




**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.

<b>MINE NAME:</b> Iverson Mine	<b>MINE/PROSPECTING ID#:</b> M-2011-001	<b>MINERAL:</b> Borrow material	<b>COUNTY:</b> Weld
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Peter Hays	<b>INSP. DATE:</b> August 5, 2020	<b>INSP. TIME:</b> 13:00
<b>OPERATOR:</b> Martin Marietta Materials, Inc.	<b>OPERATOR REPRESENTATIVE:</b> Julie Mikulas	<b>TYPE OF OPERATION:</b> 112c - Construction Regular Operation	
<b>REASON FOR INSPECTION:</b> Normal I&E Program		<b>BOND CALCULATION TYPE:</b> Partial Bond	
<b>DATE OF COMPLAINT:</b> NA		<b>BOND AMOUNT:</b> \$275,300.00	
<b>WEATHER:</b> Clear		<b>POST INSP. CONTACTS:</b> None	
<b>INSPECTOR'S SIGNATURE:</b> 		<b>JOINT INSP. AGENCY:</b> None	
		<b>SIGNATURE DATE:</b> August 20, 2020	

**The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.**

**INSPECTION TOPIC:** Hydrologic Balance

**PROBLEM:** Volunteered woody vegetation including cottonwood trees and willows were observed in the inlet / outlet structures. The presence of the woody vegetation could result in a reduced capacity of the structures and render them ineffective causing floodwaters to overflow to unprotected areas.

**CORRECTIVE ACTIONS:** The Division will require the Operator to remove the woody vegetation, treat the structures to prevent the establishment of woody vegetation in the spillways and provided evidence of the completed work by the corrective action due date.

**CORRECTIVE ACTION DUE DATE:** 9/21/20

## OBSERVATIONS

The Iverson Mine was inspected by Peter Hays with the Division of Reclamation, Mining and Safety (Division/DRMS) in response to an acreage reduction request (AR-03) submitted by the Operator on June 29, 2020. The Division is required by Rule 4.17.2 to inspect the site within 60 days from the filed date to determine if the Permittee has complied with all applicable requirements of the Reclamation Plan. Mrs. Julie Mikulas with Martin Marietta Materials, Inc. (MMM) was present during the inspection.

The site is an 112c operation originally permitted for 66.5 acres. The permit acreage was reduced by 1.5 acres to 65.0 total acres with the approval of AR-02 removing the conveyor corridor from the Iverson Mine to the Greeley 35th Avenue Pit, M-1997-036, which was approved by the Division on August 18, 2020. The Operator requested the removal of an additional 37.0 acres for the upland area surrounding the open-water lake, except for an access corridor from the site entrance to the lake. The lake surface cannot be released by the Division until the final augmentation plan is approved for the exposed groundwater by Water Court, therefore the Operator is not able to request a final release request for the site.

The release area consists of the upland area surrounding the lake from the shoreline to the permit boundary. The area was originally seeded in 2017 and reseeded in April 2018, October 2018 and April 2019 according to the Operator. The Operator reported they intended to interseed the site in the spring, however the landowner blocked access to the site preventing the work from being performed by the Operator.

The upland vegetation consisted of western wheatgrass, intermediate wheatgrass, crested wheatgrass, mountain brome and switchgrass. The vegetation was very dry, however the vegetation was mature with developed seed heads and appeared well-established. Annual weeds including, kochia and yellow sweet clover were observed in small patches in the release area. A few areas of space vegetation were observed in the upland areas around the lake. The shoreline vegetation consisted of volunteered cottonwood and willows. The shoreline was stable with no erosion features observed during the inspection. The landowner is creating a road along the shoreline by driving around the lake. The creation of the road is preventing the reclamation grasses from becoming well-established around the shoreline of the upland area.

The inlet and outlet structures were stable and volunteered vegetation, cottonwood trees and willows, were observed in the structures. The landowner stated the structures have not received water in several years. As cited as a problem, the presence of the woody vegetation could result in the reduced capacity of the structures and render them ineffective causing floodwaters to overflow to unprotected areas. The Division will require the Operator to remove the woody vegetation, treat the structures to prevent the establishment of woody vegetation in the spillways and provided evidence of the completed work by the corrective action due date.

