




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.

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|--|--|---|-----------------------------|
| MINE NAME: Cresson Project | MINE/PROSPECTING ID#: M-1980-244 | MINERAL: Gold | COUNTY: Teller |
| INSPECTION TYPE: Monitoring | INSPECTOR(S): Timothy A. Cazier | INSP. DATE: July 23, 2019 | INSP. TIME: 09:00 |
| OPERATOR: Cripple Creek & Victor Gold Mining Company | OPERATOR REPRESENTATIVE: Justin Bills, Charles Bissue | 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 9, 2019 | |

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----- <u>Y</u> | (FN) FINANCIAL WARRANTY----- <u>N</u> | (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>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>Y</u> | (RV) REVEGETATION---- <u>Y</u> |
| (SM) SIGNS AND MARKERS----- <u>N</u> | (SP) STORM WATER MGT PLAN---- <u>Y</u> | (RS) RECL PLAN/COMP-- <u>N</u> |
| (ES) OVERBURDEN/DEV. WASTE----- <u>Y</u> | (SC) EROSION/SEDIMENTATION--- <u>Y</u> | (ST) STIPULATIONS----- <u>Y</u> |
| (AT) ACID OR TOXIC MATERIALS----- <u>Y</u> | (OD) OFF-SITE DAMAGE----- <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

OBSERVATIONS

Tim Cazier (DRMS) conducted a regular monitoring inspection of the site on Tuesday, July 23, 2019. Mr. Justin Bills represented CC&V during the inspection. The planned inspection agenda included the following facilities and areas:

- High Grade Mill (HGM);
- Squaw Gulch Valley Leach Facility (SGVLF, a.k.a. VLF 2);
- Arequa Gulch Valley Leach Facility (AGVLF, a.k.a. VLF 1);
- VLF 2 Underdrain Ponds;
- VLF 2 Phase 2 Construction;
- East Cresson Overburden Storage Area (ECOSA) Seep.

High Grade Mill: Mr. Bills, Messrs. Charles Bissue and Dave Rigsby 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). No significant problems were observed. Small amounts of rain water were observed in the secondary containment area of the Neutral pH Process Water Tank (See **Photo 1**) and a small amount of sludge was observed in the Process Ore Thickener secondary containment area (See **Photo 2**). The vat leach circuit on the west side of the HGM continued to be offline (since February of 2018). The silo (See **Photo 3**) on the SE corner of the mill was being prepared to move to its new location just south of the Squaw Gulch Overburden Storage Facility as allowed by the DRMS with the approval of TR-114.

Squaw Gulch Valley Leach Facility (VLF 2): Messrs. Bissue and Bills accompanied the DRMS to the VLF 2 overlook (from VLF 1) and an observation point from the Projects Office for a closer view of the VLF 2 9,950 level. No ponded process solution was observed (See **Photos 4 and 5**).

High Volume Solution Collection System (HVSCS) and Low Volume Solution Collection System (LVSCS) water levels were checked (See **Attachment A**) and found to be at acceptable levels.

Arequa Gulch Valley Leach Facility (VLF1): Messrs. Bissue and Bills accompanied the DRMS to VLF 1. The 10,200 (See **Photo 6**), 10,300 (See **Photo 7**) and 10,400 (See **Photo 8**) levels had been recently ripped and were not being actively leached. Mr. Bissue explained the mine was focusing on leaching the VLF 1 outcrops (See **Photo 9**) using sprinklers.

HVSCS and LVSCS water levels were not checked on VLF 1.

VLF 2 Underdrain Ponds: Messrs. Bissue and Bills accompanied the DRMS to the VLF 2 underdrain ponds. Mine representatives indicated the water observed in the ponds (See **Photos 10 and 11**) was meteoric. The water levels associated with the two pumps housed in the underdrain sump vault were checked via the two pump level indicators in the vault were 36.1 ft (pump 1) and 34.6 ft (pump 2). Pump 1 is set to turn on at 50 and turn off at 35. Pump 2 is set to turn on at 55 and turn off at 35 (**Photo 12**).

