



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: Climax Mine	MINE/PROSPECTING ID#: M-1977-493	MINERAL: Molybdenum	COUNTY: Summit
INSPECTION TYPE: Monitoring	INSPECTOR(S): Dustin M. Czaplá	INSP. DATE: April 24, 2019	INSP. TIME: 11:00
OPERATOR: Climax Molybdenum Company	OPERATOR REPRESENTATIVE: James Haag	TYPE OF OPERATION: 112d-3 - Designated Mining Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: None	BOND AMOUNT: \$78,246,088.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: April 30, 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>N</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>N</u>	(TS) TOPSOIL----- <u>N</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>N</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>N</u>	(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

This was a routine monitoring inspection for the Climax Mine, a 112d-3 Hardrock Mine operated by the Climax Molybdenum Company. The inspection was conducted by DRMS representative Dustin Czapla. Climax representatives, James Haag and Logan Tydryszewski, guided DRMS during the inspection.

The focus of this inspection was to observe the Overburden Storage Facilities (OSF's), in order to confirm compliance with the OSF operating plan, specifically winter operations, and to follow up on the status of the 5 Dam Seepage Return Line.

The current OSF operating plan was drafted by Golder Associates in December 2016. The plan was submitted to the Division as part of TR-25. Golder states that snow accumulations of up to 2-3 feet on OSF faces do not significantly impact operation of large OSFs, however larger accumulations greater than 3 feet can become trapped as a continuous layer and form a weak layer or saturate finer grained layers as melting occurs. Therefore Golder recommended that waste rock only be deposited on slopes with less than 3 feet of snow accumulation. This inspection confirmed that Climax is limiting waste rock deposition to slopes with little to no snow accumulation, and therefore appears to be in compliance with Golder recommendations for winter time OSF operations.

In September 2017 Climax notified DRMS of a leak in the 5 Dam Seepage Return Line. In August 2018, through TR-28, Climax submitted plans for phased realignment of the line, anticipating that the line would eventually be crushed by future tailings deposition. The realignment phases were discussed in a June 20, 2018 memo from W.W. Wheeler and Associates. The plan proposed three phased upgrades to the then existing 5 Dam Seepage Return Line. The first modification, referred to as Modification Plan 2, called for directing seep water through an existing Quarter Cutout Valve and routing through the North Cutout Channel to the Mayflower Tailings Storage Facility. It is believed that the 5 Dam Seepage Return Line has now been crushed and is unusable. Therefore Climax has implemented Modification Plan 2 and seepage water is now being directed through the Quarter Cutout Valve and North Cutout Channel. This was verified during this inspection. Through memo dated August 28, 2018, which was also included with TR-28, AECOM stated that seep water directed through the North Cutout Channel should have no impact on 5 Dam stability.

No problems or violations were noted during this inspection.

Responses to this inspection report should be directed to Dustin Czapla at the Division of Reclamation, Mining and Safety, Grand Junction Field Office, 101 South 3rd Street, Room 301, Grand Junction, Colorado 81501, phone number (970) 243-6299.

PHOTOGRAPHS



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