



COLORADO

Division of Reclamation,  
Mining and Safety

Department of Natural Resources

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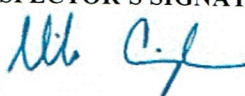
BY: .....

**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> Shaffers Crossing	<b>MINE/PROSPECTING ID#:</b> M-1978-208	<b>MINERAL:</b> Sand and gravel	<b>COUNTY:</b> Jefferson
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Michael A. Cunningham	<b>INSP. DATE:</b> January 19, 2018	<b>INSP. TIME:</b> 09:00
<b>OPERATOR:</b> Elk Creek Sand & Gravel, LLC	<b>OPERATOR REPRESENTATIVE:</b> Juliet Moores	<b>TYPE OF OPERATION:</b> 110c - Construction Limited Impact	

<b>REASON FOR INSPECTION:</b> Normal I&E Program	<b>BOND CALCULATION TYPE:</b> Partial Bond	<b>BOND AMOUNT:</b> \$10,400.00
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None
<b>WEATHER:</b> Clear	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> March 7, 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:** Gen. Compliance With Mine Plan

**PROBLEM/POSSIBLE VIOLATION:** Problem: The benches on the highwall do not conform to the approved dimensions specified in the Mining Plan. This is a problem pursuant to C.R.S. 34-32.5-110(1)(a)(VII) for failure to follow the approved Mining Plan.

**CORRECTIVE ACTIONS:** The operator shall convert the 110c Reclamation Permit to a 112c Reclamation Permit so the permit boundary may be expanded to allow the benches on the highwall to be constructed in accordance with the approved Mining Plan. The Conversion Application, with a fee of \$2,696.00 shall be submitted to the Division on or before the corrective action date.

**CORRECTIVE ACTION DUE DATE:** 6/05/18

**INSPECTION TOPIC:** Revegetation

**PROBLEM/POSSIBLE VIOLATION:** Problem: There are state-listed noxious weeds present on site. This is a problem for failure to employ weed control methods for state listed noxious weed species within the permitted area, and to reduce the spread of weeds to nearby areas as required by Section 3.1.10 (6) of the rule.

**CORRECTIVE ACTIONS:** Implement approved weed control plan and provide proof to the Division that this has been done. If a weed control plan is not already in place, the operator shall develop a weed control and management plan in accordance with Section 3.1.10 (6) of the Rule. This plan should be developed in consultation with the county extension agency, or weed control district office and should include specific



control measures to be applied, a schedule for when control measures will be applied and a post-treatment monitoring plan. This weed control plan shall be submitted to the Division as a Technical Revision to the approved plan with the appropriate Technical Revision fee of \$216.00 by the corrective action date.

**CORRECTIVE ACTION DUE DATE:** 4/06/18

**INSPECTION TOPIC:** Signs & Markers

**PROBLEM/POSSIBLE VIOLATION:** Problem: The mine identification sign was not posted at the entrance of the mine site. This is a problem for failure to post a mine identification sign as required by Section 3.1.12(1) of the rule.

**CORRECTIVE ACTIONS:** The operator shall, at the entrance of the mine site, post a sign which shall be clearly visible from the access road with the following: the name of the operator, a statement that a reclamation permit for the operation has been issued by the Colorado Mined Land Reclamation Board; and the permit number. The operator shall submit photo documentation that a proper sign has been posted by the corrective action date.

**CORRECTIVE ACTION DUE DATE:** 4/06/18

### OBSERVATIONS

The inspection was conducted by Michael Cunningham of the Division of Reclamation, Mining and Safety (Division). Juliet Moores was present on behalf of Elk Creek Sand and Gravel, LLC. The Shaffers Crossing operation is located southeast of the intersection between Highway 285 and Elk Creek Road in Jefferson County. The site is permitted for 9.9 acres of disturbance and the commodity of interest is aggregate material.

The inspection was conducted at the request of Ms. Moores to discuss permitting requirements related to changes being considered for the Mining and Reclamation Plans.

#### Financial Warranty:

The Division currently holds a financial warranty in the amount of \$10,400.00. Pursuant to Rule 4.2.1(1), all financial warranties shall be set and maintained at a level which reflects the actual current cost of fulfilling the requirements of the Reclamation Plan. The Division has performed a partial financial warranty calculation and has determined the financial warranty amount of \$10,400.00 is not adequate to reclaim the site. As noted in this report, the Division will require the submittal of a Conversion Application to address the configuration of the highwall and to update the Reclamation Plan. The financial warranty will be recalculated during the review of the Conversion Application.

#### Gen. Compliance With Mine Plan:

Mining is currently progressing towards the east into a hill side with a northerly aspect. The Operator conducts blasting approximately once per month. Blasting is conducted by a third-party licensed blaster; no explosives are stored on site. Blasted aggregate material is removed from the highwall and all crushing, screening, and stockpiling occurs on the quarry floor. Based on a review of a Google Earth aerial photograph dated June 9, 2017, the entire 9.9 acre permit boundary has been affected by the mining operation. The top of the highwall is currently in line with the eastern permit boundary. Therefore, the highwall may not be advanced any further from its current location without affecting areas outside of the permit boundary.



