

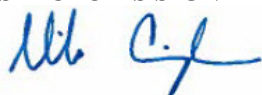
**COLORADO**Division of Reclamation,  
Mining and Safety

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.

<b>MINE NAME:</b> Bluestone Pit	<b>MINE/PROSPECTING ID#:</b> M-1991-035	<b>MINERAL:</b> Sand and gravel	<b>COUNTY:</b> Jefferson
<b>INSPECTION TYPE:</b> Surety Release Inspection	<b>INSPECTOR(S):</b> Michael A. Cunningham	<b>INSP. DATE:</b> November 22, 2016	<b>INSP. TIME:</b> 10:00
<b>OPERATOR:</b> Lafarge West, Inc.	<b>OPERATOR REPRESENTATIVE:</b> Christine Felz	<b>TYPE OF OPERATION:</b> 112c - Construction Regular Operation	

<b>REASON FOR INSPECTION:</b> Normal I&E Program	<b>BOND CALCULATION TYPE:</b> None	<b>BOND AMOUNT:</b> \$423,800.00
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None
<b>WEATHER:</b> Raining	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> December 6, 2016

**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: Erosion gullies and ruts were observed on-site. This is a problem at this time for failure to protect the affected land from erosion pursuant to C.R.S. 34-32.5-116 (4) (j).**CORRECTIVE ACTIONS:** The operator shall provide photo documentation to the Division verifying erosion gullies and ruts have been repaired, and that the site has have been reconstructed and stabilized to prevent erosion damage by the corrective action date.**CORRECTIVE ACTION DUE DATE:** 2/06/17**INSPECTION TOPIC:** Reclamation Success**PROBLEM/POSSIBLE VIOLATION:** Problem: Trash and refuse was noticed on the site. This is a problem at this time for failure to dispose of refuse in a manner that controls unsightliness or deleterious effects of such refuse pursuant to C.R.S. 34-32.5-116(4)(e).**CORRECTIVE ACTIONS:** The operator shall submit a written notice to the Division with photo documentation, that the trash has been removed from the site by the corrective action date.**CORRECTIVE ACTION DUE DATE:** 2/06/17

## **OBSERVATIONS**

The inspection was conducted by Michael Cunningham of the Division of Reclamation, Mining and Safety (Division). Christine Felz with Lafarge West, Inc. was also present for the inspection. The Bluestone Pit is located in Jefferson County to the west of the Rocky Flats National Wildlife Refuge. The site is permitted for 257 acres and the post-mining land use is wildlife habitat. Weather conditions at the time of the inspection included light rain.

The Division received a request for a full performance and financial warranty release on November 1, 2016. Pursuant to Rule 4.17.2(1), the Division mailed notice of the release request to the Jefferson County Commissioners, the Jefferson Conservation District, and all owners of record to the affected land. The Division received comments from Department of Energy (DOE) on November 16, 2016. The Division did not receive any objections from the noticed parties.

### **Hydrologic Balance:**

The inspection commenced at the Groundwater Pond located in the northwest corner of the permit area. The Groundwater Pond was present before the permit was issued and the groundwater was exposed prior to January 1, 1981. Therefore, the evaporative depletions do not need to be replaced through an augmentation plan or temporary substitute water supply plan. The comments received from the DOE were in regard to a breach of the Groundwater Pond which occurred during the September 2013 flood. The breach released water and debris onto the adjacent property where the National Wind Technology Center is located. The Operator submitted Technical Revision No. 4 on August 12, 2014 to address the off-site breach. The Operator constructed a spillway on the southeast corner of the Groundwater Pond to allow flood waters to pass through the pond and enter the natural drainage system. Vegetation within the spillway has not fully established. In addition, the Division observed erosion at the inlet of the Groundwater Pond which is located on the northwest corner. The headcutting observed in this area is currently being stopped by erosion matting and established vegetation. However, if the erosion to the inlet is not repaired, additional headcutting of the channel could move outside of the permit area.

The Division inspected the Kettle Pond located approximately 1,000 ft. southeast of the groundwater pond. During previous inspections, the Division has observed standing water in the Kettle Pond. Following the last inspection conducted on October 26, 2015, the Operator performed grading in this area to eliminate exposed groundwater. The Division did not observe any water in this area during the inspection. However, the vegetation has not established in the re-graded areas and minor rilling was observed.

The Operator performed additional grading throughout the site under Technical Revision No. 4 to allow stormwater to pass through the reclaimed areas without ponding. The Division inspected the breaches which were made between the former mining cells and observed erosion at Breach No. 2. A cut bank was forming at the location of the breach. The Operator will need to stabilize this area to prevent further erosion within the channel.

The areas of erosion observed at the Groundwater Pond, the Kettle Pond and Breach No. 2 have been cited as a problem and will require corrective action by the Operator. Please see the first page of this report for additional information.

Reclamation Success:

The Division observed numerous pieces of sheet metal near the western permit boundary. The presence of refuse within the site has been cited as a problem. Please see the first page of this report for additional information.

Revegetation:

During the site visit the vegetation was inspected to ensure the reclaimed areas met the reclamation performance standards outlined in Rule 3.1.10(1). The Division found vegetation was well established throughout the majority of the site. However, several areas did not have an adequate cover of vegetation capable of self-regeneration. In addition to the areas described under the Hydrologic Balance section of this report, the Division found the main site access road adjacent to the Groundwater Pond was not adequately vegetated. Also, a former access road which runs parallel to the western permit boundary lacked adequate vegetation. These areas will require additional time for vegetation to establish or they may need to be reseeded.

The Division observed diffuse knapweed skeletons throughout the site. The Operator is currently treating the diffuse knapweed as required by the approved Weed Control Plan. However, the Division will need to assess the effectiveness of the control methods during the growing season.

Financial Warranty:

The Division currently holds a financial warranty in the amount of \$423,800.00. This amount has been determined to be adequate to complete all remaining reclamation tasks at the site. The Operator may consider a reduction of the financial warranty pursuant to Rule 4.14.

Based on the observations made during this inspection, the Bluestone Pit is not eligible for a full performance and financial warranty release. Notice of the Division's decision regarding the release request will be sent under separate cover.



**PHOTOGRAPHS**



1. Erosion at inlet of Groundwater Pond.



2. Erosion at inlet of Groundwater Pond.





3. Groundwater Pond spillway, photo taken facing east.



4. Groundwater Pond spillway, photo taken facing west.





5. Recently graded area with inadequate vegetative cover.



6. Rilling near the Kettle Pond.





7. Sheet metal near western permit boundary.



8. Overview of reclaimed site.





9. Access road along the western permit boundary.



10. Main access road.



### 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>Y</u>	(RD) ROADS----- <u>N</u>
(HB) HYDROLOGIC BALANCE----- <u>PB</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>NA</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>N</u>	(FW) FISH & WILDLIFE----- <u>Y</u>	(RV) REVEGETATION---- <u>Y</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>N</u>	(CI) COMPLETE INSP---- <u>Y</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>N</u>	(RS) RECL PLAN/COMP-- <u>PB</u>
(AT) ACID OR TOXIC MATERIALS----- <u>NA</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

#### Inspection Contact Address

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