

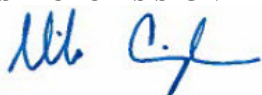
**COLORADO**Division of Reclamation,
Mining and Safety

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: Specification Aggregates Quarry	MINE/PROSPECTING ID#: M-1974-004	MINERAL: Granite, granite gneiss	COUNTY: Jefferson
INSPECTION TYPE: Monitoring	INSPECTOR(S): Michael A. Cunningham	INSP. DATE: December 19, 2017	INSP. TIME: 09:00
OPERATOR: Martin Marietta Materials, Inc.	OPERATOR REPRESENTATIVE: Keith Buescher, David Bieber	TYPE OF OPERATION: 112c - Construction Regular Operation	

REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Partial Bond	BOND AMOUNT: \$1,453,291.00
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: January 12, 2018

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/POSSIBLE VIOLATION: Problem: The Division has no evidence the operator has a valid well permit, substitute water supply plan, or approved water augmentation plan for the exposed groundwater at the site. This is a problem related to 34-32.5-116(4)(h) of the Colorado Revised Statutes and 3.1.6(1)(a) of the Construction Materials Rules and Regulations governing injury to existing water rights.

CORRECTIVE ACTIONS: The operator shall demonstrate the operation is in compliance with the Office of the State Engineer by providing evidence the operator has obtained a valid well permit, substitute water supply plan, or approved water augmentation plan by the corrective action date specified.

CORRECTIVE ACTION DUE DATE: 3/12/18

INSPECTION TOPIC: Gen. Compliance With Mine Plan

PROBLEM/POSSIBLE VIOLATION: Problem: Land has been affected outside of the approved permit boundary. This is a problem at this time pursuant to C.R.S. 34-32.5-116(4)(i) for failure to protect areas outside of the affected land from slides or damages occurring during the mining operation.

CORRECTIVE ACTIONS: The Operator shall submit a Technical Revision, with the required \$216 revision fee, to update and clarify the approved Reclamation Plan. The Technical Revision shall address how the visual barrier will be reclaimed within the limits of the permit boundary. In addition, the Operator shall submit any available documentation which demonstrates the necessary local government agencies reviewed and approved the

construction of the visual barrier. The Technical Revision shall be submitted by the corrective action date.

CORRECTIVE ACTION DUE DATE: 3/12/18

INSPECTION TOPIC: Reclamation Success

PROBLEM/POSSIBLE VIOLATION: Problem: Failure to follow approved reclamation plan, or current reclamation plan needs to be updated and clarified pursuant to C.R.S. 34-32.5-116 (1). The current reclamation plan does not address how the exposed groundwater within the main pit will be eliminated.

CORRECTIVE ACTIONS: The operator shall submit a Technical Revision, with the required \$216 revision fee, to update and clarify the approved reclamation plan to account for the exposure of groundwater by the corrective action date.

CORRECTIVE ACTION DUE DATE: 3/12/18

OBSERVATIONS

The inspection was conducted by Michael Cunningham of the Division of Reclamation, Mining and Safety. Keith Buescher and David Bieber were present on behalf of Martin Marietta Materials, Inc. The Specification Aggregates Quarry is located on the west side of U.S. Highway 40, approximately 3 miles south of the City of Golden. The commodity of interest is granite and the post-mining land use is rangeland.

Air Resource Protection:

The Division did not observe any fugitive dust during the inspection. Water for dust control is obtained from Magic Mountain Reservoir. In addition, the Operator has installed a wheel wash-out system located near the scale. The Operator informed the Division a rumble strip was going to be installed near the site exit to prevent track-out of sediment onto U.S. Highway 40. The Operator also runs two street sweepers to collect dust from internal roads which are paved.

Explosives:

The Operator contracts blasting activities with Buckley Powder Co. All explosive materials are permitted and maintained by the contractor and no explosives are stored on site. Blasting typically occurs twice per week. The contractor was drilling holes for a round of blasting during the inspection; however, no blasting occurred while the inspector was on site.

