




MINERALS PROGRAM INSPECTION REPORT
PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety 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 Hays	INSP. DATE: July 14, 2020	INSP. TIME: 10:00
OPERATOR: Climax Molybdenum Company	OPERATOR REPRESENTATIVE: Aaron Hilshorst	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 23, 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----- <u>Y</u>	(FN) FINANCIAL WARRANTY----- <u>NA</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>Y</u>	(SF) PROCESSING FACILITIES----- <u>Y</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</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>	(RS) RECL PLAN/COMP-- <u>N</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(ST) STIPULATIONS----- <u>N</u>
(AT) ACID OR TOXIC MATERIALS----- <u>N</u>	(OD) OFF-SITE DAMAGE----- <u>N</u>	

Y = Inspected / 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 with the Division of Reclamation, Mining and Safety (Division/DRMS) as part of the Division's monitoring inspection program. Mr. Aaron Hilshorst with Climax Molybdenum - Henderson Operations (Henderson) was present during the inspection.

The following aspects of the milling operation were inspected and are discussed below:

Designated Chemical Storage:

The current Environmental Protection Plan (EPP) for the Mill was approved by the Division under TR-08 on November 2, 2012. The Environmental Protection Facilities (EPF) for designated chemicals at the Henderson Mill include enclosed buildings, tanks, bins and berms used singly or in combination to contain the designated chemicals at the site. The following EPF facilities were observed during the inspection:

- Mill EPF 2.1 - Nokes Building
- Mill EPF 2.2 - Hydrochloric Acid Storage
- Mill EPF 2.3a - Flotation Chemical Storage (DowFroth 250-C formerly OrePrep F-579)
- Mill EPF 2.3b - Flotation Chemical Storage (Orform D8 Depressant)
- Mill EPF 2.4 - Pine Oil Storage
- Mill EPF 2.5 - Collector Oil Storage (vapor oil and diesel #2)
- Mill EPF 2.6 - Syntex Storage
- Mill EPF 2.7 - Sodium Lauryl Sulfate Storage
- Mill EPF 2.8 - Tergitol NP-9/9N9 Surfactant Storage
- Mill Lime Slaker storage tank

Henderson is in the process of revising the EPP to update the storage capacities listed in the plan and include the lime slaker and other EPFs. The Division was provided a draft copy of the Designated Chemical Storage Facilities section of the revised EPP during the inspection. The tank capacities previously identified as requiring updating were corrected and consistent with the capacities listed on the storage tanks. The Nokes Building is in the process of being decommissioned and cleaned of phosphorus pentasulfide, since the Nokes solution is now being delivered by truck. The Nokes building will be used to store caustic solution only. One of the hydrochloric acid storage tanks has also been decommissioned by Henderson.

Topsoil Stockpiles:

The topsoil stockpiles in Ranger Gulch, near the water tank and adjacent to CR3 across from East Branch Reservoir were observed. All of the topsoil stockpiles appeared stable with no erosion features observed during the inspection. The Ranger Gulch stockpile and the bare areas of the water tank stockpile are scheduled to be hydroseeded this fall. The topsoil stockpile adjacent to CR3 was well-vegetated with native grasses. The Operator is planning to construct revegetation test plots on the tailings impoundment to determine the best construction method and profile for reclaiming the impoundment in the next few years.

Fire Water Line Incident Repair

On November 5, 2019, the Division received written follow-up notice of a release of process water from the fire water line from the Mill Process Water Storage Tanks to the site's fire water distribution and suppression systems. The repair of the water line near hydrant #7 was observed during the June inspection. During the repair the Operator discovered another possible leak near fire hydrant #6 located west of the first repair area.

The source of the leak near hydrant #6 was better defined since the last inspection and the repair is scheduled to be completed soon.

Gravel Pit:

The gravel pit was inactive at the time of the inspection. Imported stockpiles of course and fine roadbase material were observed on the pit floor. One area of exposed groundwater was observed along the east side of the pit. According to the letter dated September 30, 2011 from W. W. Wheeler and Associates, Inc., approximately 2.64 acres of groundwater was exposed prior to December 31, 1980. As indicated in the letter dated November 8, 2011 from the Division of Water Resources a well permit and augmentation plan are not required if there is to be no further use of the groundwater and the pre-law amount of exposed groundwater is not exceeded. The Division estimated 0.1 acres of exposed groundwater during the inspection.

The Operator stated they intend to operate the gravel pit in the next couple of years. The Operator is currently verifying the boundary limits of the pit to determine the quantity of gravel available in the pit. The Operator stated no additional mining will be conducted in the north end of the pit. Mining is expected to occur to the south and southeast of the current pit floor. Groundwater will not be exposed during the future mining operation. A contract crushing company will be hire to produce roadbase when the pit is activated.

Noxious Weeds:

Noxious weed treatments occurred at the site the week before this inspection. Evidence of the chemical controls were observed along the ultimate canal road. Oxeye daisies, common mullein and Canada thistle were observed in the gravel pit. The Operator stated the gravel pit would be treated in late July / early August when the noxious weed contractor was schedule to return to the site.

Inspection Contact Address

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

Ec: Jared Ebert, DRMS

PHOTOGRAPHS



View of the north end of the gravel pit from the east side looking north



View of the north end of the gravel pit from the east side looking northwest



View of the north end of the gravel pit from the east side looking west



View of the north end of the gravel pit from the east side looking southwest



View of the south end of the gravel pit from the pit floor looking south



View of the current exposed groundwater pond in the gravel pit



View of the Ranger Gulch topsoil storage area



View of the water tank topsoil stockpile



View of the topsoil stockpile adjacent to CR3



View of the repaired area around fire water hydrant #7