


**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: September 21, 2017	INSP. TIME: 10:00
OPERATOR: Climax Molybdenum Company	OPERATOR REPRESENTATIVE: Amber Parmet, Miguel Hamarat	TYPE OF OPERATION: 112d-3 - Designated Mining Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: None	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: September 25, 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>N</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>N</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 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 purpose of the inspection was to inspect the designated chemical storage facilities listed in Section 7.2.2 of the approved Environmental Protection Plan (EPP) for the Mill. 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 (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 and Mill EPF 2.9 – Coherex Storage. All observed designated storage facilities were as described in the EPP.

On September 14, 2017, Henderson staff reported a release of process water from the Tailings Delivery Line (TDL) by telephone as required by Rule 8.2.1. The required written follow-up notice, pursuant to Rule 8.2.3, was received by email on September 19, 2017 and a hard copy of the notice was hand delivered to the Division during the inspection. The process water leaked from a deteriorated seal at a joint in the RCP in the emergency cutout (ECO) section of the TDL. The joint in the ECO was repaired with a poured concrete block surrounding the entire joint. The released process water followed the alignment along the TDL to the culvert under County Road 3. The construction of an earthen berm along the downhill side of the TDL to divert any future process water releases from the TDL was discuss during the inspection. The berm would be designed as part of the TDL environmental protection facility, which would require a technical revision to the approved EPP for the site.

Photographs taken during the inspection are attached.

Inspection Contact Address

Miguel Hamarat
Climax Molybdenum Company
19302 County Rd. #3
Parshall, CO 80468

Ec: Wally Erickson, DRMS

PHOTOGRAPHS



View of repaired joint in ECO RCP joint



View of the ECO process water leak path looking north toward tailings impoundment



Coherex storage tanks



Sodium Lauryl Sulfate storage area