VLF 2 Phase 2 Construction: Messrs. Bissue and Bills accompanied the DRMS to VLF 2 Phase 2 construction area. Due to recent rains, construction activities were limited. Crews were waiting for the soil liner fill to dry out in order to recompact it and then lay down the geomembrane. While in the area, significant erosion of the drain cover fill (DCF) was observed (**Photo 13**) on the north end of the VLF 2 liner constructed in Phase 1 (completed

in 2016). **The eroded DCF was cited as a problem, but resolved prior to this inspection report being completed. The corrective action consisted of a recertification report received and approved by the DRMS on August 12, 2019.**

East Cresson Overburden Storage Area (ECOSA) Seep: The DRMS was accompanied by CC&V personnel (Mr. Bills & Ms. Jeana Ratcliff) to ECOSA seep area. The seepage area had some ponded water, but near zero inflow (see **Photo 14**) was observed.

General Site Observations: No noxious weeds were observed in the areas visited. Most haul road stormwater sumps appeared to be in good operating condition. However, some sumps, such as the one on the north end of the ECOSA at the turn to the ECOSA seep access road was observed to be nearly full of sediment, necessitating some maintenance. Blasts occurred in both the Globe Hill Pit (approx. 8:00 am) and South Cresson (approx. noon) Pits on the day of the inspection.

Please contact Tim Cazier (303)866-3567 ext. 8169 or email at tim.cazier@state.co.us if you have any questions regarding this report.

PHOTOGRAPHS



Photo 1. Rain water observed in Neutral pH Process Water Tank secondary containment area.

PHOTOGRAPHS (cont.)

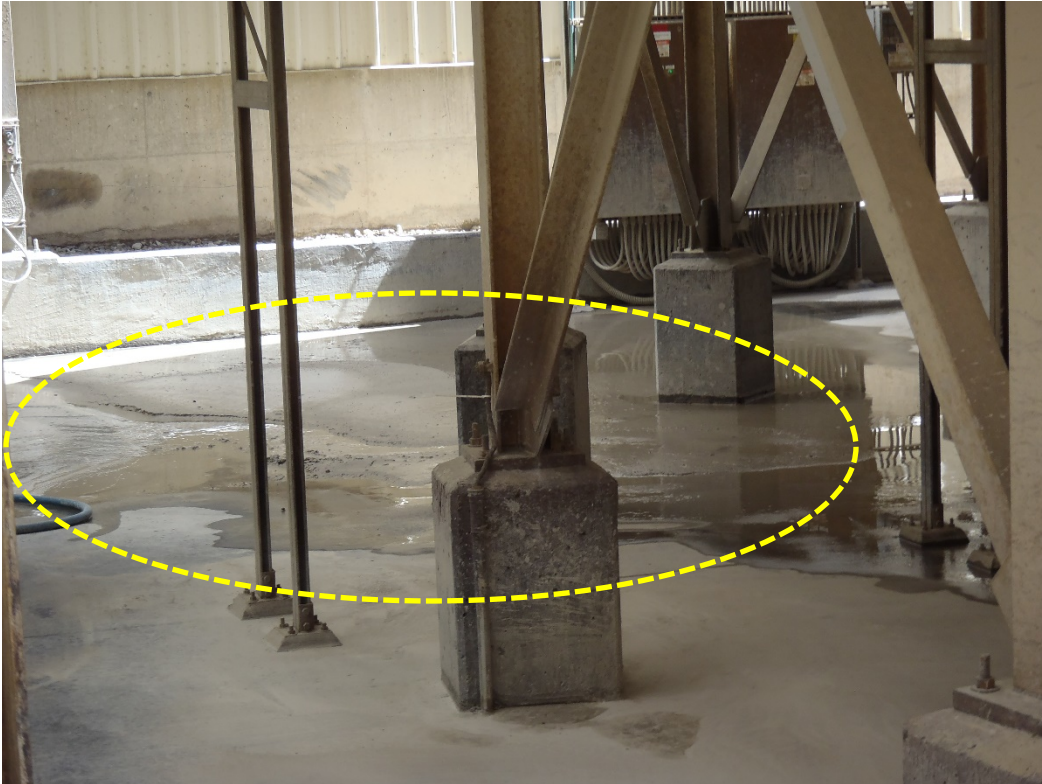


Photo 2. Small amount of sludge observed in Process Ore Thickener secondary containment area.



