




COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY
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: Bulldog Mine Operation	MINE/PROSPECTING ID#: M-1977-215	MINERAL: Lead and silver	COUNTY: Mineral
INSPECTION TYPE: Monitoring	INSPECTOR(S): Bob Oswald	INSP. DATE: May 24, 2012	INSP. TIME: 13:30
OPERATOR: Emerald Mining & Leasing, LLC	OPERATOR REPRESENTATIVE: Randy McClure	TYPE OF OPERATION: 112 - Hard Rock Regular Operation	

REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: None	BOND AMOUNT: \$117,812.00
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: U.S. Forest Service	JOINT INSP. AGENCY: U.S. Forest Service
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: June 22, 2012

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>Y</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>NA</u>	(EX) EXPLOSIVES----- <u>NA</u>
(PW) PROCESSING WASTE/TAILING----- <u>NA</u>	(SF) PROCESSING FACILITIES----- <u>Y</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>NA</u>	(RV) REVEGETATION----- <u>Y</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN----- <u>NA</u>	(SB) COMPLETE INSP----- <u>N</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>Y</u>	(SC) EROSION/SEDIMENTATION----- <u>Y</u>	(RS) RECL PLAN/COMP----- <u>NA</u>
(AT) ACID OR TOXIC MATERIALS----- <u>Y</u>	(OD) OFF-SITE DAMAGE----- <u>NA</u>	(ST) STIPULATIONS----- <u>NA</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 partial inspection by the Division as part of its monitoring of Hard Rock/Metal 112 permits. The operator named on page one was present throughout the inspection. Also present during most of the inspection were Nicolas Sandoval and Ashley Martinez of US Forest Service. The specific areas that were a high priority for the Division to inspect were the 9360 facilities area, the new 9400 portal area, and the lined impoundment at the lower Tailing Pond (TP-2). New activities in these areas were approved and the related disturbance is bonded under TR-17 and TR-18.

The 9360 facilities area now includes the following structures: a new wing on the existing office building, a maintenance shop building, fuel storage and fueling station, a lined dewater pond, explosives magazines, and general storage area for parts and equipment. These occupy most of the several acres that were approved for these uses in the recent permit revisions. Most, if not all, of the prospect drilling equipment and parts that formerly occupied a temporary lay-down area near the office building prior to these improvements have been removed and are stored near the operator's present office in the town of Creede.

The dewater pond is lined with 80-mil roughened LDPE, with double welded seams. Construction and testing were performed by a specialized contractor. The pond berming which rises above surrounding grade by 3-4 feet, per the approved plan, is composed of dump materials removed from the excavated depression. The pond includes a riprapped spillway, which routes water via swale toward the north end of the 9360 pad. The pond contains about one foot or less of water, all of it being snowmelt from winter. The operator should prepare and submit photos of the pond installation (if available), construction certifications and as-built drawings, plus liner installation and liner testing results to the Division.

The hillside cut for the new 9400 portal face-up has largely been defined and completed. The cut material has been placed as fill for the beginning of the 9400 pad. Topsoil is being segregated for later use in reclamation. As construction for driving the decline proceeds, additional material will be placed in the proper location and manner to expand the portal bench. The portal face-up has been constructed as approved, with 30-foot soil nails, pressure grouting, heavy wire mesh and shotcrete. The outline of the portal has been defined and concrete cutting has begun. Footers are being set into the bench to support the 14x15 ft arched steel sets for the decline. Steel sets will be installed every four feet as the decline is driven. The construction contractor and his equipment are being mobilized on the site. The upper margins of the concrete extend slightly above surrounding grade, and drainage controls have been installed to divert water away from the face and the pad to improve stability. Temporary electrical panel has been installed on the pad near the portal location, but the temporary overhead electric line has not been extended down to the portal yet.

The new access road ramping up to the portal from the 9360 pad has been cut and construction appears complete. It includes cut slope shaping (at 1.5:1 max), drainage controls, safety berm, and gravel surfacing. The outslope below the road appears stable presently. The cut slope and fill slope are covered with the local soil and will be seeded in 2012.

The lined evaporation pond installed on the surface of reclaimed tailings pond TP-2 is complete, and appears to conform to the design approved in the permit revision. A heavy 8-inch welded PE pipe for the water line has been installed on the surface, extending from the existing road terminus down into the pond. A graveled truck turn-around has been added to facilitate water trucks. The footprint of the construction was stripped of

growth medium prior to construction of the embankment and floor shaping. It is stockpiled for later use in reclamation near the northern side of the pond. Some borrow material for building the embankment was taken from hill slopes above the northern and western sides of TP-2. The slopes were recontoured, and if they are not to be redisturbed, it is assumed that the operator will reseed them in 2012 also. The liner has been installed, according to the specifications approved. Sand bag weights are placed around the interior of the pond, where the in-slope gradient changes, to ensure better liner-to-ground contact. The pond presently contains melt from winter snow. As mentioned above for the dewater pond, the operator should provide photos (if available), plus as-built drawings, installation certifications, and testing results of this installation to the Division.

Upcoming activities that the operator anticipates but that have not been included in the approved plan will be submitted to the Division for review either as technical revisions or permit amendments, as appropriate. Additions of land must be amendments. The permitted operator is Emerald Mining and Leasing (EM&L), and the onsite operator is Rio Grande Silver, Inc. (RGS). EM&L and Rio Grande Silver have submitted the initial documentation needed for transferring the permit for RGS to become the successor operator.

There were no problems noted during this inspection. The Division appreciates the time spent with this inspector for viewing all these areas.

For questions related to this report, please contact this inspector at the Division's Durango field Office:
DRMS – Durango Field Office
691 CR 233, Room A-2
Durango, CO 81301
Telephone 970-247-5193

Inspection Contact Address

Randy McClure
Rio Grande Silver, Inc.
P.O. Box 610
Creede, CO 81130

CC: Nic Sandoval, USFS (via electronic copy)

PHOTOGRAPHS



Lined fuel storage at 9360 pad.



Shop building at 9360 pad.



Explosives storage area at 9360.



Dewater pond at 9360 pad.



9400 portal access road.



9400 portal face-up.

