

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:		MINE/PROSPECTING ID#:	MINERAL:	COUNTY:
Henderson Mine		M-1977-342	Molybdenum	Clear Creek, Grand
INSPECTION TYPE:		INSPECTOR(S):	INSP. DATE:	INSP. TIME:
Monitoring		Stephanie J. Mitchell	May 14, 2019	09:00
OPERATOR:		OPERATOR REPRESENTATIVE:	TYPE OF OPERATION:	
Climax Molybdenum Company		Alex Ungers and Aaron Hilshorst	112d-3 - Designated Mining Operation	
REASON FOR INSPECTION:		BOND CALCULATION TYPE:	BOND AMOUNT:	
Normal I&E Program		None	\$37,993,785.00	
DATE OF COMPLAINT:		POST INSP. CONTACTS:	JOINT INSP. AGENCY:	
NA		None	None	
WEATHER:	INSPECTOR'S SIGNATURE:		SIGNATURE DATE:	
Clear	TAN' IN THE		June 18, 2019	
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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>N</u>	(EX) EXPLOSIVES <u>N</u>
(PW) PROCESSING WASTE/TAILING <u>N</u>	(SF) PROCESSING FACILITIES Y	(TS) TOPSOIL <u>N</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE <u>Y</u>	(RV) REVEGETATION <u>N</u>
(SM) SIGNS AND MARKERS Y	(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 \underline{Y}	(ST) STIPULATIONS <u>N</u>
(AT) ACID OR TOXIC MATERIALS <u>N</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

The Henderson Mine was inspected by Stephanie Mitchell of the Division of Reclamation, Mining and Safety (Division) as part of the Division's monitoring program. Mr. Aaron Hilshorst and Mr. Alex Ungers with Climax Molybdenum - Henderson Operations (Henderson) were present during the inspection. Weather conditions on the day of the inspection were clear and sunny.

The inspection commenced with a meeting to during which the following topics were discussed: the surface and stormwater control features at the Henderson Mine and Amendment 07, which the Division received on May 9, 2019. The AM07 Public Notice Sign was posted at the entrance to the mine site.

Stormwater/Surface Water Control

The Henderson staff completed the biannual inspection of the surface and stormwater facilities at the Henderson Mine in coordination with this inspection. The Henderson staff inspections consist of a review of all disturbed areas, areas used for material storage or handling that are exposed to precipitation and other areas with potential sources of pollution. In addition, Henderson staff inspects all water diversion structures, outfalls, sediment and erosion control structures and other Best Management Practices (BMPs) identified in the Storm Water Management Plan.

The Henderson Mine facilities are constructed primarily on wasterock from the development of the mine and included approximately 121 acres of disturbance. The disturbance at the Henderson Mine is fairly static and all potential sources of pollution have been well documented. The surface water features at the mine include Butler Gulch which flows through the affected area, the West Fork of Clear Creek which follows the northern permit boundary, and No Name Gulch which is diverted around the south and east sides of the affected area.

The Henderson Mine includes a diversion ditch south of the mine office which diverts water around industrial activities and the primary parking area to the east end of the affected area. Water which flows onto the affected area from the south is captured by a diversion ditch which either routes water to the west and into Butler Gulch or to the east and into the West Fork of Clear Creek. The Diversion ditches were under snow at the time of the inspection. The BMPs used to prevent erosion within the ditches include minimizing impacts to existing vegetation as well as rock check dams. Water channels which are designed for flows in excess of 2 feet per second contain a suitable bedding 6" in depth. All surface and stormwater diversions were free of obstructions and the BMPs were functioning as designed. In addition, the Division and Henderson staff also visited the fourteen outfalls at the mine. All of the outfalls were free of obstructions. The following outfalls were inspected: OF-13, OF-2, OF-9, OF-16, OF-14, OF-15, OF-01, OF-8c, OF-8b, OF-8A, OF-7, OF-5, OF-12 and OF-3. Some of these were under snow.

The fence around 1.2 pond is going to be fixed in the near future according to Henderson Staff. It has been in need of repair for some time. Division staff will inspect the fencing at the next scheduled inspection in late July.

The last part of the inspection was a brief look at the avalanche destruction near the URAD water treatment facility. Two piezometers were destroyed by a large avalanche over the winter. They are in the process of being replaced or fixed.

PHOTOGRAPHS





OF-2



OF-8c





OF-8b





OF-8a



OF-14





OF-3



AM07 Public Notice Sign



Fencing at 1.2 Pond



Liner in good condition at 1.2 pond

Inspection Contact Address

Alex Ungers and Aaron Hilshorst Climax Molybdenum Company 19302 County Rd. #3 Parshall, CO 80468

CC: Peter Hays, DRMS