Photo 3. Silo being prepared to move to its new location.

PHOTOGRAPHS (cont.)



Photo 4. VLF 2 from VLF 1 overlook – no ponded process solution observed.



Photo 5. VLF 2 from Projects Office – no ponded process solution observed.

PHOTOGRAPHS (cont.)



Photo 6. VLF 1 – 10,200 level – no ponded process solution observed.



Photo 7. VLF 1 – 10,300 level – no ponded process solution observed.

PHOTOGRAPHS (cont.)



Photo 8. VLF 1 – 10,400 level – no ponded process solution observed.



Photo 9. Leaching VLF 1 outslopes using sprinklers.

PHOTOGRAPHS (cont.)



Photo 10. VLF 2 east underdrain pond.



Photo 11. VLF 2 west underdrain pond.

PHOTOGRAPHS (cont.)



Photo 12. Pump level indicators in the VLF 2 underdrain sump vault.



Photo 13. Significant erosion of DCF observed on north end of VLF 2 liner constructed in Phase 1.

PHOTOGRAPHS (cont.)



Photo 14. ECOSA seep area with some water, but near zero inflow.

Inspection Contact Address

Mike Schaffner
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P. O. Box 191
Victor, CO 80860

Enclosure

ec: Elliott Russell, DRMS
Patrick Lennberg, DRMS
DRMS file
Justin Bills, CC&V
Justin Raglin, CC&V

CC&V VLF Water Level Inspection Readings

Previous Results

Date:

AREQUA VLF:

Phase I HVSC & Pond Piezometers

Note: 80% cap.
@ 63.75 ft

Max. of Pump #299, #300, #301, #302, or #303 (Circle Pump #)

Pond Lvl / XDCR #1

System Press / XDCR #2

Phase I Low Volume Solution Collection

Note: Req'd
< 2 ft

Piezo #1 (HAND)

Piezo #2 (AUTO)

Phase II & III HVSC & Pond Piezometer

Note: 80% @
49.4 ft

Max. of XDCR #4, #5, or #6 (Circle XDCR #)

Piezo (Pipe)

Phase II & III Low Volume Solution Collection

Note: Req'd
< 2 ft

Pump / XDCR #1 (AUTO)

Pump / XDCR #2 (AUTO)

Phase IV High Volume Solution Collection

Note: 80% cap.
@ 56.5 ft

Max. of Pump #307, #308, or #309 (Circle Pump #)

XDCR pipe (#310 Resv'd)

Phase IV Low Volume Solution Collection

Note: Req'd
< 24"

Pump / XDCR #1

Pump / XDCR #2

Phase V High Volume Solution Collection

Note: 80% cap.
@ 36.5 ft

Max. of XDCR #311, #312, #313, or #314 (Circle XDCR #)

Phase V Low Volume Solution Collection

Note: Req'd
< 24"

XDCR #001

XDCR #002

External Pond Low Volume Solution Collection

Note: Req'd
< 24"

Pump / XDCR #1-EXT (AUTO)

Pump / XDCR #2-EXT (AUTO)

Underdrain Discharge Area

Note: 1 l/sec =
15.85 gpm

South Underdrain (S U/D)

4" Pipe Discharge AG 01 Spring Pipe

NPDES Discharge AG 1.5 -001A

North Underdrain (N U/D)

24-inch Solid Pipe

Arequa Gulch Monitor Well Pumpback System

Data first
collected by
DRMS 3/8/12

35A

63B

B63

A35

SQUAW GULCH VLF High Vol. SC:

Note: 80% cap.
@ 94 ft

LIT #88301 (north end)

LIT #88303

LIT #88305

LIT #88307 (south end)

Piezometer-LIT #88314

SQUAW GULCH VLF Low Vol. SC:

Note: Req'd
< 24"