Following the inspection, the Division and the Operator met with the landowner, Mr. Iverson. Mr. Iverson express concern regarding the amount of replaced topsoil and the design of the inlet/outlet structures. These issues were previously brought up the landowner under CT-01 and CT-02. The issues were investigated by the Division and were determined to have been reclaimed and constructed per the approved Reclamation Plan.

### Topsoil:

The Division cited a problem during the March 17, 2016 inspection for CT-01 regarding the amount of replaced topsoil stating, survey stakes indicating cuts from the existing grade were observed during the inspection. The Division is concerned the required minimum of six (6) inches of topsoil is not being salvaged in advance of the

grading work. The Operator stated the required topsoil is available and will be placed in accordance with the approved Reclamation Plan. The Division required the Operator to document the minimum of six (6) inches of topsoil depth was present following the completion of grading work at the site.

On June 19, 2018, the Operator submitted subgrade elevation and topsoil thickness maps verifying the required 6 inches of topsoil were replaced at the Iverson Mine. The Division re-verified the depth of the replaced topsoil depth was in compliance with the approved Reclamation Plan following this inspection based on the maps.

#### Inlet/Outlet Structures:

The Division discussed in the August 10, 2018 inspection report for CT-02 under complaint Topic 3, the landowner stated the inlet and outlet spillways should be increased in width to 100 feet as required by the UDFCD Guidelines. Concrete cut off walls for the spillway should be founded on sheet pile designed in accordance with the UDFCD Drainage Criteria Manual. Riprap erosion protection should meet the requirements of the UDFCD Guidelines and have a granular filter designed in accordance with the UDFCD Drainage Criteria Manual.

Tetra Tech, consultant to the Operator, stated in a letter dated July 29, 2019, the spillways were designed in accordance with UDFCD Technical Review Guidelines for Gravel Mining Activities. The Division determined the Operator's response was in compliance with the requirements of Rules 3.1.6 and 6.4.5 of the Mineral Rule and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and the approved Reclamation Plan. Therefore, the Division agreed with the Operator's response to Topic 3 and considered this complaint topic resolved. The Division re-verified design of the spillways following this inspection. The Operator submitted as-built drawings for the structures as part of TR-01 on September 1, 2017. The technical revision was accepted by the Division on October 4, 2017. The inlet and outlet structures were in compliance with the approved design based on field observations from this inspection.

#### LOMR:

The Letter of Map Revision (LOMR) for the changes in the floodplain due to the creation of the lake were accepted by FEMA and considered effective on January 16, 2020. The Operator provided copies of the approved LOMR to the Division.

The Division currently holds a financial warranty in the amount of \$275,300.00. The warranty is adequate to complete reclamation at the site based on the observations from this inspection. The Operator did not request a surety reduction with the acreage reduction request.

**The Division will approve the acreage release request for 37 acres based on the observations from this inspection, once the Operator provides evidence the problem cited for woody vegetation in the inlet/outlet structures is completed.**

Photographs taken during the inspection are attached. 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 x 8124, or by email at [peter.hays@state.co.us](mailto:peter.hays@state.co.us).

## PHOTOGRAPHS



View of vegetation in the southwest corner of the site



View of vegetation in the western upland area





View of vegetation in the western upland area



View of vegetation in the northwest corner of the site





View of typical shoreline vegetation



View of the vegetation in the eastern upland area





View of the vegetation in the eastern portion of the site



View of the vegetation in the eastern portion of the site

## 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>N</u>
(HB) HYDROLOGIC BALANCE----- <u>PB</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>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>N</u>	(RV) REVEGETATION---- <u>Y</u>
(SM) SIGNS AND MARKERS----- <u>N</u>	(SP) STORM WATER MGT PLAN---- <u>N</u>	(RS) RECL PLAN/COMP-- <u>Y</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 / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

### Inspection Contact Address

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