Financial Warranty:

The Division currently holds a financial warranty in the amount of \$1,453,291.00. The financial warranty was last adjusted in 2003 during the review of Amendment No. 3. The approved Reclamation Plan specifies that 253 acres of land will require reclamation. The most recent annual report indicates there are 280 acres of affected land, of which 57 acres have been reclaimed. As noted in this report, the financial warranty does not account for eliminating the exposure of groundwater. The financial warranty will be evaluated during the review of the Technical Revision required to address the exposure of groundwater.

Hydrologic Balance:

The Division observed impounded water in the main pit. It is the Division's understanding the water is comprised of stormwater runoff and groundwater. According to the Operator, the depth of the water within the main pit is approximately 28 ft. A review of the permit file shows the Operator reported, through the Annual Report received on March 6, 2012, that a sump was installed into the main pit in 2011. In addition, the report states the Operator was pumping water at a rate of 81,000 gallons per day to keep the main pit dry. In

response to the Division's 'Mining Operations with Exposed Groundwater' letter mailed on April 30, 2010, the Operator informed the Division the Specification Aggregates Quarry had exposed groundwater. The Operator's response indicated a court decreed plan for augmentation had been obtained or was being pursued for the operation. The Division does not have a record of a well permit or a court approved augmentation plan for this operation. The lack of documentation addressing compliance with applicable Colorado water laws and regulations governing injury to existing water rights has been cited as a problem and will require corrective action by the Operator. Please see the first page of this report for additional information.

The approved Reclamation Permit does not address the exposure of groundwater. Pursuant to Rule 6.4.7, the Operator is to identify if the operation will impact groundwater systems. In addition, the Reclamation Plan must specify how the operation will minimize disturbances to the prevailing hydrologic balance of the affected land and of the surrounding area and to the quantity or quality of water in surface and groundwater systems both during and after the mining operation. The Reclamation Plan does not identify how the exposure of groundwater will be eliminated at the end of the life of the mine and the financial warranty does not cover reclamation tasks associated with eliminating the exposed groundwater. If groundwater is to be exposed permanently, an Amendment Application will need to be filed to address a change in the post-mining land use. At a minimum, the Operator shall file a Technical Revision to update and clarify the Reclamation Plan as it relates to the exposure of groundwater. The exposure of groundwater has been cited as a problem and will require corrective action by the Operator. Please see the first page of this report for additional information.

Gen. Compliance With Mine Plan:

Mining is currently occurring in the southern expansion area and there were four active benches at the time of the inspection. The bench dimensions conformed to the approved bench width (35ft.) and bench height (35ft.). The Operator utilizes a 'mining from behind' method which is a technique that hides the active area of a bench until the entire bench has been mined. Mining will continue in the southern expansion area until the benches reach an elevation equal to that of the main pit. Mining has not occurred in the main pit for approximately four years. An 11 acre parcel of land located to the east of Magic Mountain Reservoir has not yet been affected by the mining operation. The Mining Plan indicates this area would be used to store excess overburden.

During the inspection, the Division observed the placement of structural fill material along the northwest side of Magic Mountain Reservoir. The Operator informed the Division the material was placed in this location to act as a visual barrier between the processing area and the Heritage Amusement Park which is located immediately north of the mining operation. The Operator of the mine is also the owner of Heritage Square, the location of where the amusement park is situated. The outslope of the fill area had been graded to 2.5H:1V and the Operator recently awarded a contract for seeding the visual barrier. The Division observed that the permit boundary bisected the fill area from east to west and estimated that approximately 1.5 acres of structural fill material was placed outside of the approved permit boundary, but within the property boundary of the mine. The Operator informed the Division the construction of the visual barrier was approved by the City of Golden. Pursuant to C.R.S. 34-32.5-116(4)(i), areas outside of the affected land shall be protected from slides or damage occurring during the mining operation and reclamation. Affected lands are defined as the surface of an area within the state where a mining operation is being or will be conducted, which surface is disturbed as a result of an operation. The disturbance created outside of the permit boundary is the direct result of the mining operation; a visual barrier would not be needed if there was not a mine at this location. In considering this matter, the Division has taken into account that the Operator is the owner of the

