion along the contact between the backfill and native ground was also observed (see **Photo 17**). If stormwater is to continue along this groin alignment for final reclamation, erosion protection armoring will be required. A hole (see **Photo 18**) which did not get backfilled as part of the Altman reclamation effort is in close proximity of the observed groin erosion. As no apparent offsite impact was observed, the DRMS is not citing a problem for these conditions. However, CC&V needs to be aware the DRMS cannot approve reclamation release under these conditions as they do not meet the requirements of Rules: 3.1.5(3) – "*All grading shall be done in a manner to control erosion and siltation of the affected lands, to protect areas outside the affected land from slides and other damage.*"; and 3.1.6(3) – "*All surface areas of the affected land, including spoil piles, shall be stabilized and protected so as to effectively control erosion.*". It should also be noted the observed hole is not allowed under the approved reclamation plan.

A few patches of thistle (see **Photo 19**) were observed on the bench near the contact groin erosion. Based on photos taken during the inspection, the DRMS identified these as Canada thistle, a B list noxious weed. The DRMS also observed Canada thistle on topsoil stockpiles during the August 18, 2020 inspection (report forthcoming) and we are reviewing CC&V weed control reports to determine whether a problem will be cited for the combined Canada thistle observations between July and August.

As part of the file review subsequent to this inspection, the DRMS found a discovered an apparent discrepancy in Exhibit F of AM-13, currently under review. Drawings F-1, F-5 and F-6 include solid green shading over the Altman Backfill/East Cresson Mine area which obscures the underlying contours and indicates this area undergoing reclamation is equivalent to forested and natural areas where "where Reclamation is not required". As this area was disturbed by mining activity and the DRMS has no record of receiving or approving an acreage release for this area, it is still under jurisdiction of the DRMS and is subject to the requirements of Rule 3.1.5, 3.1.6, and 3.1.10. Additional comments to correct this discrepancy on AM-13 Drawings F-1, F-5 and F-6 will be forthcoming.

General Site Observations: Dust control on the haul roads appeared to be adequate. A blast occurred in the South Cresson pit while inspecting the nearby Altman backfill erosion. Effects of the blast were barely noticeable. A deer was observed near the Phase IV LVSCS pump shed. This is not a typical location to observe the deer on site. The animal did not appear to be injured.

PHOTOGRAPHS

Photo 1. WHEX pit backfill from CR 82 Overlook.

Photo 2. VLF 1 south 10,200 level – no ponded process solution observed (looking west).

PHOTOGRAPHS (cont.)

Photo 3. VLF 1 10,300 level – no ponded process solution observed (looking north from the 10,400 level).

Photo 4. VLF 1 10,400 level – no ponded process solution observed (looking west).

PHOTOGRAPHS (cont.)

Photo 5. VLF 1 outslope sprinklers applying solution.

Photo 6. Vat leach side of High Grade Mill – rain water and sludge, scheduled for removal.

PHOTOGRAPHS (cont.)

Photo 7. East side of High Grade Mill - clean.

Photo 8. Sump southwest of High Grade Mill – water clear, level marked by red line.

PHOTOGRAPHS (cont.)

Photo 9. VLF 2 construction – DCF placement.

Photo 10. VLF 2 construction – SLF placement (on upper left slope, DCF on lower slope).

PHOTOGRAPHS (cont.)

Photo 11. Water level in ECOSA seep pond.

Photo 12. ECOSA seep pond inflow – near zero.

PHOTOGRAPHS (cont.)