Leachate Pump 1

Leachate Pump 2

| | 2/14/19 | 3/21/19 | 4/23/19 | 5/21/19 | 6/24/19 | 7/23/19 | Notes |
|-------|---------|--------------|---------|---------|---------|---------|-------------|
| EPS: | ERR | TC1 | AME | TC1 | JPL | | |
| TIME: | 11:48 | | | 13:14 | 10:45 | | |
| (ft) | 59.4 | | | 57.8 | 49.5 | — | |
| (ft) | 59.7 | | | 58.0 | 48.7 | — | |
| (ft) | 42.5 | | | 39.3 | 41.6 | — | system head |
| TIME: | 11:01 | | | 13:03 | | | |
| (ft) | 0.45 | | | 0.44 | 0.45 | — | |
| (ft) | 0.83 | | | 0.75 | 0.79 | — | |
| TIME: | 11:11 | 10:45 | | 13:09 | 10:50 | | |
| (ft) | 44 | 44.6 | | 35.2 | 40.6 | — | |
| (ft) | 43.4 | 44.7 | | 44.6 | 41 | — | |
| TIME: | 11:15 | 10:50 | | 13:06 | 10:55 | | |
| (ft) | 0.49 | 0.58 | | 0.64 | 0.69 | — | |
| (ft) | 0.41 | 0.44 | | 0.48 | 0.49 | — | |
| TIME: | 12:10 | 12:46 | 12:05 | 10:54 | 10:10 | | |
| (ft) | 44.8 | 43.7 | 28.5 | 35.1 | 27.1 | — | |
| (ft) | 44.8 | 44.2 | 25.1 | 25.1 | 37.7 | — | |
| TIME: | 12:12 | 12:50 | 12:07 | 10:59 | 10:15 | | |
| (in) | 17.2 | 13.3 to 17.0 | 16.5 | 16.4 | 15.3 | — | |
| (in) | 12.5 | 12.4 | 12.5 | 12.4 | 12.1 | — | |
| TIME: | 10:35 | | | 12:44 | 10:35 | | |
| (ft) | 31.1 | | | 28.1 | 28.9 | — | |
| TIME: | 10:36 | | | 12:46 | | | |
| (in) | 12.07 | | | 15.37 | 10.5 | — | |
| (in) | 17 | | | 15.1 | 14.4 | — | |
| TIME: | 11:00 | | | 13:00 | | | |
| (in) | 13.7 | | | 13.2 | | — | |
| (in) | 13.8 | | | 7.2 | | — | |
| TIME: | | | | 13:24 | | | |
| (gpm) | — | | | 0.0 | | — | |
| (gpm) | — | | | 0.0 | | — | |
| (gpm) | — | | | 0.0 | | — | |
| (gpm) | — | | | 0.0 | | — | |
| (gpm) | — | | | 0.0 | | — | |
| TIME: | | | | | | | |
| (in) | — | | | 0.00 | | — | |
| (ft) | — | | | OFF | | — | |
| (gpm) | — | | | 0.0 | | — | |
| (gpm) | — | | | 0.0 | | — | |
| TIME: | 10:15 | 10:25 | 10:20 | 12:22 | 8:30 | 9:23 | |
| (ft) | 83.92 | 70.61 | 54.82 | 52.79 | 62.2 | 42.06 | |
| (ft) | 84.77 | 69.68 | 53.79 | 51.89 | 61.1 | 41.91 | |
| (ft) | 83.54 | 70.21 | 54.4 | 52.32 | 61.7 | 42.36 | |
| (ft) | 84.99 | 70.18 | 56.9 | 55.1 | 63.1 | 45.9 | |
| (ft) | 84 | 80.6 | 63.14 | 62.4 | 69.1 | 55.4 | |
| TIME: | 10:20 | 10:19 | 10:25 | 12:28 | 8:35 | 9:20 | |
| (in) | 7.0 | 6.6 | 7.2 | 8.1 | 6.8 | 12.5 | |
| (in) | 7.6 | 6.9 | 7.8 | 8.8 | 7.1 | 12.9 | |

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