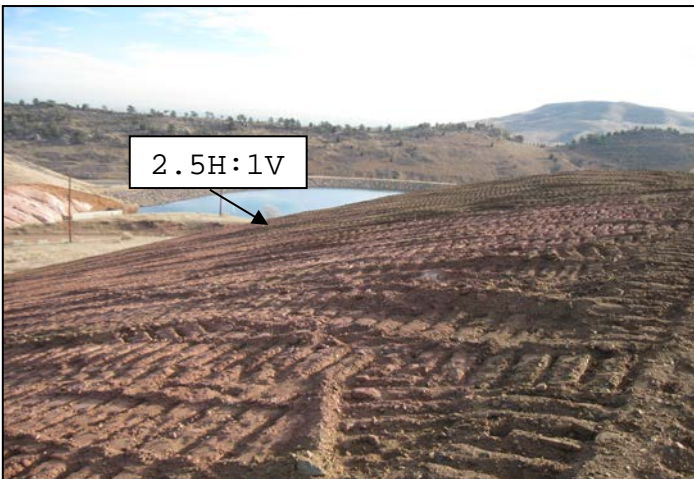
land on which the visual barrier was constructed and the construction was reviewed and approved by another government agency. Therefore, the Division will not pursue a possible violation for failure to protect areas outside of the affected land from slides or damage occurring during the mining operation and reclamation, which could result in civil penalties ranging from one hundred to one thousand dollars per day for each day during which such violation occurs. The Division will cite this matter as a problem, which will require corrective action from the Operator. Please see the first page of this report for additional information.

Support Facilities On-site:

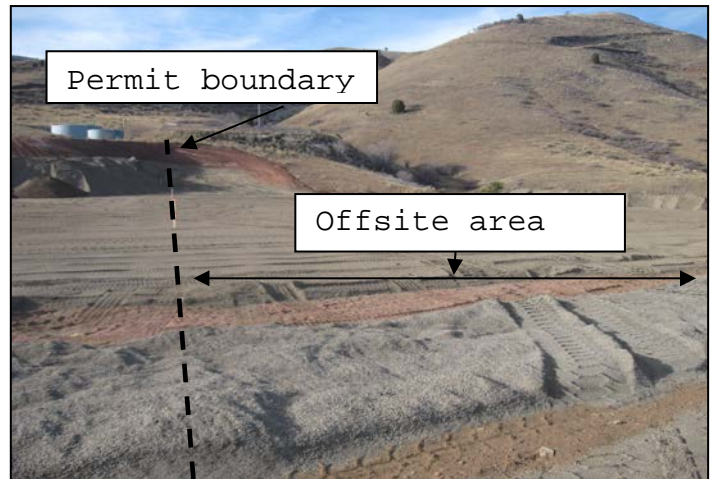
The Division inspected the fuel storage area and found all fuel was stored in double-walled tanks located within a concrete containment barrier. In addition, the maintenance shop and bulk oil storage area was inspected and was found to have the appropriate secondary containment.

This concluded the inspection.

PHOTOGRAPHS



1. Outslope of visual barrier, photo taken facing east.



2. Top of visual barrier, photo taken facing west.



3. Overview of processing area.



4. Fuel containment area.



5. Impounded water within the main pit.



6. Active mining bench.

GENERAL INSPECTION TOPICS

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

(AR) RECORDS----- <u>N</u>	(FN) FINANCIAL WARRANTY----- <u>N</u>	(RD) ROADS----- <u>N</u>
(HB) HYDROLOGIC BALANCE----- <u>PB</u>	(BG) BACKFILL & GRADING----- <u>N</u>	(EX) EXPLOSIVES----- <u>Y</u>
(PW) PROCESSING WASTE/TAILING---- <u>N</u>	(SF) PROCESSING FACILITIES----- <u>Y</u>	(TS) TOPSOIL----- <u>N</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>PB</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>PB</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

Inspection Contact Address

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