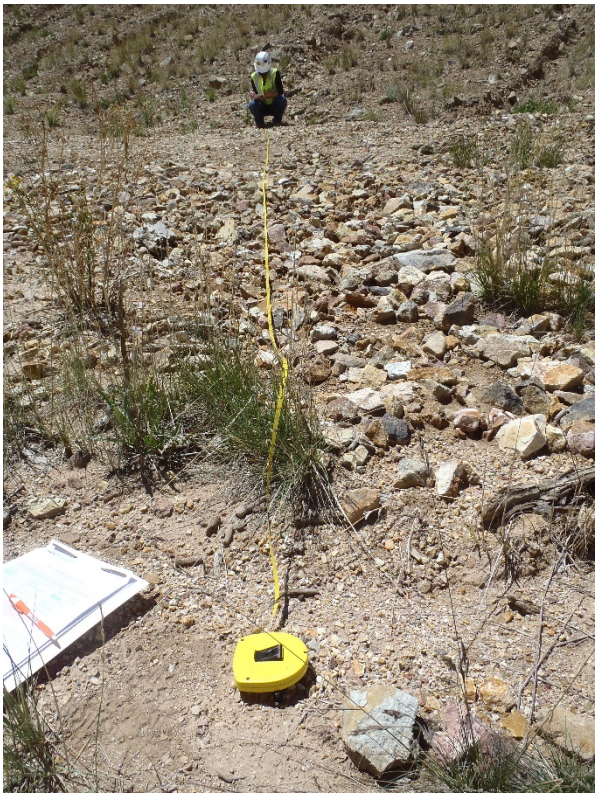


Photo 13. Altman backfill erosion fan at widest part (29 feet).

Photo 14. Altman backfill erosion fan along axis of deposition.

PHOTOGRAPHS (cont.)

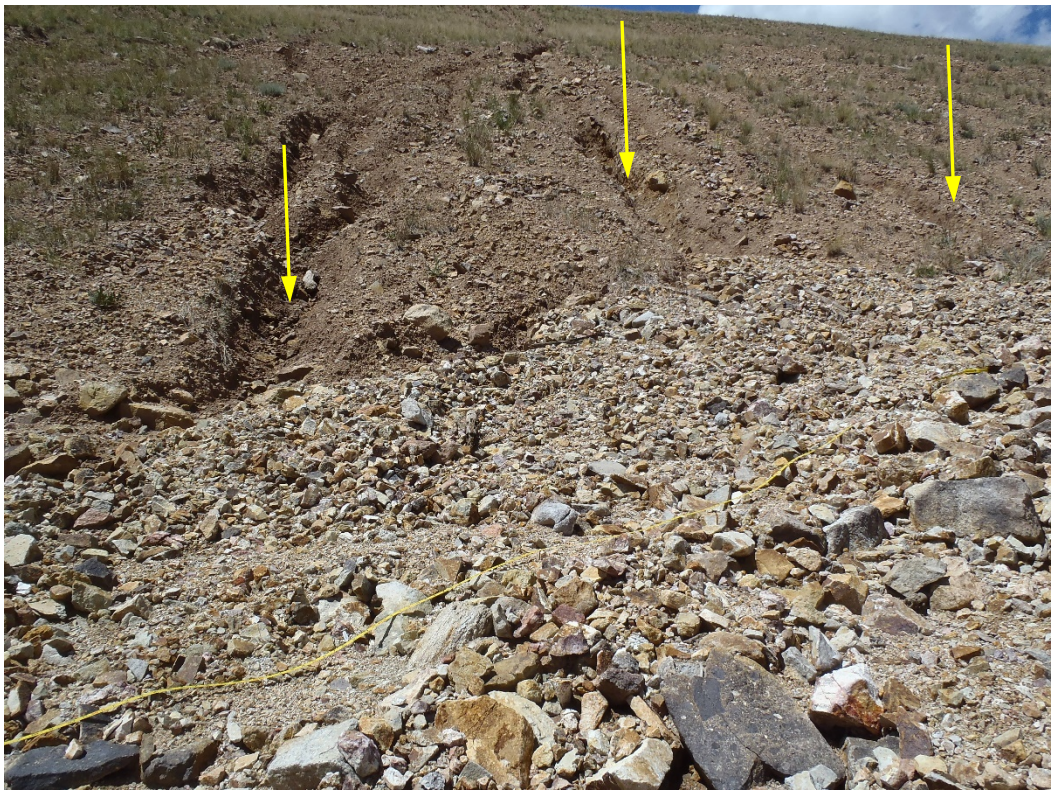


Photo 15. Three primary gullies contributing to erosion deposition fan.

Photo 16. Deepest gully at 38 inches.

PHOTOGRAPHS (cont.)

Photo 17. Groin erosion along contact between Altman backfill and native ground (erosion protection will be required for final reclamation).

