


**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: Henderson Mine	MINE/PROSPECTING ID#: M-1977-342	MINERAL: Molybdenum	COUNTY: Clear Creek, Grand
INSPECTION TYPE: Monitoring	INSPECTOR(S): Peter S. Hays	INSP. DATE: May 25, 2017	INSP. TIME: 09:00
OPERATOR: Climax Molybdenum Company	OPERATOR REPRESENTATIVE: Miguel Hamarat	TYPE OF OPERATION: 112d-3 - Designated Mining Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Partial Bond	BOND AMOUNT: \$37,993,785.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: July 18, 2017	

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>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>N</u>	(TS) TOPSOIL----- <u>N</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>N</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>	(CI) COMPLETE INSP---- <u>N</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>N</u>	(RS) RECL PLAN/COMP-- <u>N</u>
(AT) ACID OR TOXIC MATERIALS----- <u>N</u>	(OD) OFF-SITE DAMAGE----- <u>N</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

OBSERVATIONS

The Henderson Mill was inspected by Peter Hays and Michael Cunningham with the Division of Reclamation, Mining and Safety (Division/DRMS) as part of the Division's monitoring inspection program. Mr. Miguel Hamarat and Mrs. Amber Parmet with Climax Molybdenum - Henderson Operations (Henderson) were present during the inspection.

The inspection started with a meeting to discuss the on-going and future permitting items at the site. The following topics were discussed: the original 3 Dam embankment regrade to 4H:1V (TR-27), the Ute Park Extraction Wellfield – Phase 3, the NPL exceedances for pH in MNGW-1, the pilot water treatment plants and the April 2017 fire water line incident.

The repairs for the fire water line spill which occurred on April 28th are complete. The area around the fire hydrant was excavated to determine the source of the water leak. The source of the leak was repaired and the excavated area was backfilled to grade. Henderson stated the report of the investigation and repair of the fire water line was complete and would be submitted to the Division soon.

Henderson continues to plan for the pilot water treatment program starting in June. Two water treatment plants, reverse osmosis and high density sludge, will be evaluated for use at the site in the future.

On March 1, 2017, Henderson submitted a technical revision to regrade the original 3 Dam embankment to 4H:1V to increase the long term stability of the tailings impoundment. Technical revision no. 27 (TR-07) was approved by the Division on April 10, 2017. The regrading work is expected to begin on June 6, 2017 and take 2 months to complete. A French drain was installation on both sides of the setback bench in advance of the lower embankment regrading work. The excess material for the embankment regrading will be placed on the bench. The French drains are required to ensure proper drainage on the bench.

The third and final planned phase of the Ute Park Extraction Wellfield project is scheduled for later this summer. On June 12, 2017, Henderson submitted a technical revision describing the location and construction of the remaining wells. The technical revision no. 28 (TR-28) was approved by the Division on June 14, 2017.

As stated in the last inspection report, Henderson hired Ajax and Clear Creek Associates consultants to investigate the on-going NPL exceedances at the mine and mill sites compliance groundwater wells. The Ajax and Clear Creek Associates pH evaluation report is on hold while Henderson investigates the pH level in the native mountain rock in the No Name Creek watershed.

The ongoing maintenance of the 1-Dam embankment was observed during the inspection. The grading of erosion features on the embankment face and the cleaning of seep ditches at the toe of the dam were observed. The deposition of tailings by spigot was ongoing. Photographs taken during the inspection are attached.

PHOTOGRAPHS



View of lower 3-Dam embankment from north end looking south



View of French drain on the southern portion of the 3-Dam stepback bench



View of French drain on the southern portion of the 3-Dam stepback bench



View of lower 3-Dam embankment from south end looking north

Inspection Contact Address

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