Measurements of the highwall were taken along the northernmost section and the highwall was determined to be 60 ft. in height (a map showing the location of the highwall measurements has been attached for reference). There is a working platform at the base of the highwall, which when removed will increase the overall height of the highwall. A small bench has been established approximately 30' from the top of the highwall. The Mining Plan calls for creating benches which are 12 ft. wide and 35 ft. in height. The Division could not access the bench to measure the width. However, visual observations were made from the side of the highwall and it was determined the bench was 1 - 2 ft. in width. As previously noted, the top of the highwall is in line with the permit boundary. As a result, the Operator will not be able to create a 12 ft. wide bench along this portion of the highwall. This matter 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.

Reclamation Success:

During the inspection, the Operator indicated the post-mining land use allowed for the construction of a water storage reservoir. The Division conducted a complete file review and determined the Reclamation Plan has not been revised to include developed water resources as a post-mining land use. The Operator may change the post-mining land use to include a water storage reservoir through the Conversion process.

Revegetation:

The Division observed diffuse knapweed throughout the site. Diffuse knapweed is a state listed noxious weed and must be controlled pursuant to Rule 3.1.10(6). A review of the permit file found the Shaffers Crossing operation does not have an approved Weed Control Plan. This matter 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.

Support Facilities On-site:

The support facilities on site include a maintenance shop and equipment storage building, two portable office trailers, a scale and scale house. The approved post-mining land use is industrial/commercial and the Reclamation Plan calls for removing all facilities from the site. The Operator indicated the maintenance shop would remain and would be utilized in conjunction with the post-mining land use. Until such time as the Reclamation Plan is updated to allow any permanent man-made structures to remain, the financial warranty must include a cost to remove the maintenance building. The Division does not bond for the removal of portable structures.

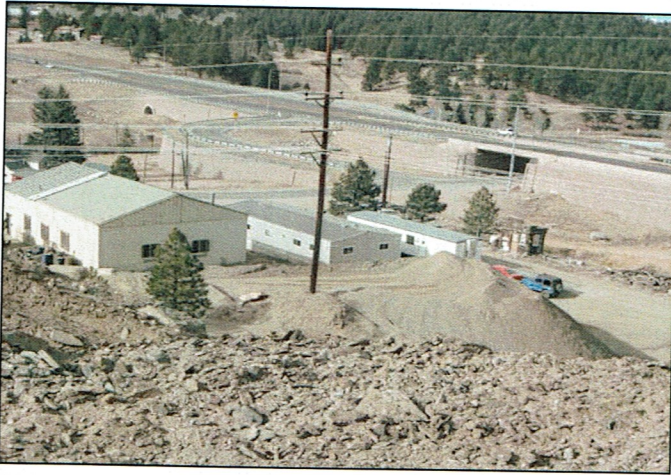
Signs and Markers:

The permit sign was not posted at the entrance to the site as required by Rule 3.1.12. This matter 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.

This concluded the inspection.



## PHOTOGRAPHS



1. Overview of mine facilities.



2. Diffuse knapweed growing along internal mine road.



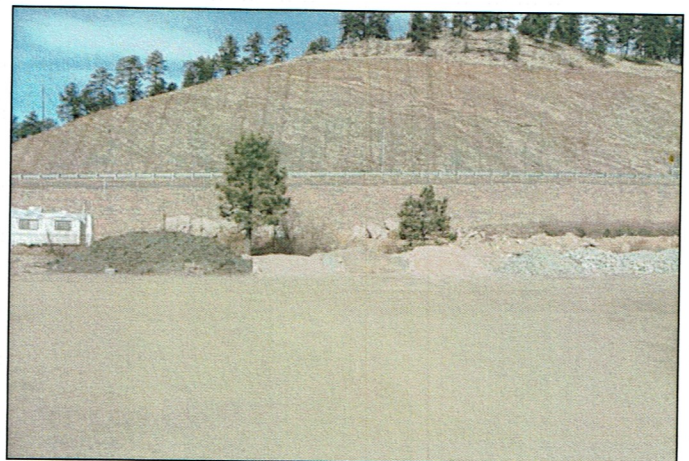
3. Overview of lower quarry. Photo taken from north end of highwall.



4. Northern section of the highwall. Photo taken facing east.



5. Overview of upper section of highwall.



6. Quarry floor and product stockpiles.



### GENERAL INSPECTION TOPICS

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

(AR) RECORDS----- <u>Y</u>	(FN) FINANCIAL WARRANTY----- <u>N</u>	(RD) ROADS----- <u>N</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>N</u>	(EX) EXPLOSIVES----- <u>NA</u>
(PW) PROCESSING WASTE/TAILING---- <u>NA</u>	(SF) PROCESSING FACILITIES----- <u>N</u>	(TS) TOPSOIL----- <u>N</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>PB</u>	(FW) FISH & WILDLIFE----- <u>Y</u>	(RV) REVEGETATION---- <u>PB</u>
(SM) SIGNS AND MARKERS----- <u>PB</u>	(SP) STORM WATER MGT PLAN---- <u>N</u>	(RS) RECL PLAN/COMP-- <u>N</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</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

Juliet Moores  
Elk Creek Sand & Gravel, LLC  
P.O. Box 416  
Conifer, CO 80433

Enclosure (1)

CC: Wally Erickson, DRMS





Section of highwall  
Measured during  
inspection

Top of highwall