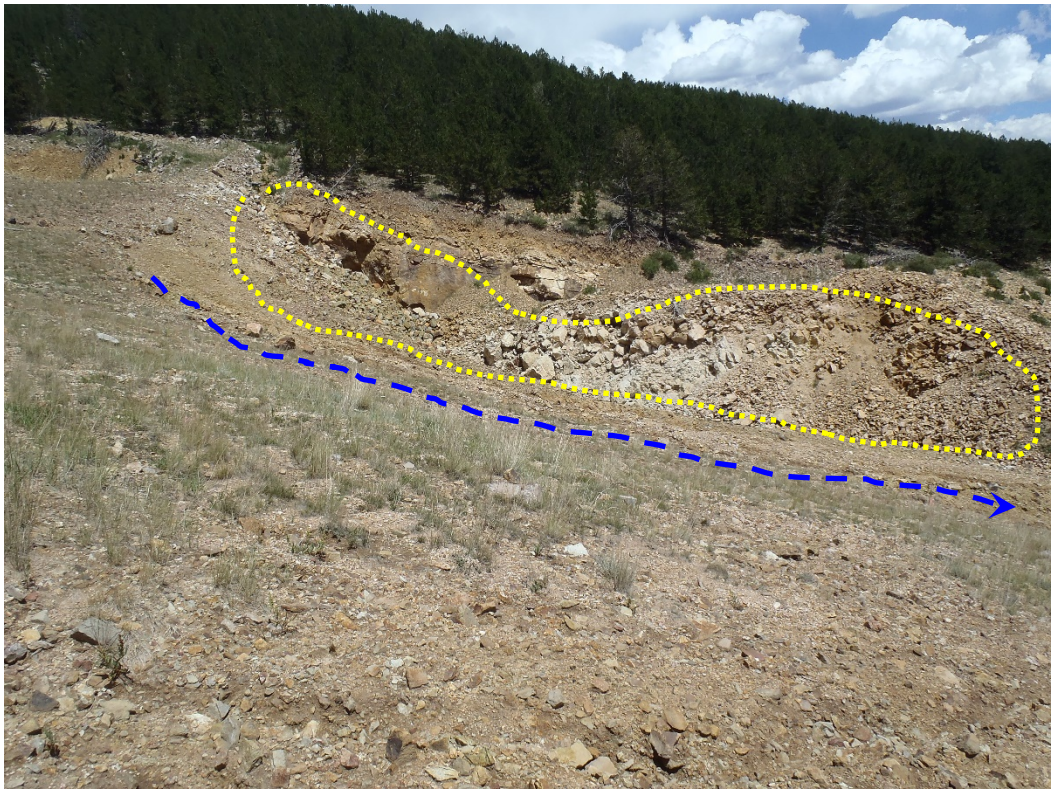


Photo 18. Hole on east side of Altman backfill enclosed in dotted line, groin erosion denoted by dashed arrow.

PHOTOGRAPHS (cont.)

