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: Mineral Mountain Project	**MINE/PROSPECTING ID#:** M-2014-045	**MINERAL:** Gold	**COUNTY:** Teller
INSPECTION TYPE: Monitoring	**INSPECTOR(S):** Elliott Russell & Jason Musick	**INSP. DATE:** July 15, 2020	**INSP. TIME:** 10:00
OPERATOR: Mineral Mountain Gold, LLC	**OPERATOR REPRESENTATIVE:** Lance Barker	**TYPE OF OPERATION:** 110d - Designated Limited Impact	

REASON FOR INSPECTION: Priority	**BOND CALCULATION TYPE:** None	**BOND AMOUNT:** $28,350.00
DATE OF COMPLAINT: NA	**POST INSP. CONTACTS:** None	**JOINT INSP. AGENCY:** None
WEATHER: Cloudy	**INSPECTOR'S SIGNATURE:** 	**SIGNATURE DATE:** August 7, 2020

GENERAL INSPECTION TOPICS

This list identifies the environmental and permit parameters inspected. 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---------- N	**(FN) FINANCIAL WARRANTY-------- N**	**(RD) ROADS---------- N**
(HB) HYDROLOGIC BALANCE---------- N	**(BG) BACKFILL & GRADING---------- N**	**(EX) EXPLOSIVES--------- N**
(PW) PROCESSING WASTE/TAILING---- Y	**(SF) PROCESSING FACILITIES------- Y**	**(TS) TOPSOIL---------- N**
(MP) GENL MINE PLAN COMPLIANCE- N	**(FW) FISH & WILDLIFE---------- N**	**(RV) REVEGETATION---- N**
(SM) SIGNS AND MARKERS---------- N	**(SP) STORM WATER MGT PLAN---- N**	**(RS) RECL PLAN/COMP-- N**
(ES) OVERBURDEN/DEV. WASTE--------- N	**(SC) EROSION/SEDIMENTATION--- N**	**(ST) STIPULATIONS------- N**
(AT) ACID OR TOXIC MATERIALS------- N	**(OD) OFF-SITE DAMAGE----------N**	

Y = Inspected / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

OBSERVATIONS

The Division conducted a follow-up inspection to inspect the unauthorized underground mill facility at the Mineral Mountain Project. Elliott Russell, with the Division, conducted the inspection and Lance Barker, representing the Operator, accompanied the inspection. Jason Musick, also with the Division, accompanied the inspection as well.

The Division inspected the Mineral Mountain Project, a 110d underground gold mine, on June 2, 2020. During the inspection the Operator informed the Division he was creating gravity and floatation concentrates with an underground mill. The Operator stated he was using Xanthate in the floatation circuit. The Operator was also placing the mill tailings in an unlined waste rock dump. These activities are not authorized within the permit. On July 1, 2020, the Division mailed the Operator the report from the June inspection and a Reason to Believe a Violation Exists and Notice of Board Hearing, scheduling an enforcement hearing for the August Mined Land Reclamation Board meeting for the unauthorized activities. The Division did not go underground during the first inspection to observe the mill.

The Division met Lance Barker at the entrance to the access road to mine site at the end of McKenny Street in the northwest portion of Cripple Creek. The Division proceeded to the mine site, located on the north side of Mineral Hill, approximately one mile north of the access road entrance.

The Division observed the mill tailings trench located on the western portion of the mine site's waste rock dump. The trench is positioned approximately halfway down the estimated 50-foot dump face. Mill tailings are dumped from the crest of the waste rock dump and flow down into the trench. The Operator stated they usually mix the mill sand with more course development rock. The Operator stated they had been utilizing the tailings trench area for several years.

The Division inspected the underground mill facility. The mill facility was off of the main tunnel, approximately 270' in from the portal. The mill consisted of two levels with a separate room used as a sump for the mill tailings. The upper level contained two 1-ton/hour ball mills, two floatation machines (rough and finishing circuits), a mixing tank, a chemical storage room, and a chemical mixing area. The chemical storage area on the upper level of the mill contained two 55 gallon drums of xanthate and two 55 gallon drums of MIBC frother. The Operator stated xanthate is mixed and diluted by hand in 5 gallon buckets then stored in one of three 35-gallon containers where it is pumped into the mill circuit at three locations: before the regrind ball mill, after the regrind ball mill, and before the rough floatation machine. The lower level of the mill contained four 1,250 gallon fresh water tanks, two shaker tables, a regrind ball mill, and a floatation concentrate settling bin.

Just downgradient of the lower level of the mill is a Y intersection where a decline tunnel begins on one side and a small area used as a sump for mill tailings on the other side. The Operator stated they typically place 4 tons of development rock at the entrance to the tailings sump to serve as a containment dam for the tailings. The tailing is pumped to the back of the area where it can decant. The Operator estimated the tailings sump area and can hold roughly 20 tons of sand. Portions of the development rock and tailings sand is hauled to the surface and placed in the tailings trench when more capacity is needed in the sump. The permit describes the mine and its workings being dry and located well above the ground water table. The lower level of the mill and the decline tunnel past the tailings sump room had significantly wet ground conditions. The Division walked the decline all the way down to the face where a small pool of water was located. One exploratory drift was inspected off of the decline and it was dry. The Division believes the wet conditions are from the milling process and the tailings sump.

This concludes the Division's Inspection Report; a subset of photographs taken during the time of the inspection are included below. If you need additional information or have any questions, please contact me at Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, by telephone at **303-866-3567 x8132**, or by email at elliott.russell@state.co.us.

PHOTOGRAPHS

Photo 1. Tailings trench; looking west from the crest of the waste rock dump.

Photo 2. Tailings trench; looking east.

Photo 3. Face of waste rock dump from where tailings were placed into the trench; looking south.

Photo 4. Portal entrance; looking southeast.

Photo 5. Two ball mills on upper level of mill.

Photo 6. The second of two floatation machines on upper level of mill.

Photo 7. One of two 55 gallon drum of xanthate stored on upper level of mill.

Photo 8. Second 55 gallon drum of xanthate and one of two 55 gallon drum of MIBC frother on upper level of mill.

Photo 9. Xanthate mixing station on upper level of mill.

Photo 8. Mixed xanthate storage containers and pumps on upper level of mill.

Photo 9. 5,000 gallon fresh water storage are on lower level of mill.

Photo 10. First of two gravity separation shaker tables on lower level of mill.

Photo 11. Gravity concentrate and gravity reject collection buckets after the second shaker table on lower level of mill.

Photo 12. Regrind ball mill for gravity reject (start of the floatation circuit) on lower level of mill.

Photo 13. Regrind bucket collection and floation concentrate settling bin on lower level of mill.

Photo 14. Y intersection adjacent to lower level of mill with decline tunnel (left) and milling tailings sump area (right).

Photo 15. Mill tailings sump area.

Photo 16. Mill tailings sump area.

Photo 17. Bottom of decline tunnel.

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