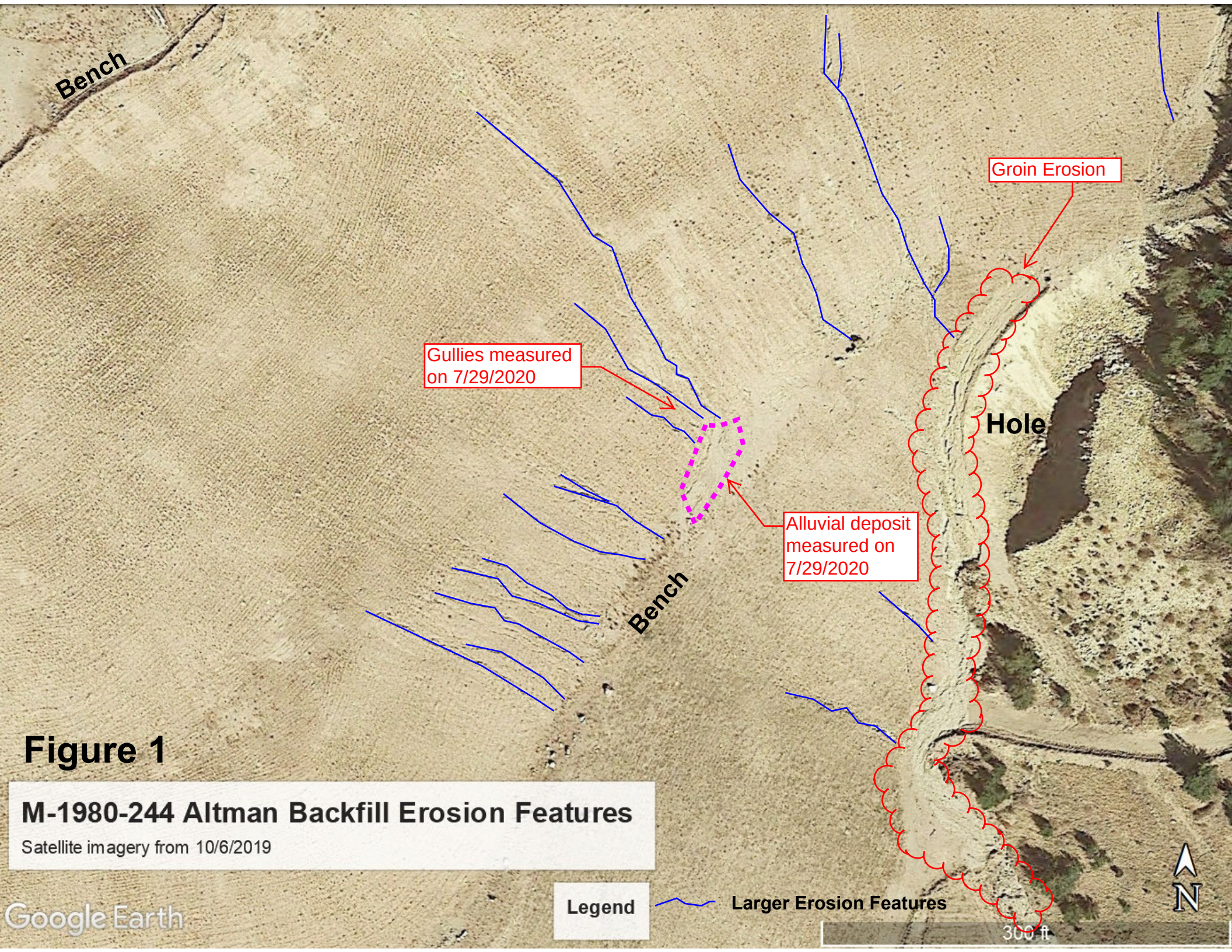
Photo 19. Canada thistle near the groin erosion along contact between Altman backfill and native ground.

Inspection Contact Address

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

Enclosures – Attachment A, Figure 1

ec: Michael Cunningham, DRMS
Elliott Russell, DRMS
Patrick Lennberg, DRMS
Brock Bowles, DRMS
DRMS file
Justin Bills, CC&V
Justin Raglin, CC&V
Katie Blake, CC&V
Wendy Conley, CC&V


Bench
Groin Erosion
Gullies measured on 7/29/2020
Hole
Alluvial deposit measured on 7/29/2020
Bench
Figure 1
M-1980-244 Altman Backfill Erosion Features
Satellite imagery from 10/6/2019
Legend
Larger Erosion Features
N
300 ft
Google Earth

CC&V VLF Water Level Inspection Readings

Previous Results

Date:			11/4/19	11/19/19	1/28/20	2/27/20	7/29/20		Notes
AREQUA VLF:		**EPS:**	JPL	TC1	TC1	ERR	TC1		
Phase I HVSC & Pond Piezometers		TIME:	11:15		10:45	10:33	10:01		
Note: 80% cap. @ 63.75 ft	Max. of Pump #299, #300, #301, 302, or #303 (Circle Pump #)	(ft)	43.8	--	58.9	49.5	45.6		
	Pond Lvl / XDCR #1	(ft)	41.9	--	58.2	49.0	45.2		
	System Press / XDCR #2	(ft)	42.2	--	36.4	41.0	43.3		system head
Phase I Low Volume Solution Collection		TIME:			10:51	10:45	10:19		
Note: Req'd < 2 ft	Piezo #1 (HAND)	(ft)	0.28	--	0.61	0.44	0.42		
	Piezo #2 (AUTO)	(ft)	0.48	--	0.82	0.71	0.85		
Phase II & III HVSC & Pond Piezometer		TIME:	11:05		10:55	10:50	10:26		
Note: 80% @ 49.4 ft	Max. of XDCR #4, #5, or #6 (Circle XDCR #)	(ft)	21.9	--	47.4	38.5	31.4		
	Piezo (Pipe)	(ft)	31.2	--	48.2	39.8	41.4		
Phase II & III Low Volume Solution Collection		TIME:			10:58	10:52	10:30		
Note: Req'd < 2 ft	Pump / XDCR #1 (AUTO)	(ft)	0.94	--	0.58	0.56	0.74		
	Pump / XDCR #2 (AUTO)	(ft)	0.79	--	0.44	0.24	0.29		
Phase IV High Volume Solution Collection		TIME:	12:30		12:13	11:45	13:07		
Note: 80% cap. @ 56.5 ft	Max. of Pump #307, #308, or #309 (Circle Pump #)	(ft)	40.2	--	46.5	44.2	19.1		
	XDCR pipe (#310 Resv'd)	(ft)	38.9	--	46.8	43.4	37.7		
Phase IV Low Volume Solution Collection		TIME:			12:15	11:47	13:09		
Note: Req'd < 24"	Pump / XDCR #1	(in)	17.1	--	ERROR	15.2	15.0		
	Pump / XDCR #2	(in)	12.5	--	12.6	11.6	12.1		
Phase V High Volume Solution Collection		TIME:		10:00	10:30	10:19	9:45		
Note: 80% cap. @ 36.5 ft	Max. of XDCR #311, #312, #313, or #314 (Circle XDCR #)	(ft)	--	25.7	29.4	30.2	15.1		
Phase V Low Volume Solution Collection		TIME:		10:03	10:32	10:21	9:46		
Note: Req'd < 24"	XDCR #001	(in)	--	16	12	8	6		
	XDCR #002	(in)	--	16.8	16.8	14.8	11.7		
External Pond Low Volume Solution Collection		TIME:	11:00			10:40	10:16		
Note: Req'd < 24"	Pump / XDCR #1-EXT (AUTO)	(in)	7.0	--	--	14	10.1		
	Pump / XDCR #2-EXT (AUTO)	(in)	14.9	--	--	16.8	17.5		
Underdrain Discharge Area		TIME:							
Note: 1 ℓ/sec = 15.85 gpm	South Underdrain (S U/D)	(gpm)	--	--	--	--	Dry		
	4" Pipe Discharge AG 01 Spring Pipe	(gpm)	--	--	--	--	Dry		
	NPDES Discharge AG 1.5 -001A	(gpm)	--	--	--	--	Dry		
	North Underdrain (N U/D)	(gpm)	--	--	--	--	Dry		
	24-inch Solid Pipe	(gpm)	--	--	--	--	Dry		
Arequa Gulch Monitor Well Pumpback System		TIME:					10:40		
Data first collected by DRMS 3/8/12	63B	(ft)	--	--	--	--	15.3		
	123C						20.1		
	B63	(gpm)	--	--	--	--	~0.5		
	123C	(gpm)					--		
SQUAW GULCH VLF High Vol. SC:		TIME:		10:28	11:15	11:04			
Note: 80% cap. @ 94 ft	LIT #88301 (north end)	(ft)	--	44.76	56.8	60.16	--		
	LIT #88303	(ft)	--	44.32	54.9	59.24	--		
	LIT #88305	(ft)	--	44.27	54.1	66.9	--		
	LIT #88307 (south end)	(ft)	--	48.8	54.8	61.4	--		
	Piezometer-LIT #88314	(ft)	--	54.4	65.1	70.4	--		
SQUAW GULCH VLF Low Vol. SC:		TIME:		10:34	11:15	11:10			
Note: Req'd < 24"	Leachate Pump 1	(in)	--	13.4	13.1	13.6	--		
	Leachate Pump 2	(in)	--	13.7	10.5	11.2	--		